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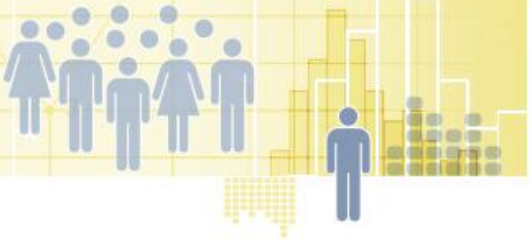

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Estimating the impact of Mexican drug cartels on crime

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Abstract

We estimate the impact of drug cartels and drug-related homicides on crime and security perceptions in Mexico. For this purpose, we combine surveys on crime victimization with indicators of where drug cartels operate with and without drug-related homicides. Using the difference-in-difference estimator, we find that people living in areas that experienced drug-related homicides are more likely to take extra precautions to guard their security, yet these areas also more likely to experience some crimes, particularly thefts and extortions. In contrast, these crimes and perceptions of unsafety do not change in areas where cartels operate without leading to drug-related homicides.

Keywords: Crime, difference-in-difference, instrumental variables, Mexico

JEL Classifications: K49, O170, R59, C26

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1. Introduction

As the new millennium approached, Mexican drug cartels started suddenly fighting for territory, leading to the death of 63,000 people between 2006 and 2012 (SNSP, 2011; Molzahn et al., 2013). In parallel to this unprecedented wave of drug-related homicides, crime in Mexico also rose, directly affecting about 14 percent of households.[1] Not surprisingly, the majority of the Mexican population (77%) identifies drug-cartel violence and crime as the country's most important problems.[2]

This paper contributes to the existing debates on the socio-economic impact of drug cartels by identifying to what extent crime and perceptions of unsafety have changed in areas where drug cartels operate with and without turf conflict leading to drug-related homicides. The literature has so far found consistent evidence that poverty, unemployment rates and migration outflows have increased in areas that have experienced drug-related homicides (Dell, 2011; BenYishay and Pearlman, 2013; Robles et al., 2013; Gutiérrez-Romero and Oviedo, 2014; Ríos, 2014b). These previous studies argue that the violent environment, along with the increase of thefts and extortions of local populations, could potentially be driving these results. However, up to date there is no evidence of the extent to which these crimes increased as a direct result of drug cartels operating in certain areas, or as a result of cartels battling for turf, which potentially could have induced these cartels to tax local populations to fund their ongoing conflict. Our aim in this paper is to bridge this gap. We also contribute to the literature by assessing to what extent people living in areas where drug cartels operate (with and without drug-related homicides) changed their perceptions of unsafety and took action to prevent being victims of crime.

To answer our research questions we use the nationally representative crime victimization survey *Encuesta Nacional Sobre Inseguridad* (ENSI) conducted in 2005 and 2010. This survey provides information about respondents' perceptions on unsafety and the crimes they have experienced, including those that were not officially reported. To identify where drug cartels have operated with and without drug-related homicides at municipality level we use the data collected by

[1] Own estimates using the national survey on unsafety (ENSI) 2010.

[2] http://www.pewglobal.org/2011/08/31/crime-and-drug cartels-top-concerns-in-mexico

Gutiérrez-Romero and Oviedo (2014), who monitored official records, media reports and specialized blogs from 2000 until 2010. We also use the official statistics on drug-related homicides which give account of the location and number of people who died as a direct result of the confrontation among cartels (90%) and those with the state authority, available only from December 2006 until September 2011 (SNSP, 2011).

We use the difference-in-difference estimator in order to build the counterfactual of what would have happened to the crime rates and perceptions of unsafety had the cartels and their associated homicides not existed. We estimate separately two types of impacts.

First, to assess the impact of drug cartels operating 'peacefully' we focus only on areas that have not had drug-related homicides at any point during the period 2000-2010. Among these areas free-of drug-related homicides we estimate the change in outcomes in municipalities before they had any cartels operating (2000-2005) and after cartels settled in these areas (in 2006 or afterwards). That change in outcomes is compared to the one experienced in areas that did not have cartels or drug-related homicides over the same periods.

Second, we separately estimate the impact of drug-related homicides. For this purpose, we estimate the change in outcomes in municipalities before they had any drug-related homicides (2000-2005) and after they experienced drug-related homicides in these areas for the first time (in 2006 or afterwards). That change in outcomes is compared to the one experienced in areas that did not have drug-related homicides at any point over the same periods.

The presence of drug cartels and their related homicides is by no means randomly allocated. Thus, a simple comparison in outcomes between respondents living in municipalities where cartels operate and those used as control group are likely to over- or under- estimate the impact of drug cartels and their associated violence. To address the potential endogeneity of where cartels chose to operate peacefully and not we combine the difference-in-difference estimator with instrumental variables. We use as instrumental variable whether the municipality shared the same ruling party as its corresponding state government. This kind of political decentralization has been shown in previous research to be strongly correlated with the probability of municipalities experiencing drug cartels and drug-related homicides, and has also been used as an instrument to deal with the endogeneity of drug-related

activities in Mexico (Ríos, 2012; Gutiérrez-Romero and Oviedo, 2014; Ríos, 2014a). We also interact the variable decentralization with a dummy variable denoting the period during which both the Mexican and the Colombian governments changed their strategy to combat drug cartels (in 2006 and afterwards). These policies, called 'war on drugs', are also regarded as key contributors to the Mexican drug-related casualties (Dell, 2011; Guerrero-Gutiérrez, 2011a; Castillo et al., 2012; Lessing, 2012; Osorio, 2012; Robles et al., 2013).

Our results reveal a contrasting picture as to where crime, and perceptions of unsafety, change. On the one hand, people living in areas where cartels are battling for turf (with evidence of drug-related homicides) feel more unsafe and take additional precautions to guard their security. Despite these extra precautions, these areas are still more likely to experience certain types of crimes, particularly thefts and extortions. On the other hand, these crimes and the perceptions of unsafety do not change in areas where cartels operate without drug-related homicides. Thus, our findings deepen the understanding as to when cartels' drug-trafficking activities lead to other crimes and some of the consequences on the local population.

The paper continues as follows. Section 2 describes the reasons behind the conflict among Mexican cartels, its potential links to crime, and presents a sequential game illustrating this link. Section 3 presents the data used. Section 4 shows the impact of drug cartels and drug-related homicides on crime and perceptions of unsafety. Section 5 concludes.

2. Crime and war on drugs

It is well known that drug cartels had operated in Mexico for several decades without leading to major scale of violence. The peaceful coexistence among cartels was kept thanks to an unwritten pact criminal organizations had with some members of the 70-year ruling party, the Institutional Revolutionary Party (PRI) (Astorga and Shirk, 2011). In exchange for bribes, these agreements allowed cartels to operate in certain areas, known as *plazas*, as long as cartels kept a low profile, meaning that no violence, crime or drug-selling were targeted towards the local population (Campbell, 2009; Guerrero-Gutiérrez, 2011a). The strong hegemony that the PRI had across all spheres of government, allowed the party to effectively punish cartels that violated these agreements with arrests

or killing of their leaders, without ever leading to a violent retaliation from cartels (Ríos, 2012). Why then, did the drug-related violence surge and spread across the country in recent years?

In 2000 the PRI lost for the first time the presidential election to the National Action Party (PAN), as well as several other local and state elections. As the hegemony of the PRI weakened, cartels suddenly started fighting for territory. It is estimated that 6,680 people got killed, mostly cartel members, between 2000 and 2005 (Ríos and Shrik, 2011). An even higher wave of drug-related homicides followed soon after the controversial victory of Felipe Calderón (backed by PAN) in the presidential elections of 2006. Calderón won amid allegations of rigging. So, in order to regain credibility, some argue, Calderón launched a new strategy against drug cartels (Ravelo, 2012). Calderón's administration soon after taking office dispatched the army to combat cartels in their strongholds and arrested more drug cartel leaders than ever before (Guerrero-Gutiérrez, 2011a). Dell (2011) using regression discontinuity finds that PAN Mayors were more likely to request enforcement assistance against cartels from the federal government than Mayors from other parties, thereby increasing crackdowns against cartels. These crackdowns although temporarily beheaded criminal organizations, divided them into smaller factions leading to violent confrontations among each other.[3]

In parallel to Calderón's policies, Colombia also intensified indictments of drug shipments and destruction of drug processing labs, which induced cartels to shift their operations towards Mexico (Castillo et al., 2012). These cartels positioned themselves particularly in areas well connected and in close proximity to the north-border or pacific coast where they could transport drug-shipments which fuelled even more violence as they disputed *plazas* where other cartels already operated.

The 'war on drugs' policies implemented, in both Colombia and Mexico, triggered unprecedented levels of violence thanks to another change in Mexican politics. Singe the beginning of the new millennium, more local areas for the first time had a different ruling party than their respective state and federal governments. This political decentralization, meant that the informal agreements that drug cartels had with some politicians and local police were more difficult to coordinate and honor as PAN and new parties lacked the connections or ability to enforce previously established agreements

[3] While in 2005 there were six major drug cartels, by 2010, there were 16 (Guerrero-Gutiérrez, 2011a).

with cartels (Snyder and Duran-Martinez 2009; Ríos, 2012; Ríos 2014a). So cartels started fighting among themselves to retain the control over their *plazas*.

In sum, drug cartels in Mexico have operated under two types of regimes, each reaching very different results. Under what we define as the 'hegemonic' regime, the one that prevailed under the 70-year ruling PRI, cartels reached agreements with some members of the local and state authority leading to a peaceful coexistence of cartels in exchange for bribes and as long as cartels followed set rules of conduct. Under the more recently implemented 'decentralized' regime, there could be coordination failures within the local and state-authority. Thus, previous agreements between some members of the authority allowing cartels to operate in an area are more difficult to reach and honor. The fragility of these agreements has led to cartels fighting for turf and ignoring any previously established rules of conduct.

Under both types of regime, the main profits from drug cartels are likely to be derived from drug-trafficking, otherwise they would switch activity altogether. Nonetheless, cartels might have different incentives to combine their core activity of drug-trafficking with other criminal activities depending upon the rewards and penalties they might face.

In the hegemonic regime, the corrupt institutions that allow the operation of these cartels might increase the perception of unsafety, especially if the presence of these cartels leads to more crime. Crime could for instance increase if drugs become more readily available in these areas. The international evidence however, shows a mixed correlation between drug availability, drug dependency and crime. Whilst studies looking at the prevalence of drug-consumption among prisoners have found a positive correlation, this does not necessarily prove there is a causal relationship between drug use and crime (OID, 2012). Other studies looking at the drug-consumption among the general population have not found a consistent positive correlation between drugs and crime.[4] However,

[4] For instance, Washington D.C. has a murder rate that is five times higher than the one in New York City, and also higher rates of forcible rape, robbery, aggravated assault, burglary and motor vehicle theft (MPDC, 2011; FBI, 2013). Nonetheless, these two cities have the same prevalence of crack users, and heroin use is actually lower in Washington D.C. than in New York City (Stevens and Bewley-Taylor, 2009: 4).

studies specifically conducted for areas dedicated to drug-production -as is the case now in Mexico- show that there might be a stronger link between drug production and criminality. For instance, Mejia and Restrepo (2013) find that in Colombia cocaine production activities explain 36% of homicide rates, 66% of forced displacement rates and 43% of the attacks by illegal armed groups. Hence it is uncertain, whether, and if so to what extent, crime could increase in areas where cartels maintain the monopoly of a *plaza* to traffic drugs relatively freely.

Previous research has shown that the probability of dealing cocaine within Mexico actually increases when municipal and state governments are ruled by different political parties (Ríos, 2014b). Thus, we would expect that if indeed drug availability increases crime, it will do so even more under the decentralized case. There are other reasons why cartels' drug-trafficking activities could lead to more crime under the 'decentralized' regime. Although cartels might still bribe some members of the authority to be given *plazas*, these might not be tenable in the long-run due to the coordination failures. For instance, a cartel might get protection from some members of the local authority but not from the state authority. Since the monopoly of the plaza is no longer guaranteed other cartels might intend to take over, triggering a turf war among cartels, and perhaps with the authority in retaliation for not allowing them to operate freely.[5] Mexican cartels as a result, have resorted to hiring militias, usually deserters of the police or army, local gangs and former prisoners. Since the hiring of these armed groups and fighting is not a cheap strategy, the increase of criminality in some areas could be the result of cartels extorting civilians to fund cartels' ongoing battles.

Under the decentralized regime, as the probability of cartels being chased and arrested increases, so does the temporary beheading of these groups. When a criminal organization loses its leader, its ability to control all the members working directly or indirectly for the cartel might also be weakened. Thus, the specialized "cells" hired to provide protection to the cartel may become free to pursue their own criminal objectives, disobeying any internal rules of conduct the cartel might have established to avoid attracting unwanted attention from the authority.

[5] For instance, Castillo et al. (2012) find that there are more drug-related homicides in Mexican municipalities that have two or more cartels.

The so called legitimization-habituation hypothesis in the criminology literature can also explain why crime could have increased as a result of drug cartels experiencing conflict. This hypothesis suggests that the violence generated by high density conflict devaluates human life, legitimizing violence (Archer and Gartner, 1984). This is one of the reasons why crime rates increase in countries after suffering violent conflicts and terrorist acts (Archer and Gartner, 1984; Landau and Pfeffermann, 1988). Anthropological studies in Mexico have shown that the increasing presence of drug traffickers in some areas has contributed towards the habituation of the narco-culture (Trabajo de campo en tiempos violentos, 2011). Profits from drug-trafficking are flaunted as a source of pride and status. As illegal activities become a way of life in the areas affected by drug-trafficking, the value that people place in earning a living from legitimate sources could be reduced, incentivizing some towards committing other types of crimes.

2.1 A simple sequential game

We summarize our theoretical discussion on the impact of drug cartels and drug-related homicides on crime using a sequential game.

Assume we have two types of players, a local authority a_r and organized drug cartels, o_r which can be operating under two types of regimes $r \{1,2\}$. In the first of these regimes, the local authority is decentralized, meaning that it does not share the same ruling party as a higher up state government. In the second type of regime, a coordinated regime, the local authority shares the same ruling party as the state government.

In the first stage of the game, nature decides the regime r of the local authority and that becomes common knowledge to all players. In the second stage of the game, cartels will bribe the local authority some positive amount, β, in exchange for permission to operate in the area trafficking drugs, which render cartels an income of $\tau>0$, discounting the bribe given.[6]

[6] According to official estimates, about 60 per cent of the Mexican police force is under cartels' payroll, costing cartels more than a billion dollars annually to bribe just the local police (Keefe, 2012; Salinas de Gortari, 2012).

Since drug-trafficking is officially illegal, the authority will grant the permission to the cartels to operate in exchange for the bribe β, under the condition that the cartel commits no crimes, which could render cartels an extra source of revenue ε, where $\varepsilon<\tau$.

Under the coordinated regime, the local authority has the prerogative to seize drugs from time to time in order to keep the impression of abiding by the rule of law to the general population. The authority pays for this signal of law abiding a cost $c>0$. In case the cartel disobeys the rules of conduct, and commits crime in the areas which we assume there is perfect information on such violations, the cartel will be charged a penalty of $\pi>0$, which can be imposed by either arresting the cartel's leader or expropriating its property.

Under the decentralized regime, the local authority also needs to keep the impression of abiding by the rule of law to the population and will also pay for these signals a positive cost d, where $c \leq d$.

If the authority is decentralized it can no longer guarantee that the cartel's activities will not be found out by the state authority, so cartels face the risk of paying a penalty π with a probability, p, regardless of whether they follow the rules of conduct of the local authority or not.

Given the coordination failures in the decentralized regime, the local authority cannot guarantee the protection of the cartel from potential rival cartels wanting to operate in the area. Hence, cartels working under the decentralized regime will have to invest an amount v, to secure themselves from potential challengers.

In Figure 1 we illustrate the potential payoffs to the authority and cartels under the two types of regimes. The dominant strategy in the coordinated regime will be that cartels follow the rules of conduct and do not commit crimes if the penalty is high enough, $\varepsilon<\pi$. In the decentralized regime the dominant strategy will be for cartels to combine their drug activities with committing other crimes, since that extra income from extorting the population, ε, can cover their expenses on hiring services to protect themselves from potential transgressions v and in case they have to pay a penalty π.

In this game we have depicted the actions that cartels might take under different regimes. Citizens as a result might also change their behavior, taking more security precautions in areas where

crime is increasing, which as a result might reduce or level crime rates. Proponents of the cohesion hypothesis argue that external threats may increase social cohesion within society, thereby leading to a reduction of other internal conflicts like crime (Simmel, 1955; Coser, 1956). External threats might induce people to contribute more towards the group's welfare, such as by investing more time, effort and sharing resources (Bornstein, 2003). In the case of Mexico some vigilante groups have emerged in areas most affected by drug-related homicides. However, some of these vigilante groups have resorted to arming themselves and have themselves become organized criminal groups. That is the case with the *La Familia* movement in Michoacán, which started as a vigilante group and later on became a fierce drug cartel.

3. Victimization survey and drug cartels activity data

To estimate the impact of drug cartels and their associated homicides on crime we use the nationally representative crime victimization survey *Encuesta Nacional Sobre Inseguridad* (ENSI) conducted in 2005 and 2010 by the *Instituto Ciudadano de Estudios sobre la Inseguridad* (ICESI) and the National Institute of Statistics and Geography (INEGI). The ENSI in each of these years drew a new, but still comparable and nationally representative sample of the adult population aged 18 or older across the 32 Mexican States. Specifically, 57,398 people were interviewed in 2005 and other 60,461 in 2010.

Respondent's characteristics remained similar over time, in terms of their age, gender and occupation (Table A.1 in appendix). The percentage of respondents that stated a member of their household had been a victim of crime increased from 10.3% in 2005 to nearly 14% in 2010 (Table A.1).

The survey identifies who had been a victim of crimes by asking "*Over last year, were you victim of a crime*?" Those who answered positively, were then asked the following open-ended question: "*Which crime(s) was that?",* followed by "*In which state and municipality did this crime occur?*" The survey segments the responses on crime victimization in 12 categories: car theft, theft of car accessories, house burglary, mugging, kidnapping, lesions, sexual crime, fraud, extortion, other kind of thefts and other kinds of crimes. Table A.2 shows the frequency with which each of the major crimes was reported. Car theft, theft of car's accessories, mugging, extortions, fraud and other thefts

all increased from 2005 to 2010. Among the major crimes analyzed, only house burglary, lesions and sexual crimes dropped across the country. It is worth noting that only 41 kidnappings were reported in 2005 and also in 2010. This small number contrasts with the official statistics available at state level, which suggest kidnappings significantly increased across the country for the period of our analysis (Saldierna, 2010). The reason for this apparent contradiction might be due to the fact that the ENSI survey asks respondents themselves whether they were the victims of kidnapping. Given the low rate of kidnapping liberations, a very different statistic would have been obtained if instead respondents had been asked if a family member was kidnapped.

The survey also asks respondents about their perceptions on unsafety and actions taken to guard against crimes. Table A.3 shows that the percentage of respondents that believes crime in their municipality increased went up from 41% in 2005 to 55% in 2010. The percentage of respondents that do not trust the local police increased from an already high figure of 77% in 2005 to 90% in 2010.

3.1 Drug cartels activity data

To identify the impact of cartels and their associated homicides on crime and perceptions we combine the ENSI survey data with indicators on which municipalities have experienced drug cartels and drug-related homicides.

There are no official statistics on where drug cartels operate. Thus, we use the data collected by Gutiérrez-Romero and Oviedo (2014). These authors identified where cartels operated at municipality level by monitoring police reports, national and international media and specialized blogs during 2000-2010.[7]

To identify which municipalities have experienced drug-related homicides we use two data sources. Given that there are no official statistics on drug-related homicides for the period 2000-2005 we also use the data above collected by Gutiérrez-Romero and Oviedo (2014). For the period 2006-

[7] Coscia and Ríos (2012) have estimated the location as where drug-cartels operate at municipality level using an automated online search algorithm. To the best of our knowledge, these authors have not made public their database.

2010 we use the official data on the number of casualties attributed directly to the drug-related conflict among cartels and the state-authority provided at municipality level and on a daily basis (SNSP, 2011). Gutiérrez-Romero and Oviedo (2014) find that for the period during which there are official statistics, 63 municipalities experienced drug-related homicides attributed to confrontations among cartels or with the state authority in the media but were not recorded in the official statistics. From these 63 municipalities only 19 were sampled in the ENSI survey. We eliminate these 19 areas with conflicting information from our analysis to minimize a potential contamination of our control groups, as well as in order to keep a consistent definition of treatment for the post-treatment period (2006-2010).

3.2 Selection of treatment and control groups

We focus on estimating the impact of drug cartels operating in municipalities for the first time in 2006 or afterwards, and separately the impact in municipalities experiencing drug-related homicides for the first time in 2006 or afterwards.

A caveat of our chosen periods of focus is that we exclude from our analysis areas that have experienced drug cartels or drug-related violence previous to 2006. Nonetheless, we gain in precision by being able to separately estimate the impact of cartels and their violence for a period in which many drug cartels spread their activities and killings to new areas across the country.

The ENSI in 2005 and 2010 sampled 1,029 out of the 2,456 municipalities in the country. From these sampled municipalities we exclude all respondents interviewed in 195 municipalities for having experienced drug-related homicides during 2000-2005, and another 19 municipalities for having experienced drug-related homicides during 2006-2010 according to the media, but not in the official statistics. In Figure 2 we show in a map the municipalities (202) we exclude from our analysis, and those (827) that remained in our analysis (shown in black in the map).

We further split the municipalities surveyed in ENSI into two types of treatments, each with its respective control group. In table A.1 we show the number of respondents in each of the municipalities used as treatment and control groups.

Impact of drug-related homicides: treatment and control groups

Figure 3 shows the treatment and control groups used to measure the impact of drug-related homicides. The figure shows the 507 treated municipalities which experienced *for the first time* at least one drug-related homicide during 2006-2010, according to official records (and that at no point during 2000-2005 experienced drug-related homicides). The control group, shown in the darkest color, is composed by the 39 sampled municipalities that did not experience any drug-related homicides at any point during 2000-2010.

In Figure 3 we also show the treated municipalities that are in the top 10 decile according to their drug-related homicides rate per 100,000 inhabitants over 2006-2010. These areas have a considerably higher drug-related homicide rate (227.8 killings per 100,000 inhabitants) than the rest of the treated municipalities (25.5 killings per 100,000 inhabitants).

Impact of drug cartels: treatment and control groups

Figure 4 shows the treatment and control groups used to measure the impact of drug cartels. In the lighter color we show the 43 treated municipalities that experienced *for the first time* drug cartels operating in their areas during the period 2006-2010, but that at no point during 2000-2010 experienced drug-related homicides. Only one of these treated municipalities has two cartels operating simultaneously in the area. The rest (42) of these treated municipalities have only one cartel operating. Also in Figure 3, in black color, we show the location of the 271 municipalities used as a control group, which did not experience drug cartels or drug-related homicides during 2000-2010.

4. Impact of drug cartels and drug-related homicides

In this section we estimate the impact of drug cartels and separately the impact of drug-related homicides on crime and perceptions of unsafety. To take into account observed and unobserved characteristics that might affect the change in our outcome variables we combine the difference-in-difference estimator with instrumental-variables, *Z*, and a panel fixed effects regression at municipality level, as shown in equation (1). Across all the regression specifications in this section we use the

sampling weights provided by the ENSI survey to take into account the representation of the respondent in the sample.

$$E(Y_{ijt} | Z_{ijt}) = \alpha + \delta X_{ijt} + \rho M_{ij} + \lambda Treated_{ijt} * Post_{it} + \phi Post_{it} + \psi_{ijt} \quad (1)$$

where Y_{ijt} represents the outcome variable of interest, such as crime, of survey respondent *i* at time *t* in municipality *j*. *X* is a vector of the respondent's characteristics. *M* is a vector of time varying characteristics of the area. *Post* is a dummy variable on whether the observation is for the post-treatment period (2006 or after) or not. ψ_{ijt} represents the error term. The difference-in-difference effect λ is the coefficient of the interaction between *Post* and the dummy variable *Treated,* which indicates whether the person was affected in a municipality treated by drug-related cartels (or drug-related homicides). Since the location where drug cartels operate might be endogenously determined with crime levels, we control for that potential endogeneity using instrumental variables.

As instrumental variable *Z,* we use the interaction between the variable *Post* and the dummy variable *Decentralized*, which indicates whether the municipality's local government had the same ruling party as its corresponding state government in 2005. As mentioned before, we use this instrument as the literature suggests that municipalities that were decentralized right before 2006 were more likely to have experienced drug-related homicides soon after. Since we are using instrumental variables, the difference-in-difference effect is estimating the local average effect of the treatment (LATE) on outcomes for those whose treatment has been changed by the instrument *Z.*

The respondent's characteristics we control for (gender, age, whether has high school or higher level of education attainment, whether is an entrepreneur and size of household) are those that the international literature has found to be related to the probability of experiencing crime (Fajnzylber et al., 1998).[8] In particular, we control whether the respondent is an entrepreneur as this group has allegedly been particularly targeted by cartels for extortion and kidnapping (Ravelo, 2012). The area characteristics we control for are: the Gini coefficient of the municipality and lagged for the years

[8] The ENSI for the year 2010 does not provide information on household's income, so we control for the education level of the respondent.

2000 and 2005, and the unemployment rate at state level and lagged for the years of 2002 and 2006. We control for unemployment rates since the literature has found it strongly correlated with crime rates (Landau, 1998; Agnew, 1999). These theories argue that since employment constitutes the main legitimate mean for obtaining income, difficulty in gaining employment can increase frustration and the chances of resorting to crime. Although unemployment might induce crime, as crime increases, firms and entrepreneurs might be forced to move out to other areas thereby inducing more unemployment in the original location. In order to avoid a potential endogeneity between unemployment and crime rates, we use lagged information for unemployment rates. We also control for the inequality level at municipality level following the theories on strain and anomie, which suggest that the frustration of unsuccessful individuals increases when faced with the relative success of others around them. Thus, the higher the inequality, the more strain and the greater the inducement for low-status individuals to commit crime (Barkan, 2006). Since inequality might also be endogenously influenced by crime rates, we also use lagged information for the Gini coefficient (Fajnzylber et al., 2002).

4.1 Change in crime

To determine whether the crime occurred in a municipality treated by cartels (or drug-related homicides) we use the stated municipality of where the crime occurred, and not the respondent's current area of residency. [9] Thus, in our regressions estimating the impact on crime we use the characteristics of the municipalities where the crimes occurred and not the characteristics of the areas where the respondent is currently living. We discard any reports where the respondent did not state in

[9] The survey asked about the crimes that occurred in the year prior to the interview, that is 2004 and 2009. Thus, we identify the treatment areas by drug-related homicides as those areas that experienced at least one drug-related homicide between 2006-2009, which broadly coincide with those treated by drug-related homicides during 2006-2010. (72 municipalities experienced drug-related homicides for the first time in 2010). There are no differences in the sampled ENSI municipalities that we identified as treated by drug-cartels but free of drug-related homicides in 2006-2009 or 2006-2010.

which municipality the crime occurred. Table A.2 (in appendix) shows respondents stated the municipality of where crimes occurred for the great majority of cases across all types of crimes analyzed.

Tables A.4 to A.7 in the Appendix present the first-stage least squares instrumental variables (IV) regressions, and the validity test of our instruments, which show that the instruments are robust. We discuss these results in depth in sub-section 4.4.

Table 1, Panel A, shows the results of the IV-second-stage least squares panel-fixed effects regressions, which measure separately the impact of drug cartels and drug-related homicides on crime. Column (2) shows that the theft of car accessories increased by 16 percentage points in municipalities that had at least one drug-related homicide relative to their control group. Extortions also increased (by 4.7 percentage points) as well as other thefts (by 6 percentage points) in municipalities treated by drug-related homicides, relative to the control group.

We also find a reduction in the percentage of respondents experiencing other kinds of crimes in the municipalities treated by drug-related homicides. The percentage of respondents that experienced house burglary declined (by 16 percentage points), as well as the percentage of those that experienced kidnappings (2.2 percentage points), sexual crimes (4.2 percentage points), fraud (3.6 percentage points) and other types of crimes (12 percentage points).

This mixed evidence might be due to various factors. For example, when cartels operate in these areas they might focus on certain crimes (car accessories, extortions and other thefts) and reduce their efforts on other types of crimes. But there are other possibilities too. We have very few observations on reported kidnappings and sexual offenses in the survey, which might be due the hesitation of the respondent to reveal if they had suffered this kind of crimes and as mentioned earlier, due to the fact that the reported kidnappings refer to the instances where the respondent was affected directly, and not a family member, which obscures their real prevalence. The mixed evidence could also be related to the degree of variance in the number of drug-related homicides each treated municipality has experienced. It is possible that the more violent areas are experiencing other kinds of change in crime rates. To assess if there is any differences in the types of crime across municipalities we divide further our treated groups.

Panel B shows the impact of drug related violence but on those municipalities in the top 10 decile of drug-related homicides during 2006-2009. Among these areas we observe a different pattern of impact on crime. For instance, house burglary increased by 54.3 percentage points, and also other thefts increased by 40.4 percentage points relative to their control group. The increase of these crimes in the areas with most drug-related homicides is consistent with international literature that a high-level of conflict is associated with property theft (Landau, 2003). As discussed earlier, the reason for the positive correlation we find could be driven by drug cartels taxing their residents to fund their ongoing turf conflicts.

In the areas worst affected by drug-related homicides, we also observe a reduction in mugging (column 4). The change in the behavior of respondents, shown in the next sub-section, which take more precautions for instance to reduce the risk of being victims of crime might also explain the observed reduction in muggings.

In Table 1, Panel D, we also show the impact on crime of drug-cartels but whenever they operate free of drug-related homicides. We find no statistically significant impact across 10 out of the 12 types of crime analyzed. Crimes categorized as "other thefts" decreased (by 7 percentage points), in contrast to what occurred in the areas with drug-related homicides. Column (12) shows that "other crimes" increased; nonetheless these crimes are in relative terms of lesser frequency than the other 11 types of crimes analyzed. Thus, this evidence supports our hypothesis that when cartels have a peaceful (i.e. with no homicides) monopoly of a *plaza*, cartels are more likely to concentrate their efforts on drug-trafficking, and less on committing other crimes such as thefts and extortions.

Since the incidence of some crimes increased but declined for others, we analyze next the probability of experiencing crime of any type. We find no change in this probability across any of the areas treated by drug-related homicides or drug-cartels, relatively to their control group (column 13).

4.2 Change in perceptions and actions

We estimate next the impact of drug cartels and drug-related homicides on respondent's perception of unsafety. [10] In contrast to the previous sub-section, in our regressions here we use the characteristics of the municipalities where the respondent was residing at the time of the interview. Tables A.8 in the Appendix present the IV-first-stage least squares regressions which show that the instruments are robust. We discuss these results in depth in sub-section 4.4.

Table 2, shows the results of the IV-second-stage least squares panel-fixed effects regressions. We find that the percentage of respondents that believe crimes increased in their municipalities and those who feel unsafe in their municipalities increased in areas that experienced drug-related homicides, relative to their control group (Panel A, column 1 and 2). In contrast, we find no change in these perceptions of respondents living in areas that experienced drug cartels free of drug-related homicides relative to their control group (Panel B, column 1 and 2).

We find no difference in the change of the expressed mistrust for local police among respondents living in areas experiencing drug cartels or drug-related homicides relative to their control groups (column 3). Thus, the general increase in mistrust in local police cannot be attributed to drug cartels or the drug-related homicides alone.

In Table 2, columns (4)-(7), we explore the actions that the respondents have taken "*as a result of being afraid of being victims of crime*". Among those who live in municipalities with drug-related homicides the percentage of respondents who stated no longer go out at night increased (by 40 percentage points), and so did the percentage who no longer visits friends and relatives (by 48 percentage points), and who no longer uses public transport (by 24 percentage points). Again, we find no statistically significant change in these responses among those living in areas with drug cartels but free of drug-related homicides relative to their control group.

[10] In contrast to the previous section, the survey asked respondents about their perceptions on unsafety and actions taken to prevent crime referring to the year in which the survey was conducted (2005 or 2010). Thus, in this sub-section we identify the treatment areas with drug-related homicides as those areas that experienced at least one drug-related homicide between 2006 and 2010.

In Table 3 we show evidence on the actions taken as a result of the perceived unsafety among our respondents using IV-second-stage least squares panel fixed-effects regression. The corresponding results of the IV-first-stage least squares regression are shown in Table A.9, and also discussed in sub-section 4.4.

We find that on the one hand, there was no change in the percentage of respondents that acquired an insurance policy among those living in the areas affected by drug-related homicides, relative to their control group (Table 3, Panel A, column 1). On the other hand, the percentage who acquired an insurance policy declined (by 14 percentage points) among those living in areas affected by drug cartels but free of drug-related homicides (Table 3, Panel B, column 1). These contrasting results might be due to differences in the price of the insurance premiums, information which the ENSI survey does not provide.[11] However, as we showed before, the theft of car accessories, for instance, only increased in the areas affected by drug-related homicides and not in areas with drug cartels without drug-related homicides. This suggests that if car insurance premiums increased they are more likely to have done so in areas affected by drug-related homicides.

We also find that the percentage of respondents that improved their security (by installing more locks, walls, alarms or getting a security dog) increased (by 70.5 percentage points), but only among the respondents living in municipalities affected by drug-related violence relative to their control group (Panel A, column 2). Similarly, the percentage who hired private police increased (by 33 percentage points), but only among those living in areas with drug-related homicides relative to their control group (column 3). The only similarity we find across both types of treatment areas is that the respondents increased the security for their cars, relative to their control groups (column 4).

In Table 3, column (5) we analyze the probability of respondents moving of residency after experiencing a crime. The survey asked respondents whether they experienced crimes in the year previous to the interview and the location of that crime. However, the survey did not ask where the respondents were residing in that previous year. Thus, we determined whether the respondent moved

[11] Guerrero-Gutiérrez (2011a) shows there is a positive correlation in car insurance premiums and drug-related homicide rates per 100,000 inhabitants at state level.

to a different municipality or state after experiencing house burglary by comparing the location (municipality and state) where the respondent was living at the time of the interview and the stated location of where the house burglary occurred over the previous year. We find that across all respondents, only a small percentage (0.1%) moved to another municipality or state after experiencing house burglary (Table A.3).[12] Moreover, in our difference-in-difference analysis we find no statistically significant change in the percentage that moved following a house burglary in the areas affected by drug cartels nor in the areas affected by drug-related homicides, relative to their control groups. However, it is likely that we are underestimating the probability of moving after suffering a crime for two reasons. First, we cannot identify the cases of respondents who moved residency but who did not experience house burglary in the previous year. Second, even for those who experienced burglary, we only know if they moved to a different municipality or state, but not if they relocated within the same municipality, perhaps to a safer neighborhood.

In Table 3, columns (6)-(8), we analyze other actions taken as a result of having experienced a crime. We find no difference in the percentage of respondents experiencing a crime and not reporting it officially to the authorities among the respondents living in areas with drug cartels or drug-related homicides, relatively to their control groups (column 6). Thus, the level of impunity that might deter respondents reporting crimes could be similar across the treatment and control areas.

Among those who did report the crime experienced to the authorities, the outcome of the official report (whether nothing happened with the claim, or whether stolen items were recovered) was no different among respondents living in areas with drug cartels or drug-related homicides, relative to their control (columns 7 and 8).

4.3 Simple comparison between treated and control areas in 2010

We present next further differences in security spending and respondents' assessment of the performance of authority between the treatment and their respective controls areas. We present this

[12] Estimating that percentage but only for the population who suffered a house burglary: 4.7% moved to another municipality or state over the following year in 2004, and 5.08% in 2009.

information only for the year 2010, given that these questions are available in the ENSI survey in 2010, but not in the previous survey of 2004. To assess these differences between the treated and control areas we use the equation as shown in (2). We once again use an instrumental variable specification.

$$E(Y_{ij} | Z_{ij}) = \gamma + \delta X_{ij} + \rho M_i + \mu Treated_{ij} + \psi_{ij} \quad (2)$$

where Y_{ij} represents the outcome variable of interest of respondent i in 2010 in the municipality j. X and M are the vectors of the respondent and area characteristics. Z_{ij} represents whether the municipality was decentralized in 2005. Since our outcome variables do not change over time, we only use as instrument a dummy variable indicating whether the municipality was decentralized or not in 2005. μ represents the difference in outcomes between respondents living in the treated areas (by drug cartels or drug-related homicides) and those in the control group in 2010.

Tables A.10 in the Appendix present the IV-first-stage least squares regressions, the results of which we discuss in depth in sub-section 4.4. Table 4, shows the corresponding IV-second-stage least squares regressions. In Table 4, column (1) we show the differences in security spending in 2010 between areas treated by drug-related cartels or drug-related homicides, relative to their control groups. We find no differences in spending between respondents living in areas treated by at least one drug-related homicides and their control group. However, the respondents living in the areas most affected by drug-related homicides (those in the 10th decile of drug-related homicides) spend on average 1,166 dollars more in security than the respondents living in the control group (Panel B). In contrast, the respondents living in areas where drug cartels operate but free of drug-related homicides spend 1,417 USD dollars less in security than those respondents living in their respective control group (Panel D).

It is worth noting that since we do not have information about security spending in previous years, these differences in spending observed in 2010 are not necessarily being caused by the presence of drug-related homicides or cartels in these areas, as these areas might have spent higher amounts in

security previously. Nonetheless, the differences in spending reveal the extra burden on security spending that crime and violence can impose on households.

In column (2) we show further differences among respondents living in the two types of treated areas. The respondents living in areas affected by at least one drug-related homicide are 18 percentage points more likely to believe that their participation with others in improving public security is important compared to their control group (panel A, column 2). However, we find no difference in this perception between those who are living in the top 10 decile of drug-related homicides, nor among those living in areas affected by drug cartels with no homicides and their respective control groups. Hence, as the social cohesion hypothesis suggests, drug-related homicides, as an extra pressure, may induce people to participate with others to take action against external pressures, but only in areas where such violence is occurring, and up to a certain level of violence. Beyond a certain level of conflict people might perceive that is too dangerous to participate in vigilante activities for instance.

In column (3) we examine whether the perceptions about impunity differ between respondents living in treated and control areas. It is important to examine these differences, as the theoretical and empirical literature have shown the higher the level of (perceived) impunity the higher the crime rates (Becker, 1968; Ehrlich, 1973; 1996). We find that among the respondents living in areas affected by at least one drug-related homicide, the perception that criminals are punished if they commit a crime in their municipality is 10 percentage points higher than those in their respective control group. This statistically significant difference is no longer found once we further divide the treated areas according to the level of drug-related homicides (in top 10 decile or bottom 9th decile), nor among the areas where drug cartels operate without drug-related homicides relative to their control group.

To conclude our analysis, in Table 4, column (4), we show that those living in the areas most affected by drug-related homicides, in the top 10 deciles, are 8 percentage points less likely to agree that the strategy of the federal government to tackle organized crime is working, relative to its control group. In contrast, those living in the bottom 9th decile of drug-related homicides, or where cartels operate but without drug-related homicides are more likely to agree that the federal action against organized crime is working.

4.4 Robustness checks

The validity of our identification strategy depends on two key factors: the robustness of our instrumental variable and that the municipalities used as a treatment (either for drug cartels or drug-related violence) and control group have had similar parallel trends in crimes before treatment began.

As mentioned earlier, previous research has shown the relevance of the decentralization instrument we use in explaining the probability of experiencing drug cartels and drug-related violence. To check the validity of the instrument used, in the appendix (Tables A.4-A.10) we present the first-stage regression of the IV approach for all the estimations shown in section 4. These tables also include the coefficients associated with our decentralization instrument and our treatments (municipalities experiencing drug-related homicides or drug cartels). We find that the instrument is statistically significant in 95 out of the 96 regressions presented. For instance, in Table A.5 we show the first stage results of the impact of drug-related homicides in the top 10 decile on crimes. The instrument used, *decentralization*post,* is statistically significant and positive. This suggests that areas that were decentralized were more likely to have a high-intensity level of drug-related homicides, as the literature suggests. Table A.6 also shows that areas decentralized were less likely to have drug cartels operating peacefully (without drug-related homicides), also supporting the predictions of the literature. As we discussed in Section 2, we would expect that these cartels free of drug-related homicides to be more likely to operate in coordinated regimes, not in decentralized ones.

At the bottom of each of the Tables A.4 to A.10 we present the under-identification tests, which show that the excluded instrument, decentralization, is correlated with the endogenous regressors. The F-test across all tables show that we do not have any weak instrument problem given that in all models the p value is very small. In addition, the F-test is greater than 10 in 92 out of the 96 regressions presented.

To assess the size of the bias in our IV estimates, due to a potential weak correlation between the IV used and the endogenous regressors, we present the Cragg-Donald Wald F statistic, and compare it to the Stock-Yogo weak ID test critical values. Across all our estimators the size of that bias is around 10%.

We also show the endogeneity test of the treatment variables (drug- cartels or drug-related homicides). The null hypothesis of the endogeneity test is that the treatment measure is exogenous, thus no IVs are needed. We do find evidence of endogeneity across several models, although not all, at the 10 percent confidence level.

We now move on to discuss the validity of the parallel trends between our treatment and control groups. To test these trends we would need to have information about crime rates at municipality level. Given that there are no crime rates available at this level, we test instead if the municipalities used as treatment and control groups had similar homicide rates, a close proxy for criminality in the past. In Figures 5 and 6 we show that both our treatments analyzed (drug-related homicides and drug cartels free of drug-related homicides) had parallel trends in homicides rates with respect to their control group at least in the 10 years before the treatment began. It is only after 2007 that homicide rates sharply increased in the municipalities treated by drug-related homicides, but not in the controls. Interestingly, the general homicide rates remained below the national level for the municipalities treated by cartels but that did not have drug-related homicides and its respective control group (Figure 6). Thus, this evidence suggests that the municipalities used as controls are a suitable group off which to build the counterfactual of what would have happened to the treated municipalities, in the absence of the treatment.

5. Conclusion

This paper estimated the impact of drug cartels and separately drug-related homicides on the probability of suffering a crime and on the perceptions of security. To this end we combined nationally representative surveys on crime with indicators of where drug cartels operate with and without drug-related homicides.

Our findings reveal a contrasting picture of how residents have been affected across different areas. The perception of unsafety increased among the respondents living in areas affected by drug-related homicides. These respondents also take more measures towards increasing their security, spending on average about 1,166 US dollars more in security than those living in areas not affected by drug-related homicides. This is a non-negligible amount in security expenditure for a middle-income

country, which could be contributing to the impoverishment and migration out of these violent areas. In contrast, the perceptions of unsafety do not change in areas where cartels operate without leading to drug-related homicides, and respondents living in these areas spent on average even less resources than those free of cartels and drug-related homicides.

The probability of experiencing the main types of crime analyzed remained unchanged, thefts even declined where cartels have the full monopoly of the area where they operate, without facing conflicts leading to drug-related homicides. This result could be due to cartels choosing to specialize on drug-activities, and not on committing other crimes in these areas. This effect could also be reinforced if the police are no longer chasing cartel members, but allowing them to operate freely, so the police can focus their efforts on non-drug-related crimes.[13] In contrast, certain crimes did increase where cartels battle for turf, with evidence of drug-related homicides. We cannot rule out that the spike in certain crimes in these areas is being driven by police resources being deviated towards chasing cartels, thereby congesting law-enforcement (Gaviria, 2000). However, we do not find a generalized rise in crime rates in these areas, but rather a pattern where those crimes that require more sophisticated organization increased, such as extortion and other theft. Thus, our results are more supportive of the hypothesis that when cartels face battles for turf these conflicts increase cartels' security expenses, and as a result cartels resort to taxing locals through theft and extortion to fund their ongoing conflicts.

Our results confirm the assumptions made by previous studies arguing that drug-cartels increase crime rates and perceptions of unsafety. However, our study reveals that this is the case only when drug-cartels are battling for turf and not when cartels operate without disputes leading to drug-related homicides. Thus, our findings help deepen the understanding of when cartels' drug-trafficking activities lead to other crimes and some of the consequences on the local population.

[13] For instance, in a short-lived depenalization of cannabis in Lambeth, a borough of London, Adda et al. (2014) find that the overall crime rate declined as result of the police being able to divert resources towards dealing with other non-drug related crimes.

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Figures and Tables

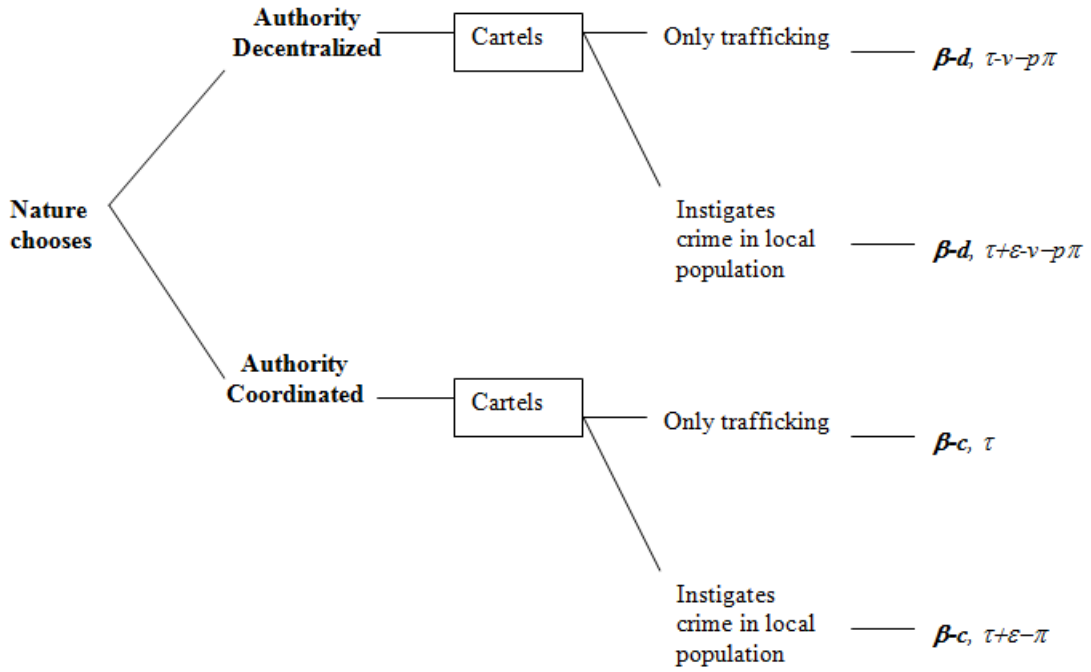

Figure 1. Sequential game between authority and cartels under decentralized and coordinated regimes

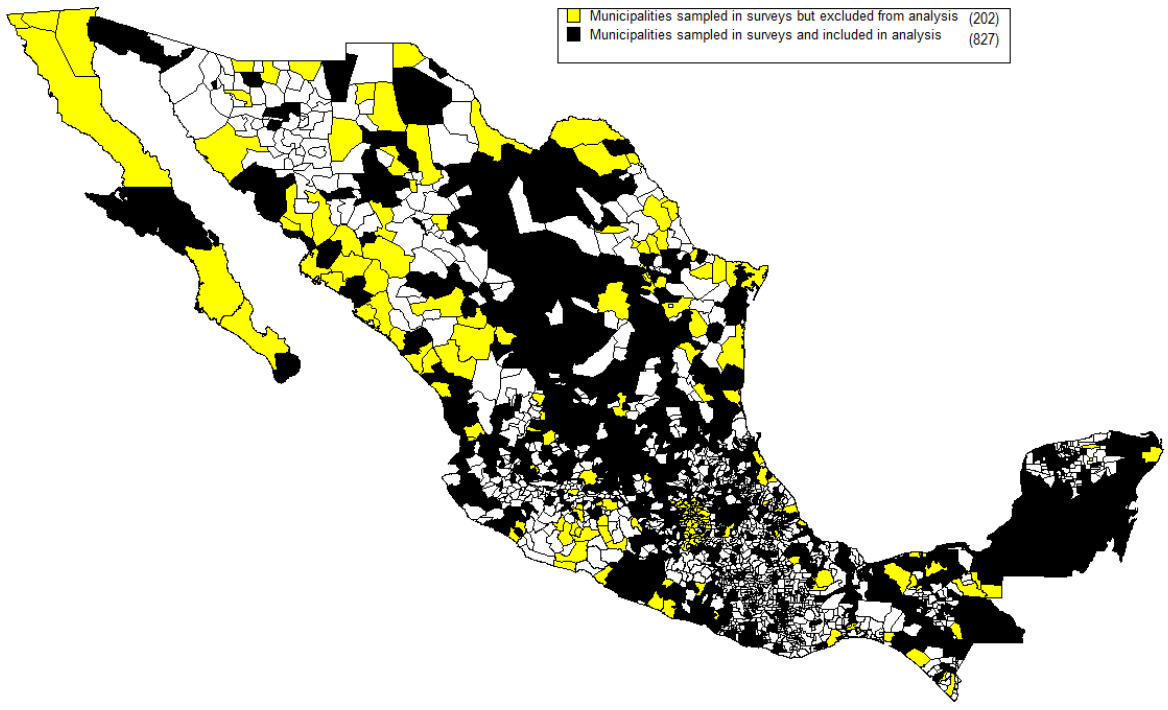

Figure 2. Municipalities excluded and included in analysis. *Source: ENSI 2005, 2010*

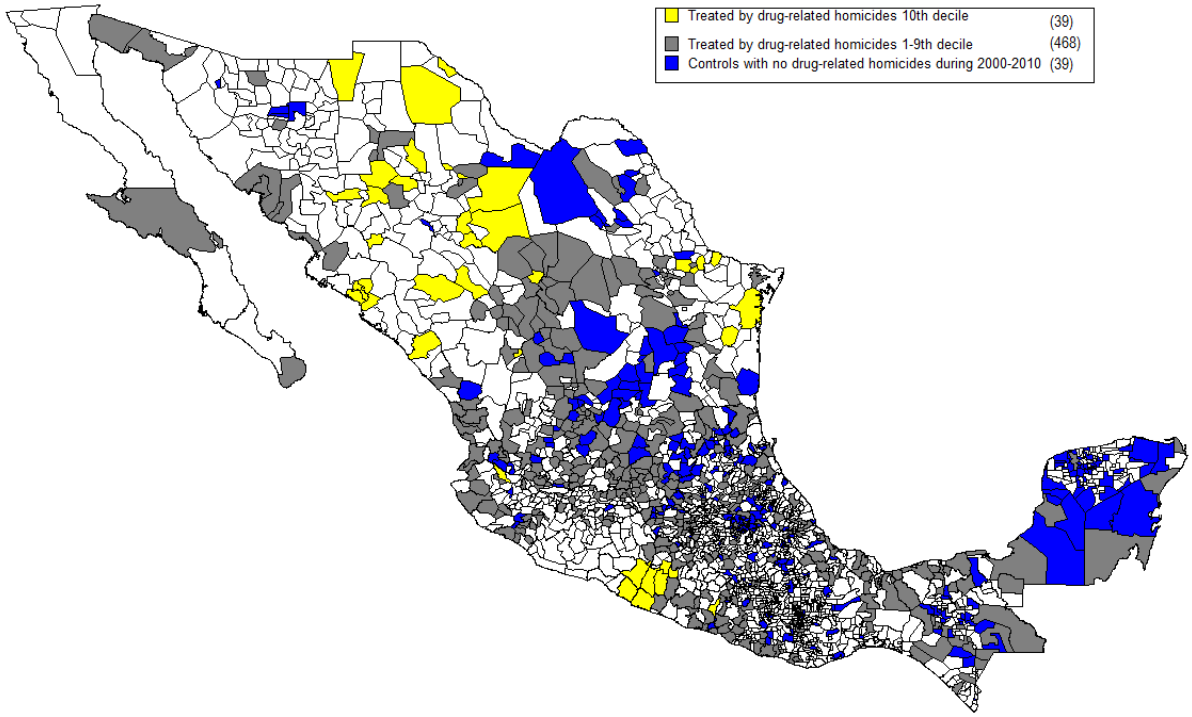

Figure 3. Municipalities used as controls and treated with drug-related homicides. *Source: ENSI 2005, 2010*

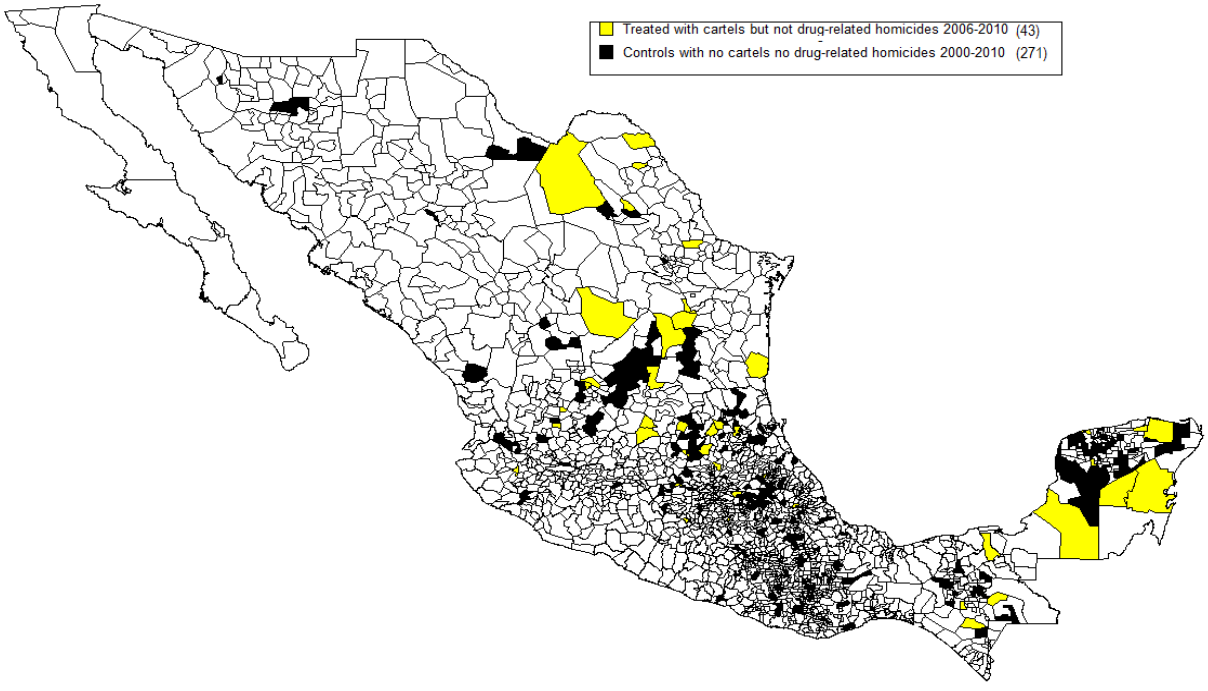

Figure 4. Municipalities used as controls and treated with cartels but not drug-related homicides. *Source: ENSI 2005, 2010, cartels operating in municipalities Gutiérrez-Romero and Oviedo (2014).*

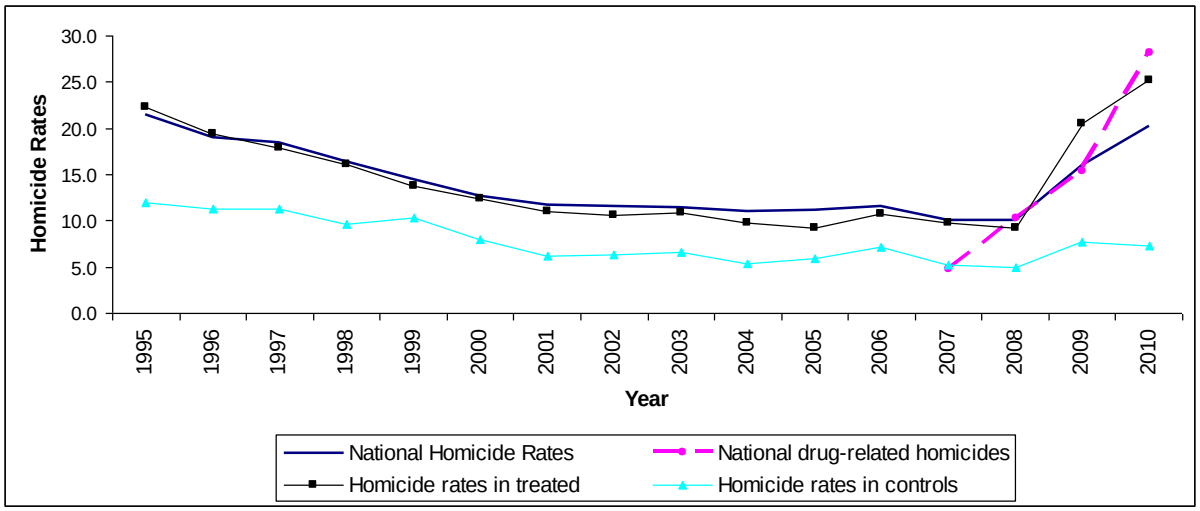

Figure 5. Homicide Rates across municipalities used as controls and treated with drug-related homicides. *Source: Homicide rates INEGI; drug-related homicides SNSP; population CONAPO.*

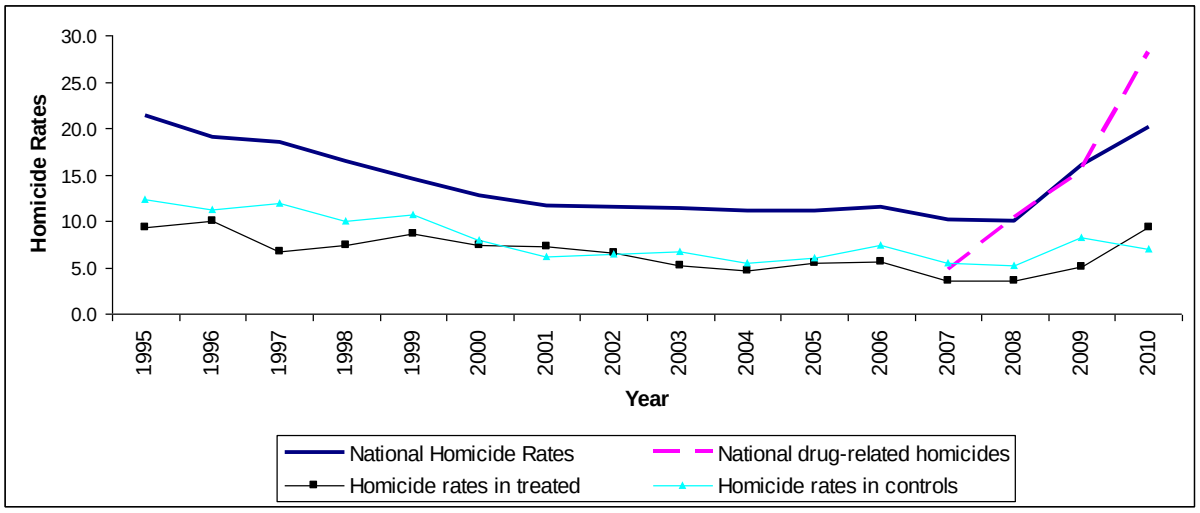

Figure 6. Homicide Rates across municipalities used as controls and treated with cartels but not drug-related homicides. *Source: Homicide rates INEGI; drug-related homicides SNSP; population CONAPO; cartels operating in municipalities Gutiérrez-Romero and Oviedo (2014).*

Table 1: Impact of Drug-Related Homicides and Cartels on Crime Rates. IV Panel Fixed Effects at Municipality Level

Dependent variable>	Car theft (1)	Theft of car accessories (2)	Household Burglary (3)	Mugging (4)	Kidnapping (5)	Lesions (6)	Sexual crime (7)	Fraud (8)	Extorsion (9)	Other thefts (10)	Other crimes (12)	Suffered any kind of crime (13)
Panel A: Controls vs all treated municipalities by drug-related homicides												
DID	0.005	0.160***	-0.163***	0.029	-0.022***	-0.027	-0.042***	-0.036**	0.047*	0.060**	-0.119***	-0.054
	(0.017)	(0.041)	(0.042)	(0.035)	(0.006)	(0.024)	(0.012)	(0.015)	(0.025)	(0.026)	(0.026)	(0.080)
Number respondents	57,525	57,470	57,518	57,342	57,529	57,502	57,532	57,530	57,513	57,519	57,520	57,827
Number municipalities	827	827	827	829	827	827	827	827	828	827	828	842
Panel B: Controls vs treated municipalities top 10 decile drug-related homicides												
DID	-0.141	0.196	0.543*	-0.397*	0.041	0.178	0.051	0.032	0.066	0.404**	0.011	1.140
	(0.087)	(0.199)	(0.294)	(0.236)	(0.033)	(0.159)	(0.049)	(0.090)	(0.120)	(0.189)	(0.185)	(1.034)
Number respondents	17,768	17,728	17,755	17,684	17,768	17,752	17,768	17,767	17,760	17,760	17,765	17,639
Number municipalities	442	442	442	442	442	442	442	442	443	442	443	450
Panel C: Controls vs treated municipalities in bottom 9 deciles of drug-related homicides												
DID	0.003	0.133***	-0.122***	0.015	-0.020***	-0.025	-0.037***	-0.030**	0.041*	0.051**	-0.101***	-0.048
	(0.016)	(0.037)	(0.038)	(0.032)	(0.006)	(0.022)	(0.011)	(0.013)	(0.023)	(0.023)	(0.024)	(0.073)
Number respondents	54,936	54,883	54,933	54,755	54,940	54,918	54,944	54,940	54,923	54,932	54,927	55,230
Number municipalities	771	771	771	773	771	771	771	771	772	771	771	784
Panel D: Controls vs treated by cartels but no drug-related homicides												
DID	0.014	-0.042	-0.040	-0.003	0.001	-0.025	-0.009	0.008	-0.020	-0.070*	0.075*	-0.107
	(0.015)	(0.038)	(0.051)	(0.036)	(0.003)	(0.028)	(0.010)	(0.017)	(0.024)	(0.038)	(0.040)	(0.098)
Number respondents	10,850	10,830	10,845	10,799	10,850	10,840	10,850	10,849	10,839	10,845	10,844	10,755
Number municipalities	281	281	281	281	281	281	281	281	281	281	281	283

Note: DID is the difference-in-difference effect when comparing treated vs. control areas. Data are weighted by respondent's survey sampling weight. Controls used but omitted in table: respondent's gender, age, education, whether entrepreneur, size of household, lagged gini coefficient (2000 and 2005) aggregated at municipality level and measured in natural logarithm and unemployment rate at state level and lagged (2002 and 2006).
Instrument used to deal with endogenity of treatment: The interaction between whether the municipality was decentralized after 2005 and a post-treatment dummy variable. Deciles are constructed according to the total number of drug-related homicides per 100,000 inhabitants the municipalities experienced during 2006-2009.
*Significance Level * p<0.10, ** p<0.05, *** p<0.001. Standard errors in parentheses.*
Source: ENSI 2005, 2010. Drug-related homicides SNSP. Municipalities with operating narcos Gutiérrez-Romero and Oviedo (2014).

Table 2: Impact of Drug-Related Homicides and Cartels on Respondent's Perceptions. Panel Fixed Effects IV at Municipality Level

Dependent variable>	Believes crime increased in municipality (1)	Believes living in this municipality is unsafe (2)	Does not trust the local police (3)	No longer goes out at night (4)	No longer visits friends and relatives (5)	No longer uses taxis (6)	No longer uses public transport (7)
Panel A: Controls vs all treated municipalities by drug-related homicides							
DID	0.764***	0.270*	0.156	0.398**	0.482***	0.070	0.236*
	(0.161)	(0.155)	(0.134)	(0.155)	(0.132)	(0.214)	(0.129)
Number respondents	55,716	56,988	45,206	52,938	55,770	35,475	47,311
Number municipalities	827	827	827	827	827	789	825
Panel B: Controls vs treated by cartels but no drug-related homicides							
DID	0.239	0.374	0.143	0.004	0.160	-0.130	-0.050
	(0.245)	(0.233)	(0.245)	(0.221)	(0.184)	(0.522)	(0.163)
Number respondents	10,447	10,735	8,394	9,898	10,497	5,049	8,969
Number municipalities	281	281	281	281	281	258	280

Note: DID is the difference-in-difference effect when comparing treated vs. control areas. Data are weighted by respondent's survey sampling weight. Controls used but omitted in table: respondent's gender, age, education, whether entrepreneur, size of household, lagged gini coefficient (2000 and 2005) aggregated at municipality level and measured in natural logarithm and unemployment rate at state level and lagged (2002 and 2006).
Instrument used to deal with endogenity of treatment: The interaction between whether the municipality was decentralized after 2005 and a post-treatment dummy variable. Deciles are constructed according to the total number of drug-related homicides per 100,000 inhabitants the municipalities experienced during 2006-2010.
*Significance Level * p<0.10, ** p<0.05, *** p<0.001. Standard errors in parentheses.*
Source: ENSI 2005, 2010. Drug-related homicides SNSP. Municipalities with operating narcos Gutiérrez-Romero and Oviedo (2014).

Table 3: Impact of Drug-Related Homicides and Cartels on Respondent's Actions. Panel Fixed Effects IV at Municipality Level

	As a result of insecurity respondent:							
Dependent variable>	Bought an insurance policy	Improved security (locks, walls, alarms, got a dog)	Hired private police	Increased security in car	Experienced crime and moved of address afterwards	Experienced crime, but did not officially report crime	Officially reported crime, but nothing happened as a result	Officially reported crime, and recovered stolen items
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Controls vs all treated municipalities by drug-related homicides								
DID	0.021	0.705***	0.329***	0.373***	-0.043	0.398	-1.566	0.385
	(0.044)	(0.150)	(0.056)	(0.081)	(0.887)	(0.384)	(1.121)	(0.799)
Number respondents	56,706	57,324	56,717	48,335	872	4,508	1,058	960
Number municipalities	827	827	827	825	141	379	162	149
Panel B: Controls vs treated by cartels but no drug-related homicides								
DID	-0.141***	0.168	0.027	0.161*	4.876	-2.776	1.233	0.421
	(0.046)	(0.221)	(0.051)	(0.083)	(24.260)	(2.190)	(2.143)	(1.463)
Number respondents	10,639	10,801	10,591	8,515	623	3,173	776	696
Number municipalities	281	281	281	280	113	335	138	125

Note: DID is the difference-in-difference effect when comparing treated vs. control areas. Data are weighted by respondent's survey sampling weight. Controls used but omitted in table: respondent's gender, age, education, whether entrepreneur, size of household, lagged gini coefficient (2000 and 2005) aggregated at municipality level and measured in natural logarithm and unemployment rate at state level and lagged (2002 and 2006).
Instrument used to deal with endogenity of treatment: The interaction between whether the municipality was decentralized after 2005 and a post-treatment dummy variable. Deciles are constructed according to the total number of drug-related homicides per 100,000 inhabitants the municipalities experienced during 2006-2010.
*Significance Level * p<0.10, ** p<0.05, *** p<0.001. Standard errors in parentheses.*
Source: ENSI 2005, 2010. Drug-related homicides SNSP. Municipalities with operating narcos Gutiérrez-Romero and Oviedo (2014).

Table 4: Differences in security spending, participation and impunity between controls and treated municipalities in 2010 (IV)

Dependent variable>	Spent in security USD (1)	Believes his/her participation is important to reduce crime (2)	Believes that criminals are punished in this municipality (3)	Believes federal goverment strategy against organised crime is working (4)
Panel A: Controls vs all treated municipalities by drug-related homicides				
Respondent living in municipality treated by drug-related homicides	246.598	0.179**	0.103*	0.414***
	(588.675)	(0.075)	(0.056)	(0.087)
Number respondents	9,071	28,576	28,833	27,968
Panel B: Controls vs treated municipalities top 10 decile drug-related homicides				
Respondent living in municipality treated by drug-related homicides	1,165.624***	-0.121	0.058	-0.826***
	(385.299)	(0.179)	(0.137)	(0.204)
Number respondents	1,828	7,055	7,156	6,837
Panel C: Controls vs treated municipalities in bottom 9 deciles of drug-related homicides				
Respondent living in municipality treated by drug-related homicides	164.132	0.112*	0.049	0.336***
	(525.091)	(0.067)	(0.050)	(0.077)
Number respondents	8,920	27,891	28,128	27,303
Panel D: Controls vs treated by cartels but no drug-related homicides				
Respondent living in municipality treated by cartels but no drug-related homicides	-1,417.332***	-0.014	-0.148	0.912***
	(514.038)	(0.157)	(0.114)	(0.196)
Number respondents	1,377	5,466	5,546	5,282

Note: Data are weighted by respondent's survey sampling weight. Controls used but omitted in table: respondent's gender, age, education, whether entrepreneur, size of household, lagged gini coefficient (2000 and 2005) aggregated at municipality level and measured in natural logarithm and unemployment rate at state level and lagged (2002 and 2006).
Instrument used to deal with endogenity of treatment: Whether the municipality was decentralized after 2005. Deciles are constructed according to the total number of drug-related homicides per 100,000 inhabitants the municipalities experienced during 2006-2010.
*Significance Level * p<0.10, ** p<0.05, *** p<0.001. Standard errors in parentheses.*
Source: ENSI 2010. Drug-related homicides SNSP. Municipalities with operating narcos Gutiérrez-Romero and Oviedo (2014).

Appendix

Table A.1 Main Characteristics of Respondents

	All country		Drug-related homicides				Drug-related homicides top 10 decile				Treated by cartels but no drug-related homicides			
			Control Group		Treated Group		Control Group		Treated Group		Control Group		Treated Group	
	2005	2010	2005	2010	2005	2010	2005	2010	2005	2010	2005	2010	2005	2010
	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage	Percentage
Female	52.6	52.3	55.9	52.5	52.3	52.4	55.9	52.5	53.4	51.9	56.0	52.4	55.9	52.9
Aged 18-30	35.0	33.0	34.6	34.7	34.8	33.9	34.6	34.7	33.1	30.5	34.2	34.9	34.1	31.3
Selected respondent has highschool or more	33.9	22.1	16.9	10.7	27.7	18.1	16.9	10.7	19.6	11.7	15.7	8.6	18.4	14.9
Is an entrepreneur/self-employed	18.9	17.4	25.0	19.0	19.3	17.7	25.0	19.0	21.8	20.1	25.0	19.9	22.2	18.2
During previous year, a member of the respondent's household suffered a crime in the state of current residency	10.3	13.9	4.4	5.2	7.4	9.8	4.4	5.2	4.6	5.2	4.5	4.4	4.7	5.3
Before of last year, respondent was a victim of crime	22.2	14.7	10.8	7.1	17.0	11.2	10.8	7.1	12.8	8.5	9.7	5.8	12.8	9.0
Number of respondents	57,398	60,461	5,966	6,615	22,208	22,790	5,966	6,615	2,731	2,488	4,232	4,666	943	1,011

Note: Percentages are obtained using the respondent's survey sampling weight. Deciles are constructed according to the total number of drug-related homicides per 100,000 inhabitants the municipalities experienced during 2006-2010.
Source: ENSI 2005 and 2010. Drug-related homicides SNSP. Municipalities with operating narcos Gutiérrez-Romero and Oviedo (2014).

Table A.2: Type of crime that the respondent suffered during the year previous to the interview

	All crimes, including those of unkown location		All crimes, including those of unkown location													
	All crimes, including those of unkown location				Drug-related homicides				Drug-related homicides top 10 decile				Treated by cartels but no drug-related homicides			
	All country		All country		Control Group		Treated Group		Control Group		Treated Group		Control Group		Treated Group	
	2005 Obs	2009 Obs	2005 Obs	2009 Obs	2005 Obs	2010 Obs	2005 Obs	2010 Obs	2005 Obs	2010 Obs	2005 Obs	2010 Obs	2005 Obs	2010 Obs	2005 Obs	2010 Obs
Car theft	367	545	367	536	1	11	56	107	1	11	1	1	1	3	0	1
Theft of car accessories	1001	1748	1001	1741	19	58	254	586	19	58	5	10	6	26	3	2
Household Burglary	1775	1406	1770	1403	101	78	429	444	101	78	9	11	39	34	12	11
Mugging	1229	1516	1228	1485	34	40	270	414	34	40	3	1	17	19	3	1
Kidnapping	41	41	41	41	1	3	5	13	1	3	0	1	0	1	0	0
Extorsion*	125	798	123	793	7	43	29	269	7	43	0	1	4	20	1	5
Lesions	495	300	495	298	40	18	151	104	40	18	8	1	20	7	4	5
Sexual crime	96	43	96	42	7	1	37	19	7	1	1	1	4	0	0	1
Fraud	112	188	112	186	11	15	43	52	11	15	3	0	6	7	2	2
Other theft*	500	644	499	501	50	31	160	143	50	31	0	2	34	18	7	6
Other crimes*	1023	142	1019	140	90	16	271	41	90	16	12	1	46	10	17	2
Had some kind of crime	7,267	7,371	7256	7,166	369	314	1,870	2,192	369	314	40	30	179	145	48	36

*Note: Data not weighted by respondent's survey sampling weight. *Some respondents reported experienced extortions, other theft and other crimes more than once in the previous year to the interview. Only for these instances the observations refer to the number of instances the crime was committed, for the rest of crimes refer to the number of people who experienced these crimes. Deciles are constructed according to the total number of drug-related homicides per 100,000 inhabitants the municipalities experienced during 2006-2009. Source: ENSI 2005 and 2010. Drug-related homicides SNSP. Municipalities with operating narcos, Gutiérrez-Romero and Oviedo (2014).*

Table A.3: Respondents' Perceptions about Unsafety

		2005 Percentage	2010 Percentage
Because being afraid of crime respondent:	Experienced crime and moved of address afterwards	0.1	0.1
	Among those that experienced crime, did not officially report crime	75.9	76.2
	Believes crime increased in municipality	40.9	53.8
	Believes living in this municipality is unsafe	40.4	54.9
	Does not trust the local police	76.6	89.8
	No longer goes out at night	39.6	44.3
	No longer visits friends and relatives	23.2	26.2
	No longer uses taxis	25.0	25.2
	No longer uses public transport	12.8	16.6
As a result of insecurity respondent:	Bought an insurance policy	3.1	3.1
	Improved security (locks, walls, alarms, got a dog)	41.1	28.1
	Hired private police	5.4	3.0
	Increased security in car	12.8	12.2

Note: Percentages are obtained using the respondent's survey sampling weight. Source: ENSI 2005 and 2010.

Table A.4 First Stage IV Results from Difference-in-Difference Controls vs. Respondents living in municipalities treated by at least one drug-related homicides

Dependent variable>	Car theft (1)	Theft of car accessories (2)	Household Burglary (3)	Mugging (4)	Kidnapping (5)	Lesions (6)	Sexual crime (7)	Fraud (8)	Extorsion (9)	Other thefts (10)	Other crimes (12)	Suffered any kind of crime (13)
Post-treatment dummy	0.797***	0.797***	0.796***	0.797***	0.796***	0.797***	0.796***	0.796***	0.797***	0.796***	0.796***	0.802***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Respondent is a female	0.003*	0.003*	0.003*	0.003*	0.003*	0.003*	0.003*	0.003*	0.003*	0.003*	0.003*	0.003*
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Respondent's age	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Respondent is an entrepreneur	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003*
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Respondent's has highschool or higher education level	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Respondent's size of household	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Ln Gini of the municipality where crime ocurred	-0.213***	-0.208***	-0.214***	-0.214***	-0.215***	-0.213***	-0.215***	-0.213***	-0.212***	-0.214***	-0.212***	-0.200***
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Lagged unemployment rate of the state where crime ocurred	-0.016***	-0.016***	-0.016***	-0.016***	-0.016***	-0.016***	-0.016***	-0.016***	-0.016***	-0.016***	-0.016***	-0.017***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Municipality where crime ocurred was decentralized in 2005*Post treatment dummy	-0.061***	-0.060***	-0.060***	-0.060***	-0.060***	-0.061***	-0.060***	-0.060***	-0.060***	-0.060***	-0.060***	-0.063***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
R2	0.784	0.784	0.784	0.784	0.784	0.784	0.784	0.784	0.784	0.783	0.784	0.787
Observations	57525	57470	57518	57342	57529	57502	57532	57530	57513	57519	57520	57827
F test of excluded instruments:	286.77	283.04	281.10	283.65	283.54	287.84	281.93	283.92	285.27	286.37	284.24	311.98
Prob > F	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Underidentification test												
Anderson canon. corr. LM statistic	285.4	281.7	279.8	283.6	282.2	286.4	280.6	282.6	283.9	285.0	282.9	310.3
p value	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Weak Identification test												
Cragg-Donald Wald F statistic	286.8	283.0	281.1	283.6	283.5	287.8	281.9	283.9	285.3	286.4	284.2	312.0
Stock-Yogo weak ID test critical values 10% maximal	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
Overidentification test of all instruments	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified
Endogeneity test of endogenous regressors:	0.04	13.95	16.71	0.46	12.82	1.35	13.262	6.28	2.21	5.11	21.01	0.93
p value	0.84	0.00	0.00	0.50	0.00	0.25	0.00	0.01	0.14	0.02	0.00	0.33

*Note: Data are weighted by respondent's survey sampling weight. Gini at municipality level and lagged (2000 and 2005). Unemployment rate at state level and lagged (2002 and 2006).Treated municipalities by at least one drug-related homicides during 2006-2009. Significance Level * p<0.10, ** p<0.05, *** p<0.001. Standard errors in parentheses. Source: ENSI 2005, 2010. Gini, unemployment INEGI. Drug-related homicides SNSP. Municipalities with operating narcos Gutiérrez-Romero and Oviedo (2014).*

Table A.5 First Stage IV Results from Difference-in-Difference Controls vs. Treated Municipalities in Top 10 Decile of Drug-Related Homicides

	Car theft (1)	Theft of car accessories (2)	Household Burglary (3)	Mugging (4)	Kidnapping (5)	Lesions (6)	Sexual crime (7)	Fraud (8)	Extorsion (9)	Other thefts (10)	Other crimes (12)	Suffered any kind of crime (13)
Post-treatment dummy	0.111***	0.111***	0.111***	0.115***	0.111***	0.111***	0.110***	0.111***	0.111***	0.110***	0.111***	0.116***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.007)
Respondent is a female	0.000	0.000	0.000	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Respondent's age	0.000	0.000	0.000	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Respondent is an entrepreneur	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Respondent's has highschool or higher education level	0.002	0.002	0.002	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
Respondent's size of household	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)
Lagged Ln Gini of the municipality where crime ocurred	0.053**	0.054**	0.054**	0.052**	0.053**	0.055**	0.053**	0.052**	0.054**	0.054**	0.052**	0.053*
	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.028)
Lagged unemployment rate of the state where crime ocurred	-0.058***	-0.058***	-0.058***	-0.061***	-0.058***	-0.058***	-0.058***	-0.058***	-0.058***	-0.057***	-0.058***	-0.062***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.005)
Municipality where crime ocurred was decentralized in 2005*Post treatment dummy	0.015***	0.015***	0.015***	0.013**	0.015***	0.015***	0.015***	0.016***	0.015***	0.015***	0.016***	0.013*
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.008)
R2	0.104	0.105	0.105	0.108	0.104	0.105	0.104	0.105	0.105	0.104	0.105	0.109
Observations	17768	17728	17755	17684	17768	17752	17768	17767	17760	17760	17765	17639
F test of excluded instruments:	13.79	13.75	13.64	9.35	13.71	13.32	13.81	14.32	13.68	13.87	14.27	2.94
Prob > F	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0002	0.00	0.00	0.00	0.09
Underidentification test												
Anderson canon. corr. LM statistic	13.78	13.75	13.63	9.35	13.71	13.32	13.81	14.31	13.68	13.86	14.26	9.71
p value	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Weak Identification test												
Cragg-Donald Wald F statistic	13.79	13.75	13.64	9.35	13.71	13.32	13.81	14.32	13.68	13.87	14.27	9.71
Stock-Yogo weak ID test critical values 10% maximal	16.38	16.38	16.38	16.38	16.38	16.38	16.38	16.38	16.38	16.38	16.38	2.94
Overidentification test of all instruments	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified
Endogeneity test of endogenous regressors:	3.50	1.08	4.62	4.31	1.67	1.51	1.20	0.23	0.33	6.12	0.01	1.95
p value	0.06	0.30	0.03	0.04	0.20	0.22	0.27	0.63	0.56	0.01	0.92	0.16

*Note: Data are weighted by respondent's survey sampling weight. Gini at municipality level and lagged (2000 and 2005). Unemployment rate at state level and lagged (2002 and 2006). Treated municipalities in top 10 deciles of drug-related homicides during 2006-2009. Significance Level * p<0.10, ** p<0.05, *** p<0.001. Standard errors in parentheses. Source: ENSI 2005, 2010. Gini, unemployment INEGI. Drug-related homicides SNSP. Municipalities with operating narcos Gutiérrez-Romero and Oviedo (2014).*

Table A.6 First Stage IV Results from Difference-in-Difference Controls vs. Bottom 9 Deciles Treated by Drug-Related Homicides

	Car theft (1)	Theft of car accessories (2)	Household Burglary (3)	Mugging (4)	Kidnapping (5)	Lesions (6)	Sexual crime (7)	Fraud (8)	Extorsion (9)	Other thefts (10)	Other crimes (12)	Suffered any kind of crime (13)
Post-treatment dummy	0.790***	0.790***	0.789***	0.790***	0.789***	0.790***	0.789***	0.789***	0.790***	0.789***	0.789***	0.795***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Respondent is a female	0.003*	0.003*	0.003*	0.003**	0.003*	0.003**	0.003*	0.003*	0.003*	0.003*	0.003**	0.003*
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Respondent's age	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Respondent is an entrepreneur	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.004*
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Respondent's has highschool or higher education level	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Respondent's size of household	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**	-0.001**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Lagged Ln Gini of the municipality where crime ocurred	-0.211***	-0.205***	-0.211***	-0.211***	-0.212***	-0.211***	-0.212***	-0.210***	-0.209***	-0.211***	-0.209***	-0.196***
	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
Lagged unemployment rate of the state where crime ocurred	-0.014***	-0.014***	-0.014***	-0.014***	-0.014***	-0.014***	-0.014***	-0.014***	-0.014***	-0.014***	-0.014***	-0.015***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Municipality where crime ocurred was decentralized in 2005*Post treatment dummy	-0.069***	-0.068***	-0.068***	-0.068***	-0.068***	-0.069***	-0.068***	-0.069***	-0.069***	-0.069***	-0.069***	-0.071***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
R2	0.775	0.775	0.775	0.776	0.775	0.775	0.775	0.775	0.775	0.775	0.775	0.778
Observations	54936	54883	54933	54755	54940	54918	54944	54940	54923	54932	54927	55230
F test of excluded instruments:	195.04	193.97	195.32	208.79	195.31	196.03	196.80	194.85	193.56	193.088	192.25	204.76
Prob > F	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Underidentification test												
Anderson canon. corr. LM statistic	191.7	190.6	191.9	204.9	191.9	192.6	193.4	191.5	190.2	196.5	189.0	201.0
p value	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Weak Identification test												
Cragg-Donald Wald F statistic	195.0	194.0	195.3	208.8	195.3	196.0	196.8	194.9	193.6	196.5	192.2	204.8
Stock-Yogo weak ID test critical values 10% maximal	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
Overidentification test of all instruments	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified
Endogeneity test of endogenous regressors:	0.60	0.76	0.60	0.01	0.18	0.92	1.09	0.11	0.55	3.30	4.50	1.03
p value	0.44	0.38	0.44	0.92	0.67	0.34	0.30	0.74	0.46	0.07	0.03	0.31

*Note: Data are weighted by respondent's survey sampling weight. Gini at municipality level and lagged (2000 and 2005). Unemployment rate at state level and lagged (2002 and 2006). Treated municipalities in bottom 9 deciles of drug-related homicides during 2006-2009. Significance Level * p<0.10, ** p<0.05, *** p<0.001. Standard errors in parentheses. Source: ENSI 2005, 2010. Gini, unemployment INEGI. Drug-related homicides SNSP. Municipalities with operating narcos Gutiérrez-Romero and Oviedo (2014).*

Table A.7 First Stage IV Results from Difference-in-Difference Controls vs. Treated by Cartels

	Car theft (1)	Theft of car accessories (2)	Household Burglary (3)	Mugging (4)	Kidnapping (5)	Lesions (6)	Sexual crime (7)	Fraud (8)	Extorsion (9)	Other thefts (10)	Other crimes (12)	Suffered any kind of crime (13)
Post-treatment dummy	0.074***	0.074***	0.074***	0.076***	0.074***	0.075***	0.074***	0.074***	0.074***	0.074***	0.074***	0.076***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Respondent is a female	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Respondent's age	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Respondent is an entrepreneur	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Respondent's has highschool or higher education level	0.007*	0.006	0.007*	0.008**	0.007*	0.007	0.007*	0.007*	0.007*	0.007*	0.007*	0.008*
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Respondent's size of household	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Lagged Ln Gini of the municipality where crime ocurred	-0.958***	-0.960***	-0.957***	-0.954***	-0.958***	-0.960***	-0.958***	-0.958***	-0.960***	-0.961***	-0.959***	-0.957***
	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)
Lagged unemployment rate of the state where crime ocurred	0.125***	0.124***	0.125***	0.123***	0.125***	0.124***	0.124***	0.125***	0.125***	0.124***	0.124***	0.121***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Municipality where crime ocurred was decentralized in 2005*Post treatment dummy	-0.094***	-0.094***	-0.094***	-0.097***	-0.094***	-0.094***	-0.094***	-0.094***	-0.094***	-0.094***	-0.093***	-0.096***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
R2	0.317	0.316	0.316	0.315	0.317	0.317	0.316	0.317	0.317	0.317	0.316	0.314
Observations	10850	10830	10845	10799	10850	10840	10850	10849	10839	10845	10844	10755
F test of excluded instruments:	193.97	193.97	195.32	208.79	195.31	196.03	196.80	194.85	193.56	196.52	192.25	204.76
Prob > F	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Underidentification test												
Anderson canon. corr. LM statistic	195.04	190.63	191.94	204.90	191.93	192.62	193.36	191.48	190.24	193.09	188.97	201.00
p value	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Weak Identification test												
Cragg-Donald Wald F statistic	135.3	194.0	195.3	208.8	195.3	196.0	196.8	194.9	193.6	196.5	192.2	204.8
Stock-Yogo weak ID test critical values 10% maximal	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
Overidentification test of all instruments	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified
Endogeneity test of endogenous regressors:	0.60	0.76	0.60	0.01	0.18	0.92	1.09	0.11	0.55	3.30	4.50	1.03
p value	0.44	0.38	0.44	0.92	0.67	0.34	0.30	0.74	0.46	0.07	0.03	0.31

*Note: Data are weighted by respondent's survey sampling weight. Gini at municipality level and lagged (2000 and 2005). Unemployment rate at state level and lagged (2002 and 2006). Treated municipalities with cartels operating in 2006 or after but no drug-related homicides during 2006-2009. Significance Level * p<0.10, ** p<0.05, *** p<0.001. Standard errors in parentheses. Source: ENSI 2005, 2010. Gini, unemployment INEGI. Drug-related homicides SNSP. Municipalities with operating narcos Gutiérrez-Romero and Oviedo (2014).*

Table A.8: First Stage IV results from Impact of Drug-Related Homicides and Cartels on Respondent's Perceptions

	Respondents living in municipalities used as control vs treated by drug-related homicides							Respondents living in municipalities used as control vs treated by cartels but not drug-related homicides						
	Believes crime increased in municipality	Believes living in this municipality is unsafe	Does not trust the local police	No longer goes out at night	No longer visits friends and relatives	No longer uses taxis	No longer uses public transport	Believes crime increased in municipality	Believes living in this municipality is unsafe	Does not trust the local police	No longer goes out at night	No longer visits friends and relatives	No longer uses taxis	No longer uses public transport
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(12)	(13)	(14)	(15)
Post-treatment dummy	0.879***	0.878***	0.883***	0.881***	0.879***	0.900***	0.870***	0.111***	0.110***	0.116***	0.122***	0.113***	0.102***	0.106***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.006)	(0.006)	(0.007)	(0.006)	(0.006)	(0.009)	(0.006)
Respondent is a female	0.003**	0.003**	0.002	0.003**	0.003**	0.004**	0.004**	0.003	0.002	0.001	0.001	0.002	-0.004	-0.000
	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.002)	(0.001)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)	(0.003)
Respondent's age	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000*	-0.000**	0.000	-0.000	-0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Respondent is an entrepreneur	0.006**	0.006**	0.004**	0.005**	0.006**	0.001	0.009***	0.002	0.002	0.002	0.001	0.002	0.003	0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)	(0.005)	(0.004)
Respondent's has highschool or higher education level	-0.002	-0.002	-0.001	-0.001	-0.001	-0.001	-0.001	0.006	0.007	0.001	0.010**	0.006	0.008	0.004
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)	(0.006)	(0.005)
Respondent's size of household	-0.000	-0.000	-0.000	-0.000	-0.000	0.000	-0.000	-0.000	-0.000	-0.001	-0.000	-0.001	-0.000	-0.001
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Lagged Ln Gini of the municipality where crime ocurred	0.001	0.001	0.027	-0.003	0.001	0.067***	0.006	-0.666***	-0.692***	-0.643***	-0.663***	-0.666***	-0.317***	-0.613***
	(0.016)	(0.015)	(0.017)	(0.016)	(0.016)	(0.018)	(0.017)	(0.043)	(0.042)	(0.047)	(0.044)	(0.042)	(0.065)	(0.045)
Lagged unemployment rate of the state where crime ocurred	-0.019***	-0.018***	-0.021***	-0.017***	-0.018***	-0.002	-0.012***	0.150***	0.152***	0.135***	0.147***	0.147***	0.180***	0.143***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.005)	(0.005)	(0.006)	(0.005)	(0.005)	(0.007)	(0.006)
Municipality where crime ocurred was decentralized in 2005*Post treatment dummy	-0.061***	-0.059***	-0.065***	-0.062***	-0.061***	-0.045***	-0.052***	-0.084***	-0.082***	-0.075***	-0.093***	-0.084***	-0.036***	-0.074***
	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)	(0.004)	(0.003)	(0.007)	(0.007)	(0.008)	(0.007)	(0.007)	(0.011)	(0.008)
R2	0.845	0.845	0.844	0.847	0.845	0.877	0.843	0.270	0.274	0.256	0.273	0.269	0.282	0.249
Observations	55716	56988	45206	52938	55770	35475	47311	10447	10735	8394	9898	10497	5049	8969
F test of excluded instruments:	363.75	348.09	331.04	363.73	366.71	150.53	220.83	199.18	193.14	156.66	223.09	202.39	20.88	148.05
Prob > F	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Underidentification test														
Anderson canon. corr. LM statistic	361.41	346.00	328.66	361.27	364.34	149.92	219.83	195.52	189.80	153.86	218.23	198.63	20.83	145.72
p value	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Weak Identification test														
Cragg-Donald Wald F statistic	363.75	348.09	331.04	363.73	366.71	150.53	220.84	199.18	193.14	156.66	223.09	202.39	20.88	148.05
Stock-Yogo weak ID test critical values 10% maximal	16.38	16.38	16.38	16.38	16.38	16.38	16.38	16.38	16.38	16.38	16.38	16.38	16.38	16.38
Overidentification test of all instruments	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified
Endogeneity test of endogenous regressors:	19.49	1.73	1.18	5.00	11.91	0.06	2.72	0.85	2.23	0.27	0.01	0.82	0.06	0.03
p value	0.00	0.19	0.28	0.03	0.00	0.81	0.10	0.36	0.14	0.61	0.95	0.36	0.81	0.86

*Note: Data are weighted by respondent's survey sampling weight. Gini at municipality level and lagged (2000 and 2005). Unemployment rate at state level and lagged (2002 and 2006). Significance Level * p<0.10, ** p<0.05, *** p<0.001. Standard errors in parentheses. Source: ENSI 2005, 2010. Gini, unemployment INEGI. Drug-related homicides SNSP. Municipalities with operating narcos Gutiérrez-Romero and Oviedo (2014).*

Table A.9: First Stage IV impact of Drug-Related Homicides and Cartels on Respondent's Actions

	Respondents living in municipalities used as control vs treated by drug-related homicides								Respondents living in municipalities used as control vs treated by cartels but not drug-related homicides							
	Bought an insurance policy (1)	Improved security (locks, walls, alarms, got a dog) (2)	Hired private police (3)	Increased security in car (4)	Experienced crime and moved of address afterwards (5)	Experienced crime, but did not officially report crime (6)	reported crime, but nothing happened as a result (7)	Officially reported crime, and recovered stolen items (8)	Bought an insurance policy (9)	Improved security (locks, walls, alarms, got a dog) (10)	Hired private police (12)	Increased security in car (13)	Experienced crime and moved of address afterwards (14)	ed crime, but did not officially report crime (15)	Officially reported crime, but nothing happened as a result (12)	Officially reported crime, and recovered stolen items (13)
Post-treatment dummy	0.878***	0.878***	0.878***	0.892***	0.954***	0.995***	1.028***	1.007***	0.076***	0.075***	0.070***	0.102***	-0.001	-0.008**	-0.015	-0.009
	(0.003)	(0.003)	(0.003)	(0.003)	(0.015)	(0.006)	(0.011)	(0.010)	(0.006)	(0.006)	(0.006)	(0.007)	(0.004)	(0.004)	(0.010)	(0.010)
Respondent is a female	0.004**	0.003**	0.003**	0.004**	-0.002	-0.006	0.004	-0.001	0.001	0.001	0.001	0.002	0.002	-0.001	-0.001	0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.009)	(0.004)	(0.006)	(0.005)	(0.003)	(0.003)	(0.003)	(0.003)	(0.002)	(0.002)	(0.005)	(0.005)
Respondent's age	-0.000	-0.000	-0.000	-0.000	0.000	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.000	0.000	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Respondent is an entrepreneur	0.006**	0.006**	0.006**	0.006**	0.017*	-0.001	-0.013*	-0.007	0.002	0.003	0.003	0.003	-0.003	-0.002	0.004	0.003
	(0.002)	(0.002)	(0.002)	(0.002)	(0.010)	(0.004)	(0.008)	(0.007)	(0.003)	(0.003)	(0.003)	(0.004)	(0.003)	(0.002)	(0.006)	(0.006)
Respondent's has highschool or higher education level	-0.001	-0.002	-0.001	-0.001	-0.005	0.003	-0.002	0.009	0.008*	0.007*	0.008*	0.007*	0.000	-0.001	-0.010**	-0.009*
	(0.002)	(0.002)	(0.002)	(0.002)	(0.009)	(0.004)	(0.006)	(0.006)	(0.004)	(0.004)	(0.004)	(0.004)	(0.002)	(0.002)	(0.005)	(0.005)
Respondent's size of household	-0.000	-0.000	-0.000	0.000	0.003	0.001	0.005**	0.002	0.000	0.000	0.000	0.000	-0.000	-0.001**	-0.003*	-0.002
	(0.000)	(0.000)	(0.000)	(0.000)	(0.003)	(0.001)	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
Lagged Ln Gini of the municipality where crime ocurred	-0.006	0.000	-0.005	-0.020	-0.042	0.096**	0.262***	0.092	-0.949***	-0.958***	-0.955***	-1.027***	-0.012	-0.068**	-0.061	-0.049
	(0.015)	(0.015)	(0.015)	(0.016)	(0.084)	(0.038)	(0.065)	(0.057)	(0.031)	(0.031)	(0.031)	(0.035)	(0.023)	(0.024)	(0.058)	(0.059)
Lagged unemployment rate of the state where crime ocurred	-0.018***	-0.019***	-0.018***	-0.016***	-0.048***	-0.040***	-0.041***	-0.020**	0.120***	0.124***	0.122***	0.126***	0.006*	0.012***	0.020**	0.015**
	(0.002)	(0.002)	(0.002)	(0.002)	(0.012)	(0.005)	(0.008)	(0.007)	(0.005)	(0.005)	(0.005)	(0.006)	(0.003)	(0.003)	(0.007)	(0.007)
Municipality where crime ocurred was decentralized in 2005*Post treatment dummy	-0.062***	-0.060***	-0.060***	-0.074***	0.037*	-0.083***	-0.075***	-0.047***	-0.094***	-0.094***	-0.090***	-0.131***	-0.002	0.018***	0.043***	0.030**
	(0.003)	(0.003)	(0.003)	(0.003)	(0.020)	(0.008)	(0.015)	(0.013)	(0.007)	(0.007)	(0.007)	(0.008)	(0.005)	(0.005)	(0.012)	(0.012)
R2	0.845	0.845	0.845	0.857	0.943	0.940	0.964	0.974	0.311	0.316	0.312	0.345	0.015	0.028	0.062	0.044
Observations	56706	57324	56717	48335	872	4508	1058	960	10639	10801	10591	8515	623	3173	776	696
F test of excluded instruments:	378.27	357.98	361.94	494.17	3.27	100.14	24.57	12.28	192.62	196.19	177.36	281.02	0.12	15.96	13.49	6.65
Prob > F	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.01
Underidentification test																
Anderson canon. corr. LM statistic	375.8	355.8	359.7	489.2	3.3	98.0	24.1	12.2	189.3	192.8	174.5	272.0	0.1	15.9	13.4	6.7
p value	0.00	0.0	0.0	0.0	0.07	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.01
Weak Identification test																
Cragg-Donald Wald F statistic	378.3	358.0	361.9	494.2	3.3	100.1	24.6	12.3	192.6	196.2	177.4	281.0	0.1	16.0	13.5	6.7
Stock-Yogo weak ID test critical values 10% maximal	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
Overidentification test of all instruments	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified
Endogeneity test of endogenous regressors:	0.1	23.0	42.5	22.1	0.0	1.6	2.6	0.3	10.0	0.6	0.1	2.5	0.0	2.1	0.3	0.1
p value	0.7	0.0	0.0	0.0	1.0	0.2	0.1	0.6	0.0	0.4	0.8	0.1	0.9	0.1	0.6	0.7

*Note: Data are weighted by respondent's survey sampling weight. Gini at municipality level and lagged (2000 and 2005). Unemployment rate at state level and lagged (2002 and 2006). Significance Level * p<0.10, ** p<0.05, *** p<0.001. Standard errors in parentheses. Source: ENSI 2005, 2010. Gini, unemployment INEGI. Drug-related homicides SNSP. Municipalities with operating narcos Gutiérrez-Romero and Oviedo (2014).*

Table A.10 First Stage IV differences in security spending, participation and impunity in 2010 between respondents living in controls and treated municipalities

	Spent in security USD				Believes his/her participation is important to reduce crime				Believes that criminals are punished in this municipality				Believes federal goverment strategy against organised crime is working			
	Panel A	Panel B	Panel C	Panel D	Panel A	Panel B	Panel C	Panel D	Panel A	Panel B	Panel C	Panel D	Panel A	Panel B	Panel C	Panel D
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Post-treatment dummy	-0.008	0.017	-0.009	0.022	-0.003	0.012*	-0.003	0.004	-0.002	0.010	-0.002	0.003	-0.001	0.011	-0.001	0.005
	(0.008)	(0.012)	(0.008)	(0.018)	(0.005)	(0.007)	(0.005)	(0.009)	(0.005)	(0.007)	(0.005)	(0.009)	(0.005)	(0.007)	(0.005)	(0.009)
Respondent is a female	-0.000	0.001**	-0.000	0.000	0.000	0.001**	0.000	0.000	-0.000	0.001**	-0.000	0.000	0.000	0.001***	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Respondent's age	-0.007	-0.029*	-0.005	-0.023	-0.007	-0.005	-0.006	0.001	-0.007	-0.011	-0.007	-0.000	-0.008	-0.007	-0.007	0.001
	(0.010)	(0.015)	(0.010)	(0.022)	(0.006)	(0.009)	(0.006)	(0.011)	(0.006)	(0.009)	(0.006)	(0.011)	(0.006)	(0.009)	(0.007)	(0.011)
Respondent is an entrepreneur	0.057***	-0.002	0.059***	0.048*	0.051***	-0.007	0.053***	0.055***	0.052***	-0.010	0.054***	0.056***	0.049***	-0.007	0.051***	0.052***
	(0.009)	(0.017)	(0.009)	(0.026)	(0.007)	(0.011)	(0.007)	(0.015)	(0.007)	(0.011)	(0.007)	(0.015)	(0.007)	(0.011)	(0.007)	(0.015)
Respondent's has highschool or higher education level	-0.006**	-0.010**	-0.006**	-0.005	-0.006***	-0.008***	-0.006***	-0.005**	-0.007***	-0.008***	-0.007***	-0.006**	-0.007***	-0.008***	-0.007***	-0.005**
	(0.002)	(0.003)	(0.002)	(0.005)	(0.001)	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)
Respondent's size of household	0.886***	0.344***	0.883***	0.468***	0.987***	0.534***	0.976***	0.441***	0.984***	0.532***	0.972***	0.413***	0.990***	0.532***	0.979***	0.429***
	(0.044)	(0.058)	(0.044)	(0.088)	(0.026)	(0.033)	(0.026)	(0.045)	(0.026)	(0.033)	(0.026)	(0.045)	(0.026)	(0.034)	(0.027)	(0.046)
Lagged Ln Gini of the municipality where crime ocurred	0.071***	-0.013*	0.073***	0.058***	0.076***	-0.018***	0.080***	0.044***	0.075***	-0.019***	0.078***	0.045***	0.073***	-0.020***	0.077***	0.044***
	(0.005)	(0.007)	(0.005)	(0.012)	(0.003)	(0.004)	(0.003)	(0.005)	(0.003)	(0.004)	(0.003)	(0.005)	(0.003)	(0.004)	(0.003)	(0.006)
Lagged unemployment rate of the state where crime ocurred	-0.045***	0.082***	-0.052***	-0.083***	-0.072***	0.059***	-0.080***	-0.077***	-0.071***	0.058***	-0.080***	-0.077***	-0.072***	0.063***	-0.080***	-0.079***
	(0.008)	(0.012)	(0.008)	(0.018)	(0.005)	(0.007)	(0.005)	(0.009)	(0.005)	(0.007)	(0.005)	(0.009)	(0.005)	(0.007)	(0.005)	(0.009)
Municipality where crime ocurred was decentralized in 2005	1.383***	0.359***	1.375***	0.401***	1.433***	0.562***	1.411***	0.438***	1.439***	0.566***	1.417***	0.423***	1.446***	0.559***	1.426***	0.436***
	(0.039)	(0.058)	(0.040)	(0.095)	(0.024)	(0.033)	(0.024)	(0.047)	(0.024)	(0.033)	(0.024)	(0.046)	(0.024)	(0.033)	(0.025)	(0.048)
R2	0.066	0.065	0.068	0.064	0.079	0.056	0.082	0.059	0.078	0.057	0.081	0.058	0.077	0.059	0.080	0.057
Observations	9071	1828	8920	1377	28576	7055	27891	5466	28833	7156	28128	5546	27968	6837	27303	5282
F test of excluded instruments:	30.07	44.05	37.86	21.04	214.63	74.81	255.219	72.60	210.93	71.86	252.88	74.51	278.57	82.52	250.320	73.24
Prob > F	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Underidentification test																
Anderson canon. corr. LM statistic	30.0	43.2	37.7	20.9	213.092	74.114	257.493	71.761	209.467	71.233	250.709	73.64	209.26	81.645	252.553	72.363
p value	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00
Weak Identification test																
Cragg-Donald Wald F statistic	30.1	44.0	37.9	21.0	214.626	74.806	3.245	72.596	210.934	71.859	252.883	74.51	209.258	82.523	333.653	73.243
Stock-Yogo weak ID test critical values 10% maximal	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
Overidentification test of all instruments	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified	exactly identified
Endogeneity test of endogenous regressors:	0.03	9.91	0.00	10.55	6.536	0.306	3.553	0.201	3.645	0.917	1.009	2.519	26.468	15.963	21.24	24.2
p value	0.86	0.00	0.97	0.00	0.01	0.58	0.07	0.65	0.06	0.34	0.32	0.11	0.00	0.00	0.00	0.00

Note: Panel A: Controls vs. all treated municipalities by drug-related homicides. Panel B: Controls vs. treated municipalities top 10 decile drug-related homicides. Panel C: Controls vs. treated municipalities in bottom 9 deciles of drug-related homicides. Panel D: Controls vs. treated by cartels but no drug-related homicides.

*Data are weighted by respondent's survey sampling weight. Gini at municipality level and lagged (2000 and 2005). Unemployment rate at state level and lagged (2002 and 2006). Significance Level * p<0.10, ** p<0.05, *** p<0.001. Standard errors in parentheses. Source: ENSI 2005, 2010. Gini, unemployment INEGI. Drug-related homicides SNSP. Municipalities with operating narcos Gutiérrez-Romero and Oviedo (2014).*