# Militarization of Law Enforcement in Dominican Republic

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## Introduction

In June 2022, the president of Dominican Republic (DR), Luis Abinader Corona, declared that the armed forces would begin to assist the police in their daily patrolling activities for an indefinite period of time as part of the security program named *"Mi País Seguro"* (Listin Diario 2022). This policy was implemented as a "novel" preventive measure to reduce the increased levels of criminality that had impacted the country and its main cities. Assistance of the Police by the Armed Forces, however, is neither novel nor exceptional. In the last 20 years, such declarations have taken place at least 14 times by presidents belonging to all the main political forces in the country (Listin Diario 2022; Saulo Mota 2022). Furthermore, upon observing the Armed Forces' yearly institutional records, it is clear that assisting the police is a common and daily military task since at least 2006. This is also not unique to DR. In one form or another, the militarization of the police is a common and increasing trend impacting the Americas from the northernmost Canada and the United States to Chile and Argentina in the Southern Cone (G. A. Flores-Macías and Zarkin 2021).

Furthermore, while the militarization of law enforcement is a popular policy, it is not clear what are its benefits or how those benefits compare to its potential negative consequences. At a first glance, it is not obvious whether there are any significant differences between a layman police officer and a layman military agent. Similarly, despite a significant part of the literature on civil-military relations assuming the contrary, it is not obvious whether there are significant differences between the Police and Armed Forces as an organization. Even if there were, it is not clear that these differences would lead to positive outcomes. On one side, whether through differences in their training or in their governing institutions, the militarization of law enforcement could lead to a decrease in the incidence of crime. On the other side, the militarization of internal security could lead to unchecked behaviour by law enforcement officials that could result in an increase in excessive use of force and violence in

general. From the perspective of the government, expanding the scope of responsibilities of the Armed Forces could increase the repressive capacity of the State, but at the same time allow increase the Armed Forces' ability to compete against the civilian government itself (Paley 2023).

Keeping these potential trade-offs in mind, this paper will analyze one potential result from the militarization of law enforcement and internal security. The first section of the paper is dedicated to developing testable empirical predictions based on engagement with the previous literature. I first describe the literature on the relation between the Military and Society and proceed to argue that the militarization of law enforcement should cause an increase in the use of force on the side of enforcing agents. Then I engage with the literature on the effects of police patrolling to argue that militarization should lead to a decrease in the incidence of crime in the short-term. I then argue why DR should fit the predictions previously developed based on institutional design choices regarding the military and the armed forces compared to the police.

The second section is dedicated to empirically testing these predictions and explore the potential implications of the results observed through several analysis and diagnostic tests. In this section, I will describe the data and methods that are used, as well as the main results. Several main results can be highlighted: First, I find evidence of a decrease in the incidence of crime over the week after a mixed patrolling military intervention. The intervention seems to impact the type of crime that should be more planned and strategic in nature, providing evidence in favour of the classical deterrence model of crime. I also fail to find evidence indicating that the effect is driven by a purely perceptual mechanism or any other mechanism through which the military might be socialized to perform less effectively over time. While important, these results should not be overstated: the external validity of the results is reduced as one considers localities that experience more levels of crime overall and thus, for whom mixed military patrolling should be more relevant. There is also some suggestive but inconclusive evidence that crime might be partially displaced to other neighborhoods. The Final section attempts to interpret the results and provides a final discussion regarding on next steps to take.

# Literature Review and Theoretical Argument

## The Military and Society

While discussions regarding the role of the Military dates from much before, the main basis for the current literature on the militarization of civil society is Samuel Huntington's *Institutional* characterization of Civil-Military relations in his "The Soldier and the State" (Huntington 1957). Focusing mainly on the United States, Huntington asked what was

the ideal institutional arrangement to ensure a set of goals; such as ensuring control of the military while also guaranteeing its ability to pursue its defined goals.

Huntington advocated for a clear distinction between the civilian government's sphere of influence and the Armed Forces' sphere of influence, with the military focusing exclusively on defending the nation against objectively external threats. The civilian government should, in turn, give the Armed Forces autonomy through the recognition of its "unique" military professionalism. The result would be a politically neutral military that is voluntarily subordinate to civilian control in the domestic realm (Huntington 1957; Owens 2010). This framework can be understood as thinking about the military as *separated* from the rest of society, having *autonomy* from the civilian government with respect to their ascribed responsibilities, and ideally having *distinct values* and cognitive traits to the rest of society. This fundamental description of the military and its relation with the civilian realm remains a fundamental assumption of much research today.

Huntington's characterization of the military was challenged by Morris Janowitz *Sociological* framework in "The Professional Soldier" (Janowitz 1960). Janowitz argued that rather, than a fixed phenomenon, the professionalism of the military varied dynamically in response to sociological factors. Furthermore, the basic distinction in civilian and military roles had been blurred by the emergence of nuclear weapons and limited war. Because of its new role in peacekeeping operations, the military needed to be ready to act in a manner akin to internal law enforcement and to share similar values as the rest of society. His prescription was a military that regularly engaged with the civil sphere and thus slowly converged to share similar values as the rest of society. How would the civilian government protect itself from the threat of the military itself? The answer was to have much greater and constant civilian oversight of the military at all levels.

Contrary to Huntington's prescription of *separation, autonomy, separation-in-values* of the military, Janowitz advocated for the *integration, oversight, and convergence in-values* of the military (Janowitz 1960; Owens 2010). As emphasized by several sociological writers that engaged with Janowitz's argument, neither the level of civilian supervision nor the separation between the civilian police and the armed forces should be taken as a given, as it varies over time and space, and its consequences should be studied (Feaver 2003; Schiff 2009; Brooks 2008; Bland 1999).

This final point has been taken to heart by a series of authors that study civil-military relations in Latin America. These authors start their analysis from the observation that the military is highly involved in internal politics, law enforcement, and development. Given this, they conceptualize the variation in the level of involvement in internal life and theorized about the consequences of having more or less involvement (G. A. Flores-Macías and Zarkin 2021). Under Flores-Macías and Zarkin's conceptualization, for example, different cases then lie in a spectrum going from Non-militarized police through militarized police (adoption of tools and practices of the military by the police) to the use of a constabularized military

(which involves using the military to do the tasks assigned to the police).

While the literature on militarization in Latin America does not engage as directly with the previous literature derived from Huntington and Janowitz's seminal work, these authors expand both the institutional and the sociological frameworks by thinking of Latin America as having the *worst* characteristics of both worlds. If the institutional framework advocates for separation, autonomy and differing values; while the sociological framework prescribes integration, oversight, and similar values; these authors describe a context where there is *integration* on one side, but *autonomy* and *differing values* on the other. In other words, the military keeps its procedural and institutional autonomy and differing ethos compared to the civilian police, while also keeping an active and integrated role in society and internal law enforcement (Antillano and Ávila 2017; Galavís 2020; G. Flores-Macías and Zarkin 2023; Magaloni and Rodriguez 2020; George Withers, Lucila Santos, and Adam Isacson 2010).

At first, this description may seem paradoxical with Janowitz's prediction that integration of the military into civilian issues should lead to a convergence of military and civilian values. Such as situation, however, is also not unheard of. For example, in a case study of the New Zealand constabularization of the military for peacekeeping operations, Greener-Barcham argues that while the roles of the military and the police become increasingly blurred, the ethos and perceived mission of both organizations remained significantly distinct. The police focused more on community engagement while the military focused on the destruction of a perceived "enemy" of the state (Greener-Barcham 2007). Similar situations have also been described in contexts as different as colonial South Asia (Beatrice Jauregui 2010; Easton et al. 2010).

## Police Patrolling

While the research mentioned so far has focused on the social impacts of the militarization of society and the ideal civil-military relations, a separate and parallel literature has focused on what strategies best help reduce and deter crime. Understanding both the broader social impacts of militarization and its impact on crime incidence (the problem that militarization is supposed to be fixing) could shed light on a nuanced trade-off between militarizing or not law enforcement.

The canonical theoretical framework to think about deterrence of crime remains Gary Becker's seminal work on the economics of crime. Becker understands criminals as rational actors that decide whether to engage in crime by thinking of it as a lottery, where the stochastic aspect considered is whether the criminal will be caught. Following this logic, the "supply" of crime will depend on the opportunity cost of not engaging in crime relative to the potential costs and harm from being caught by law enforcement agents. Thus, criminals think about the probability of getting caught, the severity of the punishment that one is to receive if caught and the celerity of the punishment once caught. The higher the probability

and the severity of punishment, as well as the faster the punishment is implemented, the lower the level of crime that should be observed (Becker 1968; Chalfin and McCrary 2017). Many authors have expanded Becker's theoretical basis for understanding crime. Particularly, Apel also highlights the importance of not only considering the certainty, severity and celerity of punishment, but also the criminal's perception of these factors. Given that there can be a weak link between actual and perceived values these parameters take, this is a relevant distinction to make (Apel 2013).

On the empirical side, the literature has focused on understanding the effects of police patrolling first and its complementary with other strategies, such as community engagement and provision of public services (Blattman and Miguel 2010; Blair and Weintraub 2023; Abt and Winship 2018; Nussio and Céspedes 2018; Blanes i Vidal and Mastrobuoni 2018; Lawson 2019). Overall, the evidence on this literature points to mixed evidence of a modest effect of police patrolling, at best. As a result of the perceived lacking performance of the police, militarization of law enforcement is generally proposed by executive governments in the Americas as a potential solution to perceived high levels of crime (Amoroso Botelho, Arciniegas Carreño, and González Tule 2023).

## Why (or why not) would the military be good at policing?

Given the persistence and yet potentially paradoxical role of the Armed Forces in law enforcement, many explanations have been proposed trying to argue why militarization of law enforcement could help in the reduction of crime (or why not). Overall, these can be grouped into two broad sets: One argues that there are important and stable differences between the Armed Forces and the police that impact their ability to fight crime. For example, the literature on the militarization of the Americas has emphasized both the perceived differences in cognitive training between both organizations, which lead the military to engage with criminals more as an "enemy" that must be destroyed rather than engaged with. Another example within this group is that both organizations are guided by different institutional provisions which makes the military less accountable to civilian leaders. Both of these factors should lead to an increase in the use of violence which should increase the deterrence effect of patrolling. Importantly, these authors also argue that these should increase abuses of human rights and other negative consequences. So these potential benefits should be weighted properly against these harms (Antillano and Ávila 2017; Galavís 2020; G. Flores-Macías and Zarkin 2023; Magaloni and Rodriguez 2020; George Withers, Lucila Santos, and Adam Isacson 2010; Lawson 2019).

Another explanation is that since the military are better educated and trained, they should be able to be more effective at combating crime. At least in DR, the minimal police training required to do police work is 6 months of institute training. While the same 6 months is the minimal requirement to enter the Armed Forces, lower-rank agents are not

allowed to do police work. Thus, at least 4 years of military training is required before a soldier does policing. Similarly, the military's educational requirements to climb up the chain of command are more strict. These include rules such as having to pass regular aptitude tests with limited chances in order to remain in the institution (*Ley Orgánica de las Fuerzas Armadas de la República Dominicana* 2013). Yet another explanation is that the military are better paid and work conditions are better. This would also be consistent with the lower educational requirements to be a full member of the police compared to the Armed Forces. If the military working conditions are better, then the opportunity cost of not performing should be greater as well, leading to greater effort on the part of the military. Similarly, other explanations emphasize differing respect for the chain of command and hierarchy within both organizations, or a culture of upholding the position of one organization relative to the other.

The second set of explanations include those that argue that there are not significant differences between the Police and the Armed Forces. These arguments would emphasize that any perceived differences between the military and the police are either external to the organizations or not sustainable over time. One argument, for example, is that any military deterrence effect is purely the result of potentially unjustified beliefs in the population. Scholars have noted the regular observation that the military is both well-regarded compared to other government institutions and particularly better regarded compared to the police. Similarly, they are believed to be able to perform police work more effectively (LAPOP 2012; Sung, Capellan, and Barthuly 2022; Lawson 2019).

This is also true in DR. Figure 6 shows the relative trust in the National Police and the Armed Forces in DR based on the answers to the question: "How much do you trust the Police/Armed Forces?" based on data from the Latin America Public Opinion Project (LAPOP 2012; Espinal et al. 2019). The main takeaway is that the Armed Forces are a trusted institution and in particular, are trusted as a viable alternative to the police. Even if these perceptions are unfounded, they might still cause a deterrence effect creating some form of self-fulfilling prophecy. Nevertheless, one might also infer that the public can update their beliefs about the relative effectiveness of the military upon observing interventions over time.

Another similar explanation is that the military, as integrated as they are, might just have less opportunities overall to properly interact with the general public compared to the police. Military agents are expected to relocated to different regions within the country at a call's notice and thus should be less rooted to any particular community than their police counterparts. If this is the mechanism, it is unclear what direction would militarization take. On one side, more localized agents are better able to engage in community policing and potentially be more effective at resolving community problems and resolving crime. This has been argued to be a relevant factor in fighting crime (Dube, MacArthur, and Shah 2023; Abt and Winship 2018). On the other side, more localized law enforcement agents build the knowledge necessary to extract increasing rents and engage in corruption at the potential cost of allowing crime to increase. This is specially true in a context with low state capacity
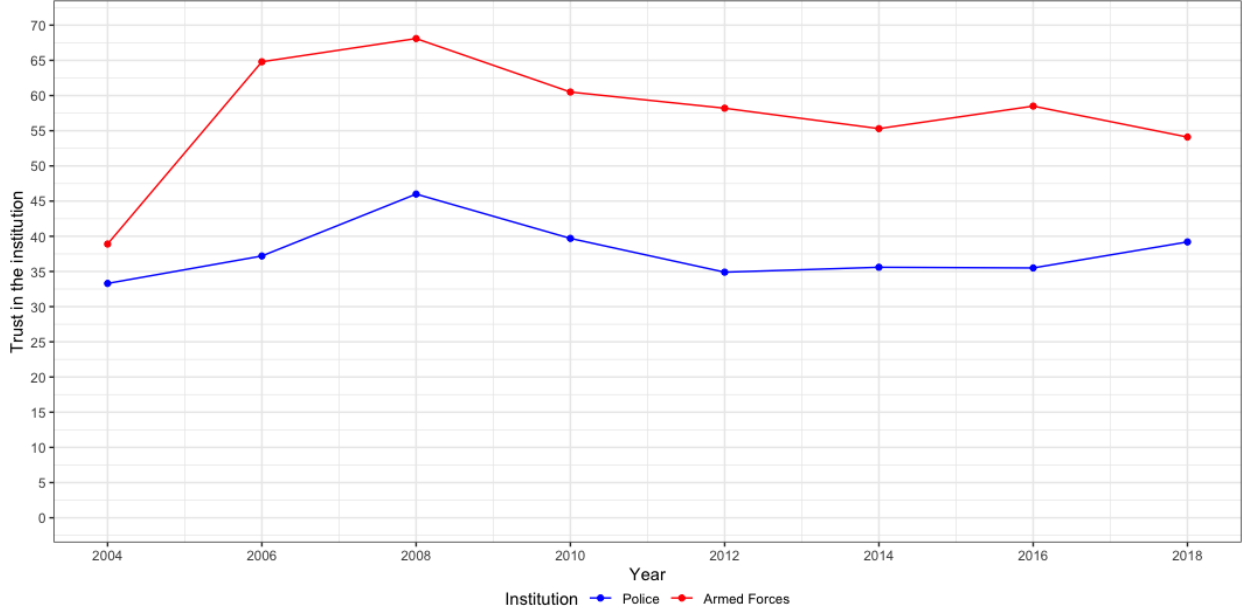
Figure 1: This plot shows the relative trust in the National Police and the Armed Forces in DR based on the answers to the question: "How much do you trust the Police/Armed Forces?" The original answers were scored on a 1-7 scale and these results are shown in a 0-100 scale. The data was obtained from the AmericasBarometer project and the LAPOP data. The figure is based on the report by Espinal et al. (Espinal et al. 2019).

and ability to supervise local agents (Galavís 2020). If the latter explanation is true, then as the military is socialized into engaging in police work, their effectiveness might decrease over time. Later in the paper I find no evidence of such a decrease in the effectiveness of the military, providing suggestive evidence against this type of explanations.

## Main predictions

Based on the previous discussion, I develop several main predictions regarding the impact of militarization of law enforcement on the incidence of crime. First, regardless of whether the mechanism is based on stable differences between both organizations or on perceptual and/or socialization differences, one should expect a reduction in the short term incidence of crime as a result of the militarization of law enforcement. If there are no stable differences, however, one should expect that the impact mixed patrolling should decrease over time, as the military socialize themselves into worse practices or as the public learns about their inability to perform. Thus, one should expect that the impact of military mixed patrolling should decrease in places that have experienced greater levels of militarization overall. Finally, based on previous studies of patrolling (Blattman and Miguel 2010), one should expect a partial displacement of crime to other localities, reducing the net overall effect on a military patrolling intervention. The three predictions are summarized below:

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1. The incidence of crime should decrease after a military intervention.

2. The effect of a military intervention should be lower in places that experience greater overall levels of militarization.

3. There should be spill-over effects on other nearby localities.

# Institutional and Empirical Context in Dominican Republic

After discussing the dynamics and consequences of the militarization of society and law enforcement in Latin America, I now shift my focus to the institutional context in DR. Examining the specific institutions in DR suggests that the arguments made for Latin America in general are applicable and relevant to the Dominican case and that it serves as a good laboratory to test the predictions previously presented. In this section, I describe that context and how it fits within the literature above. Then I describe the way in which the militarization of law enforcement works in this context.

## Short History of the Police and the Military

Firstly, similar to the co-evolving dynamic described by Jauregui (Beatrice Jauregui 2010) and by other authors in the context of Latin America (George Withers, Lucila Santos, and Adam Isacson 2010; Easton et al. 2010), the history of the National Police and the Military has been intertwined since their respective origins while at the same time keeping their distinct identities and legal mission. While there existed previous organizations that represented the State's monopoly of the use of force before, both organizations can track their origins to the intervention by the United States in 1916. At that time, the authorities leading the intervention disbanded any previous organizations that represented the State's capacity of coercion and ensured internal security and obedience to the occupation through the so-called *Constabulary*, of the U.S. Marine force in DR.

One year later, in 1917, the *Guardia Nacional* would be created following the same structure and hierarchy scheme as the Constabulary. Another organization, the *Policia Nacional* was created in the image of the Guardia Nacional in 1921 and renamed to *Brigada Nacional* in 1924. Finally, the Brigada Nacional would then be renamed to the *Ejército Nacional* (the Army) in 1928, during the Trujillo dictatorship era, becoming the foundational organization of what is today the Armed Forces. After the creation of the Brigada Nacional, the Guardia Nacional continued to exist until it was renamed to the *Policía Nacional* (National Police) and organized as a single organization with national scope with the objective of providing

internal law enforcement (Coronel Dr. Pablo Antonio Castro Ramirez 2018; Ministerio de Defensa de la República Dominicana 2023). Not only did both organizations have similar origins, but at times they have engaged in the exact same duties as the other. Similarly, they share hierarchical structures that were inherited from the Constabulary era.

Furthermore, both organizations have distinct but still very much intertwined missions or, in terms of the classical literature on civil-military relations, intertwined "socio-political uniqueness" (Easton et al. 2010). While the political constitution of the country declares that the main objective of the Armed Forces is to defend the nation against external threats and the main objective of the Police is to ensure internal security, peace, and law enforcement, it also establishes that the Military has a duty to aid in national development and in assistance of the police if deemed necessary by the President of the Republic (*Constitución Política de la Republica Dominicana* 2015). The result is an integrated armed forces organization which often engages with the public and performs roles normally reserved to the police.

## Institutional Distinctions Between Police and Military

### Leadership and Budgetary Prerogatives

Nevertheless, important distinctions remain between both institutions. The first difference is the gap in perceived effectiveness between both organizations by the general public, as shown in the previous section. Beyond this, however, there are relevant real institutional differences between the two organizations that mean that the military is by law both less accountable to civilian authorities than the police and also more autonomous. First, following the criteria developed by Kyle and Reiter to determine whether the a military organization was given high levels of prerogatives, both the head of the Armed Forces as well as the head of its budgetary office is a member of the organization. While in theory, the Minister of Defense (the head of the Armed Forces) could be a civilian, this has only been the case for six out of the last forty five ministers. Two of those were Rafael Trujillo and his brother during the Trujillo dictatorship era, and it has occurred only once since the fall of the dictatorship in 1961 (Ministerio de Defensa de la República Dominicana 2023). Conversely, the national police is a dependency of the Ministry of Interior and Police, meaning that its budget is determined by civilian officials within the Ministry. Similarly, while the chief of police is required to be a police agent themselves, leadership of the direction of the police is shared with the Minister of Interior, who is a civilian (*Ley Orgánica de la Policía Nacional* 2016).

### Judicial Autonomy

Furthermore, the law establishes that crimes committed by agents of the Armed Forces fall under a special military jurisdiction in the justice system when the crime was committed

while in duty, meaning that their cases are considered by special military courts composed of other members of the military (*Ley Orgánica de las Fuerzas Armadas de la República Dominicana* 2013; *Que Crea el Codigo de Justicia de las Fuerzas Armadas* 1953). While there also exists a similar special police jurisdiction, its scope of competency is much more limited and cases committed by police officers are simultaneously considered by civilian courts at all times. At this point, I must make the disclaimer that, the general Penal Code of the Republic establishes that the competency of civilian courts applies to both police and members of the armed forces, regardless of whether the crime was committed in the line of duty (*Codigo Procesal Penal de la República Dominicana* n.d.). Different laws at different points in time seem to give emphasis to one principle or the other, thus there is uncertainty regarding the extent of the competency of the military jurisdiction relative to police jurisdiction.

## Accountability to Civilian Authorities

Nevertheless, this disclaimer should not make the reader doubt that there is a significant gap in accountability to civilian authorities between both organizations. The reason for this is simple: even if both police and military agents are judged by civilian courts, the information that is to be considered in these courts to determine the culpability of an agent is to be collected internally by their respective organizations and their respective *Direcciones de Asuntos Internos* (Departments of Internal Affairs). Within the Armed Forces, this means that all information related to a wrongdoing committed by a soldier will be collected, compiled and reported by fellow military agents (*Ley Orgánica de las Fuerzas Armadas de la República Dominicana* 2013).

The picture in the National Police, being a dependency of a civilian ministry, is much different. The main leading and decision-making body of the National Police is the *Consejo Superior Policial* (Superior Police Council). While this council is headed by the chief of police, importantly it is also composed by the Ministry of Interior and the Nation's Attorney General, two important civilian authorities. The relevant information to have is that the Police's Office of Internal Affairs reports directly to this Council and any information about police wrongdoings reported must also be reported to the *Ministerio Público* (the attorney general's office) and the Ministry of Interior. Furthermore, the Ministry of Interior has the prerogative to form Independent Civilian Committees composed by individuals with neither police nor military affiliation to lead public investigations of wrongdoings committed by the police. The result is that police agents are much more accountable to civilian authorities than military agents (*Ley Orgánica de la Policía Nacional* 2016).

**Cognitive differences**

A direct measurement and comparison of the ethos and cognitive training of police and military agents remains outside the current scope of this project. While this would have allowed an ideal comparison between the two organizations, certain distinctions can still be made between the two based on the intentions expressed by lawmakers in the guiding laws of both organizations. Simply stated, while the guiding law of the Armed Forces does mention the need for the Armed Forces to help in social development and to assist the police in combating crime, it does not mention the need to regulate the Armed Forces use of force against civilians nor acknowledges the potential negative implications of excessive use of force within society (*Ley Orgánica de las Fuerzas Armadas de la República Dominicana* 2013). Similarly, reading the Code of Justice of the Armed Forces, first drafted during the Trujillo dictatorship era, it is clear that the emphasis in subordination to hierarchy in a context of war aims to guide behaviour against an enemy without incentivizing soldiers to think outside their stated mission (*Que Crea el Codigo de Justicia de las Fuerzas Armadas* 1953).

On the contrary, the guiding law of the Police not only mentions an explicit objective of regulating the behaviour of the police and provides the mechanisms of civilian control mentioned above, but also mentions the objectives of the protection of life and physical integrity, protection of rights and freedoms, the need to maintain peace and the need for community engagement in the fulfillment of their duties. It also explicitly mentions the objective of protecting the human rights of civilians (*Ley Orgánica de la Policía Nacional* 2016). At least in the letter, the police seems much more designed to engage with the objective to "protect and serve" than the military. The main takeaway from this discussion, is that there exist significant cognitive, institutional and perceptual differences that should lead the reader to believe that DR is a representative case to test the dynamics and predictions described in the theoretical section. The following section will describe with more detail how the deployment of the military for law enforcement works.

# Deployment of the Military for Law Enforcement Operations

As mentioned before, other than ensuring external security, the constitution of the country gives the Armed Forces the responsibility of assisting other government institutions in the provision of public services for "the social and economic development of the country" (Consultoría Jurídica del Poder Ejecutivo 2015). This can take the form of anything from providing soldiers to do construction labour on government projects to assisting the general population during natural disasters and to provide security to tourists and guiding traffic. In practice, the Armed Forces serves the government as a reserve source of labour that can

be used for virtually any other government objective [1]. This paper focuses on the role of the Armed Forces in assisting the police.

In theory, the armed forces should assist the police only whenever there is an explicit declaration by the president of the Republic to do so. The reality, however, is that since at least 2006, the armed forces assist the police on patrolling duties and more on at least a daily basis. The soldiers that assist the police can be members of any of the three main branches of the armed forces: the Army, the Navy and/or the Air Force. When declarations of cooperation occur, there is an increase in the cooperation between both organizations. According to high-level officials in the Armed Forces, more than 184,000 members of the Armed Forces have assisted the police since June 2022.

Such military patrolling always occurs in cooperation with police units, meaning that there is no military exclusive patrolling. Furthermore, at least in theory, the Armed Forces provides mainly the labour force but does not lead any patrolling unit. However, based on conversations with a high-level ex-consultant to the National Police, in practice this is not always the case, as both the military and the police tend to respect the officer with the higher rank in a unit, regardless of whether they were a member of the police or of the armed forces.

The administration within the armed forces, in cooperation with the police, ultimately assigns to which police unit their agents will be sent to, meaning that they have knowledge of where and when their agents are. Importantly, after interviews with the chief of operations of the Armed Forces, it was established that the assignment of a mixed patrol to a particular neighborhood on a given day depended on three main criteria: 1) the levels of crime in the near past in that neighborhood, 2) the expressed lack of police personnel, and 3) the expectation of an exceptional event (including protests and parties) that could disrupt public order. At least some of these will be directly tested in the empirical section of this paper. The following section will describe the data that will be used to test this paper's main predictions and leading assumptions.

# Data

The geographic administrative division of the Dominican Republic is generally organized on at six main levels: province, municipality, municipal district, sectors, neighborhoods and sub-neighborhoods [2]. From now on, I often use the word locality, to refer to the smallest geo-

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[1] In conversations with the Minister of the Armed Forces, they described the organization as the "Transversal organization that supports the country".

[2] Municipal districts are in a sense optional, meaning that not all municipalities contain a municipal district and not all sectors belong to one either. Similarly, while all sub-neighborhoods belong to a neighborhood, not all neighborhoods are divided into smaller sub-neighborhoods. These cases, however, are an exception rather than the norm

graphical unit available in a particular place, whether it is a neighbor or a sub-neighborhood.

## Militarized Patrolling

As part of the program "Mi País Seguro" —the current program under which military assistance of the police is managed—, the Armed Forces of DR produces and internally distributes classified daily reports detailing the activities to which agents participating in the program were assigned. Importantly, these reports also describe all the localities that have been intervened as part of a mixed patrolling mission involving both the military and the police in any particular day. For this project, I obtained access to declassified versions of these daily reports through special access to the leadership of the Armed Forces and its Department of Operations and Strategic Management. The data on military patrolling that I use was obtained by scrapping these reports and matching the locality names mentioned in them to the official administrative names used for different localities by the *Oficina Nacional de Estadística*, the State's National Statistics Office (Oficina Nacional de Estadística (ONE) 2021).

I use every daily report from January 1st, 2023 to June 30th, 2023 to record all the localities that were intervened by mixed military patrols at the sub-neighborhood level. Furthermore, at the province level, I record the number of military personnel that is tasked with assisting the police during the day and during the night, as well as the number of vehicles and motorbikes shared that day. At a regional level, I record the number of personnel from each of the three main organizations of within the Armed Forces (the Army, the Navy and the Air Force), as well as two other military dependencies tasked with supporting the police. Each of these are called the CIUTRAN and the COMIPOL respectively. In the time range considered, 473 sub-neighborhoods (3 % of them) are ever intervened by mixed patrols. Among those 473, the average sub-neighborhood is intervened half of the days included in the sample.

It is important to mention that a fuller picture of the impact of military patrolling would include information about police-exclusive patrolling. While I am in the process of obtaining that information, I still do not have access to it. This is further complicated by a change in leadership within the National Police. Through previous conversations with the Police, my expectation is that I will obtain this information in the future. There is some uncertainty, however, about the timeline under which this will happen. With the current data, I am able to make comparisons between military patrolling and a combination of no patrolling and police-exclusive patrolling. This means that I can make claims regarding the effectiveness of mixed military patrolling units overall but not yet make the relevant comparison between the effectiveness of military patrolling compared to police-exclusive patrolling. For the moment, it remains the scope of future work.

**Crime**

While crime reports are publicly available in DR (CADSECI n.d.), the public records do not show date nor location information. Instead, the information used in this project was obtained through a direct application to the Statistics Department of the National Police through the Public Information Access System (Dirección General de Ética e Integridad Gubernamental n.d.). The data that was shared as a result of the application is a data set of every single incident of crime across four categories that has been reported in the country since at least 2016 up until June 2023, though the actual time range can be much wider depending on which of the four categories is considered. The four categories considered are homicides, armed robbery, vehicle theft and motorbike theft. This new data set includes the exact date, time and neighborhood where the crime took place. It also details other information such as the age range of the victim, whether the victim was a man or a woman, and whether the crime took place in a public or private space (and what type of private place). Overall, there are 1975 reported incidents of crime considered in the time range from January 2023 to June 2023. However, there is great variation in the amount of crime perceived throughout this time. The sub-neighborhood with the least amount of incidents experienced zero incidents through out the time considered, while the sub-neighborhood with the most crime experienced 72 incidents.

**Complementary Information**

I complement the previous data with information from the 2010 National Census by the National Statistics Office (ONE). The data contains aggregated information at the neighborhood level on pover rates, quality of life, total number of households, total population and neighborhood spatial area. While more recent census data would have been ideal, the census data for 2020 has not yet been organized, compiled and published by the authorities as of December 1st, 2023. Once that information is available, it will be included in the final information of this paper.

# Empirical Design

In this section, I detail the empirical strategy followed to test the hypotheses developed in the previous sections regarding the impact of the police on the incidence of crime. The resulting data available to analyze this relation is a balanced panel data set that tracks all mixed patrolling military interventions and all crime incidents that occurred in a particular locality during the period between January 1st, 2023 and June 30th, 2023. Thus, every observation in the data is a combination of a locality and a date. Formally, every observation in the data set can be represented by a pair $(i, t) \in \{1, 2, 3, ..., N\} \times \{1, 2, 3, ..., T\}$, where $i$ represents a

given locality and $t$ represents a particular date. Similarly, N represent the total number of localities in the data and T represents the total number of days.

For any given $(i,t)$, we observe $Y_{it}$, the total number of criminal incidents that were reported in locality $i$ at day $t$, $Z_{it} \in \{0,1\}$, representing whether that given locality was intervened by the military on that particular day, and $X_{it}$ which represents a vector of potentially time-varying covariates measured at time measured at $(i,t)$. In what follows, I will first formally describe the relevant quantity of interest, the method used to estimate this quantity, and the relevant assumptions for identification. Then, I will present the main results of the estimate, followed by a discussion regarding the validity of each of the relevant assumptions. After that, I present the results of some extra diagnostic analysis.

## Quantity of Interest

I want to estimate the causal effect of a mixed patrolling military intervention on the incidence of crime for a given locality at a given date. In an ideal world, measuring this would entail taking two exact copies of the same locality, which have had the exact same history of interventions in the past, except for the fact that at a given period $t$, one was intervened while the other was not. Then the quantity of interest would be the difference between those two copies in the outcome variable of interest at some point in the future.

Formally, I define a value $F > 0$ which represents the number of time periods in the future after a military intervention for which we are interested. In the current context, if $F = 4$, we would be interested in the impact of a military intervention on crime occurring (or not) four days after the intervention takes place. I also define a quantity $L > 0$ that represents the number of days in the past for which we believe that previous interventions could impact current outcomes. Meaning, if $L = 4$, we would be making the implicit assumption that an intervention that occurred more than 4 days ago in a given locality $i$ does not have an impact on the incidence of crime at time $t+1$. Given $F$ and $L$, then the quantity of interest can be defined as follows:

$$
\begin{aligned}
\delta(F, L) = {}& \mathbb{E}[\, Y_{i,t+F}(Z_{it} = 1, Z_{i,t-1} = 0, \{Z_{i,t-l}\}_{l=2}^{L}) \mid Z_{it} = 1, Z_{i,t-1} = 0 \,] - \\
& \mathbb{E}[\, Y_{i,t+F}(Z_{it} = 0, Z_{i,t-1} = 0, \{Z_{i,t-l}\}_{l=2}^{L}) \mid Z_{it} = 1, Z_{i,t-1} = 0 \,]
\end{aligned}
\tag{1}
$$

Where the intervention history $\{Z_{i,t-l}\}_{l=2}^{L}$ is set to $(i,t)$'s realized intervention history and $Y_{it}(.)$ is the potential outcome of an observation on locality $i$ at time $t$, conditional on its intervention history up until $L$ periods in the past.

## Estimation Approach

Given, the structure of the data at hand and the quantity of interest, I follow the approach introduced in Imai et al. (Imai, Kim, and Wang 2023) to analyze panel data in which an intervention can turn on and off for the same unit at different points in time through the data. As a superficial description, the estimation process entails matching every treated unit — units that go from not being intervened one day to being intervened the next day— to a set of similar control observations in the same day that serve as comparisons. This matching is done primarily by their intervention history and secondarily by relevant covariates. Treated and control observations are then compared using a Difference-in-differences approach to compute ATT estimates that correspond to each of the treated units. Finally, these ATT estimates are averaged to obtain an overall estimate of the quantity of interest defined in equation (1).

Formally, given the quantities $L$ and $F$, I define the set of treated observations as every pair $(i, t)$ s.t. $Z_{it} = 1, Z_{i,t-1} = 0$. Then, for every treated observation $(i, t)$, I define the control set $M_{it} = \{i' : i' \neq i, Z_{i't} = 0, Z_{i't'} = Z_{it'} \; \forall t' = t - 1, ..., t - L\}$. Then, the estimate of the quantity of interest is given by:

$$\hat{\delta}(F, L) = (\sum_{i=1}^{N} \sum_{t=L+1}^{T-F} D_{it})^{-1} \sum_{i=1}^{N} \sum_{t=L+1}^{T-F} D_{it}\{(Y_{i,t+F} - Y_{i,t-1}) - \sum_{i \in M_{it}} w_{it}^{i'}(Y_{i',t+F} - Y_{i',t-1})\} \quad (2)$$

Where $D_{it} = Z_{it}(1 - Z_{i,t-1}) \cdot \mathbb{1}\{|M_{it}| > 0\}$ and $w_{it}^{i'}$ represents a non-negative normalized weight given to each control observation $i' \in M_{it}$. These weights are estimated through propensity score weighting using the relevant covariates such that $w_{it}^{i'} \geq 0$ and $\sum_{i \in M_{it}} w_{it}^{i'} = 1$.

I examine the quality of the matched sets by replicating the estimation procedure on the values of the relevant covariates before the period in which the unit is intervened. Namely, for all relevant covariates, I compute:

$$\hat{\delta}^*(F, L) = (\sum_{i=1}^{N} \sum_{t=L+1}^{T-F} D_{it})^{-1} \sum_{i=1}^{N} \sum_{t=L+1}^{T-F} D_{it}\{(Y_{i,t-F} - Y_{i,t-L-1}) - \sum_{i \in M_{it}} w_{it}^{i'}(Y_{i',t-F} - Y_{i',t-L-1})\}$$

$$(3)$$

In here, the key difference between equation (2) and equation (3) is that the former compares $Y_{i,t+F}$ against $Y_{i,t-L-1}$ while the latter compares $Y_{i,t-F}$ against $Y_{i,t-L-1}$.

## Identification Conditions

Importantly, in order for $\hat{\delta}$, as specified in equation (2), to correctly identify the quantity of interest $\delta$ defined in equation (1), three conditions must be met. These are detailed below:

**Assumption 1.** *If $Z_{it}$ indicates the presence of an intervention, $X_{it}$ represents relevant covariates and $Y_{it}$ represents the relevant outcome at observation $(i, t)$, then the causal order is given by $X_{it} \to Z_{it} \to Y_{it}$.*

In the context of this study, this assumption entails first that the covariates of a given $(i, t)$ observation are realized before the treatment while at the same time implying that the treatment assignment must occur before the level of crime is realized, all within the same time period. Intuitively, the validity of this assumption is likely. The covariates considered in the analysis are all determined by the previous history of each locality, before any military intervention can be either assigned or implemented. This does mean, however, that I cannot control for other variables that are realized simultaneously as the assignment condition, such as assignment of military patrolling in nearby neighborhoods.

Assumption 1 also implies that the intervention assignment must occur before the observed outcome is realized. Under the assumption that the date when crime incidents occur is recorded correctly regardless of the date in which the crime was actually reported, and under the assumption that homicides are recorded fairly quickly, it should be the case that the observed incident of crime in this project is realized after the military intervention is assigned for a given locality.

While it is true that military patrolling can be relocated from their assigned neighborhoods, the "assignment" itself cannot be relocated, which is what I observe in the data. Patrolling cannot be "assigned" in response to a future crime. Even preventive assignment is still realized before the actual crime it is supposed to deter is manifested (or not).

**Assumption 2.** *There are no spillover effects and limited carryover effects. The potential outcome for unit $i$ at time $t + F$ does not depend neither on the treatment status of other units nor on the previous treatment status of the same unit $i$ before $L$ time periods.*

This assumption is more important as it involves potential restrictions on the Data Generating Process in my setting. This is especially true given previous literature on the subject that finds the existence of spillover effects. There are two main types of spillover effects that should worry the reader.

1. **Informational spill-overs:** these occur when crime is deterred in proximate sub-neighborhoods because information about a military intervention in the originally treated sub-neighborhood is spread and potential criminals in proximate sub-neighborhoods infer that their likelihood of being caught is higher as a result. Assuming that the pure

effect (net of spill-overs) of a military intervention is negative (a decrease in crime), then this form of spill-overs should bias our estimates positively toward/beyond 0 since the comparisons between treated units and control units will be reduced. Thus, if our estimate is positive, we can't confidently reject the null hypothesis of no effect. If our estimate, however, is negative, it can serve as an upper bound on the true effect of military patrolling and it would serve as evidence of a real effect.

2. **Displacement spill-overs:** These occur when potential criminals move from a treated locality to a proximate untreated one. This would increase crime in the untreated locality while decreasing it in the treated locality. The result is a negative bias in our estimate. In later sections, I show that while there is suggestive preliminary evidence of this type of displacement spill-over, the magnitude of spill-overs is much smaller than the main treatment effect presented and fails to achieve statistical significance. Because of this, I argue that while relevant, spill-over effects are unlikely to account for the main general effect found.

**Assumption 3. *Parallel trends identification assumption:*** *If $Z_{it}$ indicates the presence of an intervention, $X_{it}$ represents relevant covariates and $Y_{it}$ represents the relevant outcome at observation $(i,t)$, then the relevant parallel trends assumption is described in the equation below:*

$$\mathbb{E}[Y_{i,t+F}(Z_{it} = 0, Z_{i,t-1} = 0, \{Z_{i,t-l}\}_{l=2}^{L}) - Y_{i,t-1} \mid Z_{it} = 1, Z_{i,t-1} = 0, \{Z_{i,t-l}; Y_{i,t-l}\}_{l=2}^{L}, \{X_{i,t-l}\}_{l=0}^{L}]$$
$$=$$
$$\mathbb{E}[Y_{i,t+F}(Z_{it} = 0, Z_{i,t-1} = 0, \{Z_{i,t-l}\}_{l=2}^{L}) - Y_{i,t-1} \mid Z_{it} = 0, Z_{i,t-1} = 0, \{Z_{i,t-l}; Y_{i,t-l}\}_{l=2}^{L}, \{X_{i,t-l}\}_{l=0}^{L}]$$

In other words, the expected untreated trend (in potential outcomes terms) should be the same regardless of whether a unit was treated or not.

As I will show later, there are relevant differences between the treated units and their matched control units that might suggest that the two groups are different. Nevertheless, there are two main reasons that suggest the validity of the parallel trends assumption. Firstly, the impact of the treatment condition on past realizations of the outcome is an statistical 0, suggesting that there are no differences in previous trends between the treated units and their matched controls. Secondly, I consider to what extent could the military tracking crime in assigning military interventions. While crime is indeed predictive of future interventions (as one would expect), this predictive capacity is greatly reduced as shorter time periods are considered. Similarly, average crime in the recent past explains just a small amount of the variation in military assignment. This suggests that there is a significant randomness component in the outcome that is unrelated to the assignment condition. This is in turn suggestive that the parallel trends assumption should hold. I engage with these results in more detail in the sections to follow.

# Main Results

In the following analysis, I set $L = F = 7$. The results observed in the main analysis, however, are robust for $L \in \{1, 7, 14\}$ and $F \in \{7, 14\}$. Preliminarily, the matching procedure managed to match around 60.5% of the treated units in the sample. This is equivalent to 2939 units overall. The mean and median matched set sizes are 25.39 and 1 respectively. The first result shown is in Table 1. This table shows the estimate of computing the average incidence of crime on the seven days after an intervention and comparing it to the incidence of crime the day before the intervention. Conceptually, this is the impact of an intervention on the future average incidence of crime.

What can be seen is a decrease of 0.011 units of crime in the following week as a result of mixed military patrolling today. On absolute terms, these results seem small. A military intervention on a given day would reduce around one-hundredth unit of average crime over the week following the intervention. That being said, the average amount of crime experienced across localities in a single day is 0.02 units of crime and the standard deviation is 0.027 units of crime. Given that crime incidents are, in general, rare, it might also be relevant to consider these estimates on relative terms. Seen this way, the results could explain an impact equal to 5 times the average level of crime across localities on a single day and a little over a third of its standard deviation. This is a potentially substantive portion of the variation in the outcome variable.
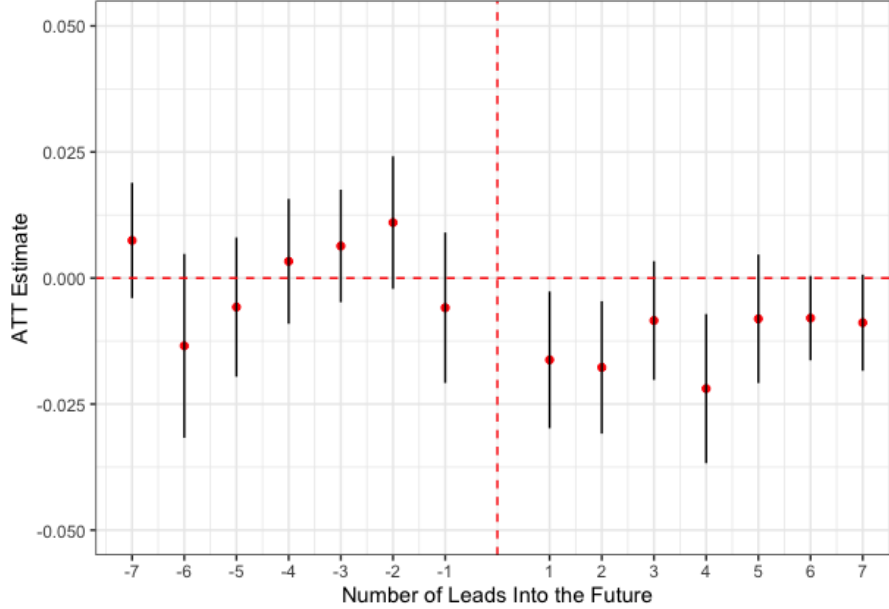
Table 1: Impact of military patrolling over the week following an intervention

|  | Estimate | Lower Bound | Upper Bound |
|---|---|---|---|
| Total crime | -0.011 | -0.020 | -0.003 |

This table presents the results from the main Matching DiD estimator to estimate the impact of military interventions on the total number of reported criminal incidents over the week following the intervention. The confidence intervals are built at the 95% confidence level. Observations control for the treatment history up to 7 days before the intervention. The total number of treated units is 4859 while the total number of unmatched treated units is 1920.

I can also disentangle this effect and show the effect of an intervention for each of the seven days. Namely, I show $\hat{\delta}(F, L)$ for $F \in \{1, 2, 3, ..., 7\}$. As figure 2 shows, the estimate of the impact of a mixed patrolling military intervention remains negative for all periods considered. This suggests that military patrolling could reduce crime on the following days by as much as 0.022 units of crime (This is the effect for $t+4$. Furthermore, 3 out of 7 of those estimates are statistically significant and different from 0. Furthermore, as mentioned before, I can use the impact of the intervention on the outcome for periods before the intervention actually takes place as a test for Assumption 3, expecting that the impact should be 0. This is exactly what we see. Not only none of the pre-intervention estimates are not statistically

Figure 2: Granular ATT of military mixed patrolling



significant, but also they oscillate between positive and negative effects. Overall, I consider these results consistent with the previous one shown in Table 1.

It is similarly important to consider whether whether the treated units and the control sets are balanced across relevant observations. Table 2 compares the average of three variables across the past seven days between the treated units and their control groups. The first variable is the "Running Crime". The running crime is the total incidence of crime in the previous 7 days. This is different from the placebo quantities considered in Figure 2. Consider period $t - 1$ for locality $i$. The quantity used for estimation in figure 2 would measure the number of crime that occurred only on day $t - 1$. The quantity used in table 2 measures the total amount of crime that occurred from period $t - 1$ through period $t - 8$. Considering this variable allows us to control for longer spells of past crime in the past.

The second variable is the average number of days in which locality $i$ has intervened up until period $t - 7$. In other words, the intervention rate is $\frac{1}{t-7} \sum_{j=1}^{t-7} Z_{ij}$, where $Z_{it} = .1$ if the cell $(i, t)$ was intervened by military mixed patrolling. Finally, I consider the time-invariant extreme rate of poverty, obtained from the 2010 National Census at the level of the sector. For every sector, this is equal to the number of people who live under the extreme rate of poverty limit over the total population in that sector.

Table 2 does show statistically significant differences in two of these variables. Nevertheless, one might consider the direction in which these variables might bias the main estimates. Given that there are no statistically significant differences in the running crime, and given that treated and control units are exactly matched on the treatment history 7 days before

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Table 2: Table balance between treated units and their comparison sets across three different variables

|  | Estimate | Lower Bound | Upper Bound |
| --- | --- | --- | --- |
| Average Running Crime | -0.006 | -0.021 | 0.009 |
| Average Cumulative Intervention Rate | -0.007 | -0.009 | -0.005 |
| Extreme Rate of Poverty | 5.742 | 4.781 | 6.702 |

the period considered, it is plausible that a slightly lower intervention rate and a higher rate of poverty would be correlated with higher levels of crime in a locality. If this is the case, then these differences could attenuated the main estimates toward 0. Given that the main results show a negative effect on incidence of crime, I can consider this as a upper bound on the "real" effect of the incidence of crime.

## Does previous crime determine current military interventions?

One final way in which I can assess the plausibility of Assumption 3 is by understanding to what extent does previous crime determine current assignment of the main intervention. Intuitively, the Armed Forces are likely to target localities based on the level of crime in that locality. This might be a problem if the Armed Forces and Police are able to rapidly react to high increases in crime in a relatively short window of time. Particularly, it would be a problem if they are able to react to increases in crime that occur between a period $t-1$ and a period $t$. To see whether this is the case, I can look at the relationship between average crime in the past and the likelihood that a locality is intervened. Presumably, this relationship should decrease as one decreases the window of time over which average crime is measured. This would suggest that changes in crime over very small time windows (say, less than a day) should not systematically impact the likelihood of being intervened and thus would not violate the parallel trends assumption.

This is exactly what I find. Table 3 shows the relationship between the average level of crime and the average number of days in which a locality is intervened. The first column computes these averages for each locality across the whole 6 months in the sample. The second column divides the panel into two periods consisting of the first three months (Jan-March) in the panel and the second three months (Apr-June). Then, it computes these averages for each locality across the first three months and across the second three months. Finally, the third column repeats this process by dividing the panel into periods of 1.5 months instead. The main takeaway from this table is that it serves as initial suggestive evidence that as the time window is decreased, so is the relationship between both variables.

Table 3: Average amount of crime per day is correlated with the average number of military mixed patrolling interventions

| | Average Intervention Across X days: | | |
|---|---|---|---|
| | (6 months) | (3 months) | (1.5 months) |
| Average Crime per Day | 2.619*** | 2.365*** | 1.905*** |
| | (0.123) | (0.083) | (0.053) |
| Adjusted $R^2$ | 0.020 | 0.025 | 0.020 |
| N | 15,803 | 31,606 | 63,212 |

*Note:*      *p<0.1; **p<0.05; ***p<0.01

The table follows the cross-sectional relationship between the average amount of crime per day over X months and the average number of interventions per day over X months. Estimates were computed by dividing the sample into either one group of 6 months, 2 groups of three months, or 4 groups of 1.5 months. Then the average of each variable was computed for each of these periods and for every locality. Simple regression coefficients are shown.

In order to fully make the argument that for small enough time periods, treatment assignment contains significant levels of randomness compared to the outcome, I must consider even smaller periods. In Table 4, I repeat the previous exercise by dividing the sample in periods of 24, 13, 7, 4, 2, and 1 days respectively. The difference, however, is that instead of estimating the relationship between average crime and average treatment in each period, I estimate the relationship between average crime and on whether a locality was treated at the very end of the time period. For example, consider the locality A and the first section of 24 days in the sample. Locality A experienced a military intervention 12 out of those 24 days. It also experienced an intervention on the 25th day, one day after the first 24 period cut. Then the regressor in this regression for locality A would take the value of 0.5 and the outcome variable would be 1.

Table 4 supports the idea that, for small enough windows of time, past incidence of crime looses its capacity to predict future military interventions. First, while the relationship between both variables remains positive, the relationship for one day intervals is 10 time smaller than the relationship at 24-days intervals. The same is true when one considers the adjusted $R^2$. By the time one reaches the 1-day intervals, the variation in military assignment that can be explained by variation in past crime becomes negligible.

Overall, the previous diagnostics paint a slightly mixed picture. Both the analysis of the balance and the analysis of the relationship between past crime and current military interventions suggest that the treated units might be different than their control observations. Yet, the direction of bias from this differences attenuate the main effects toward 0 and thus the estimates can still be considered as an upper bound on the true value of the quantity of interest. Furthermore, table 4 does show that the variation in military assignment is far

Table 4: The prediction power of crime on whether there is an intervention is reduced as the time considered is reduced.

| | Treatment Status at the End of X Days | | | | | |
|---|---|---|---|---|---|---|
| | (24 days) | (13 days) | (7 days) | (4 days) | (2 days) | (Every day) |
| Average crime | 0.248*** | 0.173*** | 0.126*** | 0.068*** | 0.026*** | 0.025*** |
| | (0.036) | (0.022) | (0.012) | (0.007) | (0.003) | (0.002) |
| Adjusted $R^2$ | 0.0004 | 0.0003 | 0.0002 | 0.0001 | 0.00003 | 0.00003 |
| N | 126,424 | 252,848 | 505,696 | 1,011,392 | 2,022,784 | 2,844,540 |

*Note:*       *p<0.1; **p<0.05; ***p<0.01

This table represents the relationship of the average crime per day over a period of X days and the likelihood of experiencing a military mixed patrolling intervention at the end of that period of time. Estimates where computed by dividing the sample into periods of X days. Then the treatment status one day after that period is regressed on the average amount of crime over that. The main takeaway is that crime is able to predict future interventions, but its predictive power decreases as the window of time considered is reduced. This can be seen from both inspecting the size of the estimated coefficients and the magnitude of the adjusted $R^2$. Particularly, it is greatly reduced by a factor of 10 once we go from considering 24 days to considering only 1 day.

from being completely explained by variation in past crime, suggesting an important level of randomness in treatment assignment. Similarly, the null impact of the treatment assignment on previous crime is strong evidence supporting the parallel trends assumption. Overall, I take these as limited evidence in favour of the parallel trends assumption, while I keep in mind its limitations and signal the bias in light of the differences found between the treated units and the control observations.

**Do we see any spillover effects?**

An important question to ask is whether the impact of the military is evidence of an actual reduction in crime or simply the result of spill-overs. The fact that the main estimates computed are negative should suggest that, if spill-overs are present, the main worry should focus on displacement spillovers, since informational spillovers should attenuate the estimated effects toward 0. I attempt to measure the extent of spillovers by changing the previous definition of treatment. Namely, excluding sub-neighborhoods that received an military intervention themselves, I define treatment by the intervention status in other sub-neighborhoods within the same broader neighborhood to which they belong. Namely, a sub-neighborhood is treated if another sub-neighborhood in their proximity experienced a military intervention on the same day. Table 5 shows the effect of repeating the previous estimation procedure using this new definition. Looking at the average effect across the week

after a military intervention, I fail to find any statistically significant evidence of spillovers effects.

Table 5: Spill-over of military patrolling over the week following an intervention

|  | Estimate | Lower Bound | Upper Bound |
|---|---|---|---|
| Total crime | 0.0021 | -0.0006 | 0.0048 |

I can, however, disentangle this average effect by considering the individual effect on every day after a military intervention takes place. What I observe is a slightly different picture. Figure 3 shows that while the estimates of spill-over effects remains statistically insignificant for the first 6 days after an intervention, there is indeed a statistically significant spill-over on the 7th day after an intervention. Furthermore, all the estimated differences are consistently positive. I take this as limited suggestive evidence of the presence of displacement spill-over effects from a mixed military patrolling intervention. Nevertheless, even if we take this interpretation at face value, a comparison between the spillover effects and the main estimates shows that the magnitude of spill-overs is an order of magnitude below the main impact of military intervention.

In analyzing spill-over effects, it is also important to properly account for the overall levels of saturation in proximate sub-neighborhoods before estimating the overall spill-over effect. To do so, I repeat the previous test using only the sample of localities that have experienced a military intervention for less than 7.7% of the days in the sample. As seen in table 6, there is statistically significant evidence of spill-overs from intervened localities to proximate ones without direct military intervention. Again, this estimate is one order of magnitude below the main effect's estimate. This suggest that it is unlikely that spill-overs are able to explain the complete extent of the main effect.

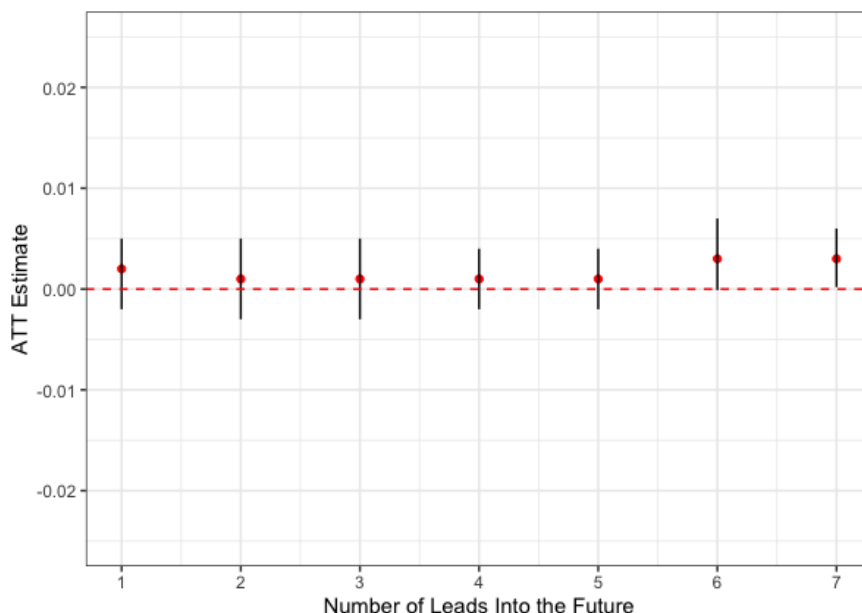Table 6: Spill-over of military patrolling for low saturation localities

|  | Estimate | Lower Bound | Upper Bound |
|---|---|---|---|
| Total crime | 0.0028 | 0.0007 | 0.0049 |

## Complementary Diagnostics

### Are matched units different from unmatched units?

As mentioned before, around 40% of the treated units used in the estimated procedure are not matched to any control observation. While this does not invalidate the internal

Figure 3: Granular Spill-over Effects



validity of the results presented before, it can put in question the external validity of the main results. Table 7 shows the results from comparing the co-variate means of the treated observations that were matched to at least one control unit vs. those treated observations that were not matched to any control unit. Stars indicate that the differences are statistically significant at the 95% confidence level. As shown, the two groups do seem to be different in relevant co-variates. First, the matched observations seem to come from localities that are on average 0.8 percentage points poorer than the unmatched observations. Furthermore, the matched observations also experience less crime in the seven days prior to when they receive treatment. The matched set of observations has also experienced an overall greater proportion of days with interventions. Finally, the average day in which the unmatched set of observations takes place is on March 25th, while the average day in which the matched observations take place is on April 4th, ten days later.

Table 7: Matched and unmatched units are different in at least two relevant measures

|   | Variable | Unmatched | Matched | Significant |
|---|---|---|---|---|
| 1 | Extreme Poverty Rate | 8.05 | 8.85 | * |
| 2 | Cumulative Intervention Rate | 0.25 | 0.45 | * |
| 3 | Crime in the last 7 days | 0.098 | 0.078 | * |
| 4 | Date of observation | March 25th | April 4th | * |

**Is there a reversal effect?**

I also ask how quickly is the effect of an intervention reversed. By redefining the treatment as a neighborhood that stops rather than starts experiencing military patrolling, we can estimate the Average Reversal Effect on the Treated rather than the Average Treatment Effect on the Treated that has been estimated so far. Formally, I re-estimate equation 2, where now the treatment status $D_{it}$ is defined by $D_{it} = (1 - Z_{it})Z_{i,t-1} \cdot \mathbb{1}\{|M_{it}| > 0\}$ and $M_{it}$ is defined by $M_{it} = \{i' : i' \neq i, Z_{i't} = 1, Z_{i't'} = Z_{it'} \; \forall t' = t - 1, ..., t - L\}$ for all pairs $(i, t)$ s.t. $Z_{it} = 0, Z_{i,t-1} = 1$. Intuitively, we should expect for the effect of reversal to lead to an increase in crime. Though, it is plausible that effects are attenuated because of persistence of the main treatment effect. Table 8 shows the results from estimating the ART and averaging the results over the week following an intervention. As can be seen, I fail to observe a statistically significant reversal effect. I can also disentangle the overall effect for each day.

Table 8: Impact of a reversal of military patrolling over the week following an intervention
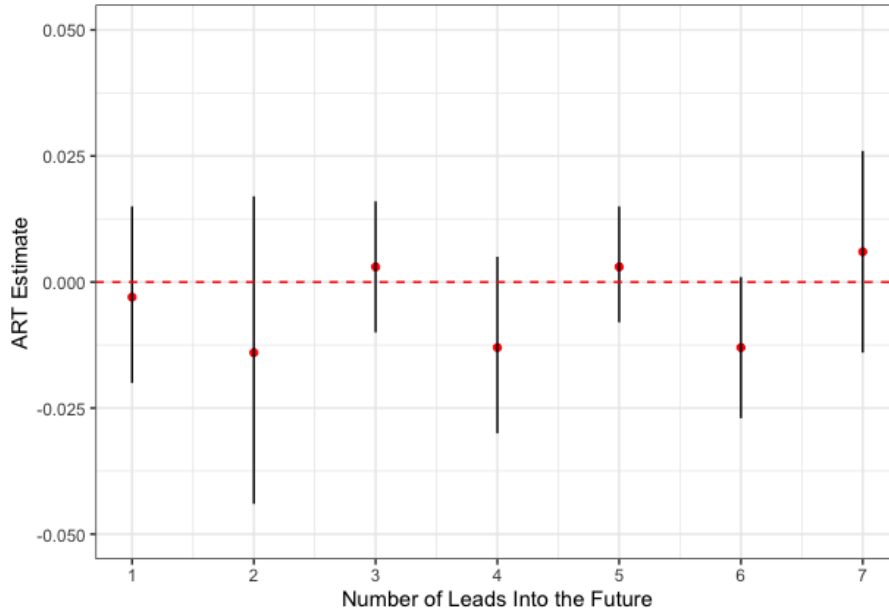
|  | Estimate | Lower Bound | Upper Bound |
|---|---|---|---|
| Total crime | -0.0012 | -0.00034 | 0.00097 |

I also disentangle the effects over the following week by considering the effect over every day after a treatment reversal takes place. As can be seen in Figure 4, the estimates of the daily reversal effects oscillate from positive to negative and back. Similarly, I fail to find any statistically significant differences between at any of the 7 periods after the treatment reversal.

**Do military interventions impact different types of crime differently?**

The following two tests allow me to elaborate on more detail about the potential mechanics behind the observed effect of military intervention that was previously shown. An argument in this paper is that the effect of military mixed patrolling is likely to be the result of a deterrence effect in which potential criminals evaluate the potential benefits of crime against the severity, celerity and certainty of punishment upon being caught. The crime data divides different crimes into two types of crime category. The first type, called "Delinquency" crime, refers to property crimes such as mugging individuals on the street or vehicle theft. The second type, "Coexistence" crime refers to other types of crime that might result from different types of interactions between individuals. These might include, for example, a homicide that results from a drunk fight bar or a case of domestic abuse. One plausible assumption is that individuals that engage in delinquency crime are more likely to be individuals that at least partly make a living out of these activities. As a result, it is likely that these individuals

Figure 4: Granular ART of military mixed patrolling



are more likely to strategically plan their behaviour. Coexistence crime, however, is both more erratic and hidden from the view of military patrols. I argue that, if military patrolling works mainly through a deterrence effect, its impact on delinquency crime should be greater than its impact on coexistence crime.

This is exactly what I observe. Tables 9 and 10 show the results of estimating the effect of military patrolling on coexistence crime and delinquency crime respectively. As can be seen, I fail to find evidence of an effect on coexistence crime. The opposite is true for delinquency crime. The effects for the latter are largely consistent with the overall pattern and seem to drive the results presented in the previous sections. The estimates in table 9 oscillate between positive and negative and are not statistically significant. The estimates shown in table 10, however, are consistently negative. Furthermore, even if the impact is attenuated over time, it shows the additional evidence that the impact persists even to the 7th day after the treatment is implemented. These results show convincing evidence that the effect of military transmission works through a deterrence effect on strategic potential criminals.

**Is the effect of patrolling due to stable characteristics of the military?**

In previous paragraphs, I argue that the effectiveness of the military in law enforcement could be explained by two main types of explanations. The first type emphasizes that there are stable characteristics that make the military perform properly in law enforcement. If this type of explanations is at hand, then we should expect the military's performance

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| Table 9: Impact on "Coexistence" crime | | | | | Table 10: Impact on "Delinquency" crime | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Estimate | Lower | Upper | | | Estimate | Lower | Upper |
| t+1 | −0.004 | −0.010 | 0.002 | | t+1 | −0.012* | −0.023 | −0.0002 |
| t+2 | −0.001 | −0.006 | 0.004 | | t+2 | −0.016* | −0.029 | −0.004 |
| t+3 | 0.001 | −0.002 | 0.004 | | t+3 | −0.009 | −0.020 | 0.001 |
| t+4 | −0.002 | −0.007 | 0.002 | | t+4 | −0.018* | −0.031 | −0.005 |
| t+5 | 0.0004 | −0.003 | 0.004 | | t+5 | −0.008 | −0.020 | 0.004 |
| t+6 | −0.002 | −0.005 | 0.001 | | t+6 | −0.006 | −0.015 | 0.002 |
| t+7 | 0.0005 | −0.002 | 0.003 | | t+7 | −0.008* | −0.016 | −0.0002 |

to be somewhat stable over time. The second type of explanations emphasizes that the military have just had different experiences on law enforcement and thus, should socialize into other types of behaviour as their engagement with law enforcement increases. On one side, they may learn how to perform law enforcement through repeated interactions with the communities they will serve. On the other, they may learn how to properly extract rents from the community through corruption, allowing crime to flourish under their supervision. If the former explanation is true, then we may see that the impact of the military should increase over time. If the latter is true, then we should expect their impact to converge to 0, or even to become positive over time.

The main problem with testing these implications is that given the snapshot of the data that I use, the military has been engaging in law enforcement regularly since at least the year 2006. If this is the case, then it is possible that any learning that could have taken place through socialization is likely to have already taken place. In other words, the behaviour of potential criminals and the military might already be in an equilibrium. The way I go around this is by considering instead differences in the overall rate of interventions across different localities. Namely, I can compare the impact of the military on a locality that is very regularly intervened to the impact of the military on a locality that is almost never intervened. The main assumption is that the amount of learning by the military on the often-intervened localities should be greater than in the barely-intervened localities.

I test this by computing the average number of days in which a locality experience military patrolling across the whole panel. Namely, if a locality experienced a military patrolling every two days between January 1st and June 30th, then its measure should be 0.5. I then divide localities into three groups based on the distribution of this average intervention rate. I include those localities below the first quartile (0.077), those localities between the first and second quartile (0.27) and those localities between the second and third quartile (1.00). Finally, I compute the ATT of military patrolling on all three groups separately.

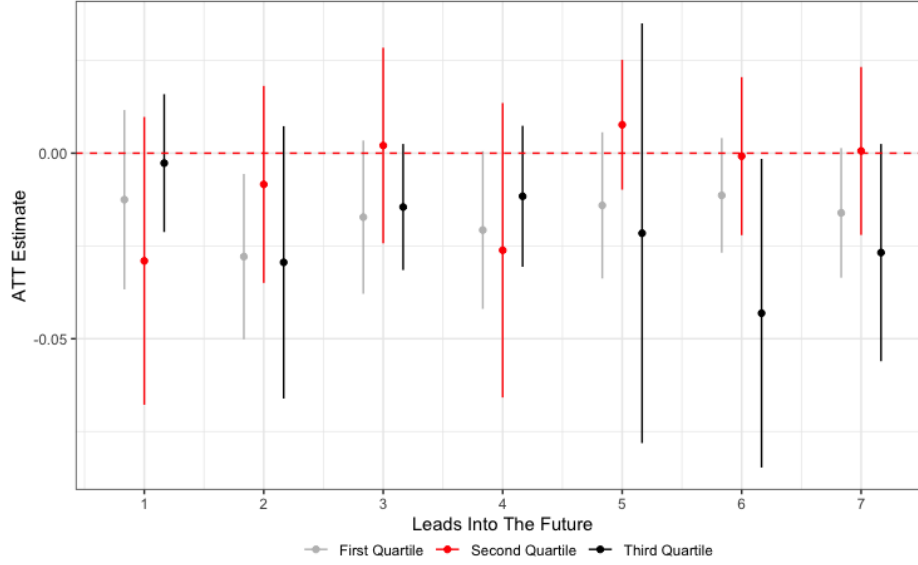As shown in figure 5, I fail to find any statistically significant heterogeneity in the im-

Figure 5: This plot shows the heterogeneous effects of military mixed patrolling based on the overall rate of military intervention in a given locality. I compute the average number of days in which a locality experienced military patrolling. Then divided the sample on quartiles. Since the fourth quartile only included localities that experienced mixed patrolling every single day, I show effects for the first three quartiles.

pact of military intervention based on how often a locality was intervened. Immediately, this should be taken as evidence of stable characteristics that determine the impact of the military on law enforcement. While not statistically significant, localities in both the first quartile and in the third quartile seem to consistently estimate a decreasing impact of the military on the incidence of crime. Similarly, there is no immediate evidence of socialization into law enforcement that would lead to an attenuation of the performance of the military. If anything, it seems like the impact is greater in localities in the third quartile, suggesting that the military becomes better at law enforcement over time rather than worse. Again, this interpretation should be taken very cautiously since all of the estimates are overlapping. Overall, the main takeaway of this test is that there is evidence against a socialization effect and in favour of explanations emphasizing stable characteristics adequate for law enforcement.

# Conclusion and Future Research

Before going through the results found in this paper, perhaps the best way to conclude this project is to first engage with the answers that we still do not have. While the decrease in incidence of crime as a result of military patrolling is a very relevant policy outcome to consider, it is also important to weight these results against the potential cost of military patrolling. Previous literature has placed some emphasis on the potential cost in terms of

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protection of human rights that results from the militarization of law enforcement. While I do not engage with this question due to lack of proper data, this is important for the project's research agenda. Not only is the impact on human rights of substantive interest, but it could also shed a light on the exact mechanisms behind the effectiveness of the military. If the main mechanism through which the military is effective is a lack of institutional constraints or through an increase in the use of force, then one would also expect an increase in human rights violations. If the main mechanism works through the education and capacity of military officers, then the opposite might be true. Future research that analyzes the impact of militarization in Dominican Republic should engage with this question and attempt to solve the still prevalent under-reporting of abuses of human rights.

Similarly, previous literature has speculated on the reasons that explain militarization in the first place, without properly testing these reasons. This project shows evidence that the military indeed tracks levels of crime before assigning military interventions. One potential direction for research involves understanding any potential electoral logic to militarization. Does militarization occur after particular moments of high levels of crime? Or does it peak around electoral periods? In the future, I expect to engage with electoral data from both the 2020 elections and the 2024 elections to understand both the electoral effects of militarization as well as the electoral logic behind. Do presidents militarize the neighborhoods that have supported them less to bolster support? Or do presidents reward the places that have supported them in the past with military patrolling? Given these potential electoral pressures, is the military efficiently assigned in a way that could maximize welfare or not? I hope to engage with these questions in future research on the impact and logic of militarization.

Nevertheless, this project does shed some light on an important aspect of militarized police patrolling. This aspect is also the main justification for deploying the military to perform law enforcement in the first place. Namely, I analyze whether military patrolling is able to reduce the incidence of crime, at least in the short term. In this paper, I present evidence of a short-term reduction in the incidence of crime as a result of military patrolling. This effect is persistent for at least 2 weeks after some military patrolling has taken place. While there is some suggestive evidence of spill-overs through the displacement of crime from one treated neighborhood to another, this potential effect remains at best one order of magnitude below the main effect of military patrolling. There is also evidence that effectiveness of military patrolling comes from a deterrence effect on potential criminals that behave strategically, supporting the canonical Beckerian view of crime deterrence. Furthermore, I fail to find evidence that there is a socialization effect through which the military becomes worse at law enforcement based on their overall experience in intervening any particular locality. If anything, the performance of the military becomes stronger. Given limited evidence for this, however, it is important not to overstate this point.

Another important point to take into consideration is that the evidence presented shows that military patrolling is able to reduce the level of crime. An ideal analysis, however, would be able to compare the overall effectiveness of the military to the overall effectiveness of the

police. This is not done mainly through limitations in access to data. I expect to be able to compare both organizations in the near future.

Finally, while this project shows evidence on whether the effect of the military works through stable characteristics and not a lack of socialization in law enforcement work, future work should also focus on which of the potential stable characteristics determine the effectiveness of military patrolling. Does military patrolling work because of cognitive training in the military that prepares them to kill a perceived enemy? Or does it work through a reduction of institutions that hold them accountable to civilian authorities? Does it perhaps work because of the extent of military education and overall training that makes them good at law enforcement? Future research in this direction could advance the state of knowledge beyond the question of whether to use the military for law enforcement purposes and into the question of exactly what changes could be made in our law enforcement organizations to make them better while hopefully reducing the cost in human life and protection of human rights and liberties.

# A  Excessive Use of Force

The main implications of this characterization of civil-military relations is clear. The military and the police, acting as a civilian enforcer of laws, have distinct cognitive training and keep a distinct ethos and mission. At the same time, the military has institutional provisions that make them relatively unaccountable to civilian authorities and the rest of society compared to the police. Once such an organization engages with the public on a regular basis, added to the new identification of criminals and delinquents as *the enemy*, the inevitable outcome is an increase in violence from the part of law enforcement organizations, an increase in excesses in the use of force, and a potential escalation of violence on the part of criminal groups as a means to defend themselves. Violence increases should also lead to greater opportunities for corruption, since the opportunity cost of not complying with a law enforcement agent becomes greater (Antillano and Ávila 2017; Galavís 2020; G. Flores-Macías and Zarkin 2023; Magaloni and Rodriguez 2020; George Withers, Lucila Santos, and Adam Isacson 2010; Lawson 2019).

Both of these mechanisms, institutional accountability plus ethos and cognitive training have been argued to matter in the extent to which police patrolling engages in excessive use of force. For example, Nasser et al. show that the rise of police unions in the United States led to reduced accountability of individual police agents. This in turn led to an increase in malfeasance and the use of violence (Abdul Nasser Rad, David S. Kirk, and William P. Jones 2023). Similarly, Banerjee shows that police staff in India do care about who surveils them. Decoy visits by civilian enumerators to register cases incentivized police to improve the services provided (Banerjee et al. 2021). Similar emphasis has been placed by different authors on exactly who and how much can observe police officers' actions and hold them accountable. This in turn is expected to impact how much abuse is seen (Magaloni and Rodriguez 2020; Kyle and Reiter 2012; Willits and Nowacki 2014). At the same time, there are reasons to believe that the ethos and cognitive training of law enforcement agents matters. Dube et al. report the results of a Randomized Control Trial in which police agents were offered situational decision-making training to both see civilians as individuals whom they should protect and to better assess the need for violence in any particular situation. This training led to decreased levels of reported abuse and better interactions with the community (Dube, MacArthur, and Shah 2023). Taking these factors into consideration leads to the following predictions regarding the militarization of law enforcement in Latin America:

1. We should observe an increase in the incidence of police abuse following militarization.

2. Public opinion of the military should decrease in places with greater levels of militarization.

# B   Why does militarization occur?

To understand the consequences of the militarization of law enforcement, it is important to consider the factors that drive it in the first place. Existing literature addresses this issue by focusing on two key aspects: 1) the behavior of state bureaucracies, and 2) the use of armed forces to legitimize civilian governments. The combination of these two theoretical approaches provides a practical framework for understanding the dynamics involved in the militarization process and enhances our comprehension of its implications. The first leg of the argument relies draws on the literature on bureaucracies and characterizes the armed forces as one. As such, whether it does so with the objective of expanding its budgetary capacity (Hall and Coyne 2013) or whether it does so as a means to remain useful and legitimize itself (Easton et al. 2010; Michiel De Weger 2010, the armed forces seek to expand their scope of action and responsibilities. The second leg of the argument relies on the literature of the political economy of crises. In moments when the public perceives an acute crisis, the argument goes, the general population demands a prompt response from their governments to rise to the task at hand. Lacking the any other immediate "solution", the executive power uses the Armed Forces as a tool that enjoys great legitimacy and trust from the public to "solve" the crisis. Some variation of this argument is proposed regularly in the literature, but not often tested (G. Flores-Macías and Zarkin 2023; Pion-Berlin and Carreras 2017; Sung, Capellan, and Barthuly 2022; Augusto Varas 2009; Amoroso Botelho, Arciniegas Carreño, and González Tule 2023). Both legs of the argument are necessary since it is not enough that the executive might want to use the military, but the military itself must have a reason to comply to that need.

The previous argument helps explain militarization after singular-event crises such as terrorist attacks or salient drug operation scandals, for example. However, in a context of high crime like Latin America and DR, where the level of victimization and insecurity consistently ranks as one of the main issues that the public cares about (Espinal et al. 2019; Sung, Capellan, and Barthuly 2022), the salience of crime and its related fear serve the same role as a single-event crisis in prompting governments to gain legitimacy by expanding the role of the Armed Forces. Furthermore, since the "solution" to crime is itself evasive, the continuous crises means that the militarization is also constant over time once it is first implemented. As long as the public's perception of the military remains positive, so do the incentives to militarize.

Several facts about the region and DR are consistent with this argument. Figure 6 shows the relative trust in the National Police and the Armed Forces in DR based on the answers to the question: "How much do you trust the Police/Armed Forces?" based on data from the Latin America Public Opinion Project (LAPOP 2012; Espinal et al. 2019). The main takeaway is that the Armed Forces are a trusted institution and in particular, are trusted as a viable alternative to the police. Similarly, in comparisons between countries in the region, the gap in support between both organizations increases with the level of perceived crime
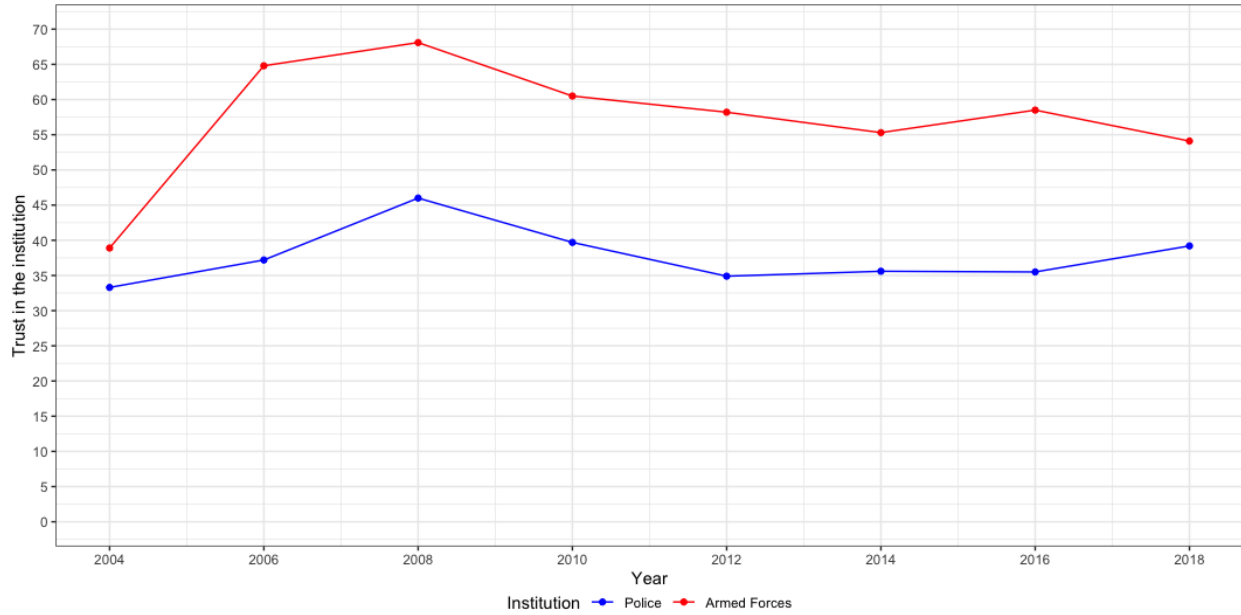
Figure 6: This plot shows the relative trust in the National Police and the Armed Forces in DR based on the answers to the question: "How much do you trust the Police/Armed Forces?" The original answers were scored on a 1-7 scale and these results are shown in a 0-100 scale. The data was obtained from the AmericasBarometer project and the LAPOP data. The figure is based on the report by Espinal et al. (Espinal et al. 2019).

(Sung, Capellan, and Barthuly 2022). Furthermore, in the Dominican context, it seems clear that the public should be able to identify the executive, and specifically the President, as responsible for deploying the military. The president regularly leads salient meetings that are transmitted in TV and in the newspaper regarding matters of internal security and during which the level of military deployment is decided. The President is also in charge of publicly declaring States of Exception whenever a *special* deployment of the armed forces takes place. Finally, there is also evidence in the literature that the electorates can and do punish governments that are perceived as being "soft on crime" (Drago, Galbiati, and Sobbrio 2020).

Based on these arguments, I yield three main predictions based on the main inference that militarization is more likely to take place in places where it would yield some form of electoral benefit. First, there is suggestive evidence that support for "tough on crime " policies increases with the level of fear from crime that individuals have. Thus, militarization should yield better electoral results in exactly those localities with higher levels of fear. Thus, the relationship between militarization and fear should be positive, given the levels of crime. If it is true that the military is deployed on an electoral basis, the second and third predictions should distinguish the manner in which this occurs. The executive could deploy the military in a forward-looking manner, seeking to obtain the support from places that

have not supported them in the past. Alternatively, the President could deploy the military in a backward-looking manner, rewarding those localities that supported them in the past. Based, on this discussion, I proposed the following three hypotheses:

1. Fear of crime in a locality should be positively correlated with the level of militarization in that locality.

2. The level of militarization will be higher in localities where the President obtained fewer votes in the past elections.

3. The level of militarization will be higher in localities where the President obtained more votes in the past elections.

# References

Abdul Nasser Rad, David S. Kirk, and William P. Jones (Jan. 2023). "Police Unionism, Accountability, and Misconduct". In: *Annual Review of Criminology* 6, pp. 181–203.

Abt, Thomas and Christopher Winship (May 21, 2018). *What Works In Reducing Community Violence: A Meta-Review And Field Study For The Northern Triangle*.

Amoroso Botelho, João Carlos, Alexander Arciniegas Carreño, and Luis Antonio González Tule (May 4, 2023). "Más allá de la seguridad pública: la militarización de la política democrática en América Latina". In: *Canadian Journal of Latin American and Caribbean Studies / Revue canadienne des études latino-américaines et caraïbes* 48.2, pp. 279–300.

Antillano, Andrés and Keymer Ávila (Sept. 1, 2017). "Do heavy-handed tactics reduce homicides? The case of Venezuela". In: *Revista CIDOB d'Afers Internacionals* 116, pp. 77–100.

Apel, Robert (Mar. 1, 2013). "Sanctions, Perceptions, and Crime: Implications for Criminal Deterrence". In: *Journal of Quantitative Criminology* 29.1, pp. 67–101.

Augusto Varas (Feb. 2009). "Desafíos económicos y Fuerzas Armadas en América del Sur — FlacsoAndes". In: *Fundacion para las Relaciones Internacionales y el Dialogo Exterior*.

Banerjee, Abhijit et al. (Feb. 2021). "Improving Police Performance in Rajasthan, India: Experimental Evidence on Incentives, Managerial Autonomy, and Training". In: *American Economic Journal: Economic Policy* 13.1, pp. 36–66.

Beatrice Jauregui (Sept. 30, 2010). "Civilised Coercion, Militarised Law and Order: Security in Colonial South Asia and the Blue in Green Global Order". In: *Blurring Military and Police Roles*. The Hague: Eleven International Publishing.

Becker, Gary S. (1968). "Crime and Punishment: An Economic Approach". In: *Journal of Political Economy* 76.2, pp. 169–217.

Blair, Robert A. and Michael Weintraub (June 2023). "Little evidence that military policing reduces crime or improves human security". In: *Nature Human Behaviour* 7.6, pp. 861–873.

Bland, Douglas L. (Oct. 1, 1999). "A Unified Theory Of Civil-Military Relations". In: *Armed Forces & Society* 26.1, pp. 7–25.

Blanes i Vidal, Jordi and Giovanni Mastrobuoni (Apr. 2, 2018). *Police Patrols and Crime*. Rochester, NY.

Blattman, Christopher and Edward Miguel (2010). "Civil War". In: *Journal of Economic Literature* 48.1, pp. 3–57. (Visited on 07/11/2022).

Brooks, Risa (2008). *Shaping strategy: the civil-military politics of strategic assessment*. Princeton, N.J: Princeton University Press. 315 pp.

CADSECI (n.d.). *Observatorio de Seguridad Policia Nacional*. URL: https://cadseci.gob.do/index.php/en/consultas/datos-abiertos.

Chalfin, Aaron and Justin McCrary (Mar. 2017). "Criminal Deterrence: A Review of the Literature". In: *Journal of Economic Literature* 55.1, pp. 5–48.

*Codigo Procesal Penal de la República Dominicana* (n.d.).

*Constitución Política de la Republica Dominicana* (July 10, 2015).

Consultoría Jurídica del Poder Ejecutivo (2015). *Consitución de la República Dominicana 2015.*

Coronel Dr. Pablo Antonio Castro Ramirez (Nov. 2018). *Historia de la Policia Nacional Dominicana.* URL: `https://www.policianacional.gob.do/sobre-nosotros/historia/` (visited on 12/05/2023).

Dirección General de Ética e Integridad Gubernamental (n.d.). *Portal Único de Solicitud de Acceso a la Información Pública (SAIP).* URL: `https://saip.gob.do/`.

Drago, Francesco, Roberto Galbiati, and Francesco Sobbrio (Dec. 16, 2020). "The Political Cost of Being Soft on Crime: Evidence from a Natural Experiment". In: *Journal of the European Economic Association* 18.6, pp. 3305–3336.

Dube, Oeindrila, Sandy Jo MacArthur, and Anuj K. Shah (Sept. 11, 2023). "A Cognitive View of Policing".

Easton, Marleen et al., eds. (2010). *Blurring Military and Police Roles.* The Hague.

Espinal, Rosario et al. (Nov. 2019). *Cultura política de la democracia en la República Dominicana y en las Américas, 2018/2019: Tomándole el pulso a la democracia.*

Feaver, Peter D. (2003). *Armed servants: agency, oversight, and civil-military relations.* Cambridge, Mass: Harvard University Press. 381 pp.

Flores-Macías, Gustavo and Jessica Zarkin (Apr. 4, 2023). "The Consequences of Militarized Policing for Human Rights: Evidence from Mexico". In: *Comparative Political Studies.*

Flores-Macías, Gustavo A. and Jessica Zarkin (June 2021). "The Militarization of Law Enforcement: Evidence from Latin America". In: *Perspectives on Politics* 19.2, pp. 519–538.

Galavís, Natalia Gan (2020). "Rule of law crisis, militarization of citizen security, and effects on human rights in Venezuela". In: *European Review of Latin American and Caribbean Studies / Revista Europea de Estudios Latinoamericanos y del Caribe* 109, pp. 67–86.

George Withers, Lucila Santos, and Adam Isacson (Nov. 17, 2010). *Preach What You Practice: The Separation of Police and Military Roles in the Americas.* Washington Office on Latin America.

Greener-Barcham, B. K. (Mar. 1, 2007). "Crossing the Green or Blue Line? Exploring the Military–Police Divide". In: *Small Wars and Insurgencies.*

Hall, Abigail R. and Christopher J. Coyne (2013). "The Militarization of U.S. Domestic Policing". In: *The Independent Review* 17.4, pp. 485–504.

Huntington, Samuel P. (1957). *The Soldier and the State: The Theory and Politics of Civil–Military Relations.* Harvard University Press.

Imai, Kosuke, In Song Kim, and Erik H. Wang (2023). "Matching Methods for Causal Inference with Time-Series Cross-Sectional Data". In: *American Journal of Political Science* 67.3, pp. 587–605.

Janowitz, Morris (1960). *The professional soldier: a social and political portrait.* OCLC: 2360182. Glencoe, Ill.: Free Press. 464 pp.

Kyle, Brett J. and Andrew G. Reiter (Jan. 1, 2012). "Dictating Justice: Human Rights and Military Courts in Latin America". In: *Armed Forces & Society* 38.1, pp. 27–48.

LAPOP, Latin American Public Opinion Project (2012). *The AmericasBarometer*. URL: www.LapopSurveys.org..

Lawson, Edward (Mar. 1, 2019). "TRENDS: Police Militarization and the Use of Lethal Force". In: *Political Research Quarterly* 72.1. Publisher: SAGE Publications Inc, pp. 177–189. ISSN: 1065-9129. DOI: 10.1177/1065912918784209. URL: https://doi.org/10.1177/1065912918784209 (visited on 07/01/2023).

*Ley Orgánica de la Policía Nacional* (July 15, 2016).

*Ley Orgánica de las Fuerzas Armadas de la República Dominicana* (Sept. 19, 2013).

Listin Diario (Nov. 18, 2022). "El Patrullaje Mixto Continúa Contra La Delincuencia". In: URL: https://listindiario.com/la-republica/2022/11/18/748797/el-patrullaje-mixto-continua-contra-la-delincuencia.html.

Magaloni, Beatriz and Luis Rodriguez (Nov. 2020). "Institutionalized Police Brutality: Torture, the Militarization of Security, and the Reform of Inquisitorial Criminal Justice in Mexico". In: *American Political Science Review* 114.4, pp. 1013–1034.

Michiel De Weger (Sept. 30, 2010). "Striving for Symmetry: Constabularisation, Security and Security Complexes". In: *Blurring Military and Police Roles*. The Hague: Eleven International Publishing.

Ministerio de Defensa de la República Dominicana (Nov. 2023). *Historia de las Fuerzas Armadas*. Ministerio de Defensa de República Dominicana. URL: https://mide.gob.do/historia/ (visited on 12/05/2023).

Nussio, Enzo and Ervyn Norza Céspedes (July 2018). "Deterring delinquents with information. Evidence from a randomized poster campaign in Bogotá". In: *PLoS One* 13.7.

Oficina Nacional de Estadística (ONE) (2021). *División Territorial 2021*. URL: https://www.one.gob.do/publicaciones/2021/division-territorial-2021/.

Owens, Mackubin Thomas (Mar. 1, 2010). "Civil–Military Relations". In: *Oxford Research Encyclopedia of International Studies*.

Paley, Dawn Marie (Oct. 2, 2023). "Militarism Matters". In: *NACLA Report on the Americas* 55.4, pp. 337–339.

Pion-Berlin, David and Miguel Carreras (Dec. 1, 2017). "Armed Forces, Police and Crime-fighting in Latin America". In: *Journal of Politics in Latin America* 9.3, pp. 3–26.

*Que Crea el Codigo de Justicia de las Fuerzas Armadas* (Mar. 5, 1953).

Saulo Mota (June 5, 2022). "Patrullaje mixto, una estrategia que cada cierto tiempo se repite contra la criminalidad". In: *Listín Diario*. (Visited on 07/09/2023).

Schiff, Rebecca L. (2009). *The military and domestic politics: a concordance theory of civil-military relations*. Cass military studies. London ; New York: Routledge. 173 pp.

Sung, Hung-En, Joel Capellan, and Bryce Barthuly (Mar. 16, 2022). "Trust in the police and the militarisation of law enforcement in Latin America". In: *Policing and Society* 32.3, pp. 311–340.

Willits, Dale W. and Jeffrey S. Nowacki (2014). "Police Organisation and Deadly Force: An Examination of Variation across Large and Small Cities". In: *Policing and Society: An International Journal of Research and Policy* 24.1, pp. 63–80.