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How Government Coordination Controlled Organized Crime: The Case of Mexico's Cocaine Markets

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Abstract

This article provides empirical evidence showing that when a multilevel government is well coordinated, organized crime can be more effectively controlled. Using a time-variant data set of Mexico's cocaine markets at the subnational level and Cox proportional-hazards regressions, I show that when Mexico's democratization decreased the probability of government coordination—the same party governing a municipality at every level of government—drug traffickers were more likely to violate the long-standing informal prohibition on selling cocaine within the country. It was this decrease in government coordination that would set the conditions for a violent war between drug cartels to erupt in the mid-2000s.

Keywords

democratic institutions, conflict, democratization, foreign policy, international institutions, international security, internal armed conflict, foreign policy decision making

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It was as if one day Mexican criminal organizations suddenly discovered violence. Despite having trafficked drugs into the United States for decades, it was not until the mid-2000s that criminal organizations began an all-out battle to control drug production and transit zones, which significantly increased homicide rates in Mexico. Just from 2007 to 2012, organized criminal violence caused an estimated 60,000 casualties, more than tripling Mexico's homicide rate (Molzahn, Rios, and Shirk 2012; Molzahn, Rodriguez, and Shirk 2013;). Bodies were found tortured and decapitated next to messages directed to "all those in charge of applying the law" saying "Do not take part in our affairs or you'll die" (El Mexicano 2010). Citizens were alerted and even reassured that this was not an attack on society at large, "This war is between us, the traffickers" (El Mexicano 2009).

Scholars who have ventured to provide an explanation as to why Mexican criminal organizations seem to be more prone to violent behavior now than during the 1990s argue that it was the ascent to power of Mexico's opposition parties that diminished the ability of the Mexican government to control crime (Astorga 2001; Snyder and Duran-Martinez 2009; Astorga and Shirk 2010). According to this arrangement, criminals could traffic drugs into the United States as long as they fulfilled two conditions (Guerrero 2009b). First, they must not be visibly violent. Second, they must not sell drugs inside Mexico. In the face of violations of this agreement, the state lost its capacity to control organized crime, which became more prone to violence (Astorga 2001; Snyder and Duran-Martinez 2009; Astorga and Shirk 2010).

My argument complements those who have explained violence as the breakdown of political control through Mexico's process of democratization (Astorga 2001; Snyder and Duran-Martinez 2009; Osorno 2009; Astorga and Shirk 2010; Dell 2011; Rios 2012a). With data on Mexico's domestic cocaine markets recorded for the period 1990–2010, I provide evidence that the breakdown of single-party hegemony, that is, an increase in the number of localities where different parties controlled different levels of government, led to a breakdown of the surreptitious pact between the state and organized crime groups in Mexico. Specifically, I show that the capacity of the state to contain the emergence of cocaine markets within Mexico weakened with democratization.[1]

This vertical government heterogeneity[2] affected the capacity of the state to contain the emergence of cocaine markets because it affected coordination and cooperation between different levels of government. The reason is straightforward: parties aggregate like-minded political actors who share preferences, interests, and beliefs more than they do with their rivals. In other words, government heterogeneity results in a state in which different levels of government do not share policy objectives,[3] whether those policies promote the rule of law or, as in the case of Mexico, constitute a corrupt "law of rules" (Morris 2013). Thus, everything else equal, different levels of government should be more able to coordinate with governments of their own party. With respect to organized crime, when all levels of government agree on pursuing a single, coherent policy, authorities can better enforce the rules by sharing

intelligence information, learning one from another, and taking advantage of economies of scale. As well, coordination makes control more efficient because it reduces the capacity of criminals to evade discipline by co-opting one level of government to obtain information about what another level will do. In coordination, all levels are allies whose actions complement. To be clear, however, this does not mean coordination precludes corruption, rather, it affects the way in which corruption works. It is not about the degree of corruption, but about its functioning. When coordination is lacking, corrupt pacts with one part of the government reduce the probability that disciplinary measures conducted by another level will succeed.

Analyzing the effects of ruling-party heterogeneity contributes to our understanding of Mexican organized crime by illuminating how democratization affected the ability of the government to control criminals. This analysis speaks directly to the scholarship on indirect ways in which the state may function as a mediator of conflict (Fearon and Laitin 2003; Garfinkel 2004; Powell 2006; Besley and Persson 2008). As well, it builds upon an extensive literature on the role that rules play in bringing together competing groups to commit and compromise in order to promote cooperation and avoid violence (E. Ostrom 1990; Axelrod and Keohane 1985; Taylor 1982; Cowen and Sutter 2005; Leeson and Coyne 2012; Skaperdas 2008). Finally, I believe that this work responds to the call (Blattman and Miguel 2010) to identify particular mechanisms—both formal and informal—that help to minimize violence, a crucial goal for social science.

This article is divided into five sections. The first describes the puzzle of Mexico's criminal violence and my theory about government coordination and domestic drug-selling deterrence. A second describes the empirical design I use to test my theory. A third section presents the results of logits, Cox proportional-hazards regressions, and matching models to show how lack of government coordination is positively correlated with the emergence of domestic cocaine markets in Mexico. The fourth relates this finding to Mexico's recent escalation in homicide rates, providing a description of criminal–state relations before and during Mexico's "drug war" to show how lack of government coordination created incentives for criminal organizations to react more violently after the crackdown begun in 2006 than after previous ones. The fifth section presents my conclusions. For a background on the general trends in violence in Mexico in recent years, the reader is advised to start with the introductory article of this issue, which provides a primer on violence in Mexico related to drug trafficking.

Party Hegemony and Drug Trafficking

For most of the twentieth century, Mexico was classified as a nondemocratic country ruled by a single party. Numerous scholars have detailed how Mexico's political regime dynamics allowed an arrangement between authorities and drug traffickers to flourish (Astorga 2001; Astorga and Shirk 2010; Dell 2011; Snyder and Duran-Martinez 2009). Corrupt officials from the ruling Institutional Revolutionary Party

(Partido Revolucionario Institucional [PRI]) established a "Pax Mafiosa" by allowing criminal organizations to engage in illicit drug trafficking at the US–Mexico border, even giving protection against one or another rival organization, in exchange for bribes. (This topic is discussed subsequently in greater detail in "The Case of Mexico's Drug War."). Yet, they stipulated that criminal groups must abstain from two practices: (1) flagrant violence and (2) selling drugs within Mexico (Patenostro 1995; Valle 1995; Andreas 1998; M. I. Gómez and Fritz 2005; Guerrero 2009b).

Selling drugs to the United States was an illegal venture that Mexican authorities were willing to tolerate (and profit from), but selling drugs in Mexico and public displays of violence were crimes that directly affected Mexican citizens and thus were unacceptable. International drug trafficking was considered a business, and domestic drug selling was viewed as a crime.

This pact remained a relatively stabilizing force in the country and both criminal violence and domestic illegal drug markets remained contained. This all changed, Astorga (2001) explains, when opposition parties started coming into power, and particularly when in 2000 Vicente Fox, a charismatic leader of an opposition party, the National Action Party (Partido Acción Nacional [PAN]), was elected president in what many analysts believe to be the first truly democratic election in the country. The rise of opposition parties to power brought about several changes, among them a dramatic redefinition of the relationship between the government and criminal organizations. New politicians from opposition parties lacked the experience, networking, and discretionary powers to maintain the conventional pact. As a result, their capacity to control crime diminished and criminal organizations gradually dared to break the pact.

In an effort to clarify how democratization affected organized crime, I provide indirect statistical evidence that the rise of opposition parties weakened the ability of the government to inhibit criminals from selling drugs within Mexico. Enforcement of this prohibition weakened in municipalities that were ruled by different parties at the state and local level. Democratization, the opening up of the political system to electoral competition, made this type of government heterogeneity more likely to emerge.

To reiterate, coordination, under both corrupt and relatively clean regimes, facilitates the control of organized crime for two reasons. First, coordination provides the government with more efficient mechanisms of control. It allows authorities to better enforce the rules because when operating as a single decision-making body, different entities can share both intelligence and techniques of control. Furthermore, when operations require the concentration of force, different levels can combine their resources and generate economies of scale.

Second, criminals have a harder time buying information about the operations conducted by different levels of government if all levels act harmoniously. And, to repeat, this does not mean that coordination necessarily entails less corruption than noncoordination. Government levels may ally to be *uniformly* corrupt to participate in a single system of corruption. A coordinated government could encourage,

for example, a more vertical corruption, where higher spheres of power control corruption procedures such that they benefit more from bribes than do local governments. Local governments may accept this arrangement if, in addition to or instead of money, they obtain benefits not directly related to corruption by being obedient to superior levels. For example, members of local governments may wish to please agents of higher spheres in hope of advancing within the government hierarchy. By contrast, with a heterogeneous, noncoordinated government, local governments would not have the same incentives to please levels above them.

Empirical Test

The most important testable implication of my argument is that the government would be less able to control criminal organizations from selling drugs within Mexico where different levels of government were ruled by different parties. Using a proxy employed by others who have tracked the geographic spread of cocaine use (Evans, Garthwaite, and Moore 2012; Grogger and Willis 2000), I assume that recorded cases of cocaine consumption via hospitalizations or mortal overdoses are evidence of cocaine being sold in an area.[4] While arrests for drug offenses—particularly arrests for minor possession—would offer more direct evidence of the presence of a local market, there is little reliable information on minor drug possession charges in Mexico. Moreover, even minor possession leaves some speculation about whether the drugs were to be consumed by the person carrying them. In contrast, medical examiner reports offer an easily accessible and highly reliable source of data in Mexico and provide very strong evidence of consumption.

The dependent variable thus indicates whether in a municipality cocaine is sold (1) or not (0). For each municipality *i*, I identify the first year in which a case of cocaine overdose was officially recorded there (because a person either died or was hospitalized because of cocaine consumption). The measure was obtained by surveying Mexican mortality certificates and hospitalization records (Sistema Nacional de Información en Salud de la Secretaría de Salud Federal [SINAIS] 2009; Instituto Nacional de Estadística y Geografía [INEGI] 2010).[5] The data set that I surveyed for this article contains cases of registered cocaine overdoses from 1990 to 2010. I find far fewer cases of death than hospitalization due to cocaine overdose. The geography of domestic cocaine consumption from 1990 to 2010, as evidenced by hospitalization and deaths due to cocaine consumption, is shown in Figure 1.

The main explanatory variable is dichotomous and measures whether state and municipal governments were coordinated (1 = *ruled by the same party*) or not (0 = *ruled by different parties*) in a given year for each of the 2,457 Mexican municipalities for which I have data.[6] This variable covers three parties PRI, PAN, and PRD (Partido de la Revolución Democrática) plus a residual category (others). Figure 2 provides maps showing coordinated municipalities from 1990 to 2010.

While government heterogeneity is a common outcome in most federal systems, Mexico has had progressively increasing patterns of government heterogeneity. As

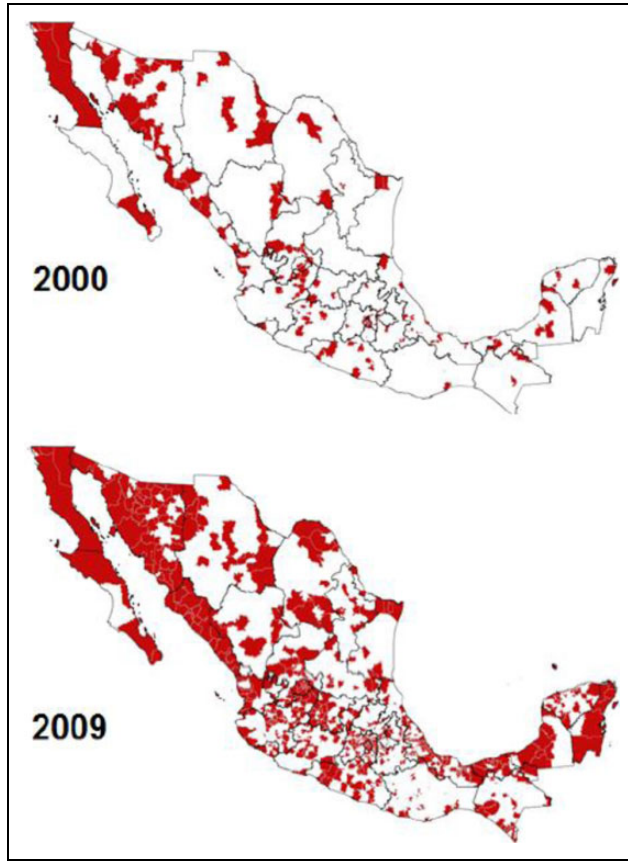

Figure 1. Municipalities with evidence of domestic cocaine sales (as indicated by overdoses). *Source:* Sistema Nacional de Información en Salud de la Secretaría de Salud Federal (SINAIS 2009) and Instituto Nacional de Estadística y Geografía (INEGI 2009).

R. Hernández (2008) has argued, over the course of the 90s and the early part of this century, Mexico's government went from being a strongly homogeneous regime in which a single, authoritarian, hegemonic party held a monopoly over decision making to a quite politically heterogeneous country ruled by many parties with independent decision-making capacity. However, the arrival of new, opposition parties did not occur simultaneously throughout the country. While some states, such as Veracruz, are still largely ruled by the same party at the state and municipal levels, others, such as Guerrero, are ruled by different parties at different levels of government, each one of which makes independent decisions at its own level of command. This variation gives us the opportunity to treat heterogeneity as a phase-in treatment.

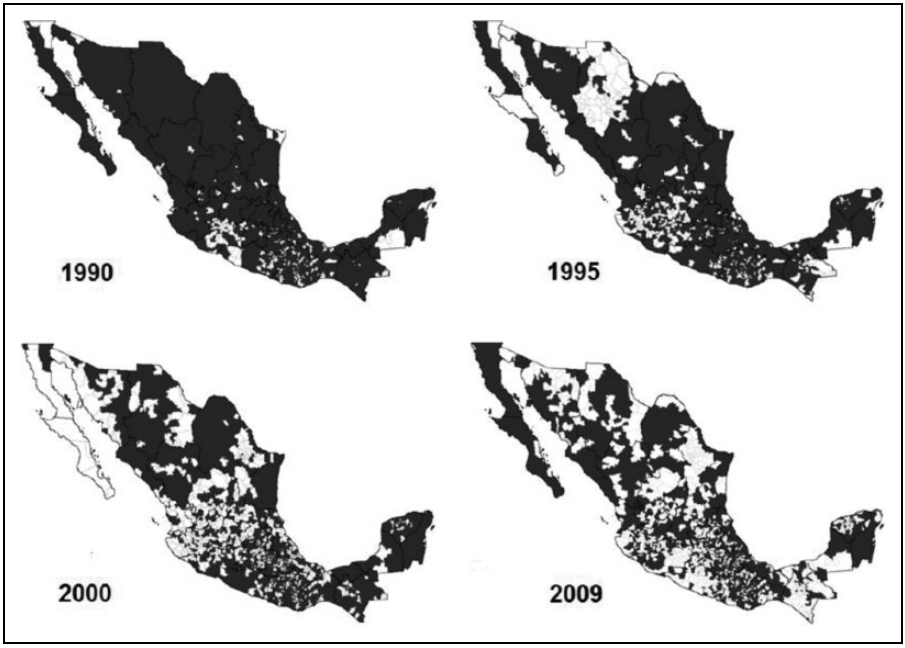

Figure 2. Municipalities ruled by the same party at local and state governments. *Source:* El Centro de Investigación para el Desarrollo, A. C. (CIDAC 2011).

To ensure that other conditions that may increase the probability of the existence of a cocaine market are the same, independent of whether a municipality is coordinated or not, I include control variables that predict cocaine demand. As urban areas are the places where cocaine is most in demand, I control for population size. As adolescents and young adults have higher consumption rates, I add a control for the share of people between fifteen and twenty-four years of age using Mexico's census data (INEGI 2010). I also control for income inequality (Gini; INEGI 2010), poverty operationalized as "Índice de Marginalización," which is a variable created by the Mexican government to measure wealth and quality of life within a municipality (INEGI 2010), proximity to the border, number of available hospitals (SINAIS 2009), and their recording capacity. To proxy recording capacity, I measured the regularity with which another kind of overdose—caffeine—was coded, because hospital personnel follow a similar procedure to record all types of overdoses (SINAIS 2009). The assumption is that hospitals with a better capacity to record caffeine overdoses are also more able to identify cocaine overdoses. Information on the number of hospitals was available only for the last ten years of the sample. Descriptive statistics of all the control variables included in the model are presented in Table 1.

Table 1. Descriptive Statistics.

Descriptive statistics, total						
Variable	Minimum	First quartile	Median	Mean	Third quartile	Maximum
Gini	0.22	0.40	0.426	0.431	0.461	0.690
Hospitals	1	2	3	5.856	7	101
Poverty	−2.459	−0.835	−0.16	−0.082	0.574	4.363
Population	0.002	0.057	0.144	0.476	0.339	18.57

Note: Hospitals are the number of hospitals in a municipality (Sistema Nacional de Información en Salud de la Secretaría de Salud Federal [SINAIS] 2009), poverty is operationalized as the "Indice de Marginacion", and population has been scaled to numbers per 100,000 inhabitants (Instituto Nacional de Estadística y Geografía [INEGI] 2010).

Results

In this section, I present the main results of three empirical specifications: (1) a binomial regression model, (2) a Cox proportional-hazards regression with time-dependent covariates, and (3) a logit that uses a matched sample. A first empirical specification is a binomial regression model (logit) where the dependent variable is given by whether a municipality has an open (1) or closed (0) market for cocaine at year y, where $y^{\exists}\{1990, 1991, \ldots, 2010\}$. All covariates in logit models are lagged by one year such that coordination in year $y - 1$ predicts the status of cocaine markets in year y. A control for the status of cocaine markets in year $y - 1$ is also included.

Models 1 and 2 present the most basic results (Table 2). Model 1 shows how coordination has a negative and significant coefficient, meaning that when municipalities are uncoordinated the probability of having an open cocaine market in the next time period increases by 29 percent. With this specification, being 100 km closer to the border leads to an increase of 3.4 percent in the probability of having an open cocaine market. As expected, larger populations, higher proportion of young adults, larger income inequality, lower poverty, more hospitals, and better medical recording capacity are positively correlated with having cocaine overdoses. Model 2 is a placebo test. It presents a similar specification but changes hospitalizations and overdoses for cocaine to caffeine.[7] Unlike with cocaine, and as we would expect, government coordination does not predict placebo cases. Caffeine consumption is not discouraged by government coordination.

Models 3–7 provide additional specifications. Model 3 introduces year fixed effects used to capture annual changes in the counterdrug strategy at the national level. Gini is not significant in this specification. State fixed effects are added in model 4 to control for geographical heterogeneity and introduce no significant changes. Medical recording capacity is not significant in this specification. Both state and year fixed effects are added in model 5. Coordination is still significant and its effect slightly increased. An uncoordinated municipality carries a 31 percent

Table 2. The Effect of Government Coordination on Cocaine Overdoses, Logit Model.

	Dependent variable						
	Cocaine (Model 1)	Caffeine (Model 2)	Cocaine (Model 3)	Cocaine (Model 4)	Cocaine (Model 5)	Cocaine (Model 6)	Caffeine (Model 7)
Coordination	−0.293** (0.114)	0.175 (0.187)	−0.326*** (0.114)	−0.290** (0.120)	−0.312** (0.121)	−0.300** (0.132)	−0.131 (0.085)
Population	0.701*** (0.107)	0.131*** (0.050)	0.618*** (0.106)	0.811*** (0.130)	0.744*** (0.131)	0.727*** (0.131)	0.473*** (0.042)
Proportion_15_24	0.179*** (0.041)	0.034 (0.062)	0.180*** (0.041)	0.213*** (0.047)	0.212*** (0.047)	0.216*** (0.047)	0.109*** (0.027)
Length_border_100	−0.034** (0.017)	−0.035 (0.028)	−0.033* (0.017)	−0.041 (0.057)	−0.036 (0.057)	−0.035 (0.057)	−0.012 (0.035)
Gini	4.687*** (1.041)	3.030 (1.877)	1.750 (1.160)	4.111*** (1.167)	1.741 (1.276)	1.697 (1.284)	−0.017 (0.906)
Poverty	−0.900*** (0.086)	−1.114*** (0.141)	−0.867*** (0.086)	−1.078*** (0.112)	−1.048*** (0.112)	−1.044*** (0.113)	−1.233*** (0.074)
Hospitals	0.054*** (0.009)	0.035*** (0.008)	0.059*** (0.009)	0.073*** (0.013)	0.077*** (0.013)	0.077*** (0.013)	0.048*** (0.007)
Recording capacity	0.834** (0.382)		0.752* (0.386)	0.576 (0.409)	0.486 (0.413)	0.474 (0.416)	
PRI-state						0.208 (0.302)	−0.178 (0.305)
PRD-state						−0.022 (0.456)	−0.067 (0.354)
PRI-local						−0.146 (0.150)	0.220** (0.099)
PRD-local						0.109 (0.193)	0.097 (0.127)
Other-local						−0.454 (0.323)	−0.153 (0.197)
Constant	−9.390*** (0.890)	−7.512*** (1.386)	−7.704*** (0.952)	−6.656*** (1.388)	−5.711*** (1.424)	−5.605*** (1.430)	−5.741*** (0.795)
Year FE	No	No	Yes	No	Yes	Yes	Yes
State FE	No	No	No	Yes	Yes	Yes	Yes
Observations	17,243	17,243	17,243	17,243	17,243	17,243	17,243
Log likelihood	−1,394.314	−644.074	−1,377.035	−1,307.518	−1,295.648	−1,293.079	−2,742.971

Note: FE = fixed effects; PRI = Partido Revolucionario Institucional.
*$p < .1$.
**$p < .05$.
***$p < .01$.

Table 3. The Effect of Government Coordination on Cocaine Overdoses, Logit Model.

	Dependent variable	
	Cocaine (Model 1.2)	Cocaine (Model 6.2)
Coordination	−0.301*** (0.116)	−0.313** (0.135)
Population	0.523*** (0.111)	0.557*** (0.136)
Proportion_15_24	0.175*** (0.042)	0.203*** (0.048)
Length_border_100	−0.053*** (0.017)	−0.031 (0.058)
Gini	4.736*** (1.066)	1.322 (1.327)
Poverty	−0.932*** (0.089)	−1.137*** (0.117)
Hospitals	0.108*** (0.013)	0.138*** (0.017)
Recording capacity	1.191*** (0.385)	0.751* (0.421)
PRI-state		0.299 (0.306)
PRD-state		0.040 (0.473)
PRI-local		−0.122 (0.152)
PRD-local		0.120 (0.198)
Other-local		−0.418 (0.325)
Constant	−9.434*** (0.918)	−5.550*** (1.455)
Year FE	No	Yes
State FE	No	Yes
Observations	16,607	16,607
Log likelihood	−1,337.548	−1,237.613

Note: FE = fixed effects; PRI = Partido Revolucionario Institucional.
*$p < .1$.
**$p < .05$.
***$p < .01$.

greater likelihood of having a cocaine market. Model 6 introduces dummies for parties ruling at the municipal and state level. I added two categorical variables to the baseline specification: one shows the party that was ruling at the state level (PRI, PAN, or PRD), and a second shows the party that was ruling at the lower level (PRI, PAN, PRD, PAN–PRD, or other). The PAN was used as a baseline category because it is the only party that is truly composed of members of the inexperienced opposition party (Chand 2000; Mizrahi 2003; Shirk 2005). PRD and other smaller parties were created by ex-PRI members (Magaloni 2009) and thus, we can assume, have inherited experience from PRI. The results are as expected. Party labels are not significant and coordination remains a solid result. A placebo test, using caffeine instead of cocaine, is introduced in model 7 to show how coordination is, again, not significant for legal drugs.

As a robustness test, I excluded municipalities with numerous hospitals—outliers on this variable showed a significant deviation from the rest of the data—rerunning models 1 and 6 as models 1.2 and 6.2 (Table 3). I found no significant change in the estimates. Overall, the logit models provide strong support for my explanation.

A second specification assesses whether coordination extends the time that a municipality has before cocaine is sold there for the first time. If coordination deters violation of the prohibition on domestic selling, we should expect that the longer a municipality has been coordinated, the longer it will take criminals to dare to sell cocaine there. The test is done by fitting a Cox proportional-hazards regression with time-dependent covariates,[8] where the dependent variable is the number of years before a municipality experiences its first case of cocaine consumption. Table 4 presents the results of the duration models.

Model 8 is the preferred identification. As expected, a coordinated municipality has a lower chance of experiencing the opening of a cocaine market. The effect is significant at the .01 level. A larger population, more hospitals, greater medical recording capacity, more inequality, but less poverty, increase the probability of a market opening. Model 9 presents a robustness test. It is the same specification as model 8 but uses caffeine cases as the dependent variable. As expected, coordination is not significant. The controls follow the same tendencies as in the previous model. Medical recording capacity is not measured for caffeine cases.

Finally, models 10–17 serve to test alternative explanations and provide further robustness tests. In model 10, I test whether my results are simply the effect of other, unmeasured variables that were affecting municipalities even before a cocaine market opened. I arbitrarily changed the time in which a cocaine market opened, setting a ''false opening'' five years before it actually happened. The results show that coordination is not significant once I change the date. Other false openings were tested with similar results.

Model 11 tests whether the results are being driven by the effects of large cities. I removed from the sample all municipalities with more than 1 million inhabitants, which resulted in the exclusion of almost all municipalities within Mexico City and other major urban areas in the country. Results did not change.

In models 12 and 13, I test whether the effect was caused by having members from inexperienced opposition parties in government at either the state or municipal level. A placebo test, using caffeine cases, shows an insignificant coefficient for coordination, as expected. Model 13 is a placebo test specified as model 12 but with caffeine as the dependent variable. Overall, the Cox proportional-hazards regression with time-dependent covariates provides strong support for my account.

Finally, a third specification is a robustness check done by matching municipalities that were ''treated'' with coordination to municipalities that were not but that share similar conditions with respect to medical recording capacity, hospital infrastructure, and cocaine demand (the closest neighbor approach). Using the matched data set (18,400 cases), I ran logits. The results in Table 5 show that coordination still plays a crucial role in explaining the opening of cocaine markets.

Both matched models support my explanation. In model 14, the basic specification, coordination reduces the probability of having an open domestic market. Model 15 introduces party dummies, leaving PAN as the baseline category. Coordination is negative and significant. Municipal governments from PRI, PRD, and others tend to

Table 4. The Effect of Government Coordination on Cocaine Overdoses, Survival Analysis.

	Dependent Variable					
	Cocaine (Model 8)	Caffeine (Model 9)	Cocaine lagged (Model 10)	Cocaine o large cities (Model 11)	Cocaine parties (Model 12)	Caffeine parties (Model 13)
Coordination	−0.286** (0.138)	−0.074 (0.201)	−0.237 (0.333)	−0.275* (0.172)	−0.262* (0.149)	−0.036 (0.221)
Population	0.370*** (0.067)	0.137*** (0.038)	−0.202 (0.244)	1.398*** (0.454)	0.356*** (0.069)	0.132*** (0.039)
Proportion_15_24	0.079 (0.073)	0.009 (0.091)	0.226 (0.186)	−0.041 (0.092)	0.080 (0.074)	0.056 (0.092)
Length_border_100	0.012 (0.021)	0.008 (0.031)	0.071 (0.057)	−0.019 (0.026)	0.012 (0.021)	−0.003 (0.032)
Gini	3.123* (1.717)	5.318** (2.430)	−2.002 (4.309)	1.124 (2.168)	3.106* (1.733)	4.748** (2.465)
Poverty	−0.388** (0.147)	−0.857*** (0.212)	−0.552* (0.394)	−0.108 (0.183)	−0.367** (0.147)	−0.862*** (0.215)
Hospitals	0.252** (0.110)		−0.302 (0.790)	0.716** (0.361)	0.261** (0.111)	
Recording capacity	0.012* (0.008)	0.019*** (0.007)	0.061** (0.028)	−0.002 (0.017)	0.014** (0.008)	0.018*** (0.008)
PRI-state					0.046 (0.148)	0.150 (0.245)
PRD-state					−0.222 (0.329)	0.709** (0.350)
PRI-local					−0.166 (0.164)	−0.149 (0.248)
PRD-local					−0.164 (0.228)	−0.424 (0.351)
Other-local					0.159 (0.335)	−0.384 (0.469)
Observations	2,122	3,754	1,556	1,820	2,122	3,754
R^2	.035	.021	.005	.010	.037	.022
Maximum possible R^2	.684	.285	.219	.559	.684	.285

Note: PRI = Partido Revolucionario Institucional.
*$p < .1$.
**$p < .05$.
***$p < .01$.

Table 5. Matched Logit Models, Results.

	Model 14	Model 15
Coordination	−0.974*** (0.043)	−0.654*** (0.047)
PRI-state		−0.358*** (0.049)
PRD-state		0.222** (0.068)
PRI-local		−0.973*** (0.051)
PRD-local		−0.537*** (0.062)
Other-local		−0.918*** (0.083)
Constant	−1.242*** (0.025)	−0.523*** (0.052)

Note:
*$p \leq .5$.
**$p \leq .01$.
***$p \leq .001$.

have fewer cocaine markets than PAN municipalities. This could be attributable to, among other things, the geographical proximity of municipalities controlled by the PRI and PRD. PAN municipalities during these years showed greater geographical dispersion.

In general, this section has provided evidence to show that when different levels of government are controlled by the same political party, crime groups can be more effectively deterred from engaging in certain behaviors. These specifications show that domestic cocaine selling was more likely to occur when state and municipal governments were not controlled by the same party, independently of the size of the potential drug market and the party in power. I should be clear in stating that this finding suggests not that coordination absolutely prevented domestic drug trafficking, only that when authorities were able to coordinate, they strongly discouraged traffickers from domestic distribution.

The Case of Mexico's Drug War

This section extends the argument of the previous section in considering how the rise of noncoordinated government led to spikes in criminal-rivalry violence in Mexico. I provide qualitative evidence showing that violence began to rise when political coordination declined. Other scholars have pointed out that violence between criminal groups increased after government incapacitations of kingpins (Astorga and Shirk 2010; Guerrero 2009a; Aguilar and Castañeda 2010; Lessing 2012). These actions left criminal groups without leadership, often causing a fracturing into cells that violently confronted one another (Reuter 2009). Here, I extend this analysis, exploring how government coordination determined whether criminal organizations reacted violently after the capture of their leaders.

In 1989, when the Mexican government captured Felix Gallardo, the leader of the Guadalajara Cartel and considered to be the most important trafficker operating in

the country, the cartels did not respond to this shock by attacking each other. Drug-related violence did not escalate. In fact, homicides in Sinaloa, one of Gallardo's bases of operation, decreased significantly. In 1986, Sinaloa had been the site of more than 1,400 homicides, and by 1988, that figure had decreased to just 506 and by 1990 had dropped to 449 (Rohter 1989; INEGI 2010). Following Gallardo's capture, the Guadalajara Cartel split into several smaller groups, each one under the command of a leader operating in a different area (Valle 1995; Blancornelas 2002).

Some journalistic accounts assert that, in a conference held in Acapulco, all criminal factions made a pact to respect each other's territories. According to these accounts, all second-tier leaders agreed to operate as oligopolies, each one allowing others to use his territory in exchange for fees (Valle 1995; L. Gómez 1991). Fees would be paid on time and violence would not be employed. Contract violations or failure to pay fees would be mediated in further peaceful summits rather than in violent confrontations that could attract the attention of the federal government (Blancornelas 2002).

In addition to the crackdown of 1989, other operations against drug bosses occurred during Mexico's single-party regime, without causing violent reactions. In 1993, the leader of the Sinaloa Cartel, Guzman Loera, was captured, but his organization did not split or fight (Cruz 2009). Violence did not follow the arrest of Hector Palma, an important Sinaloa lieutenant, in 1995 (Astorga 2001; M. I. Gómez and Fritz 2005). Garcia Abrego, a drug lord from the Gulf Cartel, was captured in 1996, but large-scale episodes of drug-related violence did not ensue (Osorno 2009).

Reliable journalistic narratives of the time describing the crucial role of government coordination help to explain why violence was less present in the 1990s than later, even after the capture of kingpins. At that time, the different levels of governments were operating in concert, working efficiently to keep trafficking organizations hewing to the long-standing arrangement dictated by the PRI. Indeed, as M. I. Gómez and Fritz (2005) showed, the military and the state police responded to the directives mandated by the federal government, particularly the presidency, hunting disfavored criminal leaders together and conducting joint operations. State authorities responded to the instructions of federal authorities without questioning them, and the same was true for municipal authorities (R. Hernández 2008).

Coordination deterred violence because it did not allow criminal organizations to escape the government's punishment. Under the PRI's hegemony, even local governments whose territory was not directly affected by violence would react in solidarity with those whose territory was affected (Flores-Pérez 2009). As a result, any criminals who were "misbehaving" would be attacked by governments in that group's base territory and everywhere else they operated, making the results of violent behavior negative for its perpetrators.

During most of the 90s, criminals preferred to rely on the state to solve their internal disputes (Carvajal-Dávila 1998; Flores-Pérez 2009). Informing the government about the improper conduct of other criminal groups was quite common during this decade (Blancornelas 2002). Traffickers provided information to the government

about the actions of rival criminals to advocate for their punishment. They informed the government of cases where criminal organizations wanted to operate in a territory without paying bribes (L. Gómez 1991). After all, as a secret informant phrased it, if some criminal organizations "were paying their taxes [i.e. bribes], why shouldn't others?" (A. Hernández 2012, 122). Local policemen regularly acted as bodyguards and protectors of drug lords (Carvajal-Dávila 1998; Reveles 2011), using official radio frequencies to track the movement of drug cargos (Cruz 2009) and to properly enforce oligopolistic territorial control (Flores-Pérez 2010). If two different criminal organizations wanted to control the transportation of drugs in the same area, local authorities favored the one that had the blessings of the federal government (Flores-Pérez 2009). For example, according to a secret informant interviewed by A. Hernández (2012), to avoid cargos being stolen, drug shipments had direct protection from "madrinas." Madrinas were informal federal agents who were not paid salaries but were given badges. The badges provided them with authority to charge bribes for protection and thereby obtain their main source of income. For madrinas, "there were no allowances, or money to buy equipment or to have offices. . . . All their resources were obtained from [illegal activities like] cockfighting, horse racing and drug trafficking," according to the secret informant quoted by A. Hernández (2012, 118-24). Overall, the incentive system shaped trafficker behavior in the direction of obedience. As Juan Nepomuceno, an important drug trafficker, commented, "I am not a politician . . . but I am a friend of them. I am a PRIista, I have always been and I will always vote for their candidates" (García Cabrera (2012)).

Government–criminal relations started changing when government coordination weakened as an increasing number of municipalities came to be ruled by different parties at different levels of government. In just eight years, from 1990 to 1998, the number of municipalities that were ruled by the same party at all levels declined by 23 percent, going from a total of 2,162 coordinated municipalities in 1990 to 1,654 in 1998. By 2010, the number had diminished by another 10 percent.

Government control of criminal violence became less effective because they could not maintain the previous top-down uniform policy. With different parties ruling at different levels, local governments became increasingly undisciplined (Weldon 1997; Eisenstadt 1999, 2004; Snyder 1999; Lujambio and Segl 2000; Magaloni 2009). Corrupt side agreements, which did not necessarily follow the preferences of the federal government, started to emerge. Local police increasingly engaged in profitable corruption deals, whether or not higher-level agencies were against them (Carvajal-Dávila 1998). State governors saw their autonomy increase, "They could create their own clientele, form groups and punish others without anybody to stop them. . . . Far from the image of governors acquiescing to presidential control, local executives could now demand attention and above all, rule and do politics freely" (R. Hernández 2008, 143-45).

As noted, where local governments began to attend to cartel behavior only in their particular area of jurisdiction, new corruption pacts emerged. Thus, contradictory

actions between different government agencies, which protected different criminal organizations, became increasingly evident. In fact, a conversation recovered from the cell phone of the trafficker Jesus Zambada, alias "El Rey," minutes before he was captured by federal authorities showed that he was calling his allies at other government agencies to help him escape (A. Hernández 2012). While federal authorities were surrounding El Rey's house trying to capture him, another group of policemen were opening fire against the federal agents (A. Hernández 2012, 511). Furthermore, without coordination with local authorities, the capacity of the federal authorities to keep track of cartel activity was largely impaired. As Fernandez Garza, former senator and current mayor of one of Monterrey City's municipalities, candidly acknowledged, "If traffickers have pacts with municipalities and states, the federal [agents] are left with quite a small [action] space. At the end of the day, there are not federal [agents] everywhere" (Osorno 2009, 45).

With the growth of noncoordinated government, criminals could no longer rely exclusively on the state for protection of their trafficking routes. Instead, they outsourced this role to private armies of their own creation. The days during which the Mexican government could prevent violence everywhere within the trafficking industry had come to an end.

The first recorded case of private armies in the service of trafficking organizations comes from the late 90s. In 1998, the Gulf Cartel co-opted soldiers to form its private army known as the Zetas. Between thirty-one and sixty-seven members of the Grupo Aeromóvil de Fuerzas Especiales (GAFE), a specialized military unit, deserted (Ravelo 2009). Recruitment methods were quite bold, including, among many other techniques, the use of military radio frequencies to broadcast messages to soldiers and inform them of the many economic benefits that they would receive if they "shifted bands"[9] (Bailey and Taylor 2009). Creation of the Zetas provided the Gulf Cartel with valuable informants. Private armies known as "Los Negros" and "Los Pelones" were developed by the Sinaloa Cartel (Menendez and Salazar 2008), and the Juarez Cartel created "La Linea" (Cruz 2009). By 2008, the Mexican secretary of defense estimated that one-third of all Mexican traffickers had once served in the military (R. Gómez and Ramos 2008, cited by Bailey and Taylor 2009, 20).

Federal and state police officers, local gang members, and even Central American illegal immigrants were also recruited to become the armed employees of drug cartels (Ravelo 2007; Mauleón 2010). The recruitment of gangs was especially pronounced in poor urban areas such as border towns. The Juarez Cartel hired between 300 and 500 local gangs, out of which 30 had at least 500 members. The Mexicles, one of the largest gangs, has been estimated to surpass 2,000 members (Guerrero 2010). The Sinaloa Cartel recruited members from the Mara Salvatrucha, and the Tijuana Cartel hired US–Mexican American gangs like "La M" and "Barrio Logan" (Mauleón 2010). The Gulf Cartel even constructed boot camps to train civilians (A. Hernández 2012, 403-405).

When all the above factors resulting from a lack of coordination are considered, it is not surprising that criminal organizations operating in uncoordinated environments displayed an increased propensity to react violently after the capture of their leaders. The first evidence of large-scale battles for turf came as early as 2003, when the leader of the Gulf Cartel, Osiel Cardenas, was captured and prosecuted (Osorno 2009). After that crackdown, two factions of the Gulf Cartel had difficulties agreeing on a new leader, which led one of them, the Zetas, to try to become financially independent by taking over the territory of La Familia, a drug-trafficking organization operating in the state of Michoacán (Mauleón 2010). By 2005, violence had increased dramatically in that state, going from 553 homicides registered in 2004 to 997 in 2006, an 80 percent increase (INEGI 2009). To put this number in perspective, homicides in the rest of Mexico during the same years only increased 7 percent.

This initial violent fracture was the first step toward what would become Mexico's Drug War. Authorities reacted by conducting more crackdowns. Criminal organizations further fractured and further battled. By 2008, at least four organizations were fighting each other. Turf battles emerged when new cells moved into the territories of groups weakened by government operations, intergroup violence, or both. Violence rapidly escalated, reaching a cumulative total of more than 60,000 casualties by 2011 and creating large waves of violence-caused migration (Rios 2014).

Conclusion

This article provides evidence that party hegemony in Mexico allowed for the existence of a corrupt arrangement in which authorities required traffickers to refrain from (a) public violence and (b) domestic selling of cocaine. It focuses on the second part of the arrangement, that is, the selling of hard drugs within Mexico.

A Cox proportional-hazards regression was used to show that cocaine was more likely to be marketed locally where PRI top-to-bottom hegemony was broken. In other words, if different parties ruled over the same jurisdiction at different levels of government (e.g., state and municipality), the probability of local cocaine selling and consumption increased. The results are robust to the inclusion of controls for local policing budgets and placebo variables.[10]

A narrative of Mexico's drug-trafficking industry was presented as evidence of how government coordination formerly had functioned to limit drug-trafficking violence. Reliable journalistic accounts and statistics from the 90s show that, even in the face of problems caused by external shocks, such as the capture of drug leaders, criminal organizations tended to limit their violence during the era of widespread government coordination.

The upshot of the empirical findings and narrative account is that in Mexico, party heterogeneity loosened government's grip on organized crime. Qualitative evidence points toward security policy coordination as an important variable. All else equal, when higher and lower levels of government are headed by the same or

similar parties, coordination is easier to accomplish because ideologies, electoral incentives, and, given corruption, acquisitive incentives are aligned. In contrast, heterogeneity inhibits negotiations between government levels, prevents them from pursuing consistent practices, impedes sharing of intelligence, and promotes the development of corrupt arrangements that are piecemeal rather than uniform and comprehensive, that is, inclusive of all levels of government. Future research is needed to elucidate the detailed mechanisms underlying these findings.

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Notes

1. Note that where the opposition took power extensively, as a solid coalition ruling over both the state and the municipality, organized crime was controlled as efficiently as before. What matters is not democratization and the arrival of opposition parties per se but the heterogeneity that democratization created at different levels of government ruling over the same jurisdiction.
2. I understand that this term does not entirely capture the political phenomenon that this article addresses. Indeed, the fact that there are parties of a different (heterogeneous) origin (genesis) does not fully describe a divided government at different levels. Surprisingly, to the extent of my knowledge, in the vast literature on federalism, there is not a good term to describe a government that is divided vertically, that is, at different levels. I hope this analysis serves as a first approximation to a more detailed study of the security implications of government heterogeneity.
3. Ideologies may also play a significant role. Rightist governments tend to have a stronger disposition toward order, while leftist governments favor redistribution. In terms of

security policy, it is reasonable to suggest that different levels of government will cooperate more if they are controlled by parties with the same ideological commitments.

4. Strictly speaking, drug overdoses are a stronger indication of cocaine being consumed in the area, with the assumption of local sale a somewhat less solid inference. However, in the absence of a compelling reason to believe that cocaine is usually not consumed in the municipality of purchase, I believe this proxy is well justified.
5. I know of no other publicly available data set that contains information on cocaine markets at this level of disaggregation and with such a long temporal horizon.
6. In the analysis, I add a control for municipalities with at least one hospital. This reduces the data to the last ten years, leaving a sample of approximately 2,150 municipalities per year.
7. The total sample includes 3,671 cases of caffeine overdose, about 40 percent of the figure for cocaine cases.
8. I utilized Cox because it allows one to express a single survival time value for each municipality without making parametric assumptions about the hazard rate (Wooldridge 2001).
9. Military human capital was extremely valuable for traffickers, and they "not only knew about weapons, operations, and communications [but] in many cases maintained friendships with active-duty officers" (Bailey and Taylor 2009, 19).
10. Results available on request. The reader may also refer to Rios (2012b).

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