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MASTER'S THESIS:

Analysis of the Effect of Militarization of Public Security and the National Gang Truce on
Homicide Rates in El Salvador from 2009 to 2016.

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GLODEP Program Class of 2022



I hereby declare the following thesis has been composed by myself. Except where stated otherwise by reference or acknowledgement, the work presented is of my authorship.

Jonathan Rios, MAY 2022

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Zásady pro vypracování

In the last 20 years, crime and violence from gangs and organized crime have stagnated post-war development of northern Central America's countries: El Salvador, Guatemala and Honduras. Although with little success their policy approach has been that of an iron fist increasing militarization and setting oppressive policies to fight the spread and influence on gangs in communities, this research aims to determine the influence and impact these policies have had on real homicide rates while including other relevant factors such as corruption, incarceration rates, gang truces etc. Scrutinizing these data should provide policy makers and researchers a better idea of the success of their current policies and a gateway towards better policy alternatives.

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Abstract

One of the main obstacles that constantly stagnates development in El Salvador is its violence epidemic. The country has ranked high on indexes that measure homicides and criminality since the end of its brutal civil war in the early nineties. Main gangs, Mara Salvatrucha (MS13), Barrio 18 and Barrio 18 Sureños are often seen as the main responsables for the increase in homicides, fear and insecurity throughout the country. In many communities these groups maintain a stronger hold than the actual government, they impose extortion on businesses, curfews on families, entry and exit restrictions for communities creating invisible yet very real borders that are not to be crossed by the *populations* they *control*. In the last years they have formalized their structures and amassed power through fear, being able to determine the number of homicides everyday or stop a whole country's transportation system.

On the other hand, the strategy from the state to counter gangs influence has been similar to the ones it used for other problems during the last century of military hegemony, iron fist repression. Wide militarization of the public security systems in the country have been the go-to plan to accomplish this, whether by recovering El Salvador's Armed Forces' (FAES) autonomy and status from its haydays, delegitimizing the National Civil Police (PNC) and other public security institutions, increasing the number of soldiers performing public security tasks or militarizing the police and its activities. Salvadoran society has not known uninterrupted true peace in years and therefore the response of its political class and society has continued to be short-sighted unoriginal policies that give out similar results.

In contrast to this response, 2012 saw the government negotiate with the gang structures through a truce successfully bringing down homicides nationally. This study measures the effects of these old and new strategies to see their actual effect on homicide rates in an attempt to determine which policies are more effective at protecting Salvadoran lives.

Key words: gangs, truce, militarization, public security

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Acronyms

ANSP - National Academy for Public Security.

FAES - Fuerzas Armadas de El Salvador / Armed Forces of El Salvador.

FMLN - Farabundo Martí para la Liberación Nacional, guerrilla formed political party.

FT - Fuerzas de Tarea.

GTA - Grupos Combinados de Tareas Antipandillas.

GTC - Grupos de Tarea Conjunta.

GOES - Government of El Salvador

PN - Policía Nacional.

PNC - Policia Nacional Civil / Civil National Police.

PNJSP - Política Nacional de Justicia, Seguridad Pública y Convivencia / National Policy of Justice, Public Security and Coexistence

OAS - Organization of American States (OEA in Spanish).

VMT - Vice Ministry of Transportation.

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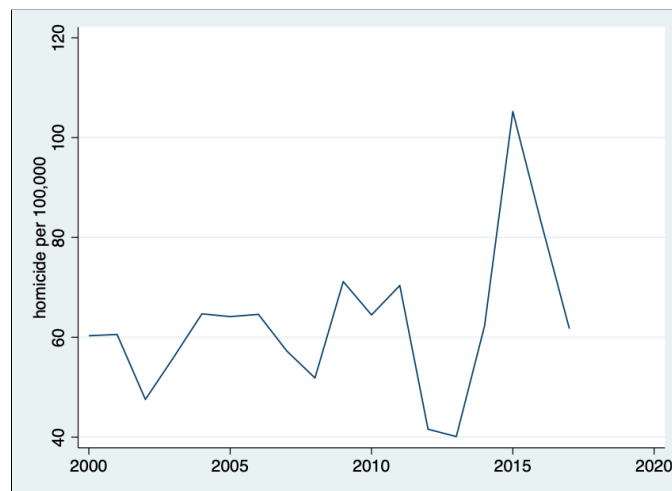
CHAPTER I: Introduction

1. Introduction

*Do you know how much I have been given to kill you? 25 cents.
In that case, I will give you a dollar and you can give me change.
You are funny, because of that I will not kill you today.*
An anecdote from a friend in Sonsonate, Western El Salvador.

One of the main obstacles that constantly stagnates development in El Salvador, a small and densely populated country in Central America, is its violence epidemic. The country has ranked high on indexes that measure homicides and criminal violence since the end of its brutal civil war in the early nineties. Main gangs, Mara Salvatrucha (MS13), Barrio 18, and Barrio 18 Sureños are often seen as the main groups responsible for the increase in homicides, fear, and insecurity throughout the country. In many communities these groups maintain a stronger hold than the actual government, they impose extortion fees on businesses, curfews on families, entry and exit restrictions for citizens, and create invisible yet very real borders that are not to be crossed by the *population* they *control*. In the last years, they have formalized their structures and amassed power through fear, being able to determine the number of homicides every day or stop a whole country's transportation system. At its peak, the violence epidemic created in part by these gangs made El Salvador the most dangerous country in the world that is not experiencing war (Buncombe, 2016).

Figure 1. Intentional homicides per 100,000 people in El Salvador. Data provided by the World Bank database (World Bank).



The answer from the state has been similar to its strategies from the last century of military hegemony, iron fist repression. Militarization has been the go-to method to accomplish this, whether by recovering the Armed Forces of El Salvador's (FAES in Spanish) autonomy and status from its heydays, delegitimization of the National Civil Police (PNC in Spanish) and other public security institutions, increasing the number of soldiers performing public security tasks or by militarizing and influencing the police itself and its activities. There's a special connection between militarization and the successful completion of repressive policies as armed forces often lack checks & balances and civil oversight compared to other more democratic institutions. Salvadoran society has not known uninterrupted true peace in years and thus, the response of its political class and society has continued to be short-sighted with unoriginal policies that give out similar results.

The presence and growth of gangs and criminal groups are no easy problems for a poor country to fix, however, there is plenty of precedent from countries that have been able to deal with or alleviate such issues. In an attempt to stabilize the homicide rate, the government of President Mauricio Funes from 2009 to 2014 secretly facilitated a dialogue between the main gangs to bring down homicides nationwide. While it was a process negotiated under closed doors, untransparent and shady the process worked in its main task of significantly reducing homicides at least for the less than two years it was active. The national gang truce presented one of the most successful policies when considering strictly its effect on homicides. This study is devoted to further understanding its effect on homicides as well as its effect when intersected with other long term policy strategies such as militarization.

1.1 Purpose of Study

To this day, citizens face a tightening grip from gangs limiting their personal freedoms of expression and movement, bearing effects that trickle all the way down to the prices of the goods they buy, the places they can go and the things that they can say. A justifiably tired and angry population seeks an end to this state of affairs, while at the same time governments from the political left and right struggle to find a solution to counter the growing influence and power of gang structures. In this context, this study asks.

Research Question

Empirically, what has been the effect of the two main public security policies employed by the Salvadoran government e.g. militarization of municipalities and the national gang truce, to

control violence, namely homicide rates since the emergence of gangs in public life. Which policies have been more effective and are they sustainable enough to provide a path forward?

Sub research questions

- i. Has militarization of municipalities through the presence of soldiers performing public security tasks had a significant effect in reducing homicide rates? Is FAES presence then justified empirically by its historical results?
- ii. Does the National gang truce significantly reduce the average number of monthly homicides when active? Does it provide a framework for a sustainable policy to control violence and homicide rates looking forward?
- lii. What is the effect of the interaction both when the national gang truce is active and when a municipality faces militarization through presence of soldiers.

To address these questions this study has developed a panel data series set containing monthly homicides at a municipality level from 2009 to 2016. The correlation of the two main policies in question shall be measured by an econometric regression where monthly municipal homicides act as a dependent variable and its variation is mainly explained by the policies in question: militarization and truce, the independent variables. The municipalities have been appointed to a level of militarization constructed with little yet precise public data available on FAES public security operations while the truce is in effect nationally in all municipalities for a range of time. While at the time, the truce was not an official government policy, through the years, there are small acknowledgments from officials on the role they played in the truce to happen. Timings are a construction of the work of investigative journalists and mediators involved in the process.

Across the models run this study, with and without control variables, indicated a significant correlation with a decrease in average monthly homicides during the time the truce was active relative to the time it was not. In the case of militarization through soldier involvement on public security tasks, results suggest an increase in the average monthly homicides for municipalities that have seen a higher level of militarization relative to those that have been militarized less or haven't been at all.

1.2 Significance of the study

Concerning military presence in municipalities as a proxy for militarization and its empirical effect on homicide within municipalities, there is no granular study focused solely on the

Salvadoran context making this connection. There is only one precedent of an empirical quantitative study conducted to estimate the effect of the national gang truce on homicide rates by researchers Katza et. al. (2016). However, the study focuses solely on the effect of the truce, studying data from 2010 until mid-2014. This study compliments the previous study by contextualizing the truce with data after the truce ended and by allowing us to see the effect of its intersection with militarization.

1.3 Assumptions and Limitations

This study has relied upon the PNC publicly available data for its homicides results and on FAES data for the creation of a militarization categorical variable. Both sets may be subject of misreporting or underreporting which this study had no means to assess if present. Important variables such as the number of gangs and their distribution in the country would have made for a more robust study but such information was available only at a national level without variation on time or their distribution.

While homicide rates fluctuate and are tied to the presence and growth of gangs in this study, there is little reliable data that accounts which percentage of the homicides are accounted to the influence or by the hand of these criminal groups.

1.4 Context and Background

Gangs

Gangs were born in Los Angeles, California, the United States in the 1980s, as a measure for migrant Salvadoran youth who had recently fled El Salvador's civil war to protect themselves from other gangs already established years before their arrival. These years of rivalry solidified their identity and shaped their culture; it gave them a reason to be, to protect their *turf* and their own people against the *other*.

In the early 1990s, back in El Salvador, after 12 years of brutal civil war with a toll of over 75,000 deaths, millions of displaced and thousands of migrants, the country signed its Peace Accords in 1992. The accords served as a treaty to establish peace between the government, the military and the guerrillas who would now run under the political umbrella of the *Farabundo Martí para la Liberación Nacional* (FMLN) political party. An example of de-escalation at the

time, it would represent an attempt to revamp the young democracy with the support of International bodies and under the tutelage of the United States.

The newly brought Peace to El Salvador coincided with gang related problems in California. This overlap presented itself as an opportunity for the United States. As soon as 1992, through the Violent Gang Task Force, the US started searching for migrants with criminal records so they could start sending them to their home countries (Savenije, 2007). These deportation policies saw the repatriation of many youth of Salvadoran origin, but who knew nothing of El Salvador. A poor fragile society amending its social fabric became fertile ground for these deportees to merge with local delinquents, keep developing and spreading the gang culture around the country.

In the present day, gang groups keep growing as they exert pressure in their communities. They present youth with ultimatums: join the gang, or they will kill you or a member of your family. In other cases, gangs represent a safe haven or an identity to poor, marginalized Salvadoran teens. Teens as young as young 12 years old are subject to gang intimidation. In 2013, a census by the Ministry of Justice and Public Security found that the number of citizens that have some link or relationship with gang members can reach 660,000 or as much as 10% of the population” and that “on average there is one delinquent organization per community.” (470,264 *Personas Afines a Pandillas*, 2013).

The role of the Military in Salvadoran Society and Government

The cornerstone of the Peace Accords of 1992 was the demilitarization of internal security and the submission of the Armed Forces to civil power (Aguilar, 2019). To understand why the new role of FAES was of such importance to the future of the country, its historical role must be understood. According to Córdoba (1999, as cited in Aguilar, 2019) “in the past the Armed Forces were a supra institution that was above the rest of the institutions, deciding over a great variety of aspects, and with a high level of autonomy in respect to the powers of the state.” Its presence since the country’s independence in 1821 has been constant with Generals and Colonels having managed the executive branch and high positions in the government several times. FAES supremacy can also be traced back to specific points in history like *La Matanza* (The Killing) of 1932, which saw the massacre of thousands of peasants and the establishment of a military dictatorship through a coup. The normalcy of the military presence on state affairs and political culture made it ordinary to see its insertion and influence into deep parts of society

such as elementary education. For example, obligatory impartment of *Military Exercises* lessons in schools in the 19th century saw institutionalization of the role of military beyond the state affairs (Muybridge & Ching, 2021).

The Peace Accords of 1992 acknowledged that to see El Salvador's democracy develop and flourish, the role of FAES as a hegemony could not continue and strict limitations to its activities had to be placed. The institution was now to be "an obedient, professional, apolitical institution without political autonomy and non-decisive in the political field" (UN General Assembly, Security Council, 1992). Its mission became the defense of the state's sovereignty and the integrity of the territory (El Salvador Constitution. Art. 212). Internal security would now be the exclusive responsibility of the newly created National Civil Police (PCN in Spanish), which was conceived as a professional police force, independent of the Armed Forces and free from any partisan activity. This was a historical change in the paradigm of national public security, with a transition from the military to the civil.

The transformation of society through a deep rethinking of the FAES dominance would not go unchallenged however. Because of its historical importance, the process of recomposition was traumatic for the military elite. To hold access to influence in the new nation, they managed to leverage their power in several ways: 1) Using their hand to affect negotiations within the Peace Accords to create loopholes that could later be exploited in FAES advantage, 2) cementing key positions within the new institutions and 3) generally undermining the start and development of PNC as a new civil and independent establishment.

Executive loophole in Peace Accords

Despite the Accords being clear on FAES new role, lobbying through the Executive branch FAES was able to include a clause that could see the institution play a part in public security. "At the discretion of the President, the Armed Forces could be exceptionally disposed of if the ordinary means for the maintenance of internal peace, tranquility and public security had been exhausted" (El Salvador Constitution. Art. 168). It was established that such participation would be temporary and that the President had to maintain the Legislative branch informed about FAES' performance. This loophole was exploited as soon as the year the Peace Accords were signed. President Cristiani, in office from 1989 to 1994, made use of this decree in late 1992 with the *Plan Grano de Oro*, which saw the use of soldiers to protect coffee farms and rural municipalities. After that in 1995, President Armando Calderon Sol also deployed 5,000 to 7,000

soldiers to begin “patrolling the streets to help the PNC combat the spiraling violence...because the Salvadoran people are demanding it” (LADB Staff, 1995). Ever since, this has been the constitutionally bound method used to explain FAES involvement in public security. It has been implemented by all Presidents since the Peace Accords. The use of this loophole far from being used in extraordinary occasions, has become the norm, as has extending the use of it. The normalization of the executive decree means that constitutional checks and balances have been weakened with Presidents oftentimes not presenting the documents required to inform the Legislative Assembly about FAES performances as dictated by the loophole itself as Aguilar (2019) notes.

FAES infiltration and general disenfranchisement of PNC

Despite the government at the time lobbying to reform previous police institutions instead of creating a new one, the PNC was delegated to spearhead public security efforts with the intent of not carrying any remnants from the civil war bodies. Its importance made it subject to politicization from the beginning. The government pressured to have people from the National Police, the Police body from the Civil War, inside and so did the guerilla turned political party FMLN with their ex-combatants. The military, with support of the President, was successful in appointing personnel in Executive and Superior levels at PNC (Baltazar, 2019). Influence from within at a nascent stage also gave FAES an upper-hand in its attempts to militarize the police (Costa, 1999, 190 as cited by Aguilar, 2019).

Furthermore, the development of the PNC was stagnated in different ways. President Cristiani for example did not provide any funds to the ANSP (National Academy for Public Security), another institute created during the Peace Accords whose goal was to create members for PNC. The ANSP was able to go through with the help of international cooperation (Costa, 1999). Nationally, the PNC was not allocated adequate facilities and delegations were provided only limited basic equipment, there was a “systematic failure of the government to provide the resources to which it had committed” (Martínez-Barahona et al., 2018). As agreed within the Peace Accords, FAES was supposed to transfer facilities for PNC to use, however FAES managed to keep most of the properties for their own use. To this day, the PNC still rents properties for its operation and administrative offices. In 2015, a report by Jaime López (2015) uncovered that PNC has more than 2 million USD in debt to building providers as of 2015.

Another instance that proved the lengths the government would go to disenfranchise the PNC had to do with the previously mentioned *Plan Grano de Oro* in 1992 which saw FAES direct involvement in public security matters. Contrary to the loophole within the Peace Accords, soldiers were called for a non-extraordinary event without any intervention or oversight from PNC. This action was a political stance to set the tone for the relationship of the government with the institution in the following years.

Iron Fist Policies (2003-2006)

In the early 2000s the spread and growth of gangs became more than apparent. With the gang problem getting out of control citizens and media started asking for even harder measures to counter their influence (Vasquez Monzón & Marroquín Parducci, 2014). The first set of repressive iron fist policies *Mano Dura* (Iron Fist) in 2003 and *Super Mano Dura* in 2004 became the mold to future policy reactions against gangs.

Besides introducing arbitrary detentions, stigmatization of youth, overcrowding of the jail population and ample abuses of human rights, iron fist policies saw the sudden revival of the military by its insertion in public security affairs. Soldiers were deployed to municipalities with heavy gang presence across the country. Despite a tainted track record and very fresh memories of war crimes and atrocities in Salvadoran society, the Executive branch was able to recruit the help of FAES in the persecution of gangs through the Peace Accords loophole and make them crucial in the public security strategy against gangs onwards. Although the military was the institution that caused the most harm and bloodshed during the civil war it is still one of the most trusted establishments in the country, even doubling marks of the perception of the national government as presented in Figure 2.

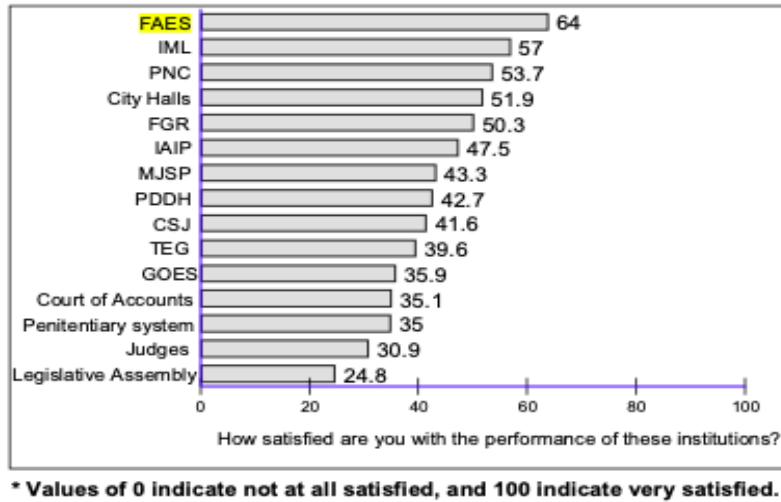


Figure 2. Level of satisfaction with the performance of public institutions. Graph courtesy of USAID: Perception of Security and Confidence in Public Institutions (Aguilar & Andrade, 2017).

Gangs became the public security emergency that required extraordinary measures to be contained. These types of suppressive populist policies have been popular among a population tired of insecurity and consequently politically beneficial for governments and politicians. Showing a strong hand against gangs was able to transcend political ideology as the strategy continues to be recycled by left and right leaning governments alike (Wolf, 2017).

Years after the first iron fist policies however, there is a wide consensus amongst academics and experts that these policies failed. For one, mass detentions centralized gangs from all over the country and thereby strengthened their ties and structure, going to jail became part of the gang culture and became a sign of experience or seniority for members. *Mano Dura* policies' influence is transcendental as gangs still manage their operations from within jails while captive. Investigator Jeanette Aguilar (2006) argues that this improvement in their structure was the “detonant for the ubiquitous presence of gangs in organized crime and also contributed to their complexity and professionalization.” Mass detentions meant that anyone with tattoos would be a target of police and military and since then gang groups took note on the looks cue, thus it became more difficult to determine visually who is a gang member and who is not. Lastly, PNC data also supports the claim of a strengthened gang body with homicides per 100,000 people and homicides attributed to gangs both rising between 2003 and 2005 (Aguilar, 2006, 88-90).

FAES evolving role within Public Security

During the first decade FAES involvement in Public Security through Executive Decrees were politically motivated. Interventions after *Plan Grano de Oro* (1992), were not emergencies but rather a public stance on how the government felt about the PNC and how it intended to keep utilizing the FAES in different matters. This trend was followed with *Plan Vigilante* in 1993 and *Plan Guardian* in 1995. The latter was composed of 6000 soldiers sent through *Grupos de Tarea Conjunta* (GTC), joint task groups which consisted of patrolling alongside PNC members and under their tutelage. These plans, as the ones executed in the future, were not transparent in defining the municipalities in which they would operate or the distribution of soldiers to different places. Often, announcements of their deployment avoided specificity by mentioning a zone, or vague terms such as: *national roads*, *rural areas*, or the *most dangerous municipalities*.

Since *Plan Mano Dura* (2003) there have been at least 8 more interventions in which FAES saw its inclusion to public security yet again. The modalities in which they participated also have evolved. During *Plan Mano Dura* (2003) and *Plan Súper Mano Dura* (2004), they worked as *Grupos Combinados de Tareas Antipandillas* (GTA). These groups were composed by PNC and the military with their mission being the “identification and capture of gang members, searches, house searches and patrols in areas with a strong gang presence (Aguilar, 2006). The first stage of *Plan Mano Dura* was launched with 39 GTA operatives *Plan Súper Mano Dura* saw that number increase more than eightfold to 333 GTAs around the country (Aguilar, 2019).

FAES full reinvigoration was solidified during President Mauricio Funes’ (2009-2014) term; paradoxically, the first former-guerrilla turned political party FMLN government since the Peace Accords. A new modality was introduced by the *Plan de Operaciones Zeus* called *Fuerzas de Tarea* (FT) which ran during President Funes’ term and was also renovated to be active by the next presidency until at least 2019. This plan differed from the previous because in some stages, it operated independently under no tutelage or oversight from the PNC and unlike *Plan de Oro* far from only a political stance, it was to operate in urban areas and in response to a palpable threat. With the new modalities, as Table 1 shows, the overall number of effectives performing public security tasks rose more than 40% during President Funes’ tenure.

Year	2009	2010	2011	2012	2013	2014	2015
	5,515	5,515	5,515	6,300	7,602	7,900	7,900

Table 1. Resolution of Delivery of Information. How many soldiers participated in security tasks with the police in 2009, 2010, 2011, 2012, 2013, 2014, 2015? (Ministerio de la Defensa Nacional, 2016)



Figure 3. Complaints of human rights violations against members of FAES from 2009-2016 courtesy of Aguilar (2019).

Furthermore, during Funes' presidency, FAES also cemented its power by claiming important Ministerial positions that assured further militarization of Public Security in El Salvador. At the middle of term, President Funes appointed the at the time current Minister of Defense, Colonel Munguía Payes as the Minister of Security and General Francisco Salinas Rivera as the Director of the PNC. There was now presence of the military in all public security domains and Generals were leading the sector's most important institutions. The new modalities and the institutional shield that was the new ministry appointments meant that FAES became heavily involved in public life, as can be pictured in Figure 3.

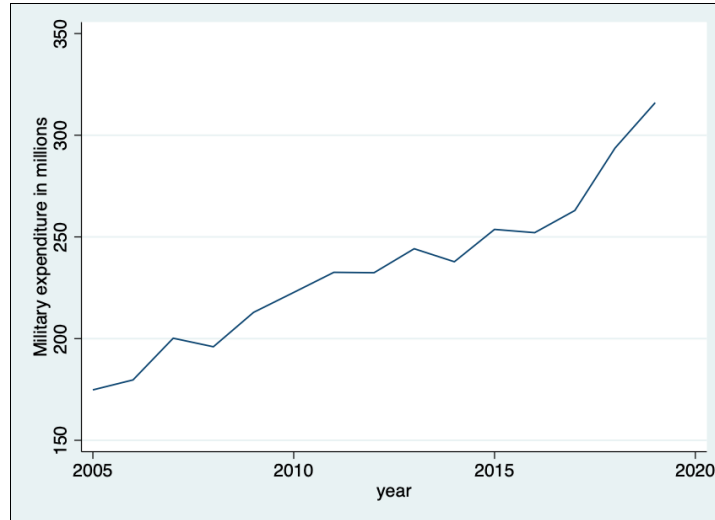


Figure 4. Military Expenditure in El Salvador in constant 2020 USD millions (SIPRI).

In conclusion, since the Peace Accords, FAES has been able to hold on to the power the Peace Accords were meant to deter. In the process it has been able to not only survive but also to militarize the newly created public security bodies. At the beginning, political attempts to disenfranchise the new PNC kept it afloat and later the emergence of gangs gave it a public security justification for its full involvement. Militarization has been present through many fronts, from militarization of public security activities, infiltration of PNC at the executive and administrative level, number of effectives on the streets, and the consolidations of ministerial positions. As Figure 4 shows, this was accompanied by a growth in its budget too. Figure 1, however, reflects a growing homicide rate since the start of the millenium despite repressive policies and militarization.

The reanimation of FAES during a leftist government came as a surprise. FMLN was one of the main critics of Mano Dura and Super Mano Dura during the last right wing ARENA administrations and was avid in its pursuit of demilitarization as the main opposition party since the Peace Accords. During the electoral campaign President Funes and his party had vowed to address the gang phenomenon from a comprehensive perspective: “control, prevention, reinsertion, attention to victims and legal reforms” (Martínez and Sosa, 2009 as cited in Martinez, 2021). A concrete step towards that ideal was presented by the approval of the National Justice, Public Security and Coexistence Policy (PNJSP) in 2010 which according to Ovallos (2015 as cited in Martinez, 2021) was the antithesis of previous repressive policies that were characterized by “lack of planning and few commitments to prevention and reintegration.”

Despite the policy being approved, it was never implemented leaving an open question of what the policy could have become.

National gang truce (2012-2014)

The national gang truce was a nontransparent procedure negotiated behind doors and facilitated by the government of President Mauricio Funes (2009-2014) as a deterrent to the growing gang violence in communities and its expression as homicide rates. In short, the truce consisted on giving more lax measures to imprisoned gang members, namely leaders in exchange of de-escalation of violence and thus homicide rates. Officially, the truce was introduced to the population as an initiative that started from within the criminal structures themselves with the help of mediators from civil society such as the catholic church to oversee the process. The government, namely the President and the Executive branch did not want to admit that the initiative started from the government itself because of the political cost it would entail to negotiate with gang members. This was never believed to be true however, as high ranking officials from the PNC, the Army, the Minister of Security and the Security Cabinet were well aware of the procedure. It was later after almost 10 years that the President recognized that he gave the green light for the truce to occur (DLH Editorial, 2021). During its epitome the truce plummeted homicide rates and its initial results gave hope for it to gather the explicit support of the Organization of American States (OEA in Spanish)(AFP, 2012).

The 2012 national gang truce is not to be confused with other documented approaches by political parties to gangs in order to receive the political support of populations controlled by gangs in elections in exchange of goods or future political favors.

Sanctuary municipalities

The idea of *Sanctuary Municipalities* was introduced by the original mediators of the truce as the second stage of said process (Editorial LPG, 2013). This modality consisted on the establishment of “sanctuary” municipalities where gang members agree not to commit crimes in exchange for the police ceasing house arrest operations. The initiative was later renamed *municipalities free of violence* after pressure from opponents of the truce and part of the population, however for this study the term sanctuary municipalities will be used.

In January 2013 the first four municipalities were presented: Ilopango, Quezaltepeque, Sonsonate and Santa Tecla. Gradually others were added: Apopa, San Vicente, La Libertad,

Zacatecoluca, Ciudad Delgado, Nueva Concepción and Puerto el Triunfo (Valencia, 2015). In total there were 11 municipalities that participated in the program.

1.5 Outline of Chapters

Succeeding chapters are outlined as follows. Chapter II reviews the existing literature and develops theoretical and methodological approaches for this study. Chapter III elaborates on the methodology adopted. Chapter IV presents and discusses the main results of the study, and Chapter V concludes this paper with concluding comments and recommendations.

CHAPTER II: Literature Review

This chapter presents both the theoretical and empirical reviews relevant to this study. Section 2.1 offers a theoretical background of militarization and an empirical overview of its effect on public security and homicides in El Salvador and the larger Latin American region. Section 2.2 then, reviews the theoretical context of the truce and presents a review of empirical studies of other gang truces in Latin America and the national gang truce in El Salvador and their consequent effect on violence. At the end of the chapter in Section 2.3 explains the literature gap this study fills.

2.1 Theoretical and Empirical Literature Review of Militarization of Public Security.

Before deepening into the concept of militarization, one has to know the academic distinction between militarism and militarization. According to (Solar, 2021) militarism is broadly defined as “the intrusion of military considerations into the process of political and diplomatic decision making” whereas militarization considers “the processes in which nations absorb and aspire to military practices, modes of organization, and martial discourses.” Militarism relates then to militarization as the ideology that fuels these processes in different sectors of society.

Flores Macias & Zarkin (2021a) argue that scholarship devoted to militarized law enforcement...has mostly focused on a “fairly narrow form of militarization --- namely when the police take on similarities to militaries —with a fairly narrow geographic range: the United States.” Kraska (2007, 3 as cited in Flores Macias & Zarkin, 2021a) defines militarization of police as “the process whereby civilian police increasingly draw from, and pattern themselves around, the tenets of militarism and the military model.” While this definition might reflect the U.S. experience, further tailoring of the concept must be done to account for the experience of

other countries where “the armed forces themselves conduct tasks previously reserved for civilian police” (Flores Macias & Zarkin, 2021b).

To understand El Salvador’s militarization standings and implications Flores Macias & Zarkin (2021a) present a helpful tool (pictured in Table 2) to identify the different subtypes of militarized law enforcement beyond civilian police utilizing Sartori’s (1970 as cited in Flores Macias & Zarkin, 2021a) ladder of abstraction. In El Salvador, like in other countries of the Latin American region, the trend has been a double dynamic in which “military forces are increasingly called on to carry out domestic-policing functions, at the same time that police agencies receive missions and equipment that render them increasingly military-like” (Diamint, 2015). El Salvador’s heavy militarization of law enforcement is the most stark version of militarization from the options presented by Flores Macias & Zarkin (2021a) having presence of militarized police, paramilitary police and most importantly the focus of this study, “constabularization of the military—i.e., when the armed forces take on the responsibilities of civilian law enforcement agencies” (Flores Macias & Zarkin, 2021a).

Table 2. Law enforcement types based on degree of militarization. Table courtesy of Flores Macías & Zarkin (2021a).

	Non-militarized Police	Militarized Police	Paramilitary Police	Constabularized Military
Accountability	Civilian law	Civilian law	Civilian law (with some exceptions)	Military law (with some exceptions)
Weaponry	No access to heavier weapons and equipment	Some access to heavier weapons and equipment	Some access to heavier weapons and equipment	Full access to heavier weapons and equipment
Training	Maintain public order (focus on community development and use of force as last resort)	Maintain public order (non-lethal use of force)	Maintain public order (non-lethal use of force)	Engage and destroy
Organizational Structure	Low degree of centralization and hierarchy, bottom-up command, deployed in small groups	Medium degree of centralization and hierarchy, bottom-up command, deployed in small groups and formed units	High degree of centralization and hierarchy, top-down command, deployed in formed units.	High degree of centralization and hierarchy, top-down command deployed in formed units.

Less militarized -----> Most militarized

While militarization is a matter of concern in El Salvador, the development of the process in public security and law enforcement represents only a part of a larger regional trend. “Crime and violence are two of the most compelling and seemingly intractable problems confronting Latin America today...Latin America is often described as the most violent region in the world” (Parkinson 2014 as cited in Pion-Berlin & Carreras, 2017) and naturally, according to a Latinbarómetro survey, insecurity is the main concern cited by Latin American citizens when asked what they worry about (Diamint, 2021).

Like the case of El Salvador and their iron fist strategies to contain gangs influence, other governments too cope with crime as their citizen’s main concerns and thus according to Flom and Post (2016 as cited in Flores Macias & Zarkin, 2021b) “politicians turn to tough-on-crime approaches as primary form of punitive populism, to gain political favor, even when the effectiveness of such policies is in doubt.” “Presidents from the region have been responding to urgent citizen demands for improved public order and security by granting extralegal powers to military officials. In the bargain, the elected civilians not only lose power but also hand the soldiers a direct and privileged relationship with society (Diamint, 2021). This is aligned to Martinez Reyes et al., (2021) narrative of the Salvadoran case, they argue that the government of the ARENA party in 2003 used the gangs’ phenomenon as an electoral strategy to win the presidency in 2004. It was around this idea that they designed the *Plan Mano Dura*, a policy focused on the mass detention of youth. Finally, as Flores Macias & Zarkin (2021b) state “punitive populism tends to be politically expedient because punitive approaches resonate among publics in need of solutions to pressing problems.”

The relationship between militarization and homicide rates.

Amongst academics there is a general consensus based on qualitative and quantitative evidence on the negative effects of militarization of public security and law enforcement in the region, namely the effect of a constabularized military. Pion-Berlin & Carreras (2017) argue that “militaries are normally trained to use uninhibited, explosive force to subdue an enemy; they are not commonly prepared to conduct themselves with restraint or circumspection.” Solar (2021) says that iron-fist use of the whole-of-military participation in non-traditional roles have led to “human rights abuses and increased societal turbulence in the region.” While, Diamint (2021) is more blunt arguing that based on the region’s history “there is not one case where the Latin American military’s involvement in civil policing improved public security...but rather involvement has raised concerns over human-rights abuses” and according to Flores Macías & Zarkin

(2021a) also contributed to impunity. Finally, a “growing body of research suggests that the constabularization of the armed forces for domestic policing in the developing world is ineffective at best and counterproductive at worst” (Flores-Macías and Zarkin 2021; Lessing 2017; Osorio 2015 as cited in Flores Macias and Zarkin, 2021a).

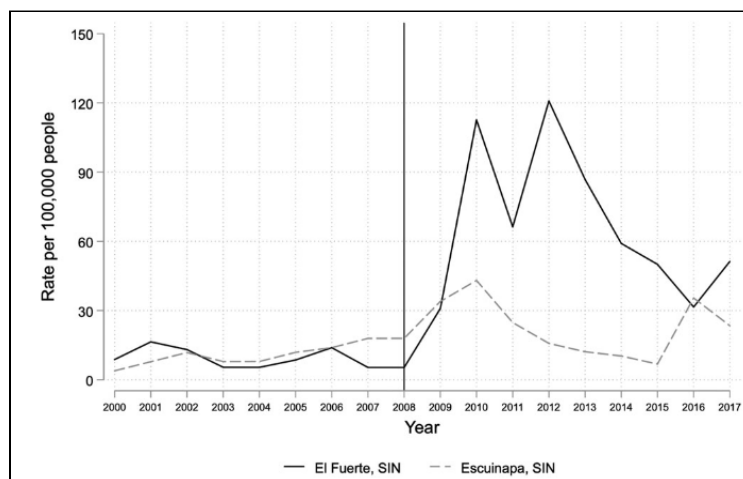
Specific empirical studies have zoomed in to specific instances of constabularization of the military and their effect on violence and homicides. Flores Macias & Zarkin (2021a) theorizes on the consequences of constabularization of the military. According to his analysis of the region, El Salvador is one of nine countries in the region that experiences a *Generalized Constabularization of the Military*, the highest level of militarization where the armed forces are involved in sustained law-enforcement tasks across the national territory. This is compared to *Limited Constabularization of the Military* where countries involve their militaries in geographically limited law enforcement operations. Their results for El Salvador and other countries from the region experiencing this level of militarization are presented on Table 3. The results are inline with the hypothesis of this study with El Salvador reporting an increase in violence after specific instances of constabularization. As they explain “...although the armed forces tend to be assigned to more difficult situations than other forms of law enforcement, making it difficult to assess whether they contribute to increased violence, the timing of militarization is consistent with surges in the adoption of tough-on-crime measures.” In El Salvador, for example, “spikes in homicide rates have followed constabularization under plans Mano Dura and Super Mano Dura (Garcia 2015 as cited in Flores Macias & Zarkin, 2021a).” These results however, are not to be taken as a deterministic correlation between constabularization and violence levels as other countries in the region experience a different relation between the two variables and the results are the product of a very generalized macro regional analysis that also looks at results regarding Human Rights, Police Reform and Legal framework ignoring other country-specific factors and nuance doing with violence.

Table 3 Consequences of constabularization by country. Courtesy of Flores Macias & Zarkin (2021a).

Country	Generalized or Limited Level of Constabularization?	Increase in Violence after constabularization?
El Salvador	Generalized	Increase
Bolivia	Generalized	On trend
Brazil	Limited	Decrease
Paraguay	Limited	On trend
Peru	Limited	Increase
Colombia	Generalized	Bump
Dominican Republic	Generalized	Increase
Ecuador	Generalized	Decrease
Guatemala	Generalized	Increase
Honduras	Generalized	Bump
Mexico	Generalized	Increase
Venezuela	Generalized	On trend

More granular robust analysis on the effect of constabularization concretely on homicide rates was also conducted by Flores Macías and Zarkin (2021a) in Mexico to test the previous results further. Their study was able to “isolate the effect of militarization and account for the difficulty of the mission and context by comparing two municipalities in the state of Sinaloa, Mexico, that closely match their homicide rates, socioeconomic characteristics, and presence of organized crime until the joint operation began in 2008.” The results, presented in Figure 5, are easy to interpret. The involvement of the military in the municipality is accompanied by a visual increase in homicides in El Fuerte municipality relative to Escuinapa municipality that did not see any involvement.

Figure 5. Homicide rate in comparable municipalities with and without military presence. Graph Courtesy of Flores Macías and Zarkin (2021a).



2.2 Theoretical and Empirical Literature Review on the National Gang Truce

In academia, the gang truce would fall under the *intrastate conflict resolution* literature. Existing scholarship tells us about the situations that increase the likelihood for a truce to exist. The existing literature suggests that “as the costs of confrontation rise, settlements become more likely. Pacts become especially likely when the state and violent non-state actors find themselves trapped in a mutually hurting stalemate; the costs of confrontation are high and the likelihood of prevailing militarily declines” (Walter, 2002 as cited in Daly, 2016). Daly (2016) studies’ also warn of the by-products of implementing pacts such as the national gang truce, she argues that “the costs of pacts may also be high and may change over time. When the state implements non-confrontation agreements with illegal non-state actors, it freezes a status quo, which is often expensive in terms of corruption, institutionalized levels of violence, and governability.” This aligns with criticism of the Salvadoran national gang truce, that the government was giving preferential treatment to gang members in order to keep homicides down. Part of the population despised the national gang truce because it meant an amnesty for the people that had bled the country down. Other criticism argued that extortion, the main income source for gangs was not discussed in depth in the negotiations and that the truce had allowed gangs to consolidate their criminal activities (Castro Fagoaga, 2013 as cited in Cruz & Duran Martínez, 2016))(Telléz Chávez, 2014).

As in the case of militarization, El Salvador is also part of a larger trend of events that occur in the region. Gang truces have been a common solution toward peace in the Western

Hemisphere in cities such as Chicago, Los Angeles, and Medellín as a response to the growth of criminal organizations (Cotton, 1992 as cited in Cruz & Duran Martínez, 2016). However, because of the nature of these discussions and negotiations, it is hard to analyze these processes and systematize research to assess their potential to reduce violence. This is a sentiment shared by different authors, for example, Daly (2016) who argues that “why states vary in their strategies remains underexplored and undertheorized” and Katz et. al (2016) who say “there has been little research on the effectiveness of gang truces.”

In the specific case of the Salvadoran gang truce scholarship agrees that despite setbacks, the main goal of decreasing homicides was achieved during the few months that the truce was active (Savenije, 2016) (Katz et. al, 2016) (Cruz & Durán Martínez, 2016)(Borgh & Savenije, 2016)(Telléz Chávez, 2014). A major contribution to the literature on the national gang truce’s effect on homicide was a quantitative empirical study done by Katz et. al, (2016) in which they aim to estimate the national gang truce’s effect on homicide rates. By focusing solely on the effect of the truce, this paper is more robust in its analysis of the truce; taking data from four data sets including “municipal-level measures of community social structure...deeper data on crime including extortion, homicide, rape, robbery, theft, vehicle theft, vehicle robbery and disappearances...estimates of the numbers of MS13 and Eighteenth-Street gang members present in each municipality in 2011...and the numbers of MS13 and Eighteenth-Street members imprisoned in each municipality in 2011.” The latter were requested from government institutions. Even with the municipal level controls, the study concludes a significant reduction of homicides rates, with a greater decrease in the municipalities that had “relatively high numbers of imprisoned MS13 gang members.”

The national gang truce has been subject to other qualitative studies focused on its effect on other sectors of society. Telléz Chávez (2014) evaluated its effect on personal security & the right to private property...focusing on homicides, disappearances, internal displacement, robberies, and extortion. She concludes that...the truce had mixed effects on citizen security in El Salvador. Despite the decrease in homicides, the truce had “negative effects on extortion...and consolidations of territory controlled by gangs.” Most importantly, however, she argues that the truce “challenged the vision that repression (which often violates human rights) is the most adequate policy to enhance citizen security thus significantly modifying the terms of the security debate in El Salvador.”

2.3 Gap in Literature

Through specific case studies in Latin America and regional studies, existing literature has been successful at determining the direction of the correlation between militarization and violence in the region. Despite shortcomings, scholars have also been able to analyze case-to-case scenarios where negotiations with violent non-state actors took place; although, as seen before, cautious of making deterministic generalized theorization because of the nature of these deals.

For the case of El Salvador, specific studies such as Flores Macías and Zarkin (2021a) aim to isolate the effect of militarization on violence and homicide rates. While Katz et. al, (2016) focused on the effect of the truce on homicides. Militarization has arguably been present and developing on different fronts since the signing of the Peace Accords in 1992, with an upsurge in the governments since 2009 as FAES was given greater freedom to act independently and secured key security positions in GOES. The last decade also saw one of the most drastic decreases in homicide rates through a national gang truce. These two processes are key to understanding the reality of public security in the last decade for El Salvador, therefore the intersection of both of these variables is an important gap in the literature to fill. By providing a first step towards understanding the interaction between the militarization of public security, most specifically, constabularization of the military and intrastate conflict resolution, this study and its findings will contribute to the literature on the effects of militarization and effects of conflict resolution and peace studies. Furthermore, the analysis of this intersection should enlighten on the effectiveness of the policies relative to the other when it comes to their effect on homicide rates in the Salvadoran context.

CHAPTER III: Methodology

3.1 Empirical Strategy: Regression analysis

Does constabularization of the military in El Salvador affect municipality level homicides? Did the national gang truce affect municipality level homicides during the time it was active? To examine the correlations of these variables with our variable of interest, this study performs an econometric regression analysis of the panel dataset created using the following base model.

$$homicides_{it} = \beta_0 + \beta_1 military_{it} + \beta_2 truce_{it} + \beta_3 truce \times military + u_{it}$$

Where our variable of interest $homicides_{it}$ represents homicides in a municipality i in month-year t . $Military_{it}$ represents the level of militarization in a municipality i in month-year t

and $truce_{it}$ represents whether the municipality i was experiencing the truce or was part of the sanctuary municipalities during month-year t .

Categorical time variable: The model includes year-month fixed effects that control for any change that occurs over time within municipalities. Categorical municipality_id variable: the model also includes municipality fixed effects that accounts for any time invariant change across municipalities. A more robust iteration of the model shall include a population density variable in order to control for population density measured as people per square kilometer across the municipalities from the dataset.

The main hypothesis for this study and for our results is that militarization is correlated positively with monthly homicides per municipality, as militarization increases so do homicides and that the time when the truce is active is correlated with a decrease in monthly homicides per municipality. In this respect, the coefficient of interest is β_3 , which represents the interaction of the truce and the militarization variables we expect to be negative if the truce is active and positive if the truce is not. For β_1 , we expect a negative coefficient, that is, when the truce is active there is a negative effect on expected homicides. Regarding militarization we expect a positive sign for the β_2 coefficient, suggesting a positive correlation with homicides.

3.2 Description of Data

Dataset breakdown

The dataset created for this study and its corresponding regression analysis is a panel data series that follows 217 out of the 262 municipalities in El Salvador. The time variable is composed of the month and the year for every municipality starting in January 2009 and ending in December 2016.

Source of Data for main variables

The data regarding monthly homicides in municipalities has been extracted from the Portal of Transparency of the National Civil Police (PNC Portal de Transparencia). Data regarding militarization as a function of the presence of FAES in municipalities was composed by triangulation of official reports by the institution itself and media coverage on specific municipalities. The national gang truce was not a transparent process and was not acknowledged officially, rather media coverage, investigative journalism outlets and later

support by International Organizations provided the needed insight to analyze the dates regarding this event.

General data limitations

The panel variable is considered *unbalanced* as the 2015 and 2016 figures are missing the last 3 and 4 months of their year, accordingly. As previously mentioned only 217 out of 262 municipalities have been used for the study, this had to do with the availability of data. The municipalities presented in the 2009 homicide reports were the ones followed throughout the study to achieve consistency. It is important to note that the municipalities that are present within the dataset are key to understanding the gang problematic, with the set including, but not limited to, all municipalities in the capital state of San Salvador and the capital municipalities of all states. Further limitations within variables will be specified in their respective sections.

3.3 Building of dependent and independent variables

Monthly homicides per municipality

Data provided by the PNC database shows the number of homicides per month in a year in different municipalities. Limitations of the data: Throughout the different years, out of the total 262 municipalities in El Salvador around 217 municipalities appear in each year's dataset, these are not the same municipalities therefore they are not constant throughout the years and there is no legend in the dataset clarifying whether there is no data for the missing municipalities in that year or where there were no homicides. The dataset for 2015 and 2016 are incomplete with no record of the last 3 and 4 months respectively.

Population density

While gang members are spread around the country, the most violent municipalities are likely going to be in more dense municipalities. To account for this, the dataset will include the municipalities' population density with population census from 2015. The data was retrieved from the DB-City online database (DB-City).

Homicides per 100,000

The best indicator to interpret the state of homicides in a year, is homicides per 100,000. This data was taken from the World Bank Database (World Bank). According to the World Bank a country suffers a violence epidemic when homicides per 100,000 are over 10. In 2015, El

Salvador surpassed the figure reaching 105 homicides per 100,000 becoming the most dangerous country that is not experiencing a war conflict in the world (Buncombe, 2016).

Truce categorical variable: National Gang Truce

To try to capture the effect that the 2012 national gang truce had on homicide rates, this study's regression will introduce a categorical variable for the time said truce was active. The deal officially started with the relocation of gang leaders from a high-security compound to a laxer location in March 2012 as reported by investigative digital newspaper El Faro (Martínez et al., 2012). During the time that the truce was active, however, its statutes were unknown and mostly speculation. This means that even though the start of it is relatively clear, the end or its shortfalls throughout are not as much. For the purpose of this research, the truce will start in March 2012 and end by the end of the year 2013. Note that as the truce progressed, and negotiations furthered gangs could exert pressure on the government by increasing homicides on a certain day. These nuances will not be taken into account making the categorical variable continuous nationally in all municipalities during the almost 2 years it was active.

The rationale behind the end date of the truce picked by this study was that by the end of 2013, the country was approaching presidential elections in March 2014. By this time, incumbent President Salvador Sánchez Cerén, also from FMLN had already taken an iron fist stance in his campaign and so had his main rival ARENA's Norman Quijano. As discussed previously, these types of policies are and were popular amongst the population and part of the voters were concerned of the stability of the truce and that criminals were being given benefits despite their record. Furthermore, at this time, negotiations with gangs had shifted into getting gang control support for the elections and less about decreasing homicides thereby affecting the stability of the truce. When the new President took office, he moved the gang leaders back to a highly secure facility as he promised thereby ending any remnants from the truce.

Truce Categorical Variable: Sanctuary Municipalities

The second stage of the truce was negotiated in November 2012 with the same committee involved in the first stage earlier that year. After a successful reduction of homicides in the first stage, the truce saw an increase in validity seeing involvement from NGO Interpeace and the Organization of American States (OEA in Spanish). This stage included the creation of sanctuary municipalities around the country where gangs would give up arms and the

municipality would invest in job opportunities and capital aiming for the reinsertion of gangs into society.

The initial proposal was to start with 11 municipalities and expand from there. The program did not start automatically for all municipalities, it started after an individual agreement had been signed in each municipality. The agreements were usually accompanied by a press conference with representatives from the gangs, the mayor or leadership from the municipality, and intermediaries from the Catholic Church or the OEA in some cases. During these conferences, all parties would speak on the deal reached to show their commitment to this new stage of the truce and some gang members would publicly give up arms to authorities. Because it was not a specific date for all municipalities, the date varies from municipality to municipality. The inaugurations happened first in January 2013 with Ilopango, Quezaltepeque, Sonsonate y Santa Tecla. Apopa and Zacatecoluca joined in March 2013. La Libertad, Ciudad Delgado and Nueva Concepción started on April 2013, while San Vicente and Puerto el Triunfo did so on May 2013. Sanctuary municipalities were supposed to expand to other parts of the country; however, the project was stalled as it was a direct product of the national truce. (Aleman, 2013) (AFP/El Faro, n.d.) (LPG Editorial, 2013). For this study, the end of this stage of the truce would be the same as the larger national gang truce, that is by the end of December 2013. The data on dates and municipalities involved was done by triangulating media coverage at the time. The truce speakers for example would speak vaguely about how many municipalities would participate, and this study centralized all the instances where it found ceremonies where the second stage was implemented.

Table 4. Summary Table of the *Truce* categorical variable

Truce==0	All municipalities in times outside of March 2012 and December 2013.
Truce==1	All municipalities from March 2012 until the end of December 2013.

National gang truce negotiated by the government to lower homicides in the country.	
Truce==2 Selected municipalities that became sanctuary municipalities as part of the second stage of the national gang truce.	Selected eleven municipalities, starting at different times within the first trimester of 2013: Apopa, Delgado, Ilopango, La Libertad, Quezaltepeque, San Vicente, Santa Tecla, Sonsonate, Zacatecoluca, Puerto El Triunfo, Nueva Concepción.

Militarization categorical variable.

Identifying the level of militarization in El Salvador’s municipalities can be a difficult task because of the many ways it can take shape e.g., at a local municipality level it can be through the presence of military effectives and soldiers, as presented in Table 1, the militarization of local police bodies through training, replication of techniques or direct collaboration. At a national level, it can be represented by the works at the institutional level such as the FAES level of autonomy, its range of services provided within society e.g., public security, health services, and its overall budgetary allocations and variations as pictured in Figure 4. From whichever way the term is analyzed, it is important to remember the historical importance of the military in El Salvador’s government and society in the last century as detailed in Chapter I, and while this study focuses specifically on constabularization of the military readers must understand that currently there are advancements in militarization in both the local and national fronts.

This study is interested in a quantitative municipality level metric that can help determine a correlation with monthly homicide rates at the same level. This metric will be created by accounting for the presence of FAES soldiers performing public security tasks in municipalities from the iron fist policies of 2003 until President Salvador Sánchez Cerén’s Plan El Salvador Seguro which took place from 2014 until 2019. Official data provided by FAES in accountability reports have been limited to the number of soldiers involved in public security nationally, with documents provided showing some small inconsistencies in the number of effectives. For the purpose of this study, data was requested at a granular level on soldiers’ deployment, however, no answer was provided by official institutions. Also, the recent imposition of a stage of emergency nationally due to an increase in homicides has led the government to reserve some sensitive information for journalists and researchers. Complimentary to the number of soldiers involved in public security tasks there is no information regarding the dispersion of such forces or their area of focus.

A proxy to finding more granular information can be done by looking at specific interventions. Soldiers sent by FAES intervene in public security through a range of military interventions with different purposes, different partners, and different relationships with their partners. For example, *Plan Barrios* in 2015 was executed in collaboration with VMT (Vice Ministry of Transportation) as a response to the nationwide closure of public transportation as gangs threatened to kill drivers if they were to operate (BBC Mundo, 2015). Other interventions are more focused on public security, working in direct collaboration with PNC or in other cases having full autonomy through an independent military group such as FTs as previously mentioned. There are 4 meaningful interventions in-between these 14 years that will be used to create a categorical variable that measures fixed militarization in municipalities: GTAs from *Plan Mano Dura* in 2003, *Fuerzas de Tarea* in *Plan de Operación Zeus* and *Grupos de Tarea* from President Sánchez Cerén mandate.

Although these plans are not as transparent as they could be, these were the ones with more clear information and for the purpose of this study they should suffice to create a reliable metric for this dataset. *Mano Dura*, for example, was officially launched in 39 municipalities with strong gang activity through GTAs (Aguilar, 2019). These included all the municipalities of the Department of San Salvador and other municipalities around the country with strong gang presence. Given this number, this study triangulated media coverage where *Mano Dura* was present to find the specific municipalities that participated. Deployments of *Fuerzas de Tarea* were found on two instances, the first on a detailed map in a 2017 Accountability Report by the Minister of Defense (MND, 2017) see Appendix A, that provides all the municipalities where FTs were deployed between 2016 and 2017. The other deployment information was through a map in a report by Aguilar (2019) with information sourced from the Ministry of Defense of deployments between 2010-2014, see Appendix B. *Grupos de Tarea* (GT) are also found on this latter map, these groups provide support to the different jails of the country, therefore this score added the municipalities where these jails and GTs are located.

Because we get to see soldier involvement overtime, we can see which municipalities have had interventions more than once, this gives us an idea of the level of militarization of a specific municipality. The results range from 1 to 4. The variable will be categorical ranging from 0 to 2, to account for the degree of involvement of FAES in municipalities. For this study, municipalities

that have had more than one intervention will be given 2 as a value and the ones that have seen involvement only once a 1 while those that have seen no intervention get a 0 score.

Limitations of the military categorical variable: Other interventions were dropped from the dataset as not enough information on the military's involvement was available officially or in the media and therefore data could be biased and not relied upon. Some battalions only present the department where they will work, with little information regarding the municipality and time distribution within each municipality. Other accountability reports presented by the Minister of Defense provide maps with little details such as schools in a state but it is impossible to triangulate which municipalities these schools are located in. Evidently soldier presence is nationwide but there is no transparent measure allowing this study to record to what extent they are. Furthermore, within the militarization prism, the number of military interventions in a specific place only represents one dimension of the many ways the concept can be applied. As we have seen before, the advancement of FAES is evident in other fronts that cannot be quantified and should be further explored from a qualitative standpoint to account for a more wholesome view of the militarization concept.

Table 5. Summary Table of the *Militarization* categorical variable

Militarization	Municipalities
Militarization ==2 Two or more instances of military patrols within the municipality.	Acajutla, Ahuachapán, Apopa, Atiquizaya, Ayutuxtepeque, Chalchuapa, Ciudad Arce, Coatepeque, Cojutepeque, Colón, Cuscatancingo, Delgado, El Congo, El Paisnal, Ilobasco, Ilopango, Izalco, Jiquilisco, La Libertad, Mejicanos, Nejapa, Panchimalco, Quezaltepeque, San Juan Opico, San Marcos, San Miguel, San Pedro Perulapán, San Salvador, San Vicente, Santa Ana, Santa Tecla, Sensuntepeque, Sonsonate, Soyapango, Tonacatepeque, Usulután and Zacatecoluca.
Militarization ==1 At least one proven instance of military patrols within the municipality.	Aguilares, Antiguo Cuscatlán, Armenia, Chalatenango, Conchagua, Guazapa, La Unión, Metapán, Nahulingo, Olocuilta, Puerto el Triunfo, Rosario de Mora, San Antonio del Monte, San Francisco Gotera, San Julián, San Luis Talpa, San Pedro Masahuat, Santa Cruz Michapa, Santiago de María, Santiago Nonualco, Santiago Texacuangos, Santo Tomás, Sonzacate, Tacuba, Tecoluca,

	Tepecoyo and Zaragoza
Militarization== 0	The rest of the municipalities within the sample.

CHAPTER IV: Results and Discussion

This chapter presents the results obtained in this study and discusses the interpretations and implications of the main findings. It is important to highlight the limitations of the Panel Data Fixed Effects regression performed in this study remembering that the purpose of this study was not to establish causal inference. Regression coefficients should be interpreted as correlations instead of direct causal effects. Results obtained in this study are presented and discussed in the following sections.

4.1 Descriptive Statistics

Table 6. Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Municipality ID	20640	109.147	62.915	1	217
Population Density	20640	550.544	1158.392	43.3	7827
Monthly homicides	17527	1.692	3.602	0	74
National Gang Truce Categorical Variable	20640	.235	.437	0	2
Military Categorical Variable	20640	.47	.77	0	2

Table 6 shows the summary statistics of the main variables within the dataset. The municipality population consisted of 217 out of the 262 Salvadoran municipalities. For the regression analysis 17,527 out of 20,640 units were considered as they included monthly homicide data. Regarding the variables of interest, the military categorical variable has a mean value of .47. This would mean that the average Salvadoran municipality during the time considered in the dataset has a level of militarization in between 0 and 1 as per the definition of this study. That is, it is as likely to have not seen a soldier presence in public security tasks as likely as seeing soldier presence in public security tasks at least once. From this number we can tell that only a few municipalities have seen soldier presence more than once, and thus, long-term militarization is concentrated on only some of the municipalities. For the national gang truce we

have a mean value of .235, its interpretation can tell us a rough estimate of the percentage of time the truce was active relative to all the time accounted on the dataset. However, we cannot have a direct interpretation since the level 2 of truce elevates the average value even though it is still the same time as the national gang truce. Regarding monthly homicides, on average a Salvadoran municipality would have 1.7 monthly homicides, a figure that if spread across the Salvadoran municipalities, would account for more than 445 monthly homicides nationally per month and would translate to 85 homicides per 100,000 with the population of 2015. As previously mentioned, per the World Bank, more than 10 homicides per 100,000 is considered a violence epidemic.

Figure 6. Descriptive Statistics. Average monthly homicides per month and year.

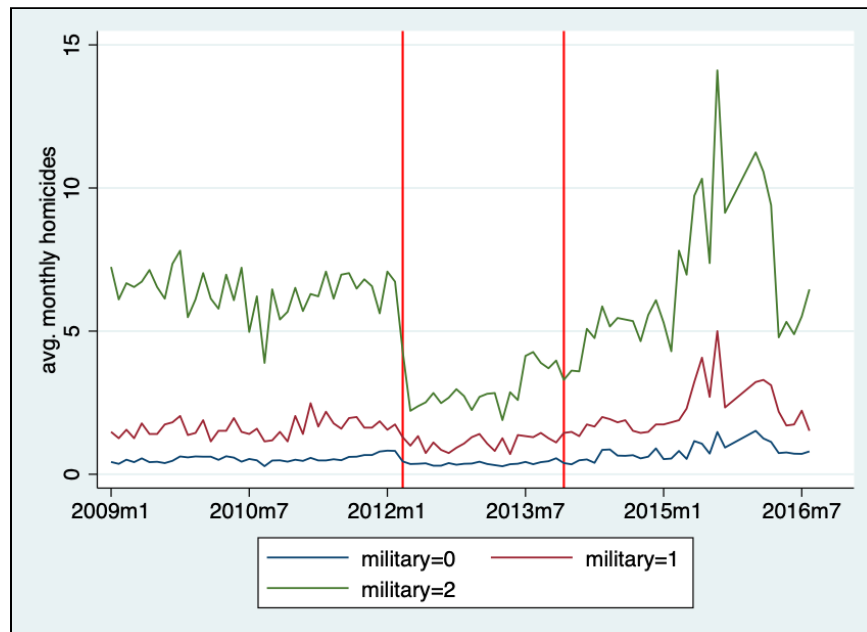


Figure 6 collapsed all the homicide data of all municipalities considering month, year, and military level. The dates when the truce was active are represented within the range between the two red t-lines. Visually, the graph represents the expected results concerning this study's initial hypothesis. First, that if the national gang truce was active, it is correlated with lower average monthly homicides, and second that militarized municipalities are tied to a higher level of homicides in general regardless of whether the truce is active or not.

We find that the national gang truce has lower average monthly homicides relative to the time it is not present; this is true when municipalities experience a level of militarization of 1 or 2. The correlation with non-militarized municipalities is mild at best. Rather the effect of the national

gang truce seems to be more pronounced the higher the level of militarization. This interpretation would be fitting with the context presented, the truce had a higher effect in more violent municipalities, while municipalities that have been historically less dangerous did not see a significant decline in monthly homicides.

It is important to note that even if militarized municipalities were going to have higher homicides since the beginning, as soldiers were sent to the most dangerous municipalities, one of the instances that this categorical variable takes into account *Mano Dura (2003)* which happens more than five years before this data results, supporting the suggestion that a constant state of militarization through the years is correlated with higher homicides. Homicides in municipalities that saw soldiers perform public security activities only once per our dataset see little overlap with the average number of monthly homicides in municipalities that were heavily militarized with soldiers' presence more than once. The gap between municipalities experiencing militarization once and with those that did more than once is visually significant. The only time both types of municipalities meet is at their most extreme situations. The overlap, where both kinds had similar number of average monthly homicides, happens when municipalities that experienced soldier activity only once experienced its highest peak in homicides during mid-2015 and when municipalities that saw soldier activity more than one time experienced their biggest decrease in 2012 and 2013 due to the national gang truce. This gap and the condition of their only overlap suggests that it is important to consider whether a municipality has seen soldier activity once or more than one time.

Figure 7. Average monthly homicides in municipalities that participated as sanctuary municipalities in the second stage of the national gang truce.

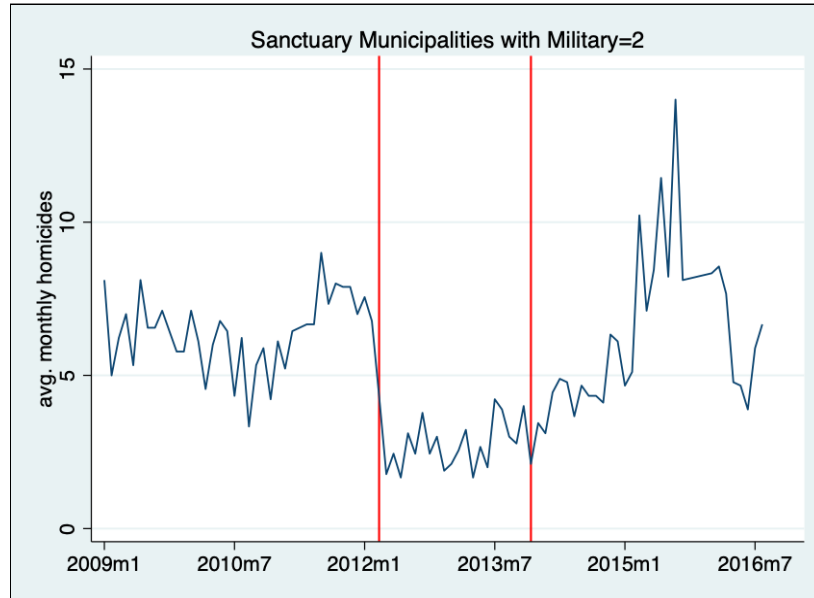


Figure 7 considers only sanctuary municipalities. Sanctuary municipalities, eleven total, are predominantly highly militarized municipalities per our understanding of militarization in this study with nine of them having seen soldier presence in public security tasks two or more times. Of these eleven municipalities only one has seen military involvement once and another one has not seen soldier presence at all per the operations considered in this study. Descriptive statistics are only reliable then to present the effect of the truce for sanctuary municipalities that experienced militarization two or more times. At a first glance, similar to their non-sanctuary municipality counterparts, the national gang truce has a negative effect with the number of average monthly homicides decreasing during that time. However, unlike the parting hypothesis, there is no visual difference between the truce section and the second stage of the truce in 2013 when the sanctuary municipalities program was activated, which this study interpreted as doubling down on the truce.

Note: When collapsing the data to perform descriptive statistics the average number of homicides was used over the sum of homicides since the number of municipalities are not distributed equally between military 0, 1 or 2.

4.2 Regression Results

Table 7. Regression results from Models A, B, C, D.

	Model A hom_n	Model B hom_n	Model C hom_n	Model D hom_n
military1	1.124*** (0.153)	1.224*** (0.164)	0.934*** (0.240)	1.159*** (0.0477)
military2	5.133*** (0.791)	5.868*** (0.891)	4.894*** (0.764)	3.457*** (0.159)
truce1	-0.919*** (0.123)	-0.272*** (0.0422)	-0.276*** (0.0432)	-0.433** (0.163)
truce2	-2.653*** (0.770)	0.0488 (0.0627)	0.159* (0.0702)	-1.062*** (0.159)
Truce 1 x Military 1		-0.464*** (0.104)	-0.465*** (0.104)	-0.444*** (0.106)
Truce 1 x Military 2		-3.221*** (0.460)	-3.219*** (0.460)	-3.195*** (0.536)
Truce 2 x Military 1		-1.424*** (0.164)	-1.142*** (0.238)	0.0869*** (0.0251)
Truce 2 x Military 2		-3.637*** (0.915)	-3.729*** (0.886)	-2.653*** (0.501)
Population Density			0.000663* (0.000287)	0.00145*** (2.69e-15)
_cons	0.801*** (0.0659)	0.651*** (0.0627)	0.485*** (0.0871)	-0.168 (0.143)
N	17527	17527	17527	17527
adj. R-sq	0.305	0.325	0.363	0.683

Standard errors in parentheses

* p<0.05, ** p<0.01, *** p<0.001

As previously mentioned, with monthly homicides being the dependent variable for the performed regressions, only 17,527 observations are considered from the total 20,640 in all models. It is important to note that the model works with granular data and that homicide variations happen monthly at the municipality level. As with the descriptive statistics, the

regression results that are significant are favorable with the hypothesis that higher militarization is correlated to a higher average of monthly homicides and that the national gang truce while active was associated as well with a lowering of homicides. All these regressions were performed with the robust command to account for outliers within the dataset. In all models standard errors are clustered at the municipality level to account for any serial correlation across municipalities. Therefore, the standard errors presented on Table 7 account for this.

Model A, regresses monthly homicides as a dependent variable and the categorical truce variable and categorical military as independent variables to calculate the main effects coefficients. The base of the model is a municipality that has not experienced any level of militarization and is also not experiencing the national gang truce at any level. This is the most basic model and further models will add interactions and controls to make a more complete analysis. In Model A, all the coefficients are significant, and even without interactions the model presents a high r squared. This means that 30% of the variation in the dependent variable, monthly homicides, is explained by only the two chosen independent variables. The signs and values of the coefficients are aligned with the hypothesis that a higher level of militarization correlates with a higher number of monthly homicides and that in the time that the national gang truce is active it correlates to a decrease in homicides.

The interpretation of the coefficients for this model would go as follows. Truce 1, for the lack of a better term, is the effect of a municipality being at the time the national gang truce was active (2012-2013) relative to the time it was not, this applies for municipalities that did not see military or soldier involvement in their community's public security in the instances this study took into consideration i.e., military level = 0. These non militarized municipalities, on average, will have 0.9 less monthly homicides compared to the times they were not on the national gang truce span of time. Similarly, the Truce 2 coefficient indicates the effect that municipalities that were not militarized and experienced the second stage of the national gang truce i.e., sanctuary municipalities, relative to non militarized municipalities outside the time of the national gang truce. The coefficient would represent a decrease in monthly homicides of 2.6 relative to that base, this would mean almost three times less monthly homicides for non militarized municipalities only experiencing the first level of the truce.

Unlike the truce coefficients, the military coefficients represent an increase in monthly homicides on both instances instead of a decrease. First, the Military 1 coefficient represents the change

that municipalities that have had one proven instance of soldiers performing public security activities from the tasks that this study takes into consideration, at the time they are not experiencing the national gang truce, relative to those municipalities that are equally not going through the national gang truce but that have not seen any militarization as defined by this study i.e., the base. These municipalities experience on average 1.1 more monthly homicides compared to the latter. In turn, Military 2 allows us to see the effect for municipalities that have seen soldiers perform public security tasks more than once and are not experiencing the national gang truce relative to the base. According to the coefficient, these municipalities see a jump with 5.1 more monthly homicides compared to non militarized municipalities that are not going through the truce. This figure represents a more than 300% increase in monthly homicides compared to the increase municipalities that have been militarized only once experience. This simplistic model tells us the effect on monthly homicides we can expect from the coefficients in the regression.

Model B is a better model than the previous one in its inclusion of interactions between our main variables of interest. Keeping the same interpretations of the main coefficients from Model A, the military coefficients are very similar to the previous ones and also highly significant. There is a slight increase in the Military 2 coefficient from 5.1 to 5.8 meaning that municipalities that have a militarization seen soldier involvement on public tasks two or more times see an increase of 5.8 monthly homicides relative to non militarized municipalities that are not going through the national gang truce. The Truce 1 coefficient keeps a negative sign, meaning it still correlates with a decrease in monthly homicides although its coefficient decreases from .9 to .2. In other words, non militarized municipalities going through the national gang truce see their monthly homicides decrease relative to non militarized municipalities not experiencing the national gang truce but only by .2. Although this is a very small figure, it is still a highly significant coefficient at 1%, in other words, the probability of observing such a value by chance is less than 0.01. Surprisingly the Truce 2 coefficient deviates from Model A with a positive value instead of the expected negative sign, however, it is not a significant coefficient at any statistical level therefore we cannot trust it and dismiss its correlation.

All the interaction term coefficients are highly significant and are negative, meaning the different combinations correlate to a lower level of monthly homicides in municipalities. The interpretation of these coefficients is similar to that of the main effect coefficients. The coefficient from the interaction of Truce 1 and Military 1 is the effect of being present at the time of the national gang

truce having only experienced soldier involvement in public security tasks only once compared to the base when there is no truce and no soldier activity. According to the coefficient of Truce 1 x Militar 1, municipalities have .4 less monthly homicides relative to non militarized municipalities that are not going through the national gang truce. A small but highly significant change. Similarly, the coefficient of the interaction term between Truce 2 and Military 1 is the effect of being part of the second stage of the truce and having experienced soldier activity only once. In this case, these municipalities have 1.4 less monthly homicides compared to the base of non militarized municipalities that are not going through the truce.

From the interaction terms the coefficients with the largest effects, similar to the main coefficients, are from the interactions that have seen soldier involvement two or more times, that is, Truce 1 x Military 2 and Truce 2 x Military 2. The Truce 1 x Military 2 coefficient is the effect of being present on the national gang truce and having had soldier activity in public security two or more times. While the Truce 2 x Military 2 coefficient is experiencing the same soldier activity level while being part of the second stage of the truce. According to these interaction coefficients, there will be 3.2 and 3.6 less monthly homicides respectively relative to the base of no soldier activity and no truce.

Model C & D introduce controls to the base regression. **Model C** introduces a population density independent variable. This was an important factor to control for, as studies in the region have found a positive correlation between population density and crime (Cabrera et al., 2019). This first control gives a positive coefficient significant at the 10% level and adds to the R squared meaning it is a good addition to the model. Although the coefficient is very low it is worth revisiting the range of population density in El Salvador municipalities, see Table 8 for the Summary Statistics of the population density variable. In some of the most densely populated municipalities, this coefficient could add more than 5 monthly homicides to the predicted value equation.

In terms of the main coefficients, the Military 1 coefficient lowers its effect relative to the two previous models to .94. Military 2 also sees its effect lower by a full point to 4.8 relative to the previous model. The Truce 1 coefficient remains similar to the previous model while Truce 2 unexpectedly remains positive and becomes significant at the 10% level which does not align with the initial hypothesis that any stage of the truce correlates with a lowering of homicides. The coefficient, however, becomes negative and significant at the 1% level on Model D with added controls. The interaction coefficients are very similar to the ones found in the previous

model remaining negative and highly significant. Again, interactions including any level of the truce with municipalities that have seen soldier activity in public security two or more times have the biggest negative impacts relative to the base.

Table 8. Summary statistics of Population Density

Variable	Obs	Mean	Std. Dev.	Min	Max
popden	20640	550.544	1158.392	43.3	7827

Finally, **Model D** includes municipality and year-month fixed effects to account for respectively time-invariant characteristics across municipalities and for time-varying characteristics. This more complete model presents a high R squared meaning these independent variables, together with interactions and controls explain almost 70% of the variation in monthly homicides in municipalities. The coefficients of this model remain mostly consistent with previous results in their sign and order of effect. The Military 1 coefficient presents a similar coefficient to Model A while the Military 2 coefficient decreases to 3.4 from 4.8. The Truce 1 coefficient sees a similar coefficient and the Truce 2 coefficient becomes negative and significant at the 1% level like in Model A & B as expected at 1.06.

The interactions remain significant and negative for the most part. The Truce 1 x Military 1 and Truce 1 x Military 2 interactions have similar coefficients and interpretations like the previous model. The Truce 2 x Military 2 interaction coefficient sees a decrease from -3.7 to -2.6 in its effect. Contrary to the main hypothesis, the Truce 2 x Military 1 coefficient, i.e, the effect of experiencing the second level of the truce and soldier activity only once, unlike Model C, sees a positive sign and is highly significant at the 1% level at 0.08. This would mean an increase of .08 monthly homicides relative to the base. Finally, the population density coefficient becomes more significant and much larger in Model D increase to .0014 from .00063.

4.3 Policy implications

The strong and significant association of a repetitive state of militarization to a higher level of homicide rates comes as no surprise, especially in a country whose military forces and institutions carry not only historical baggage but continuous and ample precedent of human rights abuses and abuse of power while at the same time are adamant to attempts of reform. These results should reinforce the notion that a state of constant militarization does not correlate with a decrease in homicides, but that rather the opposite is true. Furthermore, the

results from this study associate a higher number of homicides to a higher level of militarization. These correlations should challenge militarization as the primary public security strategy and reaction to control the homicides in El Salvador and put to question the effects of its long-term implementation.

On the other hand, a truce or negotiation is proven to be more effective in correlating with a lower number of homicides. If the intent of the state and policy makers is not to leverage the power and control of gangs for their own benefit and rather is focused on protecting Salvadoran lives, then negotiating seems to be a more asserted policy choice relative to direct constabularization of the military. Empirical analysis of the national gang truce should give policymakers the evidence they need to prioritize interventions that have the desired effect on homicide rates. It is thus understood that any interventions designed should not only be focused on decreasing the likelihood of homicides but also on avoiding an increase of the same.

4.4 Strengths and Limitations of the study

This study succeeds the work of Katz et. al (2016) in studying the quantitative effect of the national gang truce on homicides and also Flores Macias Zarkin's (2021a) analysis of the effect of constabularization of the military on violence and homicides in El Salvador. It represents the first study to analyze the intersection between these two critical factors to better understand their effects on homicides.

The strength of this study lies in the granularity of the dataset composed which allows to capture more of the nuance around the variables in the different municipalities of the country. Regarding the effect of the truce, the study takes into account the years before and after the truce to better understand the effect the truce had when implemented and when it was broken. While intersecting both militarization and the truce in a regression in the same study helps to explain variation, it does not allow to determine the causality behind homicides. Thus, readers must be wary of the interpretation of the effects as causal interpretation is not guaranteed.

CHAPTER V: CONCLUSION AND RECOMMENDATIONS

Between March 25th and 27th 2022, 87 people were killed in El Salvador with 62 of those homicides occurring on the 26th (Martinez, 2022). This horrendous tragedy became the

bloodiest day of the century for the country. It is important to note, however, that this was not only a light increase from this year's trend. Since President Nayib Bukele (2019-2024) rise to power the country has achieved remarkable statistics unfathomable to citizens only five years ago when the country surpassed 100 homicides per 100,000. Only one month before the massacre, the country had reached the milestone of four straight days without a homicide, and eight days in February counted only one homicide nationally. During Bukele's mandate, there have been 70 days in total without homicides nationally (Meléndez, 2022).

The astounding reduction of homicides and the frightening sudden spike can be explained by a new gang truce, as confirmed by investigative journalism outlet El Faro (Martinez et al., 2021)(Martinez, 2022), ex-prosecutor Arriaza (Kinosian, 2021), and even the U.S. government (Sherman, 2021). Similar to previous administrations, officials have denied the accusations of negotiating with gangs, reminding us of the non-transparency arrangements of the national gang truce in 2012. In turn, their response has been the imposing a state of emergency to control gangs. Similar to strategies reviewed in this study from 2003, this state of emergency boasts over 27,000 captures of alleged gang members in 43 days (CAPRES, 2022). It has also, like previous reactions, meant the increased presence of soldiers in municipalities to control populations through military checkpoints and raids. As author Mark Twain is quoted as saying: "history doesn't repeat itself, but it often rhymes."

After more than two decades, the grip of gangs seems to be cemented in Salvadoran society, and policies that have been proven to fail in El Salvador and in other countries of the region such as militarization of public security through constabularization of the military, as reinforced by this study, are not the answer. Policies implemented more than only effective, need not to be counterproductive in relation to their goal. As Aguilar (2019) notes, "the repressive approaches that governments have favored in the last decade and a half to deal with crime have not only been incapable of reducing it but have also favored the cohesion of the different gangs under the collective identity of "enemies of the State" and facilitated their articulation." Further militarization through the use of soldiers in public security tasks as per the results of this study is not a viable policy path, much less a sustainable path forward.

At the same time, while the national gang truce provides clear precedent with a significant change in homicides during the time it was active, further tailoring of the policy strategy and further research is needed. As shown on Figure 1 and Figure 6, there is a spike in homicides

after the end of the truce. Different explanations can be attributed to why this happened in the Salvadoran case but further research is needed to understand if this is a wide phenomenon across other cities or countries that implemented a similar policy. In the long term it is difficult to understand the effects of a truce with criminal structures and thus, researchers and policymakers should be cautious when proposing these policies as a silver bullet to control homicides and violence. One thing can be said with confidence however, as explained in section 2.2, there needs to be more transparency to these processes to better understand the nature of truces or intrastate conflict resolution attempts.

It should be pointed out that this study was only concerned with the expected effect of the policies of militarization and conflict resolution specifically on homicides. This metric, however, is not the only representative measure of a safe and non-violent society. In the case of gangs in El Salvador as we have learned, before killing, gangs control. In the national gang truce and the most recent Bukele gang truce, extortion has not been affected. Approximately, 70% of all businesses in El Salvador are under threat of being killed if they do not pay their fees. In addition, extortion fees beyond sustaining and strengthening gangs represent an overall cost to the Salvadoran economy of 4 billion USD annually, according to the Salvadoran Central Bank of Reserves (O'Toole, 2017). Although President Bukele praises its state of emergency response, it seems that higher military presence nor his secret negotiations have affected the day to day of gang operations. In a recent interview, a major distributor of goods from the basic basket complains that despite the state of emergency imposed by President Bukele, extortion fees have not been affected. He also explains how these costs trickle down to the prices that consumers pay (Lemus, 2022).

Salvadoran policymakers should rely on empirical and historical evidence to accomplish their goals and help rid their society of its violence epidemic. Although governments are drawn to iron-fist policies to attract support, Martinez (2021) argues that policy proposals such as the PNJSP in 2010, although not implemented, represent a solid first step response in comparison to more common repressive policies, thereby suggesting that governments are not blind to the negative effect of militarization on crime.

This study has been able to intersect two critical factors to the public security strategy of El Salvador in dealing with gangs to explain homicides. However, more rigorous in-depth scholar research that includes meaningful intersections between militarization and other specific

nuances of the public security realities in the region is needed to explore their conjoint effect on disappearances, internal displacement, robberies, and extortion as well.

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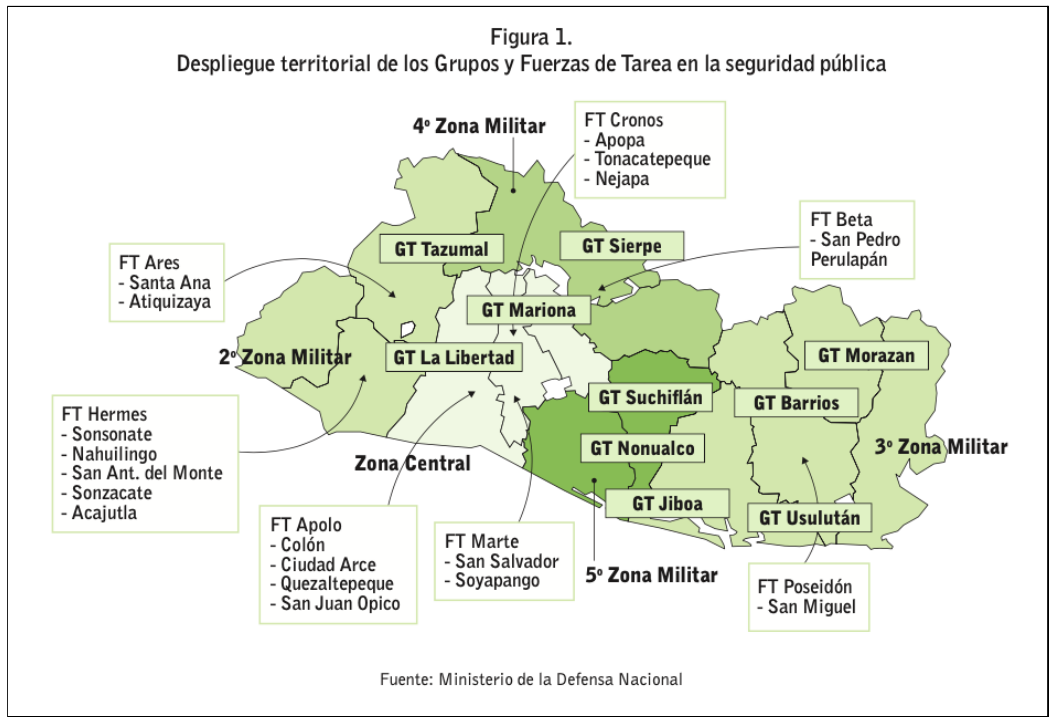
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APPENDIX

Appendix A: Fuerzas de Tarea deployed through Zeus Command. Ministry of Defense Accountability Report in 2017 (MND, 2017).



Appendix B: Soldiers deployment through GT and FT modalities (Aguilar, 2019).



Fuente: Ministerio de la Defensa Nacional