The Consequences of Militarizing Anti-Drug Efforts for State Capacity in Latin America: Evidence from Mexico

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Abstract
In response to the threat posed by drug-trafficking organizations, developing countries are increasingly relying on the armed forces for their counter-drug strategies. Drawing on the literature on violence and state capacity, this paper studies how the militarization of anti-drug efforts affects state capacity along two dimensions: public safety and fiscal extraction. It advances theoretical expectations for this relationship and evaluates them in the context of Mexico. Based on subnational-level analyses, it shows that the militarization of anti-drug efforts has decreased the state’s capacity to provide public order and extract fiscal resources: homicide and kidnapping rates have increased while tax collection has decreased. Given the wide-ranging consequences of diminished state capacity, the findings have implications not only for Latin America but also across the developing world.

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In a region characterized as too peaceful to develop a strong state, drug trafficking organizations (DTOs) have emerged as the single most important threat to the Latin American state. In some cases, DTOs have challenged the state’s monopoly over both the legitimate use of force and the extraction of revenue from society, becoming a national security concern across the hemisphere. Whereas in exceptional cases governments have adopted a mix of civilian law enforcement and market-based approaches to drug trafficking, as in Uruguay, the bulk of the region has pursued decidedly punitive solutions, often relying on the armed forces to fight DTOs. The militarization of anti-drug efforts—defined as those instances in which the armed forces adopt a prominent role in fighting DTOs in a protracted fashion—has increased, with such countries as Argentina, Bolivia, Brazil, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Mexico, and Venezuela turning to this approach to different degrees. Even in Costa Rica, which has a tradition of more than six decades without a military, the government has considered the creation of military forces to fight DTOs.

Does the militarization of anti-drug efforts—rather than relying primarily on civilian agencies—strengthen the state, thus bringing about the state capacity that previous types of conflict have not? Or, does it undermine state capacity as some scholars have found to be the case for certain types of internal conflict? I address these questions with a study of militarized anti-drug efforts in Mexico. In particular, the analysis leverages a policy shift in Mexico in 2006 that led to the militarization of anti-drug efforts, including the deployment of tens of thousands of troops in protracted, formal military operations across the country. The policy shift, along with the relative availability of data for proxies of state capacity at the subnational level, facilitates comparisons between parts of the country that experienced formal militarized
responses and those that did not. I find that, rather than enhancing state capacity as governments in the region have intended, militarization has generated the opposite effect.

The rest of the article is organized as follows. First, it discusses the literature on conflict and state capacity, pointing to contradictory views and the neglect of how conflict short of civil war might affect state capacity in the medium term. Second, it advances theoretical considerations about militarization’s effects on two key dimensions of state capacity—public safety and fiscal extraction—and explains why, contrary to the government’s hopes, the militarization of anti-drug efforts is bound to weaken state capacity. Third, it evaluates this expectation with evidence from Mexico by comparing parts of the country that experienced formal military operations to those that did not. In the conclusion I discuss the findings’ implications for theory and policy and potential consequences for the region. Structured along these lines, this article adds to the emerging literature on the militarization of anti-drug efforts, but goes beyond the standard policy analysis to offer both a theoretical and empirical treatment of what the United Nations has referred to as one of the most pressing security issues in the region.\textsuperscript{6} In doing so, it is the first to address unanswered questions about the medium-term relationship between conflict short of civil or ethnic strife and the state in Latin America.

**Conflict and State Capacity**

I follow Sofier and vom Hau in defining state capacity as a state’s ability to exercise control over the territory and regulate social relations.\textsuperscript{7} While scholars diverge on the relevant dimensions of state capacity, two are recurrent in most prominent definitions.\textsuperscript{8} The first is *public safety*, or the extent to which order is maintained across the country, which follows Weber’s logic of the monopoly of legitimate violence in a given territory and responds to the fact that, regardless of
ideological preconceptions about the role of the state, the provision of security remains one of its fundamental functions. The second dimension, fiscal extraction, is often considered an approximation of administrative capacity writ large because of the centrality of extraction for the state to perform the rest of its functions. Consistent with this logic, North defines the state in terms of its ability to tax, or as “an organization with a comparative advantage in violence, extending over a geographic area whose boundaries are determined by its power to tax constituents.”

Although much of the research on state capacity focuses on the period of early state formation, this definition implies not a process that ends with the genesis of nation-states, but an ongoing process related to the establishment of the legitimate monopoly of violence and the extraction of resources to fund it. This means that state capacity is likely to vary, not only across states, but also over time. Although many of the forces shaping state capacity can be slow moving, historical examples suggest that changes in state capacity may also occur in a relatively short period of time, particularly in the developing world. Cases in point are the rapid deterioration of state capacity in Cuba after foreign resources dried up with the Soviet collapse, and the quick setback for Haiti’s state capacity as a result of the 2011 earthquake.

A prominent body of literature places conflict as one of the main driving forces behind state strength, based on the view that conflict provides “a great stimulus to centralizing state power and building institutional capacity.” This logic has been explored extensively in the developing world, predominantly pointing to variation in state strength as a function of the extent to which interstate war has been present and its timing. However, the literature is less clear on the relationship between internal conflict and state capacity, generating at times contradictory findings. One camp argues that the high levels of political conflict characteristic of
relatively young states are an indication not of political decay, but of state strengthening. For example, Porter argues that civil wars strengthened the state in Europe, playing “an equally crucial role [to that of interstate wars] in shaping states.” Bensel finds that the Civil War provided a major boost for state capacity in the United States. This is consistent with O’Kane, who finds that civil conflicts had a strengthening effect in post-revolutionary states such as Ethiopia and Iran. Similarly, Rodríguez-Franco points to internal conflict as being responsible for state strengthening in Colombia, Malaysia and Singapore after WWII, and Holden argues that public violence more generally played a key role in the process of building state capacity in Central America well into the 20th century. In short, as Slater argues in the East Asian context, “violent internal contention can ‘make the state’ as surely as international warfare.”

Conversely, a second camp has found domestic conflict to undermine state capacity. For example, Migdal has argued that efforts to placate internecine conflicts prevent the military and society from coalescing against an external common threat. Barnett and Centeno suggest internal violence makes differences across social groups more salient and undermines governments’ ability to pursue national collective interests. Additionally, López-Alves argues that domestic conflicts inevitably result in the destruction of property, displacement of labor, and flight of capital, which in turn weaken the state. Cárdenas is categorical in his claim that, “internal conflict […] destroys, by definition, state capacity.”

These opposing camps have focused mainly on major internal conflicts, such as revolutions, ethnic strife, and other types of civil wars, but the literature remains underdeveloped when it comes to the consequences for state capacity of conflicts short of a full-fledged civil or guerrilla war, such as confrontations between militaries and DTOs—which, as Tilly points out, are all part of the same state-making continuum. Research is scant about these confrontations’
effects on state capacity, one exception being a handful of studies suggesting that actual violence appears not to be necessary for conflict to have an effect on state capacity. As Peacock and Wiseman point out, “national crises” more generally might also generate state-strengthening dynamics “that in quieter times would have been intolerable.” In particular, scholars have argued that, while violent conflicts exert sudden shocks to existing equilibria, prolonged threats can shape state capacity more gradually by generating high levels of perceived danger among elites, even in the absence of actual conflict. This perspective rests on the premise that it is not necessarily violence, but the threat of violence that results in state-building consequences.

In short, although existing studies are an important step in understanding the effects of internal conflict, their findings are contradictory and the consequences of conflicts short of full-fledged civil war—though where actual violence takes place—remain understudied, especially in the short to medium term. The lack of understanding of the effects of these forms of violence on state capacity is problematic, since conflict short of civil war abounds in the developing world.

**Theorizing the effects of militarization**

Although the literature is underdeveloped in terms of whether domestic conflicts short of civil war have an effect on state capacity, the conventional wisdom suggests that involving the armed forces in the fight against DTOs results in capacity-enhancing dynamics compared to the civilian police. In the realm of public safety, this expectation is based on material, technological, and tactical superiority: the armed forces tend to have better weapons, means of transportation, and communications equipment than their civilian counterparts. They tend to enjoy greater discipline, more rigorous training, and a unified chain of command that helps to solve the coordination problems that often affect civilian law enforcement agencies. Taken together, these
features of the armed forces are expected to improve on the civilian police’s provision of public safety, both by dissuading criminal activity and by intervening more effectively whenever criminal activity does take place. For example, superior weapons and large numbers of troops could dissuade members of DTOs from engaging in illicit activities. Better communications and transportation could result in a faster, more effective response and fewer violent confrontations. As the scholarship on “tough on crime” approaches has highlighted, these expectations have often guided governments’ efforts involving the armed forces—to different extents—in fighting DTOs.

In the realm of fiscal extraction, the high hopes for militarization are much less explicit, but there is an expectation that improved public safety will reduce the drain on fiscal resources by improving both compliance and economic activity. Research on willingness to pay taxes points to the nature of the fiscal exchange between government and citizens as an important determinant behind fiscal extraction. When the provision of public safety is perceived as effective, willingness to comply with tax obligations increases. Symbolic and material considerations are also expected to contribute to increased fiscal extraction. For example, a sense of crisis could compel those sectors of society that would have been otherwise reluctant to contribute financially. Moreover, those previously paying for private protection—whether voluntarily hiring a protection firm or involuntarily paying extortion—would be both better able and more willing to meet fiscal obligations if militarization restored order.

Contrary to these expectations, however, I argue that militarization is likely to result in state-weakening dynamics by contributing to the deterioration of public safety and fiscal extraction. First, regarding public safety, the armed forces’ search and destroy—rather than serve and protect—approach could encourage DTOs to respond to the confrontation by scaling up their
firepower capabilities, which in turn results in the escalation of levels of violence in society. As Osorio and Lessing have respectively argued in the Mexican and Brazilian contexts, DTOs adjust their use of violence based on how governments confront them. Once DTOs have improved their firepower, they are likely to use it against competitors as well, and government’s confrontation of a DTO can generate incentives for other DTOs to engage in violent attempts to take over spheres of influence.

Additionally, typically trained in the defense against an external enemy or disaster relief, militaries tend to lack law enforcement skills required for the type of threat posed by DTOs. Trained to survive in war, the armed forces often neglect the nuance involved in law enforcement related to civil liberties and human rights and can contribute to the deterioration of public safety by becoming perpetrators themselves through extra-judicial killings and kidnappings.

The confrontation of DTOs with the raw power of the military also encourages other types of illicit activities and provides cover for them. When confronted in this fashion, DTOs have incentives to diversify into other forms of violent crime, such as kidnapping and human trafficking, which further contribute to the deterioration of public safety. Further, the increased violence resulting from militarization allow for other illicit activities unrelated to drug trafficking to flourish and go unchallenged because of the automatic attribution of all crime and disorder to DTOs.

Second, militarization’s deterioration of public safety is likely to divert fiscal resources away from the state. When the state is perceived as incompetent, willingness to pay taxes decreases. In turn, when corporations and individuals fall prey to extortion or feel compelled to invest in private security, these forms of protection taxes undermine willingness and ability to contribute additional resources to the state. Although the perception of incompetence and the
need for private protection can be present in the absence of militarization, the increased levels of violence that follow militarization are likely to exacerbate such perceptions and magnify the need for private protection—both of which undermine the state’s revenue collection efforts.

Additionally, the higher levels of violence from militarization are likely to have a negative effect on economic activity. Similar to what Collier et al have suggested about civil war, the visibility of soldiers and humvees patrolling the streets and the confrontations between DTOs and the armed forces deter customers, hinder businesses, and scare away investment and tourism. As economic activity is hampered, so is the government’s extraction of resources from society. In short, rather than leading to the strengthening of the state, militarization is likely to result in the deterioration of public safety and decline in fiscal extraction. Having identified the ways in which militarization can undermine state capacity, in the following sections I evaluate whether Mexico’s experience has been one of strengthening or weakening.

**Evaluating Militarized Anti-Drug Efforts**

Mexico’s major anti-drug policy shift in December 2006 provides analytical leverage to study the consequences of militarization. Until then, the Mexican military had played an increasingly relevant but supportive role in drug eradication efforts at least as far back as the 1950s. In 1994 president Ernesto Zedillo (1994-2000) declared drug trafficking a national security priority and articulated the military’s mission as guarantor of public safety. Additionally, retired military personnel have been appointed occasionally as heads of civilian law enforcement agencies and the attorney-general’s office since the administration of President Carlos Salinas (1988-1994). After 1994, not only have generals been appointed to top anti-drug positions, but also thousands of soldiers have been transferred to serve within the civilian federal police. In 2005, President
Vicente Fox (2000-2006) launched Operación México Seguro, a joint operation between the federal police and the armed forces. All of these efforts involved either the brief participation of the armed forces in eradication or the employment of former military as civilian law enforcement personnel; the military as an institution did not take the lead in anti-drug efforts.

Beginning on December 11, 2006, however, president Calderón drastically intensified militarization by assigning the armed forces the lead role in a protracted effort across the national territory. Changing the balance of how anti-drug efforts were carried out among government agencies, Calderón deployed an estimated 45,000 troops in ongoing formal military operations in several states of the country, including Michoacán in 2006; Baja California and Guerrero in 2007; Chihuahua, Durango, Nuevo León, Sinaloa, and Tamaulipas in 2008; and Veracruz in 2011. In these highly visible operations, rather than the military playing a supporting role for civilian law enforcement, the roles reversed, with a military commander in charge of joint operations and the civilian police supporting the armed forces. For example, in Operation Michoacán the ratio of military to police was close to 4 to 1: 5,254 armed forces were assisted by 1,400 civilian police. In Sinaloa the ratio was 2 to 1: 1,933 military personnel were assisted by 740 civilian police.

In each of these operations the armed forces deployed dozens of anti-drug aircraft and hundreds of amphibious vehicles, conducted aerial and ground patrols, set checkpoints on roads and within cities and towns, and established semi-permanent military bases throughout these states’ territories. In short, the policy that began in December 2006, in which the armed forces were placed at the head of the anti-drug effort at the national level and were visibly deployed in formal military operations in vast areas of the territory for several years, was unprecedented in the country’s history.
Subnational data allows for a counterfactual comparison between the areas with and without formal military operations. Another candidate case for studying the effect of militarization of anti-drug efforts, Colombia, is less viable because of a number of confounding factors. In Colombia, the armed forces have faced a mix of guerrillas, paramilitaries, and DTOs, whose lines have become blurred, making government actions against them often undistinguishable. Moreover, both the armed forces and the national police are organically linked under Colombia’s Ministry of Defense, which obscures in practice the distinction between civilian and military enforcement. Additionally, the US has provided significant foreign assistance to Colombia—making the Andean country one of the top five recipients in the world during Plan Colombia—which further muddles the analysis of state capacity. In contrast, in Mexico DTOs have remained generally detached from other types of violent actors; there are clear institutional divisions between the civilian police and military; and US aid has remained modest. Thus, the combination of subnational differences, more distinguishable militarized anti-drug activities, and fewer confounding factors makes Mexico a valuable case for studying the effect of militarized anti-drug efforts on state capacity.

Measuring state capacity

To assess how the militarization of anti-drug efforts has affected state capacity, I evaluate the two main dimensions of state capacity referenced earlier—public safety and fiscal extraction—before and after the introduction of militarization. First, to investigate public safety, I employ homicide and kidnapping rates. Some authors have pointed to measures of the state’s material capabilities—military spending and the number of troops—as good proxies for the state’s ability to maintain order. However, these indicators do not reflect the extent to which
order is upheld: vast resources may be committed to public safety with meager results and, conversely, effective public safety may be provided with fewer resources. The large but ineffective Latin American bureaucracies and budgets of the 1970s are cases in point.

Instead, more relevant measures would provide evidence of whether existing material and human resources have translated into the effective provision of public safety. One such measure is the homicide rate, since it reflects the extent to which resources translate into the actual protection of people’s physical integrity. However, one criticism of this measure is that homicide rates are too closely related to the policy of interest—militarization—since deaths might be considered a natural byproduct of involving the armed forces to confront DTOs and a sign of state strengthening rather than weakening.59

To address this concern, in addition to homicide rates, I employ kidnapping rates. Kidnapping rates are conceptually distant from militarization while still reflecting the extent to which violent crime takes place and whether people’s physical integrity is protected. There is no ambiguity as to whether an increase in kidnapping rates could be construed as a necessary or desirable byproduct of militarization or an indicator of a stronger state. Second only to homicides, kidnapping is the most severe act of disruption of public safety, since it takes away people’s freedom and involves severe psychological anxiety, due to the uncertainty of whether death or mutilation awaits.

Second, regarding fiscal extraction, I follow the convention in the literature in using the ratio of tax revenue to GDP.60 Although this measure of state capacity has shortcomings for cross-national comparisons because ideological and cultural differences might result in different ratios regardless of state capacity, this concern is less relevant in subnational comparisons where
ideological and cultural differences are less salient and changes to the tax code tend to affect the entire country.

Leveraging subnational differences for counterfactual inference

The empirical strategy leverages subnational differences to evaluate what would have happened to militarized areas had the Mexican government maintained its traditional civilian law enforcement approach after 2006. To do so, I engage in counterfactual analysis for the trajectories of violent crime rates and fiscal extraction in areas with formal military operations had militarization not taken place. To generate the counterfactuals I rely on the synthetic control and difference-in-differences (DD) approaches. Given the tradeoffs in the use of each, combined they increase our confidence in the article’s findings. I show the synthetic control method in the main text and DD in the appendix.

By relying on militarized and non-militarized areas within Mexico for counterfactual analysis, I control for many common factors affecting the country as a whole, such as institutions (e.g., police reform) or the international environment (e.g., the expiration of the federal ban on assault weapons in the US or measures restricting the availability of narcotics in Colombia). For the synthetic control method, I consider 2006 the beginning of the treatment period—the year of President Calderon’s first major deployment of troops—and follow Abadie et al’s recommendation to average the treated units. The DD approach in the appendix considers different starting points for each militarized unit.

The synthetic control method constructs “synthetic militarized states” by placing weights on a combination of states from the pool of all non-militarized states in Mexico. This is akin to matching, but the weights are optimally selected to most closely resemble the militarized states.
before the policy intervention. Weights are selected subject to two conditions. First, only observations from before militarization are used to avoid contaminating the post-militarization synthetic control time series. Second, the weights are selected based on a set of variables used as predictors of violent crime rates and fiscal extraction.

The hypothesis that militarization of anti-drug efforts affected measures of state capacity is evaluated using placebo analysis, which proceeds in three steps. First, it replicates the counterfactual exercise to create a synthetic control for each one of the non-militarized states. Second, it assumes that a placebo treatment occurred to them at the same time that militarization took place elsewhere. Finally, it compares the difference between the observed and synthetic time series in the post-intervention trajectories with respect to the pre-intervention period for all units. If the actual and synthetic trajectories for militarized states differed little compared to the placebos, then we would conclude that militarization did not have a systematic and significant impact on violent crime rates and tax-to-gdp ratios.

**Figure 1 Homicide and Kidnapping Rates, Average Militarized States vs. Synthetic Control**
Figure 1 shows observed average violent crime rates in militarized (solid black line) and non-militarized states (dotted gray line), as well as the synthetic militarized control (dashed black line). It shows that both sets of states experienced steadily declining violent crime rates until about 2005, when they jointly began to increase at a moderate pace. However, after militarization was adopted, the observed violent crime rates abruptly increased twice as fast in militarized states compared to the non-militarized group. As Merino has pointed out, this is not to suggest that violent crime rates would not have increased in the absence of militarization, but that the abrupt departure from the already increasing trend is due to the major shock brought about by militarization.

Although there is a good case to be made that the decision to militarize was political rather than responding to underlying weakness in state capacity, the synthetic control method helps address selection effects: that changes in violent crime rates might have contributed to the decision to militarize some states and not others. For both the synthetic control and DD I employ available predictors found in studies of violent crime in general and Mexico’s war on drugs in particular, including levels of wealth, GDP growth rates, education, employment, political fragmentation, drug prevalence, DTO decapitations, population density, and road density. There may be other relevant predictors not included here, but those included are sufficient to capture—to a large extent—unobserved heterogeneity in the determinants of violent crime and its trajectories during the pre-treatment period. Tables showing the balance of predictors are shown in the appendix, along with definitions, sources, and descriptive statistics.

As Figure 1 shows, the observed trajectory for violent crime in militarized states is much greater than it would be expected in the absence of militarization. For both homicides and kidnappings, the synthetic counterfactual (dashed black line) also increased in the absence of
militarization, but much more gradually than observed. The substantial gap that emerges between observed rates in militarized states (solid black line) and the synthetic control (dashed black line) once militarization took place suggests that this policy had a negative effect on public safety. On average, militarization brought about a yearly increase of 17 points to the homicide rate and 1 point to the kidnapping rate since 2006—increases of 36 and 322 percent respectively with respect to 2005. These results are supported by the DD analysis in the appendix.

Placebo tests for each of the control units allow us to evaluate our confidence in this finding by comparing the estimated effect of militarization to the distribution of placebo effects obtained for other control states. The estimated effect of militarization would be significant if it is unusually large with respect to the distribution of placebo effects. Figure 2 reports the distribution of the ratios between the post- and pre-militarization Root Mean Square Prediction Error (RMSPE) for the set of militarized states and for the placebos. The RMSPE—calculated as the square root of the average of the squared discrepancies between the unit of interest and its synthetic control—is a measure of the lack of fit. The ratio between post- and pre-militarization RMSPE is calculated to evaluate both the lack of fit for the pre-intervention period (which should be low) and for the post-intervention period (which should be large). The ratios of post- and pre-militarization RMSPE in militarized states are 99 for homicide and 12 for kidnapping rates. If one were to assign the intervention at random in the data, the probability of obtaining ratios as large as these is 0.04 for homicide and 0.08 for kidnapping rates. These values are significant at conventional levels and suggest that the effects attributed to militarization are not due to chance.
In light of this finding, it is worth considering potential concerns with the violent crime analysis. One concern is whether actual violent crime rates might have remained the same in both sets of states after militarization but reporting increased in militarized states because of military presence. However, reports by NGOs point to bias in the opposite direction: militarized states are those were reporting has least taken place since militarization began. A second concern is bias from the government making systematic efforts to under-report violent crime in order to minimize the reputational damage where public insecurity has been most pronounced. However, as Andreas and Greenhill suggest, governments have incentives to overstate their effectiveness to stem criticism and elicit popular support. More importantly, the government underestimating violent crime rates would mean that the effect found here is even larger.

A third concern is potential spillover effects from militarized to non-militarized states: militarization in some states could be exacerbating violent crime rates in neighboring states through displacement or demonstration. This would also bias against the findings, since the control group would have even lower rates in the absence of spillover effects.

A subnational comparison is also helpful in evaluating the effect of militarization on fiscal extraction, since it contributes to ruling out unobserved factors—differences in culture,
ideology, or tax systems—that might be driving the findings. Although the ideal comparison between the two sets of states would reflect total tax revenue as a share of GDP by state, the federal government does not make available this tax data because the place where federal taxes are paid is often not where the economic activity took place. However, the comparison can still be made based on the tax revenue collected by the state and municipal governments themselves. These include taxes on property, real estate transfers, payroll, and motor vehicles, since they are assessed, collected, and reported based on activity that took place within the state. Although these taxes represent a small fraction of the country’s total tax revenue, they provide a useful indicator of more general trends concerning fiscal extraction.

Figure 3 Tax-to-GDP Ratio, Average Militarized States vs. Synthetic Control

Figure 3 shows that observed tax-to-GDP ratios followed generally parallel trends in both militarized (solid black line) and non-militarized (dotted gray line) states until 2006—with average extraction greater among the militarized group. However, the trends ceased to be generally parallel after militarization. Instead, the difference in levels disappeared after 2006 and fiscal extraction became lower in militarized states. For the synthetic control and DD estimations, I rely on available predictors of fiscal extraction, including levels of wealth, GDP
growth rates, employment rates, debt-to-GDP ratio, level of education, political fragmentation, drug prevalence, DTO decapitations, population density, and road density. Natural resource rents and foreign aid are captured by the federal government and therefore not included as predictors. The gap that emerges between observed fiscal extraction in militarized states and the synthetic control (dashed black line) suggests that militarization had a negative yearly average effect on fiscal extraction of 0.09 points—34 percent of militarized states’ taxes collected in 2005—a finding supported as well by DD estimation in the appendix.

**Figure 4 Ratio of Post/Pre Militarization RMSPE: Militarized and Control States**

Figure 4 reports the distribution of ratios between the post- and pre-militarization RMSPE for the set of militarized states and placebos. The ratio for the militarized states is 7.4. If one were to assign the intervention at random in the data, the probability of obtaining a ratio as large as that of post-pre militarization RMSPE is 0.08.

**Competing Hypotheses and Qualitative Evidence**

A question that follows is whether the drastic departure from historical trends in militarized states could be erroneously attributed to militarization. In the following paragraphs I first discuss
alternative hypotheses and then turn to qualitative evidence supporting the findings from the previous section. Rather than changes in socioeconomic, institutional, or international factors, I find that militarization encouraged DTOs to rely on violent units of hitmen and diversify into other illicit operations such as kidnapping, and that the deterioration of public safety has impaired fiscal extraction.

The first rival candidate is a change in the country’s underlying socio-economic conditions. As some research has suggested, structural factors including poverty and inequality might contribute to the emergence of violent crime and conflict. However, a sudden or considerable change in the levels of poverty and inequality would be required to generate the drastic changes in the trends for kidnapping rates and fiscal extraction. Instead, the changes that have taken place actually point in the opposite direction—i.e., a slight improvement in the levels of inequality.

A second possibility is institutional changes. For example, the country’s democratization might have disrupted existing pacts between the PRI’s governments and DTOs. However, as Snyder and Durán-Martínez have shown, this disruption took place beginning in 2000 during the Fox Administration—and even earlier at the state and local levels—rather than with Calderón. Yet, as shown in Figure 1, violent crime rates continued to decline after 2000. This happened both in states that were electorally competitive and where alternation took place, as in Michoacán and Nuevo León, and in states where only the PRI had governed, as in Durango and Tamaulipas. This discussion suggests that a deterioration of public safety due to these institutional changes would have occurred earlier and much more gradually.

A third alternative explanation relates to internal quarrels among drug traffickers that might have generated the dramatic deterioration of public safety. For example, there are many
accounts about turf wars and jealousies among drug lords in the last several years, including feuds between Arturo Beltrán Leyva and his associates in the Gulf Cartel. These quarrels—whether for personal or business reasons—are not new, however. They have existed since drug trafficking has been a profitable business in Mexico, long before the drastic deterioration of public safety and fiscal extraction in 2007. This is the case even for the most bloody, well-trained, and disciplined DTOs, such as the Zetas, which as early as 2001 had already made important inroads in Michoacán for the Gulf Cartel to wrestle control over the Port of Lázaro Cárdenas and the methamphetamines business away from the Arellano Félix Cartel. Also in 2001, Armando Valencia, head of the Valencia/Milenio Cartel, had a major falling out over a woman with Carlos Rosales, head of La Empresa Cartel, which led to turf wars and later to the emergence of the Familia Michoacana Cartel. Earlier, following the 1996 arrest of the head of the Gulf Cartel, Juan García Ábrego, Osiel Cárdenas became the new leader by eliminating his friend and co-deputy, Salvador Gomez, in 1998—an event that earned him the nickname of “friend-killer.” Previously, in 1994, Cárdenas had killed his closest friend and associate after the friend discovered his wife’s affair with Cárdenas. Even earlier, following the arrest of Mexico’s top drug lord, Félix Gallardo, in 1989, several regional leaders refused to respect a pact dividing the country into spheres of influence and engaged in bloody turf wars. Since these internal quarrels have been common before and after the deterioration order and extraction, they alone cannot explain the change in trajectory.

A fourth candidate is international factors. One way to evaluate whether unobserved international factors might have generated the deterioration of public safety and fiscal extraction is to follow the price of Mexico’s main narcotics, which could reflect events elsewhere affecting drug markets and conceivably prompt greater competition among DTOs in some states in
Mexico. However, an evaluation of the historical price of the main narcotics suggests this is not the case: the prices of the main drugs produced, trafficked, or consumed in Mexico remained unchanged as public safety and fiscal extraction drastically deteriorated.\textsuperscript{80} Holding quality constant, the price per bulk gram of marijuana in the US remained stable at about $17, as well as the price per pure gram of heroin at about $390, of powder cocaine at about $140, and of crack cocaine at $160.\textsuperscript{81} The price of methamphetamines actually declined while its purity went up. These prices suggest that international actions did not change the profitability of the business or encourage a change in behavior.

A closer look at one of the main candidates, Colombia’s cocaine interdiction efforts, reinforces this view. Although Mexico replaced Colombia as the main point of entry for narcotics into the US market since at least 1994,\textsuperscript{82} a major discontinuity in the trend of cocaine seizures in Colombia could conceivably explain changes in the behavior of DTOs in Mexico. However, seizures followed a steadily increasing trend between 1999 and 2009. In fact, there is a slight decline in seizures in 2006 and 2007, as public safety takes a sharp turn for the worse in Mexico, which runs counter to the expectation that the effect attributed to militarization might be due to this external shock.

Whereas these factors might be permissive, they have existed long before the deterioration of public safety and fiscal extraction. The sharp deviation from the historical trend suggests that a sudden shock would be needed to generate such departure. In the absence of militarization, these factors on their own would likely have resulted in the gradually deteriorating trends appreciated in non-militarized states, but not in the drastic changes in violent crime rates and tax-to-gdp ratios observed in militarized states since 2006.
Instead, qualitative evidence suggests militarization turned DTO’s into more fragmented, diversified, and less accountable units and brought about generalized public insecurity that affected fiscal extraction. First, regarding public safety, the armed forces’ frontal attack with military-grade weapons, vehicles, and tactics raised the stakes for DTOs and encouraged them to acquire more sophisticated weapons and equipment. For example, DTOs responded to the military’s confrontation by improving their technology, including submarines, armored vehicles, and weapons typically reserved for the military, such as AK-47s and RPGs. Additionally, DTOs generated their own private armies of hitmen, which have relied on military grade weapons to fight rivals. Whereas before militarization DTOs strived to avoid violence and attract as little government attention as possible, the confrontation with the armed forces encouraged DTOs to incorporate these groups into their own payroll.

Further, the greater cost brought about by militarization also encouraged DTOs to diversify their operations. By 2010, drug trafficking-related revenue had declined to an estimated 30 percent of total for DTOs such as the Knights Templar, Zetas, and Gulf Cartel. The rest came from extortion, kidnapping, and coercion over agricultural and mining businesses. As the hitmen groups proliferated they also engaged in other activities independently to make money on the side.

As Hope has suggested, the use of the military to fight DTOs in large parts of the national territory led to “enforcement swamping,” it was a shock that overwhelmed law enforcement with drug-related offenses, leaving the door open for other illicit activities—kidnapping, human trafficking, or extortion—to go unpunished and flourish. With most of the federal government’s resources and attention focused on drug trafficking, and the military’s dismantling of state and local police forces that might have deterred other illicit activities, public
safety deteriorated significantly. As a result, as an NGO’s report summarized, DTOs “have discovered that kidnapping is a lucrative and low-risk activity, increasingly relying on this illicit activity for revenue.”

Additionally, militarization has undermined public safety directly by engaging in human rights violations, including the forced disappearance of suspected criminals. Human rights violations by the armed forces in militarized states have surged since 2006—the National Human Rights Commission was investigating 2,443 reports by 2013. Although the number of kidnappings carried out by government forces is estimated to be a small share of the more than 12,000 total reported kidnappings during this period, it is certainly a factor that has contributed to the deterioration of public safety.

Second, the deterioration of fiscal extraction due to people’s dissatisfaction, fear, and extortion has also been documented. In line with the literature on how the degree to which the population supports and buys into government policies becomes an important factor enabling fiscal extraction, the perceived ineffectiveness and declining trust in government institutions have led people to resist taxation. As public opinion data show, trust in the armed forces and support for militarization have steadily decreased since the policy started. This dissatisfaction has affected fiscal extraction in different forms. In some cases, it has materialized as an open challenge to the fiscal authority through a refusal to pay taxes. For example, the chamber of commerce of Apatzingán, the second largest city in Michoacán state, declared that its affiliates would stop paying taxes as a form of civil disobedience until the government guaranteed their personal safety and created the minimal conditions for economic activity to continue. In other cases, dissatisfaction and fear have compelled sectors of the population to relocate their
businesses to the United States because of violence. One estimate puts drug violence-related migration from Mexico into the US at about 115,000 people between 2006 and 2010.

In addition to dissatisfaction, the prevalence of extortion in the context of deteriorated public safety has also affected fiscal extraction. As media reports have shown, extortion payments often prevent people from fulfilling their tax obligations, since people’s resources are limited and the threat to their physical integrity imminent if they do not pay extortionists. For example, mining companies are forced to pay high protection fees to ship minerals through certain parts of Durango. In Michoacán, mining companies pay DTOs US$7 per ton of iron ore extracted. In Veracruz, media reports point to the choice small businesses face of meeting their tax obligations or paying extortion fees in order to stay afloat.

Conclusion
Building on the literature on conflict and state capacity, this article is the first to theorize about the potential effects of militarized anti-drug efforts on state capacity. After challenging governments’ conventional wisdom and identifying ways in which state-weakening dynamics play out along two key dimensions of capacity—public safety and fiscal extraction—it evaluated each with subnational evidence from Mexico. The results suggest that militarization contributed to a sharp deterioration of public safety and fiscal extraction.

The analysis presented here advances our understanding of a relatively understudied but increasingly important issue. First, it contributes to theorizing a phenomenon that is mostly approached atheoretically. In particular, this article contributes a deeper and more nuanced study of the relationship between internal conflict short of civil war and the state. By identifying key differences in how civilian law enforcement and the military confront DTOs, it enables a better
understanding of their specific consequences. Because of their different training, tactics, weapons, and equipment compared to civilian police, confronting DTOs with the military has led to less, rather than more, public safety and fiscal extraction in those places. The finding complements previous research pointing to government action as contributing to violence, and suggests that the way in which governments seek to address drug trafficking can have implications for public safety and fiscal extraction.

This does not preclude the possibility that the effects of militarization be non-linear; it is important to distinguish between the medium-term findings presented here and those potentially developing in the long run. The capacity-weakening effects of militarization since 2006 cast doubt on the claim that these trends are a short-term anomaly. However, this does not mean that these trends will necessarily persist in time. For example, the government may decide to modify the extent to which the armed forces are involved in fighting DTOs, which should have consequences for public safety and fiscal extraction. Alternatively, a new equilibrium may be reached in which the armed forces become more like police forces, learning law enforcement techniques and attenuating the features that make them different from civilian police. Thus, although militarization’s effects in the long run might remain uncertain given the duration of the period studied here, this article’s findings point to meaningful variation in state capacity in the medium term—an aspect that had remain unexplored given the literature’s emphasis on longer term dynamics.

Second, this study’s findings should provide some guidance for government policy. Although Mexico’s intense militarization has not become the norm, it can certainly inform experiences elsewhere since across Latin America militaries are increasingly involved in anti-drug efforts. As an indication of this region-wide intensification of military involvement, 90% of
the total US military aid toward the region went to anti-narcotics efforts by 2012, a 30% increase over the previous decade. Further study is required to evaluate whether militarization has similar consequences when the armed forces have not taken the lead in anti-role efforts but are still acting in a supporting role, as well as other scope conditions. However, as militaries shoulder a greater share of anti-drug efforts and increasingly move closer to the Mexican experience, these findings constitute an important step in understanding the consequences of militarizing anti-drug efforts.

1 Replication materials and online appendix can be found at http://www.arts.cornell.edu/gaf44/
3 Coletta Youngers and Eileen Rosin, “The US ‘War on Drugs’” in Coletta Youngers and Eileen Rosin (eds.) Drugs and Democracy in Latin America (Boulder: Lynne Rienner, 2005), 1-14.


20 Rosemary O’Kane, “Post-Revolutionary State-Building in Ethiopia, Iran, and Nicaragua,” *Political Studies* 48 (December 2000), 970-988.


25 López-Alves 2001, 162

26 Cárdenas 2013, 2

27 Tilly 1985, 170

29 Migdal 1988, 274.


41 Osorio 2015, 1403-1432.


44 Comisión Mexicana de Defensa y Promoción de los Derechos Humanos, *Reporte sobre Ejecuciones extrajudiciales en el contexto de la militarización de la seguridad pública*, Mexico, April 2013.

45 Stephanie Álvarez and Angelika Rettberg. “Cuantificando los efectos económicos del conflicto armado,” *Colombia Internacional* 67 (Jan-Jun 2008), 14-37.


48 Cárdenas 2013, 1-45.


*La Crónica*, 2006.

Richard Snyder and Angélica Durán-Martínez, “Drug Trafficking and State-Sponsored Protection Rackets in Mexico and Colombia,” *Colombia Internacional* 70 (December 2009), 80.


The $1.2 billion promised by the US as part of the Merida Initiative has been disbursed only partially and gradually since 2008.


Centeno 2002; Porter 1994; Slater 2010.


Abadie el at 2015, 497.

This is not an artifact of averaging militarized states. In all individual cases, the trend in violent crime rates is altered following formal military operations in each state.

Merino 2011.

Scholars have made the case that the decision to militarize was political rather than driven by differences in state capacity, pointing to the historically low and decreasing rates of violent crime, the complete absence of public safety as a campaign issue before the election, the government’s need to buttress its popularity after a razor-thin electoral victory and a contested mandate, and Calderón’s choice of first militarizing his home state (Michoacán), where gubernatorial, legislative, and local elections were looming. Further, the mix of militarized states (from poor, rural Guerrero to wealthy, industrialized Nuevo León) suggests militarization did not respond to systematic differences in a priori state weakness. John Bailey, The Politics of Crime in Mexico (Boulder: Lynne Rienner, 2014), 3.


71 Federal transfers and other non-tax sources of revenue are excluded.


73 Ingram 2014.


75 Snyder and Durán-Martínez, 2009, 61-91.


81 In 2007 US dollars.
82 Ríos 2013, 139.


84 Grillo 2011.


89 Observatorio Nacional Ciudadano 2014, 29.


96 Internal Displacement Monitoring Center, *Briefing paper by the Norwegian Refugee Council Internal Displacement Monitoring Center on Forced Displacement in Mexico Due to Drug Cartel Violence*, December 2010.

97 *La Jornada*, “Reconocen autoridades la incursión de carteles de la droga en minería,” December 1, 2013.

98 *Vanguardia*, “Extorsión a mineros, el millonario negocio de los Templarios,” March 6, 2014.


100 Merino 2011; Osorio 2015, 1403-1432; Snyder and Durán-Martínez 2009, 61-91.
