

# Towards an institutional perspective for understanding and reducing homicides in Latin America

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I, Gonzalo Croci, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

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## Abstract

Latin America is the region with the highest homicide rate in the world. In 2017, the homicide rate of the region was 23 per 100,000 people, almost 400 percent above the world average. Recent social and economic developments have not been able to control the rise in homicides, warranting for further research. To better understand the persistence of high homicide rates, this research examines the causes of homicides in Latin America and the policies used to reduce homicides.

As a starting point, an institutional perspective is proposed as a factor influencing variations in homicides. It is argued that when institutions are perceived to be ineffective, and prone to corruption, people withdraw their support to these institutions, contributing to weakened formal and informal control mechanisms and higher rates of crime. By using regional panel data and a survey in the most violent neighbourhood of Montevideo, the relationships between homicide levels against indicators of government effectiveness and corruption are examined. Results show that although socio-economic variables, particularly inequality, are relevant for understanding variations in homicide, they fail to explain the full extent of the phenomena. The results from these studies identify that countries that were not able to maintain effective governance and control for corruption were likely to experience higher rates of homicide, with these results being most apparent in Latin American countries. To examine these findings further, the functioning of the criminal justice system, namely the police, the judiciary, and the prison system was studied. Based on a review of primary research, it was found that the criminal justice system in Latin American countries is ineffective and suffers from high levels of corruption and, consequently, is likely to be a contributing factor to the higher homicide rates in the region.

The current research then examines how homicide reduction programmes are designed in Latin America. Using a sample of 89 homicide reduction programmes the research reveals many weaknesses in how these programmes were evaluated, meaning that it is difficult to draw conclusions about which types of programmes

have been most effective in reducing homicides in Latin America. To overcome this obstacle, the EMMIE framework was adapted (using the five components of EMMIE: Effect, Mechanism, Moderators/context, Implementation and Economics) to evaluate homicide reduction programmes in Latin America and improve the policy formulation process. The results from this study showed that the homicide reduction programmes typically included some consideration of mechanisms and implementation processes in their design but were lacking in terms of considering their effect, moderators/context and economics.

The conclusion from the research indicates that how institutions function matters with respect to homicides. In particular, levels of government effectiveness and the presence of corruption influences criminal behaviour. Further, to date, most homicide reduction programmes in Latin America have been poorly formulated, limiting their effect in reducing serious violence. If homicides are to be reduced in the region, it is vital that policies incorporate improvements in institutional functioning and programme formulation. Finally, it is recommended that researchers should incorporate an institutional perspective to understand crime in Latin America.

## Impact Statement

The research has important academic and practical implications to the study of security and crime in Latin America and beyond. From the academic perspective, the current research has contributed in many aspects to the research literature about homicide and homicide reduction programmes in the region. The current research also contributes to a perspective for future research to examine the role of institutions and their functioning, and their relation to crime. Further, the research adds to the existing research literature by expanding the understanding about the causes of crime in Latin America. Additionally, an innovative method of evaluating security programmes is introduced, the adapted EMMIE framework, for improving policy formulation and in so doing also contributes to research on public policy.

The impact of the current research also has the potential of having wide ranging practical implications for how homicide levels are reduced in Latin America. First, the research findings identify that how public institutions function is a matter of importance to homicide reduction in Latin America. This includes improving the services provided by the criminal justice system and improving the perception that citizens of Latin America have towards public institutions. Improving institutional effectiveness and reducing levels of corruption could potentially have a substantial impact in reducing homicides. Further, it is argued that policymakers need to improve the way they formulate policies to reduce homicides. By using the adapted EMMIE framework as a tool to improve policy formulation, policymakers could increase the effectiveness of security policies, and indeed, of policies for other sectors. The findings from the current research, therefore, offer a way to improve security and institutional functioning in the region.

Going forward, I plan to continue the dissemination of the research findings by publishing the results from the studies in top-tier journals and by engaging with practitioners and the wider public.

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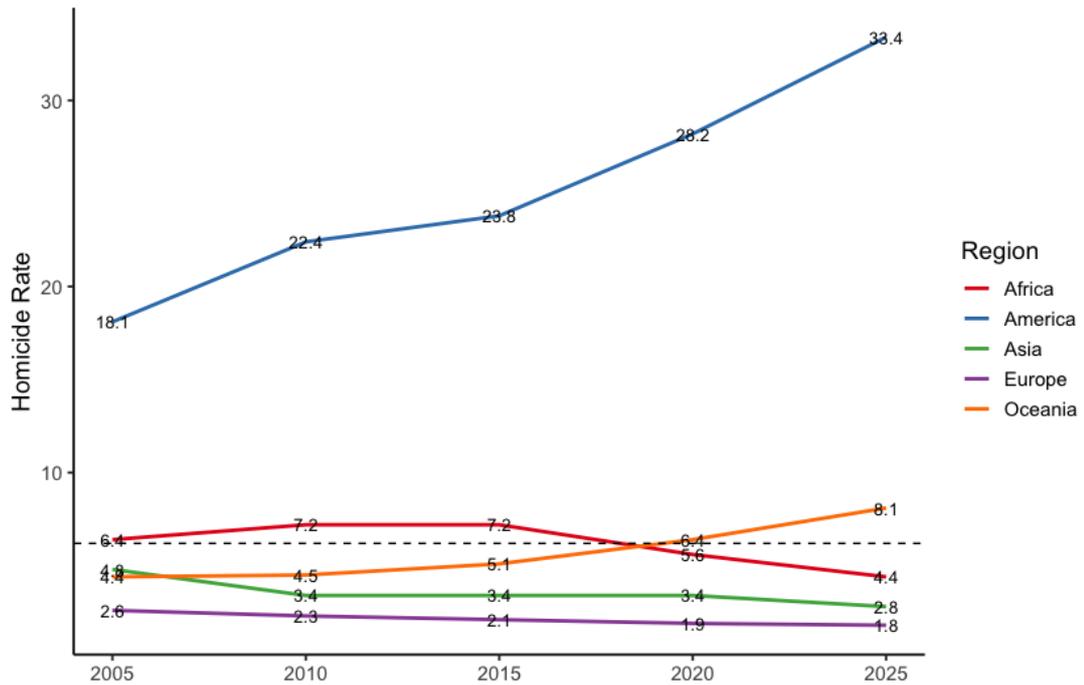
## 1. Introduction

Reducing urban violence is perhaps, the most significant challenge for countries in Latin America. Since the early 2000s, organizations such as the UNODC, the Inter-American Development Bank (IDB) and the World Bank (WB) have been pressuring Latin American governments to act on the issue by highlighting the negative effects that violence has in each country, inhibiting social and economic development and tarnishing the electoral process. The negative effects are in addition to the extreme harm caused to those who are directly affected by violence. Today, Latin America is the region with the highest homicide rate in the world. With only eight percent of the world's population, 33 percent of global homicides occur in the region (Jaitman & Ajzenman, 2016). Central and South American homicide rates were 300 percent higher than the global average in 2017, with rates of 25.9 and 24.2 per 100,000 inhabitants, respectively (Carbonari et al., 2020; UNODC, 2019). Just four countries in the region, namely Brazil, Colombia, Mexico and Venezuela, account for one in four homicides globally (Muggah & Aguirre, 2018; UNODC 2019). Furthermore, for every homicide that was committed, it is estimated that a further 20 to 40 non-fatal violent attacks occur (Imbusch, Misse, & Carrion, 2011). Additionally, nowhere else in the world are other forms of serious violent crime, including armed robberies and assaults, as high as they are than in the region (Briceño-León, 2008; Muggah & Aguirre, 2018).

The situation in Latin America is dramatic not only from a current perspective, but also from a longitudinal perspective – between 2005 and 2015, homicide rates increased by 23.6 percent (Cano & Rojido, 2017) and the proportion of homicides that occurred in the region increased from 29 percent in 2000 to 39 percent in 2017 (Alvarado & Muggah, 2018). Most countries in other regions of the world have experienced reductions in homicides over the last 30 years and in some countries, homicides have decreased by more than 50 percent (UNODC, 2019). However, since the 1990s, the vast majority of Latin American countries have experienced increases in homicides, which in some cases have been significant increases (Bergman, 2018). Not surprisingly, crime and violence persist as one of the main concerns of Latin

American citizens, second only to economic concerns (Latinobarómetro, 2018). Violence has become a defining contemporary feature of the region (Gay, 2010) and as **Figure 1-1** shows, if not addressed, the homicide rate is expected to increase to 33.4 per 100,000 inhabitant by 2025 (Vilalta, 2015).

**Figure 1-1: Projected Average Homicide Rate (by regions per 100,000)**



Source: own elaboration with data from Vilalta (2015). Note: dashed line represents the global average homicide rate at 6.2 per 100,000 inhabitants.

Most Latin American countries share a similar history, with violence having a particularly prominent role (Imbusch, Misse & Carrión, 2011). Since the colonial period, violent struggles have marked the political and economic landscape of the region. This has produced a highly conflictive political environment in which unrestrained legal and illegal coercive power, and violence developed (Davis, 2010; Neapolitan, 1994). More recently, during the third wave of democratization (Huntington, 1991), extending from the 1960s to the end of 1990s, violence was mostly political, in the form of civil wars and the repressive actions on society from dictatorships, military or paramilitary units, law enforcement agencies, guerrilla forces and militias (Koonings & Kruijt, 2002; Pearce, 2010). Even though almost all

countries in the region have moved on from this period and are in a current period of democratic consolidation (Moreno, 2019; Mainwaring & Pérez-Liñán, 2015; Cruz, 2011), democratization has not been accompanied by a reduction in violence and homicides. Many scholars observed a qualitative shift from the political violence of the military dictatorships towards predominantly social and criminal forms of violence associated with criminal nonstate actors (Pearce, 2020; Vilalta, 2020; Koonings & Kruijt, 2015). After the 2000s, drug trafficking organisation, organised crime and gangs have proliferated in the region, accompanied by an increase in the availability of firearms and increasing drug consumption, among other risk factors. Since the beginning of the current century, Latin America has become the only region in the world where homicide rates are still increasing, specifically affecting large urban areas (UNODC, 2020). In 2016, Latin America had 43 of the 50 cities in the world with the highest homicide rates. Nine countries in Latin America are considered to have high or very high rates of homicides in 2016 (Homicide Monitor, 2016). These countries are El Salvador, Honduras, Venezuela, Brazil, Guatemala, Colombia Guyana, Mexico and Dominican Republic (see **Table 1-1**).

**Table 1-1: Homicide rates, by category, for countries in Latin American (2016)**

Homicide rate category	Homicide rate (per 100,000 population)	Country (homicide rate)
Low rates	Lower than global rate of 6.2	Argentina (5.7), Cuba (4.9), Chile (2.7)
Medium rates	Up to two times greater than the global rate (6.2 to 12.4)	Costa Rica (11.8), Suriname (10.5), Panama (10), Paraguay (9.4), Nicaragua (7.7), Peru (7.7), Uruguay (7.7), Bolivia (6.4)
High rates	Two to three times the global rate (12.4 to 18.6)	Guyana (18.4), Mexico (17), Dominican Republic (16)
Very high rates	Over three times the global rate (>18.6)	El Salvador (81), Honduras (59.1), Venezuela (58.8), Brazil (29.6), Guatemala (27.3), Colombia (25.3)

It has long been considered by many researchers that crime and violence were symptoms of a country's early phase of development that could be solved with economic growth and reductions in structural conditions such as poverty, inequality and unemployment (Chioda, 2017; Shaw & McKay, 1969; Schaible & Altheimer, 2016). To date, most attention has been towards considering these structural conditions as the main explanatory variables for high levels of homicides in Latin American (Neapolitan, 1994; Moser & Mcilwaine, 2006; Stephen, Olivier & Sunčica, 2011; Fajnzylber, 2002; Bourguignon, Nuñez & Sanchez, 2003; Hsieh & Pugh, 1993; Raphael & Winter-Ebmer, 2001). However, the results of these studies have now begun to be questioned in terms of whether they do provide clear and consistent explanations for the high homicide levels that have persisted in the region (Bergman, 2018). Over the last decade, Latin America has made considerable progress in the economic and social development dimensions. Most Latin American countries have also experienced significant reductions in poverty and inequality since the 2000s, and although the reduction of poverty rates has recently stalled, in broad terms citizens have experienced, and still experience improvements in economic and social well-being (Muggah, 2017). Nevertheless, high levels of violence, exhibited most graphically in the form of homicides, have persisted, and in many cases have increased. This relationship between improvements in human well-being and a deterioration in public security has been labelled as the 'Latin American Paradox' (Bergman, 2018 p. 1). This current research aims to build on previous research that has examined the causes of violence by exploring how institutional effectiveness and corruption can influence levels of homicides.

### 1.1. Theoretical framework

Most studies to date on homicide in Latin America have examined the relationship between structural variables and the variation of homicide in the region. Structural variables relate to the macro social and economic conditions of a country. In particular, scholars have focused their attention on the levels of unemployment,

inequality, poverty, economic growth, and education. Although many of these studies have illustrated relationships between these variables and homicides, several contradict each other. For example, Pridemore (2008) concluded that there was a positive relationship between poverty and homicide, whereas Messner (1982) showed low levels of homicide in areas where high levels of poverty were present. In short, as will be shown in the following chapter, a large number of studies that have examined structural variables and homicides have been conducted in the Latin America region, without reaching consistent conclusions. Additionally, substantial improvements have been observed in structural conditions in the region, yet high levels of homicide have persisted.

To date, there has been little research that has examined the importance of institutional factors and their influence on homicide levels, such as controls for corruption and government effectiveness. The mechanisms associated with government functioning as a possible cause of crime and homicides are twofold. First, when institutions are perceived as ineffective, or prone to corruption, people may remove their support, contributing to debilitated formal and informal control mechanisms (Tuttle, 2017). Normative obedience with the law occurs when people feel a moral obligation or commitment to do so, fostered by institutions that they feel are legitimate (Hough et al., 2010; Beetham, 1991). Legitimacy is the public acceptance of the right of the criminal justice system to wield power and define behaviour (Hough, Jackson, & Bradford, 2013; Bottoms & Tankebe, 2012). According to Beetham (1991, p. 11) legitimacy “matters because of the difference it makes to people’s attitudes and behaviour. To the extent that people acknowledge power as rightful, as validly acquired and properly exercised, they will feel a corresponding obligation to obey and support it without having to be bribed or coerced into doing so.” For example, if people regard the police as legitimate, they are more willing to accept the directives and decisions of those institutions, and the likelihood of defiance, hostility or resistance is diminished. Equally, the performance of government is a key component to legitimacy (Beetham, 1991). As such, for institutions to be considered legitimate, they need to meet certain standards of effectiveness, fairness, and accountability (Hough, Jackson & Bradford, 2013). In sum,

corrupt and ineffective institutions will lack legitimacy and hence will affect how people behave.

Secondly, ineffective, and corrupt institutions, simply put, are incapable guardians of the security, rights, and property of their citizens (Karstedt, 2014). The lack of capacity to effectively protect its citizens has much to do with police ineffectiveness, but also with the ineffectiveness of the judiciary and the penitentiary system. Previous scholars have worked on this line of research and suggested that the quality of institutions directly affects the incidence of violence through laws and law enforcement agencies that either strengthen or weaken the deterrents of crime (Eisner & Nivette, 2011; Tebaldi & Alda, 2017). In short, ineffective, and corrupt government institutions may enable conditions for crime and homicides to emerge and reduces the deterrence effect of these institutions.

Related to the above and particularly regarding institutional effectiveness, how institutions design and create their security programmes matter. For example, one of the most common features of Latin America security policies is that policy evaluation processes are not integrated into programmes when these are being designed (Cano & Rojido, 2016). Without proper evaluation, it is impossible to reach basic conclusions about the outcomes of programmes. In short, ineffective institutions will tend to produce ineffective policies that will fail to prevent and reduce homicides. However, not having a policy evaluation plan at the development stage does not mean that policies cannot be evaluated with other tools.

The current research aims to help fill this gap concerning the possible relation between institutional functioning and crime, and provide a new line of investigative work relating to the levels of homicides in Latin America. To fulfil that objective, the study is divided in two sections. The first section involves examining the causes of homicides in Latin America. The second section involves examining the programmes used to reduce homicides. The research aims to answer the following questions:

1. Which variables explain more accurately the rise or fall in homicide levels in Latin America?
  - 1.1. What is the influence of institutional factors (i.e., government effectiveness and corruption), in comparison to structural factors, on homicide levels in Latin America?
  - 1.2. What is the impact of structural and institutional variables on homicides at the neighbourhood level?
  - 1.3. Are the police, the judiciary and the prison system in Latin America ineffective and as a consequence this limits their ability to fulfil their duties in the prevention of violence?
  - 1.4. Are the police, the judiciary and the prison system, in broad terms, corrupt?
2. How are homicide reduction programmes formulated in Latin America?
  - 2.1. What are the key characteristics of homicide reduction programmes in the region?
  - 2.2. Are there specific characteristics that make homicide reduction programmes less effective?
  - 2.3. How do homicide reduction programmes rank in relation to the components of the EMMIE framework (i.e., Effect, Mechanism, Moderator (or context), Implementation, and Economic costs)?

## 1.2. Hypothesis and research questions

As a starting point for the current research, the following two key hypotheses are proposed with the aim of testing these to answer the research questions associated with the two main topics of enquiry.

From 2005 to 2017, macro indicators indicate that social and economic conditions have improved in Latin American countries, however, there has been an overall failure to improve the functioning of government institutions over the same period. In particular, the criminal justice system has failed to become more effective and less corrupt. The first hypothesis introduces the idea that the effectiveness of public

institutions and levels of corruption are relevant variables when examining factors that influence homicide rates in the Latin American context.

The second hypothesis tests the extent to which homicide reduction programmes in Latin America are effectively designed, and in particular examines whether policies are adapted to local characteristics or evaluated.

Each of these hypotheses are further elaborated below, with the addition of stating other hypotheses that relate to the specific studies associated with these two main areas of enquiry.

### **1.2.1. Hypothesis 1: The causes of homicides in Latin America**

When public institutions are not effective in creating an environment in which citizens are made secure, and if the delivery of government services is undermined (e.g., by corruption) this creates an environment in which criminal activity can operate without being checked. Institutional variables related to the strength of government institutions, specifically government effectiveness and control for corruption are argued to be strong predictors of the variation of homicide in Latin America. When institutions are perceived to be ineffective, or prone to corruption, people withdraw their support and their normative compliance because they believe these institutions are illegitimate, contributing to weakened control mechanisms and higher rates of violent crime. Essentially, if the criminal justice system is unable to provide effective security, actors cannot assume that others will comply with the same set of rules. This logic applies both at the regional level and neighbourhood level. In this sense, institutional variables are stronger in their explanatory power or at least equally as strong as classic structural variables such as inequality, poverty, and unemployment for explaining homicide variation in Latin America.

To examine these concepts associated with the government effectiveness and control for corruption and their relationship with variations in the levels of homicide in Latin American countries the following hypotheses will be tested within a series of empirical studies. For the first empirical study (Chapter 3) the research questions are

the following: Which variables explain more accurately the rise or fall in homicide levels in Latin America? What is the influence of institutional factors (i.e., government effectiveness and corruption), in comparison to structural factors, on homicide levels in Latin America? The specific hypotheses for this study are:

- i) Hypothesis 1: Countries with higher levels of government effectiveness are more likely to experience lower levels of homicides.
- ii) Hypothesis 2: Countries with lower levels of control of corruption are more likely to experience higher levels of homicidal violence.
- iii) Hypothesis 3: Countries from the Latin American region are more likely to exhibit institutional weaknesses, associated with higher levels of homicidal violence.

For the second empirical study (Chapter 4), rather than using hypotheses, the research is guided by aiming to answer the following questions: are the police, the judiciary and the prison system in Latin America ineffective and as a consequence does this limit their ability to fulfil their duties in the prevention of violence? And, are the police, the judiciary and the prison system, in broad terms, corrupt?

The research question associated with the third empirical study (Chapter 5) is: what is the impact of structural and institutional variables on homicides at the neighbourhood level? The hypotheses for this study are:

- i) Hypothesis 1: Structural variables offer some reasoning for the variation in crime (and homicides) at the neighbourhood level.
- ii) Hypothesis 2: Institutional variables, such as the effectiveness of institutions and trust and corruption of the police, help explain the variations in crime (and homicides) at the neighbourhood level.

### **1.2.2. Hypothesis 2: The programmes to reduce homicides in Latin America**

If government institutions are ineffective, the homicide reduction programmes they design will also be ineffective and fail to reach their objectives. Previous research has

shown that security programmes in the region are not evaluated. Further, crime in the region is very context-specific, however, public institutions fail to have real time knowledge and data of local realities. Therefore, homicide reduction policies present several issues, in particular, programmes are not adapted to the specific context of each country and/or city and are not evaluated. The ineffectiveness of homicide reduction policies does not only refer to what the programmes aim to achieve but also to how they aim to achieve it. As such, not only the context but also the way of implementing a programme is key for its effectiveness. In short, the research relating to the second topic of enquiry hypothesizes that homicide reduction policies are ineffectively designed, not only in terms of failing to evaluate results but also in terms of lacking understanding of local contexts. This in turn affect the ability of these programmes to achieve their homicide reduction objectives.

The overall research question of the second part of the current thesis is: how are homicide reduction programmes formulated in Latin America? The fourth empirical study (Chapter 6) does not involve testing hypotheses but instead aims to answer the following research questions: What are the key characteristics of homicide reduction programmes in the region? And, are there specific characteristics that make homicide reduction programmes less effective?

The final empirical study (Chapter 8) asks: how do homicide reduction programmes rank in the components (i.e., Effect, Mechanism, Moderator (or context), Implementation, and Economic costs) of the EMMIE framework? To answer this research question I test five hypotheses, drawing also from the findings from previous studies in the current thesis:

- i) Hypothesis 1: Since a wide variety of homicide reduction programmes have been implemented in the last 20 years in the region it is expected that policymakers review theories when designing these programmes. For this reason, policymakers have a good understanding of how these theories can impact crime and are detailed in the programme. In consequence, programmes will score high regarding the Mechanism component.

- ii) Hypothesis 2: Since there are a large number of homicide reduction programmes that have been implemented in the region, and variation in the strategic focus of each programme, there is significant knowledge of implementation processes and resources needed to implement programmes. As such, programmes will rank high in the Implementation component.
- iii) Hypothesis 3: Since there are no substantial efforts towards gathering data at the micro or macro level and no clear understanding of different contexts where programmes are supposed to take place, homicide reduction programmes will score low regarding the Context component.
- iv) Hypothesis 4: Most homicide reduction programmes are not evaluated in the region, and as a consequence, programmes will rank low in the Effect component of the adapted EMMIE framework.
- v) Hypothesis 5: The large number of homicide reduction programmes that have been implemented in the region would suggest that there is some understanding of the cost that those programmes entail. As such, programmes will rank high regarding the Costs component.

### 1.3. Thesis structure

This research is comprised of nine chapters, including the current one. In the following chapter, a literature review of the theories, causes and characteristics of homicides in Latin America is presented. The starting point involves explaining the current levels of homicides in the region, followed by the social and economic progress that the region has had in the last 20 years. Next, previous research that has tried to understand the rising levels and causes of homicides is reviewed. Finally, I propose an extended version of why and how institutional factors have an influence on levels of homicides.

The empirical studies constitute Chapters 3 to 8 and are divided in two sections. In the first empirical section (Chapters 3-5), an investigation of the causes of homicides is presented. In the second section of empirical chapters (Chapters 6-8), the homicide reduction programmes carried out in the region are assessed. It is important to note

that each study helps inform the next, leading to a comprehensive set of results, and a progression in the development of the arguments. Empirical chapters are organized in an academic paper format, meaning that they present a brief introduction of the objective and structure of the chapter, a section of the methods and data used, followed by a section of results and discussion and a final section on limitations and conclusions.

### **1.3.1. First empirical section: The causes of homicides in Latin America**

In Chapter 3, a random effect panel regression analysis is used to examine the relationship between homicide levels over a 13-year period (2005-2017) against indicators for government effectiveness and corruption for 54 countries - 24 from Latin America and 30 western countries. The results of the empirical study show that although socio-economic structural variables, particularly inequality and education, are relevant to understand the variation in homicide trends, they fail to explain the full extent of the situation. Further, results show support for an institutional perspective: countries that are not able to maintain effective governance and keep levels of corruption relatively low are likely to experience higher rates of homicide, which are most common in Latin America.

In Chapter 4, I provide an in-depth evaluation of the criminal justice system in Latin America. Results from the previous empirical chapter provide evidence that institutional effectiveness and corruption appear to be relevant variables explaining variations in crime trends. However, it does not provide specific information on the levels of effectiveness and corruption within the criminal justice system and how they affect crime in Latin America. This is particularly relevant since these are the institutions in charge of providing security to the population. Chapter 4 aims to fill this gap by reviewing the current state of the criminal justice system in Latin America (i.e., the police, the judiciary, and the prison system) and offers a summary of how efficient and corrupt these institutions are. Based on a high-level overview of primary research, it is shown that the criminal justice system is ineffective and suffers from

high levels of corruption and, consequently, fails to fulfil its duties of capturing, judging and rehabilitating criminals.

In chapter 5, a case study of the most violent neighbourhood in Uruguay, Casavalle (located in Montevideo), is presented. The research presented in this chapter aims to investigate the variables that may affect crime at the neighbourhood level, including socio economic and institutional variables. To further research the link between institutional effectiveness, corruption, and crime, a survey of high school children (n = 332) was carried out. Results were representative of all the adolescents who study in Casavalle with a 95 percent confidence interval and a margin of error of +/- 5 percent. The results from the survey showed that most adolescents in Casavalle did not trust the police and believed that the police were corrupt. Further, adolescents in Casavalle believed that the Uruguayan police were ineffective and were not capable of capturing criminals. This finding suggests that young people in Casavalle perceive the police in a much worse manner than the rest of the general population of Montevideo.

### **1.3.2. Second empirical section: The programmes used to reduce homicides in Latin America**

In chapter 6, I examine 89 homicide prevention and reduction programmes that have been implemented in Latin America and offer a critical analysis of these programmes. This research is based on a systematic review of primary research. The programmes are further classified by location, the institutions responsible for the program, territorial focus, type of intervention (primary, secondary, tertiary or a combination of these), the programme strategy (e.g., integrated homicide reduction strategies, protecting groups at risk, and improvements in the criminal justice system) and type of evaluation. The conclusions from this part of the research were that programmes for homicide reduction in Latin America were not comprehensive (i.e., were not based on a multi-causal and/or multi-sectorial approach to the problem), were not focused (i.e., were not targeted to specific places, times, or individuals), and failed to evaluate the programme impact, all characteristics that have been deemed as being

fundamental to reduce homicides (UNDP, 2020). The lack of programme evaluation hinders conclusions to be made about which programmes are most effective in reducing homicides and limits the ability of being able to specify which characteristics make programmes successful or unsuccessful.

The lack of evaluation of homicide reduction programmes in Latin America makes it impossible to collect evidence from previous research and reach a conclusion on which types of programmes are more successful in reducing homicides. Hence a different approach was needed. In Chapter 7, I aim to fill this gap and propose a realistic approach for policy formulation. Policy formulation is a crucial stage of the policy cycle, where social problems and demands are addressed, and transformed into government programmes. This stage is complex, and it is one of the least analytically developed stages of the policymaking process. The aim of a realist approach is to analyse complex social programmes and to identify key components that explain why, for whom and under which circumstances programmes work. In this chapter, I propose an adaptation of the EMMIE framework (created to review and rate the quality of evidence on crime reduction initiatives), as a practical means of encouraging an evidence based, systematic way of formulating policies. It is argued that the five components of EMMIE (i.e., Effect, Mechanism, Moderators/context, Implementation and Economics) provide the fundamental dimensions that policy makers can use to understand, plan, and formulate successful policies. Application of EMMIE at the policy formulation stage, it is suggested, will increase the chances of successful implementation, and the likelihood of policy evaluation. The framework objective is to help identify what key factors policymakers should think about when designing programmes in an evidence-based manner.

Chapter 8 uses the adapted EMMIE framework to evaluate and assess the previously selected 89 homicide reduction programmes. To reach that objective an adapted EMMIE coding frame is used to provide a measure of a programme's formulation. Several documents were examined for each of the 89 homicide reduction programmes, such as the law or decree associated with the programme, documents that presented the design of the programme, the official webpage and if available

and the programme evaluation. These documents were reviewed and assessed against the EMMIE components, from which the programme was then ranked accordingly. Programmes were ranked from 0 to 4 for each EMMIE component, with 0 representing the lowest score and 4 the highest score for each component. Results indicate that the EMMIE components for Mechanisms and Implementation were included to some extent by policymakers in Latin America, but that the rest of the components (Moderators/context, Effect and Economic costs) registered low scores. As the literature review shows, the ineffectiveness of homicide reduction programmes in Latin America may in part be due to a lack of evaluation to improve the programmes that are in place, but also appears to be because of a lack of understanding of the context in which these programmes are going to be introduced and how they should be implemented.

In Chapter 9, the results of the empirical research are summarized. The implications and theoretical significance of the research are discussed in this chapter. The discussion includes determining how the results contribute to the existing literature and proposing arguments that use the results to build on previous research. This chapter also includes suggestions for new areas of research. The chapter concludes with a summary of the main findings relating to each hypothesis and research conclusions.

## 1.4. Dissemination of research findings

There have been opportunities to discuss the research techniques employed and share some of the preliminary results while working on this PhD. Further, there has also been the opportunity to discuss the main hypothesis and theories behind the research, and the policy implications of the research results. These discussions have helped to test some of the methodological approaches as well as the preliminary findings with several practitioner and academic audiences. Listed below are details about publications and presentations that are associated with the current research.

### 1.4.1. Publications

Chainey, S.P., Croci, G. and Rodriguez Forero, L.J. (2021). The Influence of Government Effectiveness and Corruption on the High Levels of Homicide in Latin America. *Social Sciences* 10(5).

#### 1.4.1.1. Manuscripts Under review

Croci, G., Laycock, G. & Chainey, S.P. "A realistic approach to policy formulation: The adapted EMMIE framework." *Policy studies*.

Croci, G. & Chainey, S. "Institutional ineffectiveness, corruption and homicides: findings for Latin America." *Governance*.

Croci, G. "Effectiveness and corruption in the criminal justice system of Latin America: an overview." *International Criminal Justice Review*.

#### 1.4.1.2. Blog posts

"Montevideo: between urban fragmentation and violence". Urban Violence Research Network, 2020.

“Montevideo: entre violencia y fragmentación urbana”. Boletín nro 20, El Centro de Estudios Latinoamericanos sobre Inseguridad y Violencia (CELIV), 2020.

“Hardline approaches to urban security risk war in Brazil’s favelas”. International Institute for Strategic Studies (IISS), 2019.

1.4.1.3. Conference and seminars

Presented at the conference “Security and Criminality in the Americas: Governing the Unruly”, June 2019, Latin American Centre, University of Oxford.

Throughout 2020 to 2022, I taught the seminar *Seguridad y Crimen en America Latina* (Security and Crime in Latin America) at Universidad ORT Uruguay where I explained my research findings.

## 2. Violence and homicides, theories, and causes

Violence is a complex concept that defies easy categorization (Scheper-Hughes & Bourgois, 2004; Pearce, 2010; Malesevic, 2017). For example, the World Health Organization (WHO) takes a broad definition: “The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation” (WHO, 2002, p. 4). The current study uses a narrower definition of violence provided by Reiss and Roth (1993, p.2) and accepted by most criminologist, that define violence as “behaviours by individuals that intentionally threaten, attempt or inflict physical harm on others”. Amongst the range of criminal activities within the category of violent crimes, homicide provides the most accurate measure of the extent of violence that an area experiences, and as is explained below, is accepted as a metric for security (Willis, 2017). Homicides are defined as the wilful killing of one human being by another (Morales, 1995), which is neither sanctioned by a government nor occurring in conflict (Young & Kearns , 2017). This definition of homicides is restricted to cases of individual acts that include interpersonal homicides, homicides related to criminal activities and socio-political homicides which normally include only a few perpetrators and victims. The definition does not include killings during armed conflicts, killings in self-defence, killing in legal interventions with no excessive use of force, non-intentional homicides, and suicides (UNODC, 2019).

Since the point when crime statistics became available in European countries in the early 19<sup>th</sup> century, statisticians began to use these statistics as social indicators and relate them to societal conditions. However, often it can be difficult to compare crime statistics within and between countries (Alvazzi del Frate, 2003; Howard, Graeme & Pridemore, 2000), due to differences in their accuracy, and differences in how countries classify crimes (LaFree, 1999). In addition, obtaining accurate data depends on the transparency and accountability of each government, making comparisons

between countries even more challenging (Howard, Graeme & Pridemore, 2000). With regards to the recording of homicide, homicides are highly sensitive to several contexts, for example in places where there is political violence, civil war, guerrilla movements, and organized crime. However, whilst acknowledging these difficulties, statistics on homicides are both relevant and appropriate for cross-national comparisons (Oberwittler, 2019; Young & Kearns , 2017; Nivette, 2011) and are a widely accepted as a metric for security (Willis, 2017; Lappi-Seppälä & Lehti, 2014), especially violence (Pearce, 2010). In contrast to most other crime types, the definition of homicide is comparable across countries and is often used as a metric for comparing violence between countries (Concha-Eastman, 2002). Furthermore, homicides are the most visible outcome of violent behaviour that are recorded in official statistics and represents the most accurate measure of violence in a society (WHO, 2014). In addition, homicides are commonly held to be a good index of quantitative criminal tendencies, on the assumption that police and judicial authorities are more thorough in reporting and prosecuting homicides, while other crimes such as theft can escape the attention of public institutions (Piccato, 2013). Thus, recorded data on homicides are commonly accepted as the most complete and consistent type of crime data, and have been extensively used in studies on violence and security for many decades (Oberwittler, 2019). Some of the most popular sources of homicide data have been the World Health Organization (WHO), Interpol, UNODC and different think tanks which adds to the robustness of the data provided by the different national police forces (Koeppel, Rhineberger-Dunn & Mack, 2015).

Several factors make the study of violence relevant to Latin America, since violence has various effects on the society, beyond the tragic loss of human lives and the trauma afflicted to witnesses and persons close to the victims. Homicides also carry significant economic costs, hinder business growth, undermines social capital and reduce the wealth of nations (Jaitman, 2017). It has also been shown that violence affects the electoral strength of a country (Ponce, 2016) and influence elections (Green, 2015), and that a rise in violence decreases overall economic activity (Quiroz et al., 2015). High levels of violence are associated with social disintegration and institutional decay (McGuinn, 2015), and insecurity has a strong effect on people's

emotions since it threatens their most valuable assets: life and property (Romero, Magaloni & Díaz-Cayeros, 2016). Considering these factors together, violence is clearly recognised as a development issue (Howard, Hume, & Oslender, 2007) and to be one of the key obstacles that prevents the achievement of medium and long-term development goals in Latin America (Prillaman, 2003). This is mainly because violence represents a significant welfare loss and interrupts growth, reducing productivity and shortening planning horizons on investments in physical and human capital (Soares & Naritomi, 2010). A study from the Inter-American Development Bank (IDB) showed that the overall estimates of the cost of crime and violence in Latin American and the Caribbean countries is on average between 2.41 percent and 3.55 percent of their GDP. This GDP represents a cost of up to USD\$ 261 billion (adjusted for purchasing power parity) for the region considering the 17 countries that were analysed, with an average cost of approximately USD\$ 300 per capita (Jaitman, 2017). According to the study, the costs of homicide constitute the main component of the cost of crime. In absolute terms, the total cost in the region was between USD\$ 9.8 billion and USD\$ 11.4 billion per year between 2010 and 2014.

Of relevance to this work is that violence is also considered a measure of democratic failure. High levels of violence indicate a breakdown of democratic institutions (Arias & Goldstein, 2010; Kurtenbach & Scharpf, 2018) and democratic failure (Caldeira & Holston, 1999). In addition, crime can increase fear and distrust of public institutions, thereby weakening social and institutional structures (Carreras, 2013; Corbacho, Philipp, & Ruiz-Vega, 2015). For example, a study with survey data from the Latin American Public Opinion Project (LAPOP) for Colombia found that crime victimization has a negative significant effect on satisfaction with democracy and trust in public institutions (Blanco & Ruiz, 2013). In another study in Central America, Malone (2010) found that fear of crime reduces trust in the justice systems and the police.

Since the early 1990s many countries across the world have experienced significant decreases in many types of crime, a criminological phenomenon that is referred to as the 'international crime drop' (Blumstein, Wallman & Farrington, 2006). The crime drop was first observed in the United States, where violent crime decreased by 33

percent after a peak in the early 1990s, followed by Canada, Europe, and Australasia, but with variations in timing and magnitude (Farrell et al., 2011). This widespread phenomenon caught scholars' attention and several explanations have since been proposed as potential reasons for the significant reductions in crime. These reasons included a strong economy (and other structural variables), improved policing, high imprisonment rates, stabilizing drug markets and new gun policies (Farrell, Tilley & Tseloni, 2014).

## 2.1. Theoretical explanation of crime

The criminology literature has commonly focused on specific theories to explain crime and suggest crime reduction policies. The following sections review some of the most commonly used ideas. Shaw and McKay (1942) proposed social disorganisation theory, which suggested that criminal behaviour is more prevalent in neighbourhoods where social institutions fail to manage the population, and so emphasised the importance of building and improving such institutions. Rationale choice theory (Cornish & Clarke 1985; Becker 1968) suggests that offenders act in their own self-interest, weighing the benefits of illegal activity while also assessing the risk of being apprehended by the police. In the absence of adequate safeguards, Routine Activity Theory (Cohen & Felson, 1979) suggests that a motivated criminal will take advantage of an attractive target. These theories suggest, therefore, that crime reduction revolves around affecting perpetrator motivation, increasing effective controls and/or reducing the attractiveness of targets.

Structural theories have been used on many occasions, both worldwide and in Latin America, to explain the high level of homicides in the region. Violence is a social problem created by humanity and considered to be a product of society that has economic and structural roots (Concha-Eastman, 2002). In this context, social disorganization (Bursik & Grasmick, 1993) and strain/anomie theory (Schaible, & Altheimer, 2016) have been considered by some researchers to provide central explanations for criminal behaviour and as such, these theories are often found in most aggregate-level cross national studies of homicide (Parker, McCall & Land, 1999;

Ousey, 2000). These two are the most used theories in Latin American research. The next section explains the main concepts associated with social disorganization and strain/anomie theory.

### **2.1.1. Social Disorganization Theory**

Rapid social change, according to Durkheim (1960), creates conditions that may encourage violent and criminal behaviour. Durkheim claimed that nations transitioning from simple agrarian to contemporary, industrialised stages face instability, diminished social integration, and growing crime rates. In particular, changes in social structures that question traditional customs and rules do not necessarily immediately produce new norms and control mechanisms. From there, it follows that there is crisis and dissolution of moral norms that accompany the processes of modernization and accelerated urbanization (Shaw & McKay, 1969).

Many mainstream sociological perspectives owe their theoretical development to Durkheim's structural approach. In the discipline of criminology, structural sociology theories have been employed, providing criminologists with diverse theoretical underpinnings for examining the influence of structural forces on crime (McCall & Nieuwbeerta, 2007).

Originally developed by Shaw and McKay (1942) and based on Durkheim ideas, social disorganization theory is concerned with why crime rates are higher in some neighbourhoods or areas than in others (Glaeser, Sacerdote & Sheinkman, 1996). It focuses on the mechanisms at neighbourhood level that correlate with crime (Sampson, 2011). Social disorganization can be defined as the capacity of a neighbourhood to regulate itself through formal and informal social processes (Bursik, 1988). If levels of social control decrease, citizens will act outside the expected parameters and crime will tend to rise (D'Amato, Silver & Newsome, 2020). From here, researchers often hypothesize that neighbourhood structural disadvantage gives rise to social processes that lead to neighbourhood

disorganization and higher rates of criminal behaviour (Kingston, Huizinga & Elliott, 2009).

Shaw and McKay (1942) proposed that poverty, heterogeneity, and residence instability cause social disorganization, which then leads to crime. Crime rates fall when societies move to a more advanced industrialized stage and enhance their economic and social well-being, as human sentiment among individuals and social control systems strengthen (McCall & Nieuwbeerta, 2007). The underlying idea is that crime rates are proportional to the stage of development of a society. It is vital to emphasize that the aforementioned neighbourhood characteristics are not primary causes of crime in communities; rather, they have an indirect impact on crime through their influence on social integration and informal social control. For example, neighbourhoods that have a population with low levels of education typically have higher crime rates than high educational neighbourhoods not because the education level in itself causes crime but because less educated populations, have fewer ties and less informal social control, leading to higher crime rates (Beggs, Hurlbert & Haines 1996). Similarly, increased poverty in a neighbourhood may indicate a lack of access to money, resources, and opportunities, resulting in a loss of community cohesion (D'Amato, Silver, & Newsome, 2020).

Contemporary articles published by Bursik (1988) and Sampson (Byrne & Sampson, 1986; Sampson & Groves, 1989) created a new line of research within social disorganization. Researchers have expanded social disorganization theory by concentrating on neighbourhood levels of guardianship and informal control against offenders as a result of increased attention to ecological theories of crime (Warner & Pierce, 1993). As variables of informal control, research has tended to incorporate a specific measure of family disruption and measures of the criminogenic features of the physical environment. Some of these variables, e.g., percentage divorced families, percentage of female-headed households with children, and structural density have showed a positive relationship with crime measures (Sampson, 1985; Warner & Pierce, 1993).

Finally, individuals in more disorganized communities have an increased difficulty accessing opportunities such as employment, housing, rehabilitative programmes, and social connections (Hipp, Petersilia & Turner, 2010; Pinchevsky & Wright, 2012), which increases the risk of criminal involvement. In short, crime and delinquency occur with other problems in communities, such as social, economic, and cultural deprivation. According to the theory, communities that are highly disorganized will face more crime compared to other communities that are less disorganized (Kubrin, 2010). In short, reducing degrees of societal disorder, as social disorganization theory suggests, is the key to combatting crime.

### **2.1.2. Strain/Anomie Theory**

The work "Social Structure and Anomie" by Merton (1938) is one of the most important criminological articles published (Schaible & Altheimer, 2016). The strain theory was proposed in the essay, which draws attention to the potential criminogenic effects of inequality. Individuals enduring economic adversity and limited opportunities, according to Merton, may develop a sense of unfairness and resentment (McCall, Nieuwbeerta, Engen & Thames, 2012). In a broad sense, the theory refers to flaws in a society's normative system. To oversimplify, strain theory suggests that individual's resort to criminal acts in order to acquire things such as wealth, power, and status, which the social order unfairly denies them. The theory applies to those in society who cannot compete in legitimate ways and, as a result, individuals reject societal values and create a new set for themselves. In the process, a criminal subculture can develop in which individuals can achieve success under a different set of rules (Vito, Maahs & Holmes, 1994). Researchers have argued that economic strain, may either result in offenders striking out against the sources of strain or produce aggression that stimulates violent behaviour, and eventually crime (Messner & Golden, 1992).

From a macro-structural standpoint, criminally prone individuals may become excluded in locations where the economy is deteriorating. Furthermore, the social ties and networks that would otherwise encourage law-abiding behaviour could be

jeopardised (McCall & Nieuwbeerta, 2007). Social learning and control theories are incorporated into contemporary ideas, but they also explain the personal and social processes that undermine social controls. The loss of societal control encourages people to adopt criminal attitudes and ideas (Rosenfeld, Baumer & Messner, 2007).

Poverty levels may be associated to crime rates, according to strain theory and social disorganisation; however, strain theory also emphasises the role of inequality (McCall & Nieuwbeerta, 2007). Furthermore, the unemployment rate has frequently been used to test strain theory hypotheses as a measure of economic stress. These ideas have been and continue to be used to explain the high rates of homicide in Latin America primarily through structural causes.

## 2.2. Violence in Latin America

Most countries in Central and South America experienced constantly increasing homicide rates beginning in the late 1960s and escalating in the 2000s and 2010s (Lappi-Seppälä & Lehti, 2014). The region presents certain macro characteristics that help explain the causes of high levels of homicides, however, it is important to recognize that the nature and causes of violence and criminality differ between and within countries (Koonings & Kruijt, 2015; Moncada, 2016; Lappi-Seppälä & Lehti, 2014; Pearce, 2020). The following section exemplifies some of these differences.

Since 1964, Colombia was home to one of the world's longest running internal armed conflicts with vast areas of the country historically under the control of guerrilla, paramilitary and criminal organizations such as the *Fuerzas Armadas Revolucionarias de Colombia—Ejército del Pueblo* (Revolutionary Armed Forces of Colombia – People's Army- FARC-EP), the *Ejército de Liberación Nacional* (National Liberation Army - ELN) and the *Clan del Golfo* (Gulf Clan), the latter been arguably the most powerful criminal group in Colombia after 2017 (IISS, 2019). Guatemala's long civil war ended in 1996 with over 200,000 people killed or disappeared, with 93 percent of human rights violations committed by government forces and related paramilitary groups (Glebbeek, 2019). The government of Peru fought against the only Maoist

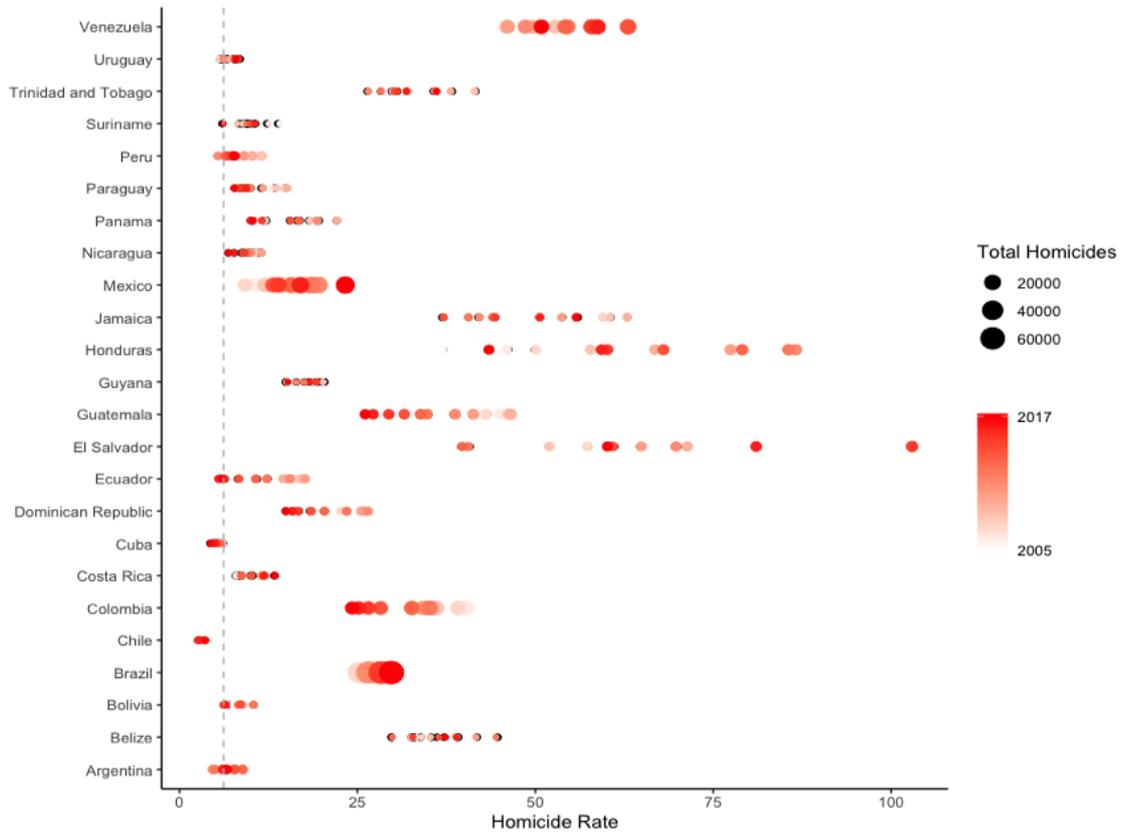
guerrilla group in the region, the *Sendero Luminoso* (Shining Path), resulting in 69,280 people being murdered during the two decades of fighting. Mexico has been involved in more than a decade-long war on drugs with underwhelming results regarding human security and suffering a proliferation of drug trafficking organizations. While in 2006 Mexico had six major drug trafficking organizations, by 2012 it had approximately 80 criminal groups (Zepeda & Rosen, 2018). The Northern Triangle is plagued by constant gang violence and turf battles. According to data from UNODC of 2012, there were 20,000 members of the Mara Salvatrucha (MS-13) and 18<sup>th</sup> Street gang active in El Salvador, 12,000 in Honduras, and 22,000 in Guatemala (Seelke, 2016). El Salvador has the worst gang problem with estimates of 323 gang members per 100,000 citizens, active in 94 percent of the country's 262 municipalities (Ellis, 2018). In Venezuela, in 2017, security forces were responsible for 20 percent of all murders, while in 2018 there were 5,287 homicides related to political violence (OHCHR, 2019). Particularly in the last decade, Brazil has emerged as an important drug consumption country with an estimated 1 million consumers of 'crack' cocaine which has been linked with violence and in 2018, the country reached record high levels of 63,880 homicides (Ellis, 2018). The rest of the region has different causes for homicides, for example in Argentina, 39 percent of the homicides were committed as a result of quarrels, score settling or revenge (Cutrona, 2018) while Bolivia ranked second in the region for lynching's of alleged delinquents.

Diverging trends in different countries in Latin America contradict the notion of a global pacification process which Pinker (2011) has proposed. What remains clear is that large segments of the population continue to suffer from violence, crime, and human rights violations (Arias & Goldstein, 2010).

**Figure 2-1** shows that great variation in homicides exists in Latin America. This variation is seen between countries (see Venezuela and Chile) and across time (see El Salvador and Honduras), indicating that there are specific factors affecting homicide levels in each country. However, for the most part, homicide levels have risen steadily in most of the region. Further, countries that historically had low levels of homicides, like Uruguay and Costa Rica, have recently seen increases in homicides.

In some cases, the increase has been significant as seen in the cases of Venezuela, Mexico, and Brazil.

**Figure 2-1: Evolution of Homicide Rate (2005-2017)**

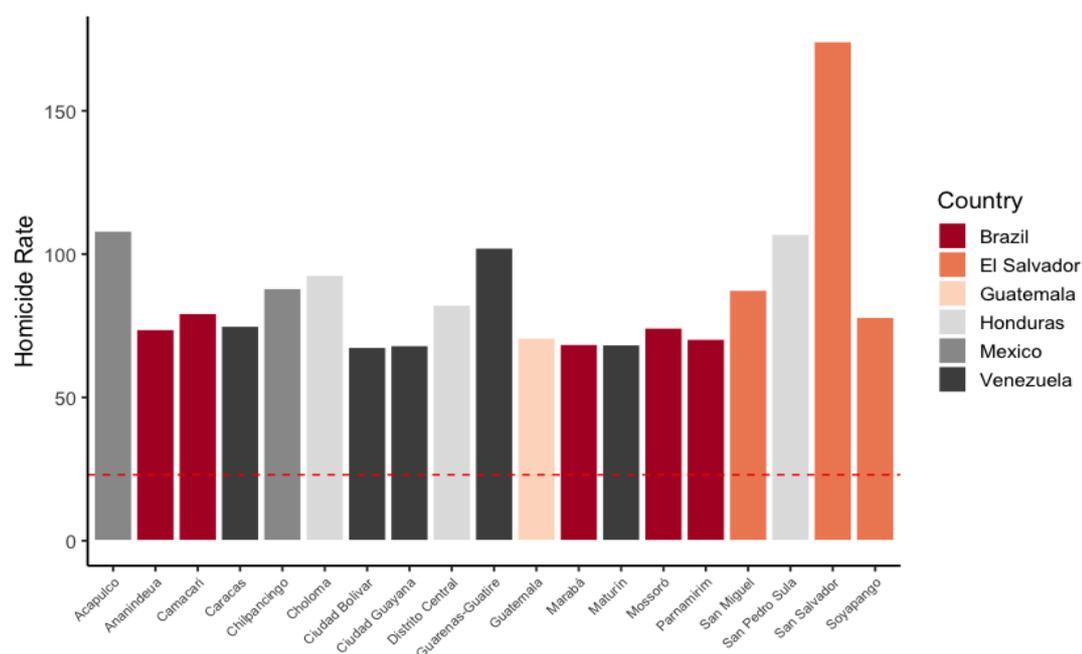


Source: Own elaboration with data from Homicide Monitor (2019). Note: the chart shows the variation over the years (2005-2017) of homicides rates in Latin America and the Caribbean. The x-axis indicates the homicide rate while the size of the marker illustrates the total homicides. The brightness of the colour shows the most recent year. Dashed line represents the world average homicide rate at 6.2 homicides per 100,000 population.

Not only has Latin America some of the most violent countries but it is also home to the most violent cities; 43 of the 50 most violent cities are in the region. These cities include, Ciudad de Juarez, Mexico, home of the *Cártel de Juárez* (Juarez Cartel) founded by Amado Carrillo Fuentes, the most violent city in the world between 2008 to 2012 (Beittel, 2012). San Pedro Sula, Honduras, took over the mantel of Ciudad de Juarez in 2013 and 2014 reaching 193 homicides per 100,000 inhabitants (Leslie, 2010). In 2018, Los Cabos in Mexico, was the city with the highest homicide rate in the world experiencing a 300 percent increase in murders due to clashes between

factions of the *Cártel de Sinaloa* (Sinaloa Cartel) and the *Cártel de Jalisco Nueva Generación* (Jalisco Cartel New Generation - CJNG) (Calderón, 2018). Rosario (Argentina) has become a major drug port to traffic drugs particularly to Europe through Africa (Sampó & Troncoso, 2022). Like Rosario, Montevideo (Uruguay) has become a relevant drug trafficking port (Sampó & Troncoso, 2022) and underwent a 45.8 percent increase in homicides from 2017 to 2018 (Ministerio del Interior, 2018). Rio de Janeiro, in Brazil, has also experienced substantial increases in crime, including 1,492 homicides in 2017 (ISP, 2019). This increase promoted the country's president, President Temer, to impose emergency measures that involved authorising the army to take command of the police forces across the state and city of Rio de Janeiro. This intervention effectively militarized security operations in the city, an unprecedented move since the end of the military dictatorship in Brazil in 1985. Because of these different causes of violence, during 2016, Latin America was home to all the 20 most violent cities in the world (see **Figure 2-2**).

**Figure 2-2: Top 20 most violent cities in the world (2016)**



Source: own elaboration with data from Homicide Monitor (2019). Note: dashed line represents Latin America's homicide rate average at 23 deaths per 100,000 inhabitants. Each colour represents the country of the city.

As a result, governments have attempted to blame a disproportionate amount of violence on criminal gangs in recent years. However, while illegal activity and conflicts may contribute to an increase in homicide rates, organised crime is only one aspect of the problem. The presence of a powerful criminal organisation does not always imply a higher rate of homicide. For example, the city of Medellín, Colombia, saw one of the largest drops in homicide rates in Latin America. Homicide rates have decreased from 381 in 1991 to 39 in 2013, thanks to specific neighbourhood programmes, but also to a longstanding truce among the most powerful criminal players in the city (Dolan, 2018). During the 1980s the *Cártel de Guadalajara* (Guadalajara Cartel), acquired tremendous wealth by transporting Colombian cocaine to the United States with surprisingly low levels of violence (Shirk & Wallman, 2015). Similarly, it has been suggested that the Mexican government has favoured the Sinaloa Cartel, arguably the largest Mexican cartel, because it has been less violent than others in conducting criminal activities. Latin America's largest city, São Paulo, is home of the *Primeiro Comando da Capital* (First Capital Command - PCC) one of the largest criminal organizations in the region with an estimate of 21,000 members and annual earnings of USD\$ 40 billion (Ellis, 2018). However, the murder rate in the city dropped from a high of 52.5 per 100,000 in 1999 to just 6.1 per 100,000 in 2018. These examples indicate that high criminal activity does not always correlate with high homicide rates.

The large variation in the levels of homicides makes it necessary to describe in more detail the homicide trends in the region. There is a need to disaggregate homicide rates, such as by the nature and type of homicide, to increase knowledge of the context of homicide and the underlying reasons for rate changes. In the next section the perpetrators and victims of homicides in Latin America are examined, and how homicides take place in the region. By doing so, this helps the interpretation of cross-national differences and similarities.

### 2.2.1. Homicide trends

As explained in previous sections, Latin America is the world's most violent region, with 2.5 million Latin Americans dying violently between 2000 and 2018 (Muggah & Aguirre, 2018). Over the last few decades, the number of homicides in Latin America has steadily increased. Indeed, homicide rates increased by 12 percent between 2000 and 2015, and the region's average homicide rate is now more than three times the global average (UNODC, 2019).

A first step towards expanding the information on homicides is the disaggregation of data by gender and age. It is well documented that both gender and age play a crucial role in homicide and influences policymakers' reactions to the crime. The demographics of homicide victims share common characteristics across most Latin American countries. Disproportionally, in the region, 90 percent of the victims of homicides are male, compared with 70 percent in Europe and 67 percent in Asia (UNODC, 2019). Consequently, 41 percent of all homicides against males in the world happen in the Americas. This is not a surprising result, because research has shown that where overall levels of violence are high, the proportion of males involved as victims tend to also be higher (UNODC, 2019).

According to crime data, criminal offending rises considerably during youth, peaks in early adulthood, and then diminishes until old age (Chioda, 2017). This pattern has been labelled by criminologists as the 'the age-crime curve' (Blumstein, Cohen & Farrington, 1988) and applies to homicides in Latin America. However, the numbers of victims and perpetrators at young age are disproportionately high in the region. The homicides that occur in Latin America mainly affects young males and is perpetrated by young males. Of the male victims, 45 percent are young men between 15- and 29-years-old, followed by 27 percent of victims between 30 and 44 years old (UNODC, 2019). When it comes to male homicide rates, Central and South America, as well as the Caribbean, have seen the most dramatic increases in recent decades. This includes a significant 53 percent increase in male homicide rates in the Caribbean and an increase in male homicide rates of 15 percent in South America (Carbonari et

al., 2020). This may be largely due the activity of gangs and organized crime, factors that are known to influence the prevalence of young men as victims and perpetrators (UNDP, 2013). Although women generally face a much lower homicide risk than men, and the female age-crime profile is much more attenuated and less steep than it is for men, the age profile of women closely follows the pattern for male victims. Changes in trends of female homicide rates were much lower than male homicide, but still significant, at 11 percent in the Caribbean, 19 percent in Central America, and 14 percent in South America between 1990 and 2017 (UNODC, 2019). These trends and patterns experienced in Latin America and the Caribbean contrast with other regions of the world, such as in Europe where only 15 percent of homicides victims are between 15 and 29 years old, with the world average being 31 percent. In areas of Latin America, male homicide rates are eight to 11 times greater than female homicide rates, a far larger disparity than seen in other regions (UNODC, 2019). The research findings of age-specific homicide rates are important because the patterns reveal the need to implement age-specific homicide reduction strategies.

Regarding the mechanism of homicide, shooting is the most common cause of death in homicide cases worldwide (UNODC, 2019). In Latin America, the proportion of homicides involving firearms is exceptionally high, with 80 percent of homicides being committed with a firearm. This contrast to a global average of firearm-related homicides of 32 percent. The trends also show a constant increase in this type of homicide in the region, where between 2005 and 2017 the homicides committed by firearms increased by 10 percent (UNODC, 2019). There seems to be a correlation between countries with high proportions of gun-related homicides and high rates of murder within Latin America (Muggah & Aguirre, 2018). Independently, the proportion of gun related homicides also varies considerably, in Central America 78 percent of all homicides are committed with firearms, significantly higher than in South America with 53 percent and the Caribbean with 51 percent. In some countries and cities, the distribution can rise above 80 percent as in Brazil, Colombia, El Salvador, Honduras, and Mexico (Muggah & Aguirre, 2018).

Gang-related and organized crime related violence also plays a disproportionate role in homicides across Latin America, representing 26 percent of all known cases. Organized crime alone can be a source of homicides; according to a report from UNODC (2019), since the start of the twenty-first century, organized crime has resulted in roughly the same number of killings as all armed conflicts across the world combined. Changes in the power dynamics between rival criminal groups are frequently linked to unexpected spikes in homicide rates. This was recently seen in Brazil and Mexico, when an increase in cocaine trafficking caused homicide rates to significantly increase in specific areas (UNODC, 2019).

Even if homicide rates have been steadily high in the region for the last three decades (Fearon, 2011) with Central and South America been the subregions with the highest average homicide rates in the world (UNODC, 2019), it is important to highlight some geographic breakdowns within the region since there is considerable heterogeneity in homicide levels. The geographic distribution of homicides within the region and among countries is not as uniform as one might assume. For example, in 2017, in Central America, the highest national homicide rate (60 in El Salvador) is over seven times higher than the lowest (7 in Nicaragua) and in South America, the highest national homicide rate (89 in Venezuela) is over 16 times higher than the lowest (3.3 in Chile). Many researchers have characterized homicide levels in countries such as Brazil, El Salvador, and Mexico, as epidemic and even exceeding war-time levels, which are defined by WHO as 10 and 30 homicides per 100,000 (Chioda, 2017). However, at the other end of the spectrum, other countries, such as Chile and Argentina have homicide rates below the world average (6.2 per 100,000 inhabitants).

There are considerable concentrations and variation of homicides within countries as well. A country with high levels of homicides on a national level may have substantially lower levels of lethal violence in specific municipalities and cities, and vice versa (UNDP, 2013). For example, in 2017, Brazil and Mexico had the highest number of homicide victims in the world, 64,000 and 32,000 respectively, however, many cities inside these countries present less than world average homicide rates

(Carbonari et al., 2020). For example, in Mexico, Baja California has a homicide rate above 115 per 100,000 and others states as Yucatan have a homicide rate of below 2 per 100,000. Likewise, in Colombia, the Cauca department has more than 50 homicides per 100,000 while the Vaupes department has approximately 4 homicides per 100,000. Lastly, homicide concentration not only varies from country to country and from city to city, but also between neighbourhoods and streets. Crime tends to concentrate in place, time and among specific people (Clark, Grynspar & Muñoz, 2013). A study of Belo Horizonte, Brazil, showed that homicides are concentrated in 6 out of the 81 districts comprised of favelas (Alves & Arias, 2012). In Bogotá, Colombia, just 1.2 percent of streets account for 99 percent of homicides and in Caracas, just three municipalities report over 50 percent of all homicides (Chainey et al., 2019). In sum, homicides tend to be highly concentrated geographically (Chioda, 2017). It is important to recognize this variance when designing regional, national, and subnational strategies since in the case of homicides, dispersion across geographic units is particularly acute.

### 2.2.2. The causes of violence in Latin America: The structural factors

As it has been shown, violence is a phenomenon with multiple causes, in which different factors generate or facilitate the act. Although different academic disciplines tend to focus on particular aspects of the underlying causes of homicides, it is widely recognised that no single factor explains its dynamics (Apraxine et al., 2012; Oberwittler, 2019; Vilalta, 2020). Three levels of explanatory causes have been proposed in the literature and are discussed below: the structural, facilitating, and institutional factors (see **Table 2-1**).

**Table 2-1: Causes of Violence**

<i>Structural Factors</i>	
Social and economic inequality	Loss of moral values in the society
Poverty	Low education levels
Unemployment/Youth unemployment	Urban segregation / social exclusion
<i>Facilitating Factors</i>	
Easy access to firearms	Situational factors (e.g., the physical environment, streetlights, lack of safe space)
Alcohol and drug abuse	
Gangs / drug traffic	Household and family factors (e.g., overcrowding, single parents)
Culture of masculinity	
<i>Institutional Factors</i>	
Ineffective institutions	Impunity
Illegitimate institutions	Lack of trust in the police/justice system
Corruption	Deficient penitentiary/rehabilitation system

Source: own elaboration adapted from Moser & Van Bronkhorst (1999), Concha-Eastman (2002), Briceño-León (2005), Oberwittler (2019) and Vilalta (2020).

Since the 1970s, several studies have analysed the associations of homicide rates with various social indicators to advance the understanding of the causes of homicides. As shown in the table above (see **Table 2-1**), facilitating factors (also known as micro-level theories), direct attention to characteristics of individuals or their immediate situational context to explain the variation in crime patterns. Macro-

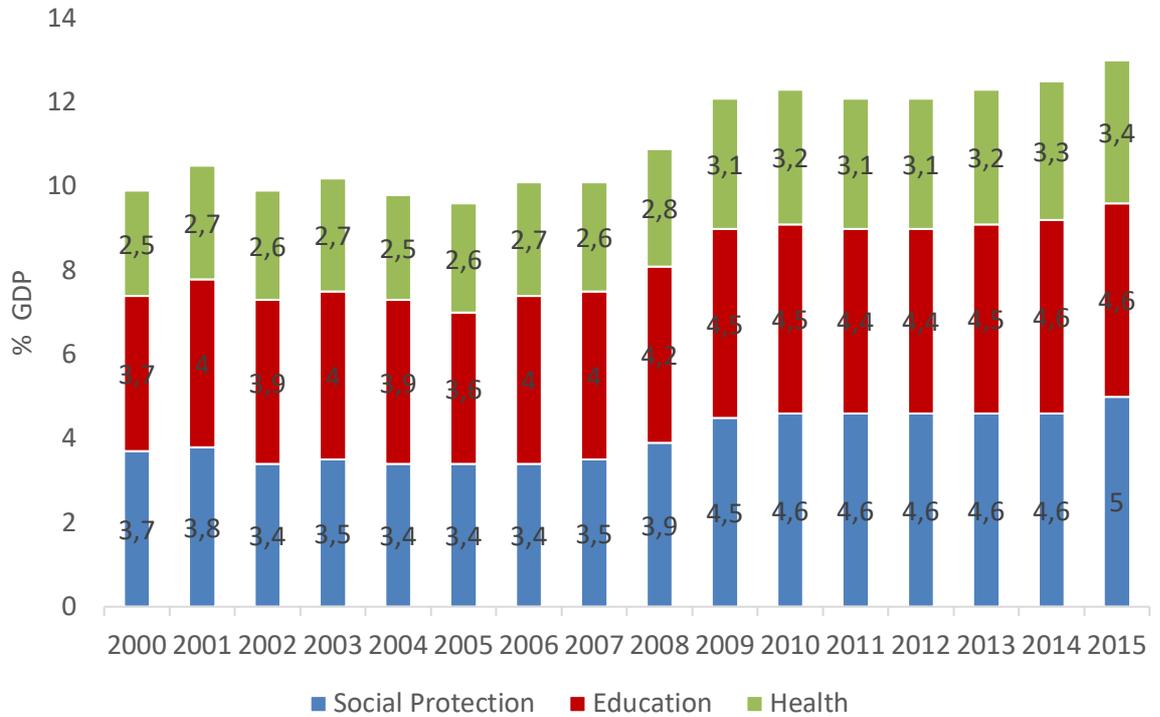
level theories, structural and institutional factors, seek to explain the variation in crime rates across groups, populations, and societies. Based on the theories already mentioned, in developing western countries the focus of study has been towards using structural factors to explain variations and causes of violence (Neapolitan, 1994).

Adding to Durkheim's work that more social development would reduce homicidal dispositions, criminologists and other scholars have argued that the variables that relate to structural factors have a direct effect on homicide (Dicristina, 2004). Structural factors that envelop the whole society in general relate to the macro-economy, and social and developmental conditions of each country. In this vein, the findings from several research studies have stated that education levels (Machin, Marie & Vujić, 2011), inequality (Bourguignon, Nuñez & Sanchez, 2003), poverty (Hsieh & Pugh, 1993) and unemployment (Raphael & Winter-Ebmer, 2001) have a direct effect on crime. These factors are considered to generate bitterness, frustration, and the inability to accumulate assets which in turn lead to higher levels of crime (Chamlin & Cochran, 2006). The increase in crime in the 1980s and early 1990s initially appeared to support this hypothesis.

However, over the last decade, Latin America has made considerable progress in the economic and social development dimensions, experiencing important reductions in poverty and inequality (Lustig, 2014; ECLAC, 2015). Between 2003 and 2013 more than 80 million people in the region moved above the threshold of poverty (Rosen & Kassab, 2018). Although the reduction of poverty rates has stalled recently in some countries, citizens continue to experience improvements in economic well-being (Muggah, 2017). Aside from economic advancements, residents in the region have become healthier and better educated (Jaitman & Ajzenman, 2016). Furthermore, during the third wave of democratisation, Latin America has seen increases in its levels of democracy, public participation, and political transparency (O'Donnell, 2004; Mainwaring & Pérez-Liñán, 2015). Governments in the region have significantly invested in social welfare, education, and health policies. For example, the overall GDP investment of the region on social protection policies increased from 3.4 percent

in 2004, to 5 percent in 2015, and overall spending on education and health (in relation to GDP) increased by about one percent over the same period (see **Figure 2-3**).

**Figure 2-3: Latin America: Public Sector Social Spending (% GDP) (2000-2015)**



Source: own elaboration with data from CEPAL (2018).

However, over this same period, the levels of homicides (and crime in general) have increased. Latin America’s average homicide rate increased from 18.1 in 2005 to 23.8 in 2015 (Vilalta, 2015), and crime has become the second most important problem of the region (Latinobarómetro, 2018).

Despite there being differences in opinions and country specific nuances for explaining the direct causes of crime (and homicides more specifically), previous research has mainly focused on the structural problems of Latin American countries as explanations for the persistence in high levels of violence. Based on the theories already discussed, the existing research in the region has tended to examine violence

using theories and variables that have explained the variation in homicides worldwide. These studies have offered useful explanatory value but do not seem to provide a conclusive explanation for the high levels of homicides in Latin America. Several doubts have also arisen about the extent to which structural factors provide clear explanatory reasoning for the high levels of violence that are experienced in Latin America (van Dijk, Nieuwbeerta & Larsen, 2021). Therefore, the examination of other, and perhaps more contextually specific, theories of crime is needed. In turn, if we are clearer in understanding the factors that help explain the high levels of homicides in the region, better policies and programmes can be designed and implemented to help address homicides. The following section reviews the studies that have examined structural factors for explaining the variations in homicide and shows why, for the most part, their findings are inconclusive for the Latin American context.

#### 2.2.2.1. Inequality

Numerous factors linked to homicide rates have been identified in cross-national homicide research. Of particular interest to researchers has been the role of inequality. Latin America has the highest rates of socioeconomic inequality in the world (Hoffman & Centeno, 2003) with a particular emphasis regarding the economic discrimination against indigenous people (Thorp, Caumartin & Gray-Molina, 2006).

Numerous researchers have stated that the high levels of homicides and crime are highly associated with social inequality and the unequal life of citizens (Blau & Blau, 1982; Avison & Loring, 1986; Hansmann & Quigley, 1982; Pratt & Godsey, 2003; Trent & Pridemore, 2012; Soares & Naritomi, 2010; Imbusch, Misse & Carrion, 2011). The logic behind this is that perceived inequality creates frustration among individuals at the lower end of the income distribution. This frustration creates anger, and this anger may result in violence (Rogers & Pridemore, 2020). In a cross-national study, LaFree (1999) found that economic inequality was the most consistent predictor of violence, identifying a negative relationship between homicide and economic development (LaFree, 1999). It follows, that countries with a more unequal

distribution of income would tend to have higher crime rates. Most of the cross-national criminological research shows a link between relative deprivation (i.e., income inequality) and homicide (LaFree, 1999; Wilkinson, 2004; Nivette, 2011). A more recent study from Nadanovsky and Cunha-Cruz (2009) concluded that income inequality explains the high homicide rates in Central and South America. In short, large income disparities create resentment among underprivileged sectors of society when they compare their situation with that of more privileged groups.

Several other studies have examined the relationship between a country's Gini index (a measure of a country's inequality) and homicides. Briceño-León, Villaveces and Costa-Eastman (2008) suggested that the Gini index is a variable that explains variations in homicide rates, with Latin America being the region with one of the highest Gini index values and the highest levels of homicides in the world. In their study of the economic determinants of crime in forty-five developed and developing countries from 1965 to 1999, Fajnzylber, Lederman, and Loayza (1999) discovered that income inequality, as measured by the Gini index, has a robust significant and positive effect on the incidence of violent crimes. However, other studies have shown there is only a small or insignificant relationship between relative economic deprivation (income inequality) and homicides (Bailey, 1984; Neumayer, 2003; Messner, 1982). A more recent study has also shown that, except for Brazil, Chile and Paraguay, the Gini Index is not associated with homicide trends (Bergman, 2018). Additionally, using data from the 1990s and onwards, a study of Buenos Aires, Lima, Mexico City, Rio de Janeiro, and San Paulo, also found there to be no correlation between inequality and homicides (Koonings & Kruijt, 2015).

Other studies have questioned the Gini index as an adequate measure of inequality and have suggested an alternative measure. This measure is the ratio of the average income of the richest 10 percent or 20 percent to the poorest 10 percent or 20 percent and has been demonstrated as a measure of inequality that is better in describing general violence (Fajnzylber, Lederman & Loayza, 2002). The results from studies that have used this alternative measure suggest that countries need to focus on narrowing the existing gap between the income of the rich and poor. However,

even with these adjustments to how income inequality is measured, a country's average income does not appear to be related to the levels of homicides in Latin America. Vilalta et al. (2016) showed that homicide rates have increased in all Latin American countries independent of their level of average income over the last decade. This is in contradiction to the findings from global studies on homicides that suggests that income inequality is related to the variation in homicide levels (Vilalta, Castillo & Torres, 2016).

Other problems also arise from previous studies. The empirical research on the structural variables of homicide rates has been shown to have conflicting outcomes throughout time periods and geographical measures (Land, McCall & Cohen, 1990). In addition, existing studies are often restricted to a small sample of countries, and second, that sample of countries usually comes from developed nations (Rennó Santos, Testa & Weiss, 2018). In comparison to the rest of the world, developed countries are less violent, which means they are clustered at the lower end of the homicide distribution (Stamatel, 2009). Even if these conclusions are accurate, they can hardly be applied to developing countries. In sum, the reliance on a sub-sample of developed, less violent and more wealthy countries cannot be generalized to countries where homicide is endemic.

In short, previous studies that examined the relationship between inequality and homicides appear to be inconclusive. Furthermore, over the recent period when homicides have increased, the social development of the region has significantly improved. There has been important progress in income distribution during the first decade of the twenty-first century after virtually 25 years of unsatisfactory performance (Ocampo & Vallejo, 2012). Between 2002 and 2013, the Gini index fell from 0.542 to 0.486 (WB, 2019). Additionally, several countries, such as Brazil, Colombia and Mexico have had a decade of decreasing income inequality but have shown increasing levels of homicides. Separately, other countries like Paraguay, Panama, and Bolivia, are highly unequal and their level of homicides remain surprisingly low compared to the rest of the region. Overall, there seems to be some

type of causation between inequality and homicides, however, it does not seem to be the main factor affecting homicides in Latin America.

Studies that have then examined multiple variables and their relationships with homicide levels have shown that any inequality- homicide relationship that may be apparent disappears when poverty is included in the analysis (Rennó Santos, Testa & Weiss, 2018; Pare & Felson, 2014). However, as will be shown in the section that follows, poverty also fails to be a consistent predictor of the high levels of homicides in Latin America.

#### 2.2.2.2. Poverty

According to Becker, rationality implies that some individuals become criminals because of the financial benefits from crime compared to the risk of apprehension and the severity of punishment (Becker, 1968). According to the economic theory of crime, the chance of individuals engaging in criminal activities rises with the potential advantages of crime and decreases with the opportunity costs of crime (Ehrlich, 1973). Potential criminals weigh the advantages and disadvantages of committing crimes against those of lawful activities, and from this make a decision about their criminal involvement (Jaitman & Machin, 2016). If larger proportions of the population are poor, it is more likely that more people will find the benefits of crime more appealing. From there, researchers have worked on the hypothesis that poverty is an important explanatory factor for high homicide rates in the world (Pridemore, 2008) and in Latin America (Chon, 2011; Imbusch, Misse & Carrion, 2011). Previous homicide research has reported evidence that violence is generated by deprivation in the form of poverty (Lappi-Seppälä & Lehti, 2014; Pare, & Felson, 2014) and poverty concentration (Lee, Maume & Ousey, 2003; Stretesky, Schuck & Hogan, 2004). For example, Messner and Rosenfeld (1999) found that poverty appears to be an important variable that is consistently related to high aggregate levels of homicide. According to Pridemore (2008), the positive association between poverty and homicide is the most consistent finding in the literature, and these positive findings are constant across time, levels of analysis, different measures of poverty,

cross-sectional and longitudinal analyses. Additionally, and following the same line of analysis, the macro-structural factors of the economy, measured objectively from variables such as per capita income, and access to opportunities and services are frequently recognized as obvious incentives for violent crime (Cerqueira & Lobão, 2004).

However, other studies have shown that it is not poverty that generates violence. A study from Messner (1982) showed that a large population in poverty appeared to be associated with a low homicide rate (Messner, 1982). A more recent study of 148 countries that applied quantile regression to examine inequality and poverty, has shown that poverty is only related to homicide in countries with lower homicide rates (Rennó Santos, Testa & Weiss, 2018). A study of central American gangs showed that poverty is relevant only if it exists within an environment of social injustice and exclusion (Perez, 2013). Separately, Pridemore (2008) questioned the research's methodology, suggesting that the empirical findings were a consequence of model misspecification, particularly in light of the lack of a poverty indicator in most studies.

Latin America has experienced significant economic growth and social improvements during the past decade. Between 2003 and 2011, economic growth in Latin America was the fastest since the 1960s (Bustillo & Velloso, 2015), and GDP per capita grew from USD\$ 3,547 in 2003 to USD\$ 10,278 in 2014 (WB, 2018). In that time, the proportion of the region's 632 million residents suffering from poverty declined from 41.7 percent to 25.3 percent (Muggah, 2017) and extreme poverty decreased by eight percentage points. For the first time in history, Latin America had more people in the middle class than in poverty (Chioda, 2017), with this middle class population increasing from 20 percent in 2003 to 34 percent in 2012 (WB, 2018).

Global statistics obscure Latin America's extremely heterogeneous reality because poverty differences are not simply regional but intra-national too. In Latin America it is not the poorest countries (Nicaragua, Paraguay, Bolivia), nor the poorest provinces or states within the countries (poorest states in Mexico or Brazil) that are the most violent. In many cases the opposite is true: some of the richest states and cities are

observed to be the most violent (as seen in the cases of Rio de Janeiro, Medellín, or Caracas) (Briceño-León, 2008). Differences are also marked according to gender, age or ethnicity, with violence occurring in extremely fragmented and heterogeneous societies (Bergman & Whitehead, 2009). In short, poverty itself does not breed criminality, most poor individuals do not commit felonies (or, homicides) and having higher levels of poverty does not unavoidably lead to higher levels of crime (Bergman, 2018). Accordingly, previous sociological theories that claim that poverty is a central element in the explanation of the variations in crime such as social disorganization, strain, control, and opportunity theory (Pridemore, 2008) require careful consideration in the Latin American context.

#### 2.2.2.3. Unemployment

Unemployment has been regularly quoted in many studies as a direct factor that affects crime. Again, drawing from Becker's rationale, reduced employment opportunities increase the opportunity cost of crime. The reduction of the legitimate labour market makes criminal activity more attractive. Unemployment has been found to have a positive effect on crime both in longitudinal (Chiricos, 1987; Freeman, 1995) and cross-sectional studies (Butcher & Piehl, 1999). In a study of Mexico and Argentina, Bergman (2009) argued that the transformations of the labour market and a sudden and rapid increase in unemployment had a direct and indirect effect on the rapid rise in criminal activity. Additionally, high levels of unemployment could contribute to feelings of frustration, resulting in high levels of crime, particularly in newly formed neighbourhoods (Buvinic, Morrison & Shifter, 1999).

Other studies, on the other hand, have found that employment alone may not be enough to dissuade criminal behaviour, and that the 'quality' of employment is the most important element in preventing people from engaging in illegal activity (Muggah, 2017), especially for underprivileged young men (Freeman, 1995; Levitt, 2001). Youth unemployment is a factor most quoted as a cause of crime. About 13 percent of Latin America and the Caribbean's youth (ages 15-24) are unemployed, with this representing approximately 108 million young people (Muggah, 2015).

Globally, young men aged 15 to 29 have the highest victimization risk, accounting for 43 percent of all victims (Oberwittler, 2019). In Latin America, both the perpetrators and victims of violence are mostly young and male (UNODC, 2018), and as a general observation, perpetrators, and victims of homicide (except for intimate partner homicide) tend to be from the same demographic groups. In the region, crime disproportionately affects young men aged 20 to 24, whose homicide rate of 92 per 100,000 is almost four times of that of the region (Chioda, 2017). Kessler (2004), in a qualitative study, showed how the changes in the labour market and unemployment among youngsters triggered delinquency in the outskirts of Buenos Aires (Kessler, 2004). Panel surveys have also shown that a one percent increase in youth unemployment corresponds to an additional 0.34 additional homicides per 100,000 people (Chioda, 2017). The hypothesized reason for this is that young people are especially susceptible to criminal behaviour, and the benefits of engagement in the criminal market are higher than the formal market (Muggah, 2017). Moreover, youth unemployment is strongly connected to gang recruitment and membership (Decker & Van Winkle, 1996; Pitts, 2007).

The results from other studies, however, have challenged this relationship, with several researchers indicating a negative relationship between unemployment and homicide rates rather than the expected positive relationship (Crutchfield, Geerken & Gove, 1982). Others have shown there to be no statistically significant association for this relationship (Reid et al., 2005; Rosenfeld, Baumer & Messner, 2001; Raphael & Winter-Ebmer, 2001) and that unemployment is not an appropriate structural factor to explain the increases in violence (Gilbert, 2015). Current data further distorts the relationship between these factors. The unemployment rate decreased from 11.2 percent to 6.0 percent between 2002 and 2014, and young male unemployment (ages 15-24) decreased from 15.7 percent to 11.8 percent. Further, the overall employment rate increased from 52 to 56 percent during the same period (WB, 2019). In addition, throughout the same period, labour formalisation and social security have increased significantly throughout Latin America (Cecchini et al., 2015; CEPAL, 2014).

In short, unemployment was thought to be a main driver of homicides and has been under certain circumstances. However, it seems that today, unemployment is not a strong predictor of homicides for the Latin American context and other variables appear to be more relevant.

#### 2.2.2.4. Education

Education is often cited as being one of the other structural factors that is related to crime and homicides. Researchers have found that an increase in school attendance can promote peace (Rivera, 2016), that schooling significantly reduces the probability of incarceration and arrest (Lochner & Moretti, 2004), and that improving education can yield significant social benefits and be a key policy tool in driving the reduction of crime (Machin, Marie & Vujić, 2011). Moreover, the non-completion of school, especially secondary education, is strongly correlated with crime (Muggah, 2017). Following the logic of youth unemployment and its link to crime, enrolment rates and average years of schooling suggest that efforts to educate the young may result in a considerable reduction in crime over time.

However, other studies have found that average years of schooling do not have a conclusive impact on crime and homicide rates (Heinemann & Verner, 2006). Furthermore, countries in the Latin America region have experienced considerable improvements in education levels in recent years. The region's school completion rate is 97.9 percent, and the youth literacy rate is 98.3 percent (WB, 2018). Secondary school enrolment grew from 85 percent to 95 percent and the tertiary enrolment rate from 29 percent to 50.6 percent between 2004 and 2017 (WB, 2018). Government expenditure on education (percent of GDP) grew from 3.7 percent in 2004 to 5.2 percent in 2014 and government expenditure per student (percent of GDP per capita) almost doubled from 9.8 in 2004 to 15.6 in 2013 (WB, 2019). Brazil has experienced substantial improvements in education across all levels, however its level of violence has increased dramatically from 45,433 homicides in 2000 to 63,880 homicides in 2017. In contrast, Peru's education levels have remained stable, and even decreased in 2017, yet the country has one of the lowest homicide rates in the

region. In short, although there may be some relationship between education levels and homicides, this relationship does not appear to be straightforward and further research needs to be carried out to determine the extent to which education is a consistent explanatory variable for homicides in the Latin American region.

As a mode of conclusion regarding the structural variables, previous studies have produced relevant work linking inequality, unemployment, poverty, and education with homicides. However, these studies have not produced conclusive results for the region. It would seem that some structural variables are relevant when predicting homicide trends (in particular inequality and education), but that there are other explanations and variables that play a significant role regarding homicides. These variables seem to be particularly relevant for the Latin American context.

The facilitating factors such as easy access to firearms, drugs and alcohol consumption have been considered variables that increase the levels of crime or at least contribute to the occurrence of violence or its lethality (Briceño-León, Villaveces & Concha-Eastman, 2008). The next section evaluates the studies on the so-called facilitating factors, also called 'crime drivers' according to the UNDP (UNDP, 2013). These factors are conditions that increase the likelihood of becoming a victim or a perpetrator of violence.

#### 2.2.2.5. The facilitating factors

##### *2.2.2.5.1. Alcohol use*

Researchers have shown that one of the leading contributors to homicide perpetration and victimization is alcohol intoxication (Weiss, Testa & Rennó Santos, 2018). Of all the homicides committed worldwide in 2015, 37 percent of murderers were under some type of influence from alcohol or drugs. Of those 37 percent, 90 percent were under the influence of alcohol while only 6 percent were under the influence of other drugs (UNODC, 2019). Alcohol consumption has been positively associated with crime rates including homicide (Gyimah-Brempong, 2001). It seems

likely that alcohol use weakens the individual's inhibitions against violence (Lester, 1995). Additionally, offenders may tend to use alcohol in larger quantities and be responsible for a higher homicide rate (WHO, 2004). Consequently, UNODC (2013) has stated that alcohol is a serious public health issue that can affect homicide.

Existing cross-national homicide research has focused on the direct association between population-level alcohol consumption of alcohol and homicide rates, and has discovered a positive relationship around the world (Rossow, 2001; Lester, 1995; Weiss, Testa & Rennó Santos, 2018) and in Latin America (Chon, 2011; Sánchez et al., 2011). For example, a meta-analysis of 23 studies, covering nine different countries and 28,265 homicides, found that an average of 37 percent of offenders were intoxicated when the offense was perpetrated and concluded that communities that have high homicide rates should work to reduce alcohol consumption rates (Kuhns et al., 2014). Additionally, several single country studies (Parker, 1995; Liem et al., 2013) found that about half of homicide offenders were intoxicated at the time of the incident. Other national and cross-national research found that the consumption of one litre of alcohol per year per inhabitant predicted a change of between eight percent and ten percent in homicide rates (Bye, 2007; Landberg & Norström, 2011). Pridemore (2002) estimated that a one percent increase in consumption was associated with a 0.25 percent increase in the homicide rate. A study from Cali, Colombia, concluded that extended hours of sales and consumption of alcohol were associated with increased homicides rates and that strong restrictions on alcohol availability could reduce the incidence of violent events in societies where homicides are high (Sánchez et al., 2011).

Although there appears to be an association between alcohol consumption and homicide rates, an increasing number of studies suggest this relationship is moderated by other factors such as different cultures, drinking contexts and environments (Norström, 2011; Graham et al., 1998). For example, Parker (1993) found that alcohol increased violence under certain cultural and socioeconomic conditions, particularly poverty. Weiss et al. (2018), with a sample of 85 countries, found no relationship between alcohol consumption levels and homicide rates.

However, they did find that high consumption patterns were positively associated with homicide rates. Also, of note from this study, was the suggestion that the quality of governance could moderate this relationship.

In short, research has found a direct relationship between alcohol and homicides, but only stating that alcohol consumption increases homicides levels may be an oversimplification of a more complicated phenomenon that includes situational and sociocultural factors.

#### *2.2.2.5.2. Drug use*

Previous research has found a strong association between drug use and violence. For example, Miron (2001), in a cross-country analysis of 32 countries found that the differences in drug prohibition enforcement explained differences in violence. In another study, Blumstein, Wallman and Farrington (2006) found that in the United States, increases and declines in the level of violent crime, were connected to respective increases, and declines in the use of cocaine. Illicit substance users have higher rates of death from a variety of causes (for example, overdose) and are a factor in high homicide rates (Darke, 2010). Further, rates of violent crime are also substantially higher among substance users, and homicide appears to occur at higher rates among substance users (Darke, 2010).

At this point, a brief differentiation on type of drugs is necessary. Some drugs are reported to be more commonly associated with aggressive behaviour and violence than others. The most widely used substances that have a potential relationship to violence are psychostimulants, specifically cocaine, crack, and methamphetamine (Darke, 2010). On the other hand, opioids are sedatives, do not directly engender violence and have been stated to be reliable predictors of nonviolence (Athanasiadis, 1999). According to the World Drug Report of 2019, cocaine, synthetic and cannabis consumption has increased substantially in Latin America, and many countries are changing from only production or transit countries, to also consumption countries.

However, the relationship between consumption of drugs and homicides is not straightforward. A report from the Organization of American States (2013) stated that violence and crime directly associated with drug consumption is marginal. According to the report, consumption tends to be high among people who have already committed crimes. However, it cannot be affirmed that the incidence of crimes is high among people who have consumed drugs (UNDP, 2013). Duran-Martinez (2018), drawing on drug consumption surveys of Colombia and Mexico and fieldwork in Medellín, Ciudad Juárez, Tijuana, and Culiacán cities, found that drug consumption did not increase violence. Her research argues that there is no automatic connection between domestic drug markets, drug consumption and violence. Violence depends on whether drug trafficking organizations control low-level street dealers and on whether those organizations have a market monopoly at the local level. Another study found that drug markets and drug consumption do not increase social violence per se and suggest that the effect of drugs on violence depends on the nature of drug-related activity (Rivera, 2016). Further, Fearon (2011) concluded that the increase in homicides can be found throughout the region whether drugs are present or not. Additionally, countries that experience the highest prevalence of cocaine use (the percentage of the youth and adult population who have consumed the drug at least once in the past year) are not the most violent. Uruguay, Argentina, and Chile have the highest annual cocaine prevalence in the region (UNODC, 2019), but have some of the lowest homicide rates, suggesting the drug consumption-homicide relationship is not a simple one.

To summarise, there is not necessarily a significant empirical link between criminal violence and illegal drug use., and it would seem that consumption is not the principal factor behind drug violence. Indeed, there is a common misinterpretation that those who use drugs are more likely to commit crimes. Rather, there may be a stronger relationship between criminal groups involved with growing, producing and selling drugs (Goldstein, 1985), and the negative consequences and collateral damages linked to how the governments counter the activities of drug trafficking organizations and drug consumption (Muggah & Aguirre, 2018; Lessing, 2017; Durán-Martínez, 2018).

#### 2.2.2.5.3. *Access to firearms*

Public health experts have frequently recommended reducing the access to handguns since firearms availability is considered a major factor that influences the levels of homicide (Weaver & Maddaleno, 1999). According to a report from Small Arms Survey (2004) and another from UNODC (2019), Latin America has the greatest proportion of firearm-related homicides in the world. Researchers have shown that firearms increase the lethality of violence and cross-national research has mostly reported a significant positive association between gun availability and homicide (Hemenway & Miller, 2000; Hoskin, 2001; McDowall, 1991). For example, a study of Cali and Bogotá found that an intermittent citywide ban on the carrying of firearms was associated with a reduction in homicide rates in both cities (Villaveces et al., 2000).

However, the literature on this relationship is not conclusive. Altheimer and Boswell (2012) found little support for the notion that gun availability operates uniformly across nations to influence levels of violence. They suggested that the socio-historical and cultural processes that occur across nations determine the nature of the relationship between gun availability and homicides. Another study of 170 US cities, found that gun prevalence levels generally have no effect on total violence rates (Kleck, & Patterson, 1993) Interestingly, other researchers found that restrictive gun control regimes can themselves increase violence (Miron, 2001).

Other limitations arise from previous studies on the relationship between guns availability and homicides, although this research has mainly focused on western developed countries (Altheimer & Boswell, 2012). As such, questions emerge about the generalization of the findings from existing research to Latin American settings. Importantly, existing research fails to fully identify the direction of causation between firearms and homicides. A positive correlation between gun ownership and homicides might indicate that violence creates a demand for guns rather than those guns causing violence (Miron, 2001). Due to these concerns, scholars have

characterised the research on this topic as suggestive but not conclusive (Wellford, 2004).

In short, although facilitating factors seem to have some relationship with homicides, they do not appear to explain accurately the high homicide levels in the Latin American region. These research findings suggest that other factors must be taken into consideration when analysing the problem of homicides in the region. Institutional and political factors have received surprisingly little attention in cross-national analyses of homicides (Lappi-Seppälä & Lehti, 2014; Oberwittler, 2019). The following section presents a brief review of the studies that have considered how government institutions influence variations in levels of homicides.

### 2.3. Exploring other possibilities: institutions and their effect on homicides

The modern state according to Weber, is defined by its monopoly of the legitimate use of force, which is exercised by those who represent it. Consequently, coercion becomes central to definitions of the state and state capacity (Schilling, 1999; Schuppert, 2011; Mann, 1984). Separately, in Rousseau's 'The Social Contract', the ability of states to protect its citizens' safety is key to the state's legitimacy. For McClelland (1996, p.447), the use of violence must be linked to the government: "In the ideal liberal society, the only legitimate form of violence would be violence used by the state, under forms of law, for the detention and punishment of malefactors." States, according to Tilley (1985), are centralised, distinguished by organisations whose officials more or less successfully claim authority over the major means of violence within a population living in a contiguous territory. Thus, we can conclude that the state's primary function is to provide security by preventing cross-border invasions, and a loss of territory, and by eliminating domestic threats to the national order and social structure. Additionally, the state is responsible for the prevention of crime and any related dangers to domestic security, and to support citizens to resolve their disputes with the state and with other citizens without recourse to forms of violence (Rotberg, 2003). The key insight, therefore, is that the use of violence is

subject to the control of public institutions and mechanisms for horizontal and vertical accountability (Whitehead et al., 2010).

Waldmann (2006) argued that an 'anomic state' exists when there are no clear, consistent and enforceable rules throughout society and the state territory. The key characteristic is the state's structural weakness, meaning that the weakness is presented as the inability to guarantee a peaceful order and the state's inability to enforce all laws and decrees. Waldmann further argued that when a state is not able to satisfy the basic needs of citizens regarding the maintenance of order and safety, from the point of view of those affected, it lacks elementary legitimacy (Waldmann, 2006). In brief, crime and violence can only rise when formal institutions are weak, lack the capability to control crime, and provide security. By not providing security, the state breaks its trust and 'social contract' with its citizens, making the monopoly on violence central to the state role and legitimacy.

Dreyfus (2009) details the institutional differences of a weak and a strong government. According to his work, the emergence of threats is facilitated by the vulnerability of a given government and, at the same time, these threats can contribute to deepen or even perpetuate the weak nature of a government. According to the author, some key characteristics of weak governments are fragile political legitimacy, conspicuous use of force by the state in domestic political life, conspicuous role of the police in everyday life of citizens, an inefficient state apparatus and high levels of political corruption.

As such, more contemporary criminological research has begun to incorporate the role of the state and institution, in opposition to the above-mentioned and widely studied theories that stress social and economic factors. The idea that individuals behave according to rules and not because of the costs of punishment has made researchers reconsider traditional models of crime and causes of offending. The basic idea is simple: when the government does not provide justice and security and is unable to control conflicts according to the law, society tends to regulate those conflicts through violence. For example, Tebaldi and Alda (2017) affirmed that

government institutions have a direct effect on the incidence of violence because the laws that are established, the enforcement of these laws, and regulations that are imposed has either a strengthening or weakening effect on deterring violence. As government institutions play a key role in implementing violence prevention strategies, it is important to determine whether the effectiveness of these institutions has an influencing role when violence and crime persists (Alda, 2017). De Boer and Bosetti (2015) have additionally argued that unless government authorities are able to establish and consolidate institutional legitimacy and authority, they can struggle to prevent and reduce homicide. These, and other research, have led to the suggestion that factors associated with governance and institutional capacity need to be included in models for examining relationships with crime (Eisner & Nivette, 2013). The next section further investigates the role that institutional variables may have in Latin America with regards to crime and homicides.

### **2.3.1. The institutions in Latin America**

Latin America is an especially useful place to study the types and consequences of institutional weakness. Although institutional weakness is not confined to this region, it is more common and more extreme than in the advanced industrialized countries upon which much of the institutionalist literature is based (Levitsky & Murillo, 2014). Broadly speaking, Latin American governments do not invariably represent a guarantee of security and public order, and as Bergman (2018) has stated, one of the most alarming aspects of the recent upsurge of crime in the region is that it developed under the supposed observation of the government. New focus must be put towards understanding the institutions in the region and their influence on crime. It is in this vein that the current research aims to add to the limited research to date on this topic. Ineffective government performance may enable conditions for homicides to emerge by, for example, not allocating sufficient resources to prevent this type of crime and by not being able to enforce the established rules. Understanding the mechanisms under which ineffective government performance influences crime is essential to improve understanding of the role of government in

containing and reducing homicides by developing crime reduction policies (Alda, 2017).

A closer look at the region, shows that institutional performance has decreased over the same period as recent economic growth and improvement in social well-being of Latin Americans. Citizens in the region are increasingly dissatisfied with their public institutions. For example, on average in the last decade, 62 percent of the population had little or no trust at all in their governments (CEPAL, 2018). According to data from the Latinobarómetro (2018) survey, over the last 20 years less than 40 percent of respondents have confidence in both the police and the judicial system. Additionally, the average citizen perceives its government as ineffective and corrupt. For example, according to data from the World Bank Governance Indicators the government effectiveness decreased from 57,14 in 2005 to 51,50 in 2019 (WB, 2019). Further, according to data from the Corruption Perception Index, control for corruption decreased from 58,60 to 52,86 in the same period (TI, 2019). In 2016, 80 percent of Latin Americans claimed their government was corrupt, a 15-point increase from 2010 (Latinobarómetro, 2018). Additionally, in 2016, 34 percent of citizens in the region had no confidence in the national judicial system, compared with 49 percent in the Organisation for Economic Co-operation and Development (OECD) countries.

Many Latin American countries democratized at some point between the late 1970s and the early 1990s. The focus of the scholarly that has examined this democratization has shifted from the democratic transitions to the quality and performance of these new democracies (Carreras, 2013). Since then, researchers have begun to examine the importance of the government and democracy with regards to security in the Latin American context. According to Argentinian scholar O'Donnell (1993), state theories often accept the assumption that there is a high degree of homogeneity in the scopes (both territorial and functional), of the government institutions and the social order that it provides and supports. The general notion is that the policies originated in public institutions have similar effectiveness throughout the national territory. Similar to the previous suggestions, O'Donnell argues that in certain areas where the presence of the state is weak or

non-existent, the rights of citizens are not respected since there are no public institutions to ensure compliance with the law. In these areas, power that has been illegally exercised reproduces discriminatory and authoritarian practices (O'Donnell, 1993). Consequently, one fundamental issue with respect to institutional consolidation in the region is the problem of regaining and maintaining the monopoly of the legitimate use of force by accountable governments (Koonings, 2001). Other research has worked in a similar vein, such as research by Pearce (2010, p. 301) who argued that "the Latin American state acts to reproduce and transmit violence through socialization spaces rather than legitimately monopolize violence or create the conditions for society to live without violence." Similarly, Arias and Goldstein (2010, p. 20) argue that high levels of violence throughout the region are linked to the establishment and maintenance of the region's democratic regimes because numerous states "coexist with organized, violent non-state actors and stand side-by-side with multiple forms of substate order." Garzon Vergara (2012) also suggests that three main characteristics that repeat in states of the region: a) the weakness of institutions; b) the uneven presence of the state in areas of the national territory and c) the partial co-optation of the state. In sum, the typical governance discourse that remained centred on an 'ideal type' of modern government, with full internal sovereignty and a legitimate monopoly on the use of force (Risse, 2011) is not sufficient for understanding the Latin American context.

Recently, there has been an increased interest on how the attributes and active role of the government can influence and impact violence and homicides in the region. For example, Chu and Tusalem (2013), using a large sample of countries that included samples from Latin America, examined the effect of the role of the government (e.g., political instability, regime type, among others) on homicide rates in a global context, and concluded that homicide rates are higher in countries that are politically unstable. Further, Helmke (2007) argued in her analysis of institutional crises in Latin America, that repeated moments of instability may decrease the legitimacy of public institutions. Their decreased legitimacy lowers the cost of future attacks on institutions, thereby creating opportunities for more crises and instability (Helmke, 2007). Also, Neumayer (2003) gave empirical evidence that good political governance

can reduce homicide rates and that it can be used as a predicting factor for the variation in cross-national homicide rates.

Although the literature examines the specific relationship between government institutions and the variation in homicide levels is still limited, some relevant previous work has begun to examine the influence of government institutions on homicide levels in the region. This includes Stamatel (2009) who recommended the importance for research to begin analysing regime types, efficacy, and the legitimacy of governments and in particular the role of the state in maintaining law and order, and De Boer and Bosetti (2015) who argued that unless public authorities can establish and consolidate institutional legitimacy and authority in a given territory, they will struggle to prevent and reduce homicide. A relationship between homicide and government institutions has also been highlighted by the UNDP (2019) who identified that high homicide rates in Latin America were related to the weakness of institutions responsible for security and justice. Additionally, Bergman (2018) has also suggested that when major opportunities for illegal profit appear, strong institutions and capable states are needed to neutralize the effect of rising violent crimes. Comparative research on institutions has begun to turn to issues of institutional strength, legitimacy, and effectiveness, with these studies examining how they influence the expectations of individuals and shape their behaviours (Lafree & Tseloni 2006; Levitsky & Murillo 2009). The next section investigates the possibility of these particular relationships.

#### 2.3.1.1. Legitimacy and effectiveness

Legitimacy is the public acceptance of the right of public institutions, and particularly the criminal justice system to wield power and define behaviour (Hough, Jackson & Bradford, 2013; Bottoms & Tankebe, 2012). Researchers have characterized authority as legitimate when people "believe that the decisions made and rules enacted by that authority or institution are in some way 'right' or 'proper' and ought to be followed" (Bottoms & Tankebe, 2012, p. 124). As such, for institutions to be considered legitimate, they need to meet certain standards of effectiveness, fairness,

and accountability (Hough, Jackson & Bradford, 2013). In consequence, ineffective institutions will lack legitimacy in turn that may have an influence of the commission of a crime. Research has shown that individuals are influenced by feelings related to trust and legitimacy towards institutions (Eisner & Nivette, 2013; Bradford, Milani & Jackson, 2017; Kyprianides et al., 2020; Tankebe, 2013). For example, in a study that included 65 countries, Eisner and Nivette (2013) found legitimacy to be significantly negatively related to homicide. Another cross-national study, using a sample of 86 countries, provided evidence of a statistically significant and negative relationship between government legitimacy and homicide (Dawson, 2017).

Additionally, when governments are passive or ineffective in their role in tackling rising levels of crime, this can create scepticism in the institution's ability to combat crime. Further, it creates a perception that the commission of crime goes unpunished. The passivity of the government, real or perceived, in the face of growing crime rates increases uncertainty about the government's ability to combat crime (Di Tella, Edwards & Schargrodsy, 2010). From an offending viewpoint, if the risk of punishment is minimal, more crime is likely to be committed. In sum, the primary mechanism at work is the delegitimization of the public institutions, which weakens their monopoly of violence, influencing individuals to use violence as a tool to find justice and resolve conflicts or to simply act outside the law for some type of benefit (Nivette, 2013).

In short, it would seem that normative compliance with the law appears to occur when people feel a moral obligation or commitment to do so, fostered by institutions that they feel are legitimate and trustworthy (Hough et al., 2010; Beetham, 1991). Simply put, when institutions are perceived to be unjust or illegitimate, people withdraw their support, contributing to weakened formal and informal control mechanisms and higher rates of crime (Tuttle, 2017).

#### *2.3.1.1.1. The criminal justice system: legitimacy, and ineffectiveness*

The criminal justice system plays an important role in the legitimatization of government institutions, and is considered to be the fundamental pillar of a country's

internal security system (Pearce, 2010). The legitimacy of government authority rests on the ability to support and uphold just institutions. A government with a criminal justice system that fairly administers the law will tend to have a higher degree of authority and legitimacy over its citizens (Huebert & Brown, 2019). Consequently, when a government fails to provide justice equally and effectively, legitimacy vanishes (LaFree, 1998; Tyler, 1990). For example, research focusing specifically on the criminal justice system showed that citizens who consider the treatment and decision-making processes of the police to be fair are more likely to co-operate with the police (Tyler & Huo, 2002) and trust criminal justice agents (Rottman, 2007; Tyler & Fagan, 2008). Another study, carried out by Sunshine and Taylor (2003) on New Yorkers opinions, found that public evaluations of police legitimacy impact people's compliance with law, their willingness to cooperate with the police, and whether the public will empower the police.

The lack of effectiveness of the criminal justice system has a negative effect in the deterrence capacity of a government (Restrepo, 2009). An ineffective criminal justice system will tend to capture and prosecute fewer criminals and increase the levels of impunity in society. High levels of impunity translate into lower risks for engaging in illicit activities or in committing crimes. Latin America has very high rates of impunity for all crimes, and in particular for homicides. For example, across Latin American the homicide convictions rate is of 50 percent or lower, and in Brazil only 20 percent of homicides result in a conviction (Bergman, 2018). Worldwide, approximately 43 criminals are convicted for every 100 murder victims. In the Americas, only 24 per 100 homicides result in convictions (Garzón-Vergara, 2016). Furthermore, impunity exists because the criminal justice system is considered not to have the capacity to respond, and even if it could most Latin American countries would not have the capacity in their prisons to house convicted offenders because of existing issues of overcrowding. In this sense, studies have hypothesised that governments' efforts to strengthen criminal justice system capacity are key to reducing violence (Rivera, 2016; Nadanovsky & Cunha-Cruz, 2009). In short, the region's inadequate institutions, including the criminal justice system, are in broad terms unable to deter and reduce crime (Müller, 2018).

Relatedly, the functioning of the criminal justice system affects the state's ability to enforce the law in a manner that citizens perceive as just and legitimate. If public institutions are effective, people trust law enforcement institutions, believing them to be effective, fair, impartial, and bound by the law (Herrmann, Thöni & Gächter, 2008). Conversely, when the criminal justice system is ineffective people will not trust the law enforcement institution and withdraw their support of them (Corbacho, Philipp & Ruiz-Vega, 2015). If citizens have reduced access to the law because the government cannot effectively enforce it and punish violations, people will look elsewhere for alternative means of social control and security (Eisner, 2013). The failure of governments to provide fair and accessible legal processes for their citizens has a corrosive effect on institutions, tarnishing the legitimisation and trust of legal authorities. Essentially, if the law is unfairly enforced, actors cannot assume that others will comply with the same set of rules and if required, they may act outside the law. Therefore, effective institutions should reduce violence because they augment the support of the population towards them, and further increase support to the law and diminish antisocial views (Testa, Young & Mullins, 2017), eventually reducing crime. Dawson (2017, p. 552) stated that "In criminological terms, effective states cannot simply rely on deterrence (i.e., the rational calculation to avoid coercive measures by the state for violations of the law) to promote law-abiding behaviour, but to a certain extent must also rely on voluntary compliance—that is, individuals willing to obey the law irrespective of the prospect of being sanctioned."

Within the criminal justice system, the police departments are usually blamed for rising levels of crime as it is the police's main duty to control crime. A relevant dimension in the determination of crime rates is related to the effectiveness of security policies adopted by the government, with the police being the institution in charge of most of those policies. However, in general terms, police departments of the region are considered ineffective and corrupt by the local population (LAPOP, 2017; Latinobarómetro, 2018).

### 2.3.1.2. Legitimacy and corruption

Related to above, corruption can have a damaging effect on the public's perception of the governing institutions, and therefore influences how people behave towards these institutions. Legitimacy and trust are strongly linked, and both are affected by the extent to which justice institutions operate according to moral standards (Hough, Jackson & Bradford, 2013; Rose-Ackerman, 2001). If the criminal justice system is corrupt, it is unlikely that it will be perceived as legitimate. Corruption does not only alter the relationship between institutions and citizens, but also particularly distorts relations in the police force and among police officers (Azaola, 2009).

Moreover, corruption erodes the functioning of the government and its ability to perform its most basic services. It has been shown that corruption adversely impacts public education (Reinikka & Svensson, 2005; Ferraz, Finan & Moreira, 2012) and public health services (Svedoff, 2007) and undermines development (Kaufmann et al., 1999). Corruption also has been observed to reduce the capacity to provide security and resolve conflicts between people (IDB, 2020).

If citizens perceive that certain people may escape the law, they will engage in extra-legal activities by understanding that the law and rules do not apply to the whole population equally. Further, corruption undermines the public trust towards officials who run the government, which in turn tarnishes their legitimacy. As Roth (2012) showed, the feeling of trust in government and the officials who run it is fundamental to a peaceful society and as such, reducing corruption appears to be necessary to reduce crime. For example, corrupt police institutions hinder the level of trust that citizens will have towards the police institution.

More worrying is that the lack of trust in institutions influences the trust towards public programmes that intend to fight crime (Heinemann & Verner, 2006). These programmes are not as effective in the eyes of citizens, and collaboration to report crime and work with the police decreases. Several surveys show that Latin America is the region in the world where people have the lowest trust towards the police, where

50 percent of those consulted stated they did not trust the police (Latinobarómetro, 2018). Other studies have shown that crime victimization reduces trust in the local police, with the probability of trusting the local police roughly 10 percent lower for victims as opposed to non-victims (Corbacho, Philipp & Ruiz-Vega, 2015), a significant reduction from already low levels of trust in the local police (Heinemann & Verner, 2006).

Furthermore, recent research has shown that rises in corruption precede violence (IEP, 2018). Findings such as these have prompted scholars to begin to examine the malfunctioning of corrupt institutions which have been unable to meet the new challenges of rising levels of crime (Frühling, 2009; Azaola, 2009). While corruption is not traditionally thought of as a violence and security issue, new research shows that a low level of corruption is critical to a peaceful society: wherever corruption is high, the risk of violence is much more likely. According to one study, rises in corruption precede violence, and similarly, improvements in corruption are strongly associated with improvements in peace (IEP, 2018). This IEP study found that high levels of corruption and low levels of trust are both drive insecurity and undermine public institutions.

#### 2.3.1.3. Security programmes in Latin America: problems regarding evaluation and context

Policies are typically defined as actions or programmes that include goals and methods for achieving them, regardless of how well or poorly they are identified, justified, or formulated (Howlett & Cashore, 2014). At the policy formulation stage, social problems and demands are addressed, and transformed into government programmes. Policy making is a core activity of any government, which is its primary agent. Different government institutions and public authorities must choose between different sets of tools, goals, sectors, and policies over others, making policy formulation and design particularly problematic (Béland, 2007). Preliminary data shown in the current literature review indicate that institutions are not effective in the region and that issues of corruption exist. Therefore, it is logical to conclude that

this ineffectiveness in how institutions operate may be reflected in the way institutions and policymakers design security policies.

Several researchers have identified the lack of evaluation and monitoring of security programmes in Latin America. For example, a report from the IDB (2015) analysed the situation of violence prevention programmes and proposed the need for essential reforms. Among these reforms it was suggested the need to improve inter-institutional leadership and coordination, the creation of reliable information systems to record crime, and the implementation of means for monitoring and evaluating violence prevention programmes. In another study, Abt and Winship (2016) recommend policymakers to concentrate and coordinate anti-violence efforts where they matter most, and that governmental and non-governmental funders should develop and deploy evidence-informed programmes. Further, Muggah and Alvarado (2018) argued that there is a lack of knowledge of what works in the region because of the absence of impact evaluations of security programmes and that evaluations are often not given attention until the end of a programme. Also, a study by Cano and Rojido (2016) that reviewed 93 homicide reduction programmes implemented from 1991 to 2015, concluded that only 16 percent of these programmes included impact evaluations. Cano and Rojido (2016) particularly noted the absence of evaluation in countries in with the highest homicide rates, suggesting this was because of limited capacity and resources to perform robust evaluations.

There is also a need to have a better understanding of what is happening at the lower level of governance and within the specific context of where programmes are supposed to work. This will help ensure programmes are more effective. For security programmes to reduce crime, they need to be informed by an analysis of real-time good quality data, complemented by victimization surveys, that allows for highly granular resource targeting (Muggah & Alvarado, 2018). Additionally, researchers argue that it is critical to boost local government's resources and know how, as this will help understand what is happening in specific contexts by local authorities (Imbusch, Misse & Carrion, 2011; Felbab-Brown, 2011). In turn, this requires flexible policies that can address the roots of the issue and can be corrected throughout the

programme as it is being implemented (Blake & Clarke, 2020; Heinemann & Verner, 2006).

In short, researchers seem to agree that despite the importance of the security problem, Latin America is lagging in the production of rigorous research on crime, the evaluation of security programmes, and the understanding of local contexts where programmes are supposed to take place.

## 2.4. Conclusion

An examination of the literature associated with theoretical principles, and explanatory causes associated with homicides shows that structural factors do not provide a straightforward explanation regarding the high levels of homicides in Latin America. The explanations mentioned for the decline in crime in the rest of the world in the 1990s are not fully contextually relevant to this region. The common practice of exporting ideas and theories from western developed countries to developing countries, as opposed to using national conditions to generate new theories, has been frequently criticized by criminologists (Stamatel, 2009). As shown here, the variables and theories that have been used to explain variations in homicides in western settings do not seem to provide a complete explanation for the high homicide levels experienced in Latin America. It is also evident that no single factor can explain homicides and that the recent rise in homicides in Latin America originates from a complex set of factors.

Researchers have employed a range of approaches and models to explain how social and economic factors such as poverty and inequality, influence the persistence of homicides and crime. Others have investigated how facilitating factors such a misuse of alcohol and easy access to firearms affect homicides. While each of these approaches and use of variables has produced some important insights, they often do not provide a complete explanation for homicides in Latin America. Consequently, the exploration of new factors or approaches is recommended. Contemporary research that is more specific to examining trends of violence in particular contexts,

such as in Latin America, creates new opportunities for theoretical development in explaining the persistence of high levels of violence in these settings.

Separately, there is a relatively thin but growing literature regarding the relationship between the role of institutions and the variations in the levels of homicides. Although previous work exists regarding the weakness of institutions in Latin America, it remains scarce concerning its relationship with homicides in the regional context. Research that has been conducted does suggest a possible correlation, if not causation, between weak institutions and homicides. Importantly then, the current review of the existing research evidence indicates a gap in the literature relating to the study of the institutional factors and its impact on homicides. Variables such as government effectiveness and levels of corruption have not been studied in depth in the region to understand their effect on homicides.

Perhaps due to the ineffectiveness of public institutions, this review shows that security institutions fail to produce effective security programmes. There also is a need to investigate how homicide reduction policies are designed and implemented in the region. Further, security programmes are often not evaluated or adapted to specific contexts and circumstances where they are supposed to be implemented. In that sense, it is generally unknown why some programmes are successful or fail in reaching their objectives in a region where many programmes have been implemented but high levels of homicide have persisted. Against this background, listed below are the research questions the current research seeks to answer:

1. Which variables explain more accurately the rise or fall in homicide levels in Latin America?
  - 1.1. What is the influence of institutional factors (i.e., government effectiveness and corruption), in comparison to structural factors, on homicide levels in Latin America?
  - 1.2. What is the impact of structural and institutional variables on homicides at the neighbourhood level?

- 1.3. Are the police, the judiciary and the prison system in Latin America ineffective and as a consequence this limits their ability to fulfil their duties in the prevention of violence?
- 1.4. Are the police, the judiciary and the prison system, in broad terms, corrupt?
2. How are homicide reduction programmes designed in Latin America?
  - 2.1. What are the key characteristics of homicide reduction programmes in the region?
  - 2.2. Are there specific characteristics that make homicide reduction programmes less effective?
  - 2.3. How do homicide reduction programmes rank in relation to the components of the EMMIE framework (i.e., Effect, Mechanism, Moderator (or context), Implementation, and Economic costs)?

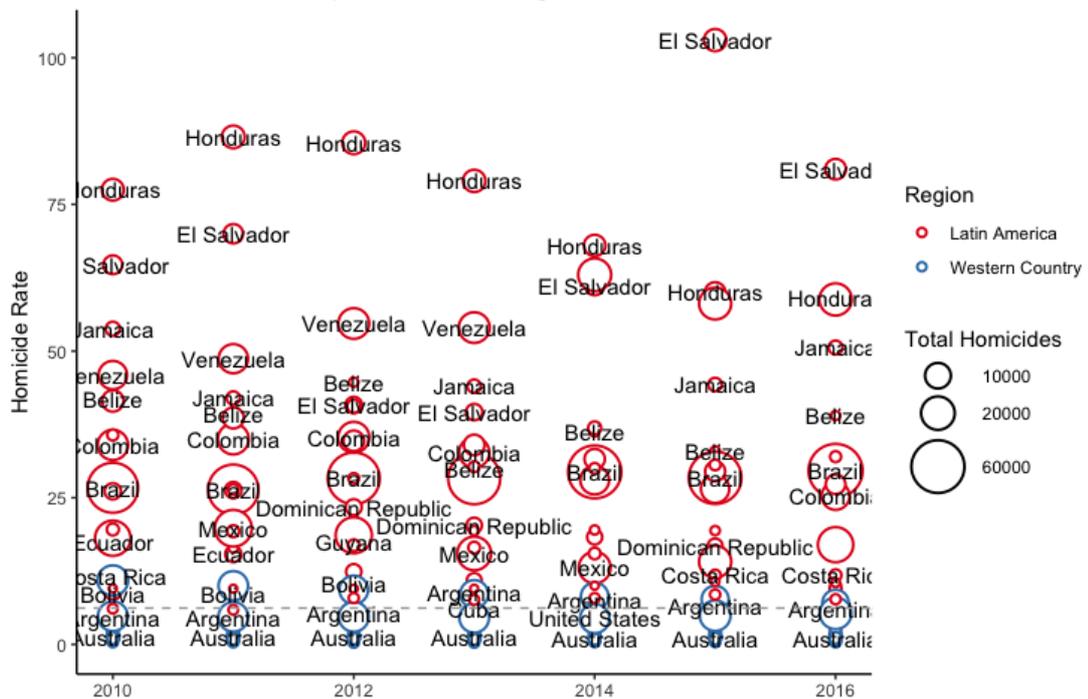
The next chapter reports on the first empirical study of this research. The chapter is based on the hypothesis that institutional factors help explain the high levels of homicides in Latin America. It presents a panel analysis of homicide levels against indicators relating to the strength of institutions using a sample of 54 countries (24 from Latin America and 30 from western countries), with 12 years of data (2005-2017) regarding homicide levels (dependant variable). The independent variables that relate to the institutional factors are levels of corruption and government effectiveness. Further, the control variables relating to the structural conditions of the countries are included, specifically: unemployment, education index, Gini index (as a proxy of inequality), GDP per capita (as a proxy for poverty), and urban population.

### 3. Institutional ineffectiveness, corruption, and homicides: findings for Latin America.

#### 3.1. Introduction

As it is shown in the previous chapter, high levels of violence continue to pose a significant issue across Latin America. Increases in crime and violence beginning in the 1980s have become a defining characteristic of the region (Singer et al., 2019), making crime homicides levels one of the most pressing issues of the region. Although the levels of violent crime differ between countries and particularly between cities and provinces (Koonings & Kruijt, 2015; Moncada, 2016), the Latin America region has the highest homicide rate in the world with some of the most dangerous countries and cities. **Figure 3-1** shows a clear consistency of Latin American countries being the most violent in the world throughout the years, a pattern which can be traced back to the 1990s. Mexico and Brazil provide two interesting examples because of the high numbers of homicides experienced in each country. In 2005, Mexico recorded 12,477 homicides, with this number increasing by three times in 2018 to 33,341 homicides. In Brazil, 48,136 homicides were recorded in 2005 and reached a record high in 2017 with 64,021 total homicides. One of the few clear 'success' stories is Colombia: in 2000, Colombia recorded 26,643 homicides, and by 2017 this had reduced to 11,918 homicides. Although this reduction was impressive, the homicide rate was still 24.2 homicides per 100,000 inhabitants, four times greater than the world average (Homicide Monitor, 2019). Further, between 2019 and 2021 homicides in Colombia rose again by 8.2 percent.

**Figure 3-1: Homicide Rate by Countries (2010-2016)**

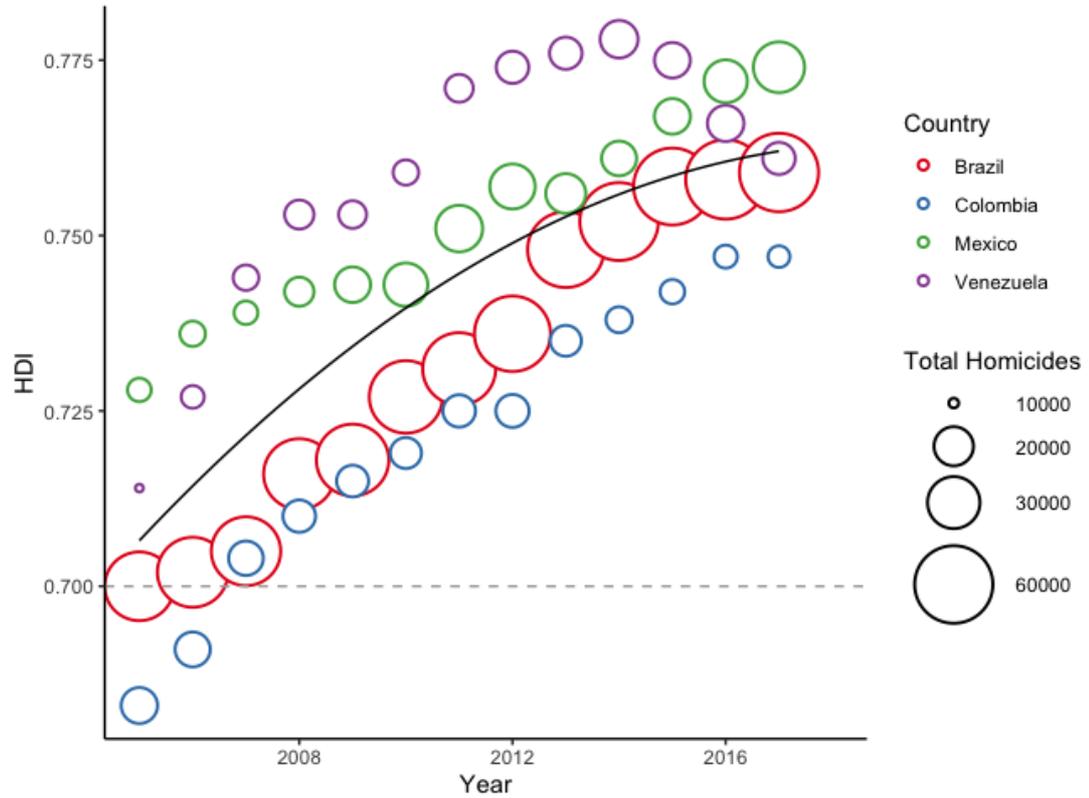


Source: own elaboration with data from homicide Monitor (2019). Note: dashed line at  $x=6.2$  represents the world's average homicide rate. Every bubble represents a country per year, the size of the bubble represents the total homicides of that specific year to illustrate the magnitude of the homicide problem.

Several theoretical frameworks have been examined and suggested to explain the factors that could potentially drive the high levels of homicides in Latin America, with most of these focusing on social inequality, poverty, unemployment, low levels of education, low average income, availability of firearms and organised crime. The Human Development Index (HDI) for countries in the region, which is a statistical multifactorial index of life expectancy, education, and per capita income indicators and is considered one of the main measures of social well-being, has also improved. The HDI was created to emphasize that people and their abilities should be the main criteria for assessing the development of a country, rather than just economic growth. However, as **Figure 3-2** shows, the countries that have suffered the most homicides, have seen constant improvement in their HDI since the beginning of the 21<sup>st</sup> century. For example, Brazil had a HDI of 0.700 and Mexico of 0.728 in 2005. By 2017, the HDI had increased to 0.759 for Brazil and 0.774 for Mexico in 2017. These

results indicate that other variables, apart from the economic and social indicators, must be considered when analysing homicides (Bitar & Long, 2019).

**Figure 3-2: Evolution of HDI in countries with most homicides (2005-2017)**



Source: own elaboration with data from Homicide Monitor and UNDP (2019). Note: dashed line at  $y=0.700$  represents a high HDI according to the index.

In this sense, new approaches must be taken to understand the causes of homicides in Latin America. If we do not recognize the exact causes behind the levels of violence, it will be impossible to create effective policies to reduce homicides in the region. For example, violence is commonly viewed as a characteristic of the drug trade, yet there is significant variation in drug violence within countries afflicted by drug trafficking (Duran-Martinez, 2015). Moreover, illegality does not necessarily breed violence as would be expected (Snyder & Duran-Martinez, 2009) because as is observed in several countries, markets for illegal drugs are generally peaceful, even without the protection of the state and courts (Reuter, 2009).

Since the early 1990s, researchers have highlighted the influence of weak institutions. This research indicated that a major problem in many studies of Latin American institutions is that they assumed equal institutional strength, i.e., they assumed that the rules written are minimally stable and regularly enforced throughout the territory (Levitsky & Murillo, 2013). Although such assumptions may be appropriate for analyses of advanced industrialized countries, they do not seem to be plausible for developing democracies, and particularly of those in the Latin American region.

In this chapter, high levels of homicide in the Latin American region are examined with respect to institutional strength, i.e., the effectiveness of government institutions, the control for corruption and their relationship with homicides. I hypothesise that if public institutions are not effective in creating an environment in which citizens are made secure and if the delivery of government services is undermined (e.g., by corruption), an environment in which criminal activity can operate without being checked will prosper. The outcome of this criminal activity is reflected by the high levels of homicides.

In the current research I take a new approach by examining the influence of ineffective institutions and the role of corruption on levels of homicide in Latin America. The research questions are:

- 1) Which variables explain more accurately the rise or fall in homicide levels in Latin America?
- 2) What is the influence of institutional factors (i.e., government effectiveness and corruption), in comparison to structural factors, on homicide levels in Latin America?

In short, the hypothesis to be tested is that institutional factors are as important as structural factor in predicting homicides trends.

Secondary hypotheses to be tested for this analysis are:

- i) Hypothesis 1: Countries with higher levels of government effectiveness are more likely to experience lower levels of homicides.
- ii) Hypothesis 2: Countries with lower levels of control of corruption are more likely to experience higher levels of homicidal violence.
- iii) Hypothesis 3: Countries from the Latin American region are more likely to exhibit institutional weaknesses, associated with higher levels of homicidal violence.

### 3.2. Methods and data

One of the most important aims of cross-national homicide research have been to explore differences and trends (Lappi-Seppälä & Lehti, 2014). In these studies, some of the main issues relate to sample size and availability of data (Nivette, 2011). The lack of available data for both homicides and predictor statistics (Vilalta, 2020) often severely limits the sample composition to primarily industrialized and highly developed countries (Stamatel, 2006; Marshall, Marshall & Ren, 2009). To date, most studies that have examined variables for explaining the international variations in homicide levels have been limited in their inclusion of data from countries in Latin America. In the current study I examine if certain variables that explain variations in homicide levels in countries in Latin America have a greater influence than they have in non-Latin American settings. The objective is to better determine if there are certain unique characteristics to the Latin American region that help explain the high homicide levels that are experienced in the region. The study included 54 countries (see **Annex 11.1**), of which 24 were from Latin America. The 30 non-Latin American countries were chosen because they were considered ‘western’ countries. In many regards, due to colonial history, these countries have certain cultural similarities to Latin American countries making them comparable. Additionally, they were chosen because they have been extensively studied in international research on changes in crime, and in particular homicides (Farrell et al., 2011). The countries employed for this analysis are listed **Annex 11.1**.

To better understand the data that are used, descriptive statistics are provided followed by a correlation matrix showing the correlation coefficient ( $r$ ) and the  $p$ -values of all the variables.

Taking into consideration the data used, ordinary least squares (OLS) regression approach was discarded since, among other problems, it does not consider heterogeneity across groups or time. Since the data consists of observations of numerous occurrences that were collected over several time periods for the several group of units (i.e., countries) a panel data approach was considered to be most appropriate.

Several reasons make the use of panel data relevant to this study. Panel data takes explicit account of individual-specific heterogeneity, by combining data in two dimensions. Panel data combines cross-section and time-series data, containing observations of multiple phenomena obtained over multiple time periods. Panel data delivers more data variance, less collinearity, and more degrees of freedom, and is better suited for studying changes because it combines data in two dimensions. Also, panel data is better at detecting and measuring the effects which cannot be observed in either cross-section or time-series data. In short, panel data enables the study of more complicated behavioural models (Mishra, 2018), in this case, the influence of different variables on homicide trends. Panel data models have long been considered good designs for the study of causation, next to other methodologies such as purely random experiment (Worrall, 2005). For example, Campbell and Stanley (1967) suggested that panel models were an excellent quasi-experimental design and perhaps the best of the applicable designs.

This type of methodology has been repeatedly used in the past to analyse homicides (Baumer & Wolff, 2014; LaFree, Curtis & McDowall, 2015; Neumayer, 2003). For example, a study using panel data found that interpersonal trust was weaker in nations with more inequality, and that trust moderately mediated the impact of social inequality on homicide rates (Elgar & Aitken, 2011). Recent studies have used panel data to measure institutional strength and found considerable cross-national

(and within-country) variation in the stability of formal political institutions (Levitsky & Murillo, 2009).

The three most common techniques used for panel data analysis are pooled OLS estimation, fixed effects, and random effects. Pooled OLS estimation was discarded since it is simply an OLS technique applied to panel data and, therefore, all individually specific effects are ignored. Consequently, many basic assumptions, such as orthogonality of the error term, are violated. Since the early 2000s, longitudinal designs using fixed effects models or, more recently, random effects models have become widespread (Oberwittler, 2019), and are both considered the most appropriate methods to use when working with panel and cross-sectional time series data (Williams, 2015; Borenstein et al., 2010; Fajnzylber, Lederman & Loayza, 2002). Both models aim to account for clustering or dependence in a dataset, and differing relationships within and between clusters (Bell, Fairbrother & Jones, 2019). Under the fixed-effect model we assume that there is one true effect size that underlies all the studies in the analysis, and that all differences in observed effects are due to sampling error. By contrast, under the random-effects model, we allow the true effect sizes to differ. In short, it is possible that all studies share a common effect size, but it is also possible that the effect size varies from study to study. The basic distinction is that fixed effects models assume a priori that the same population value underlies all studies in the analysis. This means that the method removes any country differences and focuses on changes over time of homicide rates in relation to time variant predictors. By doing so, it avoids endogeneity and moves closer to the identification of causal effects (Fajnzylber, Lederman & Loayza, 2002). However, considering enormous global differences in societal conditions, an exclusive focus on time-dynamic effects may impede a comprehensive understanding of country effects on lethal violence (Fearon, 2011). On the other hand, random effects models which simultaneously evaluate between, and within, country effects seem as like an appropriate alternative to the problem (Oberwittler, 2019; Tuttle, 2017). In summary, random effects models allow for the possibility that population parameters vary from study to study (Oshio, Taku, Hirano & Saeed, 2018).

Five different models were run independently to examine the relationship between the homicides and the independent variables. First, since the data obtained for Government Effectiveness (GE) differ from the time frame obtained for the data on Control for Corruption (CPI) (GE from 2005 to 2017 and CPI from 2012 to 2017) (descriptions on each are provided in the section that follows), three models were run independently: a model with only the inclusion of GE (Model 1), a model with only the inclusion of CPI (Model 2), and a model that included both variables (Model 3). Second, to avoid risks of confounding the analysis by dealing with the two very different regional contexts in one model, two more models were run, one including only Latin American countries (Model 4) and another only including the rest of the countries in the sample (Model 5) which in most cases are western and eastern European countries. Model 4 and Model 5 include both the GE and CPI institutional variables. In all models, controls are applied for the Education index, Gini index (as a proxy of inequality), unemployment, GDP per capita (as a proxy for poverty), and the Urban population.

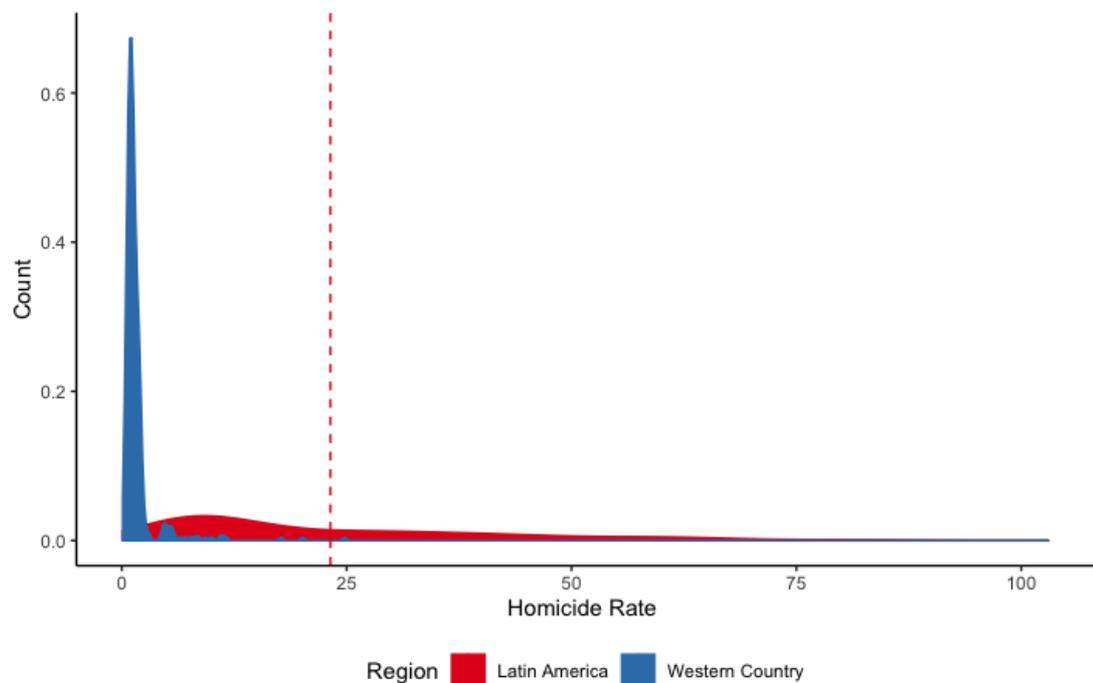
Independent variables are sometimes correlated with one another, particularly variables that measure structural conditions (Pridemore & Trent, 2010). This can create issues of multicollinearity in regression models and can lead to skewed or misleading results. The analysis begins by constructing a correlation matrix of all independent variables to identify those variables that were correlated. High correlations, however, are not in themselves indicative of multicollinearity (Eisner & Nivette, 2012), so for each model we applied a Variance Inflation Factor (VIF) test to measure for multicollinearity. A high VIF indicates that the associated independent variable is highly collinear with the other variables in the model. If the VIF for a variable exceeds four it warrants further investigation, while exceeding ten suggests that a serious issue of multicollinearity is present and requires addressing (Paul, 2006; Champion & Hartley, 2011).

### **3.2.1. Homicide rates**

The dependent variable was the country homicide rate, which is expressed as the number of homicides per 100,000 residents. Homicide data are generally considered

to be the most reliable data regarding crimes by comparative criminologists (Nivette, 2011; Oberwittler, 2019). Data on homicide rates were obtained from the Homicide Monitor of the Igarape Institute (2019) for all the countries. Data was gathered from 2005 until 2017. Data up until 2017 was used because it was the most reliable and most complete set of data that were available. Intentional homicides are defined as the “unlawful homicides purposely inflicted as a result of domestic disputes, interpersonal violence, violent conflicts over land resources, intergang violence over turf or control, and predatory violence and killing by armed groups” (World Development Indicators, 2019). The data does not include homicides that are a result of an armed conflict (e.g., such as homicides that result due to a war). It is important to clarify that a simple analysis of the data (see **Figure 3-3**) shows that it does not provide a normal distribution and it is strongly skewed since western countries have very low homicide rates. The primary consequence of the skewed distribution is that it produces abnormal error and covariance structures that are likely to be non-linear and influence heteroskedasticity (Schaible & Altheimer, 2016).

**Figure 3-3: Homicide rates density curve (2005-2017)**

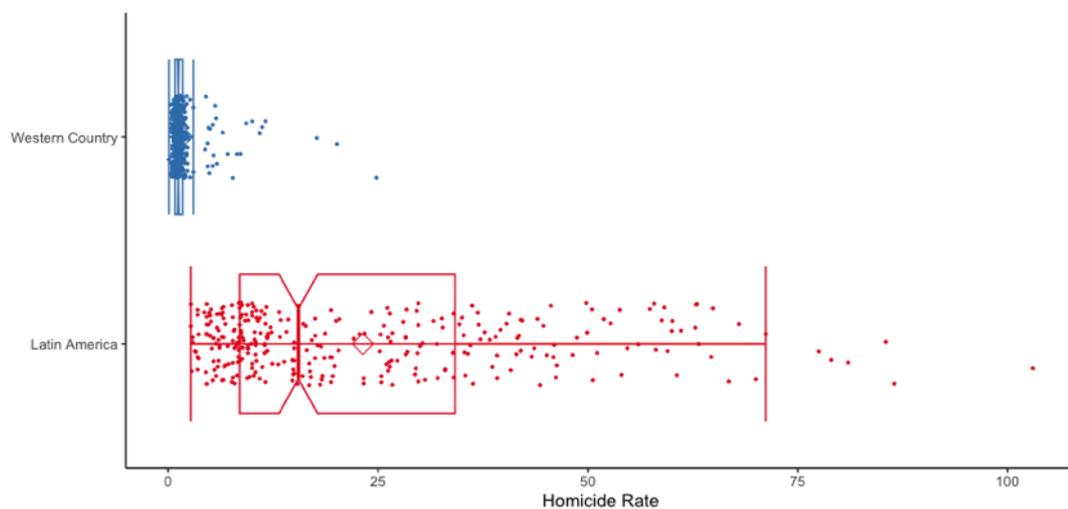


Source: own elaboration with data from Homicide Monitor (2019). Note: dashed line at  $x=23$  shows the average homicide rate for Latin America.

The heterogeneity of the data shows that there are strong regional effects associated with intentional homicide. **Figure 3-4** is a boxplot of homicide rates showing the 1st and 3rd quartiles, and the dark line indicates the median homicide rate for the western countries and Latin American countries included in the data sample. The median for Latin America from 2005 to 2017 was 15 and the mean was 26.9. The median for Western countries was 1.7 and the mean was 9.1. Whiskers on the box plot extend to the maximum and minimum of the data.

Since homicide data is strongly skewed, a log transformation is usually recommended by researchers. Log transforming data has the effect of spreading out clusters of data and bringing together spread-out data. Statistical analysis and panel regressions assume normality of the data a log transformation helps keep this assumption (Gujarati & Porter, 2008). Another reason is to help meet the assumption of constant variance in the context of regression modelling. Several scholars, including Messner (1982), have dealt with the problem of a skewed distribution by logging homicide rates (Neapolitan, 1994; LaFree & Tseloni, 2006; Huebert, 2021).

**Figure 3-4: Boxplot comparing homicide rate by region (2005-2017)**



Source: own elaboration with data from Homicide Monitor (2019).

### **3.2.2. Independent Variables: Institutional factors**

#### **3.2.2.1. Government Effectiveness**

The indicator for Government Effectiveness (GE) was chosen from the World Governance Indicator (WGI) project of the World Bank. The WGI dataset was chosen as it is considered to be a reliable and comprehensive dataset for examining cross-national variations in governance (Kaufmann, Kraay & Mastruzzi, 2010). Data from the WGI project includes aggregate indicators representing the quality of governance. These data are created using a number of sources, including administrative data from the public and private sector, and data from citizen surveys. Six dimensions of governance are provided in the WGI data: voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law, and control of corruption.

Government effectiveness is defined by the World Bank (2019) as “perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies”. In the data that are used, variables such as quality of bureaucracy, institutional effectiveness, policy instability, quality of overall infrastructure and quality of public administration are included. The measure is provided as a standardised score ranging from -2.5 to 2.5, with a mean of zero and a standard deviation of one. Lower scores represent lower levels of governance. The data was extracted for the 52 countries and for all 12 years of the data set.

#### **3.2.2.2. Control for Corruption**

Control for Corruption was the second institutional independent variable included in the model. Although the World Bank WGI data includes a measure for corruption control, this measure is based on some variables that are used in the creation of the government effectiveness index. To avoid bias and reduce the risk of multicollinearity between the corruption and government effectiveness indicators, the data from the

Corruption Perception Index (CPI) of Transparency International (TI) was used. Additionally, the CPI was chosen because it is one of the best and most widely used measures of corruption (Haggard & Tiede, 2011; Seligson, 2006). The CPI (2010, p.2) defines corruption as "the misuse of public power for private benefit". The CPI is a composite index that combines different international surveys and assessments of corruption, collected by a variety of institutions (TI, 2018). The index draws on 13 surveys from independent institutions specialising in governance and business analysis. The index rates 180 nations based on their perceived levels of public sector corruption, and scores them on a scale of 0 to 100, with 0 being highly corrupt and 100 being not corrupt. Data was obtained for all the entire sample of 52 countries used in the current research for each year between 2012 to 2017. Data prior to 2012 was not used because the index underwent a methodological change in 2012 and was not directly comparable (i.e., in terms of data units and content) to the data used after 2012 (i.e., it was important to ensure consistency in the indicators used in the panel regression analysis).

### **3.2.3. Control Variables: Structural Variables**

The Durkheimian perspective is one of the most common theories examined in cross-national literature (Nivette, 2011). As previously stated, development is thought to adversely affect crime rates (Bennett, 1991). The Gini index (as a proxy for inequality), an Education index, a measure of unemployment, and GDP per capita (as a proxy for poverty) were selected as control variables because of their use in previous studies that have suggested that these structural variables have a significant positive relationship for explaining international variations in homicides. To my knowledge, these variables have not been used together with institutional variables in previous studies. Urban population was also included as a variable to test if the patterning of homicides was associated with levels of urbanisation (Glaeser & Sacerdote, 1999). By doing so this could indicate that future programmes for the reduction of homicides need an approach that is focused towards urban areas rather than just a national approach.

### 3.2.3.1. Education Index

Education was included since it has been used in several previous studies on homicides and crime (Fajnzylber, Lederman & Loayza, 2002; Loureiro & Silva, 2012). The education index of the Human Development Index (HDI) was chosen as an appropriate measure of the education levels of each population. The HDI is a measure of average achievement in key dimensions of human development, namely, a long and healthy life, being knowledgeable and having a decent standard of living (UNDP, 2019). The HDI is the geometric mean of normalized indices for each of these three dimensions and consists of three separate indexes relating to health, living standards and education (UNDP, 2019). The health dimension is determined from life expectancy at birth (and is named the life expectancy index), the standard of living dimension is measured by gross national income (GNI) per capita (the GNI index), and the education dimension is based on the mean number of years of schooling for adults aged 25 years and more and expected years of schooling for children of school entering age (the education index). The education index is calculated by combining the average adult years of schooling with the projected expected years of schooling for children. Each of these components receives equal weighting in the calculation of the HDI's education index.

### 3.2.3.2. Gini coefficient as a proxy of inequality

Many cross-sectional and longitudinal studies have indicated a significant positive association between income inequality and homicide rates. (Messner, Raffalovich & Shrock, 2002). For example, Nivette (2011), in a meta-analysis study, found that the mean effect size of income inequality ranks very high, making it one of the most robust predictors of homicide (Nivette, 2011). The Gini index has been considered by scholars as the most appropriate data for measuring inequality (Neumayer, 2003; Koepfel, Rhineberger-Dunn & Mack, 2015) and has been used as a control variable for homicide rates in previous studies (Pridemore, 2008). The Gini index (or often also referred to as the Gini coefficient) is a statistical measure of distribution. It is often used as a gauge of economic inequality, measuring income distribution or, less

commonly, wealth distribution among a population. The coefficient ranges from 0 (or 0 percent) to 1 (or 100 percent), with 0 representing perfect equality and 1 representing perfect inequality. The Gini index was obtained from the World Bank Open Data source. Income inequality is generally considered a slowly changing concept, and as such any missing data points were filled by data from the nearest year (Messner et al., 2002; Nivette & Eisner, 2012).

#### 3.2.3.3. Unemployment

Data for unemployment was obtained from the International Labour Organization, ILOSTAT database. Unemployment is defined as the percentage of the workforce that is unemployed but looking for employment. It is important to note that the criteria for people considered to be seeking work, and the treatment of people temporarily laid off or seeking work for the first time may change across countries. The data measures the total unemployment (percent of total labour force) as a national estimate. Data was obtained for all 52 countries from 2005 to 2017.

#### 3.2.3.4. GDP per capita as a proxy of poverty

Development has received long-standing interest in cross-national research, with measures of economic development such as GDP being of particular interest (Nivette, 2011). Most studies that have examined explanations for variations in homicide levels have included a single or composite indicator of economic development (Oberwittler, 2019). GDP per capita was chosen since it is considered to be a relevant indicator of standard of living (Lappi-Seppälä & Lehti, 2014). GDP per capita is the gross domestic product divided by midyear population. It is the sum of gross value added by all resident producers in the economy, plus any product taxes and minus any subsidies that are not included in the value of the products. It is considered that the indicator indicates how prosperous a country feels to each of its citizens. Data on GDP per capita was obtained from the World Bank Open Data source for all the countries for the period of 2005 to 2017.

#### 3.2.3.5. Urban population

Demographic predictors are usually included in cross-national research as control variables. Some of these variables, it is suggested, have an influence on homicide levels and as a consequence cannot be ignored in models that examine variations in homicide (Nivette, 2011). Additionally, demographic variables are generally claimed as predictors for social disorganization, with rapid and disorganized urbanization being one of the quoted factors in increasing violence in a society (Neumayer, 2003). Various studies have suggested that characteristics of urbanisation in modern societies, such as heterogeneity in social structures, are factors that influence the growth of various forms of crime, including homicides (Loureiro & Silva, 2012). Separately, several authors have stated that homicides are an urban phenomenon that take place in specific neighbourhoods within cities, where the urban poor are directly or indirectly implicated in such violence (Vilalta & Muggah, 2014). Also, rapid, unplanned urbanization is a problem in the region (CEPAL, 2016) that has created many slum areas, characterized by poor infrastructure and a noticeable lack of government presence (Alda, 2017).

Urban population refers to people living in urban areas as defined by each country's statistical agency. It is based on population estimates from the World Bank and urban ratios from the United Nations World Urbanization Prospects. Urban population data is presented as a percentage of the total population and was obtained from the World Bank Open Data source for all countries in the model, from 2005 to 2017

### 3.3. Results

**Table 3-1** shows the univariate statistics for the variables used in the analysis. The statistics reveal considerable variation in homicide rates, ranging from a low of 0.1 per 100,000 population in Greece (2006) to a high of 103 per 100,000 population in El Salvador (2015), with a mean of 11.3. A high level of variation was also observed in most of the other variables, for example the CPI varied from 17 in Venezuela (2015 and 2016) to 92 in Denmark (2014). The small variations in N (from a maximum of 702 for each variable shown in **Table 3-1**) was because of data not being available for all variables for each year for all countries. Recall that the data for CPI was for 2012 to 2017 hence the lower N for this variable.

**Table 3-1: Descriptive statistics covering all countries**

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Homicide rate	701	11.3	16.8	0.1	1.1	13.1	103.0
GE	702	0.5	0.9	-1.4	-0.3	1.5	2.4
CPI	318	53.4	20.7	17.0	36.0	73.0	92.0
Education	702	0.7	0.1	0.4	0.7	0.9	0.9
Gini Index	646	38.3	9.0	23.7	31.1	45.9	59.5
Unemployment	702	7.9	4.9	1.6	4.8	9.1	31.1
GDP per capita	699	22,347.8	21,345.5	1,034.3	5,643.6	40,636.8	103,059.2
Urban	702	69.9	14.6	26.4	57.9	80.6	98.0

As a preliminary test a correlation matrix was prepared across all countries and variables. The correlation measures the strength and direction of the linear relationship between two variables. The values of the correlation coefficient range from -1 to +1. The closer it is to +1 or -1, the more closely are the two variables related. For example, the negative sign signifies the direction of the correlation i.e., if one of the variables decreases, the other variable is also expected to decrease.

The correlation matrix below (see **Table 3-2**) shows that all variables were significantly correlated with homicides ( $p < 0.01$ ). As was expected, GE (-.54;  $p < 0.01$ ) and CPI (-.52;  $p < 0.01$ ) were found to be negatively correlated with homicides,

indicating that lower levels of government effectiveness and control of corruption were associated with higher levels of homicide. Education (-.64;  $p < 0.01$ ), unemployment (-.13;  $p < 0.01$ ), poverty (-.45;  $p < 0.01$ ) and urban population (-.24;  $p < 0.01$ ) were all negatively correlated with homicides. These results suggest that lower levels of education and GDP per capita were associated with higher levels of homicides. Rather unexpectedly, the results in the correlation matrix suggest that lower levels of unemployment and lower levels of urban population were associated with higher levels of homicides. These findings for unemployment and urban population are different to some findings shown in other studies that have suggested a positive relationship. However, what is consistent with previous work is that the correlation values for unemployment and urban population are small. The Gini index, as expected, was positively associated with homicides (.58;  $p < .01$ ).

Government effectiveness and control of corruption were significantly correlated with all other variables except for unemployment. In addition, many of the other independent variables were correlated with each other. I further review multicollinearity below.

**Table 3-2: Correlation matrix of independent variables and their global relationship with homicide**

Variable	Homicide rate	GE	CPI	Education	GINI	Unemployment	GDP capita
Homicide rate							
GE	-.54**						
CPI	-.52**	.95**					
Education	-.64**	.81**	.79**				
Inequality	.58**	-.69**	-.64**	-.78**			
Unemployment	-.13**	-.05	-.03	.02	-.20**		
GDP capita	-.45**	.86**	.85**	.73**	-.62**	-.14**	
Urban	-.24**	.43**	.45**	.42**	-.11**	-.20**	.43**

Note: \* indicates  $p < .05$ . \*\* indicates  $p < .01$ .

**Table 3-3: Regression results for Models 1, 2 and 3.**

<b>Results</b>			
	<i>Dependent variable:</i>		
	Logged Homicide Rate		
	(1)	(2)	(3)
Government Effectiveness	-0.685*** (0.076)		-0.532*** (0.118)
Control for Corruption		-0.028*** (0.005)	-0.017*** (0.005)
Gini Index	0.019*** (0.006)	0.079*** (0.011)	0.074*** (0.011)
Education	1.272*** (0.401)	-0.377 (0.770)	0.371 (0.762)
Unemployment	-0.010** (0.004)	0.005 (0.009)	0.004 (0.008)
GDP per Capita	-0.00001** (0.00000)	0.00000 (0.00000)	0.00001* (0.00000)
Urban Population	0.004 (0.006)	0.011 (0.008)	0.013* (0.008)
Constant	-0.153 (0.628)	-0.965 (0.920)	-1.843** (0.920)
Observations	642	288	288
R <sup>2</sup>	0.205	0.354	0.389
Adjusted R <sup>2</sup>	0.197	0.340	0.373
F Statistic	163.685***	153.910***	178.072***

*Note:* \*p<0.1, \*\*p< 0.05, \*\*\*p <0.01

The VIF for each variable in model 1 was no greater than 1.3 suggesting that multicollinearity was not present in the model. **Table 3-3** shows the regression results for the first three models. In model 1, all variables except urban population were found to be significant. Government effectiveness was significant, and in the expected direction ( $r = -0.685$ ,  $p < 0.01$ ), indicating that a one-unit increase in GE could generate a decrease in homicide rates of 1,98. The GINI Index ( $r = 0.019$ ,  $p < 0.01$ ) and education variable ( $r = 1.272$ ,  $p < 0.01$ ) were also significantly positively correlated to homicide. GDP per capita and unemployment were significantly

negatively correlated to homicide ( $p < 0.05$ ), indicating that a decrease in these variables would increase the homicide rate.

The VIF for each variable in model 2 was no greater than 1.6 suggesting that multicollinearity was not present in this second model. In model 2, control of corruption was significant and in the expected direction ( $r=-0.028$ ,  $p < 0.01$ ). This result suggests that a one-unit increase in control of corruption could decrease homicide rates by 1.02. The GINI Index was also significant ( $r= 0.079$ ,  $p < 0.01$ ), however, all the other variables were not significant.

The VIF for each variable in model 3, that included both government effectiveness and control of corruption alongside the other independent variables, was no greater than 2.0 suggesting that multicollinearity was not present. The model 3 results show that both the government effectiveness ( $r = -0.532$ ,  $p < 0.01$ ) and control of corruption ( $r = -0.017$ ,  $p < 0.01$ ) were significant (and in the expected direction). When considered together in a model, these results suggest that a one-unit increase in government effectiveness could decrease homicide rates by 1.7 and that a one-unit increase in control of corruption could decrease homicide rates by 1. The GINI Index ( $r=0.074$ ,  $p < 0.01$ ) was the only other variable that was significant. Model 3 also recorded the highest adjusted  $R^2$  of 0.373 and the lowest AIC value suggesting that Model 3 was the better of the three models.<sup>1</sup>

Results show that models 1, 2 and 3 were significant (as indicated by the F test results). Model 1 presented a relatively low adjusted  $R^2 = 0.197$ , while models 2 and 3 have an acceptable adjusted  $R^2$  of 0.340 and 0.373 respectively, indicating that those regression models have more explanatory power. The model that provided the best fit was Model 3, based on the highest  $R^2$ . It is worth noting that for panel data analysis, due to heterogeneity of cross sections,  $R^2$  values tend to not be high.

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<sup>1</sup> In panel regression, adjusted  $R^2$  values do not tend to be high (i.e., greater than 0.8) because of heterogeneity in the cross sections of data.

**Figure 3-5: Regression results for models 4 and 5**

<b>Results</b>		
	<i>Dependent variable:</i>	
	Logged Homicide Rate	
	(4)	(5)
Government Effectiveness	-0.266* (0.149)	-0.576*** (0.183)
Control for Corruption	-0.017*** (0.006)	0.006 (0.010)
Gini Index	0.052*** (0.020)	0.023 (0.017)
Education	2.957*** (0.963)	0.587 (1.267)
Unemployment	0.005 (0.008)	-0.007 (0.023)
GDP per Capita	0.00001* (0.00000)	-0.00003 (0.00002)
Urban Population	0.008 (0.009)	-0.004 (0.014)
Constant	-3.406*** (1.091)	1.569 (1.508)
Observations	179	109
R <sup>2</sup>	0.222	0.194
Adjusted R <sup>2</sup>	0.190	0.139
F Statistic	48.761***	23.834***
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01	

Model 4 includes only Latin American countries while model 5 includes only the rest of the countries of the sample. In model 4, all variables except unemployment and urban population were found to be significant. Government effectiveness was significant ( $r = -0.266$ ,  $p < 0.1$ ) and control of corruption was significant ( $r = -0.017$ ,  $p < 0.01$ ), in both cases in the expected direction. The GINI Index ( $r = 0.052$ ,  $p < 0.01$ ) and education variable ( $r = 2.957$ ,  $p < 0.01$ ) were also significantly positively correlated to homicide. The VIF for each variable in model 4 was no greater than 1.9 suggesting that multicollinearity was not present in the model.

In model 5, that included only all the non-Latin American countries, government effectiveness was the only significant variable ( $r = -0.576$ ,  $p < 0.01$ ) in the expected direction. All other variables, including control for corruption, were found to not be significantly related to homicides. The VIF for each variable in model 5 was no greater than 1.5 suggesting that multicollinearity was not present in the last model.

### 3.4. Discussion

Over the last decade, Latin America has made considerable improvements in economic and social development. This includes improvements in inequality and decreases in poverty (Lustig, 2014; ECLAC, 2015; Rosen & Kassab, 2018). However, over this same period, the levels of homicides have increased. This has raised doubts about the extent to which structural factors provide explanatory reasoning for the high levels of homicides that are experienced in Latin America. Therefore, the examination of other and perhaps more contextually specific factors that may be associated with homicides (and with crime more generally) is needed for explaining the high levels of homicides in the region.

The current study involved testing three hypotheses:

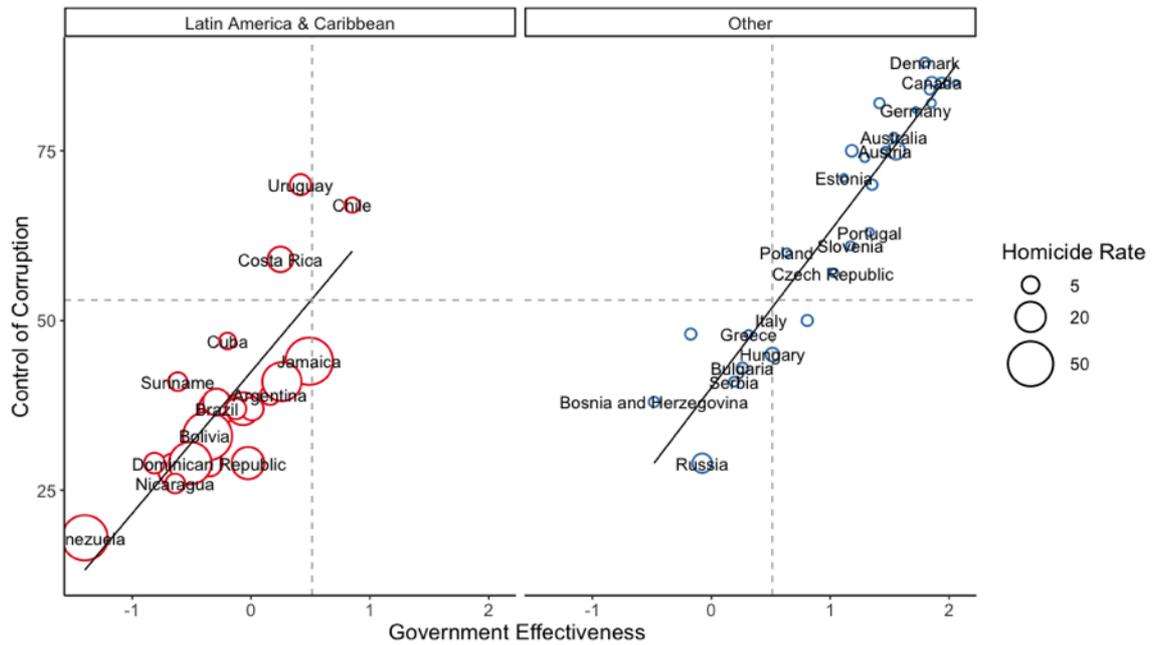
- i) Hypothesis 1: Countries with higher levels of government effectiveness are more likely to experience lower levels of homicides.
- ii) Hypothesis 2: Countries with lower levels of control of corruption are more likely to experience higher levels of homicidal violence.
- iii) Hypothesis 3: Countries from the Latin American region are more likely to exhibit institutional weaknesses, associated with higher levels of homicidal violence.

The results from the current study show that homicide rates were higher in countries that had lower levels of government effectiveness, were higher in countries where there were poorer controls of corruption, and that Latin American countries tended to have lower levels of government effectiveness and poorer control of corruption

(see **Figure 3-6**). The results also showed that most structural variables were not significant when the institutional variables of government effectiveness and controls of corruption were included in the model, with the exception of inequality. Further, results showed that when only Latin American countries were included in the model, institutional variables of government effectiveness and control for corruption, and inequality and education were significantly related to homicides. However, when only non-Latin American countries were included in the model, only government effectiveness was a significant predictor of homicides. This may indicate that in more developed regions, structural variables are not significant variables that help explain variations in homicide. Of note also was that the indicator for the control of corruption was not significantly related to homicide levels in these non-Latin American countries. Importantly, these results suggest that government effectiveness seems to be a significant variable that helps to explain the variation in homicides rates for many countries across the world, and that in addition the control of corruption is a particular institutional variable that is of relevance in Latin American settings when considering variations in homicide.

**Figure 3-6** shows control for corruption and government effectiveness for Latin American and Caribbean countries on the left and for the other countries included in the data sample on the right. The sizes of the marks represent the homicide rates. The figure illustrates how most Latin American countries have negative values for government effectiveness, corruption control and high values of homicide rates in contrast to the other countries, providing further illustrative support for the three hypotheses tested in the current study.

**Figure 3-6: Government effectiveness and control of corruption (2017)**



Source: own elaboration with data from the World Bank, Transparency International and Homicide Monitor (2017). Note: the dashed line at  $y=53$  represents the average for CPI, while the dashed line at  $x=0.513$  represents the average GE of the data sample.

Since the 1970s, several studies have reported that countries that have higher levels of income inequality tend to have higher levels of homicide (Chamlin & Cochran, 2006). The result from the current research supports this argument. The results show that inequality (as measured by the GINI index) was significant in the first four models, alongside the significant relationships observed for the two institutional variables in each model. When only non-Latin American countries were included in the model, inequality was not significant. These results, however, must be interpreted with care because there are some countries in Latin America that experienced low levels of inequality and high levels of homicides, and vice versa. For example, Uruguay has one of the lowest measures for inequality in the region but has experienced increases in levels of homicides in recent years, to the point that it became the fourth most violent country in South America in 2018 with 11.3 homicides per 100,000 population. Conversely, Paraguay, Bolivia, and Panama score high levels of inequality but have low levels of homicides. However, overall, the results from the current study indicate that alongside government effectiveness and

corruption control, inequality is a variable that offers explanation to the high homicide rates experienced in Latin America.

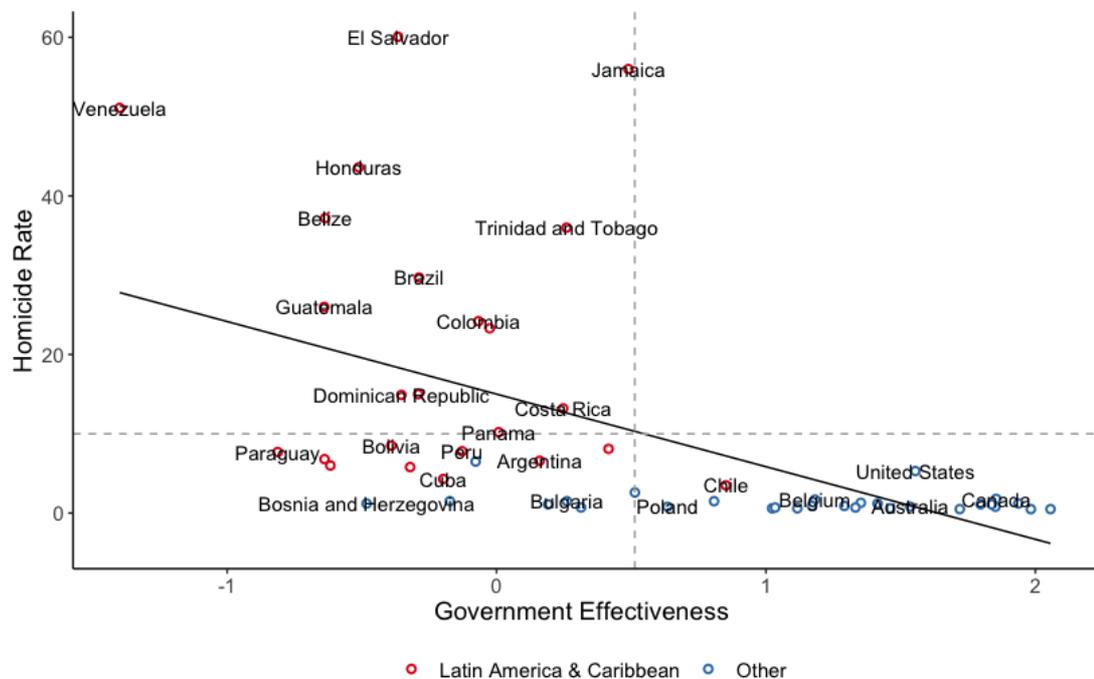
Regarding GDP per capita (as a proxy for poverty), Pridemore (2008) had concluded that the positive relationship between poverty and homicide is the most consistent finding in the literature. The results from the current study do not support Pridemore's argument, nor do the results support other more recent studies (e.g., Pare & Felson, 2014) that state that poorer countries suffer the most homicides. GDP per capita was only significant in Model 1 (that included government effectiveness) but was not significant in either of the two other models when control of corruption was included. However, this conclusion must be treated with some caution because, as argued by Kliksberg (2008), both inequality and poverty feed off each other, indicating that the measurement of one variable may reduce the impact of the other if both are included in the same model.

Additionally, the education variable was also only significant in Model 1 and Model 4. The findings in Model 1 suggests that education was a significant variable when the use of more years of data was included in the model, suggesting that education may still be a variable of interest. Of particular note was that education was significant in model 4 when only Latin American countries were included. This result suggests that efforts that are oriented to improving education levels in the region could be of benefit in reducing homicides. Education was not significant in model 5, suggesting that in more developed regions education levels do not offer an explanation for variations in homicide levels. Unemployment was significant only in model 1, while urban population was only significant in model 3. The results from the current study reaffirm what the literature has established in recent years, that some structural variables are not the most relevant predictors of homicides.

The study shows that Latin American countries experience low levels of government effectiveness and high homicide rates, in contrast with other countries in the models. Further, results show that the levels of government effectiveness were a significant negative predictor of homicide rates, when all countries were included in the model,

when only those countries in Latin American were examined and only when non-Latin American countries were examined in the regression models. However, although relevant for Latin American countries and non-Latin American countries, the relationship between government effectiveness and variations in homicides appears to be most pronounced in non-Latin American countries. This may indicate that in less developed regions there are more variables at play that help explain variations in homicides, while in the most developed regions, institutional effectiveness appears to be key factor to maintain lower levels of homicides (see **Figure 3-7**).

**Figure 3-7: Government Effectiveness and Homicide Rates (2017)**



Source: own elaboration with data from Homicide Monitor and World Bank. Note: dashed line at  $y=10$  represents the average homicide rate while the dashed line at  $x=0.513$  represents the average GE of the data sample.

It would seem that if institutions are perceived as ineffective, people withdraw their support for these institutions, contributing to weakened formal and informal control mechanisms. It is also likely that low levels of government effectiveness affect levels of societal compliance since it hinders institutional legitimacy. As stated, for institutions to be considered legitimate, they need to meet certain standards of effectiveness and fairness (Hough et al., 2013). Also, when a government enforces its rules in a stable and fair way, citizens can assume that others will play by the rules

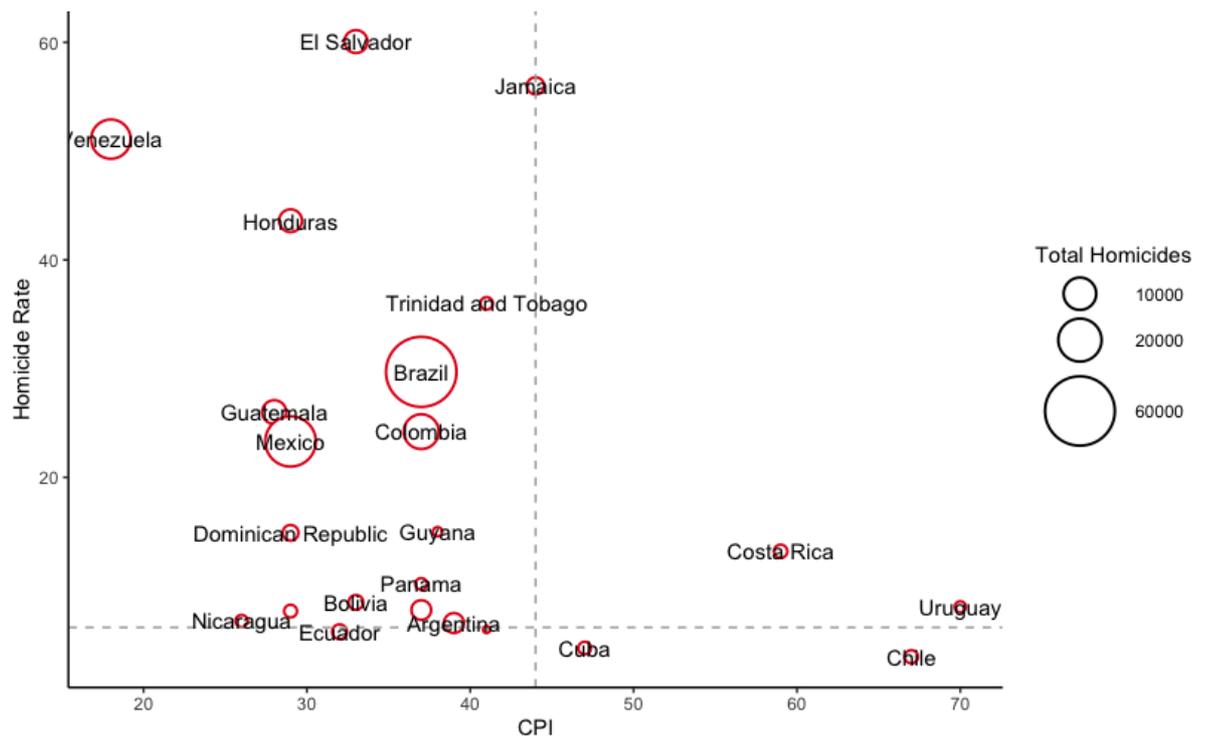
and that the rules will endure into the future. However, ineffective institutions go against the idea that everybody is under the same set of rules and may incentivise others to avoid abiding by those rules. In sum, different levels of government effectiveness have important effects on citizens expectations and behaviour that may lead to rising levels of homicides that appear to be particularly present in the Latin American context.

Related to the above, corruption can have a damaging effect on the public's perception of the governing institutions, and therefore influences how people behave towards these institutions. Legitimacy is affected by the extent to which justice institutions operate according to moral standards (Beetham, 1991; Hough et al., 2013) that corrupt institutions are unlikely to have. Moreover, corruption erodes the functioning of the state and its ability to perform its most basic services, such as providing security and resolving conflicts between people. Moreover, if citizens perceive that certain people may escape the law, they may engage in extra-legal activities by understanding that the law and rules do not apply to the whole population equally.

It seems surprising that corruption has rarely been tested as a predictor of homicide (Oberwittler, 2019), considering the role of corruption in dysfunctional governance and its impact in citizens expectations. The feeling of trust in government and the officials who run it is fundamental to a peaceful society (Roth, 2012), and hence reducing corruption would seem to be necessary to reduce crime. A recent work of de Soysa and Noel (2018) found that more corruption was associated with higher homicide rates, when controlling for economic indicators, with these results appearing to support this conclusion from the current study. According to the models, control of corruption is a significant negative predictor of homicides particularly when only Latin American countries are included in the model (i.e., model 4). It was noted that in model 5 (that only included non-Latin American countries), corruption was not a significant variable, emphasising that the issue of corruption and its relationship with homicide is, perhaps, a unique characteristic of countries in Latin America.

The association between corruption and homicides, however, does not appear to be the case for all countries in the region because some of the most corrupt countries of Latin America have experienced low levels of violence. For example, Nicaragua, Paraguay, Bolivia, Peru, and Panama are all considered to be highly corrupt countries, but experience homicides rates that are close to or below the mean for the world. On the other hand, Costa Rica is the third least corrupt country in Latin America but has suffered increasing levels of homicides in recent years. **Figure 3-8** shows homicide rates against levels of control for corruption for Latin American and Caribbean countries. The figure shows a relative diversity within the data although a central tendency is present: many violent countries Latin America are corrupt, but not all corrupt countries are violent.

**Figure 3-8: Control of Corruption and Homicide rates (2017, Latin American and Caribbean countries)**



Source: own elaboration with data from Homicide Monitor and Transparency Interaccional (2017). Note: dashed line at y=44 represents Latin Americas CPI average, while dashed line at x=23 represents Latin American average homicide rate of the data sample.

As noted previously, there is a strong correlation between government effectiveness and control for corruption. Efforts were made to avoid the possibility of

multicollinearity by using two different data sets and applying tests for multicollinearity. Results showed no issues of multicollinearity in the models we used, however, the causality and order of these two dimensions of governance remains unexplored. The strong correlation between the two variables indicates that a change in one variable will directly affect the other. For example, higher levels of corruption can lead to lower government effectiveness, which in turn can lead to an increment in the levels of homicides. Vice versa, a less effective government may provide more opportunities for corruption and in turn affect homicides. It would be logical to estimate that the weakening of one variable will affect the other hampering the overall functioning of a government. However, these relationships have not been explored in the current study and warrant further research.

Finally, it is important to mention that all models explain a relatively small percentage of the homicide phenomenon in the region - the statistical measure of fit, the  $R^2$  was not considered to be high. However, it is important to state that in panel data analysis,  $R^2$  is not particularly informative, and focus should be put more on individual significance and overall significance of the model instead of the  $R^2$  or adjusted  $R^2$  values. In general terms,  $R^2$  is low in cross sectional data as compared to time series data. In panel data due to heterogeneity of cross sections, it is generally not too high. Overall, including more explanatory variables boost the value of  $R^2$ . Yet, one must focus more on objectives of the research to be fulfilled from individual significance and overall significance of the model making sure that there is no model specification bias and to avoid spurious regressions.

The analysis in the current study supports the argument that, even though some structural and institutional variables are associated and have a predictive value regarding homicide rates, there are additional factors that are contextually relevant to the Latin American region that have not yet been explored, warranting further research. This finding comes as no surprise, considering the complexity of homicides as a phenomenon that needs to be understood and addressed from multiple disciplines, taking into consideration the different dimensions, contexts, and surroundings in which it occurs.

### 3.5. Research Limitations

Although the current study offers useful findings, it presents several limitations. Cross-sectional designs are susceptible to the problem of omitted variable bias: unmeasured country variables could be confounded with the homicide rate, rendering its associations with predictors spurious (Oberwittler, 2019). Associations found in cross-sectional models can, in general, not be interpreted as causal, as effects could work in both directions. Another common challenge with cross-national analysis is the sample size and the quantity and quality of data. Increasing sample size is a difficult task in cross-national research, where the data required to test a hypothesis may only be available for a small number of countries (Marshall & Block, 2004). This was evidenced in the variables of inequality and CPI, where sample size needed to be adapted or reduced. Additionally, countries included in the regression were mostly western and Latin American, and as such conclusions should not be generalized for every region in the world. Further research should reproduce the current study, including countries that represent all the different regions of the world to capture possible variations.

Probably the biggest limitation for this study is the use of the institutional variables as they are a compilation of perception data from distinct sources belonging to NGOs, entities from the public and private sectors, citizen surveys and the opinion of experts. The major concerns for the use of perception data are the subjectivity, and the extent to which these perceptions adequately capture reality, leading to the systematic biases in perceptions data. The possible sources of bias can be the different perceptions of respondents under one sole underlying reality, the ideological, political, or cultural orientation of the source and recent economic and social performance of a country. Kaufmann, Kraay and Mastruzzi (2004) address these concerns by the comparison of the responses of different types of respondents and different types of sources on the same topic, finding no significant differences and hence adding confidence to the reliability of the data.

While the concept of assessing perceptions comes with its own pitfalls, it is the best method available, given the difficulty of assessing governance itself and specifically more complex issues within the context of governance, like corruption and government effectiveness (Jong-Sung & Khagram, 2005). Moreover, in the area of governance, perceptions matter, as government entities design their policies and evaluate their impact on the citizens' impressions, perceptions, feelings and views that may change their attitudes depending on their perception towards those institutions. This is also true for social dynamics such as corruption, where the citizens are both involved and affected. Therefore, these perceptions are important because people base their decisions on their environment and surroundings. Finally, there are few alternatives to relying on perception data in matters such as corruption due to its hidden nature and in terms of governance because 'fact' measures or statistics do not necessarily portray the real context. In consequence, despite these limitations, this study justifies the value of the use of people's perception to capture the level of corruption and government effectiveness.

### 3.6. Conclusion

This research brings light to an under explored area in the literature - the relationship between homicides and public institutions in Latin America. As a main conclusion, the capacity and strength of government institutions matter. The research shows that countries that are not able to maintain accountable and effective governance and keep levels of corruption relatively low are likely to experience higher rates of homicide. Latin American countries tend to fail in the three dimensions: governments are not effective; tend to be corrupt, and high homicides rates are prevalent. It seems that the perception that government rules are applied to all its population, fairly and efficiently, are fundamental for the rest of the population to comply with such rules.

Moreover, the research shows that socio-economic structural variables, in particular inequality (and in some contexts education), do have a role to play in helping understand the variation in homicide levels but fail to explain the full extent of the high levels of homicide experienced in Latin America. Future research should explore

if these results remain significant with other crimes and in the building and strengthening of government institutions in developing countries.

The present findings have important implications for researchers, practitioners, and policy makers particularly regarding the government institutions and its strength in Latin America. For example, the antidrug policies are generally focused on attacking contributing and minor necessary factors such as unemployment or poverty, but most policies do not deal with the underlining norms on governance and institutional strength (Thoumi, 2014). It is important to note that the macro level is just one of several levels on which social processes are shaped, and therefore statistical correlations at the nation-level cannot offer thorough evidence to test theories of crime causation. The advantage of cross-national analysis turns into a disadvantage when it comes to the social mechanisms which are presumed to translate macro-level structural conditions into micro-level contexts (Kittel, 2006). Hence further study must be done on a country by country or city by city basis, or even including smaller levels of analysis, such as the neighbourhood level. The conclusion that government characteristics are relevant when predicting violence implies that every country must be analysed separately.

To conclude, government effectiveness and corruption are not empty concepts, and criminologists have yet to fully embrace their explanatory potential. A theory of violence that is relevant to Latin America should consider social and economic factors that are present in the region; however, it would be incomplete if it fails to incorporate an institutional perspective in its framework.

Following this conclusion, in the next chapter I examine the levels of effectiveness and corruption specifically within the criminal justice system in Latin America. Since these variables appear to be relevant predictors of homicide, it is important to understand how they impact upon the main institutions in charge of capturing, processing, and rehabilitating criminals.

## 4. Effectiveness and corruption in the criminal justice system in Latin America: an overview

### 4.1. Introduction

Today, Latin America is the region with the highest homicide rate in the world. With only eight percent of the world's population, 33 percent of global homicides occur in the region (Jaitman & Ajzenman, 2016). In 2017, homicide rates in Central and South America were 300 percent higher than the global average (Carbonari et al., 2020; UNODC, 2019). Furthermore, for every homicide that was committed, it is estimated that a further 20 to 40 non-fatal violent crime occur (Imbusch, Misse & Carrion, 2011).

Previous research has shown that the causes of crime, and in particular homicides, are varied in Latin America (Imbusch, Misse & Carrion, 2011; Cano & Rojido, 2017; Oberwittler, 2019). The cross-national literature has progressed from classical structural variables such as inequality, poverty, and unemployment, to more recent variables such as urbanization, youth population, population household disruption, religion, political structure, among others. More recently, researchers have turned towards the topic of institutional capacity (Eisner, & Nivette, 2013; Azfar & Gurgur, 2005; De Boer, & Bosetti, 2015; Lafree & Tseloni, 2006).

The first empirical chapter of this study (Chapter 3), has shown that institutional variables related to government effectiveness and control for corruption are relevant factors that help explain variations in homicides (especially in Latin America), warranting further research. These results are consistent with a growing branch of empirical research on government institutions and development that recognise that the quality of institutions influence the social and economic outcomes (Dawson, 2013; Tebaldi & Mohan, 2010; Acemoglu, Johnson & Robinson, 2001). Following these results from the study in the previous chapter, in this chapter I examine the effectiveness of the criminal justice system (CJS) and corruption associated with the CJS in Latin America.

Latin America is a particularly useful place to study the consequences of institutional corruption and effectiveness. Although ineffective institutions are not confined to the region, these characteristics are more common and more extreme than in the advanced industrialized countries from which much of the institutionalist and criminological literature originates (Levitsky & Murillo, 2014). Indeed, O'Donnell (1998) termed a new concept, 'the unrule of law', to describe the poor state of institutions in the region.

The main institution in charge of providing security is the criminal justice system, which is composed of the police, the judiciary (i.e., the system of courts that adjudicates legal disputes and interprets, defends, and applies the law in legal cases) and the prison system. These institutions are in charge of deterring, capturing, punishing and rehabilitating criminals and as such, their effective functioning is fundamental to reduce crime and homicides. It is particularly relevant to focus on the police, judiciary and prison system not only because they are in charge of protecting citizens but because they comprise a central part of the government. As such, conclusions about the importance of fair treatment and respect of these institutions can be generalized to other government agencies (Beetham, 1991).

This research builds on the findings that homicide rates appear to be influenced by levels of effectiveness and corruption of government institutions, rather than only socio-economic structural variables such as the performance of the economy or inequality levels. The research also builds on Tankebe's (2012) observation that legitimacy in institutions is associated with the perceived effectiveness and fairness of these institutions. If institutions are ineffective and corrupt, citizens will consider them illegitimate and untrustworthy, which in turn will influence levels of crime and homicide. The belief in the rightfulness of institution is crucially dependent on them being perceived as treating people fairly, and effectively. Consequently, fully understanding how effective and corrupt are the institutions that focus on the prevention and reduction of crime seems paramount to reduce the levels of violence in the region. In short, the current research aims to answer questions relating to the effectiveness of and presence of corruption in the police, the judiciary and the prison system in Latin America. The questions the current research aims to answer are:

- i) Are the police, the judiciary and the prison system in Latin America ineffective and as a consequence this limits their ability to fulfil their duties in the prevention of violence?
- ii) Are the police, the judiciary and the prison system, in broad terms, corrupt?

The study in this chapter involves an examination of the research evidence about the effectiveness of the CJS in Latin America and presence of corruption, rather than an analysis that uses data specifically about these factors and the different parts of the CJS. This is because data about the specific effectiveness of the police, the judiciary, and the prison system for all countries in Latin America does not exist. Hence, rather than testing hypotheses (suited mainly for empirical analysis), the current study aims to answer the research questions that are listed above. To do so I examine the research evidence about how corruption and institutional effectiveness in the criminal justice system may affect crimes (and particularly homicides) in Latin America from which I draw several conclusions which are presented in the final section of this chapter. I begin by examining crime, institutional effectiveness, and corruption quite generally with respect to institutions and the CJS, and then conduct a more detailed examination using data and information from multiple sources. These are described in a Data and Methods section for consistency between the study presented in this chapter and other empirical studies in this thesis.

#### 4.2. Crime, institutional effectiveness, and corruption

According to Eisner (2013), the long-term drop in homicides correlates with the expansion of centralised government power and bureaucratic control over people's lives. In order to maintain a monopoly on force and power, the government must justify to citizens that its actions conform to rules, are administered fairly and effectively, and coincide with citizens' moralities (Tyler, 2006). The coercive power of the state is not as relevant as the trust and the legitimacy towards the institutions that hold that monopoly of force and punishment (Eisner, 2001; Nivette, 2013).

Comparative research on institutions has examined how variation in the stability and enforcement of formal rules shapes actors' expectations and behaviours (Levitsky &

Murillo, 2009) and that individuals are influenced by feelings related to trust and legitimacy towards institutions (Eisner & Nivette, 2013; Bradford, Milani & Jackson, 2017; Kyprianides et al., 2020; Tankebe, 2013; Malone & Dammert, 2020). For example, in a study that included 65 countries, Eisner and Nivette (2013) found legitimacy to be significantly negatively related to homicide. In another cross-national study that included a data set of 86 countries, evidence was provided of a statistically significant, negative, and robust relationship between state legitimacy and homicide (Dawson, 2017).

Legitimacy is the public acceptance of the right of the criminal justice system to wield power and define behaviour (Hough, Jackson, & Bradford, 2013; Bottoms & Tankebe, 2012). Researchers have characterized authority as legitimate when people "believe that the decisions made and rules enacted by that authority or institution are in some way 'right' or 'proper' and ought to be followed" (Bottoms & Tankebe, 2012, p. 124). For a criminal justice system to be legitimate it needs to meet certain standards of effectiveness, fairness, and accountability (Hough, Jackson & Bradford, 2013). As such, corrupt and ineffective institutions will lack legitimacy and trust and hence will affect crime and homicide. In sum, the primary mechanism at work is the delegitimization of the criminal justice system, which weakens the monopoly of violence, influencing individuals to use violence as a tool to find justice and resolve conflicts or to simply act outside the law for some type of benefit (Nivette, 2013).

If the criminal justice system is effective, people trust law enforcement institutions, believing them to be fair, impartial, and bound by the law (Herrmann, Thöni & Gächter, 2008). Conversely, when institutions are ineffective, people will not trust the law enforcement institution and withdraw their support towards them (Corbacho, Philipp & Ruiz-Vega, 2015). Complementary, if citizens have reduced access to the law, because the state cannot effectively enforce it and punish violations, people will look for alternative means of social control to provide security (Eisner, 2013). The failure of governments to provide fair and accessible legal processes and fundamental justice for their citizens has a corrosive effect on institutions, tarnishing the legitimisation of legal authorities, and in turn having an influence on crime and homicide levels. Essentially, if the law is unfairly enforced,

citizens cannot assume that others will comply with the set of rules and if required may act outside the law.

Moreover, corruption erodes the functioning of the criminal justice system and its ability to perform its basic services such as providing security and resolving conflicts between people. If citizens perceive that certain people may escape the law, they will engage in extra-legal activities by understanding that the law and rules do not apply to the whole population equally. Therefore, effective, and incorrupt institutions should reduce violence because they augment the support of the population towards them, and further increase support to the law and diminish antisocial views (Testa, Young & Mullins, 2017), leading to sustained decreases in crime. As Dawson (2017, p.2) stated “In criminological terms, effective states cannot simply rely on deterrence (i.e., the rational calculation to avoid coercive measures by the state for violations of the law) to promote law-abiding behaviour, but to a certain extent must also rely on voluntary compliance—that is, individuals willing to obey the law irrespective of the prospect of being sanctioned.”

### 4.3. Data and methods

This chapter is based on a high-level overview of primary research. It reviews the current state of the criminal justice system in Latin America by methodically reviewing data from several sources, particularly indexes. In total, seven data sources and indexes were reviewed and two regional surveys. Since not all results of surveys and indexes are published on a yearly basis, the period of researched is from 2010-2019, in both English and Spanish. Depending on the Index, different Latin American countries are included, in almost all cases all of Latin American countries are included, with several exceptions from the Caribbean. With the exceptions of the two regional surveys, the Latin American countries are compared with several countries from other regions of the world. This sample of countries differs from the sample of countries used in the first empirical study. The sources used are described in detail in the sections that follow.

#### **4.3.1. World Governance Indicators**

Data was collected from the World Governance Indicators provided by the World Bank (WB). These indicators provide aggregate and individual governance indicators for over 200 countries, for six dimensions of governance. Particular attention was placed on the indicators “Government Effectiveness” and “Control of Corruption”. Information regarding the variable Government Effectiveness is provided in Chapter 3.

The variable Control of Corruption “captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as ‘capture’ of the state by elites and private interests” (WB, 2019). Data was reviewed from 2012 to 2019.

#### **4.3.2. Corruption Perception Index**

Transparency International data from the Corruption Perception Index (CPI, 2018) was gathered. The CPI is a composite index, based on a combination of different international surveys and assessments of corruption, collected by a variety of reputable institutions. The index ranks 180 countries by their perceived levels of public sector corruption. More information on this variable can be found in Chapter 3. Data was gathered from 2012 to 2019.

#### **4.3.3. Rule of Law Index**

Data from the World Justice Project (WJP), Rule of Law Index was also reviewed. This index assesses the rule of law in 128 countries based on public views and experiences as well as in-country legal practitioners. The conceptual framework of this index includes eight factors and 44 sub-factors. In particular, this research takes data from factor one “Constraints on Government Power”, factor two “Absence of Corruption”, factor six “Regulatory Enforcement” and factor eight “Criminal Justice”. The specific sub-factors analysed are: “Government officials are sanctioned for misconduct”, “Government officials in the police and the military do not use public office for private gain”, “Government officials in the legislative branch do not use public office for

private gain”, “Criminal adjudication system is timely and effective” and “Correctional system is effective in reducing criminal behaviour.” Data was available from this Index for 2018 and 2019.

#### **4.3.4. Index of Public Integrity**

Data from the European Research Centre for Anti-Corruption and State-Building (ERCAS), data from the Index of Public Integrity (IPI) index was extracted. The IPI is carried out in 117 countries and assesses a society’s capacity to control corruption and ensure that public resources are spent without corrupt practices. The measurement of “Judicial Independence” was analysed. This indicator provides information relating to the question “To what extent is the judiciary in your country independent from influences of members of government, citizens, or firms? [1 = heavily influenced; 7 = entirely independent]”. This index is not published on a yearly basis. Data was collected for the most recent year, 2017.

#### **4.3.5. Global Impunity Index**

The Global Impunity Index was also reviewed. This index provides a measures of impunity for 59 countries using a quantitative methodology based on the analysis of the security and justice systems of these countries, as well as in the measurement of countries’ respect of human rights (GII, 2017). The index measures the structural and functional aspects of the security system and the justice systems from 0 to 100, with 100 being the worst possible score. This index is not published annually. Data was extracted for the most recent year, 2017.

#### **4.3.6. World Prison Brief**

Data from World Prison Brief (WPB) was used to research the functioning of the prison system in Latin America. The WPB is an online database providing free access to information on prison systems around the world. Data from the following classifications was used: “total prison populations, and prison population rates per 100,000 of the national population”, “the extent of pre-trial/remand imprisonment”

and “prison overcrowding, as indicated by occupancy levels”. Data was extracted for the most recent year, 2017.

#### **4.3.7. Latinobarómetro**

Latinobarómetro is an annual public opinion survey that involves approximately 20,000 interviews in 18 Latin American countries. Data from the survey of 2018 was extracted, in particular data regarding the trust towards the police, corruption in the police, trust towards the judiciary, corruption in the judiciary, corruption in public institutions and fear of crime.

#### **4.3.8. Latin American Public Opinion Project**

Latin American Public Opinion Project (LAPOP) is an academic institution that carries out surveys of public opinion in the Americas. LAPOP produces the AmericasBarometer, which is a comparative survey that covers 34 countries, including all of those in Central and South America, as well as Caribbean countries. In particular, opinions regarding the efficiency and confidence towards the police and the judiciary, and bribery and crime victimization was extracted from the 2017 and 2019 reports.

#### **4.3.9. United Nations Office on Drugs and Crime**

The United Nations Office on Drugs and Crime (UNODC) regularly provides global statistics on crime, criminal justice, drug trafficking, drug production, among others. Data produced by UNODC have multiple sources such as official data from member states and surveys carried out by UNODC. Data was obtained regarding homicide rates, conviction rates, homicide rate in prisons, police personnel rate and percentage of unsentenced detainees. Data was extracted for different years based on the availability of data, albeit using the most recent years of data that were available.

#### **4.3.10. Complementary sources**

The above mentioned data was complemented with data collected from international organizations, including the United Nations Development Programme (UNDP), the Organization of American States (OAS) and the Inter-American Development Bank (IDB).

### **4.4. Results**

#### **4.4.1. The effectiveness of institutions in Latin America**

Institutions in Latin America are commonly considered to be ineffective overall. According to data on “Government Effectiveness” from the World Governance Indicator of the World Bank (2018), the region has a rank of 51.5 out of 100 with Venezuela, Nicaragua and Bolivia ranking in the bottom 0-25 percental range. This compared to a rank of 87.5 for the OECD countries, to 69.5 for Europe and Central Asia, and to 56.4 for East Asia and the Pacific. Latin American countries systematically rank at the bottom of the Rule of Law Index for 2018. Specifically, under the variable “Regulatory Enforcement” which measures if regulations are fairly and effectively implemented and enforced, out of 128 countries in the world, Venezuela ranks last, Honduras ranks 117<sup>th</sup>, Bolivia 114<sup>th</sup> and Guatemala 107<sup>th</sup>.

The following sections provide an in-depth analysis of how the criminal justice system functions in the region, in particular the levels of effectiveness of the police, the judiciary (i.e., the system of courts that adjudicates legal disputes and interprets, defends, and applies the law in legal cases) and the penitentiary system.

##### **4.4.1.1. The effectiveness of the police**

Effectiveness can be measured by the capacity of the police to reduce crime. As already stated, Latin America has the highest homicide rates in the world with more than 23 homicides per 100,000 population, more than three times the world average (UNODC, 2018). The proportion of all homicides occurring in Latin America and the Caribbean increased from 29 percent in 2000, to 37 percent in 2009, and 39 percent

in 2017 (Alvarado et al., 2018). Other types of crimes such as robberies, assaults, and kidnappings have also become common in the region (UNDP, 2013). For example, in 2014 the robbery rate in Latin America and the Caribbean averaged 321.7 per 100,000 inhabitants, compared with a world rate of approximately 108. With the exception of Africa, burglary rates in Latin America are at least 40 percent higher, theft rates are 30 percent higher, and contact crimes are 70 percent greater than in any other region of the world (Soares & Naritomi, 2010). According to a recent study, Latin American countries have exceptionally high theft and assault victimisation rates when compared internationally (van Dijk, Nieuwebeerta & Joudo Larsen, 2021). Also, according to the 2019 AmericasBarometer, crime victimization has significantly increased in most countries of the region and has not decrease in any country in recent years. The sustained high levels of homicides and increases in other types of crimes suggests there is a prevalent ineffectiveness of the police to deter and reduce crime.

With these high numbers of crimes, it should come as no surprise that Latin Americans find the police to be highly ineffective. More than 20 percent of respondents of a recent poll across the region believed that the police would take more than three hours to respond to a crime or would simply not show up (LAPOP, 2017). These perceptions have been supported empirically: a recent study showed that Latin American police institutions, in comparison with the rest of the world, are 30 percent less efficient (Izquierdo, Pessino & Vuletin , 2018). Furthermore, all the countries in the region systematically rank lowest on the police productivity scale, being the measure of the number of suspects produced per police officer, compared to other regions in the world (with the only exception being Asia). Although research shows that there is no correlation between the rate of suspects and the levels of police officers per 100,000 population in a country, there appears to be a relationship between where there are poor performing police officers and high levels of crime (Harrendorf, Heiskanen & Malby, 2010).

Young Latin Americans consistently rank the police as one of the least respected public institutions, which is particularly important given the well-established link between age distribution and homicides. The empirical literature has shown that

young males, between 15 and 29 years, are the most common victims and perpetrators of homicides (Vilalta, Castillo & Torres, 2016; UNDP, 2013).

Finally, it is important to mention that the police seem to be understaffed in the region. The police personnel rate, on average, in Latin America is 283.9 officers per 100,000 population, while the world average is 341.8 police officers per 100,000 population (Harrendorf, Heiskanen & Malby, 2010). More recent data shows that the police personnel rate is still low in the region, for example in Honduras the rate is 160 (2017), in Paraguay 242 (2016) and in Ecuador 273 (2015). Governments in the region are trying to change this, for example, from 2014 to 2018, Colombia's police personnel rate increased from 317 to 367 and in Mexico from 336 to 355, however, albeit still at or below the world average (UNODC, 2021). Additionally, data shows that in major Latin American cities police are also underpaid - police officers earn on average 16 percent less than the rest of the public sector (Ortega, 2018).

Considering that countries in Latin America are some of the most dangerous in the world, and that the region is the most dangerous in the world, these results are at the very least, worrisome. A further analysis is needed to understand if quantity or the quality (i.e., education and police training) is relevant, because as several policing scholars have stated, the quality of policing is a crucial element in reducing violence (Braga, 2005; Cusson, 2013; Eck & Meguire, 2000; Weisburd & Eck, 2004). However, this debate seems secondary to Latin American policing that seems to lack both quantity and quality.

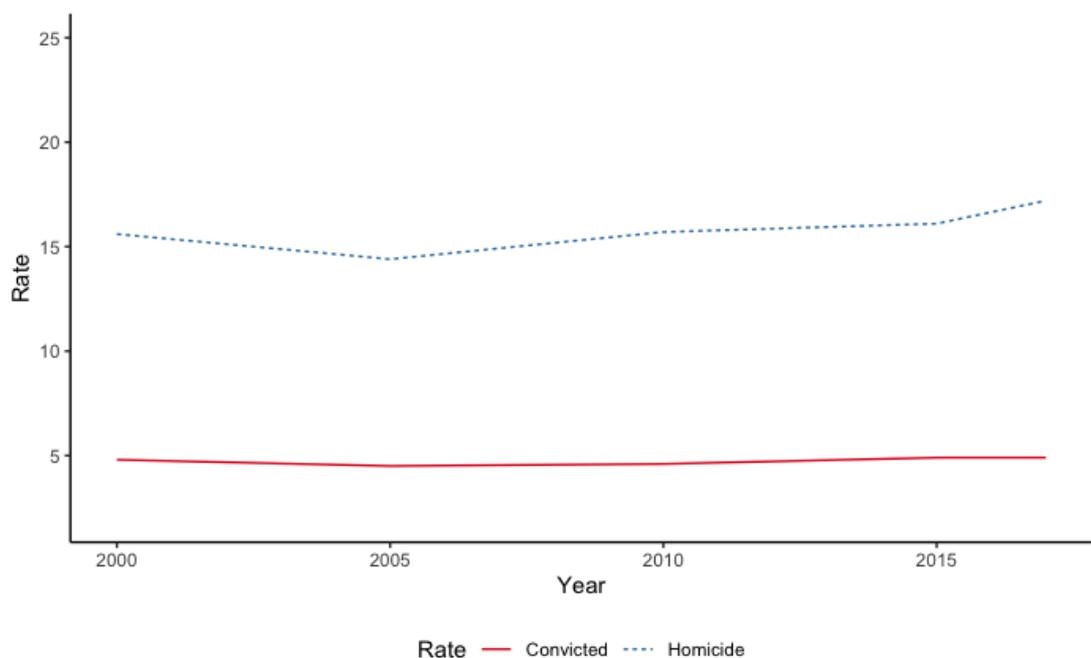
#### 4.4.1.2. The effectiveness of the judiciary

The Latin America judiciary is widely perceived to be in a state of crisis because it cannot fulfil its basic duties and expectations (Imbusch, Misse & Carrion, 2011). A feeling of distrust and frustration revolves around the judiciary (Dakolias, 1995) exemplified by the lack of confidence towards this institution. Confidence in the judiciary is low in the region. In 1997 and 2006, 36 percent of citizens trusted the judiciary, with this figure being as low as 19 percent in 2003 (Latinobarómetro, 2018). On average, less than 35 percent of Latin Americans are very confident that the judiciary would work as expected (LAPOP, 2017) and in 19 of the 29 countries studied

in the AmericasBarometer 2016/17, the majority of the public expressed little or no confidence that their attacker would be prosecuted.

Impunity levels are the higher in Latin America than any other region in the world. Researchers have shown that most Latin American judiciaries resolve under 5 percent of serious crimes (Ungar, 2013). According to UNODC data, the conviction rate per 100 homicide victims is also the lowest out of all the regions in the world (UNODC, 2014), with an average of only 24 homicide cases ending up in convictions for every 100 homicide victims recorded; much lower than 48 in Asia and 81 in Europe (UNODC, 2014; Garzón-Vergara, 2016). In some countries of the region impunity rates for homicides are astonishingly high, for example, in Mexico the impunity rate is approximately 80 percent and in Honduras and Brazil, 92 percent of homicide cases do not result in an arrest (OAS, 2012). **Figure 4-1** shows the homicide rate and the persons convicted of homicide rate in the Americas, clearly showing a substantial gap between one and the other.

**Figure 4-1: Rates of homicide and persons convicted of homicide (rate per 100,000 population), the Americas (2000-2017)**



Source: own elaboration with data from UNODC (2000-2017).

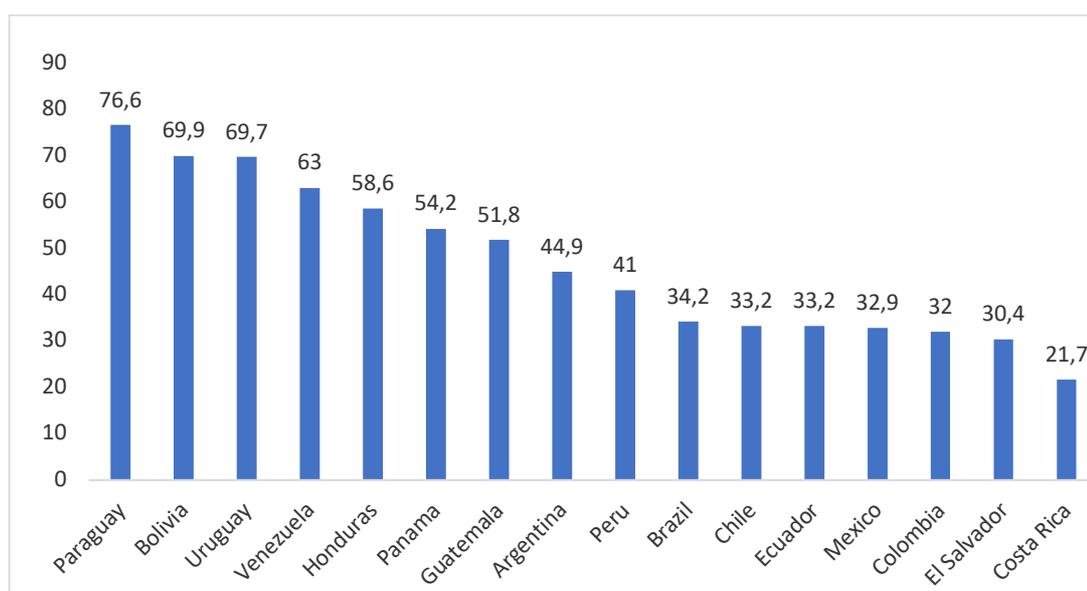
Data from the Global Impunity Index (GII) 2017 provides supplementary information in this regard. The index measures the structural and functional aspects of the

security system and the justice systems from 0 to 100, with 100 being the worst possible score. According to the GII, several Latin American countries are considered to have very high impunity levels: Mexico (69.21 points), Peru (69.04 points), Venezuela (67.24 points), Brazil (66.72 points), Colombia (66.57 points), Nicaragua (66.34 points), Paraguay (65.38 points), Honduras (65.04 points), and El Salvador (65.03 points) are among the thirteen worst ranked countries in the world. Additionally, no countries in Latin America for which GII was available have low impunity levels.

Furthermore, the percentage of unsentenced detainees in pre-trial detention in a prison is an indicator of the judiciary's efficiency. Overburdened and inefficient judiciaries may result in a considerable backlog of cases resulting in more suspects detained who are awaiting trial (UNODC, 2019). Again, Latin America fairs poorly, on average approximately 41 percent of people imprisoned do not have a sentence and are under the preventive detention regime (Izquierdo, Pessino & Vuletin, 2018; WPB, 2017). For example, in Paraguay 77 percent and in Uruguay 70 percent of persons held in custody were unsentenced (see

**Table 4-1).**

**Table 4-1: Percentage of total persons held unsentenced (2017)**



Source: own elaboration with data from UN-CTS and WPB-ICPR (2017).

It is important to mention that the judiciary has suffered from poorly organized, underfunded, and understaffed courts (DeShazo & Vargas, 2006). The prosecution personnel rate in the region is 5 per 100,000 population, while the world average is 8; the judge's rate is 5.9, while the world average is 11.5 (Harrendorf, Heiskanen & Malby, 2010). Although the relationship might not be linear, understaffing may further decrease the effectiveness of the judiciary.

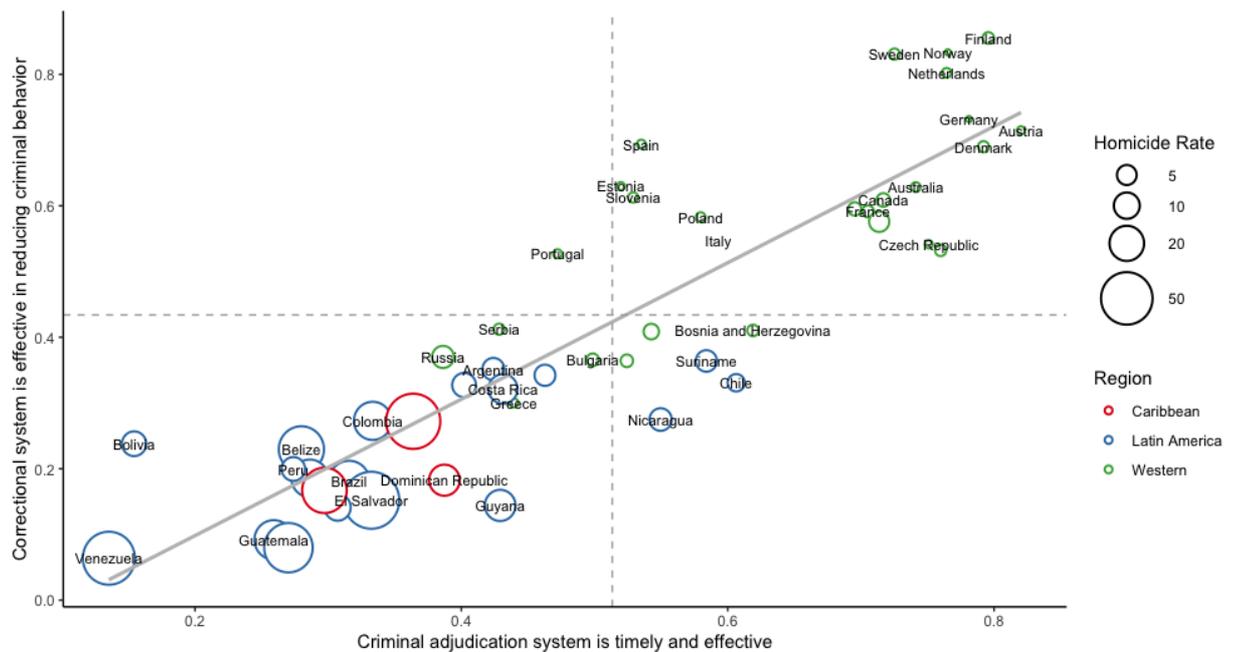
#### 4.4.1.3. The effectiveness of the prison system

Latin American countries' prison populations have increased by more than half in the last 15 years, with some countries' rates, such as Colombia and Brazil, more than doubling (Penal Reform International, 2015). No other continent has witnessed similarly high prison population growth rates (Vilalta & Fondevila, 2019). According to United Nations estimates, the world prison population rate, is 145 per 100,000. In South America the median rate is 233 and in Central American it is 316 per 100,000 population. This increase in prison population does not translate into investment in the prison system, with data showing that the prison system is one of the most neglected parts of the criminal justice system (Izquierdo, Pessino & Vuletin, 2018). According to recent research, on average, Latin American countries invest most of their security spending on the police (63.4 percent), followed by the judiciary (22.3 percent), and then prisons (8.7 percent). Compared to OECD countries, the region invests approximately 10 percent less in prisons. Additionally, there is substantial variation between Latin American countries, for example, spending on security in 2016 for Argentina was USD\$ 583 per capita, USD\$ 313 in Brazil, USD\$ 70 in Honduras, and USD\$ 32 in Nicaragua (Izquierdo, Pessino & Vuletin, 2018).

Moreover, prison staff rates in Latin America are very low, having 33 prison staff per 100,000 population compared to the world average of 54.4 (Harrendorf, Heiskanen & Malby, 2010). Prison staff are also low on educational attainment. In most countries of the region prison staff are usually only required to have some level of secondary education (Dammert, 2008). Furthermore, few countries in the region have schools or institutes for the professional training of prison staff (IDB, 2017).

**Figure 4-2** shows the relationship between the effectiveness of the correctional system in reducing criminal behaviour and the effectiveness and timeliness of the criminal system. Latin American countries systematically rank below the means of the data from the Rule of Law Index (2017). Of note is that countries that rank below the means seem to have high levels of homicide rates, while countries that rank above the means present low levels of homicides. This correlation does not mean causation, but it is clear evidence of the weakness of the system and of a possible relationship between the effectiveness of the correctional system and homicides. Particularly interesting is that very violent countries such as Venezuela, Guatemala, and El Salvador rank worst for the effectiveness of their correctional systems.

**Figure 4-2: Functioning of the criminal justice system (2017)**



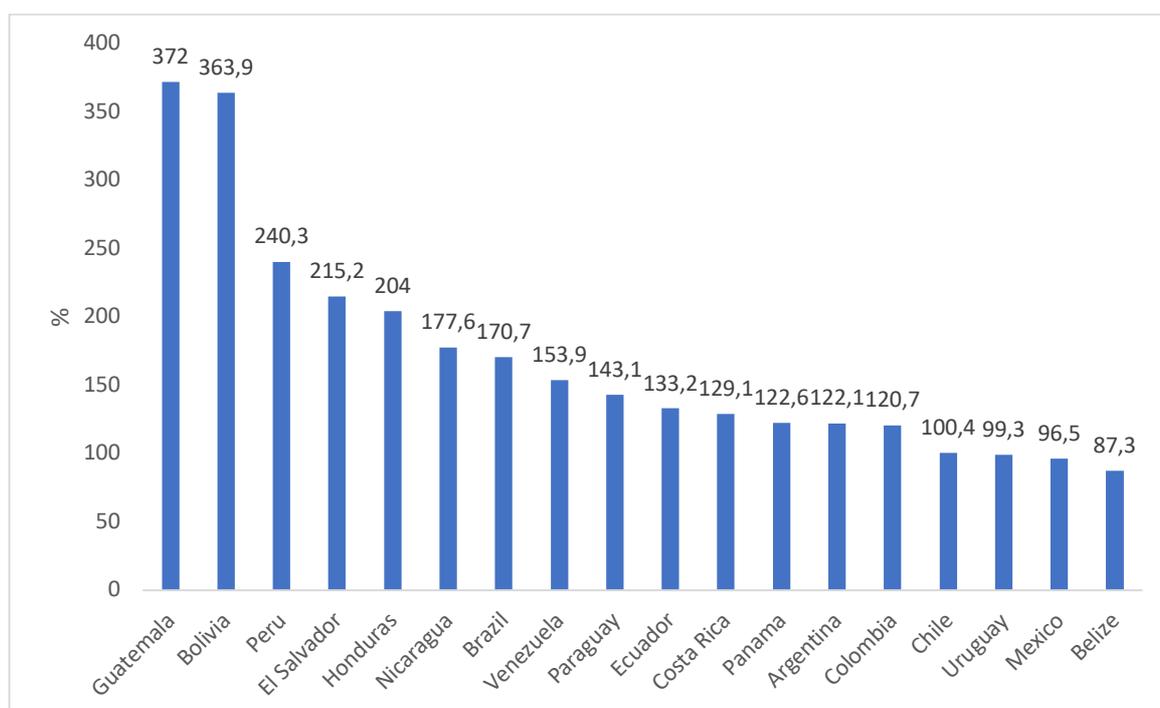
Source: own elaboration with data from World Justice Project (2017) and Homicide Monitor (2017). Note: dashed lines indicate the means of the data.

There are specific areas where the prison system fails to fulfil its role. At the most basic level, correctional institutions need to be secure and respect prisoners' rights. However, prison violence is very high and is one of the biggest concerns for the criminal justice system (Peirce & Fondevila, 2020). For example, in Chile, Mexico and Peru, over 75 percent of surveyed inmates report feeling less safe in prison than where they lived before being incarcerated (Muggah & Aguirre, 2018). In El Salvador, Chile, and Argentina, more than 60 percent of inmates indicate that they have been beaten by prison staff (UNDP, 2013). Additionally, Latin America has the highest

homicide rate in prisons worldwide with 15.9 homicides per 100,000 prisoners, substantially higher than the second worst ranked region, Oceania, with 8.2 homicides per 100,00 prisoners and higher than global average of 8.5 (UNODC, 2019). For example, in Colombia the homicide rate in prison is 48.1, in Brazil 26.7 and in Mexico 22.1 (all data for 2016). Interestingly other countries considered to be less violent also have very high levels of homicide rates in prisons, for example Uruguay has an astonishingly high rate of 151.5 and Chile of 120.4, hinting at the bad performance of the prison system in even some of the less violent countries in Latin America (UNODC, 2016).

Another typical problem of Latin American prisons is the high rates of overcrowding (i.e., holding more prisoners than they were designed for). Virtually every country in Latin America is facing this challenge (see **Table 4-2**). Guatemala ranks as the 4<sup>th</sup> country in the world with highest rates of overcrowding (with 372 percent of occupancy) and Bolivia as the 5<sup>th</sup> (with 363 percent of occupancy). According to a recent study, Latin America's prisons are running on average 60 percent above their capacity (Limoncelli, Mellow & Na, 2020).

**Table 4-2: Percentage of occupancy of prisons in Latin America (2020)**



Source: own elaboration with data from WPB (2020).

Finally, according to researchers, rehabilitation has not been a priority in the contemporary Latin American prison system. Prisons lack effective rehabilitation programmes which is exemplified by the high rates of recidivism (or rates of repeat offending) (Yukhnenko, Sridhar & Fazel, 2019), such as in Chile where the recidivism rate is 68.7 percent (Dammert, 2018). Additionally, programmes in the region supporting rehabilitation and prisoner reintegration are scarce, with only a small proportion of inmates benefitting from educational or work-related activities within prisons. In Brazil, for example, only 9.6 percent of inmates work or study, and at best involves only 35.2 percent of inmates in El Salvador and 39.4 percent in Argentina benefitting from work or study activities (IDB, 2017).

In short, the prison system is in crisis in virtually all countries in the region (UNDP, 2013; Limoncelli, Mellow & Na, 2019). This crisis is exemplified by the cases of Brazil and El Salvador, where criminal groups such as the Maras Salvatrucha and the *Primeiro Comando da Capital* (First Command of the Capital - PCC) control large parts of the prison system and even use these facilities to extend their power, both within prisons and on the streets (Lessing, 2016).

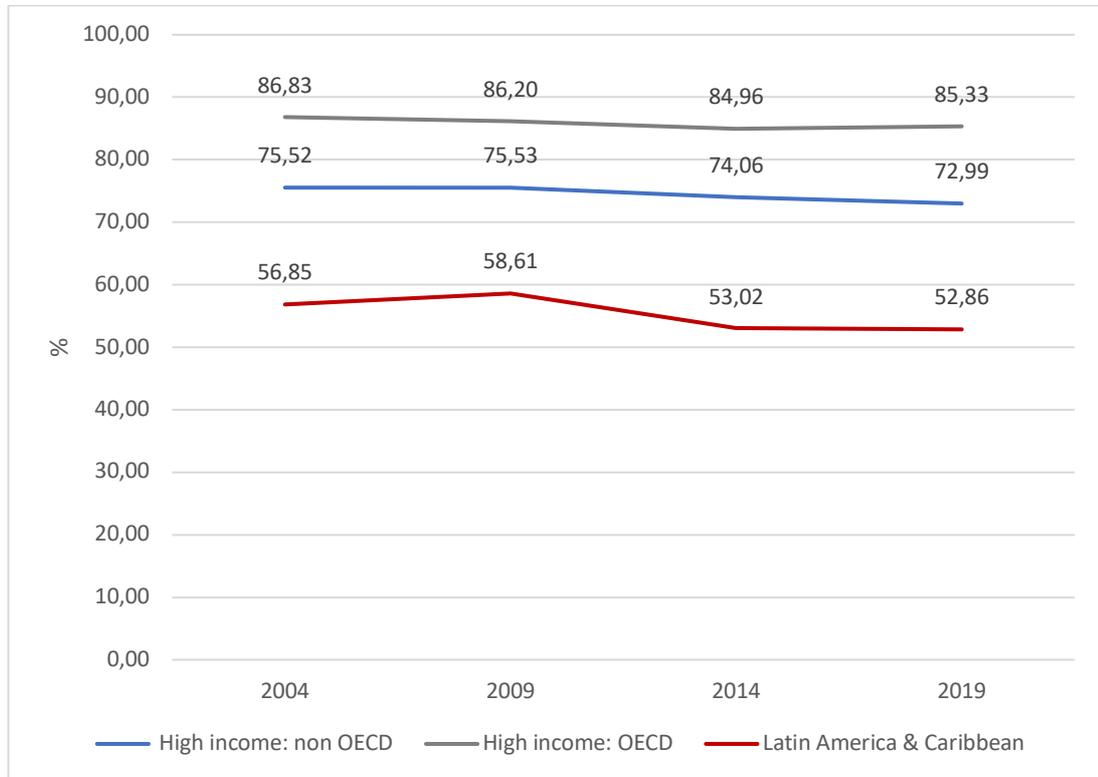
#### 4.4.2. Corruption in institutions of Latin America

There is no single, comprehensive definition of corruption that covers all circumstances, but it is generally understood as the misuse of public funds for private gain of wealth and power (Rose-Ackerman, 2008; Warf & Stewart, 2016). It is a rent-seeking behaviour that occurs when the expected benefits exceed the costs (Klitgaard, 1988). Similarly, Transparency International defines corruption as the abuse of entrusted power for private gain. Some forms of corruption include bribery, extortion, blackmail, nepotism, embezzlement, and graft.

Corruption varies across countries in the region, but overall, Latin America tends to perform poorly. For example, according to the Corruption Perceptions Index of 2018, the average score for the Americas was of 44 out of 100, where “any score below 50 indicates that governments are failing to make serious inroads against corruption” (TI, 2018). Overall, control for corruption is weak (see **Figure 4-3**). From 2004 to 2019

control for corruption fell from 56 percent to 52 percent, substantially below OECD countries and other high-income non-OECD countries (IDB, 2020).

**Figure 4-3: Control for corruption (2004-2019)**



Source: own elaboration with data from the WB (2004-2019).

According to data from the Corruption Perception Index (2019), out of 179 countries, Venezuela ranked 176, Honduras 157, Guatemala 149, Paraguay 137, and Mexico 124 with these results being consistent over time. Consequently, more than one half of the region’s population, approximately 324 million Latin Americans, live in countries ranked as “Very Corrupt” by Transparency International. Additionally, 85 percent of people in the region think that corruption is a “big problem” (Warf, 2019). The situation seems to be getting worse, as a majority of Latin American and Caribbean citizens (53 percent) think corruption increased in their country in the previous 12 months (Global Corruption Barometer, 2019). This worsening situation is also supported by Latinobarómetro which in 2017 recorded that 62 percent of Latin Americans said that corruption had increased, and in 2018 results recorded 65 percent of Latin Americans saying that corruption had increased. Data by country shows that for 17 out of the 18 countries from Latin America included in the Latinobarómetro survey, the perception of an increase in corruption is higher than

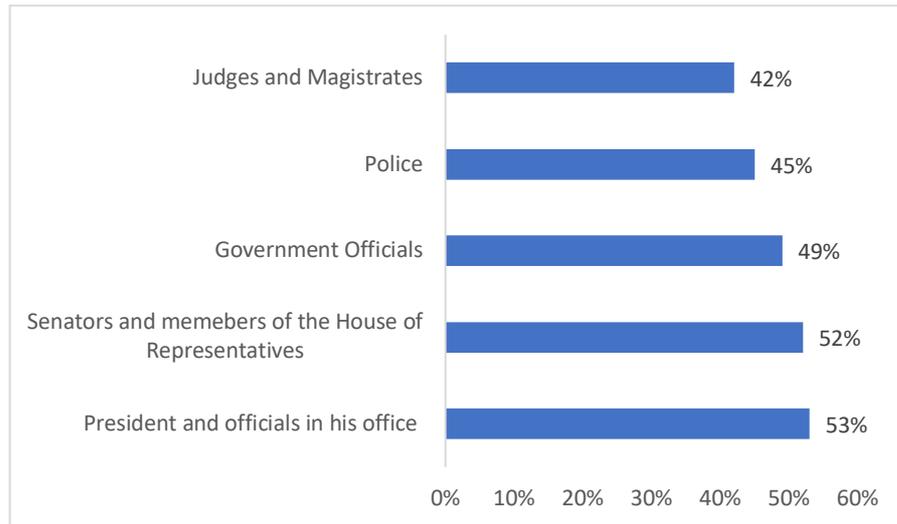
50 percent year on year (Latinobarómetro, 2018). It would seem that corruption is deeply intertwined with the regions unique political, social, and economic reality (Limoncelli, Mellow & Na, 2019).

#### 4.4.2.1. Corruption in the criminal justice system

As already mentioned, the central institutions for the provision of security are the judiciary and the police. Corruption can be exemplified by the levels of confidence that the population has in each part of these institutions. Regarding the police force, only 33 percent of the population in Latin America trust this institution (Global Corruption Barometer, 2019). Evidence suggests that individuals in Latin America have a bad perception of the police and have little faith in their ability to conduct their work in a successful, transparent, and humane manner (Pion-Berlin & Carreras, 2017). A recent study showed that on average 24 percent of the population in Latin America had been bribed by the police in the last 12 months (Global Corruption Barometer, 2019). The level of bribery was highest in Venezuela (62 percent) and Mexico (57 percent) and 37 percent in both Guatemala and Honduras. The incidence of bribery appears to have also increased over time. According to a recent study from AmericasBarometer (2019) that measures the change in bribery victimization in the Americas from 2008 to 2018, bribery victimization increased more than 10 percent in Honduras and Paraguay, and increased by approximately 5 percent in Colombia, Panama, Bolivia, and Mexico. In particular, corruption is considered to be deeply embedded within police agencies in the region, as according to Ungar (2013, p. 1,195): “In much of Latin America, police chiefs tend to block efforts that expose internal problems. In the middle ranks, police station commissioners have limited authority over basic tasks, such as personnel assignments, and little or no power to tackle the corruption endemic in their ranks. And at the lowest level, officers receive little or no anticorruption training during their training as cadets in a pedagogical system that fails to incorporate those values and norms. New officers find themselves cowed into complicity with corrupt colleagues, with little recourse beyond internal affairs offices designed (not very effectively) for civilian complaints, with few if any channels for internal whistleblowing.”

**Table 4-3** shows the percentage of people in Latin America who think that most or all people in these institutions are involved in corruption. Data from the Global Corruption Barometer (2019) show that 42 percent of people consider judges and magistrates corrupt while 45 percent consider the police to be corrupt.

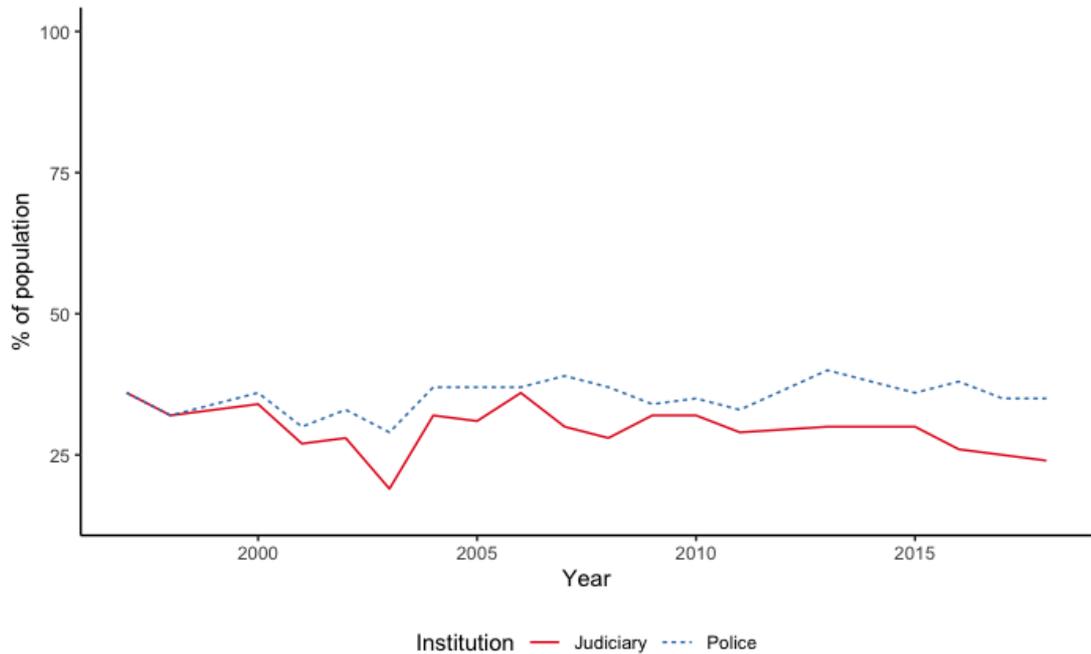
**Table 4-3: Corruption by Institution**



Source: own elaboration with data from the Global Corruption Barometer (2019).

Additionally, throughout Latin America, public confidence in the judiciary is exceptionally low: only 27 percent of the population trust the judiciary (Global Corruption Barometer, 2019) and over half of all Latin Americans expressed little to no faith in their court systems (Latinobarómetro, 2018). **Figure 4-4** shows the trust of the Latin American and Caribbean citizen towards the police and the judiciary. In both cases, levels of trusts are remarkably low. These low levels of trust have persisted since the late 1990s.

**Figure 4-4: Trust towards the police and the judiciary, LAC (1997-2018)**



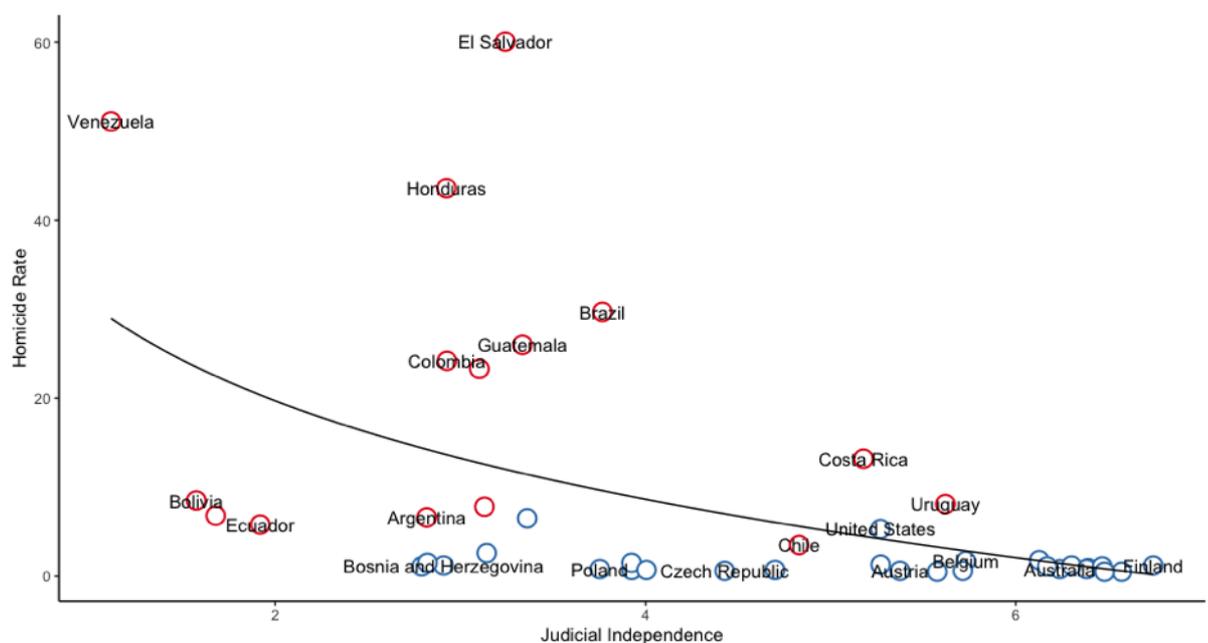
Source: own elaboration with data from Latinobarómetro (1997-2018).

Another measure of trust is the extent of reporting of crime, since victims often do not report crime because they do not trust the police (Shaw & Reitano, 2014). Many crimes go unreported to the police, especially if citizens mistrust the police or in contexts where officers are commonly expected to request bribes (Zechmeister, Elizabeth & Lupu, 2019). Underreporting of crime is significantly high in countries in the region. For example, 70 percent of sexual crimes are not reported, 99 percent of domestic violence offences are not reported, and 61 percent of assaults and 38 percent of vehicle thefts are not reported (Jaitman & Anauati, 2019).

A related matter is the increasingly common and consensual belief that many sectors of society are beyond the reach of the law. In Latin America, the social elite and senior politicians are considered to be above the law and use their power to benefit themselves (Ungar, 2013). Recent polls show that 79 percent of Latin Americans say they are governed by a few powerful groups that rule for their own benefit (Latinobarómetro, 2018). One way to illustrate this is by the lack of independence of the judiciary, a variable used by the Index of Public Integrity. This variable measures to what extent the judiciary in a country is independent of influences of members of

government, citizens, or firms (IPI, 2019). It has been shown that judicial independence is often reported to significantly affect the extent of corruption (Mungiu-Pippidi & Dadašov, 2016). According to the World Economic Forum survey (2017), average judicial independence in the region fell from 3.3 in 2008 to 2.9 in 2015 (where 1 is 'heavily influenced' and 7 is 'fully independent'). As **Figure 4-5** shows, Latin American judicial independence is very low. Violent countries like Venezuela, Honduras, El Salvador, and Colombia have poor judicial independence, although it is worth noting that other non-violent countries like Bolivia also have low levels of judicial independence.

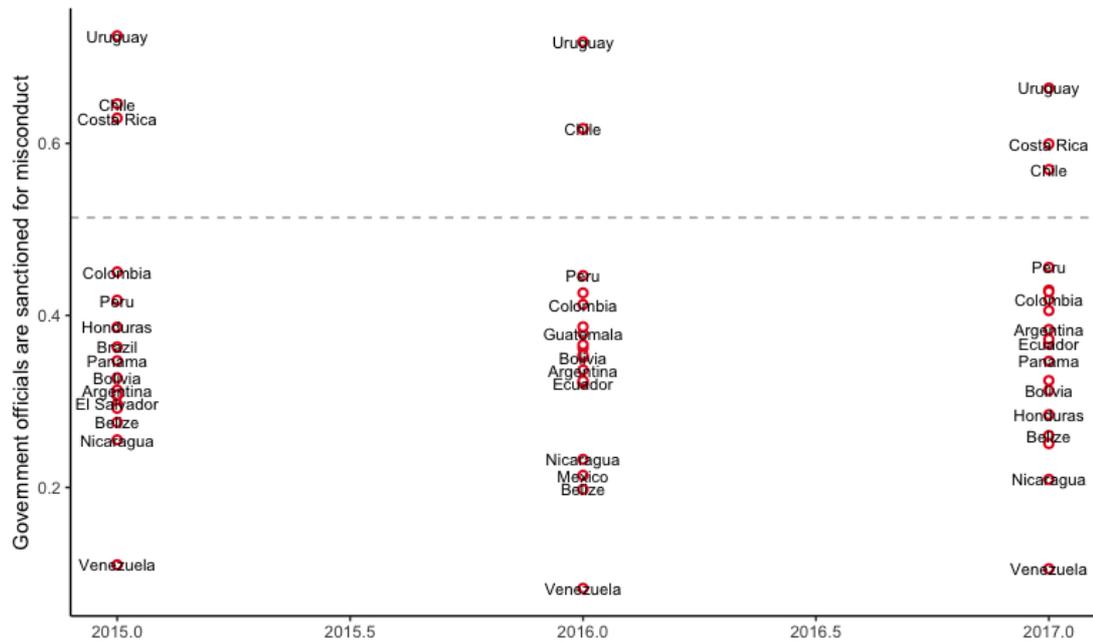
**Figure 4-5: Judicial Independence and Homicide Rates (2017)**



Source: Own elaboration with data from IPI (2017).

Another way to illustrate the belief that elites are above the law is through investigating whether governments sanction people in power. Latin American countries, except for Uruguay, Chile, and Costa Rica, systematically fail to sanction their officials for misconduct (see **Figure 4-6**), indicating that people in position of power may escape the law by using corruption. The indicator "Government officials are sanctioned for misconduct" assesses whether officials in the administration, legislature, judiciary, and police are investigated, prosecuted, and penalised for official misconduct and other infractions (WJP, 2019). Almost all countries rank below the average values in the indices for this measure.

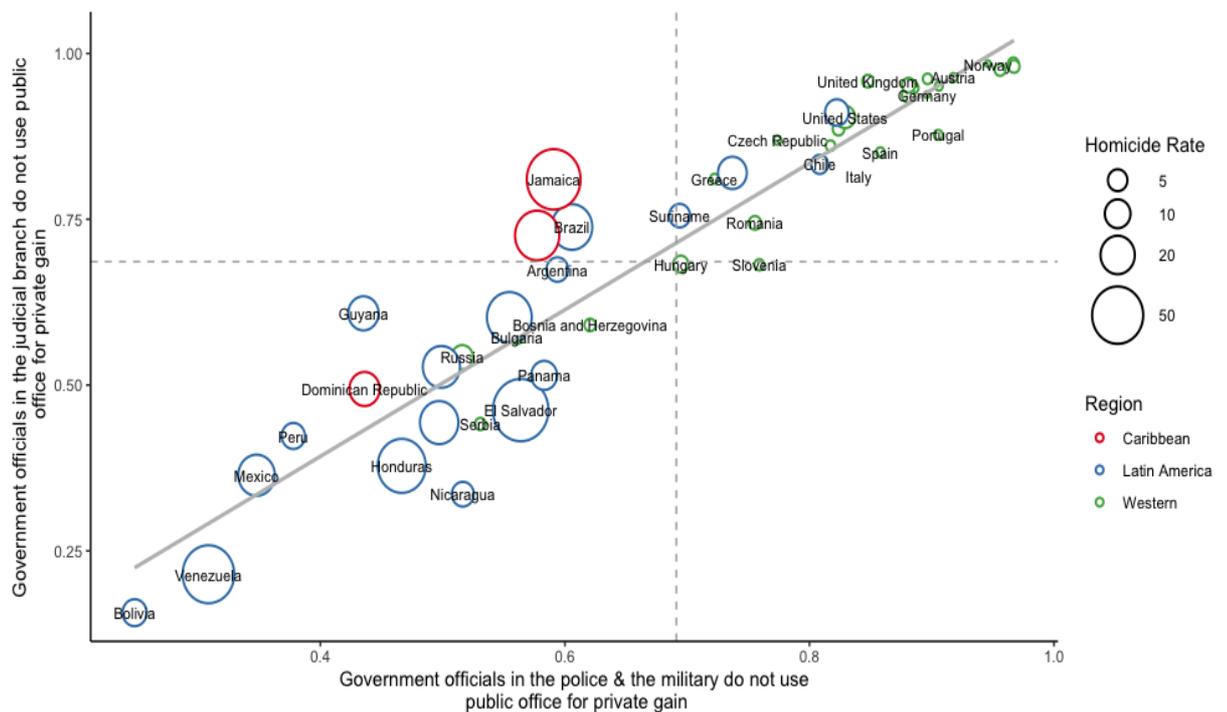
**Figure 4-6: Latin American governments sanctioning of their officials for misconduct (2015-2017)**



Source: own elaboration with data from WJP (2015-2017). Note: every mark represents a year per country (2015-2017). Dashed line indicates the mean of the data sample. The y-axis is measure codified between 0 (weakest sanctioning of government officials) and 1 (strongest sanctioning of government officials).

Data from the Rule of Law Index provides further insight on how corrupt the criminal justice system is (see **Figure 4-7**). Specifically the variables “Government officials in the judicial branch do not use public office for private gain” and “Government officials in the police and the military do not use public office for private gain” measure whether judges, judicial officials, police and the military, refrain from soliciting and accepting bribes to perform basic duties or expedite processes, and whether officials free of improper influence by the government, private interests, and criminal organizations (WJP, 2019). Again, Latin America fares poorly with most countries consistently ranking in the bottom half of the data. It appears the extent of corruption in these institutions and the levels of homicides are related, since most corrupt countries are violent and countries with low levels of corruption experience low levels of homicides. For example, some of the most violent countries in the region, such as Venezuela, Mexico, Honduras, and El Salvador, have high levels of corruption and experience some of the highest rates of homicide.

**Figure 4-7: Levels of corruption in the judiciary, police, and military (2017)**



Source: own elaboration with data from the WJP (2017) and Homicide Monitor (2017). Note: dashed line represents the means of the data sample.

## 4.5. Discussion

### 4.5.1. Effectiveness of the police

Providing efficient and legitimate security to a population is the most basic function of a government, with the police being the central institution tasked with this function. Police agencies are the most visible institution in the criminal justice system and are empowered to enforce what the law defines as right and wrong behaviour (Hough et al., 2010).

The assessment of data from multiple sources have shown that the police in Latin America is highly ineffective and that homicides and other type of crimes have continuously increased over the last decades. Researchers have shown that rising crime can undermine public support for police agencies (Sabet, 2013) and courts (Malone, 2010). Moreover, the rise in crimes also increases the perception of fear in the population, with 40 percent of Latin Americans fearful of being a victim of a crime

(Latinobarómetro, 2018) which in turn increases the distrust towards the police and reinforces the idea that the police is ineffective. It has been shown that if public trust is low, citizens are more reluctant to rely on legal ways to solve problems which undermines their willingness to report crime and cooperate with police investigations (Malone, 2010). Public trust in the police is important because it increases the likelihood of public cooperation with justice, and because public trust in justice builds institutional legitimacy and public compliance with the law (Hough et al., 2010).

A likely consequence of police ineffectiveness is that criminal organizations have been able to proliferate and taken control and provide 'security' in specific areas. There are several cases in Latin America's *villa miserias* and *favelas* where security is provided by criminal organization that engage in criminal activities while seeking to retain the loyalty of local communities (Lessing, 2020). These criminal groups provide multiple forms of illegal governance and services to the territories over which they have control and where the government fails to provide security. These services range from protection against competition, enforcing illegal economic contracts and protection against extortion and thefts (Aziani, Favarin & Campedelli, 2020). As such, citizens from these areas may also tend to operate outside of the law and provide support to these criminal organization, and eventually reject police intervention and protection.

In short, overall security outcomes matter and are relevant to how the population evaluates the police. Importantly, effectiveness affects the levels of legitimacy that the population has towards the police institution and how they will behave. The incapacity of the police to control the rising levels of crimes impacts directly on the support of the population for the law and institutions.

#### **4.5.2. Effectiveness of the judiciary**

Substantial evidence suggests that a factor influencing public behaviour is the fairness of the processes that judicial institutions use when dealing with members of the public (Tyler, 2003; Roth, 2012). Due process is a fundamental part of the judiciary as it generates legitimacy that encourages individuals to use the justice system to

settle disputes (Huebert & Brown, 2019). These factors are a result of a competent government, with the primary idea being that if the judiciary is effective, members of a society can rely on the institutional mechanisms to avoid conflict and for redressing wrongs. Effective judiciaries are more likely to punish individuals in an appropriate manner, and, thus, reduce the attractiveness of a given criminal opportunity (Testa, Young & Mullins, 2017).

The assessment of data from multiple sources in the current study show that the judiciary in Latin America is highly ineffective in prosecuting and convicting criminals. Crimes that do not lead to the arrest of a suspect, a prosecution, or a conviction fuel impunity, which reduces the support towards public institutions. High levels of impunity encourage crime, with this perhaps being one of the possible explanations for the sustained increases in crime in recent years. The immediate consequence of any significant increase in crime and failure in homicide detection is that it may reduce the cost of crime because it decreases the likelihood of the application of punishment. Therefore, the benefits produced by a crime, whether they are material, linked to theft or any other economic benefit, outweigh the costs in the crime calculation (Becker, 1993).

Finally, and linked to the above, impunity levels in the region are very high. Impunity exists because i) the police is not able to capture criminals and ii) the judiciary has no response capacity to the problems they are facing (Briceño León, Ávila & Camardiel, 2012; DeShazo & Vargas, 2006), lowering the citizens perception that the system is fair and efficient. In short, the judicial systems of the region seem to be highly inefficient and dysfunctional, and do not have sufficient material and human resources to prosecute crimes and as a consequence fulfil their most basic functions.

#### **4.5.3. Effectiveness of prison system**

The assessment of data from multiple sources in the current study has shown that prisons are the most neglected part of the judicial chain, with governments systematically providing insufficient resources (Bergman, 2020), failing to provide

effective prisons and adopting prison reforms (Malone, 2010), and leaving the system open to corruption and crime (Dudley & Bargent, 2017).

Additionally, as shown above, the number of inmates in prisons in Latin America has steadily increased over the years. A high number of prisoners in an understaffed and under resourced prison system is unlikely to bring about positive results. This is because this type of environment makes it more challenging for staff to keep order and discipline (Peirce & Fondevila, 2020). As such, it is no surprise that the protection of human rights in prisons is one of the most important human rights problems in Latin America (de Leon Villalba, 2018). Data shown in this chapter reveals that prison institutions are dangerous, violent, and precarious, and with other researchers showing that harsh prison conditions intensify criminal activity upon release (Drago, Galbiati & Vertova, 2011; Chen & Shapiro, 2007; Gaes & Camp, 2009).

Results from the current study also show that overcrowding levels are extremely high. The right to humane treatment and dignity is directly impacted by the high rate of overcrowding. Further, overcrowding constitutes an important obstacle for the purpose of rehabilitation. High rates of overcrowding fuel violence, since they can seriously affect the ability to control crime and violence within the prison walls (ICPS, 2005), and also enhance tensions between prisoners and between prisoners and prison staff (de Leon Villalba, 2018). Moreover, a central problem of overcrowding is that it can contribute to a wide variety of mental and physical health problems for the inmates (Vilalta & Fondevila, 2019).

Lastly, related to the mitigation of violence is the deterrent effect of punishment, but also the rehabilitation of those individuals that engage in criminal behaviour (reducing the motivation to commit crimes). Even if punitive conceptions of the prison system have been shown to be ineffective (IDB, 2017), in Latin America, prisons are still considered a place and space for punishment, which relegates rehabilitation programmes and social reintegration processes to a secondary position (UNDP, 2013). The exercise of rehabilitation is central to changing an inmate criminal behaviour and reducing their future possible criminal activities. For example, a study by Lipsey and Cullen (2007) reviewed eight meta-analyses that showed that

rehabilitation treatments had an average reduction in recidivism of between 10 percent and 40 percent. Sadly, the prison system in Latin America has mutated from a place of rehabilitation to a place of reproduction of violence, and according to some researchers, prisons have become incubators of criminal activity (Dudley & Bargent, 2017; Goodman, Steffensmeier & Ulmer, 2005).

In short, results show support for the first hypothesis of this chapter. The police, the judiciary and the prison system are highly ineffective in the region and this ineffectiveness appears to be associated with high levels of crime, victimization, and fear within the population.

#### **4.5.4. Corruption in the criminal justice system**

The negative effects of corruption in society are well known; it has been shown to undermine economic growth, reduce foreign investment, increase social inequality, undermine social capital, hinder the quality of education, influence violence and increase organised criminal activity (Ungar, 2013; Warf & Stewart, 2016; Lappi-Seppälä & Lehti, 2014; Salinas & Booth, 2011). For example, one study showed that 30 of the world's 40 principal organised criminal networks used corruption of officials as an essential or frequent part of their operations (Flores Perez, 2009). In short, widespread corruption is a symptom of a poorly functioning government (Rose-Ackerman, 1998), and reveals its most basic flaws (Santiso, 2003).

Importantly, corruption contributes to citizens' loss of trust in government (Global Corruption Barometer, 2019). Further, recent research shows that wherever corruption is high, the risk of violence is much more severe, and that more corruption is associated with higher homicide rates, controlling for economic indicators (de Soysa & Noel, 2018). Another study showed that rises in corruption precede violence, and similarly, reductions in corruption are strongly associated with improvements in peace (IEP, 2018). In short, homicide rates are lower in well-functioning uncorrupted countries (Lappi-Seppälä & Lehti, 2014).

Although corruption is a deeply entrenched in several countries in the world, countries in Latin America appear particularly affected by corruption. The current study has shown that the Latin American region experiences high levels of corruption, including the criminal justice system. Although there are variations between countries, with Chile and Uruguay relatively corruption free, most countries are corrupt.

In particular, the current study has shown that the police agencies in Latin America are corrupt. When police corruption reaches an endemic level, it can damage the public trust in the police, but also in the whole criminal justice system (Bleakley, 2020). Previous studies have shown that public experiences of police corruption reduce public confidence and the legitimacy of the police (Weitzer & Tuch, 2005; Tankebe, Reisig & Wang, 2016) and that low levels of confidence towards the police increases crime (Tyler, 2004; Tankebe, 2013). A vicious circle is perpetuated whereby insecurity and corruption foster dissatisfaction, which yields further insecurity and corruption.

In addition, the current study has also shown that under-reporting is very high in the region. Even though many causes might affect under-reporting, researchers have shown that perception of corruption and trust in the police and the judiciary are positively associated with under-reporting. Jaitman and Anuati (2019) observed that an increase by 10 percentage points in the number of persons who perceive the police as very untrustworthy is associated with a decrease of 2 percent in the reporting of crime. It seems that corruption has a negative and significant relationship with the reporting rates of crime (Soares & Naritomi, 2010).

Additionally, there is a rising perception that powerful groups may escape the law. If officials are not sanctioned for corruption, the message that is sent to the population is that the law does not apply equally to everybody and that there are possibilities to escape judgement and punishment. Furthermore, the overall message is that the law is not fair. Corruption of the elite influence's other aspects of how public servant's work. For example, corruption levels vary according to a government's ability to

sanction agents who break the law, with more corruption in places where the level of sanctioning is low. Police officers and judges in countries with less corrupt institutions are subject to more internal and external control mechanisms, making it harder for them to escape the judgement of the law (Bergman, 2018). Hence it is important that people in power are punished so that standards are set for the rest of the society. When public officials are disciplined for corruption cases, greater adherence to legal conduct becomes a cultural standard and government legitimacy is preserved.

With these results, it comes as no surprise that for many Latin Americans, corrupt police and judiciary are simply accepted facts of life (Warf, 2019). Institutional corruption is widespread in the region, and this has not gone unnoticed by citizens. Corruption tarnishes the perception that individuals have towards these institutions and their legitimacy to rule over them. Low levels of corruption appear to be central to the functioning of legitimate and trustworthy institutions which in turn will increase the population's normative compliance and reduce crime. In sum, results provide support for the research questions of this chapter. The police, the judiciary and the prison system in Latin America are ineffective and in broad terms corrupt, and this limits their ability to fulfil their duties in the prevention of violence.

#### 4.6. Limitations

This research study provides important insights, however it is not without limitations. First, regional overviews provide a general idea of institutional functioning, although in-depth examination of these within the context of each country is required to inform policy recommendations. Second, this study reviews different indexes and surveys, and compares them with one another. As discussed in the methods sections, these indexes include different sets of countries and as such, the generalization of some of these findings to other countries not included in the indexes may not always be appropriate. It is also worth noting that most indexes are a compilation of perception data, which can be imprecise proxies for concepts they are intended to measure.

Finally, there is little empirical information regarding corruption levels within the prison system in Latin America as a whole region (although data does exist for some countries). While the findings of this study indicate that broadly speaking, the criminal justice system is corrupt, there is missing in-depth information regarding the levels of corruption in the prison system and how it impacts its functioning. This indicates that there is an important need to further investigate how the prison system works in the region as well as individual countries, and its possible impact on crime.

#### **4.7. Conclusion**

Some scholars examining patterns of violence and crime in Latin America have turned towards studying factors relating to the institutional capacity of institutions as a cause of crime, instead of more classical social and economic causes of crime. The current research continues this line of focus and includes examining how government effectiveness and corruption may influence crime. Essentially, an institutional loss of effectiveness and increase in corruption leads to crime because citizens withdraw compliance to the rules. The primary mechanism at work is the delegitimization of the criminal justice system, which leads to people using violence as a means of resolving issues or gaining benefits, or just disregarding conventional laws and expectations. Furthermore, if the criminal justice system is ineffective in capturing and processing criminals, the individual perception of the probability of being caught and punished decreases. Crime is perpetuated over time in the failure of the criminal justice systems to respond to increases in criminal behaviour, that leads to a reduction in the perceived probabilities of apprehension and conviction. In sum, in societies where the criminal justice system is corrupt, or ineffective, there is little certainty of detection and punishment and hence little deterrent effect.

There have been significant attempts to reform these institutions in the past. In fact, the most concrete and common reforms in Latin America are in the criminal justice system (Rios-Figueroa & Hammergren, 2009). The range of reforms are large and varied, including changes in tenure and appointment procedures for judges at all levels; creation of judicial councils, constitutional courts, and autonomous

prosecutorial bodies; updates of criminal codes and the criminal justice system, and changes in information management (Rios-Figueroa & Hammergren, 2009). Many obstacles have, however, obstructed the implementation of reforms. For example, justice reforms have been diluted, uncoordinated, and occasionally in conflict with the agendas of other political actors or institutions (Malone, 2010). Thus, most efforts to reform the justice system and the police in Latin America have been either unsuccessful or ephemeral, and in many cases have been because of a lack of political will (Bonner, 2021). Others critique the practice of reforming just one institution at a time, instead of pursuing comprehensive reforms (Prillaman, 2000). Additionally, since the criminal justice system experiences relatively high levels of corruption, the attempted introduction of new legal instruments is difficult when the people involved in the reform are themselves corrupt (Ungar, 2013). In short, despite attempts at reforms in the region, the criminal justice systems remain ineffective and corrupt (Staats, Bowler & Hiskey, 2005).

Further, we can also conclude that homicide levels appear to be lower under more effective governments and in less corrupt environments. Even though the study presented in the current chapter has not statistically tested whether levels of effectiveness and corruption leads to higher homicide rates, the examination and review of data and previous research from multiple sources provides support that there is a likely correlation between these variables. Further analysis is required to examine this relationship empirically and to understand how institutional capabilities and perceptions affect crime.

Security policies will have limited and short-term effects on crime if the institution developing and implementing them are ineffective and corrupt. A holistic approach towards improving the way the citizens perceive these institutions might be central to reducing crime trends. An essential part is to improve the allocation of resources to different parts of the criminal justice system, and even though improved allocations alone are unlikely to be sufficient to curb crime levels over time, it would be a good place to start (Alda, 2017). Moreover, the police, the judiciary and the prison system must be addressed at the same time to curb violence. For example, even if we could improve police institutions overnight and the police manages to

catch all the criminals, the judicial system will not have sufficient capability to judge them, and the prisons will not have sufficient space to accommodate and rehabilitate them.

The main objective the current research is to draw attention to the importance of improving institutional capacity in the region. By doing so I argue that policies aimed at reducing crime and homicides should first consider improving institutions in developing countries as a pre-requisite for crime reduction, before trying to set out new security agendas and policing strategies. Future research should investigate in depth the functioning of the criminal justice system as a whole, and ways to improve it. Finally, researchers of crime and policymakers in Latin America would be wise to incorporate and understand institutional capacities in their attempts to reduce crime.

In the following chapter the level of investigation is changed from the cross-national and regional level to the local level. In the next chapter I investigate if the structural and institutional variables have also an impact on homicides, but at the neighbourhood level. In Chapter 5, a case study of Casavalle, the most violent neighbourhood in Uruguay is presented.

## 5. Homicide trends in Montevideo: a case study of Casavalle

### 5.1. Introduction

Across Latin America, homicide rates vary greatly. These variations cannot be accounted for solely by an individual countries' level of economic or social development. Historically, Uruguay has stood out in Latin American because of its high level of social integration (Arteaga, 2018). In the studies carried out during the second half of the twentieth century, most of the specialists on comparative urbanization in Latin America considered Uruguay, and in particular, Montevideo as a model city, with a homogeneous and integrated society (Kaztman, Filgueira & Errandonea, 2008). Montevideo was also selected as a case study city for two other reasons. First, because within the city of Montevideo there are areas where levels of crime, and in particular homicides, are high and have increased in recent years and second, for convenience because of access to public institutions, data and knowledge of the city compared to other cities in countries in Latin America.

The first empirical chapter of the current research has shown that at the macro level, institutional effectiveness and corruption are relevant variables for explaining the high levels of homicide in Latin America. The second empirical chapter has shown how institutions tasked with providing security in Latin America, mainly, the police, the judiciary and the prison system have been ineffective in preventing and reducing crime and addressing offending behaviour, and display concerning levels of corruption that undermine their ability to operate in an effective manner. This third empirical chapter continues the same line of thought and examines whether institutional effectiveness and corruption is associated with the crime and criminal behaviour that is observed at the neighbourhood level.

Regarding crime in Uruguay, data prior to the 2002 economic crisis showed that unemployment and inequality were closely associated with the increase in crime in the period 1986-2005 (Aboal, Lorenzo & Perera, 2007). However, over the last decade, Uruguay has made considerable progress in economic and social

development and reduced its levels of poverty and inequality measured in terms of income (INE, 2014). Uruguay experienced exceptional economic growth between 2004-2015. During this period all the macroeconomic and social indicators showed significant improvement. Poverty decreased from 45 percent in 2002 to 7.9 percent in 2017, GDP per capita grew from USD\$ 3,622 in 2003 to USD\$ 16,254 in 2017, unemployment decreased from 19.4 percent to 7.3 percent and the GINI index improved from 45.90 to 39.50 (WB, 2019). In broad terms citizens in Uruguay have experienced and still experience real improvements in economic well-being (Arteaga, 2018). Nonetheless, other variables such as educational achievements have not improved and over the last decade the strength of the Uruguayan social fabric has been disturbed by signs of social fractures that are manifested mainly through changes in levels of crime.

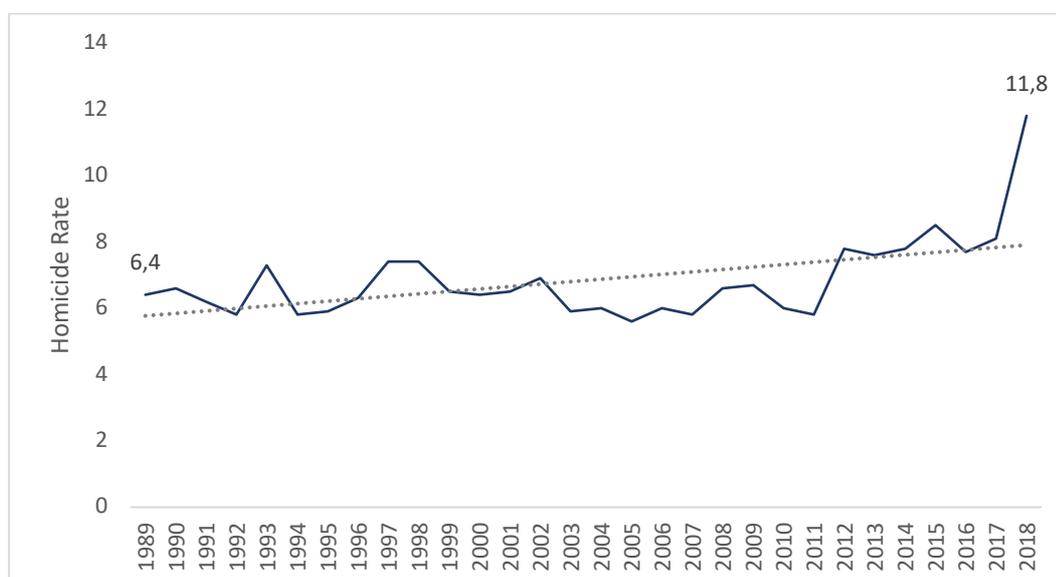
When examining variables that measure the functioning of public institutions, it is noted that these have not improved over the same recent period. For example, institutional variables such as “Government Effectiveness” from the World Bank, show that Uruguay has not improved and remained within the same levels in the last two decades (WB, 2019). The same holds true for variables from the World Justice Project (WJP). For example, for the factor “Criminal Justice”, that assesses how effective the criminal justice system is (and that takes into consideration the entire system including the police, lawyers, prosecutors, judges, and prison officers), the measure for Uruguay has not improved, remaining at a score of 0.54 out of 1 between 2015 and 2019. Specifically, with regards to whether the “Criminal Investigative System is Effective”, in 2019 Uruguay scored 0.39, below the global average of 0.42. Regarding the variable the “Correctional System is Effective in Reducing Criminal Behaviour”, Uruguay scored 0.28, below the global average 0.41. It is worth noting, as stated in previous chapters, that Latin America has some of the world’s worst functioning correctional systems. In this regard, Uruguay ranks below the Latin American regional average of 0.29 (WJP, 2020).

In terms of data that measures corruption from the WJP, the variable “Absence of Corruption” considers three forms of corruption: bribery, improper influence by

public or private interests, and misappropriation of public funds or other resources, examined with respect to government officers in the executive branch, the judiciary, the military, police, and the legislature. Scores for Uruguay for this corruption measure have worsened from 0.78 in 2015 to 0.73 in 2020 (WJP,2020). Similarly, according to the Corruption Perception Index of Transparency International, Uruguay’s score for this measure has also worsened in recent years from 74 out of 100 in 2015 to 70 in 2017 (CPI, 2018). For many measures of development and social-economic conditions, Uruguay is fairly well ranked in comparison to the region, however, there have not been any substantial improvements in government effectiveness, functioning of the criminal justice system, and controlling for corruption in recent decades.

Crime has increased by unprecedented levels during this recent period of economic development and reduction in poverty. These increases in crime in Uruguay include increases in homicide rates - 199 homicides and a rate of 5.8 homicides per 100,000 inhabitants in 2011 to 414 homicides and a rate of 11.8 homicides per 100,000 inhabitants in 2018 (see **Figure 5-1**). This increase included a 45.8 percent increase in homicides between 2017 and 2018 (Observatorio Nacional sobre Violencia y Criminalidad, 2018). In comparison, for the same year, the global average was 6.1 homicide victims per 100,000, while in Europe it was 3 (UNODC, 2019).

**Figure 5-1: Evolution of homicide rate in Uruguay (1989-2018)**



Source: own elaboration with data from the Ministry of Interior (2019).

The Ministry of Interior stated that 47 percent of the homicides in 2018 were caused by conflicts between criminal groups, drug trafficking or *sicarios* (hired assassins). This means Uruguay appears to be following the trend of other Latin American countries with high overall homicide rates (in comparison to other regions of the world) and high levels of gang and organised crime-related deaths (UNODC, 2019). These might be a short-term cause of increases in violence in the country, however, in this chapter I argue that there are long term causes that involve several underlying variables that facilitate the commission of crime in Uruguay, and in particular in certain areas of Uruguay. As argued in previous chapters, the increase in homicides is partly because of the absence of government institutions in the provision of the most basic services, which in turn hinders their legitimacy. The consequence is delegitimization of government institutions, where citizens decide to withdraw their support and trust towards them and create their own set of rules that may include illegal activities. Delegitimization further reduces the deterrence effect that rules, and institutions may have. The increase in violence in Uruguay during a period of economic growth is a symptom of other more complex social and political processes.

Much of the recent literature that attempts to explain crime is based on the experiences from developed industrialized countries, where governments are relatively effective entities that deliver the services they have the duty to provide. This literature, that has focused on structural variables, perhaps did not investigate the government functioning because it was assumed to function 'fairly well'. The governance discourse remains centred on an 'ideal type' of modern government, with full internal sovereignty, a legitimate monopoly on the use of force and checks and balances that constrain political rule and authority (Risse, 2011).

I argue that to address issues such as crime, a country must first build effective, incorrupt, and reliable institutions. This is not to argue that structural variables do not play a part, but rather that crime (and in particular homicides) are a complex phenomenon whose roots lie in a complex combination of socioeconomic, demographic, *and* institutional factors. The latter has not been studied to date in

sufficient depth. The current research aims to fill this gap and has begun to do so using regional and cross-national analysis. In the current study I examine for the presence of a relationship between institutional factors and crime at the neighbourhood level. As such, in this chapter my research question is:

- 1) What is the impact of structural and institutional variables at the neighbourhood level on homicides?

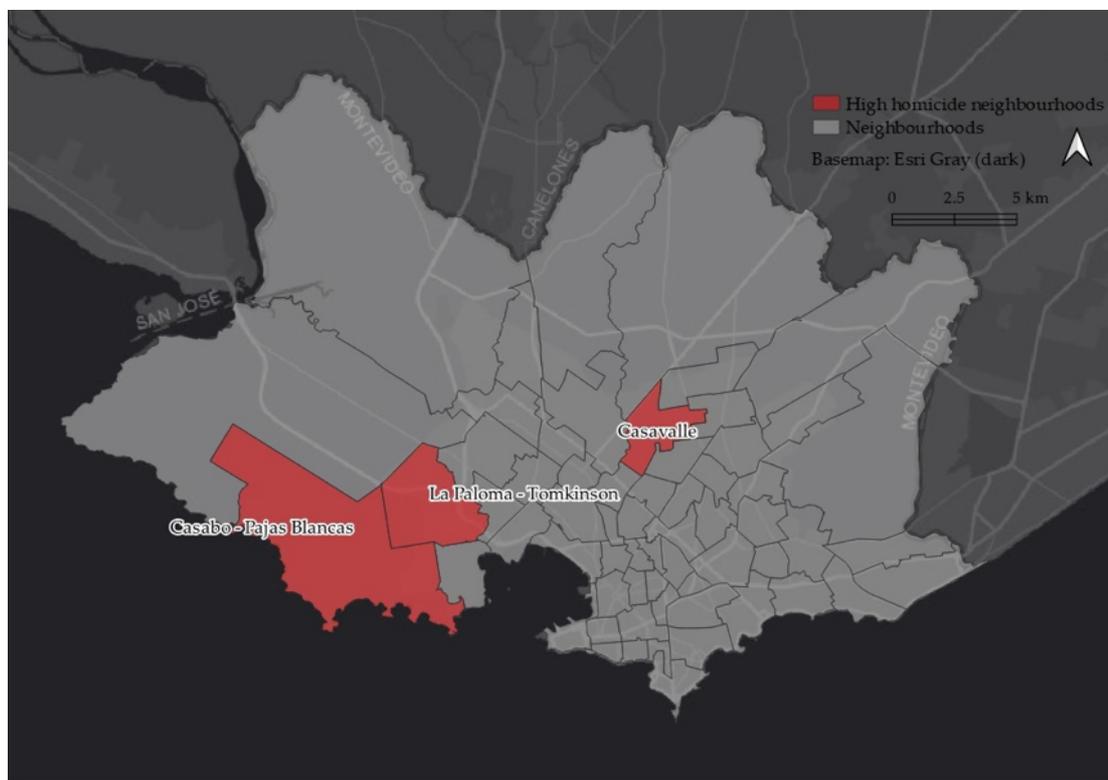
For this chapter I hypothesise that at the neighbourhood level i) structural variables offer some reasoning for the variation in crime (and homicides) and that ii) institutional variables, such as the effectiveness of institutions and trust and corruption of the police, help explain the variations in crime (and homicides). I argue that the ineffectiveness of security institutions creates changes in social perceptions that affects how people behave and in turn has an impact on crime. It is not just disadvantage and poverty that affect why certain neighbourhoods are violent, but instead it is the combination of these characteristics with the real or perceived ineffectiveness and corruption of government institutions that creates high levels of crime at the local level in Latin America. That is, it is the government institutions and their failure to provide effective services that are at the centre of the problem of crime in the region.

## 5.2. The context: Montevideo

Uruguay, with over three million inhabitants and stable in its demographic growth, concentrates 92 percent of its population in urban and suburban areas. The Metropolitan area of Montevideo includes 62 percent of the total population of the country in an area that represents 10 percent of the national territory (Díaz, 2014). It is in Montevideo where the greatest urban problems of the country are present, constituting the phenomena of urban crime - one of the most worrying social processes of contemporary Uruguayan reality. In 2018, approximately, 54 percent of all the homicides were located in Montevideo. The capital city has a rate of 16.1 homicides per 100,000 inhabitants. Most of the homicides are in specific areas within

Montevideo. For example, 44.4 percent of the homicides are in just three police districts (known as sectionals) of a total of 25, namely: Sectional 17 (Casavalle), Sectional 24 (Casabo-Cerro) and Sectional 18 (Piedras Blancas-Punta de Rieles) (Observatorio Nacional sobre Violencia y Criminalidad, 2018). Over the last four years, Uruguay had a total 921 homicides, a quarter of which took place in just three neighbourhoods of the country, Casavalle, Casabo and La Paloma – Tomkinson (see **Figure 5-2**). These neighbourhoods together account for only 9.5 percent of Montevideo’s populations and just 10.6 percent of its territory.

**Figure 5-2: Map of Montevideo indicating the neighbourhoods with the highest homicide rates**



Source: own elaboration with data from MIDES (2010).

One of the most intriguing aspects about crime is its remarkably high variance across space (Glaeser, Sacerdote & Scheinkman, 1996). A growing and influential literature has highlighted how certain places are responsible for disproportionate amounts of crime and disorder in a city (Weisburd, 2015; O’Brien, Ciomek & Tucker, 2021). For example, in Latin America, violent crime is especially concentrated in cities and urban

neighbourhoods (Chainey et al., 2019; Muggah & Tobón, 2018) and between one and five percent of city street addresses account for up to 99 percent of homicides (Chainey et al., 2019; Vilalta & Muggah, 2016). Determining which variables explain neighbourhood variation in crime is important because policies are magnified by understanding the social reality of the community (Glaeser, Sacerdote & Scheinkman 1996). Furthermore, depending on the source of neighbourhood effects, certain policies may be ineffective, while others may be highly effective.

Other social problems are also focused on Montevideo. The city has the largest proportion of people under the poverty line (11.1 percent) in relation to the rest of the country and the highest incidence of household poverty (7.3 percent). That is, that for every 1,000 homes, 73 are under the poverty line. In addition, the capital city is the area that presents higher levels of extreme poverty (Aires & Di Landri, 2018). Moreover, Montevideo continues to have the greatest poverty gap (1.8 percent), which implies that poor households need a greater proportion of income to overcome the threshold of established poverty (Aires & Di Landri, 2018).

A closer look at the city of Montevideo shows particularly strong differences between areas within the city. On the one hand, there are neighbourhoods that have high human development and low poverty, with easy access to public services and infrastructure, and high rates of employment, especially among women. These neighbourhoods tend to be in or near the coastline. On the other hand, areas of Montevideo, particularly the peripheral neighbourhoods, that tend to have an increasingly homogeneous population in terms of accumulation of social vulnerabilities and structural deficiencies, with poor access to public services, high levels of poverty and unemployment, overcrowded households and a greater presence of young people and adolescent mothers, who also have weaker links in the educational system (Serna & Mora, 2017; Calvo et al., 2014).

Looking in more detail at these geographic differences, the neighbourhoods with the lowest purchasing power are those where there are higher unemployment rates which are mostly peripheral neighbourhoods, in contrast to coastal neighbourhoods

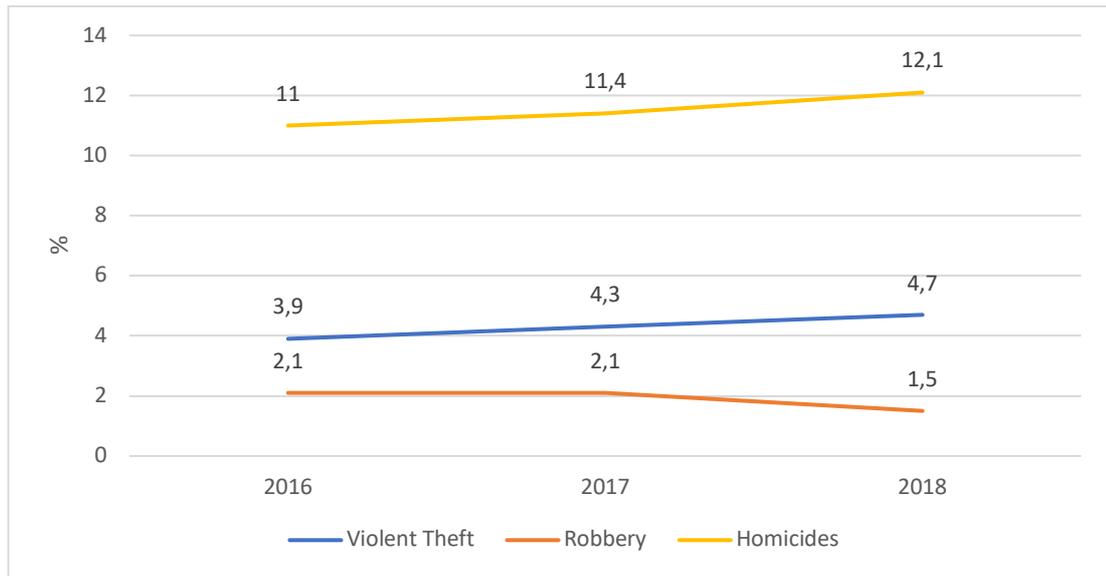
that have the highest purchasing power and higher employment rates (Araya et al., 2014). For example, the unemployment rate is highest in La Paloma (10.2 percent), followed by Tres Ombúes (9.9 percent) and Colón Centro and Noroeste (9.2 percent), all peripheral neighbourhoods. While the lowest unemployment rates are in Punta Carretas (4.3 percent), Punta Gorda (4.6 percent) and Carrasco (4.8 percent) all coastal neighbourhoods. Similarly, most of the neighbourhoods located in the periphery of Montevideo have high unsatisfied basic needs (UBN) - between 40 percent and 60 percent of the total population have at least one UBN in these neighbourhoods. On the opposite side, coastal neighbourhoods, particularly of the east coast of the city, have very low UBN values (less than 14 percent of the population has one UBN), which reflects a territorial polarization of the UBN. A similar situation repeats with the educational climate of households (this variable measures the average years of study of the members of the household). In Montevideo, 29.6 percent of households have a low educational climate, that is, out of every 100 households almost 30 have on average less than 9 years of formal education among its members. However, the differences regarding the educational climate of households according to neighbourhoods are substantial. In the coastline neighbourhoods, the percentage of households with a low educational climate is below average, and contrasts with the neighbourhoods of the periphery where this measure is above average (Iturralde & Altmann, 2018).

Likewise, the peripheral neighbourhoods have the highest quantity of young people between 14 and 29, and highest percentage of adolescent mothers, in comparison to the central or coastal neighbourhoods. In the coastal neighbourhoods, the percentage of teenage mothers is close to zero (e.g., Carrasco, Punta Gorda and Punta Carretas), whereas values for this measure are up to 14 percent in Manga – a value higher than the average for Latin America and the Caribbean (13 percent) (Calvo et al., 2014). The distribution appears to be clear: the neighbourhoods in the periphery of Montevideo experience the worst social vulnerabilities and economic conditions, while the neighbourhoods that are on the coast of the capital experience few issues associated with these vulnerabilities and conditions.

Marcuse (1989) introduced the term 'quartered city' referring to cities that mirror the deep sense of division that is prevalent throughout society (Marcuse, 1989). Further, he states that the spatial concentration of the poor is reinforced by public policy and that fragmented areas becomes ghettoized, illegal drug activity and the commission of crime become common features of the landscape, and education and public services are neglected. It would seem that Montevideo has become a quartered city, where social vulnerabilities are concentrated in neighbourhoods that present high levels of structural disadvantages and crime. I further argue that in these areas institutions, and in particular the criminal justice system, are also ineffective and corrupt.

One of the most vulnerable neighbourhoods in Montevideo (and indeed in Uruguay) is Casavalle. For example, within Montevideo, the levels of homicides and violent theft are the highest in Casavalle. With regards to homicides, Casavalle experienced 27 homicides over a population of 35,979, giving a homicide rate of 75 homicides per 100,000 inhabitants. Of all the homicides committed in 2018, 12 percent took place in Casavalle. Further, Casavalle has the highest level of homicides rates since 2016 (Observatorio Nacional de Violence y Criminalidad, 2019). Additionally, this neighbourhood recorded 1,147 violent thefts compared to the average of Montevideo of 378 violent thefts per neighbourhood in 2018. **Figure 5-3: National percentage of crimes that occur in Casavalle (2016-2018)** shows the high concentration of crimes in Casavalle.

**Figure 5-3: National percentage of crimes that occur in Casavalle (2016-2018)**



Source: own elaboration with data from the Ministry of Interior (2016-2018).

To examine how the presence of social vulnerabilities and the operation of institutions may influence variations in the levels of crime in Uruguay, the current investigation focuses its study on the neighbourhood of Casavalle. I begin by first reviewing the literature about crime and homicides in Uruguay and then explain the data and methods used to examine the association between social vulnerabilities, institutions, and levels of crime in Uruguay. This includes identifying Casavalle to be the most violent neighbourhood in Uruguay and using the results from several sources (including a survey of young people) to examine reasons for this. The chapter is continued by presenting the results and discussing those results in relation to the proposed hypotheses.

### 5.3. Homicides in Uruguay

Research regarding homicides and criminality in Uruguay is relatively scarce. To date there are three studies that have addressed the topic in depth: "Marginality and social integration in Uruguay", by Kaztman (1997), "The Evolution of the Uruguayan Urban System: An Approach to the phenomenon of crime and criminality in Montevideo", by Retamoso and Corbo (2003) and "Crime and Violence in Uruguay"

by Aboal, Lorenzo and Perera (2007). The first study analyses the increase in violence and its accelerated growth (particularly violent theft) from the 1980s to the mid-nineties. The study found a high percentage of people with low trust in the police and the judiciary system, which justifies a growing feeling of insecurity of the urban population to today. According to the author, three characteristics helped to consolidate subcultures of marginality and violence: the marked increase in educational requirements to access the labour market, the progressive weakening of the family as an institution, and the process of residential segregation together with the segmentation of access to services (in particular, education) (Kaztman, 1997).

The second study explored the relationships between the characteristics of the social composition of the districts of Montevideo and crime. In the study, the authors point out that with the exception of theft, all other types of the crime have a negative relationship with structural variables. That is, less developed socio-economic neighbourhoods have higher levels of crime. Following the approach of Kaztman (1997) and linking indicators of assets and risk situations with the crime rate, the authors found that the neighbourhoods where households that have fewer assets, i.e., low levels of education, low exposure to high status occupations, high proportion of single-parent families and young people, have a higher tendency to exhibit risk behaviours and enter illegal activities. However, the authors also recognise the existence of neighbourhoods that present unfavourable configurations from the point of view of assets or risk behaviours and present low levels of crime. This suggests it is the presence of other factors that may also explain the development of criminal behaviour in neighbourhoods in Uruguay (Retamoso & Corbo, 2003).

In the third study, the authors argue that the economic approach to crime appeared to explain the crimes with clearly economic connotations (such as crimes against property) but offers a poor explanation of crimes against people (injuries, homicides, and sexual assaults). The authors further argued that income inequality, unemployment, and the efficiency of police work (measured as the number of cases solved) was to be associated with criminality and violence. They also found that education levels, population density, proportion of young people (15 to 30 years old)

and the size of the male population did not influence the levels of crime (Aboal, Lorenzo, & Perera, 2007). This relevant literature, while pertinent, does not provide a conclusive analysis of the causes of crime and homicides in Uruguay.

#### 5.4. Data and Methods

It is not possible to analyse the Uruguayan context at street level because of the lack of data at this level of precision, however, it is possible to investigate causal mechanisms at the neighbourhood level because some data are available (albeit not on a yearly basis). The current study is organized into two parts. First, I examine how and why concentrations of homicides vary across neighbourhoods in Montevideo. This first part reveals that there are few neighbourhoods in Montevideo that present particularly high levels of homicides. The second part of the study involves a case study analysis of the neighbourhood of Casavalle, the most violent neighbourhood in Uruguay.

Case studies offer a better understanding of phenomena involving context-dependent conditions (Andersen & Kragh, 2010). This research method provides an in-depth, and detailed investigation of a particular case within its specific context. It offers several potential advantages such as obtaining a detailed description and analysis to gain a better understanding of 'how' and 'why' things happen. In single case study research, the opportunity to open a 'black box' arises by looking at deeper causes of a particular phenomenon (Ridder, 2017). Outlier cases (those that are out of the ordinary) can reveal more information than potentially representative ones. Case studies can fully specify the causal mechanism through fine-grained inquiry and description, which is more difficult in a large-N study. Finally, case study research has its strength in creating theory by expanding constructs and relationships within a specific setting. Normally, researchers will typically examine what is 'interesting' in a social situation that existing theory cannot explain. An anomaly does not rule out theory; rather, it shows that it is inadequate, and the case study will attempt to complement it (Burawoy et al., 1991).

Case study research has different types of design. In the current study, I use a 'Gaps and Holes' methodology. This approach is used when a phenomenon is partially understood and that, as presented before, there is a tentative theory. However, as mentioned, the theory does not fully explain the phenomenon and an expansion or complementation of theory is needed as is the case in understanding causes of homicides.

The typical tool for case study research is non-random sampling; it is more useful to select subjects that offer an interesting or unusually revealing set of circumstances. Researchers will consequently use information-oriented sampling, as opposed to random sampling (Stake, 2005). As such, the current study examines the case of the Casavalle neighbourhood because of its high level of homicides. Because case studies are in-depth investigations, they typically include the gathering of many sources of information, as well as the analysis of routinely gathered quantitative data, such as questionnaires, and qualitative techniques such as interviews and on-site observations (Flick, 2018; Crowe et. al, 2011). The use of numerous data sources, also known as data triangulation, has been proposed as a way to improve a study's internal validity.

In short, a case study approach considers materials of different origins, which are produced by different types of knowledge and become empirical materials through which the object of study is understood. As is shown in the sections that follow, a wide variety of documents and data sources are used in the investigation.

#### **5.4.1. Sample and data**

In this research, neighbourhoods are used as the main source of analysis for two reasons. First and foremost, it is the most disaggregated level of government data that is available in Uruguay. Secondly, neighbourhoods have been deemed as appropriate units of analysis for studying homicides, inequality, and other variables than larger political and statistical units because neighbourhoods are more likely to constitute meaningful frames of reference for social comparisons (Messner & Tardiff,

1986). Moreover, the neighbourhood is a good reference for life in the city and for its administration and the study of urban populations. As Grafmeyer and Joseph argued (1979), neighbourhoods are a veritable laboratory, providing a miniature replica of problems frequently encountered within society.

Data are selected from 2011 to 2018. Different years are used depending on the variable since not all data is recorded by government authorities in Uruguay on a yearly basis. However, most variables such as income inequality and poverty are slowly changing concepts, and as such the time frame used is considered appropriate for comparison (Messner et al., 2002; Nivette & Eisner, 2012). For all variables, data was obtained for all 62 neighbourhoods of Montevideo. The data were extracted from their sources between February and December 2020.

As a main source of information, the current study uses data from the 2011 Uruguayan census. The 2011 Census operation included a field survey of households, urban environment, public services, and population, and was carried out during the period between September 1 and December 30, 2011 (INE, 2011). Census data is complemented by data from the Ministry of Interior and the Education Ministry, and from the National Institute of Statistics (INE). Crime data was obtained from the Ministry of Interior which were only fully publicly available at the neighbourhood level from 2016 onwards.

#### **5.4.2. The structural variables**

##### **5.4.2.1. Poverty and unsatisfied basic needs**

A wide range of social and economic variables were chosen as the structural variables to examine in the current study. Poverty and unsatisfied basic needs (UBN) were used as the measure for the economic well-being of the population. In Uruguay, poverty is estimated by the level of income on a yearly basis. Data on poverty for the year 2018 was selected. Data were also extracted from the Continuous Household Survey (ECH) of 2018 and for UBN data from the 2011 Census. The UBN method is framed within

the so-called direct methods of poverty measurement with a multidimensional approach. This measure aims to identify the lack of access to goods and services (or critical problems regarding the quality of those services) whose disposition constitutes a condition for the exercise of social rights. This variable measures the lack of access of a specific population to certain goods and services that are considered critical for human development, such as access to decent housing.

#### 5.4.2.2. Education

For education levels, two variables were used for each neighbourhood. First the “education climate” of the household which is the average number of years of study of the members of the household. The educational climate of the home considers the average number of the years of schooling by household members over 25 years of age (Aguilera & Rodríguez, 2005). It is operationalized in three levels: low (when the average is less than 9 years of study), medium (when the average is between 9 and 12 years of study) and high (when the average is higher than 12 years of study). The second variable measures the percentage of the highest education level that the population attended, i.e., primary school, secondary school, university, etc. Data for these two variables was extracted from the 2011 Census for all neighbourhoods.

Additionally, education results (i.e., percentage of graduations and percentage of course approval) from the only public high school in the neighbourhood of study – Casavalle - was collected and compared with the national and city averages. Data from this school was extracted from the National Institute for Educational Evaluation website for the only years available (2017 to 2019), for all neighbourhoods in Montevideo.

#### 5.4.2.3. Deprivation: overcrowding and sanitation services

Several studies have shown that deprivation has a positive influence on crime (e.g., Osborn & Tseloni, 1998) as household characteristics and lifestyles contribute to determining target accessibility and desirability (Tseloni, 2006). In particular,

proportions of crowded households (more than one person per room), has been used as a measure of deprived areas (Osborn & Tseloni, 1998). Following this line of thought, two variables that refer to deprivation were used in this chapter: percentage of houses with overcrowding and percentage of houses without sanitation services.

Decent housing is part of the UBN and includes variables such as: materials with which the house was made, overcrowding, space available for cooking, electricity, potable water, sanitary services, and comfort items. Among the key variables of UBN is overcrowding, which is one of the main components of the housing deficit. The importance of this indicator is that it is strongly associated with poverty and social exclusion. While there are several ways to measure this variable, the Census considers overcrowded homes as those that have three or more people per room that is used for sleeping, without access to bathroom or kitchen. Data for overcrowding and sanitation services was extracted from the 2011 census for all the neighbourhoods.

#### 5.4.2.4. Population profile and urbanization: young male population density and population density

Research has suggested that sudden changes in population can cause long-term residents to feel less fully integrated into a community and can lead to a disruption of routines and activities and to a decline in community services (Freudenburg & Jones 1991; Jobes, 1999). This can lead to a breakdown in both formal mechanisms (i.e., services) and informal mechanisms (i.e., social networks) of social control, and lead to an increase in crime (Freudenburg & Jones, 1991). Population density is the most used measure of urbanization (Tseloni, 2006). The percentage of the young male population has also been used in research studies about crime as a measurement of the population profile, such as proxy for the supply of potential offenders (Osborn & Tseloni, 1998). Shaw and McKay (1942) pointed to the link between juvenile delinquency and adult criminality, with this link also being in other studies to have a significant relationship with crime (Andresen, 2006). In the current study, the proportion of young males (15-24 years old) per square mile is used as

variable of population profile, and population density is used as a measure of urbanization. Data for these variables was obtained from the 2011 Census for all 62 neighbourhoods.

#### 5.4.2.5. Family disruption: proportion of single-parent households and percentage of teenage mothers

Researchers have argued that neighbourhoods with high rates of family disruption will have a challenging time keeping informal social control given the lack of cohesive family networks that normally exert control upon their own (D'Amato, Silver & Newsome, 2020). Hence neighbourhoods with the highest levels of family disruption are likely to have higher levels of crime.

In the current study the proportion of single-parent households is used as a measure of social guardianship and family disruption (Veysey & Messner, 1999; Sampson & Groves, 1989; Tseloni et al., 2004; Osborn & Tseloni, 1998). The other most used variable of family disruption is the percentage of female-headed families (Warner & Pierce, 1993); however, this data is unavailable in Uruguay. Instead, the percentage of teenage mothers is used as a variable of family disruption. Data for these variables was obtained from the 2011 census for all 62 neighbourhoods.

#### **5.4.3. Institutional variables: Effectiveness and corruption of the police**

There are no indexes that measure levels of effectiveness and corruption at the city level, even less at the neighbourhood level. To compile data of institutional variables and circumvent this obstacle, I carried out a survey to collect data on effectiveness and corruption of the police institution. A large survey was carried out in the main high school in Casavalle, Liceo Impulso. The survey included several questions regarding the perception of the police, feelings of security and victimization of the local young person population. The survey was composed of 27 questions. Some of the questions used were: To what extent do you trust the police? To what extent do you respect the police? Do you think the police is corrupt? How would you classify

police work? And, if you were a victim of crime, would you report it to the police? (Full survey available in **Annex 11.2**). The survey was carried out in the school Liceo Impulso, during the months of October through December 2020. The school had 632 students in 2018. The survey was carried out only in Liceo Impulso because authorities representing Liceo N73 (the other school in the neighbourhood) did not give permission for the survey to be conducted. The aim was to obtain results representative of all the adolescents who study in Liceo Impulso with a 95 percent confidence interval and a margin of error of +/- 5 percent. The survey was explained to the students and carried out online through Qualtrics software. Qualtrics is an online survey tool for constructing surveys, distributing surveys, and analysing survey responses. Data from Latinobarómetro survey were used to compare the results. Latinobarómetro is an annual public opinion poll conducted in 18 Latin American countries and involving approximately 20,000 interviews. Data from the survey of 2018 was extracted for Uruguay.

Survey research is an approach commonly used to gather data about the incidence and distribution of, and the relationships that exist between variables in a specific population (Coughlan, Cronin & Ryan, 2009). The benefits of using a survey are well known; they provide a high level of representation of the characteristics of a larger population involved in the study, and because of the high representativeness of the sample population it is often easier to find statistically significant results than other data gathering methods. Additionally, multiple variables can also be effectively analysed using surveys and they can help measure the representativeness of individual views and experiences by providing hard numbers on people's opinions. Importantly, surveys provide insights on 'why' people act in certain ways.

In order to make sure that the risk of pressure was mitigated, the survey clearly stated in the participation form that all responses would be returned to the researcher and information would remain confidential. Further, it was made clear that individuals were encouraged to participate in the study with their own free will and not forced to do it by any means. Further, ethical approval to carry out the survey was obtained from the UCL Research Ethics Committee.

## 5.5. Results

**Table 5-1** lists the descriptive statistics of the variables used in the analysis. Results show a wide variation in cumulative homicides (2016-2018), from 0 in neighbourhoods such as Punta Gorda, to 61 homicides in Casavalle. Large variation also exists in most variables such as percentage of houses with unsatisfied basic needs, percentage of poor households, and educational attainment. For example, the percentage of people with high school degrees or higher varies from a high of 80.6 percent in Punta Carretas to a low of 13.6 percent in Casavalle. In short, descriptive statistics show an extreme variation between Uruguayan neighbourhoods.

**Table 5-1: Descriptive statistics**

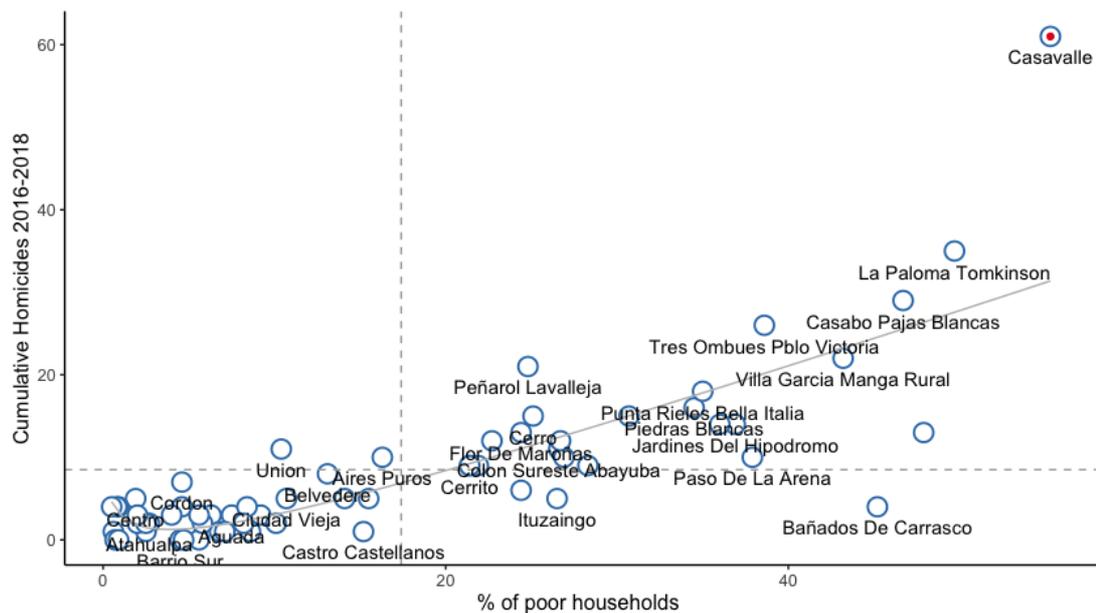
Variable	N	Mean	Std. Dev.	Min	Max
Cumulative homicides (2016-2018)	62	8.5	10.1	0	61
% of people with High school studies or higher (2011)	62	47.9	19.9	13.6	80.64
% of teenage mothers (2011)	62	6.8	4.6	0	17.1
% of single parent households (2011)	62	11.6	1.5	7.3	15.2
% of poor households (2011)	62	17.5	15.2	0.5	55.3
% of unsatisfied basic needs (2011)	62	26.4	13.5	3.7	60.1
% of houses with overcrowding (2011)	62	3.8	3.3	0.1	15.88
% of houses without sanitation (2011)	62	5.3	3.3	0.5	16.59
Population density (2011)	62	7767.9	4952.3	189.7	21660.4
Young male population density (2011)	62	573.7	381.8	15.6	1745

### 5.5.1. Structural variables

#### 5.5.1.1. Poverty

An examination of the data show that Casavalle is the neighbourhood with the highest percentage of poor households (see **Figure 5-4**) - 55.3 percent of the households were below the poverty line. It is worth noting that the other two neighbourhoods with high levels of homicides have some of the highest percentage of poor households, those being, La Paloma with 49.7 percent and Casabo with 46.7 percent. However, it is also important to note that other neighbourhoods, like Paso De La Arena (37.9 percent) and Bañados de Carrasco (45.2 percent), have high percentages of households below the poverty line but do not present high levels of homicides.

**Figure 5-4: Percentage of poor households (2013) and cumulative homicides (2016-2018)**

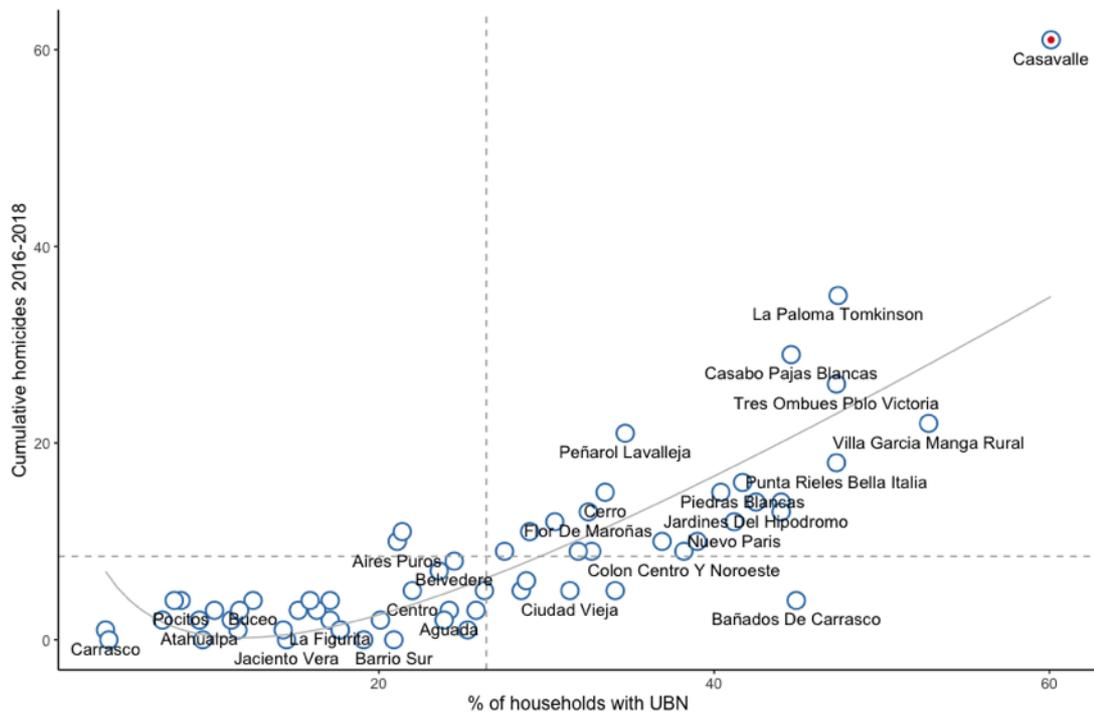


Source: own elaboration with data from INE (2011) the Ministry of Interior (2016-2018). Note: dashed line represents the means at 8.4 for cumulative homicides and 17.4 percent for poor households.

### 5.5.1.2. Unsatisfied Basic Needs (UBN)

Casavalle is the worst ranked neighbourhood regarding UBN - 60.1 percent of its population has at least one unsatisfied basic need (see **Figure 5-5**). Casavalle is followed by Villa Garcia, Manga and Toledo Chico, all of which have at least one unsatisfied basic need for over 40 percent of their populations. At the opposite extreme, Punta Gorda, and Carrasco have only 4 percent of the population with critical deficiencies. However, similar to the percentage of poor households, not all neighbourhoods with high UBN have high levels of homicides as is illustrated in the cases of Bañados De Carrasco or Colon Centro y Noroeste.

**Figure 5-5: Unsatisfied Basic Needs (2013) and cumulative homicides (2016-2018)**



Source: own elaboration with data from INE (2011) and the Ministry of Interior (2016-2018). Note: dashed line represents the means at 8.4 for cumulative homicides and 26.2 percent for UBN.

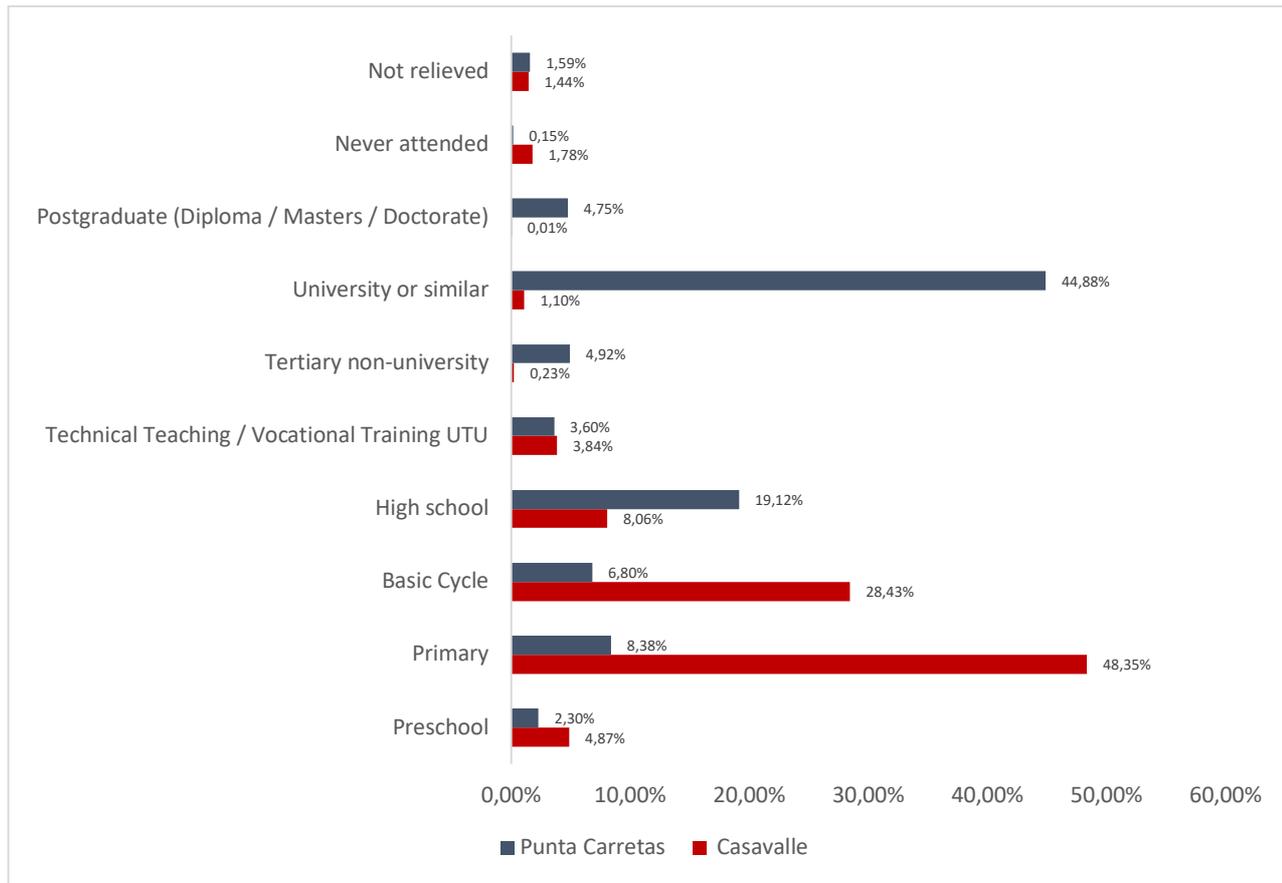
### 5.5.1.3. Education

The three most violent neighbourhoods in Montevideo have some of the lowest scores for educational climate of the city: Casavalle (7.51 years); Casabo (8.03 years), and La Paloma (8.11 years). Looking specifically at the ages between 12 and 17,

considered important because of the risk of children of these ages dropping out of the education system, these same three neighbourhoods had some of the lowest rates of children entering any school system. Only 80 percent of children between 12 and 17 attended any type of education system in these three neighbourhoods compared with the costal neighbourhoods where close to a 100 percent of children attend education (Intendencia de Montevideo, 2013).

Casavalle has some of the lowest levels of educational attainment, with only 13.6 percent of the population having attended high school or higher levels of education (see **Figure 5-6**). In comparison, Punta Carretas (80.6 percent), Pocitos (78.8 percent) and Parque Rodo (78.5 percent) have some of the highest levels of the population attending high school studies or higher levels of study. **Figure 5-6** provides a comparison between Casavalle and Punta Carretas, the latter of which is a high-income neighbourhood. The differences in educational attainment levels between these two neighbourhoods are stark, showing for example that in Casavalle only 48 percent of the population attended only primary school compared to Punta Carretas where 44 percent of the population attended university.

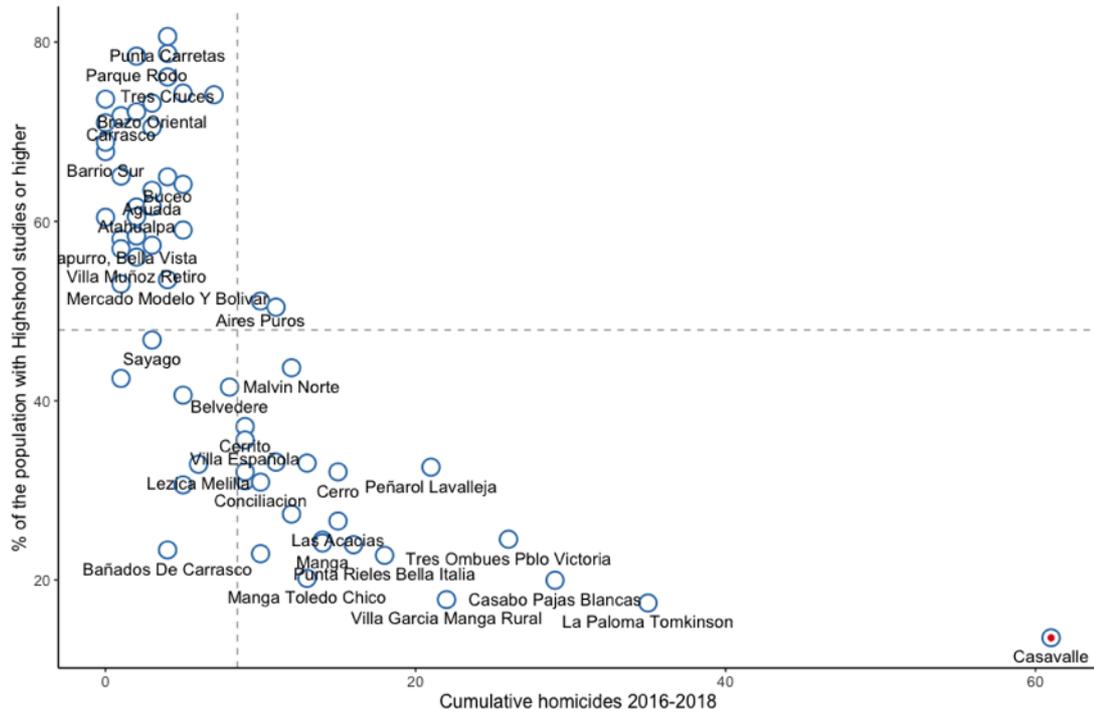
**Figure 5-6: Highest education attainment level on selected neighbourhoods (2011)**



Source: own elaboration with data from INE (2011).

**Figure 5-7** shows that there are several neighbourhoods such as Manga Toledo Chico, and Paso de la Arena that have very low education levels but also very low homicide rates. Importantly, these examples illustrate that neighbourhoods can have populations that are low on educational measures but do not have high levels of homicides.

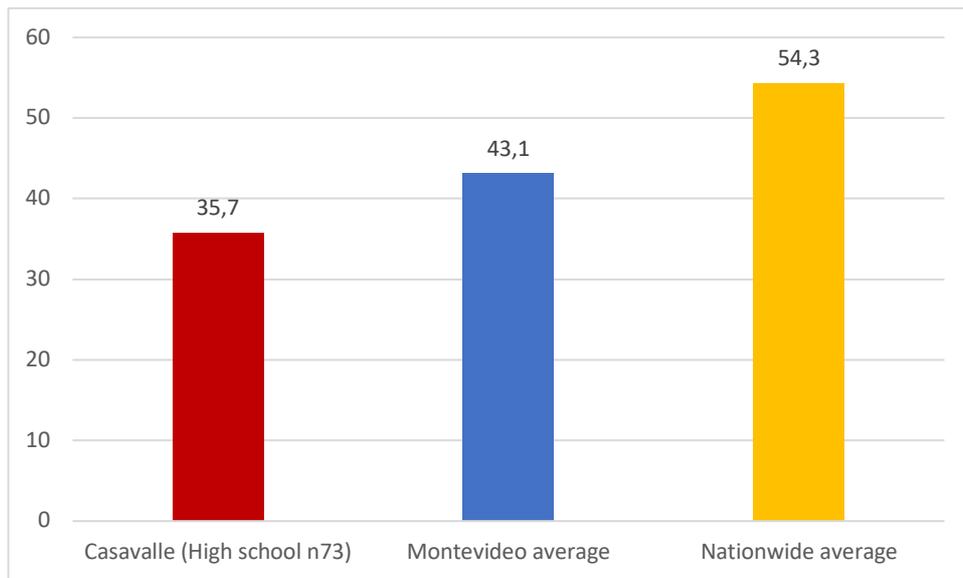
**Figure 5-7: Percentage of the population that attended high School or higher (2011) and cumulative homicide rates (2016-2018)**



Source: own elaboration with data from INE (2011) and the Ministry of Interior (2016-2018). Note: dashed lines represent the means at 8.4 for cumulative homicides and 47.9 percent for population with high school studies or higher.

There is only one publicly funded and managed high school in Casavalle, Liceo N73, which only started functioning in 2017. Before 2017, children of high school age living in Casavalle either attended the single privately managed Liceo Impulso school (and which was usually oversubscribed for children wishing to study there) or had to travel to other neighbourhoods in Montevideo for school. Even though the neighbourhood of Casavalle now has a public high school, Liceo N73 has a low record of graduation for their students, with only 35.7 percent of students graduating compared to Montevideo’s average of 43.1 percent and the national average of 54.3 percent (see **Figure 5-8**).

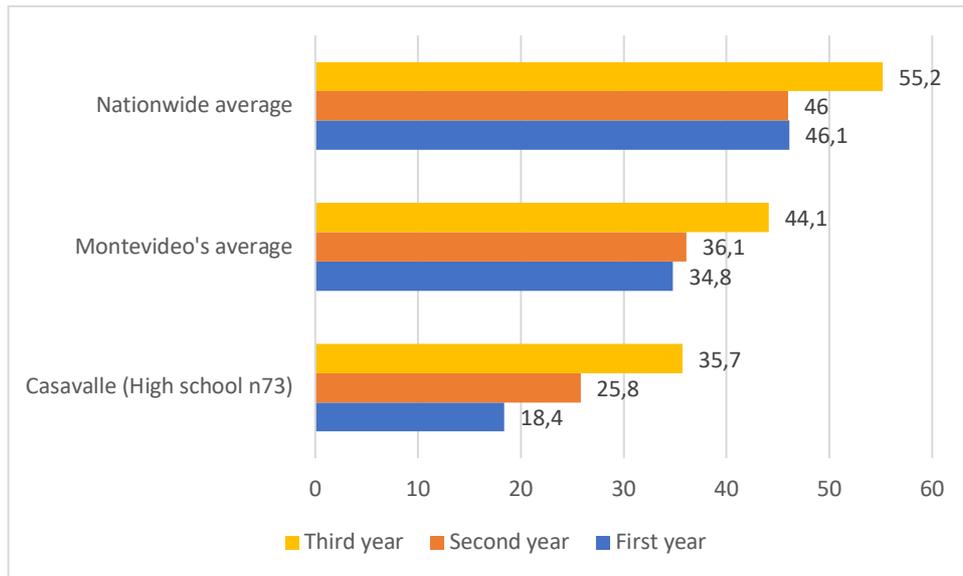
**Figure 5-8: Percentage of students that graduated from high school (2019)**



Source: own elaboration with data from the National Institute for Educational Evaluation (2019).

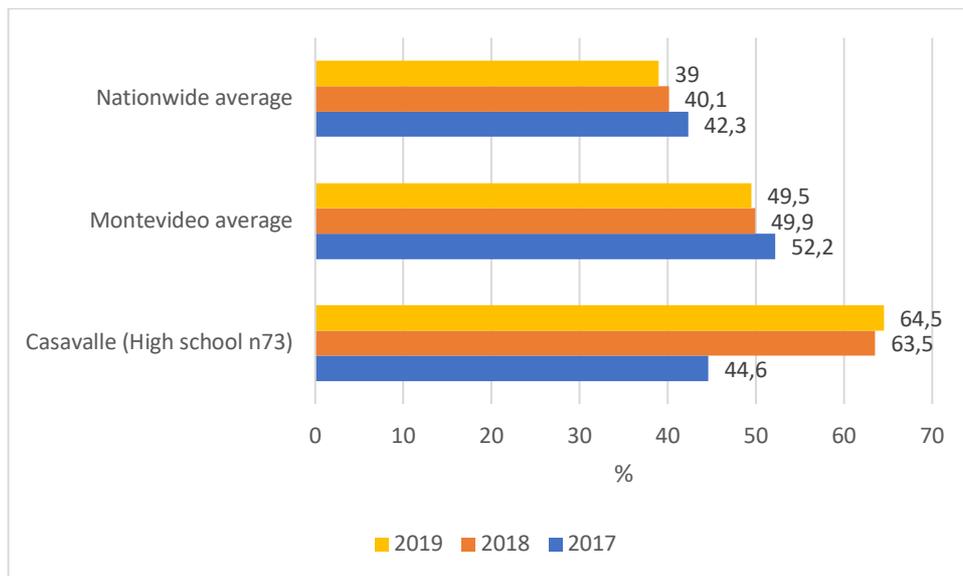
Additionally, students who attend Liceo N73 have higher rates of failing the courses they take (see **Figure 5-9**). For example, during the first year of high school only 18.4 percent of students pass all their courses at Liceo N73 compared to the national average of 46.1 percent. Relatedly, students at Liceo N73 tend to be older than those who attend other high schools in Montevideo because more students are required to repeat years of study at Liceo N73 compared to other schools in the city (see **Figure 5-10**).

**Figure 5-9: Percentage of students who pass all the courses they take (2019)**



Source: own elaboration with data from the National Institute for Educational Evaluation (2019).

**Figure 5-10: Percentage of students with one year or more in relation to the age for the degree (2017-2019)**

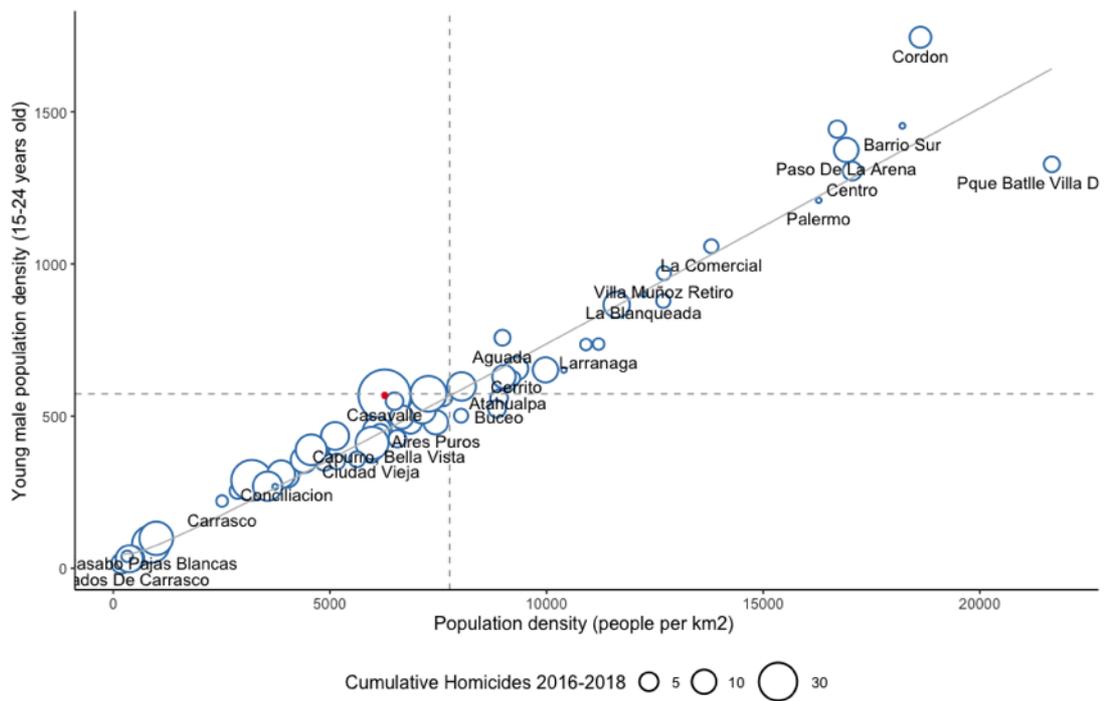


Source: own elaboration with data from the National Institute for Educational Evaluation (2017-2019).

5.5.1.4. Population profile and urbanization: young male population density and population density

Casavalle has levels of young male population density and population density that are close to the average for Montevideo (see **Figure 5-11**). Of note is that several other neighbourhoods, such as Cordon and Barrio Sur, have high levels of both the young male population density and population density, and low levels of homicide. This would suggest there is no relationship between population density and young male population density and homicides in Montevideo.

**Figure 5-11: Young male population density and population density (2011)**



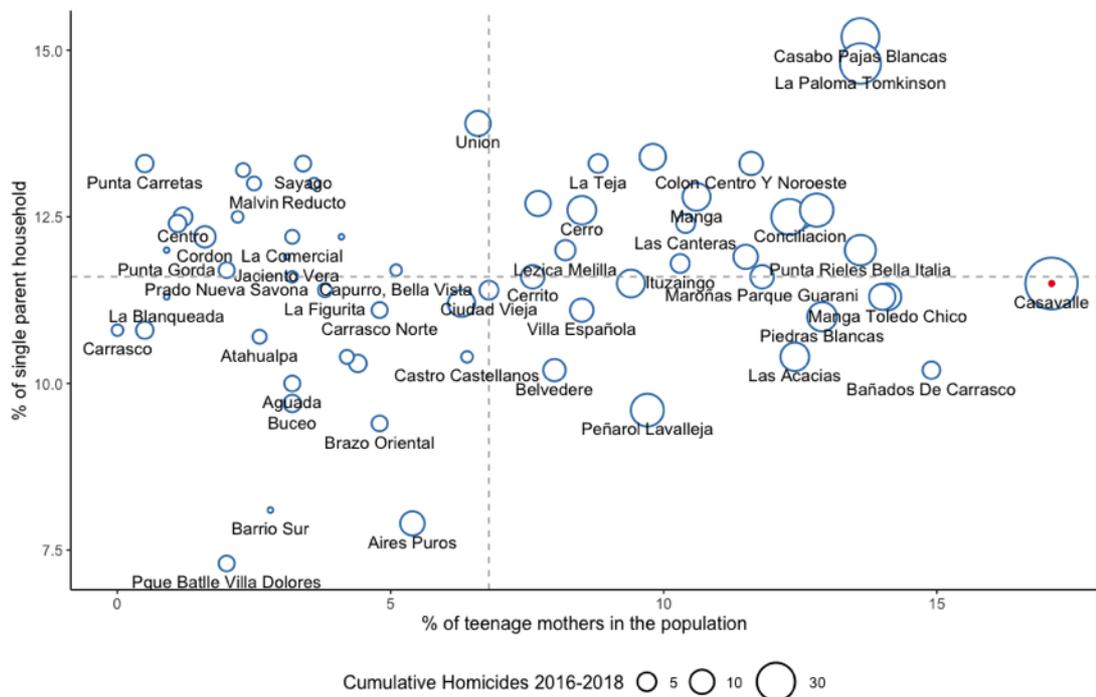
Source: own elaboration with data from INE (2011). Note: dashed lines represent the means at 7.768 for population density and 574 for young male population density.

5.5.1.5. Family disruption: proportion of single-parent households and percentage of teenage mothers

Regarding the percentage of single parent households Casavalle ranks within the means of Montevideo with 11.5 percent. Further, there seems to be no correlation between this variable and homicides as shown in **Figure 5-12**.

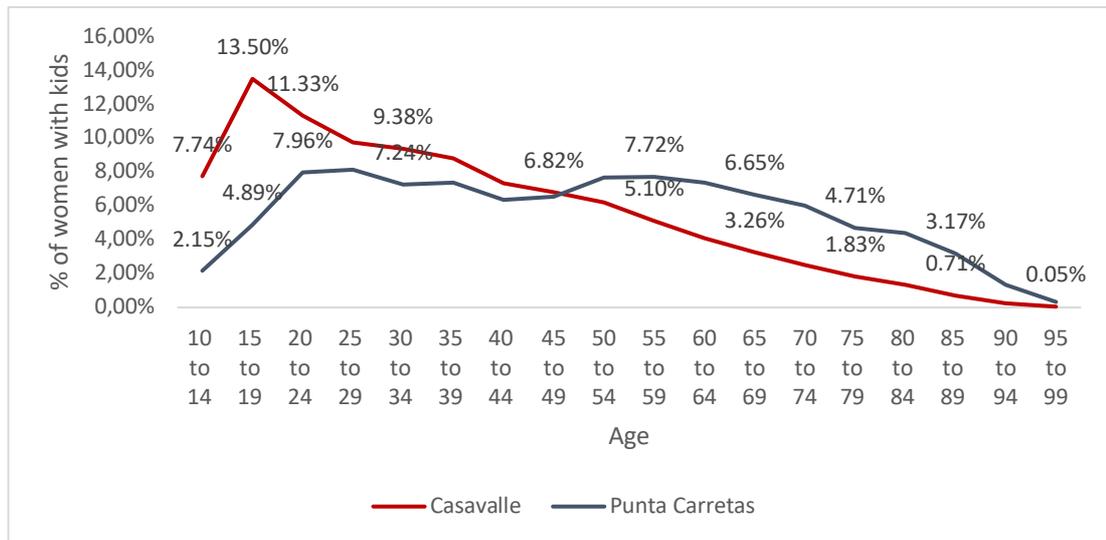
However, results regarding the relationship between homicides and percentage of teenage mothers provides different insights. There appears to be a tendency for neighbourhoods that have higher percentages of teenage mothers to also have higher levels of homicides. The percentage of teenage mothers in a neighbourhood's population in Montevideo is highest in Casavalle (17.1 percent), followed by Bañados De Carrasco with 14.9 percent. In Casavalle, the highest percentage of mothers in the neighbourhood's population is between the ages of 15 to 19 with 13.5 percent of all mothers being in that age range. In comparison, Punta Carretas (a high-income neighbourhood) has 4.8 percent of mothers in that age range (see **Figure 5-13**). In Punta Carretas, the percentage of women with children under their care peaks at the age range of 25 to 29 and 50 to 59 years of age (the latter likely relating to childcare support from parents). Interestingly, the other two most violent neighbourhoods in Montevideo (i.e., Casabo and La Paloma) record very similar patterns of teenage mothers to Casavalle (see **Figure 5-14**).

**Figure 5-12: Percentage of single parent households and single teenage mother (2011)**



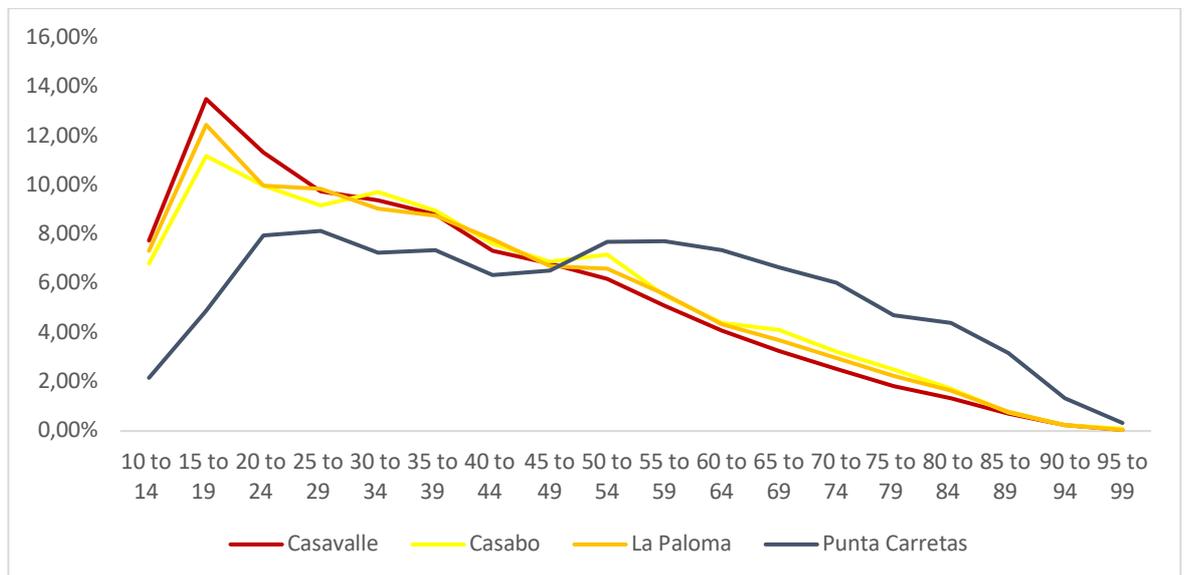
Source: own elaboration with data from INE (2011). Note: dashed lines represent the means at 6.8 percent teenage mothers and 11.6 percent for single parent household.

**Figure 5-13: Percentage of women with children under their care per age distribution (2011)**



Source: own elaboration with data from INE (2011).

**Figure 5-14: Percentage of women with children under their care per age distribution in the three most violent neighbourhoods in comparison to a high-income neighbourhood (2011)**

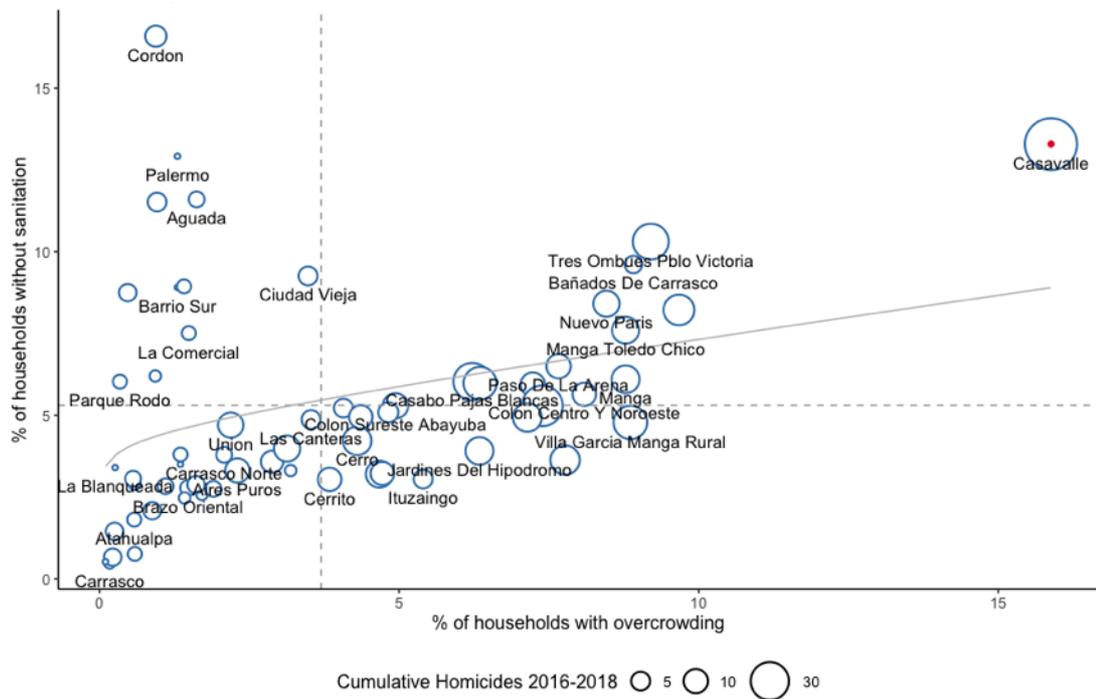


Source: own elaboration with data from INE (2011).

5.5.1.6. Deprivation: overcrowding and sanitation services

The variables chosen for deprivation were overcrowding and sanitation services. Casavalle has the highest percentage of overcrowding of all neighbourhoods in Montevideo with 15.9 percent of the households suffering from overcrowding. The second neighbourhood with highest rates of overcrowding is Punta Rieles-Bella Italia, however, it scores almost 6 percentage points lower (9.7 percent). Casavalle ranks second highest regarding the number of households without proper sanitation (13.3 percent). Several other neighbourhoods have similarly high levels of inadequate sanitation, such as Cordon, Palermo and Aguada, but these neighbourhoods experience almost no homicides (see **Figure 5-15**).

**Figure 5-15: Percentage of households without proper sanitation and percentage of households with overcrowding (2011)**



Source: own elaboration with data from INE (2011). Note: dashed lines represent the means at 5.3 percent households without sanitation and 3.7 percent households with overcrowding.

## 5.5.2. Institutional variables

### 5.5.2.1. Perception of effectiveness and corruption

As stated, there is one public high school in Casavalle (Liceo N73). There is another school which is publicly funded but privately managed, Liceo Impulso. This school has 632 students while Liceo N73 has 561 students, reaching a total of 1,139 school children in Casavalle. The survey was carried out only in Liceo Impulso because authorities representing Liceo N73 did not give permission for the survey to be conducted. In total, 332 school aged children completed the survey. Results are representative of all the adolescents who study in Casavalle with a 95 percent confidence interval and a margin of error of +/- 5 percent, and representative of all the students of Liceo Impulso with a 95 percent confidence interval and a margin of error of +/- 4 percent

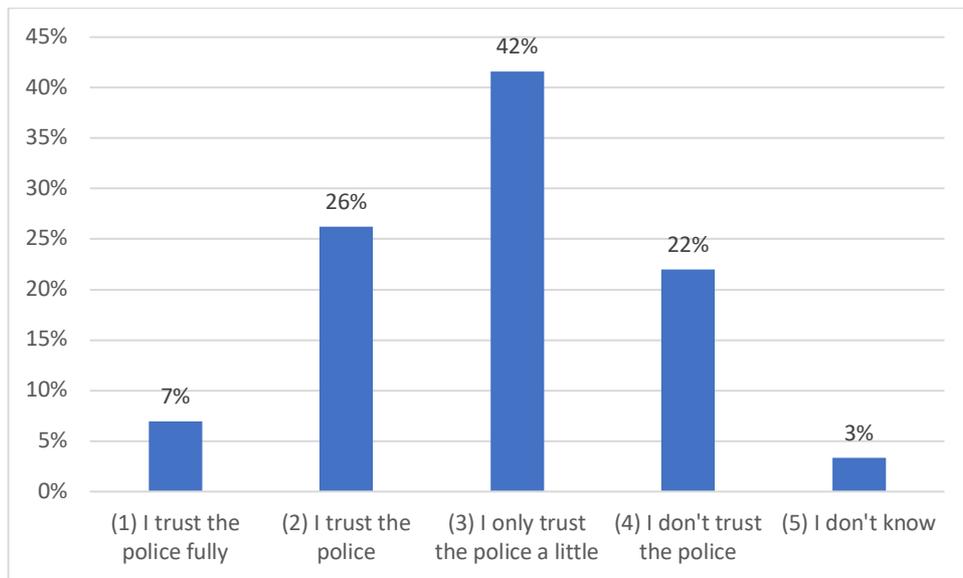
Uruguay is the country in Latin America that records the highest levels for citizens trust in the police (Latinobarómetro, 2018). Using the results from the survey, only 33 percent of students trust the police (see **Figure 5-16**). This compares to 59 percent of Uruguayans trusting the police (Latinobarómetro, 2018), indicating the low level of trust in the police amongst high school aged children in Casavalle.

Additionally, only 8 percent of the young population think that the police are 'not corrupt', with 9 percent believing the police to be 'very corrupt', 25 percent think the police are 'a little corrupt' and 42 percent believing that 'corruption happens only rarely' (see **Figure 5-17**). In short, very few young people in Casavalle feel that the police is not corrupt and do not participate in corruption. Again, the results from the survey are worse than those that relate to what Uruguayans think about the police. Data from Latinobarómetro shows that only 23 percent of the population believes that police officers are involved in corruption (Latinobarómetro, 2018).

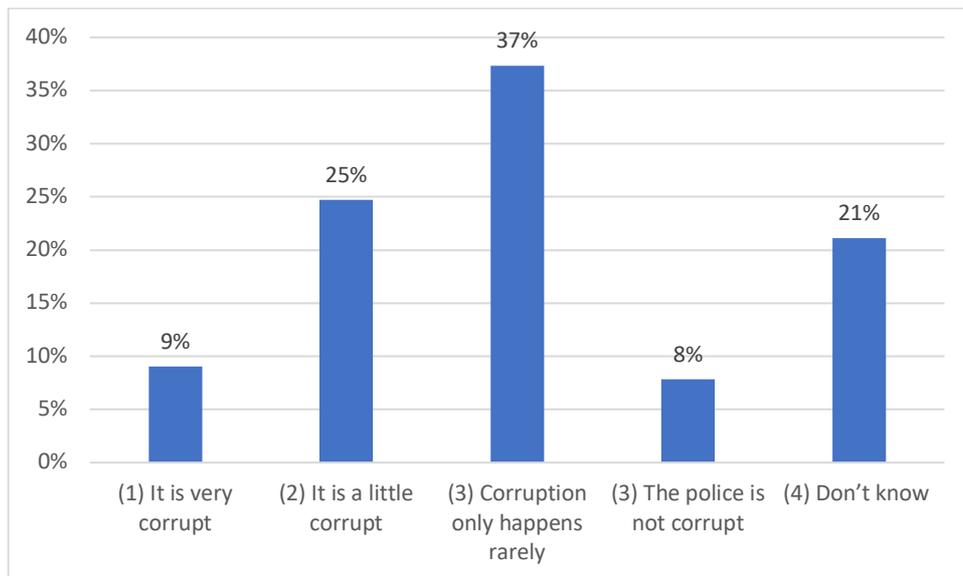
Additionally, only 30 percent of the students who participated in the survey thought that the work the police do is 'good' or 'very good'. Only 5 percent of the students

believed that if they were victim of crime the criminal justice system would be effective in punishing the criminal. Further, 66 percent of high school aged students believed that it was either unlikely or not likely at all that the offender would be punished (see **Figure 5-18**).

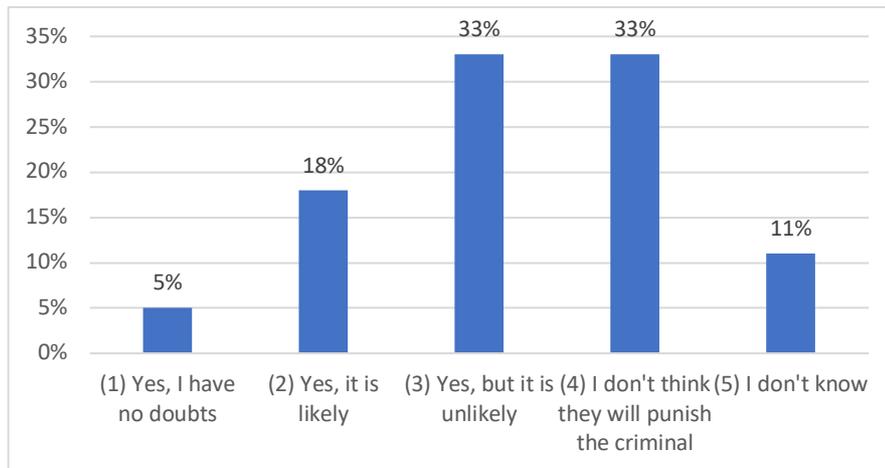
**Figure 5-16: To what extent do you trust the police?**



**Figure 5-17: Do you think the police is corrupt?**

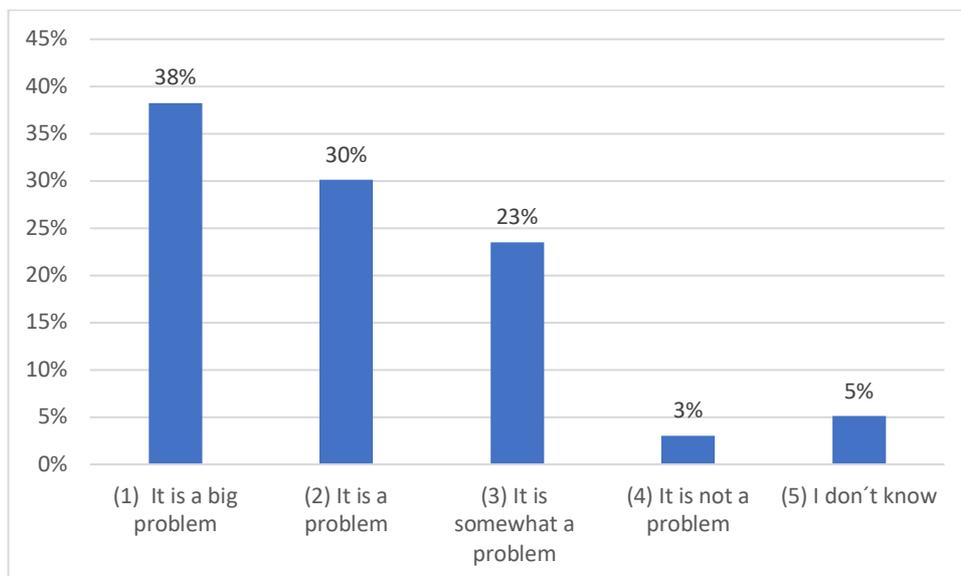


**Figure 5-18: If you were a victim of a crime, do you believe that the judicial system would punish the guilty?**



More than 2 in 3 students thought that crime in the neighbourhood was a 'big problem' or a 'problem' (see **Figure 5-19**). Furthermore, 42 percent of the students answered that someone in their household had been a victim of crime in the past 12 months and 73 percent answered they were aware of criminal groups or gangs being active in the neighbourhood. These results suggest there is a large amount of criminal activity in Casavalle.

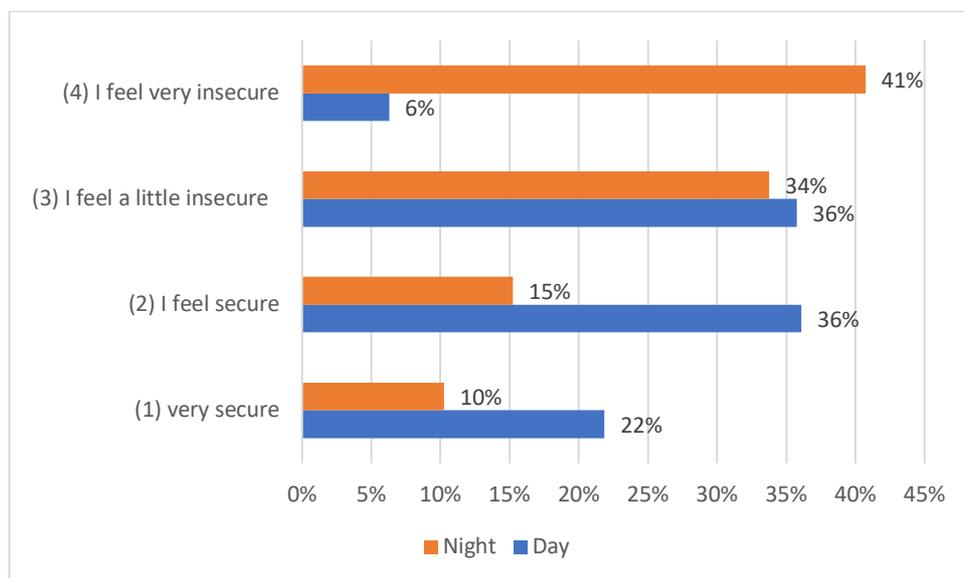
**Figure 5-19: Do you that feel that crime is a problem in your neighbourhood?**



A sensation of fear of crime is present among the young people in Casavalle. 51 percent indicated that they feel fear or a lot of fear of being victim of crime. Only 18

percent of young people responded that they do not fear being a victim of a crime. This is opposite to what the rest of the population feels. In comparison, Latinobarómetro (2018) data shows that only 20 percent of Uruguayans feel fear of being victims of a crime. These results highlight the high level of fear of crime amongst high-school aged students in Casavalle. Furthermore, 54 percent of students believed that the people living in their neighbourhood are not trustworthy, 42 percent felt insecure or very insecure walking in their neighbourhood during the day, and 75 percent felt insecure walking in their neighbourhood during the night (see **Figure 5-20**).

**Figure 5-20: How secure do you feel walking in your neighbourhood?**



## 5.6. Discussion

### 5.6.1. Structural Variables

The first hypothesis of this chapter stated that structural variables had an impact on the levels of homicides at the neighbourhood level. However, results relating to structural variables offers a mixed picture about how these variables may have an influence on crime, and homicides in Montevideo. Casavalle has a population that is one of the least educated and poorest in Montevideo, and most citizens are experiencing conditions in which the most basic needs are not provided. Further,

Casavalle also experiences some of the highest levels of violent crime in Uruguay, especially homicides. In Montevideo there are other similar neighbourhoods that experience high levels of homicides and have similar socio-economic deficiencies. However, and importantly, there are neighbourhoods that have similar levels of socio-economic deficiencies but do not experience high levels of homicides. As discussed in other chapters of this research, structural conditions seem to be important factors in explaining the variation in homicide levels, but do not provide a complete answer for the complex phenomenon.

In the current study, results do not show any relationships between homicides in Casavalle and variables that crime is often attributed to, such as, population density, young male population density and single parent's households. The research also does not find a relationship between certain other structural factors such as levels of deprivation and homicides, as illustrated by results regarding houses without sanitation services.

However, Casavalle does rank worst in overcrowding and percentage of adolescent mothers. Previous research has linked overcrowding to poor mental health, depression, stress, poor social relationships in the home, poor childcare and less strongly, but significantly, to poor social relationship outside the home (Gove, Hughes & Galle, 1979; Ruiz-Tagle & Urria, 2021). Other research has showed that overcrowding has a negative effect on children's academic performance, even when controlling for socioeconomic conditions (Contreras, Delgadillo & Riveros, 2019; Lopoo & London, 2016; Solari & Mare, 2012), and is significantly associated with aggressive and antisocial behaviours (Makinde, Björkqvist & Österman, 2016; Regoeczi, 2008), suggesting a possible explanatory link between this variable and crime.

Teenage motherhood is linked to a range of negative consequences for both the mother and the child (Baba, Iso & Fujiwara, 2016). For example, teenage motherhood is strongly associated with school disruption and lower educational attainment (Kane et al., 2013), and child abuse or neglect (Thornberry et al., 2014). Moreover, children

born to teenage mothers are reported to obtain poorer educational achievement, life satisfaction, and personal income (Lipman, Georgiades & Boyle, 2011), and having disruptive behaviours (D'Onofrio et al., 2009). Importantly for this research, children born to teenage mothers were found to be more prone to general delinquency, violence, arrest (Pogarsky, Lizotte & Thornberry, 2003), drug use and gang membership (Pogarsky, Thornberry & Lizotte, 2006). In short, overcrowded households and teenage motherhood are considered to be structural factors that are associated with delinquent behaviour, crime and violence, with these associations appearing to be present in Casavalle.

### **5.6.2. Institutional variables**

The findings from the current study regarding institutional variables offer some support for the second hypothesis of this research. Institutional variables do seem to play a role in explaining the high levels of crime in Casavalle. The majority of school aged children in the neighbourhood do not trust the police, with this level of mistrust being 25 percentage points above the Uruguayan average. Although the characteristics of the population surveyed are different, the finding suggests that young people in Casavalle perceive the police in a much worse manner than the rest of the general population. Additionally, a high percentage of young people in Casavalle believe that police work is ineffective and that the police are not capable of capturing criminals. Furthermore, only a low percentage of the young population believe that the police is not corrupt, with this value also being several percentage points below the Uruguayan average. As previous research has shown, police effectiveness, trust and corruption are related to each other because the variables interact (Nalla & Nam, 2021; Tankebe, 2013).

Numerous studies have shown that positive contact and relationships between local communities and the police matter because they can build trust and improves the perception that the population has towards the police. As stated in previous chapters, individuals are influenced by the feelings of trust they have towards the police (Bradford, Milani & Jackson, 2017; Tankebe, 2013), and by improving the

relationship between communities and the police, people will be more likely to approach the police for support and denounce crimes. Furthermore, normative compliance with the law occurs when people feel commitment to do so, fostered by institutions that they feel are trustworthy and effective (Hough et al., 2010; Beetham, 1991). Several studies have shown that individuals who consider the action and decision-making processes of the police to be fair and informed are more probable to cooperate with the police (Tyler & Huo, 2002) and trust officers from the criminal justice system (Rottman, 2007; Sunshine & Taylor, 2003; Tyler & Fagan, 2008). Building police trust in Casavalle will impact people's compliance with the law, their willingness to cooperate, inform and assist the police, and their overall support towards this institution.

## 5.7. Limitations

One of the biggest limitations to try to understand levels of institutional effectiveness and corruption is that there is no representative data available at the city or neighbourhood level. Efforts should be geared towards trying to collect data at the lowest level possible. To try to circumvent this a large N survey was carried out in Casavalle. However, using a survey has its own research limitations such as inflexibility of the survey and lack of potential depth. Additionally, since the topic of the survey is sensitive, respondents may not feel able to provide accurate responses and may not feel comfortable providing answers that represent themselves in an unfavourable manner.

There are also issues associated with risks of representation and measurement errors when conducting a survey. A survey is a snapshot of a specific time, and it does not allow for changes that may occur as a result of unforeseen variables. Further research should reproduce the survey longitudinally (where the survey is administered several times over a representative period) to overcome this problem. Finally, to obtain a larger representation of the population and understand how different variables interact with each other, the survey should be carried out at the national level or at least, at the city level, taking account of the age of respondents. A city-wide or

national level survey was beyond the scope of the current research. It is worth noting again, that the high school survey was compared with data from a national level survey that represents a different sample group, which increases the possibility of inaccuracies when comparing data.

## 5.8. Conclusion

The study presented in this chapter provides new data addressing the reality of Casavalle, one of the most challenging and violent neighbourhoods in Uruguay. Results show that this neighbourhood suffers from several socio-economic deficiencies such as poverty and low levels of education. Furthermore, the study shows that Casavalle is the neighbourhood with the highest levels of overcrowding and teenage motherhood, hinting at a possible relationship between these variables and crime.

Results from the current study also provide insights about the perceptions that students of Casavalle have towards the police at the neighbourhood level. The survey carried out with the high school aged population provided new data on local perspectives that had previously not been investigated. The survey found that school aged children are most of the time in fear of being victims of a crime, that they do not trust the police, they believe the police to be ineffective and corrupt, significantly more than most other Uruguayans.

To conclude, several factors seem to come into play when trying to understand crime and particularly homicides. However, the institutional perspective seems to play an important role when attempting to understand variations in the levels of violent crime. Results from the current study show that low levels of trust in the police, the ineffectiveness of the police, and concerns about police corruption are prevalent in the neighbourhood that experience the highest levels of violent crime in Uruguay, suggesting a possible relationship between these events.

## 6. Mapping homicide reduction programmes in Latin America

### 6.1. Introduction

The studies in the previous chapters have shown that institutional factors are relevant when trying to understand homicides in Latin America. In the next three chapters, this line of thought is expanded. Specifically, in the next chapters the key characteristics of homicide reduction programmes in Latin America are examined. Following the results from the previous studies presented in this thesis that institutions in charge of the provision of security in Latin America demonstrate low levels of effectiveness and poor controls for corruption, I hypothesize that there are weaknesses in the way these institutions design and implement programmes to reduce homicides. Programmes (i.e., a set of related measures or activities with a particular aim) are the actions that policies aim to implement.

The overall objective of the study presented in this chapter is to map the homicide prevention and reduction programmes that have been implemented in Latin America and offer an analysis of them. The aim is to contribute to a better understanding of homicide reduction programmes and from this identify potential ways these programmes can be improved. As such, the research objectives of this chapter are to understand key characteristics of homicide reduction programmes that have been implemented in Latin America, including examining the types of programmes that have been implemented, their geographical location and territorial focus, the institution in charge of their implementation, the strategic focus of the policy, and the type evaluations used.

Research has shown the need to prioritise scientifically supported violence prevention programmes, with the objective of avoiding scaling up programmes with ineffective or harmful effects. There is also a necessity to develop evaluation tools for practitioners and the need to adapt violence prevention programmes to new contexts (Krisch et al., 2015). In short, studies have shown the importance of disseminating, adapting, and replicating best practices globally (Frühling, Tulchin &

Golding, 2003). It is in this vein that the current study was developed, with the overall objective of identifying characteristics included in successful homicide reduction programmes.

Latin America is facing a combination of global, regional, and local threats that give rise to a range of security responses. As stated in previous chapters, the causes of homicides in Latin America are complex and varied, hence strategies for combating homicides need to reflect these challenges. As should be expected, different types of homicides require different programme strategies. Some, such as focused deterrence strategies (Kennedy, 2019), may be focused on preventing collective violence generated by gangs whilst other strategies may involve early childhood interventions to address domestic-related violence. Some programme strategies may emphasise law and order restoration, while others may emphasise a wide range of preventive measures that are meant to promote social cohesiveness (Muggah & Aguirre, 2013). It is important to note that multiple forms of homicide may be occurring simultaneously, requiring an assortment and combination of programmes (Igarape Institute, 2017).

Consequently, a wide range of homicide reduction programmes have been pursued in Latin America that combine federal, state, and municipal authorities, military and police entities, private and non-governmental agencies among other organizations and civil groups. At the same time, bilateral and multilateral donors have also become heavily invested in the citizen security agenda. In many cases, programmes in Latin America have been adapted from the experience of other countries, in particular developed countries. However, researchers have noted that programmes that may have worked to reduce homicides in countries such as the United States and Western Europe may not be equally effective in the different context of Latin America (UNODC, 2010). That is, what has worked elsewhere to reduce homicides may not work in Latin America. Although learning from practice from elsewhere may be beneficial, it is only through a careful process of adaptation with the full participation of local stakeholders that programmes to reduce homicide in Latin America are likely to be successful (Abt & Winship, 2016). The indications to date are that, overall,

homicide reduction programmes implemented in Latin America have been mixed in the results they have had in reducing homicides. In the current study, I aim to examine these homicide reduction programmes in more detail and generate a better understanding of why, when, and how programmes have been successful. The next section reviews the previous literature that has researched homicide reduction programmes in Latin America. I then explain the data and methods used to examine and classify programmes for homicide reduction. The chapter is continued by presenting the results and discussing those results in relation to the research objectives of the chapter.

## 6.2. Homicide reduction programmes in Latin America

There are few regional reviews on the type of homicide reduction programmes that exist in Latin America, nonetheless, some previous work has been completed by international organization and researchers that can be drawn from. This includes a recent report from the OAS, titled “Hemispheric plan of action to guide the design of public policies to prevent and reduce intentional homicide” (2019), which offered three key recommendations to support the effective implementation of homicide prevention policies in Latin America. First, the need to produce and use information and scientific evidence to elaborate new programmes. Second, the need to design and implement more efficient prevention policies by initiating comprehensive programmes focused on specific territories and at-risk populations. Third, the need to strengthen the criminal justice system in its different levels, including the prison systems and juvenile justice systems, and to promote effective coordination among police departments, prosecutors, judges, and other competent authorities (OAS, 2019). Another report from the IDB (2012) analysed violence prevention programmes that had been implemented in the region and proposed several necessary reforms. Among these, was the need to improve inter-institutional leadership and coordination, to create reliable information systems to accurately design public policies, to implement mechanisms for monitoring and evaluating actions and to strengthen local governments and their role in violence prevention (IDB, 2012). In summary, it would appear that for homicide reduction programmes to be effective in Latin America, there is a need for an integral transformation of the public institutions that are responsible for the implementation of these programmes.

The current study builds on these reports from the OAS and IDB and on three other notable works: “Mapping citizen security interventions in Latin America: reviewing the evidence”, “What works in reducing community violence: A meta-review and field study for the northern triangle” and “Mapping of Homicide Prevention Programmes in Latin America and the Caribbean”. The details about homicide reduction programmes that are captured in these reports are drawn from for the analysis involved in the current study. I begin, however, with a short description of each of

these three reports. The first of these from Muggah and Aguirre (2013) (“Mapping citizen security interventions in Latin America: reviewing the evidence”) involved a review of how citizen security interventions have been operationalized across Latin America. More than 1,300 citizen security interventions across the region, since the late 1990s, were analysed, but with a dramatic increase in the number of such interventions in recent years. They also noted that a few countries accounted for most interventions, particularly Colombia, Brazil, and Guatemala. Importantly, the authors showed that most citizen security interventions were pursued at the national level (47 percent), with others undertaken at the city level (32 percent), the sub-state level (19 percent) and regionally (7 percent). It is relevant to note that this report focused on citizens security programmes which differ from specific homicide reduction programmes. Citizen security programmes are mainly geared towards prevention. In general, these programmes require an inter-sectorial approach, and aim to articulate social components (cultural activities for youth), environmental components (recovery of public space), components related to risk factors (arms control), and components associated with the criminal justice system (community policing, restorative justice, improving the prison system, etc.). Citizen security programmes that include as an objective the reduction of homicides are included for analysis in the current study.

The second review is from Abt and Winship (2016) (“What works in reducing community violence: A meta-review and field study for the northern triangle”) in which the authors performed a systematic meta-review of 43 reviews of violence reduction programmes, including over 1,400 studies. In this review, Abt and Winship attempted to identify the best practices for reducing community violence. They concluded that only a few programmes, such as focused deterrence and cognitive behavioural therapy, exhibited moderate to strong effects on crime and violence and that many others exhibited weak or modest effects, and that some programmes, such as scared straight, should be reconsidered or simply discarded because there was no evidence of their positive impact in reducing violence. Additionally, they stated that violence generally clustered around a small number of places, people, and behaviours (Braga & Weisburd, 2012), and that violence was not displaced from those clusters

when they were effectively targeted. Abt and Winship also conclude that policymakers should concentrate and coordinate anti-violence efforts where they matter most and that governmental and non-governmental funders should develop and deploy evidence-informed programmes (Abt & Winship, 2016).

Finally, the third review, and perhaps the most complete and thorough, is from Cano and Rojido (2016) (“Mapping of Homicide Prevention Programmes in Latin America and the Caribbean”) in which they analysed 93 homicide reduction programmes and concluded that programmes that focused specifically on homicides are relatively few in number. This, per se, is a surprising fact taking into consideration the high levels of homicides in Latin America. Homicide reduction programmes they identified were concentrated in countries with high levels of homicides, such as in El Salvador, Guatemala, Colombia, and Brazil, and were less common in subregions with relatively low homicide rates, such as the Andean countries. According to the researchers, they suggested that homicide programmes could be classified into six different thematic areas or strategies (Cano & Rojido, 2016):

- i) Controlling protective or risk factors (e.g., controlling the sales of firearms and consumption of alcohol)
- ii) Promoting cultural changes (e.g., campaigns against violence)
- iii) Protecting at-risk groups (e.g., trade unionists)
- iv) Improvements in the operation of the criminal justice system (e.g., improving police interventions in very violent areas)
- v) Programmes for reinsertion, mediation, or negotiation geared to perpetrators
- vi) Integrated violence reduction strategies

The results of their research showed that the majority of homicide reduction programmes in Latin America had been implemented in the last decade and that most programmes were general initiatives against violence and crime, in which homicide was treated as just an extreme manifestation of criminal behaviour and addressed transversally. Transversal programmes were those that recognised the

complexity of violence and the importance of coordination between institutions to reduce homicide levels. The research concludes that 60 percent of the programmes had a social focus, 37 percent had a territorial focus, 28 percent of the programmes were oriented towards interventions for young people and 22 percent to victims and witnesses in criminal proceedings (albeit with some overlap between these categories in several programmes). Of particular note was that only 16 percent of the programmes were the subject of impact evaluations. The researchers estimated that the lack of evaluation may be due to the absence of planning and technical limitations, accompanied by the absence of a culture of evaluation. Additionally, countries with the highest homicide rates tended to have limited capacity and resources to perform evaluations and research the outcomes of the programmes they had implemented.

This review of existing research literature about homicide reduction programmes in Latin America provides relevant insights to the situation in the region. For example, this research shows that most homicide reduction programmes were implemented fairly recently (within the last 10 to 15 years), there was a high proliferation of homicide reduction programmes in countries with high homicide rates and there was little and inefficient cooperation between different government institutions in the implementation of some programmes. Also, there was a lack of evaluation and impact assessment of the programmes. In the next sections I build on this previous research and provide a more in depth and up to date assessment of homicide reduction programmes in Latin America to understand what is being implemented in the region and the characteristics of these programmes.

### **6.3. Criteria for inclusion of homicide reduction programmes**

Only homicide reduction programmes that take place in Latin America, specifically in Mexico and Central America, and South America are considered in the current research study. The time frame of this review is from 2002 to 2019. This time frame was chosen based on two factors i) the rise of homicides began between these dates at a regional level and became endemic, and ii) this time frame is when homicides

and crime became one of the main worries of Latin American citizens and hence became a central in the public agenda topic (Latinobarómetro, 2018; LAPOP, 2016).

This research focuses on programmes with deliberate interventions carried out at a specific moment, designed to change some important aspect of the situation (i.e., homicide trends). Analysing homicide reduction programmes is complex. As mentioned, programmes can be designed to target the national, regional, city or neighbourhood level, and in many circumstances, violence reduction programmes target homicide reduction as part of a wider program. However, in other cases, homicide reduction is the specific and sometimes only objective of a programme (Cano & Rojido, 2016). In this sense, the current study focuses solely on programmes that are designed to reduce homicides and does not include violence prevention programmes that do not have a specific focus on homicides.

Additionally, this examination of homicide reduction programmes does not include programmes with the following characteristics:

- i) Programmes that mentioned the homicide rate just as a general indicator of violence or security but do not aim to tackle homicides specifically.
- ii) Programmes that used the homicide rate as a criterion for selecting territories to be benefited by violence prevention programmes but that did not tackle homicides specifically.
- iii) Programmes that referred to violence prevention generally without specifically tackling homicides. These were considered to lack specificity and, therefore, were not incorporated in the analysis.
- iv) Programmes that focused on changes in legislation such as harder penalties or peace treaties were not included.
- v) Everyday investments in improving the criminal justice system (such as improving the equipment and capabilities for police investigation), even though they may impact on the levels of crime, were not included unless this type of investment was one of the stated objectives of the homicides reduction program.

The classification of programmes is based on the three types of prevention proposed and are catalogued in the three different levels proposed by Brantingham and Faust (1976). Primary prevention programmes are attempts to lower crime by reducing the opportunity for crime by implementing measures targeted at the public to counteract circumstances that could facilitate crime. This means identifying and targeting conditions that provide potential opportunities that may foster criminal activity or may precipitate criminal behaviours (Brantingham & Faust, 1976). In short, primary prevention targets the general population and addresses the conditions in the natural environment that lead to the development and prevalence of crime. Examples of these type of programmes are neighbourhood watch, broken windows approach, and mass media campaigns. Secondary interventions target groups or individuals that are at risk of committing crime and seek to intervene before the crime takes place (Dijk & Waard, 1991). These types of programmes attempt to prevent crime by early identification of at-risk offenders and groups. Some examples of secondary programmes are rapid early interventions (for example youth programmes) or targeting high risk neighbourhoods. Finally, tertiary prevention is concerned with preventing crime after it has occurred. The goal is to lower criminal recidivism rates and guarantee that victims are not re-victimized. (AIC, 2003). Examples of these types of programmes are rehabilitation and treatment programmes for offenders and ex-offenders. Often, in practice, these different levels of prevention work with each other and one type of programme may include several levels of interventions.

Given that empirical evidence shows that crime is concentrated in a small number of high-risk locations during high-risk times, and is perpetrated by a small number of very risky people (Braga, 2012), the homicide reduction programmes were examined in terms of whether they were people or place based (see **Table 6-1**). This classification is also grounded on what Abt and Whinship (2016) identified in their meta-review of community violence programmes in Central America. These authors divided the programmes they examined into three categories:

1. Place-Based Approaches: target the geographic locations where violence occurs
2. People-Based Approaches: focus on the individuals and groups who perpetrate violence
3. Behaviour-Based Approaches: concentrate on behaviour that may be likely to trigger violence, such as carrying firearms, selling illegal drugs, excessive consumption of alcohol, and belonging to a gang, among others

As a result, the homicide reduction programmes were examined and categorised in terms of whether they were targeted at people, targeted at places, or targeted at behavioural-based facilitators. This categorisation of dimensions is shown in **Table 6-1**, listed with examples of the types of homicide reduction programmes that fall under each dimension. In practice, these three dimensions are interconnected (e.g., a programme could be people and placed-based).

**Table 6-1: Categorisation of homicide reduction programmes and examples**

Dimension	Examples of programmes
Intervention targeting people	<p>Focused deterrence</p> <p>Conflict mediation</p> <p>Cognitive behavioural therapy</p> <p>Early prevention focused on family/parents</p> <p>Access to social and economic opportunity for high-risk groups</p>
Intervention targeting places	<p>Interventions in hot spots</p> <p>Disorder (broken windows) policing</p> <p>Community oriented policing</p> <p>CPTED</p> <p>Neighbourhood watch</p> <p>Urban renewal</p>

	Strengthening local community capacities
Intervention targeting facilitators (behaviour based)	Gun and ammunition regulation Measures to regulate alcohol Strategies to reduce drug related violence Situational prevention in public spaces Gang behaviour regulation Gang prevention Comprehensive gang reduction

In this chapter, I aim to identify, select, and appraise homicide reduction programmes in a clear, unbiased, and systematic manner. Robust eligibility criteria and narrowly defined search concepts enable effective analytic assessments (Armstrong et al., 2011). In this chapter, a strict and specific eligibility criterion to guide the investigation and obtain comparable programmes is used. The criteria are summarized in **Table 6-2**.

**Table 6-2: Eligibility criteria for including homicide reduction programmes**

Criterion	Description
Topic	Mapping of homicide reduction programmes or violence reduction programmes that specifically include homicides as an objective.
Temporal scope	2002-2019
Target groups	Primary, secondary, and tertiary
Type	Place-based, people-based, and behaviour-based.
Geographic scope	Mexico and Central America, and South America

Source: own elaboration adapted from Abt & Whinship (2016) and Cano & Rojido (2016).

#### 6.4. Data and methodology

In studying the problem of homicide, the comparative perspective has important advantages. First, it provides a sense of the scale of the problem. Second it suggests how one problem might be linked to another, and how policies might need to focus in a specific area that might have been neglected before. Third comparative studies help us understand the successes and failures in the case studies and to follow an evidence-informed approach to problem solving.

This mapping is based on systematic review methodology with a high-level overview of primary research on a particular research question. It provides an exhaustive summary of programmes related to a particular research topic (i.e., homicide reduction programmes) and carefully identifies, chooses, and evaluates all relevant evidence. Systematic reviews formulate research questions that are broad or narrow in scope, and in this case, identify and synthesize programmes that directly relate to the systematic review question. Such reviews may be published as a research outcome and are relevant since they produce a broad map of the evidence that may be used for applications beyond the authors originally intended purpose.

As a starting point, data on homicide reduction programmes were extracted from the database of the Inter-American Network for the Prevention of Violence and Crime from the OAS and from the Cano and Rojido (2016) paper. This previous work is inclusive of homicide reduction programmes up until 2016. To bring currency to the current study, analysis of programmes between 2016 and 2019 was also conducted. To do so, a review of the literature on homicide in Latin America was conducted, as was added to with a wider internet search. To do so I searched for relevant literature using the following keywords: 'homicide', 'policy', 'program', 'reduction' and 'prevention'. Further, to increase the effectiveness of the investigation, the search was used corresponding to each of the 18 countries included in the selection criteria, from 2002 to 2019. Depending on the case, the search was done in Spanish or English.

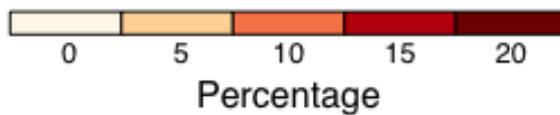
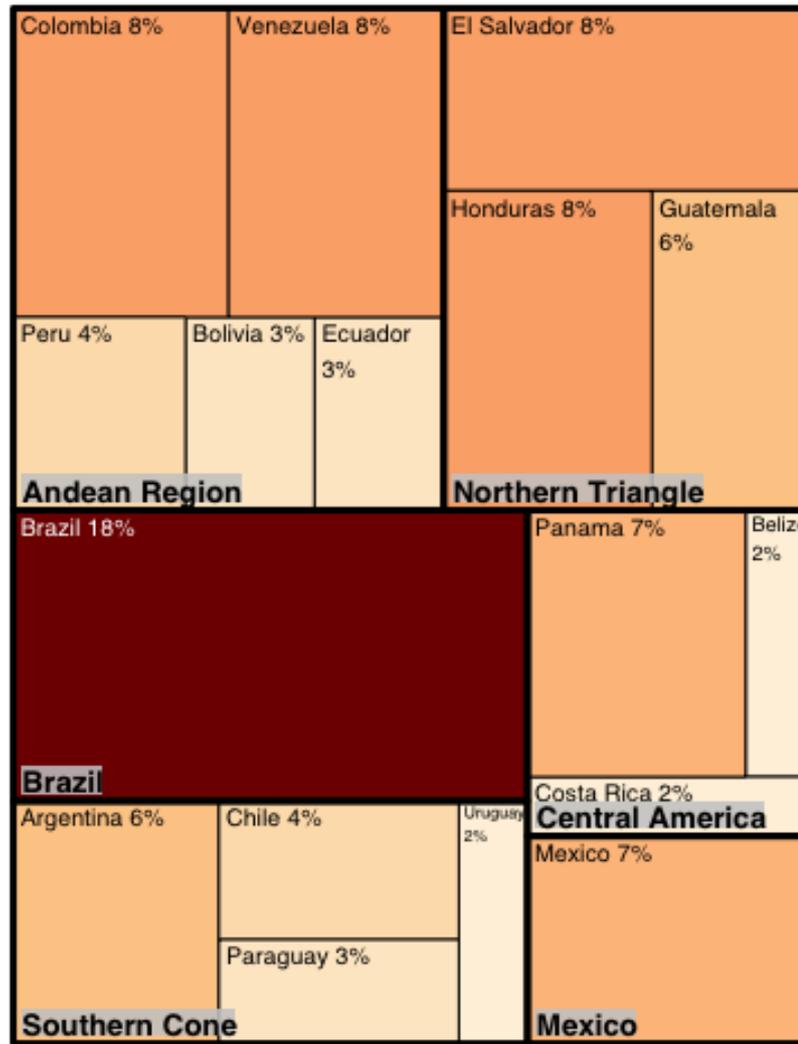
At least the first 5 pages of results of each descriptor ('homicide', 'policy', 'program', 'reduction' and 'prevention') from all the 18 countries were examined to identify material of relevance. Moreover, consistent with Mullen (1989), an ancestry approach (also known as Forward Citation Searching), which tracks down references cited by relevant sources, was undertaken to identify programmes that were missed in the electronic search.

## 6.5. Results

The research revealed a total of 89 programmes that matched the selection criteria. Programmes that were identified as being conducted in different countries, were counted once per country since the implementation and context of the programme may vary per country. As such the programme *Nuestra decisión está tomada, no más feminicidio* (Our decision is made, no more femicide), *Ni una menos*, *Basta de Femicidios* (Not one less, stop femicide), the Central America Regional Security Initiative (CARSI) and Cure Violence were counted three times each, and *Instinto de Vida* (Life instinct) was counted seven times. These types of programmes had a regional focus and usually were implemented by the civil society with the support of international organizations such as IDB, CAF or UNDP.

**Figure 6-1** shows the homicide programmes separated by region and countries for the period 2002-2019. The region with the highest number of programmes was the Andean region with 26 percent, and mainly included programmes from Colombia and Venezuela because of the number of programmes in place in these countries (8 percent each). The Northern Triangle was the following region with most homicide programmes, with 22 percent, with a particularly large number of programmes in El Salvador and Honduras. Brazil followed with 18 percent of the total number of programmes, then the Southern cone with 15 percent, with Argentina as the country with most programmes (6 percent). Mexico accounted for 7 percent of the programmes, while the rest of the Central American countries accounted for 11 percent of the programmes.

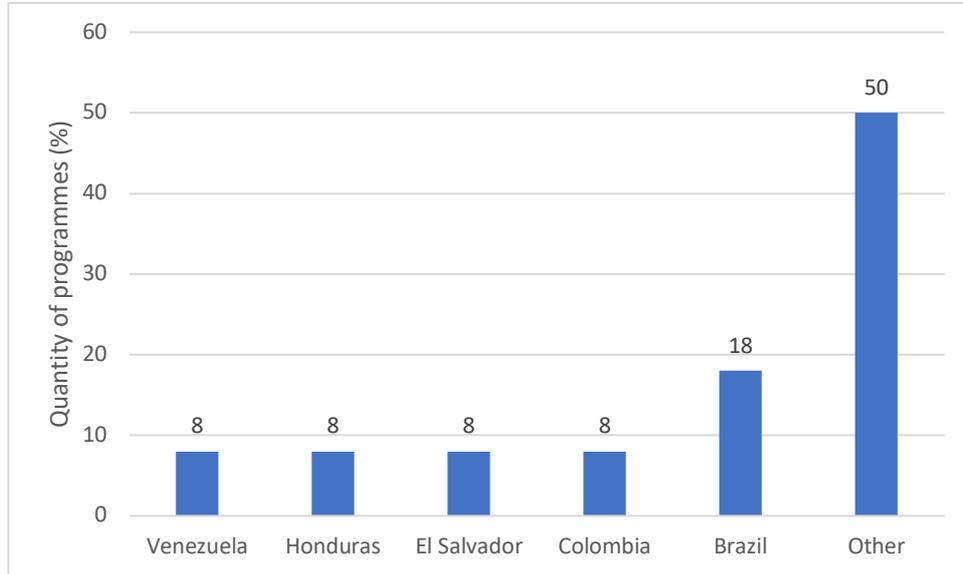
**Figure 6-1: Homicide reduction programmes (%) by country and region (2002-2019)**



When examining the number of programmes per country (see **Figure 6-2**), Brazil stood out as the country with most homicide programmes at 18 percent, followed by Venezuela, Honduras, El Salvador, and Colombia, each with 8 percent. These five countries accounted for 50 percent of all the homicide reduction programmes in Latin America. Mexico followed with 7 percent. This observation would suggest that there

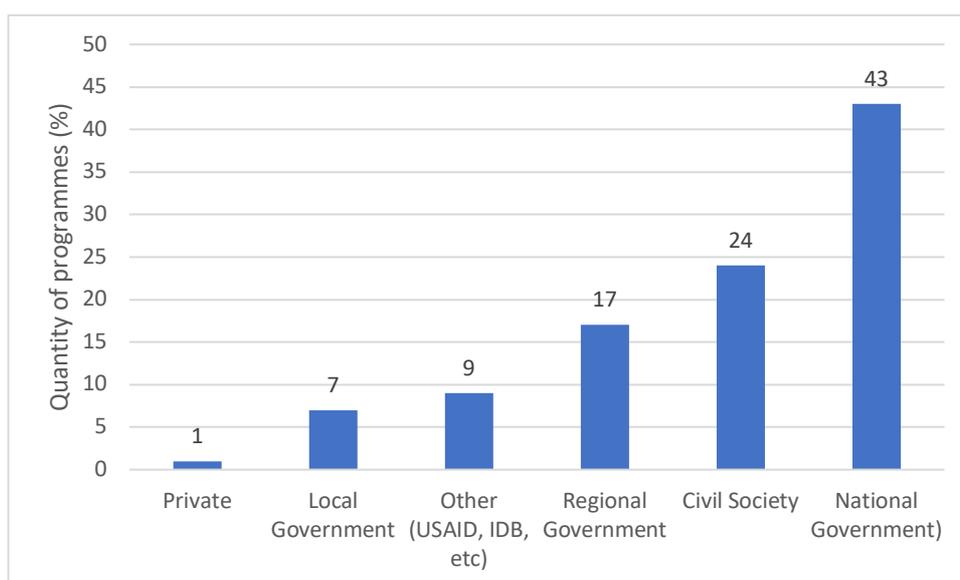
is a correlation between the countries with the highest levels of homicide rate and the countries with the most homicide reduction programmes.

**Figure 6-2: Countries with most homicide reduction programmes (2002-2019)**



Governance refers to the mechanisms of negotiation and cooperation among a plurality of participants, including civil society, the economic sector, and the state to guide and manage the policy (Le Welsh, 1995). Regarding the institution in charge of implementing the programmes (see **Figure 6-3**), the national government was the most common institution with 43 percent. Regional governments (state or department level) accounted for 17 percent of the programmes while local government for 7 percent. International organizations such as USAID, the IDB and the Development Bank of Latin America (CAF) implemented 9 percent of the programmes while civil society was responsible for 24 percent of the programmes. However, the proportion of programmes that civil society organisations were responsible for must be interpreted cautiously, since civil society organisations implemented the same programme in different countries. The *Proyecto Alcatraz* (Alcatraz Project) in Venezuela was the only programme where the institution in charge was a private foundation.

**Figure 6-3: Type of institution responsible of the programme (2002-2019)**

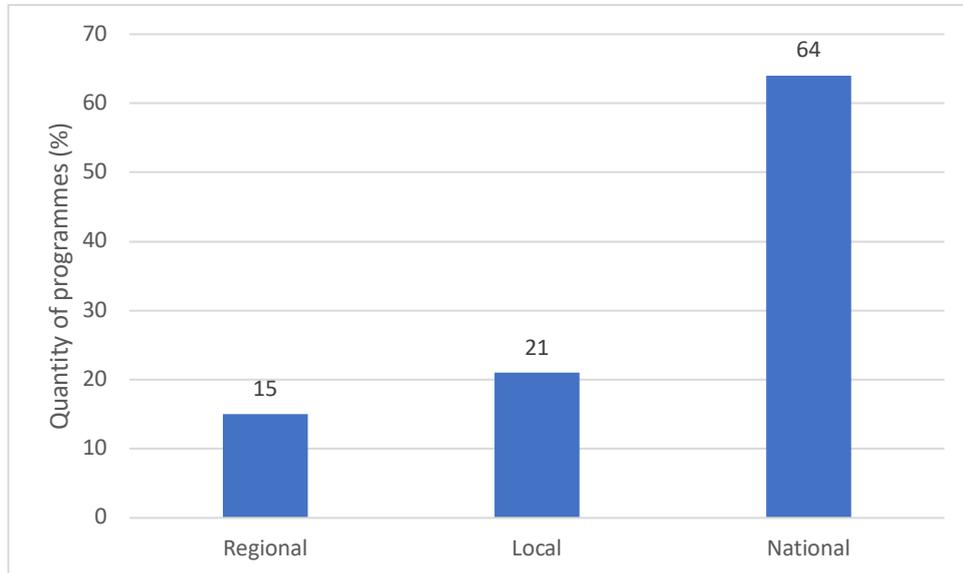


Regarding the territorial focus (see **Figure 6-4**), 64 percent of the programmes were deployed at the national level, while 21 percent at the local level and 15 percent at the regional level (at the state or department level). There is a divergence between the institutions in charge and the territorial focus. This is because a programme may be implemented by a national institution and have a regional focus, or a regional institution may implement a programme with a local focus.

Some programmes operated at the supranational level, which accounts for a significant number and are the same programmes that repeat throughout Latin America. The supranational level means that they target more than one country. These types of programmes were usually supported and implemented by international organizations such as the IDB and USAID or by the civil society. These programmes were: i) the Central America Regional Security Initiative (CARSI) implemented in Honduras, El Salvador, Guatemala, and Panama, ii) Cure Violence, implemented in Colombia, Honduras and Mexico, iii) *Instinto de Vida* (Life Instinct), which took place in Brazil, Colombia, El Salvador, Guatemala, Honduras, Mexico and Venezuela, iv) *Nuestra decisión está tomada, No más feminicidio* (Our decision is made, No more femicide) implemented in Peru, Bolivia and Ecuador and finally, v) *Ni una Menos, Basta de Femicidios* (Not one less, stop femicide) implemented in Uruguay, Argentina and Chile. For practical purposes, and since these programmes

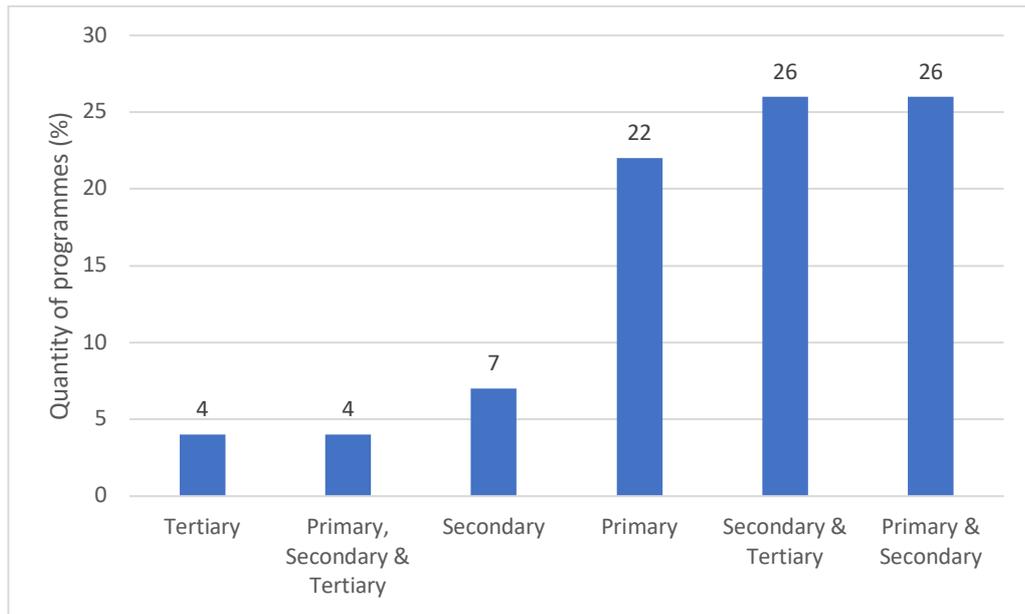
have to be implemented at the national level and within the context of each country, they were catalogued as one programme per country.

**Figure 6-4: Territorial focus of the programme (2002-2019)**



Regarding the type of crime prevention proposed, there was a wide variety of programmes being implemented in the region. Primary prevention seeks to intervene in the general population and involves attempts to lower crime by implementing measures to counteract circumstances that could facilitate crime. Secondary interventions target groups or individuals that are at-risk of committing crime and seek to intervene. A tertiary prevention focus involves reducing the recidivism rate of criminals and ensure that steps are taken so that a victim will not be re-victimized. However, as stated before, in practice homicide reduction programmes involve several types of interventions (see **Figure 6-5**). The majority of programmes included a mix of interventions. There were 26 programmes that included a combination of tertiary and secondary interventions and 26 programmes that included a combination of primary and secondary interventions. A high number of programmes (22 programmes) were primary, meaning they target the whole population. There were few secondary prevention programmes (only seven), however, these secondary prevention programmes appeared to be included in combination with other prevention programmes.

**Figure 6-5: Type of intervention (2002-2019)**



Regarding the type of homicide reduction strategy used, the most common strategies were integrated homicide reduction programmes, accounting for 26 percent of all programmes (see **Figure 6-6**). These types of programmes include the implementation of a combination of actions geared towards reducing homicides. An example is the programme *Todos somos Juarez* (We are all Juarez) in Juarez, Mexico. This programme had the objective of reducing violence and worked on two levels. The first was the recovery of public spaces and the improvement of living conditions. The second involved improving the overall functioning of the criminal justice system. *Pacto pela Vida* (Pact for Life) in Pernambuco, Brazil, was another example of an integrated programme with a priority of reducing homicides. This programme had several lines of action that included an articulation between public security and human rights protection, a combination of qualified repression with specific crime prevention, monitoring and evaluation mechanisms and participation in social groups during the control of the implementation phase of the program. Finally, the programme *Barrios Seguros* (Safe Neighbourhoods) in Buenos Aires, Argentina is another example of an integrated strategy. This programme was aimed at reducing the levels of violence in specific neighbourhoods of the capital city by implementing social programmes that primarily promoted a culture of peace, by improving the functioning of the criminal justice system and by reducing local risk factors.

The second most frequent programme strategy were those that promoted cultural changes (21 percent) such as promoting values contrary to violence or promoting respect for life. Some of these programmes focused on reducing violence against women such as *Ni una Menos, Basta de Femicidios* (Not one less, stop femicide). This campaign aimed to raise awareness of the violence against women and by doing so, reduce femicides and increase the risk of committing these crimes. Another example was the campaign *Instinto de Vida* (Life Instinct) which was an alliance of several non-governmental organizations in the region with the objective of reducing lethal violence and promoting innovative evidence-based policies. To reach these objectives the campaign aimed to i) establish objectives and goals for the reduction of homicides, backed by clear commitments from governments, ii) support the development of plans and programmes to reduce homicides in the most affected areas, and iii) disseminate data and information on programmes that work effectively.

The third most frequent programme strategy was protecting groups at risk of homicide, which represented 19 percent of the programmes in Latin America. These programmes were aimed, for example, at victims or individuals in witness protection. An example was the *Programa Nacional de Protección a Testigos e Imputados* (National Programme for the Protection of Witnesses and Defendants) in Argentina. The programme aimed to protect witnesses (or repentant collaborators of justice) who had made a significant contribution to a federal judicial investigation in matters such as drug trafficking, kidnapping, extortion, terrorism, human trafficking, and crimes against humanity committed in the period 1976/1983 and as a consequence, were in a high-risk situation. Some protective measures were personal or home custody, temporary accommodation in reserved places, changes of address, financial aid, and assistance for reintegration into the workplace. Another example was the *Programa de Proteção a Crianças e Adolescentes Ameaçados de Morte* (Protection Programme for Children and Adolescents Threatened of Death), which aimed to preserve the lives of children and adolescents threatened with death, with an emphasis on comprehensive protection and family coexistence. The programme operated on several levels, such as focusing its attention on those threatened and

their families by removing them from the place of threat and inserting them into new communities. Efforts were also made as part of this programme to offer opportunities to those protected, both in terms of school accompaniment, as well as insertion in cultural and professional projects.

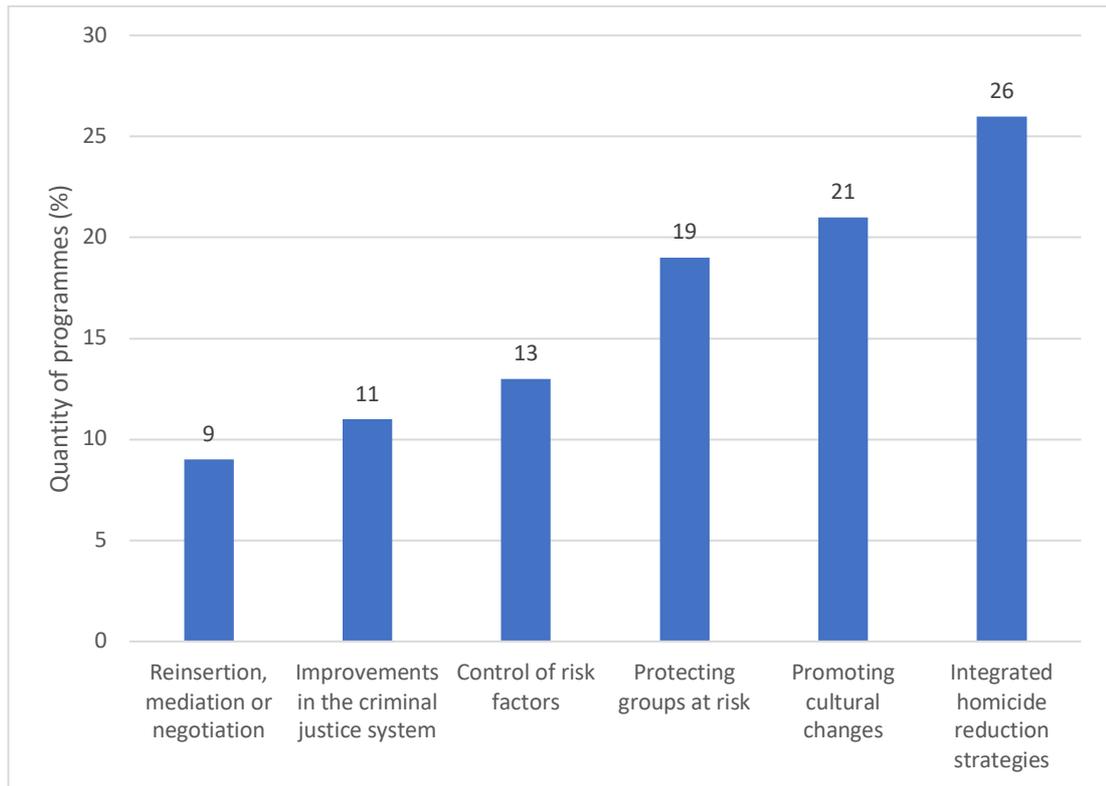
The fourth most common programme strategy (at 14 percent) were those geared to reducing risk factors. These programmes focused on reducing or controlling risk factors that are known to increase homicides, such as alcohol consumption and firearms availability. Additionally, some of these programmes also implemented situational prevention strategies such as regenerating public spaces or improving lighting in neighbourhoods. An example of this type of programme was the *Plan Desarme en Medellin* (Disarmament Plan of Medellin) in Colombia. This programme aimed to contribute to the prevention of homicides by discouraging the carrying, possession and use of weapons in Medellin. Another example was the *Ordenanza n° 1568 de la Municipalidad Metropolitana de Lima* (Decree n° 1568 of the Metropolitan Municipality of Lima) in Peru, which established a new municipal regime that regulated the commercialization, consumption, and advertising of alcoholic beverages in Lima.

The fifth most common programme strategy (11 percent) were the programmes that focused on improvements in the operational capacity of the criminal justice system. These programmes aimed to increase the effectiveness of the justice system when prosecuting homicides. These included a wide range of programmes, from improving the homicide investigation system to reducing police lethality. An example was the *Plan Nacional de Vigilancia Comunitaria por Cuadrantes* (National Plan for Community Surveillance by Quadrants) in Colombia which aimed to improve the service provided by the police and strengthen the relationship with citizens, by assigning specific responsibilities to the police in a small territory. Another example was the *Índice de Aptidão Para Uso da Força Policial* (Police Force Aptitude Index) in Brazil, which attempted to establish to what extent a police officer is fit to perform a job in situations that may involve the use of lethal force. The Rio de Janeiro Military Police with the help of the Violence Analysis Laboratory (LAV / UERJ) created this

index with the aim of i) identifying police officers who, for various reasons, were not able to exercise a police function that implies the possibility of the use of force and ii) generate incentives to reduce the use of lethal force.

The least common programme strategy were those that aimed to reinsert, mediate, or negotiate with perpetrators. These programmes included the reinsertion of ex-convicts into society, mediation with members of armed groups to reduce violence, and even truces or general accords between gangs and the state. An example is *La Tregua entre Pandillas* (The Truce Between Gangs) in El Salvador. The truce took place when the leaders of the two main gangs, MS-13 and Barrio 18, established a truce in which they agreed to stop hostilities, pledging to reduce the number of homicides. In exchange, the gangs requested the protection of the rights of prison inmates and the improvement of the living conditions in the prison system. Another example was the Cure Violence programme which took place in several countries in Latin America. The programme included the actions of 'violence interrupters' who work on the streets by mediating conflicts between gangs and intervening in critical situations to prevent disputes between gangs and individuals, especially conflicts that involve the use of weapons. The programme also aimed to identify and try to change the attitudes and actions of individuals with the greatest criminogenic potential.

**Figure 6-6: Type of strategy of the programme (2002-2019)**

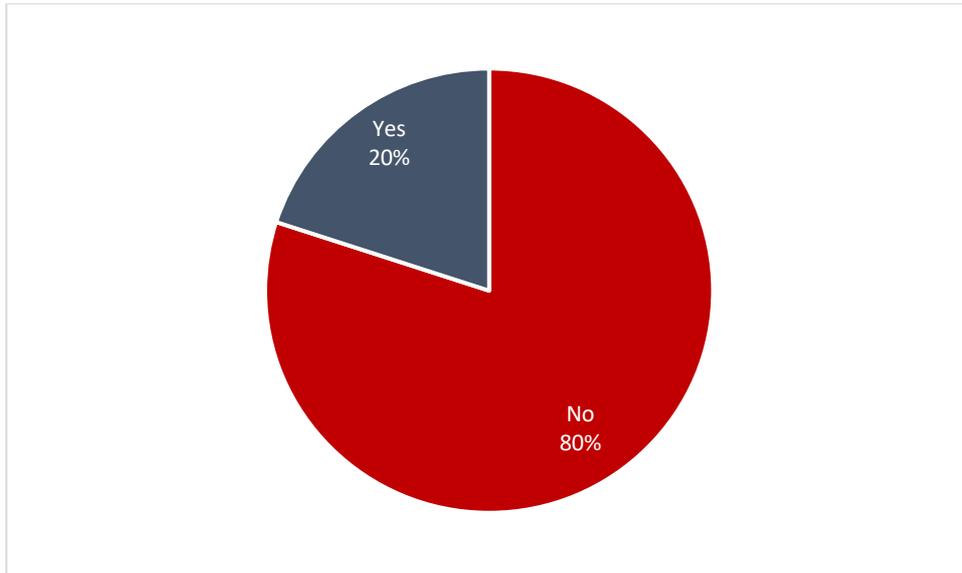


A programme of crime prevention might include several types of strategies, but because of the scarcity of resources, governments are often required to prioritize which population receives the benefits and services provided by a programme. This action is called targeting, and it indicates which population will be the focus of the programme, based on technical criteria ideally supported by the evidence (Welsh & Farrington, 2012). The target population of homicide reduction programmes in Latin America was observed to vary substantially. Most programmes targeted the whole of the population (29 programmes), 13 programmes targeted specifically women, seven programmes targeted victims, five programmes targeted witnesses, five programmes were targeted towards the police, and three programmes targeted children at-risk.

Of all the 89 programmes, 71 had no type of evaluation, neither internal nor external. Only 18 of the programmes underwent some form of evaluation, representing only 20 percent of all the programmes (see **Figure 6-7**). Of those programmes, six had internal or mixed evaluations. Overall, out of 89 programmes, 18 countries and 17 years of homicide reduction programmes in Latin America, only 12 programmes had

an external formal evaluation that monitored and measured their outcome. Although some of the other programmes claimed to reduce homicides, 80 percent of the programmes provided no robust empirical evidence on the impact they had on reducing homicides. In Chapter 9, I provide details about programmes that have been successful in reducing homicides in Latin America.

**Figure 6-7: Percentage of programmes with evaluation in place (2002-2019)**



**Table 9-1** summarizes the results of the current study and list the geographical location of the programmes, the territorial focus, the institution in charge, the programme strategy and the percentage of programmes that have been evaluated.

**Table 6-3: Summary of the characteristics of homicide reduction programmes implemented in Latin America (2002 – 2019)**

Characteristic	Result
Location	Brazil 18%, Colombia 8%, El Salvador 8%, Honduras 8%, Venezuela 8%, Mexico 7%, Panama 7%, Argentina 6%, Guatemala 6%, Chile 4%, Peru 4%, Bolivia 3%, Ecuador 3%, Paraguay 3%, Belize 2%, Costa Rica 2%, Uruguay 2%, Nicaragua 0%
Territorial focus of the program	National 64%, Local 21%, Regional 15%
Institution responsible for the programmes	National Government 43%, Civil Society 24%, Regional Government 17%, Local Government 7%, Private 1%, Other (USAID, IDB, etc) 9%
Type of prevention	Primary and Secondary 29%, Secondary and Tertiary 29%, Primary 25%, Secondary 8%, Primary, Secondary and Tertiary 4%, Tertiary 4%
Strategy of the program	Integrated homicide reduction strategies 26%, Promoting cultural changes 21%, Protecting groups at risk 19%, Control of risk factors 13%, Improvements in the criminal justice system 11%, Reinsertion, mediation, or negotiation focused perpetrators 9%
Formal evaluation	No 80%, Yes 20%

## 6.6. Discussion

The increase in violence in Latin America has precipitated an increase in public, private, international organization, and civil society responses to reduce violence, and specifically homicides. Although the problem of violence is not new in the region, since the 2000s there has been a substantial increase in both homicide levels and homicide reduction programmes. The current study provides insights into how the different actors across the region have attempted to respond to the increases in homicides and has included a review of the ways in which these homicide reduction programmes have operated.

A first key finding from the current study is that the approaches for homicide reduction in the region are varied and that there is no consensus regarding how to tackle the problem. Consequently, it is not possible to generalize what governments are doing to reduce homicides in the region and to offer a consistent statement that applies equally to how each country in the region is tackling the homicide problem. A case-by-case analysis that examines and understands the different contexts and implementation processes applied in each country is needed to appreciate what is happening in the region as a whole in terms of homicide reduction programmes.

Expectedly, there seems to be a strong correlation between countries with high homicide rates and high quantities of homicide reduction programmes. As such, Brazil, Colombia, Venezuela, El Salvador, Honduras, Guatemala, and Mexico are among the countries with the highest homicide rates and also the highest number of homicide reduction programmes. However, these programmes appear to have had a limited effect because homicide rates have not consistently decreased or any initial reductions have not been sustained (e.g., Colombia). During the last 15 to 20 years these countries have remained as the most violent in the region, therefore programmes that have been put in place do not seem to be able to sustain reductions in overall violence (although it is important to note that homicides might have been higher if these programmes were not in place). There are programmes that have been suggested as being successful in specific cities such as *Fica Vivo!* (Stay Alive!) in Brazil

(Alves & Arias, 2012) and *Todos Somos Juarez* (We are all Juarez) (Muggah et al., 2016) in Mexico. However, for various reasons (that include economic costs), these programmes have not been reproduced at a national level. Additionally, some of those considered successful have not been sustainable over time and as a result, homicide levels have increased soon after the completion of the programme.

Another relevant insight is that few programmes have a specific focus to cities or neighbourhoods - 64 percent of the programmes had a national focus, compared to only 21 percent that has a local focus. Hence, most violence prevention programmes were inspired by a universal approach with a predominance of programmes directed to the whole population of a country. However, evidence suggest that to prevent violence it is necessary to act across several contexts at the same time which implies different strategies are needed depending on the context in which the problem is presented (Krug et al., 2002). The research literature shows that crime focus on specific places at specific times (Sherman, Gartin & Buerger, 1989; Braga, 2005; Eck & Weisburd, 2015; Telep & Weisburd, 2018) and that consequently, a country level approach that does not take into consideration specific contexts is unlikely to have a lasting impact. For example, there is little evidence to support a direct link between awareness campaigns and a reduction in youth violence. This is not to say that awareness campaigns or other national level policies, such as gun control, are not useful, but that instead they are likely to be more effective when they are combined with other targeted measures (Cassidy et al., 2016).

The fact that 43 percent of the programmes were managed by institutions at the national level also confirms that Latin American governments appear to prefer a generalist approach to reduce homicides. It is typically difficult for institutions at the national level to understand the local context of each city and even more, of each neighbourhood. Crime prevention programmes, like other social programmes, should be adjusted to the unique conditions of each neighbourhood. Sustained municipal leadership is fundamental to successful public security since local governments are strategically positioned to face this challenge (Alvarado & Muggah, 2018). Given their proximity to the local population, local authorities are particularly

well positioned to play a central role in designing, implementing, and evaluating programmes that make cities safer. Additionally, cooperation with local stakeholders and community assets, such as civil society organizations, schools, and hospitals, can also play an important role in obtaining positive results. Taking into consideration the complexity of the causes of homicides, programmes to reduce these types of crimes must be intersectoral and interdisciplinary in nature, yet this approach tends to be missing in the region.

Reflecting upon this, the most common programme strategy are integrated homicide reduction programmes. This is a positive result since integrated strategies seem to be some of the most successful in the region and in the world (WHO, 2014). However, two issues must be noted. First, even as though integrated homicide reduction strategies are the most common type of programmes in the region, they only represent 26 percent of the programmes. Secondly, the integrated and multi-faceted nature of these programmes makes them hard to evaluate given the challenge of measuring all the different strategies and the practical impossibility of establishing control groups (Cano & Rojido, 2016).

Strategies that focus on protecting groups at risk are also infrequent in the region, representing only 19 percent of the programmes. Targeting specific risk groups seems to be central to reducing homicides, since its usually specific type of people that commit and are victims of homicides. In the Latin American region, the main profile of people involved in homicides are young males (e.g., 90 percent of homicide perpetrators and 81 percent of the victims are males), between 15 and 29 years old, with low levels of income and education, with difficulties to enter the labour market and from marginalized communities (Vilalta, Castillo & Torres, 2016; UNDP, 2013; UNODC, 2019; Cano & Rojido, 2020). Recognizing the vulnerability and the importance of protecting high-risk groups is fundamental to create effective programmes that reduce homicide levels.

Surprisingly, little focus is given to strategies that aim to strengthen the criminal justice system. It would be expected that at least some programmes might focus on

improving police resources and technologies, as well as other improvements geared towards the judiciary and the penal systems. However, these strategies only represent 11 percent of all the programmes. Law enforcement and criminal justice systems in high-homicide societies are often dysfunctional (Eisner, 2015). As previous chapters of this thesis have shown, the criminal justice systems in the region are highly ineffective and have poor controls for corruption. Consequently, if the criminal justice system is not improved, it will obstruct the effective implementation of homicide reduction programmes.

A key finding from the mapping of homicide reduction programmes in Latin America is that 80 percent of the programmes received no type of evaluation. This is a recurring finding that has also been identified in other studies that have examined homicide reduction programmes in Latin America. There are likely to be several reasons why evaluations are not common in the region. First, it might be that agencies with limited resources find it challenging to direct funds to evaluation. Second, a lack of knowledge and full understanding of the problem from policymakers make evaluation a secondary goal. Consequently, an evaluation is not taken into consideration when the programmes are being designed (Cano & Rojido, 2016). Third, police departments sometimes do not have data collection divisions or human resources with the technical training needed to evaluate a programme properly. Any programme must be informed not just by a master plan, but also by analysis of good quality data to allow for adjustments and corrections throughout the programme.

Without proper monitoring and evaluation, it is impossible to reach basic conclusions about the outcomes of programmes. Assessing programmes effectively means incorporating evaluation into the programme from the beginning, all the way through to the end of the programme. With this data missing, it is empirically impossible to determine which programmes have been successful, and which have not. Other problems arise from not evaluating programmes. For example, it is not clear if the programmes were implemented correctly by officials and if the resources were used efficiently. With no evaluation in place, the implementation and results fall in a 'black

box' from which is hard to draw conclusions about their impact and harder to reproduce programmes in other countries. Establishing a routine evaluation of programmes is a fundamental condition for undertaking and improving the effectiveness of those interventions. Recent research showed that homicide reduction programmes need to spend a minimum of 10-20 percent of a programme's total budget on monitoring and evaluation (Krisch et al., 2015). In short, a review of best practices underlines the importance of programme evaluation, data collection and analysis (Mercy et al., 2008). Sadly, in Latin America, only a small proportion of homicide reduction programmes are supported with robust evidence about their impact. As such, strengthening support for outcome-evaluation studies should be a priority since countries with high levels of violence need evidence-based programmes.

## 6.7. Limitations

The main limitation of this chapter is that the selection of programmes is not exhaustive and is subject to omissions and imprecision to the extent that it has been mostly based on information gathered from the internet. A fully comprehensive review would be particularly difficult in such a large region. The aim is simply to present the most used and the most important types of programmes carried out in the region to reduce homicides. Therefore, it is possible that there are other programmes that have not been identified in the current study. In brief, the goal was not to provide a registry of all existing programmes, but rather a critical compilation of the most used programmes.

## 6.8. Conclusion

In conclusion, this mapping provides insights into the homicide reduction programmes that have been implemented in Latin America and the strategies used. Fundamentally there is a lack of comprehensive, focused and evaluated programmes, all characteristics that have been deemed fundamental for policies with the objective of reducing violence. The lack of evidence limits the ability to make conclusions about

which programmes are most effective in reducing homicides, and in which settings. To identify programmes that work, researchers and practitioners should begin to rigorously evaluate the effectiveness of homicide reduction programmes.

Since the programmes had no evaluation or data collection in place, this mapping cannot provide an in-depth appraisal of the programmes. As such, a different approach is needed to understand how homicide reduction programmes work in Latin America. The studies that are conducted in the next chapters aim to fulfil this gap by proposing a realistic evaluation approach to homicide reduction programmes. In particular, the approach adapts the EMMIE framework (a tool that was originally developed to summarise the evidence from systematic reviews of specific crime reduction programmes) for policy formulation.

## 7. A realistic approach to policy formulation: The adapted EMMIE framework

### 7.1. Introduction

Policy making is a core activity of any government. Despite decades of study improving policy making, civil servants, legislators, and academics continue to express concerns about how policy is developed (Hallsworth & Rutter, 2011; Hoornbeek & Peters, 2017). The policy cycle is a process which conventionally includes five stages: agenda setting, policy formulation, adoption, implementation, and evaluation (Howlett & Ramesh, 2003). Policy formulation is of vital importance to the successful implementation of policy, yet it is one of the least analytically developed stages of the policy making process. In the previous study, the focus was towards examining the characteristics of homicide reduction programmes that have been implemented in Latin America. Programmes are a set of measures or activities that have the particular aim of achieving the goals that are set out in a policy. In an opposite sense, the policy formulation stage involves the design of programmes that have the objective of adopting the goals set out by a policy. The previous study identified several weaknesses in programmes that have been implemented in Latin America to reduce homicides. In an attempt to identify ways that the design of policy and programmes to reduce homicides in Latin America can be improved, in the next study I consider whether a systematic process can be adopted for improving policy formulation. Framed in relation to crime prevention policy, I propose and adapt the EMMIE framework (Johnson, Tilley & Bowers, 2015) as a realistic tool that seeks to structure the policy formulation stage and to inform the adoption, implementation, and evaluation stages.

The realist approach is a form of theory-based evaluation that is used to better understand complex social programmes (Pawson, 2002; Pawson & Tilley, 2004; Hewitt, Sims & Harris, 2012). Realistic evaluation aims to strengthen the explanatory power of evaluation studies and improve evidence-based policy making (Tilley, 2016).

The EMMIE framework was originally developed to summarise the evidence from systematic reviews of specific programmes (e.g., the evidence for neighbourhood watch initiatives in crime reduction) and to rate the quality of that evidence in a manner useful to policymakers and practitioners (Johnson, Tilley & Bowers, 2015). Subsequent work has proposed that this framework is also relevant to primary research in crime reduction, which essentially means the formulation of policies which when implemented can be subsequently evaluated (Thornton et al., 2019). In this chapter I develop this line of thought, with the research objective being to examine the feasibility of adapting the EMMIE framework for policy formulation.

The EMMIE framework involves an assessment of Effect, Mechanism, Moderator (or context), Implementation, and Economic costs of a policy. Although developed in relation to systematic reviews of crime reduction programmes, here I adapt the EMMIE framework to be used as a systematic guide for initial policy formulation. The EMMIE framework helps to identify what policymakers should think about when designing programmes in an evidence-based manner (Johnson, Tilley & Bowers, 2015), considering how and why certain policies might work, under which circumstances, and at what cost (Tilley, 2016). I hypothesise that the use of the EMMIE framework can lead to a better understanding of how to design evidence-based policies, which can in turn facilitate implementation, evaluation, and the accumulation of good evidence to inform future policies. Examples of security policies will be used throughout the chapter; however, the objective is to create a framework that could be used as guidance for a range of policy areas.

The structure of the chapter is as follows: first, I review the concept of realistic evaluation and how it was used to inform the design of the EMMIE framework. I then briefly analyse the policy cycle process and in particular the policy formulation stage. Finally, I present a revised version of the EMMIE framework, and discuss its use in providing a systematic basis for policy formulation and improving policy making.

## 7.2. Realistic evaluation

Drawing on the work of Karl Popper (1959), realistic evaluation was developed by Pawson and Tilley (1997) *inter alia* to overcome the shortcomings of meta-analyses and narrative reviews and offer more and better information for policy makers. A realistic evaluation offers a generic approach to evaluating complex social interventions (Pawson et al., 2004). According to Tilley (2016), it is a 'logic of inquiry' that generates distinctive research strategies and designs and offers researchers a logic through which to evaluate programmes. Instead of using the conventional method of programme evaluation that aims to determine if a programme works or not by describing the size of a programme's effect (in most cases through controlled trials or systematic reviews), the realistic approach is based on the idea that programmes only work for specific people in specific situations (Hewitt, Sims & Harris, 2012). As such, the main goal is to comprehend and explain the patterns of success and failure (Pawson et al., 2004). Additionally, and importantly, it attempts to resolve unexplained variation in programme effectiveness in different places and at different times (Clark et al., 2005).

Although traditional methods of evaluation focus on measuring and reporting on programme effectiveness, the realist approach considers other features beyond simple impact estimates. Realistic evaluation does not generate a 'pass/fail' verdict of programmes (Pawson et al., 2004). Rather, it involves holistically evaluating programme design and implementation, and prioritizing a search for underlying mechanisms that generate outcomes in particular contexts (Astbury, 2013). Realistic evaluation draws on whichever methods are best suited to unpack the 'black box' of a complex intervention to develop programme theory and generate lessons that can be applied in new policymaking (Hewitt, Sims & Harris, 2012). As stated, it rests on the premise that programmes only work for certain people in certain contexts, with the objective being to understand and explain these patterns of success and failure (Pawson & Tilley, 2004). Realistic evaluation can flexibly use qualitative or quantitative methods or both, and has been used to evaluate single case studies, large scale programmes and whole system changes (Greenhalgh et al., 2009). The

realist approach is relatively new, and to date has been most used for evaluating health programmes (Pommier, Guével & Jourdan, 2010; Bonell et al., 2012), but is increasingly used in the evaluation of security programmes (Hewitt, Sims & Harris, 2012). Examples include Farrell, Tseloni and Tilley (2016) who used a realist evaluation framework to explain why crime has declined in recent years in western countries and by Solymosi, Cella and Newton (2018) who used a realist evaluation of a media campaign implemented in London to tackle underreporting of unwanted sexual behaviour on public transport.

“Realist studies explicitly focus on the causal ‘mechanisms’ through which interventions bring about their effects, the ‘contexts’ or conditions needed for treatments to activate potential causal mechanisms, and the ‘outcomes’ realized by the activation of causal mechanisms in the conditions in which they are introduced” (Johnson, Tilley & Bowers, 2015, p. 461). This is summarised as a C-M-O Configuration (CMOC), where C represents context, M represents mechanisms, and O represents outcomes. Realist evaluation thus develops and tests CMOC conjectures empirically (Sullivan, 2009) by providing a structure to think ‘outside the box’ and to steer away from ‘pass/fail’ verdicts (Pawson & Tilley, 1997).

The end goal of the realistic approach is to produce a tested theory about what works for whom in what circumstances, concentrating on identifying and diagnosing failures of programme design and programme implementation (Tilley, 2016). This approach is particularly useful for policy makers in some developing countries, where the quality of the public institutions and the contexts vary extensively from country to country, affecting programme design and implementation. The role of government institutions is of relevance (in all settings, rather than just developing countries) not only for overall policy formulation, but particularly concerning the implementation and the contexts where policies are applied. Globally, the quality of institutional capacity and competence varies, which in programme implementation terms means that programmes that might be ‘successful’ in one setting may not be successful in others because of the manner in which the authorities implemented the programme and the extent to which the programme theory is applicable there. In short, the aim

of the research presented in this chapter is to better understand which specific characteristics are considered during policy formulation and propose a systematic method of policy design.

### 7.3. The EMMIE framework

The EMMIE framework is an evaluation tool inspired by the realistic approach that was first proposed by Johnson, Tilley and Bowers (2015) to summarise the evidence presented in systematic reviews and to rate the quality of that evidence. The main goal of EMMIE is to act as a framework to communicate research evidence to those that design policies to reduce crime (Thornton et al., 2019). Although originally developed for evaluating the content of systematic reviews, the EMMIE framework is also suggested (with pertinent adaptation) as a tool that can be applied to primary studies (Thornton et al., 2019).

EMMIE was created to comprise the various types of evidence required to make decisions about the design and implementation of crime-prevention programmes (Sidebottom et al., 2018). Importantly, one of the motivations for establishing EMMIE was to emphasise that knowing ‘what works’ is unlikely to be sufficient for policymakers to make evidence-informed decisions (Sidebottom et al., 2018). The EMMIE framework teases out the CMO configuration by articulating the Effects (E), the Mechanism (M), the Moderators (M), the Implementation (I), and the Economics (E) of an intervention.

*Effect* refers to the effect size of a programme and the confidence that should be placed on this estimate. Effects comprise the intended and unintended consequences of programmes that result from the activation of different mechanisms in different contexts. This component identifies the winners and losers amongst subjects and pros and cons in programme delivery. *Mechanisms* explain the logic of the programme and the theoretical principles on which the programme is based so that it is possible to articulate why a programme might be successful. Mechanisms focus on explaining the underlying processes that describe how the programme produces

its effects (Pawson, 2002). *Moderators* (sometimes referred to as contexts) are the conditions that need to be in place for a programme to activate the mechanisms necessary to produce the intended effects. These are relevant to understanding why programmes work in specific circumstances and/or for specific people. Importantly, moderators vary within programmes, meaning that different mechanisms will be triggered at different times or for different programme participants, creating different outcomes. Therefore, the realist researcher seeks out all the programme's outcomes, both anticipated and unexpected (Hewitt, Sims & Harris, 2012). Decision-makers need to know how a programme can be put in place and what may facilitate or impede its *implementation* (Laycock & Tilley, 1995). A review of implementation includes consideration of whether the programme was implemented as intended and what obstacles may have inhibited proper implementation. Fundamentally, it is not possible to test the effectiveness and evaluate a programme if the programme failed to be implemented as intended (Summerfelt, 2003). The final part of EMMIE refers to the *Economics* or the costs of the programme. Resources are always limited, so policymakers need to determine how best to disburse those available to them. Ideally, decision makers will also try to anticipate unintended and indirect costs of a programme. I examine these parts of EMMIE in more detail in a later section.

In addition to summarising the evidence in relation to each of the EMMIE dimensions in any systematic review, Johnson, Tilley and Bowers (2015) created the EMMIE-Q scoring table, which assesses the strength of that evidence - the extent to which the results might be considered valid. Regarding systematic reviews, the first consideration is the extent to which the reviews themselves were appropriately and systematically identified. The framework has mostly been used to evaluate crime reduction programmes, for example, Sidebottom et al. (2018) used the EMMIE framework to systematically review the evidence on whether alley gates are effective at reducing crime. In another paper, the framework was used to systematically review the literature on security tags (Sidebottom & Tilley, 2018).

**Table-7-1**, which is taken from the Johnson et al. paper (2015), sets out what is expected to be covered in each element of EMMIE while communicating the results

of the review to practitioners. For example, for a programme to score a value of 3 for effect size, there must be sufficient consideration of three or four elements of validity. These elements of validity, listed in **Table-7-1**, include: a transparent and well-designed search strategy; sufficient assessment of the risk of bias; assessment of the influence of study design, and; assessment of the influence of unanticipated outcomes or spin-offs on the size of the effect. In the context of this chapter, I am concerned with the extent to which policymakers can consider all elements of the EMMIE framework in formulating their policies. I suggest a revision of **Table-7-1** later in this chapter, but first I review the policy cycle and its formulation.

**Table-7-1: EMMIE evidence and five-point scales for assessing quality on each dimension**

<i>EMMIE component</i>	<i>EMMIE-E (evidence itself)</i>	<i>EMMIE-Q scoring</i>
Effect	Effect size Moderator analysis Measurement/consideration of unanticipated effects	0. Insufficient consideration of validity elements* listed below: 1: Sufficient consideration of one element of validity 2: Sufficient consideration of two elements of validity 3: Sufficient consideration of three or four elements of validity 4: Sufficient consideration of five or six elements of validity (including all of those marked with an '*')  <u>Elements of Validity*:</u> A transparent and well-designed search strategy* High statistical conclusion validity (at least four of the following are necessary for a study to be considered sufficient)* Sufficient assessment of the risk of bias (at least two necessary for sufficient consideration)* Attention to the validity of the constructs, with only comparable outcomes combined and/or exploration of the implications of combining outcome constructs* Assessment of the influence of study design (e.g., separate overall effect sizes for experimental and quasi-experimental design) Assessment of the influence of unanticipated outcomes or spin-offs on the size of the effect (e.g., quantification of displacement or diffusion of benefit)
Mechanism/ mediator	Map of possible mechanisms/logic maps A priori mediator or mechanism-based moderator analysis	0. No reference to theory; simple black box

	<p>Post hoc mediator or mechanism-based moderator analysis</p> <p>Assessment/statements of most likely mechanisms and any contextual conditions (these can be narratives)</p>	<p>1: Broad statement of assumed programme theory stated (mechanisms and/or processes)</p> <p>2: Detailed articulation of theory, based on interrogation of relevant literature and/or elicited from practice.</p> <p>3: Formalization of theory and derivation of precise predictions from it</p> <p>4: Test, corroboration, falsification and refinement of theories, using data assembled for the purpose.</p>
Moderator/context	<p>A priori context-based moderator analysis/subgroup analysis (analysis testing the differences that context makes to outcome; theoretically driven)</p> <p>Post hoc context-based moderator analysis/subgroup analysis (analysis testing the difference context makes to outcome; conducted due to data availability/not theoretically driven/ not mentioned prior to analysis)</p> <p>Statements qualifying contextual variations (these can be narratives)</p>	<p>0: No reference to condition contexts or moderators that may be significant for activation of mediators or mechanisms</p> <p>1: Ad hoc description of possible relevant moderators or contexts</p> <p>2: Tests of the effects of moderators or mechanisms defined post hoc using variables that are at hand</p> <p>3: Theory-based pre-specification of expected moderators and mediators relevant to the activation of mediators or mechanisms</p> <p>4. Collection and analysis of relevant data relating to the pre-specified expected moderators and contexts.</p>
Implementation	<p>A list/statement of key components necessary for implementation of reviewed interventions</p> <p>A list/statement of key components deemed necessary for replication elsewhere</p>	<p>0: No account of implementation or implementation challenges</p> <p>1: Ad hoc comments on implementation</p> <p>2: Systematic efforts to document implementation issues</p> <p>3: Detailed evidence-based account of expected levels of fidelity to program, policy or treatment plans</p> <p>4: Complete evidence-based account of expected levels of fidelity to program, expected obstacles and specification of elements necessary for replication elsewhere</p>
Economic costs	<p>Quantification of inputs to the intervention</p> <p>Quantification intervention outputs</p> <p>Quantification of intensity (e.g., spend per head)</p> <p>Estimate of cost of implementation</p> <p>Estimate of cost of implementation by subgroup</p> <p>Estimate of cost-effectiveness per unit output</p> <p>Estimate of cost-effectiveness by subgroup</p> <p>Estimate of cost-benefit</p> <p>Estimate of cost-benefit by subgroup</p>	<p>0: No mention of costs (and/or benefits)</p> <p>1: Only direct or explicit costs (and/or benefits) estimated</p> <p>2: Direct or explicit and indirect and implicit costs (and/or benefits) estimated</p> <p>3: Marginal or total or opportunity costs (and/or benefits) estimated</p> <p>4: Marginal or total or opportunity costs (and/or benefits) by bearer (or recipient) estimated</p>
Source: Johnson, Tilley & Bowers (2015) table 1, p. 465.		

#### 7.4. The policy cycle and policy formulation

Policies are commonly understood as actions which contain goals and the means to achieve them, however well or poorly identified, justified, and formulated (Howlett & Cashore, 2014). These actions are converted into programs (i.e., a set of measures or activities with a particular aim) that intend to achieve the goals the policy set out. The primary agent of public policy making is the government, rather than the private sector, non-profit organizations, interest groups, or other social groups. Different government institutions and public authorities have to choose between different sets of tools, goals, sectors, and policies over others, making policy formulation and design particularly problematic (Béland, 2007).

In turn, the policy cycle, originally proposed by Lasswell (1956), is a process that explains how policy should be drafted, implemented, and assessed. Researchers have developed different models of the policy cycle, however, five stages are commonly identified: agenda setting; policy formulation; adoption; implementation' and; evaluation (Howlett & Ramesh, 2003; Capano & Pritoni, 2020). The crucial step of *agenda-setting* is the movement of an issue from its recognition to the formal political agenda (Jann & Wegrich, 2007). As such, agenda setting is the process through which a policy and the problem it is intended to address, evolve to become a 'public problem' to be somehow dealt with, and thereby becoming the focus of debate and potential controversy in the media and in politics (Savard & Banville, 2012). Policy *formulation* is the stage at which the public institutions examine and assesses the various policy options that might solve a presenting problem. *Adoption* is the stage at which a particular policy is agreed in principle by the government, with *implementation* following. Finally, at the *evaluation* stage, the policy is assessed to determine whether its execution and effects are in line with the goals that have been stated directly or implicitly (Benoit, 2013). Evaluation is not restricted to a particular stage of the policy cycle and may be applied at different stages of the process to determine the expected or unexpected consequences of the policy. The evaluation stage, as the final stage of the policy cycle, marks the point at which the policy is either extended, terminated, or redesigned. Even though all five stages are

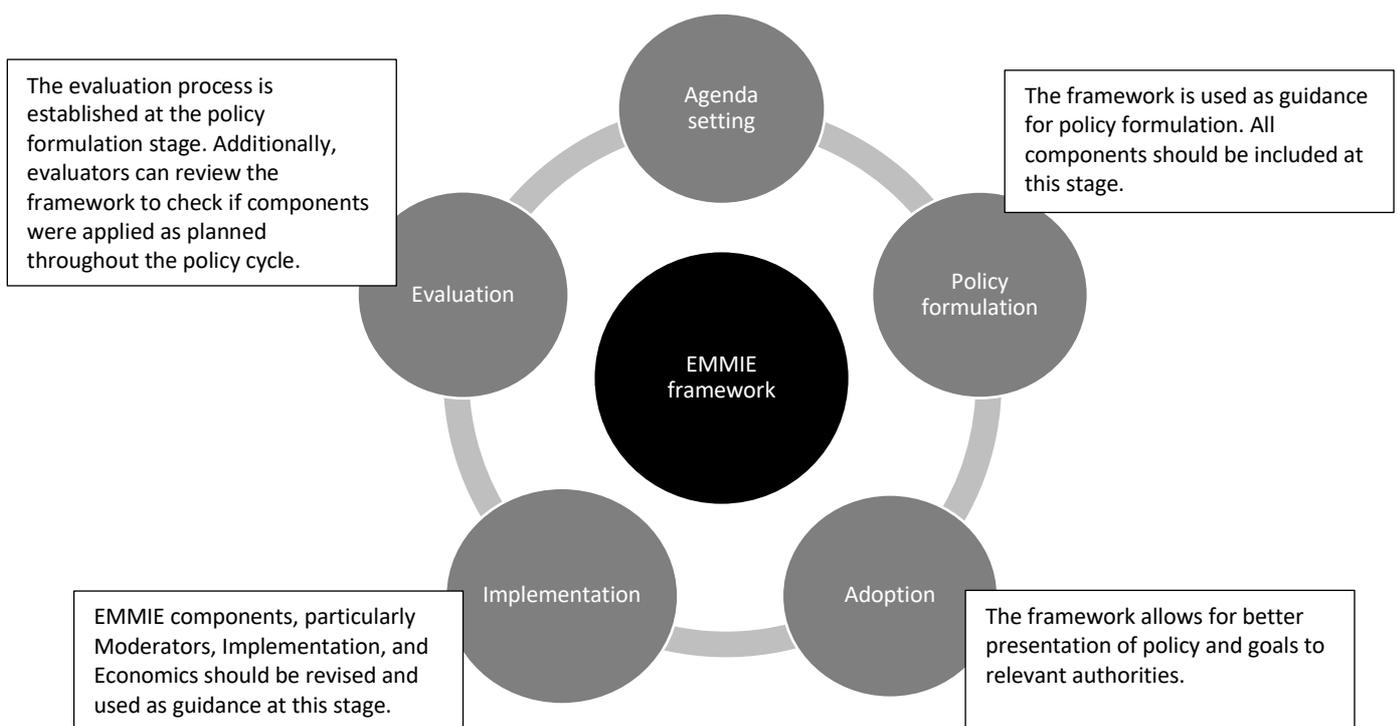
important, the research literature about policy cycle considers agenda-setting, policy formulation and implementation as crucial (Savard & Banville, 2012).

It is worth noting that authors have criticised the policy cycle model on several grounds. For example, the model's linearity gives the impression that each stage in the cycle occurs in a precise manner, one stage after the other. Empirical reality does not fit with this policy cycle classification. That is, stages do not evolve in clear cut sequences and instead are constantly interconnected in an ongoing process (Jann & Wegrich, 2007). Others have pointed to the model's inability to explain how policies advance from one stage to another (Savard & Banville, 2012). Furthermore, the cycle does not consider the interaction between different policies and their parallel implementation. Overall, the policy cycle framework may lead to an oversimplified understanding of how government functions. However, the model is considered to be effective as a basic framework to understand the complex field of policy studies and policy making (Capano & Pritoni, 2020), and became the basis for further research in this field (Perl, 2020). Additionally, from the public administration perspective, the policy cycle helps understand which actors are relevant in which stages of the cycle, as well as providing a helpful and practical way to describe and understand the process of policy making (Jann & Wegrich, 2007).

In this chapter I propose an adaptation of the EMMIE framework as a tool to develop the stage of policy formulation. During this stage, problems, proposals, and demands are transformed into government policies (Jann & Wegrich, 2007). Policy formulation entails identifying possible solutions to policy problems by weighting their benefits and drawbacks, and deciding which should be adopted (Howlett & Ramesh, 2003; Perl, 2020). Policy formulation questions, "What is the plan for dealing with the problem? What are the goals and priorities?" (Sidney, 2017, p. 79). As such this stage is a complex process and is one of the least analytically developed and fundamental stages of the policy making process model (Howlett, & Mukherjee, 2017; Howlett, 2018). Studies of policy formulation aim to inform practices within governments by introducing more rational and evidence-based tools, such as budget statements and cost-benefit analysis. I propose the EMMIE framework as a means of encouraging an

evidence based, systematic way of formulating policies within the policy cycle. This is illustrated in **Figure 7-1**, showing how the five components of EMMIE can provide the fundamental dimensions that policy makers can use to understand and plan their policies in an attempt increase the chances of the policy’s success. By applying the EMMIE framework at the policy formulation stage (and including all components of EMMIE in this stage), practitioners will increase the chances that policies will be effective, reduce risks of implementation failure and increase the likelihood of good policy evaluation. Additionally, (and as illustrated in **Figure 7-1**) the EMMIE framework can be used as guidance in other stages of the policy cycle. For example, the framework can be used to detail the requirements for successful implementation, (i.e., an implementation plan that includes human, economic and/or technical requirements) which should assist practitioners. Similarly, processes should be established during the policy formulation stage based on the EMMIE framework, which should inform and facilitate policy evaluation. This can include specifying the application of statistically appropriate tools for evaluation, reviewing how the components of the framework were implemented and which components failed to be applied throughout the policy making process.

**Figure 7-1: The EMMIE framework and the policy cycle**



## 7.5. The adapted EMMIE framework for policy formulation

In this chapter I propose an adaptation of the EMMIE framework as a tool for policy formulation and as a guide for practitioners. The EMMIE components are considered crucial to assist policy formulation and the development of an evidence base that is useful to further policy development. By improving policy formulation in this way, it is anticipated that this can lead to an improvement in policy outcome.

The EMMIE framework was originally designed to assess the evidence from systematic reviews on five dimensions (EMMIE-E) and to give an indication of the quality of the evidence on the same five dimensions (EMMIE-Q). I adapt these key components of the EMMIE framework for policy formulation. The concepts remain the same, however they are presented as a checklist of key variables that policy makers should consider when designing policy, and before adoption and implementation to increase policy effectiveness and contribute to the evidence base. In the sections that follow I describe the five components of EMMIE in relation to their role in assisting policy formulation.

### 7.5.1. Effect

The effect refers to the aims of the policy – what is its expected effect? If a policy is to be sensibly evaluated at stage five of the policy process, then the expected effect of the policy needs to be clearly stated. For example, a state government proposes a policy of street lighting improvements for cities within the state to adopt to reduce crime in these cities. The aim of the policy is, therefore, reduced crime levels. Alternatively, it might be to reduce fear of crime and if so, this should be clearly stated. Or it might be to affect both crime and fear, in which case this also needs to be made clear.

A statement of the policy objectives should be accompanied by the targets and key indicators for measurement of those objectives. Measuring the effect is intrinsically related to the evaluation stage, which is fundamental to understand the impact of the policy and the extent to which objectives were achieved. There are several positive reasons to evaluate policies, which most importantly is the only way to know their real effects. This requires a methodologically valid evaluation that attempts to isolate the impact of the policy from all other elements that may affect the outcome. The evaluation of policies relies on the elaboration of a well-designed and comprehensive evaluation strategy, with a clear set of objectives, target populations and expected outcomes (UNODC, 2010).

The application of evaluation methods is still relatively new (Bozeman & Sarewitz, 2011), and with regards to crime reduction policies is considered to be one of the most neglected aspects of the policy cycle (UNODC, 2010). For example, in Latin America, only a small proportion of security policies have been subject to impact evaluations that show which policies have been successful and to what extent (Chinchilla & Vorndran, 2018; Cano, Rojido & Borges, 2020). A report from the Inter-American Development Bank (IDB) showed that the policies to reduce crime and violence that the bank financed in Colombia, Uruguay and Jamaica lacked proper evaluation, and in particular lacked well-defined and measurable indicators with baselines and targets. According to the report “Of the 40 specific objectives identified, 16 did not have any indicator; and among the 24 that did, 15 did not have an adequate indicator. That is, only 8 of 40 specific objectives (20 percent) had one or more adequate indicators. Further adding the requirement that the indicators have a baseline and a target, then only 6 out of 56 indicators satisfy these three criteria, which corresponds to only 5 of 40 specific objectives having at least one adequate indicator with a baseline and a target” (IDB, 2010, p. 18). Moreover, evaluation increases financial accountability and evidence-based understanding of what works. In short, policy evaluation represents a management tool in the extent to which it can help decisions about continuity, interruption, or adaptation that policies need to adopt (Cano, Rojido & Borges, 2020).

In addition, any serious attempt to improve policy making needs to examine what has already been attempted, must be able to demonstrate which aspects of a policy contributed to its outcomes, and which aspects seemed less effective, or had unexpected results. In turn, this allows policy improvement and the ability to better replicate the policy elsewhere. A good example of the use of the findings of a carefully evaluated programme in the field of crime reduction is Operation Ceasefire in Boston in the United States (Braga, Hureau & Papachristos, 2014; Kennedy, Braga & Piehl, 2001). The programme was highly successful in reducing gun-related homicides among young people (Braga, & Pierce, 2005) and was effectively replicated, with appropriate modification, in at least 10 other cities across the world, all based on a careful evaluation of each programme (CVG, 2021).

To reach a proper evaluation, it is not enough to state during the policy formulation stage the importance of evaluation. Ideally, policy makers would help evaluators by providing a transparent and well-designed evaluation strategy. At the most basic stage, the strategy should mention possible targets and key indicators for measurement of policy objectives and include the estimated costs of such evaluations. A range of studies in the field of crime reduction stipulate that from the overall budget of the programme, 5 percent to 20 percent should be allocated to evaluations (Cano, Rojido & Borges, 2020). For example, in the national Crime Reduction Programme introduced by the Government of England and Wales in 1997, 10 percent of the funds were allocated to programme evaluation. That is, adequate funding needs to be appropriately ring-fenced for the policy evaluation process.

### **7.5.2. Mechanism**

Mechanisms explain the logic of the policy – how is it expected to work in delivering the expected effect? Implicitly or explicitly the mechanism implies a theory. For example, in the case of street lighting the theory might be that to reduce crime, street lighting will increase the risk that the offenders will be seen, either because the street lighting improves visibility or because there are more people out on the street at

night because they feel safer, thus increasing the risk to the potential offenders in being identified and caught – they are therefore deterred from offending.

It is important that the mechanism are stated at the policy formulation stage because it is essentially this theory that is tested in any subsequent policy evaluation. Being clear about the mechanisms also helps to decide whether the policy might work elsewhere.

It is not uncommon that in policy formulation processes logical or empirical relationships between policy components as solutions to problems are incorrect or ignored (Howlett, 2018). For example, a report showed that programmes to reduce crime in Uruguay, Jamaica, El Salvador, Honduras, Guyana, and Chile contained little or no discussion on the origins of the crime problems (IDB, 2010). The report concluded that “The loan documents do not explain the logical mechanism by which the proposed activities would result in the attainment of their specific or general objectives” (IDB, 2010, p.26). Policy makers need to understand the roots of the problems and the theory of how and why their plan to address the problem may achieve the intended goals. It is not enough to propose a broad statement of assumed programme theory, but rather a detailed articulation of the mechanism, and ideally precise predictions of what is expected to happen are required.

When formulating new policies attention also needs to be paid to what went before. Research on the effectiveness of crime prevention programmes, for example, has recent years increased in many advanced western democracies. The realistic approach explained in this chapter has contributed to this increase in the evidence-base, but it is not the only one. Others, such as the international research network the Campbell Collaboration or the European Union’s Crime Prevention Network have evaluated prevention programmes that have met a series of scientific standards including the use of control groups and/or random allocation processes. Policy developers need to be aware of the rich sources of existing evidence while carrying out their work.

### 7.5.3. Moderators (context)

The moderators refer to the conditions that are necessary if the policy is to be effective. In practice, moderators refer to the broad context of the location within which the policy is to be implemented including the people that might be involved, the physical places and the time (i.e., what works at one point in history may not work at another). Whether or not a policy is effective is, therefore, context dependent. For example, improved street lighting might reduce crime if it were introduced in a poorly lit areas of a city or on a deprived housing estates; but it may make no difference to day-time crime rates, or to crime at night in a middle-class areas of cities which already had adequate lighting levels. Policy makers, therefore, not only need to think about the mechanisms but also the conditions that are necessary to ensure that the mechanisms 'fires' in the expected manner.

Understanding exactly how mechanisms are constrained by sets of existing contextual factors is crucial for making correct policy design decisions in specific policymaking contexts (Howlett, 2014). For example, many crime prevention programmes were originally developed and evaluated in high income countries with considerable resources, however the experience of those countries is often not replicable or appropriate in less developed settings (UNODC, 2010). It is not uncommon for government authorities of low- and middle-income countries to try to replicate policies that were successful in industrialized western countries. That, in itself, is not wrong, however, trying to reproduce that policy in a different place without understanding how the context may affect it needs consideration. For example, the *Grupamento de Policiamento em Áreas Especiais* (Special Areas Policing Group - GPAE), a programme based on Boston's Operation Ceasefire programme (previously mentioned) was implemented in several favelas of Rio de Janeiro in the early 2000s with mixed success. In the favela Vila Cruzeiro, the programme achieved its lowest success and police operations were obstructed by criminal activity. However, in the *favela* Morro do Cavalão the programme was successful, and violence reduced soon after its implementation (Arias & Ungar, 2009). Another example is the zero-tolerance style of policing, conceived in the United States and

commonly used in many other areas of the world. This type of policing, largely based on the 'broken windows theory' of Kelling and Wilson (1982), is a strategy that entails maintaining constant order and aggressive law enforcement against even minor crimes and infractions. This approach has been repeatedly applied in Latin American countries with limited success (Dammert, 2019; Swanson, 2013; Cruz, 2010) and in many cases it created unexpected negative outcomes such as increasing police violence (Ungar, 2009), enhancing gang cohesion and strengthening their organization (Bruneau, Dammert & Skinner, 2011). Thus, implementing zero tolerance policing without understanding the institutional capabilities, cultural realities (such as police violence and institutional corruption), and proper oversight and accountability are errors often made by policymakers. Such replications of policies are often not successful because of the different settings, and because the success of any plans to address a problem are largely dependent on how well the plans are adapted to local needs. In short, policies should be adapted to the specific local problem and contexts. The mechanism of the policy is the same, but the context may completely alter the success or failure of that policy.

Ideally, understanding the specific moderators (place, time, and people) requires collecting quantitative and qualitative information from a range of sectors, rather than relying solely on information from a single source e.g., recorded crime data from the police. By understanding the moderators, policymakers can anticipate how the mechanism might be affected and what modification might be needed before implementing the policy.

#### **7.5.4. Implementation**

The implementation process is a core and crucial stage of policy making (Jann & Wegrich, 2007). Implementation refers to the actions and actors necessary to successfully install and maintain a policy. According to researchers, this occurs when a decision is made based on government directives and is then confronted with reality (Savard & Banville, 2012).

Essentially, this stage requires policymakers to be clear on how the policy is to be adopted and what they foresee as possible obstacles. The literature refers to this situation as the implementation gap, which is defined as the difference between the planned outcomes of the policy and the outcomes of the implementation process (Newton, 2001; OECD, 2008). To avoid this gap, implementation processes need to be incorporated into action plans at the policy formulation stage, rather than being added as an afterthought. For example, in England and Wales, the intelligence-led police approach strives to provide an effective method for responding to many areas of policing (Ratcliffe, 2016). For this strategy to be effective, it requires the interpretation of criminal intelligence and cooperation with other stakeholders. This is crucial for the police to be able to carry out intelligence-led policing. If institutional cooperation and information sharing fails, then the policy will fail, not because there are problems with the theory, but because of implementation failure. For example, the citizen security programme *Chile Seguro* (Safer Chile) failed in its implementation because of the lack of coordination between the Ministry of the Interior and the police (the Carabineros de Chile) and consequently, activities targeted at improving the relationship between the police and the community failed to be implemented (IDB, 2010). To avoid these failures, every step of the policy implementation process needs to be detailed during the policy formulation process.

Additionally, it is not possible to test the effectiveness of a policy if the policy fails to be implemented as intended (Summerfelt, 2003). This means there is a need to monitor implementation processes. This is commonly referred to as 'process evaluation'. Detailing the implementation process at the policy formulation stage facilitates this type of evaluation and helps policymakers to systematically plan and document implementation issues and produce a detailed evidence-based account of expected levels of fidelity so that they could be replicated (with due adaptation) elsewhere.

In particular, and in relation to the example of policies for crime reduction, it is often not the police that need to implement the policy but rather any one of several potential stakeholders. They may come, for example, from the community, from local

government, from the private sector or from a voluntary group. It may also be necessary to persuade them that their involvement is important for the success of the policy (Scott, 2005). If actors are not sufficiently prepared to adopt the policy or do not have sufficient resources, then the policy will fail - not because the theory was incorrect but because of implementation failure. For example, the Honduras Peace and Citizen Coexistence Project for the Municipalities of the Sula Valley failed to implement several institutional strengthening measures because the municipalities did not have the appropriate equipment or skills (IDB, 2010). As such, governments at all levels need to support training and the building of capacity to undertake crime prevention before policies are carried out. For example, in the United Kingdom, the College of Policing established the What Works Centre for Crime Reduction to provide robust and comprehensive evidence to assist practitioner decision-making and thus support implementation. Similarly in Mexico, the *Instituto para la Seguridad y Democracia* (Institute for Security and Democracy - INSYDE) provides training to help police establish new procedures that discourage corruption and hold officers accountable for abuse.

#### 7.5.5. Economics

The economics refers to the cost of the policy implementation. Although it is a straightforward concept, it is uncommon for a policy proposal to estimate its full costs. If done, reference is generally made only to the direct costs of the policy but not the implicit costs (implicit costs are a type of opportunity cost – the benefit that a government misses out on by choosing one policy versus another). A step further would be for policymakers to think of the opportunity cost of implementing a policy. The development of policies take place within a larger governance context in which sets of institutions and actors are looking to further their objectives and goals (Howlett, 2014). Policies are subject to political realities, and governments must constantly juggle with different priorities which are competing for scarce public resources (Welsh & Farrington, 2012). Since governments have limited resources, implementing a policy means that other policies will not be implemented. As a consequence, there is a direct risk when choosing to implement one policy over

another to tackle crime. If the mechanisms, moderators, and implementation issues are not well thought through, the favoured policy might generate both a high economic cost and social cost for not implementing a different policy in that specific time and place.

Ideally policymakers need to provide estimates of costs, marginal costs and opportunity costs when designing a policy. They also need to take account of the benefits of the proposed policy, and cost these where possible. A cost/benefit analysis is the most appropriate aim but is seldom realised (Tompson et al., 2020). These kinds of considerations are particularly helpful when deciding upon the viability of a policy in the first place, but also for determining whether it can be afforded in other areas.

#### 7.5.6. Using EMMIE-Q for policy formulation

**Table 7-2** shows the adapted EMMIE framework for policy formulation. For the EMMIE-Q scoring, each component has a mark that ranges from 0 to 4, with 4 being the maximum. The table can be thought of as a checklist for policy makers. Ideally, policymakers would include as many of the components (and variables within each component) during the policy formulation process.

As a hypothetical example and to illustrate the application of the EMMIE-Q scoring process applied to policy formulation, a fairly well formulated policy would include a broad statement of evaluation with some general specification on type of evaluation and indicators used (scoring 3 for effect), formalization of theory and derivation of precise predictions of the impact of the policy (scoring a 3 for mechanism), comments on the possible effects of moderators defined ad hoc using variables that are at hand (scoring a 2 for moderators), a plan to produce a complete evidence-based account of expected levels of fidelity of the policy, expected obstacles and specification of elements necessary for replication elsewhere (scoring 4 for implementation), and direct or explicit and indirect and implicit costs of policy implementation (scoring 2 for economics). This policy would score a total of 14 out of 20 possible marks.

Conversely, a badly formulated policy would have no reference to objectives, targets, or key indicators (scoring 0 for effect), a broad statement of assumed programme theory (scoring 1 for mechanism), an ad hoc description of possible relevant moderators or contexts (scoring 1 for moderators), no account of implementation or implementation challenges (scoring 0 for implementation) and only mention of direct or explicit costs of policy implementation (scoring 1 for economics). This policy would score a total of 3 out of 20. Although total scoring is a useful guide, it is more important that all the EMMIE components are included during policy formulation. For instance, scoring a high number on four of the components but not completing one component could drastically hinder the policy formulation process. However, a higher score overall (even if some components are not included) would indicate a more thorough and detailed thinking about the policy that is being formulated. Further, it will allow to gather more and better evidence for future policies that will improve the overall policy formulation knowledge.

**Table 7-2: Adapted EMMIE evidence and four-point scales for assessing quality on each dimension of policy formulation**

<i>EMMIE component</i>	<i>EMMIE-E (evidence itself)</i>	<i>EMMIE-Q scoring</i>
Effect	<p>A clear statement of the policy objectives</p> <p>Possible targets and key indicators for measurement of objectives</p> <p>Intent to implement an evaluation strategy including the policy costs</p> <p>Statements of evaluation costs</p>	<p>0: No reference to objectives, targets or key indicators</p> <p>1: Broad statement of objectives and/or key indicators</p> <p>2: A clear statement of objectives, key indicators suggested and statement of expected impact</p> <p>3: Broad statement of evaluation with some general specification on type of evaluation and indicators used (including estimated evaluation costs e.g., Evaluation Budget Matrix and expected impact)</p> <p>4: A transparent and well-designed evaluation strategy that includes at least two factors* to determine its impact</p> <p>*Factors to determine impact:            -High statistical validity (e.g., policy plan allows for the calculation of indicators' effect sizes using an appropriate methodology such as: Randomized Control Trial, Regression Point Displacement Design, Regression Discontinuity, Propensity Score Matching, Time Series Analysis or Maryland scale)</p>

		<ul style="list-style-type: none"> <li>- Sufficient assessment of the risk of bias (e.g., consideration of the influence of statistical outliers)</li> <li>- Assessment of the influence of study design (e.g., separate overall effect sizes for experimental and quasi-experimental design)</li> <li>- Assessment of the influence of unanticipated outcomes or spin-offs on the size of the effect (e.g., quantification of displacement or diffusion of benefit)</li> </ul>
Mechanism/ Mediator	Mechanisms, based on relevant literature, are outlined through which the policy is meant to achieve its effect.	<p>0: No reference to theory; simple black box</p> <p>1: Broad statement of assumed policy theory stated (mechanisms and/or processes)</p> <p>2: Detailed articulation of theory, based on interrogation of relevant literature and/or elicited from practice.</p> <p>3: Formalization of theory and derivation of precise predictions from it</p> <p>4: Test, corroboration, falsification and refinement of theories, using data assembled for the purpose is possible.</p>
Moderator/context	<p>Analysis of possible context-based moderators (theoretically driven)</p> <p>Discussion of the context within which the policy is expected to work and why, relating this to the proposed mechanism</p>	<p>0: No reference to condition contexts or moderators</p> <p>1: Ad hoc description of possible relevant moderators or contexts</p> <p>2: Comments on the possible effects of moderators or mechanisms defined ad hoc using variables that are at hand</p> <p>3: Theory-based pre-specification of expected moderators relevant to the activation of mechanisms</p> <p>4. Collection and analysis of relevant data relating to the pre-specified expected moderators and contexts is possible</p>
Implementation	<p>A list/statement of key components/resources necessary for implementation</p> <p>A timeframe for implementation</p> <p>Statements on possible implementation obstacles and challenges</p> <p>A list/statement of key components deemed necessary for replication elsewhere</p>	<p>0: No account of implementation or implementation challenges</p> <p>1: Ad hoc comments on how the policy will be implemented and/or comments on probable implementation issues</p> <p>2: A clear implementation plan that includes human, economic and/or technical requirements for appropriate implementation</p> <p>3: A plan to produce a detailed evidence-based account of expected levels of fidelity to the policy and to systematically document implementation issues</p> <p>4: A plan to produce a complete evidence-based account of expected levels of fidelity to policy, expected obstacles and specification of elements necessary for replication elsewhere</p>
Economic costs	<p>Estimates of direct and indirect cost of implementation</p> <p>Estimation of expected savings of the policy</p>	<p>0: No mention of costs of policy implementation</p> <p>1: Only direct or explicit costs of policy implementation estimated</p>

	<p>Quantification of intensity (e.g., spend per head) where appropriate</p> <p>Estimate of cost-effectiveness per unit output</p> <p>Estimate of cost-benefit analysis</p>	<p>2: Direct or explicit and indirect and implicit costs of policy implementation estimated</p> <p>3: Marginal or total or opportunity costs of policy implementation estimated</p> <p>4: Marginal or total or opportunity costs of policy implementation by bearer (or recipient) estimated</p>
<p>Source: adapted from Johnson, Tilley &amp; Bowers (2015).</p>		

## 7.6. Conclusion

The aim of a realist approach is to analyse complex social programmes and to identify key components that explain why, for whom and under which circumstances policies work. The EMMIE framework is a practical tool that helps facilitate that task. It was devised to encapsulate the types of evidence needed to inform decision-making concerning the implementation and design of crime prevention programmes following a systematic review of the literature (Sidebottom et al., 2018). The argument I make in this chapter is that policymakers should take all the EMMIE components into consideration when designing new policies to maximise their chances of successful policy development. This would then build a systematic knowledge base on what works and facilitate the transfer of policies from an experimental area to other contexts. By applying the EMMIE framework at the policy formulation stage, practitioners are likely to reduce risks of implementation failure and increase the likelihood of being able to effectively evaluate the policy.

The EMMIE framework for policy formulation offers a schematic simplification of the rather complex world of public policy development, however, this is also an advantage. Each component makes it possible to identify key elements of the development of a public policy and to modify strategies as appropriate. The adaptation of the EMMIE framework as a generic tool for assisting policy formulation can more effectively guide policymakers through this important stage of the policy cycle process. I encourage policy makers to follow this systematic and evidence-based way of thinking for public policy development. To assist this, in the next

chapter I illustrate how the adapted EMMIE framework can be used for evaluating homicide reduction programmes implemented in Latin America.

## 8. Evaluating the formulation of homicide reductions programmes in Latin America

### 8.1. Introduction

In Chapter 6, the homicide reduction programmes that have been implemented in Latin America were mapped. Relevant information was obtained, giving a clearer picture regarding the territorial focus and the institutions responsible for the programmes, the type of prevention, the type of strategic focus, and the evaluation of the programmes. Although the mapping exercise provided useful information about each programme, there would be greater value in extracting more information about these programmes and their impact. Unfortunately, only 20 percent of these programmes have been subject to impact evaluations that show which programmes have been successful and to what extent. Additionally, with regards to programme analysis in Latin America there is only a small epistemic community that provides substantive contributions or theoretical guidelines for the analysis of public policies (Fontaine, 2015; Fuenmayor, 2017).

In this final chapter, I examine the information about previous programmes that been implemented to reduce homicides in Latin America and their impact by using a realist evaluation approach. The realist approach is a form of theory-based evaluation used to better understand complex social programmes (Pawson, 2002; Pawson & Tilley, 2004; Hewitt, Sims & Harris, 2012). Realistic evaluation aims to strengthen the explanatory power of evaluation studies and improve evidence-based policy making (Tilley, 2016). To assist this, in this chapter, I use the adapted EMMIE framework (explained in depth in Chapter 7) to try to understand the thought process behind homicide reduction programmes in Latin America. To reiterate, it is during the policy formulation stage that social problems and demands are addressed, and transformed into government programmes.

Instead of using the conventional method of programme evaluation that examines if a programme works or not by describing the size of a programme's effect (in most cases through controlled trials or systematic reviews), the realistic approach works on the premise that programmes only work for certain people in certain contexts (Hewitt, Sims & Harris, 2012). By doing so, the central task of this type of evaluation is to understand and explain the patterns of success and failure (Pawson et al., 2004). Additionally, it attempts to understand the unexplained variation in programme effectiveness in different places and context (Clark et al., 2005). This is particularly useful for examining efforts to reduce homicides in Latin America, since certain programmes seem to have been successful in some countries but not in others, and in some settings the same programme has been used in the same country with different outcomes. Therefore, the realistic approach is particularly relevant to the objectives of the current study. Additionally, since there is a lack of evaluation in the region, the logic in using realistic evaluation is to provide insights on how and why certain polices work (or are likely to work) from those that do not (and are unlikely to work). The aim of the study presented in this chapter is to understand the factors that are taken into consideration and the thought process of policymakers when they design homicide reduction programmes and evaluate and rank them accordingly. The current study is not an attempt to evaluate the outcomes of those programmes, nor an attempt to determine if some programmes are 'better or worse' than others in reducing homicides, but instead aims to provide useful insights into how programmes are designed.

The adapted EMMIE framework (described in Chapter 7) was used to rank and evaluate the security programmes used in Latin America to reduce homicides. This framework can be used to suggest what policymakers should think about when designing policies in an evidence-based manner (Johnson, Tilley & Bowers, 2015). The framework refers to Effect, Mechanism, Moderator (or context), Implementation, and Economic costs. These components capture the crucial empirical evidence needed to evaluate pragmatically how and why certain programmes work and under which circumstances (Tilley, 2016). As such, my research objective is to understand if the programmes that are designed in Latin America to reduce homicides take into

consideration this crucial information during the policy formulation process. As such the research question for this chapter is:

- 1) How do homicide reduction programmes rank in relation to the components of the EMMIE framework (i.e., Effect, Mechanism, Moderator (or context), Implementation, and Economic costs)?

To answer this research question I test five hypotheses, drawing also from the findings from previous studies in the current thesis:

- i) Hypothesis 1: Since a wide variety of homicide reduction programmes have been implemented in the last 20 years in the region it is expected that policymakers review theories when designing these programmes. For this reason, policymakers have a good understanding of how these theories can impact crime and are detailed in the programme. In consequence, programmes will score high regarding the Mechanism component.
- ii) Hypothesis 2: Since there are a large number of homicide reduction programmes that have been implemented in the region, and variation in the strategic focus of each programme, there is significant knowledge of implementation processes and resources needed to implement programmes. As such, programmes will rank high in the Implementation component.
- iii) Hypothesis 3: Since there are no substantial efforts towards gathering data at the micro or macro level and no clear understanding of different contexts where programmes are supposed to take place, homicide reduction programmes will score low regarding the Context component.
- iv) Hypothesis 4: Most homicide reduction programmes are not evaluated in the region, and as a consequence, programmes will rank low in the Effect component of the adapted EMMIE framework.
- v) Hypothesis 5: The large number of homicide reduction programmes that have been implemented in the region would suggest that there is some

understanding of the cost that those programmes entail. As such, programmes will rank high regarding the Costs component.

## 8.2. Realistic evaluation and the EMMIE framework

As indicated in Chapter 6, realistic evaluation offers a generic approach to evaluate complex social programmes (Pawson et al., 2004). While traditional methods of evaluation focus on measuring and reporting on programme effectiveness, the realist evaluation considers other features beyond simple impact estimates. The approach tries to holistically evaluate policy design and implementation, prioritizing efforts on searching for underlying mechanisms that generate outcomes in particular contexts (Astbury, 2013). Importantly, it is based on the assumption that policies only work for specific people in specific situations, and the fundamental aim is to comprehend and explain these patterns of success and failure (Pawson & Tilley, 2004).

The end goal of the realistic evaluation approach is to generate a tested theory, and in the current case evidence of programmes, about what works for whom in what circumstances and in what respects, concentrating on identifying and diagnosing failures of programme design and programme implementation (Tilley, 2016). This approach is particularly useful for a region as diverse as Latin America for the following reasons: as previous chapters in this thesis have shown, there is a large variety of homicide reduction programmes in the region; most programmes do not have any formal evaluation, and; the quality of the regions public institutions vary extensively from country to country, affecting the design and implementation of homicide reduction programmes. Institutions are of particular relevance, not only with regards to the responsibility for overall policy design, but particularly with regards to the implementation and the contexts where policies are applied. Because of this 'quality' variation, policies might be 'successful' in one city or neighbourhood but not in others.

The EMMIE framework is an evaluation tool that was first proposed to rate the quality of systematic reviews and was created to encapsulate the various sorts of evidence

that must be considered when making decisions on the implementation and design of crime prevention programmes (Sidebottom et al., 2018). Although the rating of the quality of systematic reviews was the main objective of the researchers who invented EMMIE, these researchers also stated that “it is our hope that the EMMIE framework will inform the conduct of future primary studies” (Johnson, Tilley & Bowers, 2015, p.470).

An extensive description of the EMMIE framework has been provided in Chapter 7 of the current thesis. Here, as a reminder, EMMIE stands for the Effects, Mechanisms, Moderators, Implementation, and Economics associated with interventions. In the next section, the adapted EMMIE framework introduced in Chapter 7 is described as the method used in the current study.

### 8.3. Methodology

The current study uses the adapted EMMIE framework to structure the review of homicide reduction programmes in Latin America and evaluate them accordingly. The components that constitute EMMIE are considered to be useful for examining and evaluating programmes that have been introduced to reduce homicides in Latin America. In the current study, the objective of using the adapted EMMIE framework is to evaluate the quality of programme design rather than evaluate its outcome. For example, some programmes might have a low adapted EMMIE score but still have a positive impact and vice versa. In short, the objective of the current study is to understand which EMMIE components were considered during programme formulation.

As mentioned, the EMMIE framework was initially developed to be applied to systematic reviews of evidence (Tilley, 2016). In its adoption of a realist evaluation approach, this meant the EMMIE framework was more flexible in considering the impact of programmes from a wider evaluation research spectrum, while still offering a consistent framework for examining empirical evidence. The lack of evaluation of homicide reduction programmes in Latin America means that the ability to collect

empirical evidence about the impact of these programmes is limited. A 'realistic' approach to examining the evidence that relates to these programmes, could instead be of value. In following with the opportunity to consider how the EMMIE framework could be used to rate primary studies and systematic reviews (Johnson, Tilley & Bowers, 2015), the current study uses the adapted EMMIE framework to evaluate the design of the 89 homicide reduction programmes that were mapped in Chapter 6. This involved examining each programme and scoring it with respect to each component of EMMIE. As described in Chapter 7, the original EMMIE Q-Scoring process was originally designed for scoring systematic reviews. In Chapter 7, I introduced an adaptation to this scoring process for the purposes of policy formulation. The adapted EMMIE Q-Scoring process that was introduced in Chapter 7 is reproduced in the current chapter as **Table 8-1** for convenience. The scoring principles for the adapted EMMIE Q-Scoring process remain true to those introduced in the original EMMIE framework. This means that existing programmes that have previously been formulated can be examined and rated. Additionally, there is potential in using the adapted EMMIE Q-Scoring process to provide policymakers with the opportunity to rate and critique the quality of policy formulation. This suggestion is given further consideration in the discussion section of the current chapter.

The current study involved reviewing the 89 homicide reduction programmes implemented in Latin America and examining them to identify the law or decree upon which each programme was formed, documents that described the plans and the design of the programme, and details about the programme evaluation. These documents were reviewed with respect to each of the EMMIE components, from which the programme for homicide reduction was ranked. Programmes were ranked from 0 to 4, being 0 for the lowest possible score and 4 for the highest score with respect to the criteria listed in the adapted EMMIE Q scoring process in **Table 8-1**. This reviewing process involved identifying content about the homicide reduction programme from the information available, matching this information to the relevant component of EMMIE and evaluating this information with respect to the scoring criteria. For example, if there was information about the homicide reduction

programme related to its effect, this information was reviewed in relation to the scoring criteria listed in Table 8-1 that is associated with the Effect component.

**Table 8-1: Adapted EMMIE five-point scales for assessing quality on each dimension of policy formulation**

<i>EMMIE component</i>	<i>EMMIE-E (evidence itself)</i>	<i>EMMIE-Q scoring</i>
Effect	<p>A clear statement of the policy objectives</p> <p>Possible targets and key indicators for measurement of objectives</p> <p>Intent to implement an evaluation strategy including the policy costs</p> <p>Statements of evaluation costs</p>	<p>0: No reference to objectives, targets or key indicators</p> <p>1: Broad statement of objectives and/or key indicators</p> <p>2: A clear statement of objectives, key indicators suggested and statement of expected impact</p> <p>3: Broad statement of evaluation with some general specification on type of evaluation and indicators used (including estimated evaluation costs e.g., Evaluation Budget Matrix and expected impact)</p> <p>4: A transparent and well-designed evaluation strategy that includes at least two factors* to determine its impact</p> <p>*Factors to determine impact:</p> <ul style="list-style-type: none"> <li>-High statistical validity (e.g., policy plan allows for the calculation of indicators' effect sizes using an appropriate methodology such as: Randomized Control Trial, Regression Point Displacement Design, Regression Discontinuity, Propensity Score Matching, Time Series Analysis or Maryland scale)</li> <li>- Sufficient assessment of the risk of bias (e.g., consideration of the influence of statistical outliers)</li> <li>- Assessment of the influence of study design (e.g., separate overall effect sizes for experimental and quasi-experimental design)</li> <li>- Assessment of the influence of unanticipated outcomes or spin-offs on the size of the effect (e.g., quantification of displacement or diffusion of benefit)</li> </ul>
Mechanism/ Mediator	<p>Mechanisms, based on relevant literature, are outlined through which the policy is meant to achieve its effect</p>	<p>0: No reference to theory; simple black box</p> <p>1: Broad statement of assumed policy theory stated (mechanisms and/or processes)</p> <p>2: Detailed articulation of theory, based on interrogation of relevant literature and/or elicited from practice.</p> <p>3: Formalization of theory and derivation of precise predictions from it</p>

		4: Test, corroboration, falsification and refinement of theories, using data assembled for the purpose is possible.
Moderator/context	<p>Analysis of possible context-based moderators (theoretically driven)</p> <p>Discussion of the context within which the policy is expected to work and why, relating this to the proposed mechanism</p>	<p>0: No reference to condition contexts or moderators</p> <p>1: Ad hoc description of possible relevant moderators or contexts</p> <p>2: Comments on the possible effects of moderators or mechanisms defined ad hoc using variables that are at hand</p> <p>3: Theory-based pre-specification of expected moderators relevant to the activation of mechanisms</p> <p>4. Collection and analysis of relevant data relating to the pre-specified expected moderators and contexts is possible</p>
Implementation	<p>A list/statement of key components/resources necessary for implementation</p> <p>A timeframe for implementation</p> <p>Statements on possible implementation obstacles and challenges</p> <p>A list/statement of key components deemed necessary for replication elsewhere</p>	<p>0: No account of implementation or implementation challenges</p> <p>1: Ad hoc comments on how the policy will be implemented and/or comments on probable implementation issues</p> <p>2: A clear implementation plan that includes human, economic and/or technical requirements for appropriate implementation</p> <p>3: A plan to produce a detailed evidence-based account of expected levels of fidelity to the policy and to systematically document implementation issues</p> <p>4: A plan to produce a complete evidence-based account of expected levels of fidelity to policy, expected obstacles and specification of elements necessary for replication elsewhere</p>
Economic costs	<p>Estimates of direct and indirect cost of implementation</p> <p>Estimation of expected savings of the policy</p> <p>Quantification of intensity (e.g., spend per head) where appropriate</p> <p>Estimate of cost-effectiveness per unit output</p> <p>Estimate of cost-benefit analysis</p>	<p>0: No mention of costs of policy implementation</p> <p>1: Only direct or explicit costs of policy implementation estimated</p> <p>2: Direct or explicit and indirect and implicit costs of policy implementation estimated</p> <p>3: Marginal or total or opportunity costs of policy implementation estimated</p> <p>4: Marginal or total or opportunity costs of policy implementation) by bearer (or recipient) estimated</p>
Source: Adapted from Johnson, Tilley & Bowers (2015).		

To visualize the results and distribution of each EMMIE factor, boxplots of the scoring for each programme were created. The Boxplots are a standardized way of displaying the distribution of data based on a five-number summary (minimum, first quartile, median, third quartile, and maximum). The boxplot draws a box from the first quartile

to the third quartile. A vertical line goes through the box at the median. The whiskers go from each quartile to the minimum or maximum. The dots on the boxplot, show the number of measurements and their distribution and the black triangle shows the mean for each component.

#### 8.4. Results

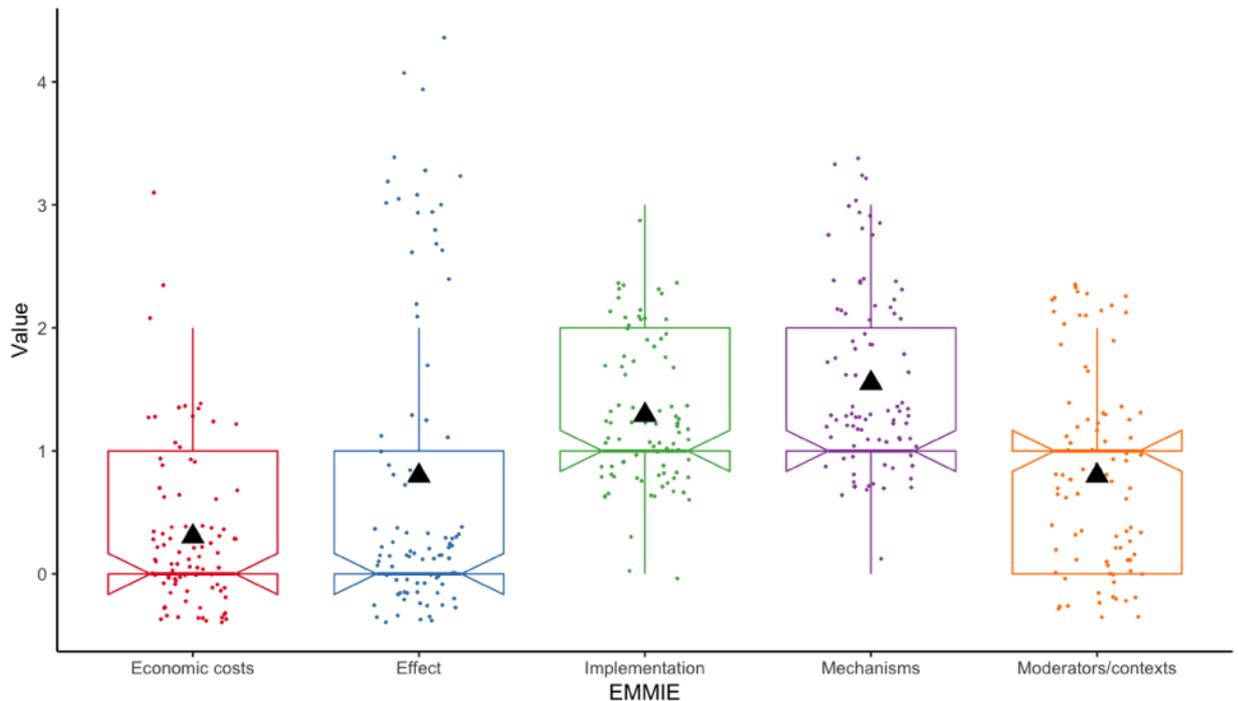
**Table 8-2** shows descriptive statistical results from the examination of the 89 homicide reduction programmes for each of the adapted EMMIE framework components (recall, each component is ranked from 0 to 4). The Mechanism component was the highest ranked of all the components with a mean of 1.55, a standard deviation of 0.74 and a median of 1. This result means that in most cases, programmes had a “Broad statement of assumed policy theory stated (mechanisms and/or processes)” or a “Detailed articulation of theory, based on interrogation of relevant literature and/or elicited from practice”. Implementation was the second highest component with a mean of 1.29, a standard deviation of 0.76 and a median of 1, meaning that programmes tended to have “Ad hoc comments on how the policy will be implemented and/or comments on probable implementation issues” or better yet “A clear implementation plan that includes human, economic and/or technical requirements for appropriate implementation”. The moderators/context component had a mean of 0.80, a standard deviation of 0.76 and a median of 1, indicating that programmes had “No reference to condition contexts or moderators” or simply an “Ad hoc description of possible relevant moderators or contexts”. For the Effect component, the mean was 0.80 with a standard deviation of 1.27, and the median was 0. This result indicates that programmes had “No reference to objectives, targets or key indicators” or just “Broad statement of objectives and/or key indicators”. The lowest ranked of all components were for economic costs, with a mean of 0.30, a standard deviation of 0.57 and a median of 0. This result indicated that the vast quantity of programmes had “No mention of costs of policy implementation” and a few had “Only direct or explicit costs of policy implementation estimated”.

**Table 8-2: Descriptive statistics**

EMMIE Factor	N	Mean	St. Dev	Median	Min	Max
Effect	89	0.80	1.27	0	0	4
Mechanism	89	1.55	0.74	1	0	3
Moderators/context	89	0.80	0.76	1	0	2
Implementation	89	1.29	0.55	1	0	3
Economic costs	89	0.30	0.57	0	0	3

However, there is substantial variation in the results within each EMMIE component. Boxplots were created to visualize the distribution of each component (see **Figure 8-1**). The Effect component showed the greatest variation, with some programmes scoring 0 while others scored 4. The boxplot for the Effect component also had the largest dispersion with a standard deviation of 1.27. This indicated that although the vast majority of programmes had no reference to objectives, targets or key indicators, there were a few programmes that scored the full marks, meaning that they had a transparent and well-designed evaluation strategy. The Moderators/context component showed the smallest spread with programmes ranging in their score from 0 to 2, meaning that no programme offered a theory-based pre-specification of expected moderators relevant to the activation of mechanisms or collected and analysed relevant data relating to the pre-specified expected moderators and contexts. The Implementation and Economic costs components showed the least dispersion of values, with a standard deviation of 0.55 and 0.57 respectively.

**Figure 8-1: Boxplot distribution of results within each EMMIE component**



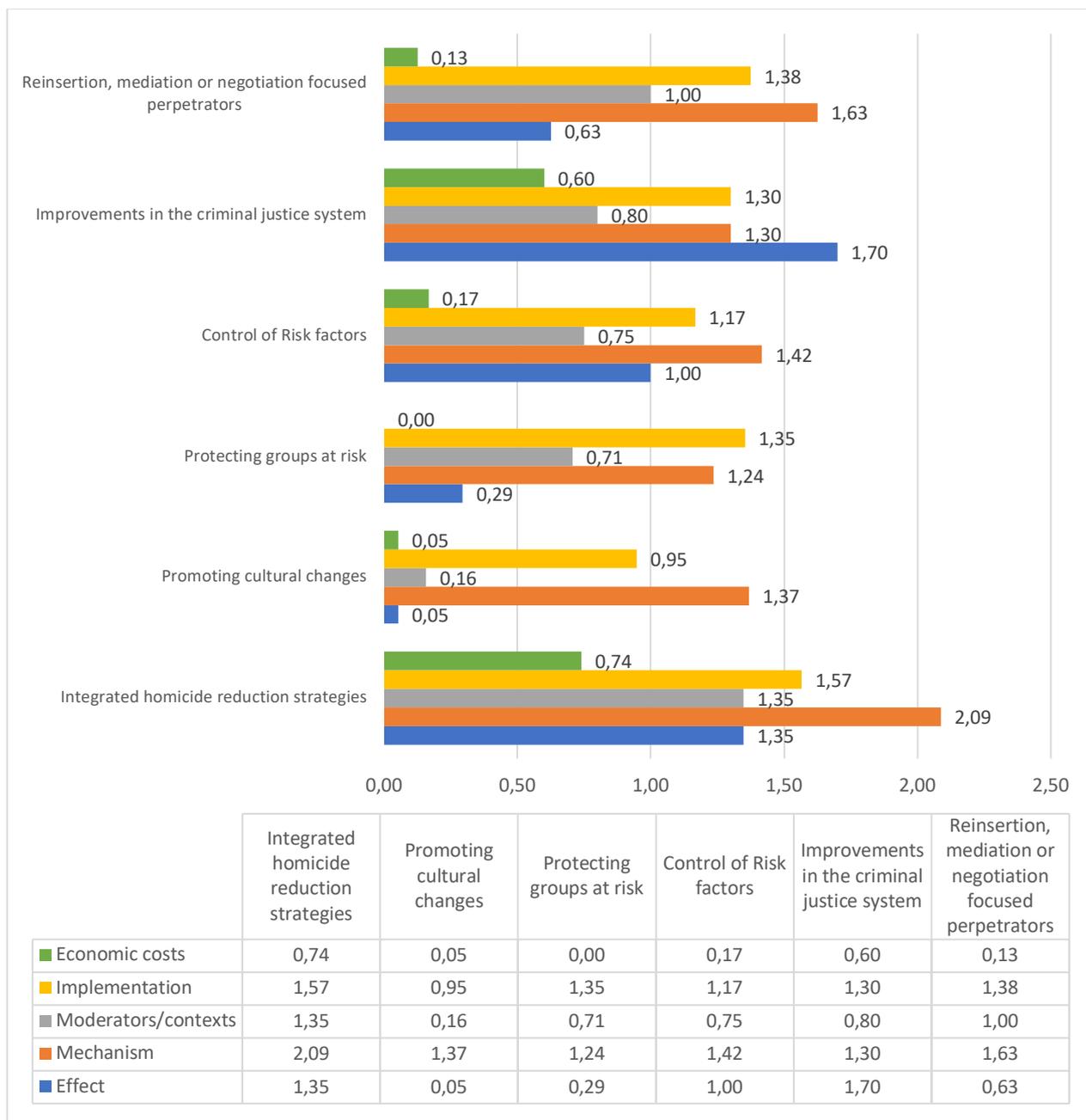
Note: A five data statistical summary is represented graphically in a box plot. The first and third quartiles are the ends of the box, the median is indicated with a vertical line in the interior of the box, and the minimum and maximum are the ends of the whiskers. In the first four factors the median is closest to the first quartile (at the lowest part of the box), while in the moderator component the median is close to the upper part of the box. Each of the four section of a box plot represents 25 percent of the data in the set. A black triangle was added to represent the mean of each EMMIE component.

In addition, when examining the EMMIE-Q scores with respect to the different type of homicide reduction programmes, there was also substantial variation in the results for each of the EMMIE components. **Figure 8-2** shows that overall, programmes that involved integrated offender management strategies received the highest EMMIE-Q scores, scoring highest in all the components with the exception of Effect: Effect (1.35); Mechanisms (2.09); Moderators/context (1.35); Implementation (1.57), and Economic cost (0.74). Of note, however, was that even these highest scores were relatively low, registering at best only 2 out of 4 for any single component of EMMIE. Programmes strategies associated with improvements to the criminal justice system scored highest for Effect, with other scores being no greater than 1.3: Effect (1.70), Mechanisms (1.30), Moderators/context (0.80), Implementation (1.30), Economic cost (0.60), and programmes oriented towards controlling risk factors were the next

best ranked, but scored particularly low for Economic cost: Effect (1.00), Mechanisms (1.42), Moderators/context (0.75), Implementation (1.17), Economic cost (0.17).

The programme strategies that received the lowest EMMIE-Q scores were those associated with reinsertion, mediation, or negotiation focused perpetrators (0.63 on Effect, 1.63 on Mechanism, 1 on Moderators/context, 1.38 on Implementation and 0.13 on Economic cost), protecting groups at risk (0.29 on Effect, 1.24 on Mechanism, 0.71 on Moderators/context, 1.35 on Implementation and 0.00 on Economic cost) and oriented towards promoting cultural changes (0.05 on Effect, 1.37 on Mechanism, 0.16 on Moderators/context, 0.95 on Implementation and 0.05 on Economic cost).

**Figure 8-2: EMMIE Q-scoring results by programme strategy type (N=89)**



## 8.5. Discussion

In the current study, the adapted EMMIE framework was used to examine programmes to reduce homicide in Latin America. This involved examining information described in each programme on the causal mechanisms through which plans to reduce homicide were expected to work, the conditions necessary to

activate such mechanisms, their implementation, the economic costs, and their expected effect. The study has generated several interesting findings. First, that when examined in general, all scores for each components of EMMIE were no greater than 1.55 (out of 4), and in only one case when examining different type of programme strategy was the EMMIE-Q score greater than two (i.e., 2.09 for integrated offender management strategies). In many cases, EMMIE-Q scores were less than one, with this being notably apparent for the Effect of homicide reduction programmes, suggesting in EMMIE-Q terms, that at best these programmes only offered a broad statement of objectives and key indicators. Second, scores varied substantially when examining different programme strategies, with these ranging from 0.0 for the economic costs of programme strategies geared towards protecting groups at risk to 2.09 for the effect of programme strategies involving integrated offender management strategies. This second finding provides an indication that certain types of programmes are more likely to perform better than others in reducing homicides in Latin America. These results are discussed in more detail in the sections that follow.

#### **8.5.1. Analysis of the components of EMMIE for homicide reduction programmes in Latin America**

In accordance with the first hypothesis, mechanism was the component that scored highest of all, albeit not substantially high. This comes as no surprise since it was expected (or hoped) that some analysis of the theory would be examined when designing programmes, but overall, this component was not consistently considered. In some cases, only a broad statement of the programme theory was described. However, in several others a detailed articulation of theory was described and based on an examination of relevant literature (scoring a 2). In some specific cases, a formalization of the theory was described and established precise predictions from it, resulting in a score of 3 for these specific programmes. This result indicated that policymakers had given some thought to the mechanisms through which an programme might impact upon homicides and from this attempt to understand how the homicide problem is present prior to the implementation of any programme. This result shows that policymakers often do take into consideration the literature when

designing programmes and try to find the mechanism behind the programme that would carry out the expected effects. Some examples of programmes that achieved scores of 3 for mechanisms were *Fica Vivo!* (Stay Alive!) in Brazil, *Programa Escuelas Libres de Armas* (Schools Free of Guns Program) in Costa Rica, and *Centros Emergencia Mujer* (Women's Emergency Centres) in Perú.

Implementation was the component that received the second highest EMMIE-Q scores, providing some support for the second hypothesis of the current study. This result suggests that policymakers consider implementation during programme design and that in most cases, there was a systematic effort to document implementation issues. However, EMMIE-Q scores that were greater than 2 for implementation were rare across all the 89 homicide reduction programmes, indicating that there was often a lack of consideration of the expected levels of fidelity of the programme, expected obstacles and the specification of elements that were necessary for replication elsewhere. This means that although the hypothesis is correct meaning there is knowledge of implementation processes, information about detailed implementation was limited. This might be one of the reasons why certain programmes might have achieved some impact in a country and failed to have impact in the same country, since there was no recollection of elements necessary to replicate that programme. The only programme that scored a 3 for implementation was the Cure Violence initiative implemented in Honduras, that included a plan to systematically document implementation issues.

All other components of EMMIE (namely Moderators, Implementation, and Economic costs) received low EMMIE-Q scores. While Mechanism and Implementation components scored averages that were greater than one, the rest of the components scored averages below one. The Moderators/context component received a score average of 0.80. This runs in line with the third hypothesis that stated that there is no knowledge of the context where programmes are supposed to be implemented. Most of the 89 homicide reduction programmes scored 1 for this moderators component, suggesting there was only an ad hoc description of possible relevant moderators or contexts. Some programmes did score 2 because these

included attempts to test the effects of moderators or mechanisms defined post hoc using available variables. However, a large number of programmes had no reference to conditions that may be significant for activation of mechanisms. This is a relevant result and might be one of the main problems of programme design for homicide reduction in Latin America. This finding suggests that policymakers pay little attention to the context where a programme is going to be implemented. There is little to no information regarding the location and time, variables that can affect the outcomes, or the characteristics of those who receive or implement the programme. Programmes rarely work independently of the context where they are applied. In many cases, policymakers have reproduced programmes that have been observed to of been successful elsewhere, in an attempt to replicate these same successes in Latin America, even when the programmes that have been 'copied' were from countries that had no social or institutional similarities to those in Latin American settings. Additionally, the wide social, economic, and institutional variation that exist in the region, and within each country, makes it fundamental for policymakers to study the context of each programme to increase the possibilities of success.

Providing support for the fourth hypothesis of this chapter, that homicide reduction programmes are not evaluated in the region, the Effect component also scored low. This result supports the findings from of the study reported in Chapter 6 that showed that 80 percent of the homicide reduction programmes implemented in Latin America did not include any type of evaluation. There are three main types of evaluation: of implementation; of impact, and of cost-benefit. Each of these are lacking in Latin America with respect to programmes for reducing homicides. If there is no evaluation in place, it is hard to understand which programmes have an impact and why. Lack of evaluation also creates several practical problems that have an effect on other EMMIE components. For example, it is difficult to effectively review if a programme has been implemented as it was designed and calculate the cost of the programme if the programme has not been effectively evaluated (Cano, Rojido & Borges, 2020). This average EMMI-Q score for evaluation was 0.80 and its median was 0. However, for programmes that were evaluated, these programmes tended to score high EMMIE-Q values for this component. For example, several programmes

included a transparent and well-designed research strategy, and in many cases involved evaluations with high statistical validity that took into account the risk of bias. A case-by-case analysis is needed here, but in the majority of situations evaluation tended to calculate appropriate effect sizes, analysed for heterogeneity, paid attention to issues of dependency and considered the influence of statistical outliers. This is the reason why the Effect component has the highest standard deviation (1.27), indicating that the values for this component were spread out over a wider range from the mean. For the programmes that included evaluations, these tended to be done well, suggesting there is the know-how and sufficient human and economic resources in the region for evaluations to be completed as part of any improvements in efforts to reduce homicide. It is, however, important to note that most of these evaluations were conducted in cooperation with international organizations or academia. Evaluations that were only performed by public institutions are scarce and isolated cases. For example, *the Iniciativa Regional de Seguridad para América Central* (Regional Security Initiative for Central America) implemented in El Salvador and Honduras in 2008, was one of the programmes that scored the highest. The programme was evaluated jointly by the United States Agency for International Development (USAID), the Latin American Public Opinion Project (LAPOP) and the Woodrow Wilson International Centre for Scholars. The evaluation used a difference-in-differences statistical approach. The control and treatment groups were observed before and after the programme to determine the trajectory of change under untreated conditions. The aim was to eliminate exogenous change (i.e., no treatment from the programme) by removing it from the treatment effect estimates. According to the evaluation, there was significant reduction in victimization reports and criminal violence in areas where the programme was implemented (Berk-Seligson et al., 2014). The conclusion from the report were based on direct evidence collected from survey data from more than 8,800 respondents living in 41 neighbourhoods and supplemented by qualitative stakeholder interviews.

Very little information about cost was included in homicide reduction programmes. Thus, in relation to the fifth hypothesis of the current study that stated that it was

assumed that there is knowledge regarding the cost of implementation of homicide reduction programmes, this did not appear to be the case. Generally, there were only mentions of direct or explicit estimated costs in the details about the 89 homicide reduction programmes in Latin America. In a few cases, there were mentions of estimated possible indirect costs, but in no case was there mention of marginal or total opportunity costs. An example of a programme that scored 2 for economic costs was the *Plan El Salvador Seguro* (Plan El Salvador Safe) implemented in El Salvador in 2014. The programme stated the direct costs of the programme and provided estimates of the implicit costs of policy implementation.

It is important to note, however, that estimating costs is complex (Johnson, Tilley & Bowers, 2015). Policymakers must not only think about costs incurred by those responsible for the programme but also those borne by any third parties involved in the delivery of programmes. Policymakers need to think about diminishing marginal costs on those delivering programmes, the fixed and variable costs, and cost–benefit calculations. In particular, estimating costs of evaluations can be a difficult task. Diverse studies stipulate that from the overall budget of the programme, a percentage that can range from 5 percent to 20 percent should be set aside for evaluations (Cano, Rojido & Borges, 2020). It is important to note, that there is a need for more technical training for policymakers, and in particular with regards to security programmes in Latin America (Chinchilla & Vorndran, 2018), so that capacity is improved to effectively calculate the economic costs of programmes and their economic impact.

Additionally, the problem of transparency in Latin America might play a role: there are difficulties in the region with governments allowing effective public oversight. Policymakers may want to avoid showing the costs of the programmes to the public to avoid possible complaints about those costs and political backlash. Corruption is also a factor that may affect this economic cost component, rather than others, because by keeping the numbers unknown from the public gives corrupt policymakers greater freedom for avoiding scrutiny. As stated in other parts of the current research, public institutions in Latin America have poor controls for

corruption and the region has some of the world's most corrupt countries, such as Venezuela, Nicaragua, Guatemala, and Honduras. Further, in the last few years, several high-profile cases ended with former presidents and ministers being prosecuted and sentenced to jail terms because of their corrupt activities (TI, 2019). These might be some of the reasons why government institutions have failed to be transparent about the economic costs of homicide reduction programmes.

#### **8.5.2. Analysis of the components of EMMIE by programme strategy**

Dividing the results by programme strategy shows a clearer picture of the reality of policy formulation in Latin America. The results from the current study showed that there were considerable differences between the results depending on the programme strategy that was used. Programmes that involved integrated homicide reduction strategies scored better in almost all the EMMIE components. These types of programmes included the implementation of a combination of actions oriented towards preventing crime and violence in general and, eventually, reducing homicides (Cano, Rojido & Borges, 2020). This result comes as no surprise since integrated homicide reduction strategies have also been observed to be some of the most successful in the world (WHO, 2014). However, these programmes are still not common in the region, with only one in four of all homicide reduction programmes using this type of strategy. Additionally, the design and implementation of this type of strategy requires substantial economic, human resources and technical know-how, as well as efficient coordination between different government institutions with clear sets of responsibilities. This ties in with the result provided in previous chapters, which demonstrated that the effectiveness of the institution plays a crucial role for the success of a programmes.

Integrated homicide reduction programme strategies ranked the highest on all components. In addition to achieving the higher scores for Mechanisms and Implementation, of particular note was the high score these strategies achieved for Moderators/context and Effects in comparison to other types of strategies. It appears that integrated homicide reduction strategies involved a key step in programme

design by considering the possible contexts and obstacles that could impede the mechanism and implementation processes. This included better consideration of where, when and for whom programmes might work. Additionally, this type of strategy was more likely to have some form of evaluation in place within its design.

Improvements in the criminal justice system were the strategies that scored the second highest on most categories. This is somewhat expected since these reforms tend to be very specific and technical in nature, hence it is easier to think about the Mechanism and Implementation process, as well as the Economic costs. For example, it is easier to foresee the implementation problems and the context of a specific policing strategy, such as community policing or hot spots policing or to evaluate programmes that propose the improvement of departments that investigate homicides. Additionally, for these types of strategies it can be easier to calculate expected costs and to measure the effect of specific modernizations reforms on the police or the prison system.

Programmes strategies oriented towards controlling risk factors also scored relatively well for some EMMIE components, but did not score well for the Economic costs and Moderators/context components. This might be due to the nature of these types of strategies. For example, these strategies include laws to restrict the carrying and possession of firearms or programmes where the government purchases legal and illegal arms and ammunition from the population. In the latter case it is difficult to calculate the fixed and variable costs of the programme since it is not known how many people will come forward and what type of weapons will be exchanged. In the former, the specific law requires no particular direct investment from the government (perhaps with the exception of administrative costs), and the costs will fall on the police institution to implement these programmes. The same might be true for programmes that try to control and restrict alcohol consumption. However, situational crime prevention strategies, such as reclaiming public spaces, are a little more straightforward to evaluate and to measure their costs, but overall, the risk controlling strategies that have used situational crime prevention approaches have not scored highly in terms of EMMIE-Q in the region.

Reinsertion, mediation, or negotiation programme strategies that focus on perpetrators scored very low for Economic costs and Effect. These strategies include the reinsertion of ex-convicts into society and mediation between and with members of armed groups to reduce violence. Contexts seem a particularly relevant component for these strategies (i.e., the strategy needs to consider the local setting in which the issue is presented), however, in most cases there were no reference to the moderators in the homicide reduction programmes that were reviewed. Similar to most of the other types of strategies, these programmes scored better for Mechanisms and Implementation.

Protecting groups at risk programme strategies scored poorly in all the components. This result is particularly worrying since targeting risk groups seems to be central to reducing homicides (Vilalta, Castillo & Torres, 2016; UNDP, 2013; UNODC, 2019). It is difficult to understand why these programmes scored low on components such as Implementation and Mechanism. The nature of this type of strategy provides a good opportunity to measure expected and unexpected effects of protecting a specific group at risk in a specific area, however, this possible advantage is not used by policymakers and scored low on the Effect component. The low score for the other components was less of a surprise. For example, for witness protection programmes there is limited information about the possible costs, since the costs will vary substantially depending on the quantity of witnesses or victims, the timing of the judicial processes, the type of financial aid, and if it includes only the victim or their families. In the same vein, the Moderators/context component for this type of strategy may also vary substantially because of the differences in the situation of the witness. For example, a witness could be a drug seller from a *favela* in Rio or could be a former governor of the state of Rio going who is on a corruption indictment. In short, it should be expected, and in some cases understood, why some of these programmes score low on some EMMIE components.

Strategies geared towards promoting cultural changes obtained the worst scores on almost all the components among all the type of programme strategies. The result is particularly worrying since promoting cultural changes is the second most frequent

strategy used in Latin America, representing one in five of the programmes reviewed. These types of strategies are mostly campaigns to raise social awareness, for example, against violence towards women, to reduce lethal violence or to promote a culture of peace. The component that recorded the highest score was for Mechanisms, the theory behind why this type of strategy should work. Promoting cultural changes scored zero for three of the EMMIE components, namely: Economic cost, Moderators/context and Effect. Although the Mechanisms were reasonably well established during programme design, the rest of the strategy simply assumes that somehow campaigns will have a positive effect on reducing homicides and more broadly, violence. This result is worrying not only because it is one of the most commonly used strategies to reduce violence but also because previous research has shown that they are more efficient when they are combined with other targeted measures (Cassidy et al., 2016). Hence, it appears to be important to consider the Implementation of this type of strategy and how the campaigns are affected by moderators, yet these components appear to have been overlooked in the region.

## 8.6. Limitations

This study is not without limitations and two key points are noted. First, it is important to understand, as the original authors of EMMIE stated, that it is unlikely that any programme will or could score full marks on all dimensions of EMMIE (Johnson, Tilley & Bowers, 2015). To reach high scores, post hoc evaluations and monitoring must be in place which are uncommon in the Latin America region. Additionally, the realistic way of evaluation is relatively new, and its 'logic of inquiry' is uncommon in policy formulation. Separately, because of the paucity of good quality data in several areas in Latin America, the lack of transparency, and issues with institutional capacity to design effect programmes for homicide reduction, it is unlikely that scores would rank high. Finally, the process of designing policy depends on the institutional context of each country and that may account for large variation between and within countries.

Secondly, certain types of programme strategies, might not consider certain EMMIE components because they are not part of the programme objective or design. For example, promoting cultural changes through a national mass media campaign, in general terms, would probably gear less attention towards considering specific neighbourhoods or city contexts (although exceptions are possible). The same might be true for gun control programmes, as policymakers might not take into consideration costs and context for different reasons of programme design. Whatever might be the reason, it is important to understand that certain types of programmes for homicide reduction may not take into consideration all the EMMIE components. It is, however, important to have these considerations in mind when analysing the results and the strategy that has been put in place to reduce homicide.

## 8.7. Conclusion

The aim of a realist approach is to analyse complex social programmes and to identify key components that explain why, for whom and under which circumstances programmes work. The adapted EMMIE framework is a practical tool that helps facilitate that task. It is comprised of five major considerations for policy formulation in relation to empirical evidence that may play a crucial role on those policies. To be most effective, policymakers should take all the components into consideration when designing new programmes to increase their success in reducing homicides.

In the current study the formulation of all the homicide reduction programmes in Latin America have been evaluated to provide a better understanding about how programmes are designed and how they operate in the region. The results from the study showed that the EMMIE components of Mechanisms and Implementation were considered to some extent by policymakers in Latin America. This suggests there was evidence of knowledge of theories and how certain mechanisms can have an impact in reducing homicides, and consideration of implementation. However, information was lacking from the 89 homicide reduction programmes about how these were implemented, including obstacles to implementation.

The other components of EMMIE (Moderators/context, Effect and Economic costs) had low scores. It was noted that calculating the Economic costs of homicide reduction programmes can be complex and that a lack of transparency about these costs is, perhaps, one of the reasons for this component receiving a low score. The importance of monitoring and evaluating policies has been stated elsewhere (Chinchilla & Vorndran, 2018; Cano, Rojido & Borges, 2020), and in the current study, the results reaffirm the need for implementing programme evaluations. However, consistent monitoring and evaluation are often difficult to institutionalize effectively (Felbab-Brown, 2010). This is undoubtedly a missing component that is confirmed by the results from the current study, however, the few evaluations of homicide reduction programmes that have been conducted in the region have been of good quality.

The Moderators/context result is particularly disappointing because programmes rarely work independently of the context where they are applied. In designing homicide reduction programmes in Latin America, there seems to be limited appreciation of the context where programmes are supposed to work. Social programmes are so complex that there is little hope of reproducing them (Pawson, 2002), therefore there is an urgent need to understand the context to adapt the programme. Additionally, homicides concentrate in specific places, times and in specific groups (Cano, Rojido & Borges, 2020), suggesting that there are spatial characteristics and contexts which explain the distribution of homicides. The location, the time, and the people whom to target influence the programme and hence its outcome. Therefore, understanding that context matters will better ensure that homicide reduction programmes are tailored to the setting where they are meant to have impact.

The ineffectiveness of homicide reduction programmes in Latin America may in part be because of a lack of evaluation to improve the programmes that are in place, but also because of a lack of understanding of the context where these programmes are going to be applied. Considering these components when designing future programmes is a key step that could significantly impact the outcomes of the

programmes. To reach that objective, data gathering is of foremost importance to help policymakers understand the context where the programmes take place. There is an urgent need to improve and strengthen data collection and the quality of that data and information in the region (IDB, 2012; WHO, 2014) to support empirical analyses and policy formulation, and improve the understanding of how, why, and for whom a particular programme works.

There are, however, some positive results regarding the type of strategies used to reduce homicides in Latin America. Integrated homicide reduction programmes scored best in all components. These types of strategies are also the ones for which there are the most examples of having some positive impact in reducing homicide in the region, such as *Fica Vivo!* in Brazil, *Todos Somos Juarez* in Mexico. However, these programmes also present disadvantages, the first consists in the extreme difficulty of knowing which among the numerous strategies (or what combination of strategies) caused the impact. Further, these types of strategies also are known to involve high economic costs, therefore it is not feasible that a government will be able to reproduce them in a large number of places in a country. Nonetheless, leaders should invest their efforts and resources in understanding how, why and for whom these programmes worked, and adapt them to their particular context. Understanding and using the EMMIE components while designing security policies could facilitate this endeavour.

## **9. Discussion, implications, and conclusions**

This research has, so far, been presented and discussed in eight chapters, of which six are based on empirical studies. The findings from all the empirical evidence (both the six studies and related research) are gathered and examined in greater depth in this final chapter. The discussion begins by considering the primary research questions and the results from testing the hypotheses used to frame the direction of the work. I then discuss how the findings from the research offer a new theoretical perspective about public safety in Latin American settings and the practical implications for crime reduction and policy design. In the chapter's closing sections, I discuss the research's contributions to the field, as well as prospective areas for future research, the main limitations, and primary conclusions.

### **9.1. Summary of findings in relation to the research questions and hypotheses**

This research was, in broad terms, divided into two sections. The first section investigated the causes of homicides while the second section assessed the programmes used to reduce homicides in Latin America. Each is discussed in turn below. For the first section, the primary research questions were: which variables explain more accurately the rise or fall in homicide levels in Latin America? what is the influence of institutional factors (i.e., government effectiveness and corruption), in comparison to structural factors, on homicide levels in Latin America? and what is the impact of structural and institutional factors at the neighbourhood level on homicides?

#### **9.1.1. Investigating the causes of homicide**

Over the last decade, Latin American countries have advanced in their social and economic macro indicators, however, they have failed to control and reduce crime levels, in particular homicides. In the current research, my first hypothesis stated that the effectiveness of public institutions and controls for corruption are relevant

variables for explaining the high levels of homicide in the region. Results from the panel regression of the first empirical study provided support for this hypothesis, indicating that institutional variables related to government effectiveness and controlling for corruption are particularly relevant factors for explaining the high levels and variation in homicides in Latin America. It would seem that when institutions are perceived as ineffective or corrupt, people withdraw their support and their normative compliance, contributing to weakened formal and informal control mechanisms. Further, normative compliance with the law occurs when people feel commitment to do so, fostered by institutions that they feel are trustworthy and effective. Nevertheless, the results of the panel regression did not suggest that these variables (government effectiveness and controlling for corruption) replaced certain classic structural variables in explaining variations in homicide levels but instead operated alongside them. For example, it was found that inequality and education continue to be strong factors that influence the variation in homicides across countries in Latin America. However, poverty and unemployment (often cited as key explanatory variables for the variation in homicide levels) were identified in the current research as being weaker in their explanatory power than the institutional variables that were examined. Therefore, it is argued that analysis of homicide in Latin America settings must include institutional variables to fully explain the presence of the high levels of homicide in the region.

Additional empirical support for the hypothesis that tested the influence of government effectiveness and corruption for explaining the high levels of homicide in the Latin American region was shown in the case study of Montevideo, Uruguay. With regards to examining the causes of homicides, this case study revealed a much more complex reality at the neighbourhood level. The question that directed the investigation of this chapter was: what is the impact of structural and institutional variables on homicides at the neighbourhood level? The results of this study showed that social and structural factors such as overcrowding, teenage motherhood and education were significantly associated with homicides experienced across Montevideo. This case study then examined the neighbourhood of Casavalle in more detail. Casavalle was chosen because it was the most violent neighbourhood in

Uruguay, with a homicide rate in 2018 of 75 homicides per 100,000 population. Further, the neighbourhood recorded 1,147 violent thefts in 2018, compared to the average for all neighbourhoods in Montevideo of 378 violent thefts. To investigate the link between institutional effectiveness, corruption, and crime a survey of high school children (n = 332) was carried out. Results were representative of all the adolescents who study in Casavalle with a 95 percent confidence interval and a margin of error of +/- 5 percent. The results from the survey showed that most adolescents in Casavalle did not trust the police and few believed that the police is not involved in corruption. Further, adolescents in Casavalle believed that the Uruguayan police were ineffective and were not capable of capturing criminals. The results were compared to a similar national study and showed that these negative opinions about the police were significantly above the Uruguayan average. For example, the majority of school aged children in the neighbourhood do not trust the police, with this level of mistrust being 25 percentage points above the Uruguayan average. This finding suggests that young people in Casavalle perceive the police in a much worse manner than the rest of the general population. The results from this case study in Casavalle offered some further support to the hypothesis that institutional variables are important factors that are associated with experiences and victimisation from violent crime.

To provide further in-depth analysis and build upon the research findings from the first studies, the next part of the research examined: are the police, the judiciary and the prison system in Latin America ineffective and as a consequence this limits their ability to fulfil their duties in the prevention of violence? And, Are the police, the judiciary and the prison system, in broad terms, corrupt? In this chapter, I reviewed previous research, six different international indexes and two regional surveys from 2010-2020. The results offered insights into the effectiveness of the judiciary, police and penitentiary systems in the Latin America region and the presence of corruption in these systems. Results showed that the CJS in countries in Latin America was ineffective and suffered from high levels of corruption. Consequently, this ineffectiveness and presence of corruption would suggest that the CJS may fail to fulfil its duties of capturing, judging, prosecuting, and rehabilitating criminals. The

review of the research on these topics did, however, reveal that few studies have focused on examining how the effectiveness and presence of corruption in the CJS has an influence on homicide levels. In conclusion, the findings indicated that operation of the CJS and the outcomes they generate are important in deterring criminal behaviour and reducing impunity, but that these outcomes also influence how citizens evaluate the institutions that comprise the CJS and shape citizen attitudes towards these institutions. Of note, it was shown that institutional effectiveness may influence how citizens behave towards the law and whether they will cooperate with public institutions in charge of security. Further, this part of the research identified that corruption can be an important factor that contributes to reducing the effectiveness of public institutions. In turn, this creates a vicious circle whereby ineffectiveness and corruption may foster dissatisfaction and criminal behaviour, which furthers dissatisfaction and perceptions of ineffectiveness of these institutions.

The three institutions that embody the CJS (the police, the judiciary and the prison system) are closely linked. The effectiveness of one will impact directly on the effectiveness of the other. The police are responsible for enforcing the law, preventing crime, and investigating crime. The judiciary are responsible for investigating, indicting, and sentencing criminals. The prison system for securing the detention of offenders, rehabilitating criminals, and preventing recidivism. If any of these links weaken, the effectiveness of the other institutions is affected and can lead to them being overburdened. Therefore, it is important to understand the challenges and obstacles that these institutions experience in carrying out their responsibilities effectively. In short, high levels of effectiveness and good controls for corruption in the criminal justice system appear to be relevant to having legitimate and trustworthy institutions, which in turn may increase the population's normative compliance.

### 9.1.2. Assessing the homicide reduction programmes

The second section of the research examined how public institutions that are responsible for leading on matters of reducing crime have designed and implemented homicide reduction programmes. This section investigates the hypothesis that homicide reduction programmes present several design issues and are ineffectively planned. In particular, programmes are not evaluated and do not take into consideration the local contexts where they are implemented. To examine this, the research was organised around the following research questions: How are homicide reduction programmes formulated in Latin America? What are the key characteristics of homicide reduction programmes in the region? are there specific characteristics that make homicide reduction programmes less effective? and, how do homicide reduction programmes rank in relation to the components of the EMMIE framework (i.e., Effect, Mechanism, Moderator (or context), Implementation, and Economic costs)? This part of the research examined 89 homicide reduction programmes that have been developed and implemented between 2002 and 2019 in 18 countries in Latin America. The results showed that most homicide reduction programmes were implemented in Brazil, Colombia, El Salvador, Honduras, and Venezuela. These results were expected, because these are some of the countries with the highest levels of homicide in the world. The results also showed that 64 percent of the programmes associated with homicide reduction had a national focus, 21 percent had a local focus and 15 percent a regional focus. Further, most programmes were carried out by central government (43 percent), followed by the civil society (24 percent), regional governments (17 percent), or local government agencies (7 percent), while the other 10 percent were carried out by other organizations such as USAID and the Inter-American Development Bank. The most common type of strategies were integrated homicide reduction strategies (26 percent) and strategies that promoted cultural changes (21 percent), followed by strategies that protected groups at risk (19 percent), controlled risk factors (13 percent), involved improvements in the criminal justice system (11 percent), and reinsertion, mediation, or negotiation towards focused perpetrators (9 percent). Of note was that 80 percent of the homicide reduction programmes did not include any evaluation plans and as a

consequence were not evaluated for their effect on homicides. Collectively, these programmes are directed by the policies that governments adopt for reducing homicides. Therefore, the design of these policies needs careful consideration to ensure their adoption in the form of programmes has an effect on homicide. The main conclusions from this part of the research were that programmes for homicide reduction in Latin America were not comprehensive (i.e., were not based on a multi-causal and/or multi-sectorial approach to the problem), were not focused (i.e., were not targeted to specific places, times, or individuals), and failed to evaluate the programme impact, all characteristics that have been deemed as being fundamental to reduce homicides (UNDP, 2020). These results are in line with the second hypothesis of this investigation – that homicide reduction programmes in the region are poorly designed, often are not adapted to local contexts and lack any form of robust evaluation.

The final part of the research questioned whether there are specific characteristics that make homicide reduction programmes less effective? The current research showed that there is paucity of homicide reduction programme evaluation in the region and so, it was not possible to empirically determine which programmes are effective and why. To address this, a framework for future policy formulation and assessment was developed by drawing on the EMMIE framework – a framework that was originally designed to summarise the evidence from systematic reviews of specific crime reduction programmes and to rate the quality of that evidence in a manner useful for practitioners (Johnson, Tilley, & Bowers, 2015). I adapted the framework specifically for policy formulation since during the policy formulation stage, social problems and demands are addressed, and transformed into programmes. The adapted EMMIE framework was used to assess the policies associated with 89 homicide reduction programmes that had previously been implemented in Latin America.

The EMMIE framework is based on the realistic evaluation approach. This approach involves holistically evaluating the design and implementation of programmes, and understanding what works, with the premise that programmes only work for certain

people in certain circumstances. In short, it focusses its attention towards searching for and describing the underlying mechanisms that generate outcomes in particular contexts, which in turn can lead to identifying which characteristics might have made some programmes more successful than others. This type of approach is particularly useful for the Latin American context because of the weaknesses regarding monitoring and evaluating homicide reduction programmes (OECD, 2020).

The adapted EMMIE framework that is introduced in this thesis was proposed as a practical tool for rating the evidence of how policies are developed. Specifically, the EMMIE framework considers five components: Effect, Mechanism, Moderators, Implementation and Economics, which provide useful dimensions for policymakers to review in policy formulation. As such, the following research question guided the examination of the quality of policy design for homicide reduction in Latin America: How to homicide reduction programmes rank in the components (i.e., Effect, Mechanism, Moderator (or context), Implementation, and Economic costs) of the EMMIE framework? The 89 Latin American homicide reduction programmes that were examined in Chapter 6 were reviewed and scored using this framework. The results showed that overall, homicide reduction programmes in Latin America scored low in all EMMIE components. The best scoring component for these programmes was for mechanisms followed by implementation (albeit still being low scores in both cases). There was some evidence from the examination of the 89 programmes of knowledge of theories and the mechanisms through which a programme may have an impact on homicides, and information regarding possible obstacles to implementation. However, information was lacking about how programmes were implemented. The other EMMIE components - moderators/context, the effect, and the economic costs - scored low across the 89 homicide reduction programmes. Since there were few evaluations in place for these programmes, the effect and economic components results were of little surprise. However, and particularly worrying, were the results of the moderators/context component. This revealed that there was a lack of understanding of the context where programmes were supposed to work. Crime clusters in specific locations (e.g., in a few street segments), during specific times (e.g., late hours in the night), and across a population (notably amongst adolescents

and young adults), and with a small number of offenders being responsible for a large proportion of crime (Chioda, 2017). Each one of these characteristics influence the context of the setting where crime occurs and in turn affect the implementation of programmes and hence, their outcome. Understanding that different contexts will require different responses and strategies is an important factor in determining a programmes impact. Simply replicating programmes that have been successful in one place does not guarantee the programme's success in another, potentially very different setting. In particular, homicide reduction programmes are unlikely to be effective when these programmes are simple replications of programmes from countries with social, economic, and institutional characteristics different from those in Latin American countries.

The results from the studies described above provides support for the second hypothesis of this research – that homicide reduction programmes are not adapted to the specific circumstance and local characteristics of each country and/or city and are not evaluated. The ineffectiveness of homicide reduction policies in Latin America does not only refer to what the programmes aim to achieve but also how they aim to achieve it. As such, not only the context but also the way of implementing programmes is key for their effectiveness. If policymakers and practitioners do not understand the context and specific characteristics of settings where the programme is going to be implemented, it is less likely that programmes will have an impact, since the specificity of each context will affect the policy's effectiveness.

In conclusion, the findings from the current research provide empirical evidence that institutions in Latin America do not function effectively and have weak controls for corruption. Further, it provides support for the argument that how institutions function matters. This is not only because ineffective institutions are less likely to reach their objectives, but also because they affect how people behave towards them, such as by discouraging criminal behaviour through deterrence. This is particularly visible in the institutions in charge of the provision of security, i.e., the police, the courts, and the prison system. This ineffectiveness is also notable in the way policymakers design, implement and evaluate homicide reduction programmes.

As shown in this research, most Latin American countries fail in accomplishing Weber's conceptualization of government functioning, defined as an institutionalized structure with the ability to rule authoritatively and to legitimately control the means of violence (Weber, 1921/1980). In its nature as a public good, security must be of equal access to all members of a society, without exclusion or exceptions. This is not the case in the Latin America region. Homicide rates provide a metric for security and social violence and how security and violence compare between different settings. The persistence of high levels of homicide offers a clear indication of the severity of social reality that is experienced by citizens in Latin America. Consequently, homicide reduction should arguably be the main security priority in each country in the region. If institutions are incapable of providing effective policy solutions to reduce homicide, it is unlikely to be a surprise that institutions will also fail in providing effective policies for reducing other types of crimes and criminal behaviour.

## 9.2. The institutional perspective: implications of the research findings

Researchers have shown that despite its critical importance in Latin America, good empirical studies of crime, citizen security and justice in the region have been lacking (IDB, 2017). The current research has attempted to further these areas of study by examining a new angle of enquiry. Swift and effective action by institutions in charge of security will help reduce homicides and violence by discouraging criminal behaviour and incapacitating offender, or reducing the number of potential offenders with effective use of deterrence. Deterrence theory argues that crimes can be prevented when the potential offender perceives that the costs of committing the crime outweigh the benefits (Gibbs, 1975). This is also often referred to as specific deterrence. Furthermore, general deterrence is the concept that the population is dissuaded from committing a crime when it sees that punishment follows the commission of a crime (Braga & Weisburd, 2012). Therefore, it is suggested that effective institutions will deliver better security services that will lead to improvements in crime reduction, not only because their effectiveness will improve how offenders are captured, prosecuted, and rehabilitated, but also because the

perception of being arrested and the effective application of justice will enhance the deterrence effect. In the following section I examine possible ways that homicide can be reduced in Latin America through improving institutional effectiveness and reducing corruption.

### **9.2.1. Improving institutional effectiveness**

Institutional effectiveness is the government capacity to achieve a desired objective or goal. According to the World Bank (2020) effective institutions are those that can provide high quality public services and that have a high degree of independence from political influence. Additionally, effective institutions have a high quality of policy formulation and implementation, and credibility in the government's commitment to these policies. The current research has shown that improving institutional effectiveness should be at the centre of policy making and is an important factor in the design of security policies.

Citizens in Latin America have become increasingly dissatisfied with their public institutions (Latinobarómetro, 2018; LAPOP, 2017). The quality of the relationship between citizens and public institutions is decreasing because of the decline in the legitimacy of public institutions. I argue, alongside other commentators, that this decline in satisfaction of public institutions is associated with institutional ineffectiveness and corruption, particularly in the institutions in charge of providing security. The police, the judiciary and the prison system comprise a central part of the government and are an important service of any government. As such, conclusions about these institutions can be generalized to other government institutions (Beetham, 1991). Latin American citizens perceive their institutions as less effective, trustworthy, and legitimate, and as a consequence citizens are increasingly looking elsewhere for solutions to their daily problems of insecurity. Building more effective institutions is the first step to improving legitimacy and security.

Effective institutions are critical for providing a variety of services to its citizens that surpass security issues, and that ensure the coverage and quality of other public services (Arizti et. al, 2020). For example, it has been shown that effective institutions incentivize economic growth (Feng, 2017; Aron, 2000), accelerate development (Zagha & Nankani, 2005), decrease the possibility of violent conflict (Rocha Menocal, 2011; OECD, 2005) and reduce poverty (WB, 2002). This body of research shows the importance of building an institutional framework through which effective planning and the implementation of public policies can take place.

At the heart of government functioning is the provision of security. First and foremost, effective institutions need to be able to reduce insecurity while bolstering accountability within institutions. The recommendation list to improve institutional functioning is large and far exceeds the objectives of the current research, however, some key points are worth noting. With regards to the effectiveness of security institutions in Latin America, the evidence to date, supported by the current research, shows that the following aspects are important: better and more centralized administrative capacities; a professionalized civil service with capable human resources; effective recording and timely access to good quality data, and improvement in overall programme management and policy design.

As a starting point, building more effective institutions requires stronger administrative capacities. One way of improving these capacities, is with a better equipped and empowered central government. A strong central government is important since it can strengthen coordination and coherence of policy, and advance government reform agendas (CEPAL, 2018). Further, better administrative capacities can improve intersectoral institutional coordination and communication. Policy implementation has been challenging in Latin America due to several factors, including weak communication, coordination, planning and integration between different levels of government. Stronger administrative capacities will help to solve these issues, and strengthen horizontal coordination between the national, regional, and local contexts, collaterally promoting the adaptation of solutions for each specific context. To help reach stronger administrative capacities, findings from the existing

research literature has identified some key components, including strong leadership, a clear sense of multilevel government coordination, a structure that separates overall strategic management from operational and implementation activities, and appropriate resources in terms of time, information, funding, and expertise (UNODC, 2010).

Expertise in particular is a key problem that affects institutional effectiveness in the region. There is limited availability of capable human resources with sufficient administrative and technical experience to manage, design, and implement programmes. Indeed, weak institutional capacity is linked to weak selection, training, and preparation processes for personnel (UNDP, 2009). Most countries in the Latin American region lack a formal professional civil service and experience a high proportion of political appointments among public officials, which makes reformers' work difficult (Grindle, 2010). A study found that ten out of 18 bureaucracies in Latin America were typical cases of patronage (Schuster, 2014). Further, in many countries of the region, political leaders and parties use the public administration to build clientelist networks for electoral purposes (OECD, 2019). For example, the Mexican poverty relief programme *Programa Nacional de Solidaridad* (National Solidarity Programme - Pronasol) of the 1980s, was politically manipulated by the incumbent clientelistic *Partido Revolucionario Institucional* (Institutional Revolutionary Party - PRI) in allocating transfers to core supporter constituencies and to harness votes (Berens & Ruth-Lovell, 2021).

These types of clientelistic bureaucracies end up having little capacity to exercise an active role in decision making or on implementing public policy and have low levels of independence (Echebarría & Cortázar, 2007). In turn, this often results in low capacities and expertise of public servants. To solve this issue, recent work has shown that higher wages and job stability can have positive effects on public-sector hiring and attract more able applicants (Dal Bó, Finan & Rossi, 2013). Evidence also shows that improvements in wages and job stability can also change corrupt behaviour through civil service reforms, meritocracy-based recruitment, and human resources supervision (Evans & Rauch, 2000; Hira, 2016; Charron et al, 2017; Shirali, 2019).

Fundamentally, a merit-based civil service recruitment system has the potential to help address these issues by increasing the know-how and capabilities of public servants, while at the same time decreasing clientelism, nepotism and possibilities of corruption (Dahlström, Lapuente & Teorell, 2012). A good programme example that improved the training and expertise of police personnel is the *Política Nacional Integral de Convivencia y Seguridad Ciudadana de Honduras* (the Honduras National Comprehensive Policy for Coexistence and Citizen Security) programme, implemented in Honduras. The programme aimed to reduce violence through strengthening the security and justice institutions. It paid particular attention to training and improving the quality of police personnel. For example, the programme changed the requirements to enter the police force from six years to 12 years of education. It also increased the months of training of police cadets from six months to 11 months and included a period of internship in the field. Moreover, police salary was increased by 40 percent, as well as improvements in the infrastructure and equipment of the police force (Alvarado & Muggah, 2018).

Another step, addressed in depth in this thesis, is the need to improve public programme management and policy design. Through programme management, institutions form the production of goods and services for citizens, and reach the objectives established in the government plan (Kaufmann, Sanginés & Moreno, 2015). At the most basic level, programme management and policy design need to stem from availability, quality, and timeliness of information and data (IDB, 2017). Without data, policymakers cannot adequately design, implement, monitor, or evaluate security programmes. Although the quality of information varies among countries, in broad terms, crime statistics are inconsistent, insufficient, not timely and unavailable to the public (Di Tella, Edwards & Schargrofsky, 2010; Dammert et al., 2010). In particular, this relates to data about service performance and expenditure of the judiciary and the police (IDB, 2017). Data gaps affect policy design and implementation because they make it difficult to identify problems and plan a course forward. Likewise, without good data, it is difficult to understand the multiple factors that influence crime and why crime varies between areas, times, and individuals. Further, real-time data collection empowers government officials to spot

problems in time and to anticipate crime, and then make any necessary adjustments to programmes. In the absence of good quality and timely data, policymaking can instead become reliant on intuition, past experience, and other biases, all of which have been shown to have significant drawbacks and hamper policy formulation (Esty & Rushing, 2007).

Another problem regarding data collection is that the agencies responsible for managing data, such as police forces, public prosecutors, or the prison system, keep separate statistics with different compilation methodologies (IDB, 2017). This leads to largely unreliable and unusable data. Different data are used to respond to different administrative purposes, so the type of information varies significantly depending on the institution. Different compilation methodologies and presentation of data further complicates data processing and management, and inhibits the capacity of integrating data from different information systems. For example, in Venezuela, the main institution responsible for collecting crime data is the *Cuerpo de Investigaciones Científicas, Penales y Criminalísticas* (Scientific, Penal, and Criminal Investigation Service Corps - CICPC). This institution does not actively share crime statistics with local government officials and local police. As a result, each local agency generates its own statistics, which are not standardised in any way. When data are shared, they are often of limited value because of varying methodological and collection practices (Muggah et al., 2016).

Moreover, official data are often criticized for offering an incomplete and biased picture of criminality, since they are highly dependent on the willingness of people to report a crime, on the capacity of the police to record these crimes, and on the data-collection systems themselves (Van Dijk, 2006; UNODC, 2010). The lack of resources, funding and appropriate training of personnel are major obstacles to compiling and analysing data. Furthermore, official records of reported crimes should be supplemented by quantitative data from victimization surveys and hospital records on injuries and deaths, as well as qualitative data such as information from interviews with key stakeholders. Most of these data do not exist in the region, and although several countries in Latin America have implemented victimization surveys, only

Chile, Peru, Colombia, and Mexico have managed to institutionalize these surveys and carry them out on regular occasions (CdE, 2013; INEGI, 2019).

In short, there are substantial gaps in technical skills and knowledge in terms of the quality of crime data and crime statistics. Improvements in the quantity and quality of data about crime may not only lead to improvements in how police resources are deployed and targeted, but to the more effective delivery of judicial services to those who need them the most. Improving the quality of crime data and other forms of public safety data will be a substantial step towards improving institutional effectiveness, assessing programme effectiveness and sustainability, and helping in the modification of policies and programmes to different contexts. An example that illustrates improvements in data recording and data management was the creation of the Integrated Information System within the Citizen Security programme in Honduras. The objective of the Integrated Information System was to generate good quality data to inform decision-making and the design and execution of public policies on security. The key components of the programme were i) gathering information and data on criminal incidents and other indicators of human development, ii) a multidimensional analysis of the criminal phenomenon and iii) strengthening the capacities and skills of technical staff (UNDP, 2020).

Further, and connected to the two points above about data and policy design, the results from the current research suggest that there is an urgent need to expand empirical evidence in the region, particularly in the security sector. This problem is partly because of the unpreparedness of public servants and the technical challenges in generating data and evidence, however, there are other issues related to policy formulation, specifically, policy evaluation. Methodologies and technical capacity to perform rigorous programme evaluations are limited in the region. Further, most empirical evidence of the security sector stems from evaluations carried out in countries outside the region. In particular, evidence is typically drawn from the United States and western European countries where societies have low levels of violence and social, political and institutional conditions significantly different to those in Latin American (Rojido & Cano, 2018; Imbusch, Misse & Carrion, 2011). Latin

American countries have attempted to replicate security programmes implemented elsewhere, but these programmes have often not been successful because the success of a programme is largely dependent on how well it is adapted to local circumstances (UNODC, 2010). A well-known case in Latin America is the *mano dura* (iron fist) policy against gangs, based on the New York zero tolerance approach to fighting crime of the 1990s. *Mano dura* policies have been implemented in several countries in Latin America, and in particular in El Salvador, Honduras and Guatemala (Imbusch et al., 2011). This approach is characterised by military raids in slums, extension of the powers of the police, mass incarceration of gang members, lowering the age of criminal responsibility, and tackling minor offences (UNDP, 2020). However, these policies have been met with reservations in Latin America, since they alienated marginalised communities from the government and the rest of the society, and positioned gangs themselves as legitimate defenders of the community against abusive police (Schuberth, 2016; Serrano-Berthet & Lopez, 2011). Others have argued that transferring this type of policy to Latin America has increased discrimination against the poor and has pushed highly marginalized individuals into worst situations, such as undocumented transnational migration (Swanson, 2013). Overall, *mano dura* style policies are considered to have been ineffective in reducing violence in Latin American settings, with one of the reasons being because of policymakers failing to understand the characteristics of who was supposed to implement the policy and for whom the policy was intended. For example, an under-resourced, unprepared, and corrupt police force, in areas where the local population does not trust the police, led to higher police violence (Swanson, 2013). Further, targeting minor offences, such as begging and street vending, is highly problematic in a region where the number of people working and living on the streets is much higher than in the United States. In another example, the government from El Salvador criminalized tattoos that designate gang affiliations. They also made it illegal for two or more gang members to congregate in public places, including standing, sitting, walking, driving, or gathering (Zilberg, 2007). This not only made the enforcement of the law almost impossible, but it also created extensive identity based profiling and stigmatization against the poor youth population (Swanson,

2013). Not understanding the reality of the local population and police force was one of the reasons that the *mano dura* policy had little impact.

Moreover, it will be nearly impossible to replicate successful and innovative crime reduction programme without credible documentation of how activities were organized and without monitoring and evaluation. Given the urgent need to gather knowledge and evidence, programmes to reduce homicides should include and budget for impact evaluations and include robust cost-benefit and cost-effectiveness analysis (Jaitman, 2017). However, evaluation is very limited in the region. A recent report showed that Chile was the only country (in a sample of six Latin American countries) that performed short and medium-term evaluations based on project costs, timeframes, impact, and operational costs (Kahn, Baron & Vieyra, 2018). Evaluation processes need to be incorporated into action plans at the planning stage and not added as an afterthought. Further, emphasis should be put not only on ‘what’ works, but also on the ‘how’ things work in particular contexts. Using tools such as results-oriented planning and budgeting, will help monitoring and evaluation processes, and improve overall service delivery (Cano, Rojido & Borges, 2020; CEPAL, 2018; Frühling, 2012).

### **9.2.2. Reducing corruption levels**

The empirical chapters of this thesis have shown that Latin America’s average levels of corruption are high and that these levels have not decreased over recent time. For example, according to the Corruption Perceptions Index of 2018, the average score for the Americas was 44 out of 100, where “any score below 50 indicates that governments are failing to make serious inroads against corruption” (TI, 2017). Consequently, approximately 324 million Latin Americans live in countries ranked as “Very Corrupt” by Transparency International. Results from the current research provide empirical support for the argument that reducing corruption will help reduce crime, and in particular homicides. Centrally, reducing corruption will increase legitimacy of public institutions and incentivize citizens and public servants to act according to rules and social norms. Recent research has shown that factors such as

regulatory quality, low levels of transparency and the weak effectiveness of control mechanisms influence corruption (IDB, 2020). Some policies have been found to be successful at reducing corruption, such as improving transparency by increasing access to information and open government policies, internal and external accountability measures (such internal controls and external audit), the use of technologies and e-government reforms, increasing integrity norms within public institutions and adequate civil servant salaries. In the next section I comment further on these points.

One of the most cited forms of reducing corruption is promoting government transparency. This approach is supported by theoretical studies that suggest that higher levels of transparency are necessary for lower levels of corruption (Cordis & Warren, 2014; Peisakhin, 2012; Peisakhin & Pinto, 2010). These theoretical arguments suggest that officials who work in transparent governments realize that their actions are subject and accountable to public overview, therefore, they have little option but to behave according to the norms. Further, open government methods promote a culture of transparency, accountability, and access to information in the fight against and prevention of corruption (OECD, 2018). For example, a study from Alessandro et al. (2019), found that access to information increases trust in government which in turn improves legitimacy. It is worth noting that most Latin American governments have made important strides in improving government transparency in recent years, by increasing digitization and online publication of records (Argüello & Ziff, 2019). For example, since 2002, 18 Latin American and Caribbean countries have approved legislation that expanded access to information (Kahn, Baron & Vieyra, 2018). However, the association between transparency and corruption is unlikely to be simple, with some researchers contesting the link between the two (Escaleras, Lin & Register, 2010; Adam & Fazekas, 2018; Parra, Muñoz-Herrera & Palacio, 2019). For instance, Bac (2001) has suggested that transparency may provide better information to outsiders about whom to bribe and to exploit for political connections for corrupt purposes. Nevertheless, overall, the empirical literature favours the view that increased transparency is beneficial. It would seem that transparency is necessary in helping to

reduce corruption, but on its own is not a sufficient condition for preventing corruption (Lindstedt & Naurin, 2010).

Ensuring compliance with rules and regulations is key to reducing corruption. As such, strong internal controls and external audit are two of the fundamental pillars to prevent and reduce corruption and other unethical practices (OECD, 2019). Internal control systems are generally based on good management, oversight, and internal audit. External audits further play an important role in overall governance and control structure. External audit reinforces controls for corruption by overseeing and holding public institutions to account for their use of public resources and ensuring the impartial enforcement of laws and regulations. For example, in the United Kingdom, police agencies are annually reviewed by Her Majesty's Inspectorate of Constabulary and Fire and Rescue Services (HMICFRS, 2021). However, external audits are not the norm in the Latin America region, and often governments do not require the ministries to publicly report on the steps they have taken to address audit findings.

More recently, the use of new technologies has been recommended to combat corruption. According to experts, tools such as big data analytics, machine learning and artificial intelligence can provide effective ways of limiting corruption. These tools help build transparent, accountable, and more participatory governments. Previous studies have analysed the use of digital technologies and how they can reduce opportunities for corruption and can disrupt predominant patterns and interests (Bussell, 2012; López-Iturriaga & Sanz, 2018), whilst other studies have shown how the use of artificial intelligence algorithms can identify irregularities in public contracting processes (for example, see Argüello & Ziff, 2019). Furthermore, a recent cross-national study found that e-government could be an effective tool to curb corruption (Kim, 2014) and that as the use of information and communications technologies related to e-government increases, corruption decreases (Mistry & Jalal, 2012). Additionally, studies have shown that the positive impact of e-government is even higher in developing countries than in developed countries, since developing countries tend to have less transparency (Mistry & Jalal, 2012). Latin American countries are making progress towards enhancing the use of technologies within

governments. For example, over 20 local and state governments have adopted the International Open Data Charter, that focuses on building and improving e-government (Kahn, Baron & Vieyra, 2018). However, the research to date on the use of AI, e-government, and other technologies in helping reduce corruption is still limited, especially for developing countries (Adam & Fazekas, 2018; Rustiarini, 2019), suggesting that this could be an area of future research for studies that examine ways to reduce corruption.

Finally, integrity in public administration is crucial. The research literature confirms the importance of integrity rules in public administration and offers useful guidance for these types of reforms. The benchmark publication in this area is the OECD's Guidelines for Managing Conflict of Interest in the Public Service (OECD, 2003). Further, previous research has shown that to fight corruption, a strong and cross-cutting integrity system across all levels of government is crucial (CEPAL, 2018).

It is also worth noting that evidence regarding the effectiveness of anti-corruption policies is limited (IDB, 2020). Researchers such as Gans-Morse et al. (2018), have highlighted the lack of rigorous empirical evaluation of the anti-corruption policies such as rewards and penalties, monitoring, restructuring bureaucracies, screening, and recruiting and anti-corruption agencies. This is not to say that these policies are not effective or always fail, but similar to homicide reduction policies, they have not been effectively evaluated.

**Table 9-1** summarizes the recommendations to improve government effectiveness and reduce corruption. Some of the reforms might affect both institutional problems, such as better data compilation and professionalization of the civil service. Meanwhile others might just tackle one of the institutional issues that have been identified in the current research. It is worth noting that the table is not exhaustive, and that other policies might help these institutional deficits. Moreover, these are generalized recommendations to be implemented in a diverse region, within a diverse set of institutions. There is no unambiguous answer for how to deal with these problems. Something that works in one country or set of institutions will not

necessarily be successful in another. These recommendations should be taken cautiously while their impact and success are further investigated.

**Table 9-1: Summary of results**

	<b>Impact on improving institutional effectiveness</b>	<b>Impact on reducing corruption</b>
Centralized administrative capacities	√√	
Professionalized civil service	√√	√
Availability, quality, and timeliness of data	√√	√
Improvement in overall programme management and design	√√	
Increase transparency.		√
Internal and external accountability measures		√√
The use of new technologies and e-government reforms	√	√√
Increasing integrity norms		√

Note: √√ = overall, evidence suggests the intervention has an impact. √ = There is some evidence that the intervention has some impact.

In the next section, I consider the relationship between government effectiveness and corruption, and how these institutional factors should be tackled together.

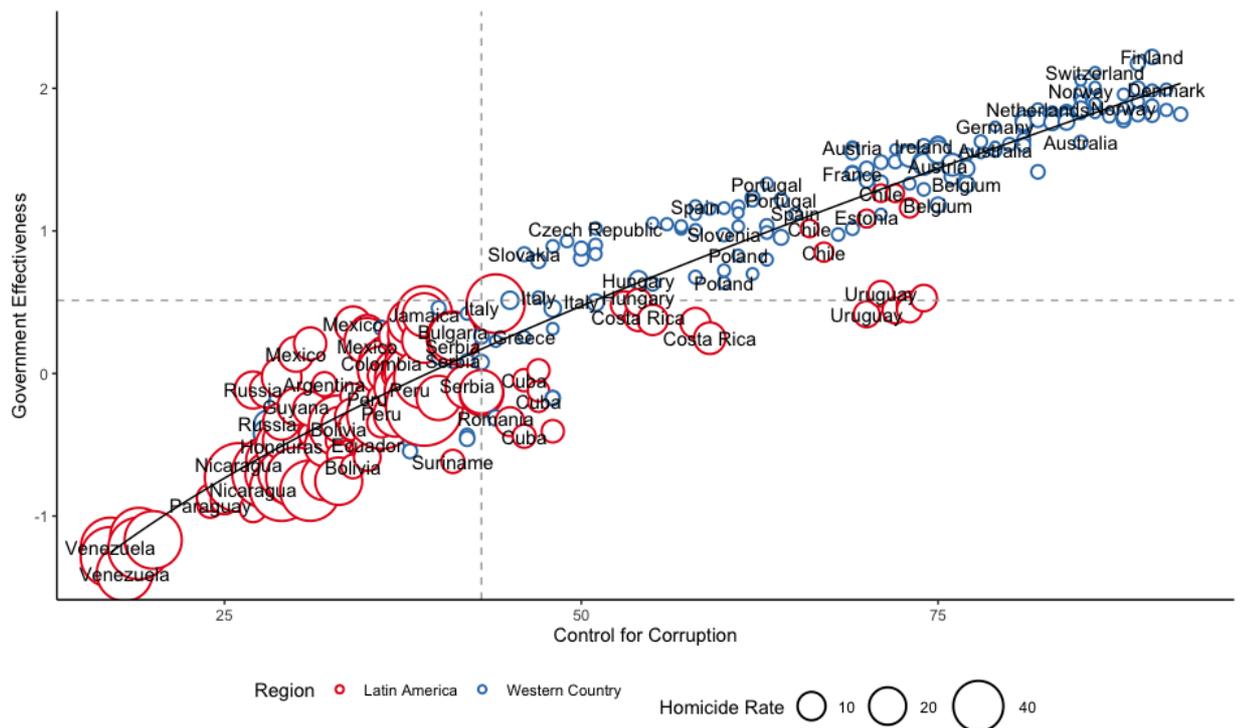
### 9.2.3. What comes first: improving effectiveness, or reducing corruption?

To start, it is important to note that both issues can and should be addressed simultaneously to improve overall government functioning. There is a body of academic literature that examines the relationship between the quality of institutions and corruption. According to this literature, weaknesses in the design and operation of institutions create incentives for corruption. Key findings from this literature are included in this section.

The relationship between these government effectiveness and corruption is strong and significant as shown in **Figure 9-1**. The first empirical study of the current research, working with panel data from 12 years from 52 countries, found a strong correlation between government effectiveness and levels of control for corruption

(0.95,  $p < 0.01$ ). This correlation indicates that a change in one variable will directly affect the other. For example, higher levels of corruption can lead to lower levels of government effectiveness, and vice versa: ineffective governments may provide more opportunities for corruption. It would be logical to estimate that any deterioration in one variable will lead to a deterioration in the other variable.

**Figure 9-1: Correlation: control for corruption and government effectiveness (2012-2017)**



Source: own elaboration with data from Homicide Monitor, TI, and WB (2012-2017). Note: every mark represents a year per country. Dashed line at  $y=43$  represents CPI data average while dashed line at  $x=0.513$  represents GE data average.

However, the conclusion that improving one variable would improve the other might not be so straightforward. There is evidence from research that institutional failings and weaknesses provide a breeding ground for corruption and reduce the incentives for those in power to respect the law (Rose-Ackerman, 2005). This research suggests that the initial priority should be on improving institutional effectiveness since corruption is the result, at least in part, of a dysfunctional governance system. For example, researchers have argued that institutional weaknesses are a direct cause of corruption, since institutions are responsible for limiting and obstructing the greed

and temptation of public officials (Šumah, 2018; Allen, Qian & Shen, 2018), and for creating the checks and balances to governmental power and internal accountability (Judge, McNatt & Xu, 2011; Shleifer & Vishny, 1993). In short, corruption in public institutions is almost a direct consequence of how these institutions operate (Lederman, Loayza & Soares, &2005).

Additionally, according to a report from the OECD (2007), corruption is invariably an outcome of unresolved problems in the wider governance system of a country and relates to the effectiveness of institutions. By improving institutional effectiveness, corruption will also be controlled because effective institutions are harder to corrupt. However, this scenario does not hold true in the inverse situation. Reforms that aim to reduce corruption may be successful, however, issues relating to institutional ineffectiveness are likely to remain. Institutional ineffectiveness may then undermine the efforts to reduce corruption and may create new opportunities for corruption to occur.

### 9.3. Research gap and contributions to the field

The following section describes how the findings from the current research challenge some of the classical criminological theories for Latin America. In this section, I pay particular attention to deterrence theory, routine activity theory and the rational choice perspective. I further investigate how findings from this research can help programme implementation and have other practical implications, with programme examples from Latin America such as *Fica Vivo!* (Stay Alive!) in Belo Horizonte, Brazil and *Todos Somos Juarez* (We are all Juarez) in Juarez, Mexico.

#### 9.3.1. Theoretical implications

##### 9.3.1.1. Deterrence

Findings from the current research present several challenges to the applicability of classical criminological theories and lead to scrutinizing the applicability of crime science theories when presented by a scenario that consists of countries where institutions fail to function properly and are not trusted or respected by the citizens they intend to serve. The crime-reducing and deterrence effects of security policies depend on the quality of and trust in local institutions, especially in contexts where trust in police may be compromised. For example, theories of deterrence identify three factors that increase the risk and cost of committing a crime and may serve to deter criminal behaviour: i) the likelihood of being detained and sentenced, ii) the severity of the punishment and iii) the swiftness of punishment (Nagin, Solow & Lum, 2015). From these concepts, particularly the certainty and severity of punishment, is where most theories of deterrence are based (Durlauf & Nagin, 2011). However, as Nagin (2013) has shown, the more precise statement about deterrence is the importance of the certainty of apprehension, not the severity of the subsequent consequences. This is because no level of severity will deter crime when no prospect of actual punishment is present (Durlauf & Nagin, 2011). However, the concept of deterrence in Latin America is primarily based on the severity of sanctions and harsher prison conditions. Increasing the severity of sanctions has been showed to

only have a weak deterrent effect on criminal offending (Durlauf & Nagin, 2011). Moreover, when sentences are not commensurate with the gravity of the crime, the severity of offences may escalate (Chioda, 2016). Additionally, harsher prison conditions may have unintended consequences, such as increasing recidivism (Chen & Shapiro, 2007; Drago, Galbiati & Vertova, 2011) and potentially strengthening criminal networks within prisons (Lessing, 2017; Dudley & Bargent, 2017).

The notion of deterrence is intrinsically related to the probability of detection and, thus, to policing. Further, all other steps of the criminal justice system will be irrelevant if the police are unable to apprehend the criminal. As was shown in Chapter 4, in broad terms, police agencies in Latin America are not effective in capturing criminals. For example, the conviction rate in Latin America per 100 homicide victims is the lowest out of all the regions in the world, with an average of only 24 homicide cases resulting in convictions for every 100 homicide victims recorded. This is much lower than 48 in Asia and 81 in Europe (UNODC, 2014; UNDP, 2020). Additionally, Latin America experiences a high number of robberies, assaults, and kidnappings in comparison to other regions, and often less than five percent of these are detected (Ungar, 2013). Police agencies in Latin America are also consistently ranked as one of the least valued public institutions in the region (Latinobarómetro, 2018). On average only 35 percent of Latin Americans trust the police, with Mexico (19 percent), Nicaragua (21 percent) and El Salvador (22 percent) being the lowest ranking countries. Of note is that these countries have some of the highest homicide rates in the world. Citizens from Uruguay (59 percent), Costa Rica (51 percent) and Chile (48 percent) have the highest trust for the police, and are the least violent countries in the region. In short, it is fair to state that crime and victimization rates are high in the region, which in turn influences the public's trust and confidence in the police.

In recent years some deterrence-focused policing strategies have been implemented in the region, in particular hot spots policing. This type of policing suggests that crime is concentrated in a relatively small number of places (Braga, 2001). This is the case in Latin America, where crime has been observed to concentrate at higher levels than in western industrialized contexts (Chainey et al., 2019). For example, a recent study

indicated that in five Brazilian cities, 25 percent of all robberies occurred in less than 1 percent of all micro places (Chainey & Monteiro, 2019). Hot spots policing strategies focus police resources in a more effective manner, i.e., in the specific areas called 'hot-spots' and at the specific times when crime is known to highly concentrate. Researchers have shown that hot spots policing can prevent crime and disorder in a statistically significant way (Braga, Papachristos & Hureau, 2014; Weisburd & Telep, 2014). Although there is limited use of hot spots policing in the region, partly due to the dominant tendency of reactive policing strategies and lack of available data, it has begun to be applied in some countries. For example, the first large-scale hot spot policing programme in Latin America, called *Programa de Alta Dedicación Operativa* (PADO), was implemented in Montevideo Uruguay, in 2016. PADO primarily operated in a deterrence capacity, through the visible presence of police foot patrols in the areas where robberies had been particularly prevalent. Following the line of improving institutional effectiveness, the programme focused on strengthening crime analysis and investigation techniques through training the police personnel and improving software and data gathering. The programme evaluation showed that there was a 23 percent reduction in the rate of robberies in the PADO areas, with no significant displacement to neighbouring areas (Chainey, Serrano–Berthet & Veneri, 2021). The study showed that hot spot policing programmes can be effective in reducing crime in Latin America, based on the deterrence effect of this type of policing.

Further, citizens play a central part in gathering and delivering important information to the police about criminal activity, which in turn helps to improve public security and deter crime. Numerous studies have shown that a positive contact and relationship between local communities and the police matters because it builds trust and improves cooperation between citizens and the police (Bradford, Milani & Jackson, 2017; Tankebe, 2013). If citizens do not trust the police, because they see them as corrupt or ineffective, their willingness to cooperate, inform and assist them will diminish further reducing any capabilities to deter crime. Further, in cities where criminal groups control areas within neighbourhoods, a situation that is not uncommon in the region, individuals who might have been willing to work with the

government on controlling criminal groups or gangs, or who want to report street crimes, may be unable to interact with the police for fear of not being protected from retaliation. In short, at the most basic level, ineffective and corrupt institutions are less likely to be able to deter or capture criminals. As such, the perceived risk to the motivated criminal will simply decrease substantially since there is a low perception of being caught for committing a crime. Rising levels of crime, ineffective policing, and low trust in the police damage the deterrence capacity of this institution, showing weaknesses in the applicability of the 'deterrence' concept in the region.

#### 9.3.1.2. Criminal opportunity theories

Routine activity theory argues that motivated offenders, suitable targets, and the absence of effective guardianship are necessary elements for victimization to occur (Cohen & Felson, 1979). The structure of routine activities, according to Cohen and Felson (1979), influences criminal opportunity and, as a result, the commission of crime. The role of the guardians is particularly relevant to the current research. Guardians are those whose presence can prevent crime, such as the police. There are two distinct crime prevention functions of the police, i) their role as apprehension agents after the commission of a crime and ii) their role as sentinels (Nagin, 2013). The police, in their sentinel role, are capable guardians. In particular, in some areas, the police are the sole capable guardian, especially in places where attractive crime opportunities are abundant (Eck & Weisburd, 1995). As mentioned in the literature review, in Latin America's *favelas* and *villa miserias*, criminal groups control territories where the police are the only guardians capable of preventing homicides. Criminal organizations do not generally seek to capture the state (Barnes, 2017) or fulfil all the state roles (Lessing, 2020), but instead focus on those institutional vulnerabilities that best advance their criminal enterprises. In general, these advantages are in areas where no guardians are present, meaning that government control in these areas is weak. The absence of capable guardians means that the security, rights, and property of local citizens are not protected (Karstedt, 2014). Further, these areas have a higher probability of suffering from drug trafficking and organized crime (Rosen & Kassab, 2018). However, since capable guardians (i.e., the

police) are unable to enter and take control over these territories (such as *favelas* and *villa miserias*), their absence becomes predictable to criminal groups that operate freely. In short, the police capacity to play the role of guardian in these settings is significantly reduced, which in turn creates opportunities for crime.

Clarke and Cornish (1985) put forth the Rational Choice Perspective (RCP), which explains the process by which offenders make decisions. This perspective suggests that before a criminal action can take place a “series of cost-benefit analyses to judge whether an act is worth committing” are conducted by the actors involved (Wortley et al., 2018). The view assumes that criminals are rational decision makers (Cornish & Clarke, 1986) and that criminals will commit a crime if it is in their own best interests. This rationality implies a conscious and subjective weighing of the benefits and costs of offending depending on factors related to the environment and specific situation that influences the potential criminal (Clarke & Felson, 1993; Cornish & Clarke, 1987). If the perception is that there are more reasons for proceeding in the commission of a crime, then a criminal attempt will be made. In short, criminal behaviour happens when the criminal's perceived gains outweigh the criminal's perceived costs.

Following this argument, it is up to the security institutions and practitioners to convince the potential offender that it is not in the offender's best interests to commit a crime. It is important to note that the calculation is made based on perceived rather than objective costs and benefits, and it is a loose ‘calculation’ better described as ‘bounded rationality’. It follows, that if the potential offender perceives that it is easy to commit crime because of the poor institutional functioning of security institutions, potential offenders will commit crime when the opportunity is presented. The implications of this are that when institutions are ineffective and corrupt, and opportunities for crime are plentiful, the void created by the lack of institutional presence can mean that criminal activity can thrive.

### 9.3.2. Other practical implications

The following section examines the notion of how improving institutional effectiveness can have a positive impact in Latin America through practical examples. I examine how more effective institutions can regain their authority in areas where they are currently absent. Further, I show how the use of effective governments tools can help policy design and implementation.

#### 9.3.2.1. More government presence

When institutions are ineffective and corrupt, they create power gaps where criminal groups can exist and thrive. In the absence of public safety agencies, there is a governance gap, so local criminal groups can enforce their own 'law and order' (Kruijt & Koonings, 1999). Since inefficient public institutions have lost control of some of their territories, organized criminal groups involved in illegal activities can monopolize violence and provide protection in exchange for loyalty and territorial control, thereby assuming the same functions as the government (Lupsha, 1996; Lessing, 2020). These criminal groups are particularly rampant in areas related to spatial exclusion in cities where the poor live in marginal settlements (Moser and Mcilwaine, 2006). Citizens of these physically and socially excluded areas will exchange their security for loyalty towards criminal groups because they simply cannot depend on ineffective institutions to provide them with security and justice. In these areas, antisocial actions of a minority can affect the majority of residents, and eventually become the norm (Berkman, 2007). As a result, in Latin American cities, entire areas within neighbourhoods and informal settlements are frequently under the control of parallel modes of criminal governance, while also suffering from higher levels of crime (Lessing, 2020). For example, a study by Arias and Barnes (2016) in Rio de Janeiro found that crime groups contribute to particular models of social control and order, that affects the political, social, and economic experiences of residents of the *favelas*, including impacts on crime (Arias, & Barnes, 2017).

These areas are commonly known as shanty towns, *villa miserias*, *favelas* or slums, and are areas far beyond the reach of public security forces. For example, in Mexico, the government has effectively lost the monopoly on force and on the legal instruments of violence in Chihuahua and Tamaulipas, as well as in pacific states such as Sinaloa and Michoacán (Ríos, 2013; Carpenter, 2010). These areas in Mexico operate as important zones of production and drug trafficking for criminal groups (Shirk, 2010; Aranda, 2013). In these regions, drug trafficking organizations, through bribes, extortion, or coercion, have become the institutional and social fabric of the entire area. These criminal groups have effectively supplanted governmental structures and have imposed their rationale upon the local population, successfully transforming them into social control mechanisms and ruling these areas as they see fit (Correa-Cabrera, Keck & Nava, 2015). In these types of situations, public agencies that are not responsible for security but rather for the provision of other public goods and services find it hard to function or even maintain their presence, and consequently, public services withdraw further. As police and justice services become less effective and reliable, criminal groups expand their territorial and social dominion. In turn, these areas become stigmatized and often cordoned off, and residents become trapped, physically, psychologically, and symbolically, across generations. The more absent public institutions become and the more deficient they are in the provision of services, the more susceptible the communities are to fall under the control of criminal organizations (Felbab-Brown, 2013; Lessing, 2020).

Increasing effective institutional presence, not only of the security sector, but also of other basic services, can help the government regain its territorial control and help citizens escape from the rule of criminal groups. A case in point is the security programme *Todos Somos Juarez* (We are all Juarez), briefly reviewed in Chapter 8. Ciudad Juarez suffered a dramatic increase of criminal violence between 2008 and 2012. It is estimated that that violence cost the lives of more than ten thousand people during this period (Wolff, 2018). In 2010, Juárez suffered more than 3,000 homicides, reaching a homicide a rate of more than 200 per 100,000 inhabitants and earned its notoriety as the world's 'murder capital'. The *Todos Somos Juarez* programme was visualized as a comprehensive strategy intended to reduce violence

and territorial disputes between rival cartels, and to regain institutional presence by building resilient communities, which are stronger in defending themselves against the penetration of organized crime. The three main strategic pillars were i) the policy had an holistic approach, that included public institutions that worked on security, education, employment and social development, among others ii) the inclusion of an active citizen participation, where local citizens gave input on the main problems and ideas on how to solve them, and iii) an effective coordination between the three levels of government (the federal, the state and the municipal level) (Sandoval, 2017). At its core the programme was multi-sectoral in orientation. Further, during the initial planning phase, a diagnostic analysis was undertaken by specialized technicians and government officials to understand the social and economic conditions of the local population, as well as the security and crime-related behaviour within the city (Muggah et al., 2016). An important part of effective institutions and policy formulation set out in the adapted EMMIE framework is reflected at this stage, there was a direct purpose to understand the context where the programme was supposed to take place. The *Todos Somos Juarez* initiative was also based on data gathering and analysis. For example, the implementation strategy involved establishing a geo-referenced tracking system in 760 police vehicles to improve the recording of data and other information (Muggah et al., 2016). Further, all police actions were monitored and evaluated on a regular basis, and results communicated to the authorities to ensure improvements in police activity.

There are some criticisms, however regarding the programme implementation and its success in reducing homicides. For example, the project has been criticized because of the rushed nature of its implementation, incomplete projects, and the high costs of the program. However, overall, the programme was deemed successful (Alvarado & Muggah, 2018). The six types of crimes that the initiative prioritized (homicides, theft of vehicles with and without violence, kidnapping, extortion, and robberies to shops) decreased substantially. By 2012, the homicide rate decreased to 26 per 100,000 inhabitants, there was an 88 percent reduction in vehicle theft, and 75 percent reduction in armed theft (Sandoval, 2017). The programme had other social benefits, including improvement of the performance of school children, at least

five new schools and one university were created, and 19 public spaces (such as parks and sports facilities) were established in lower-income neighbourhoods (Muggah et al., 2016). Further, the initiative contributed to weakening of the cartels operating in the area and helped local governments expand their presence, while at the same time building trust between residents and government authorities. In short, it was only with a holistic security programme that included several sectors and levels of government that the Mexican authorities could regain the territory in Juarez.

#### 9.3.2.2. Effective governments implement better programmes

Regarding security policies, effective governments that have some of the key characteristics mentioned above will have better chances of implementing policies more effectively, enhancing possibilities for success. One of the most effective programmes in Latin America to reduce homicide was *Fica Vivo!* (Stay Alive!) in Belo Horizonte, Brazil. The programme placed emphasis on improving its effectiveness by gathering timely data, and training and professionalization of police and civil personnel. The programme also included an analysis of the contexts where it was meant to take place, while monitoring the implementation of the programme. The programme is briefly analysed in this section.

*Fica Vivo!* was implemented in several *favelas* of Belo Horizonte, based on a 'pulling-levers' focused deterrence strategy. This type of strategy is based on principles associated with deterrence, such as increasing the risks of criminal activity faced by offenders. At the most basic level, a focused deterrence approach consists of selecting a crime problem, convening a working group of law enforcement, social-service, and community-based practitioners, and identifying key offenders or groups of offenders for attention. The strategy then seeks to frame a response to offenders that uses different types of sanctions to stop them from continuing their violent behaviour by using social services and community resources, law enforcement prevention efforts, and directly and repeatedly communicating with offenders to make them understand why they are getting this particular attention (Braga & Weisburd, 2012). In particular, *Fica Vivo!* had a strong community base participation

that was inspired by the Ceasefire programme, in Boston, United States that similarly applied focused deterrence principles (Beato & Silveira, 2014).

The main objective of *Fica Vivo!* was to reduce homicide rates by targeting gang-affiliated and other at-risk youth (aged between 12 and 24 years) from becoming involved in criminal activity and who resided in *favelas* and peripheral neighbourhoods. To reach this objective, the programme had a comprehensive strategy that was based on the following initiatives: leisure and work training opportunities for youth; local capacity to engage with the police and other government institutions to improve programme implementation, and; localized integrated criminal justice responses to target the organizations that engage in criminal activities in highly violent areas (Silveira et al., 2010). From its commencement, the programme had key objectives and targets it intended to accomplish and plans for the evaluation of the programme.

The programme was also multi-sectorial, with it being implemented and coordinated by different actors and several government agencies. For example, the programme was coordinated with the involvement of public schools, the police, the judiciary and the mayor's office, the civil society and other forums within the community, and academia (Beato & Silveira, 2014). The programme also created the *Grupos de Intervenção Estratégica* (Group of Strategic Intervention - GIE) to optimize the production, circulation, monitoring, and analysis of data and other information. The GIE was also responsible for police intelligence tasks and for the examination of the criminal dynamics in specific territories (Cano & Rojido, 2016). The GIE also monitored performance against the programme's key indicators and objectives. Complementing the work of the GIE was the Centre for Studies in Criminality and Public Safety of the Federal University of Minas Gerais (CRISP-UFGM), that carried out analysis of key indicators and created timely diagnoses of current situations. As such, the creation of the GIE and the partnership with CRISP-UFGM reflected key components of institutional effectiveness i.e., the timely compilation and analysis of data, and the monitoring of programme implementation.

The pilot programme was implemented in the *favela* Morro das Pedras, located in the periphery of Belo Horizonte. The first phase of the programme was an active and coordinated presence of a specialized police group called *Grupo de Policiamento em Áreas de Risco* (Group for Policing in High-Risk Areas - GEPAR). The GEPAR was a police unit of preventive patrol, with a community focus, that was permanently established in the areas where the *Fica Vivo!* programme was implemented. The police officers that comprised the GEPAR had to meet certain requirements, such as having a minimum time of experience in field operations and not having committed serious disciplinary infractions. After being selected, the police officers had to undergo a 180-hour training course. The programme aimed to specifically select police officers with certain characteristics and trained them accordingly. By doing so, the policymakers of *Fica Vivo!* ensured the programme had capable human resources with sufficient technical experience to implement the programme.

The working objectives in the territory where *Fica Vivo!* was implemented were basically three: prevention; 'qualified repression', and; social promotion. The GEPAR deployment occurred in parallel with the social programmes designed to reduce youth involvement with gangs and with other criminal activities. Various justice institutions worked together and coordinated activities on local criminal organizations within the community.

The implementation of the *Fica Vivo!* programme did, however, meet with some challenges. In particular in the early stages of the programme, social activities did not progress effectively, mainly because officials did not prioritize the social engagement side of the project, the funding for social activities was not well coordinated, and in part because the social programmes were under the direction of the police to implement. This meant that activities such as educational and cultural events, professional training in specific trades, sporting events, and workshops to discuss violence prevention and to the needs of at-risk members of the community were not prioritized and given the necessary attention. Also, at this time, homicides were not reducing at the level that was hoped.

To address the lack of coordination of social programmes in the delivery of *Fica Vivo!*, a *Nucleos de Referencia* (Reference Nucleus) was installed in the locality and took control of the social programmes. The technical teams of the Nucleus (the technicians also had to undergo specific training) conducted a field study to learn about the history of the local community where *Fica Vivo!* was being implemented, the socio-cultural characteristics of the community, the criminal dynamics, and the local public services. The diagnosis was intended to further adjust the programme to the local context (Cano & Rojido, 2016). Further, the Nucleus carried out workshops for at-risk populations and maintained frequent meetings with a significant number of community leaders. The Nucleus also ensured it operated at some distance from the local GEPAR unit to successfully build relations with residents and deliver services to them. After the implementation of the Nucleus, decreases in homicides was observed. It was noted that it was only when both sides of the programme were effectively implemented (the social activities and the policing activities) and when the joint actions of the police and social programmes were effectively coordinated together, that the programme became a sustained success.

In relation to impact evaluations, *Fica Vivo!* has been the subject of at least four independent impact evaluations (Cano & Rojido, 2016; Muggah et al., 2016). Overall, the programme resulted in reductions of 44 percent in homicides in the first three years (Arias & Ungar, 2009) as well as reductions in school violence, and passer-by robbery (Silveira, 2008). Another study showed that between 2004 and 2006, homicide rates decreased by 10.72 homicides per 100,000 inhabitants per semester, in relation to the control areas (Peixoto, Andrade & Azevedo, 2008).

Several conclusions can be drawn from the *Fica Vivo!* programme, and importantly, several key characteristics of institutional effectiveness were evident in the programme's design and implementation. Regarding effective institutions, the programme gathered and processed timely data and specifically selected and trained police officers and technicians to ensure qualified human resources were in place to implement the programme. Regarding programme design, there was a clear intention to understand the context and specificities where the programme was

meant to take place, and human and economic resources were focused on the monitoring and evaluation of the programme. A key feature of the programme was the importance of the coordination of responsibilities and activities of the public agencies involved and their work with and in consultation with local communities (Alves & Arias, 2012). Overall, there were many aspects of the *Fica Vivo!* programme that were illustrative of the key characteristics of institutional effectiveness and policy design formulation and implementation.

#### 9.4. Possible new lines of research

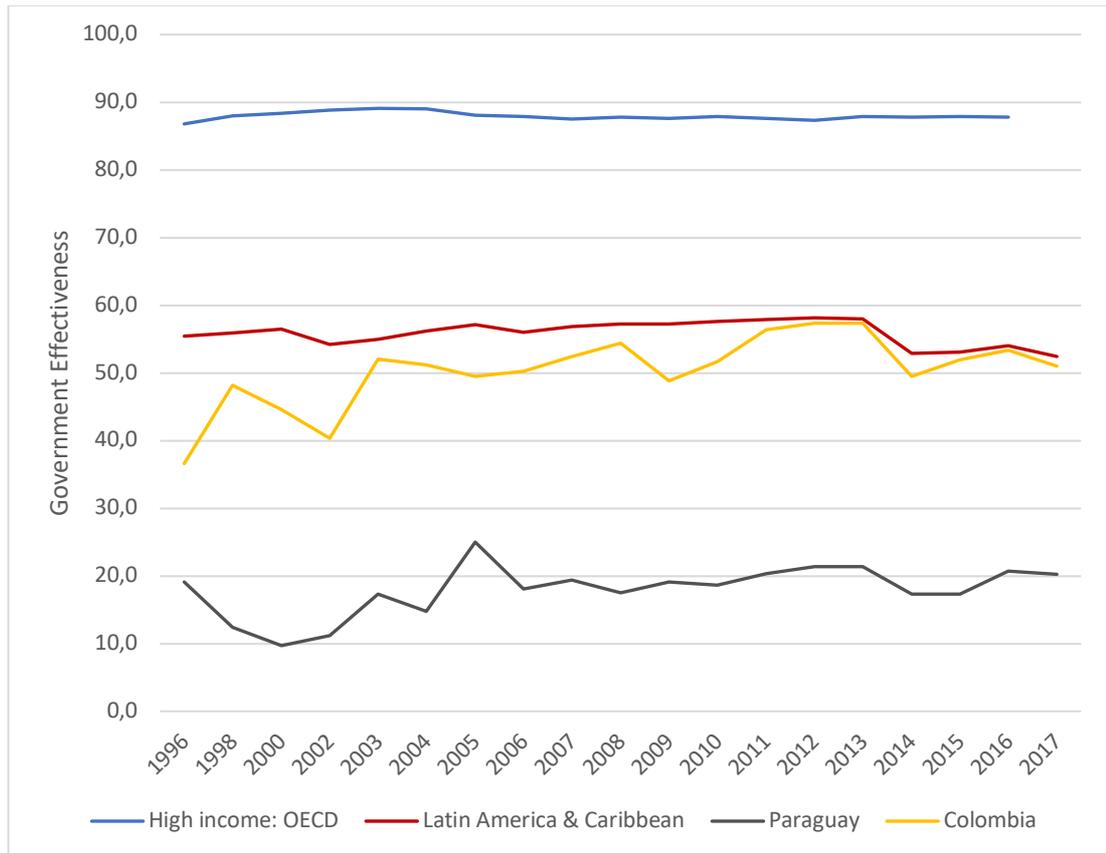
The current research has contributed in many aspects to the research literature about homicide and homicide reduction in Latin America and provides the basis for future research that further examines the role of institutions and their functioning in reducing homicides. As a first step, it is recommended that further research should investigate the impact of institutional variables on other types of crimes, such as other types of violent crime and crimes against property. Further research about other types of crime will further test the validity of the institutional perspective presented in the current research and determine whether its influence is only particularly relevant to violent crimes or crimes in general. Additionally, future research should replicate the current research by examining other regions of the world. By doing so, we would be able to understand if the institutional perspective is relevant only to the Latin American context or it applies more generally to all or only other regions of the world. Similarly, adding a classification of regime types (i.e., democratic, authoritarian or hybrid governments and/or parliamentary or presidential) could be useful to understand if the institutional perspective is more relevant in countries under democratic systems or is relevant in only particular types of regimes. For example, it could be that for lesser democratic countries, the institutional perspective is less relevant at influencing levels of crime. Authoritarian governments apply different sets of rules for enforcement and notably use coercion and fear to impose their will over the population. In this type of setting, the institutional perspective may not be as relevant for understanding variations in the levels of crime because the perception of how institutions work is secondary to other human rights violations.

Efforts should be made towards reproducing the survey that was carried out in Chapter 5 (in Casavalle) in other neighbourhoods of Montevideo, or at least expanding the research to other case studies. The results of the survey presented in the current research is a snapshot of a specific time and place creating representation risks. By reproducing the survey in different neighbourhoods and over time, the validity of the results would be increased. Additionally, the survey was carried out to only a subgroup of the population, specifically high school students. Although the importance of targeting this specific group has been discussed, it would be most relevant for this investigation that the survey is carried to a sample group representative of the whole population.

Further research should particularly investigate the role of government effectiveness and corruption in different Latin America contexts. In the current research the argument is that better government performance and capabilities will help reduce violent crime levels, and particularly homicides, in Latin America. However, if we analyse the government effectiveness variable in more detail, there are existing cases that seem to question this reasoning. For example, government effectiveness in Paraguay has been very low over time with no increase in violent crime. From 1996 to 2017, the average government effectiveness level of Paraguay was 17,9 percent compared to high income OECD countries where the average was 88 percent, and for Latin America and Caribbean countries where the average was 55,9 percent (see **Figure 9-2**). Nonetheless, levels of homicides have remained relatively low over time. This does not mean that other crimes have not increased in the same period (as mentioned previously, further investigation is needed to understand the role of government effectiveness with other crimes, particularly non-violent crimes), however, it does pose the question of why homicides did not increase in Paraguay. Similarly, Colombia's ranking of government effectiveness has improved over time, but the country has not managed to reduce homicide rates below 17 homicides per 100,000 inhabitants (a homicide rate that is three times higher than the global average). As such, it might be that where crime dynamics are highly complicated or where powerful criminal groups are already established, government effectiveness is not enough to reduce violent crime. However, the current research does not argue

that government effectiveness is the only characteristic needed to reduce homicides, but rather that without government effectiveness it will be unlikely that violent crime would be reduced. In short, more research is needed towards understanding how government effectiveness and other institutional capabilities impacts different crimes and contexts in Latin America.

**Figure 9-2: Government effectiveness on selected variables (1996-2017)**



Source: own elaboration with data from the WB (2021).

Attention could also be directed to how government effectiveness and control of corruption impact transnational organized crime and drug trafficking since Latin America is particularly afflicted with these criminal activities. Drug trafficking organizations and criminal groups seem to flourish where government institutions are ineffective and corrupt. Further, according to researchers, corruption plays a central role in drug trafficking since it facilitates organized crime operations while simultaneously debilitating the government’s efforts to confront it (Thoumi, 2012;

Morris, 2012). Moreover, corruption of government officials, and the infiltration and undermining of government institutions are central to facilitating drug flows and dysfunctional governance (Oberwittler, 2019). Hence governments that are ineffective in controlling for corruption are likely to experience higher levels organized crime because of the undermining effect that corruption can have in the operation of good governance, public policy, and practice. Investigating in depth how government corruption is used by organized crime could help create better policies to tackle these types of criminal activities.

Further research should also investigate the applicability of the adapted EMMIE framework at the policy formulation stage. Policymakers should design their policies with the framework in mind and measure whether those policies are more successful than others. Additionally, it is important to understand if policymakers and practitioners find the framework useful and applicable to practical realities of the day-to-day life of government institutions. By understanding the weakness and strengths of the framework, the instrument could be adapted and improved to specific institutional realities.

Additionally, it is important to understand in more detail how perceptions of legitimacy from citizens towards public institutions affect their behaviour. Surveys should be carried out including variables that evaluate and rank how citizens perceive their institutions. Legitimacy is a complicated concept; citizens might not understand what the concept entails or why they behave in certain ways towards institutions or choose to disregard certain rules. As such, it is important to understand how citizens perceive legitimacy, particularly towards the criminal justice system, and how that perception affects their behaviour. Researchers should think in new ways and develop new tools to measure this concept.

Finally, as it is briefly mentioned in the following section, there are several drawbacks regarding the use of survey data as a measure of government effectiveness. The survey data used is a compilation of perception data, which is unlikely to truly reflect the nature of how an institutions function. It is a flawed proxy that tries to capture

how governments function based on citizens interpretations. The major concerns for the use of perception data is the subjectivity, and the extent to which these perceptions adequately capture reality. For example, people perceptions are influenced by the political orientation of the government, the condition of the economy, and the levels of crime. However, these conditions that influence perceptions may have little to do with how effective a government really is. Further work should try to develop tools to capture more appropriately government capabilities and the levels of institutional effectiveness.

## 9.5. Limitations

The limitations of this dissertation have been addressed in each chapter; however, it is worth briefly noting the main limitations again. The first empirical study described limitations regarding sample size and the quantity and quality of data, particularly regarding data from Latin America. Further, the endogenous effect is a limitation of the results in that study. Moreover, cross-sectional designs are susceptible to the problem of omitted variable bias: unmeasured country properties could be confounded with the homicide rate, rendering its associations with predictors spurious. Probably the main limitation for the first study was the use of institutional variables as they are a compilation of perception data, which can be imprecise proxies for concepts they are intended to measure. Also, the systematic biases in perceptions data must be noted as a possible limitation.

The case study of Casavalle presented several limitations, such as the lack of available data for institutional capacity at the city or neighbourhood level. Further, the use of a survey to circumvent these issues had its own research limitations, such as the inflexibility of the survey and lack of potential depth. There were also issues associated with risks of representation and measurement errors when conducting a survey. A survey is a snapshot at a specific time, and it does not allow for changes that may occur because of unforeseen variables. As such, the survey should be reproduced longitudinally to overcome this problem. Additionally, to obtain a larger representation of the population, the survey should be carried out at the national

levels or at least at the city level. City or national level surveys were beyond the scope and resources of the current research. However, it is recommended that the survey should at least be reproduced in several other neighbourhoods of Montevideo to provide more empirical validity to the results.

The mapping of homicide reduction programmes also had limitations, particularly that the selection of programmes was not complete because it was subject to oversights and imprecisions. This is because the details about homicide reduction programmes in Latin America were mostly based on information collected from the internet and by one researcher. A fully complete review would be difficult in such a large and diverse region. Therefore, it is possible that there are other programmes that are not included in this research. However, it is believed the sample of 89 programmes was representative of homicide reduction programmes in the region.

Finally, although the creation of the EMMIE framework for policy formulation and analysis is considered to be innovative, it has not been tested by practitioners or policymakers. As such, its applicability to real practical situations is still to be seen, particularly in a region that does not monitor or evaluate its policies. Additionally, the 'realistic' view of evaluation is relatively new, and its 'logic of inquiry' is uncommon in policy formulation. Moreover, in Latin America due to the scarcity of data, documents available, lack of transparency, and levels of know-how of policy design and implementation, it is unlikely that policies that do use the framework would rank high in the components of the framework. Finally, the process of designing public policy depends on the institutional context of each country and that may indicate that the framework should be adapted to each institution and/or country, depending on institutional characteristics and resources.

## 9.6. Conclusions

As a starting point, and following the theoretical framework based on Beetham (1991) of institutional legitimacy, a government's ability to provide protection and security will diminish as its legitimacy weakens. Citizens comply with the law when they feel institutions are effective and trustworthy (Hough et al., 2010). It is logical to conclude, that institutions that are ineffective and corrupt have lower levels of legitimacy. Improving perception of how citizens value public security institutions is relevant to reducing homicide in the long term in Latin America. Further, and at the same time, the probability of catching and punishing criminals decreases, as the criminal justice system becomes more ineffective and corrupt, reducing its deterrent effect and the expected costs of committing a crime. Based on these ideas, the main objective of this research has been to draw attention to the importance of improving institutional capacity in the region. This research suggests that policies aimed at reducing homicide and improving citizens' security in the region should also prioritize improving institutional functioning as a pre-requisite for crime reduction.

Latin American countries have widely different social and economic realities, as well as institutional capabilities, particularly when compared to the United States and Western European countries. It is essential that strategic crime prevention policies respond to the specific national and local context. Latin Americans need to have a critical look at their institutions and judge and improve them accordingly. Not only by allocating more human and economic resources, but by understanding where and why institutions constantly fail to achieve their objectives. Reforms should focus on institutions, their organization, and their policies, to provide services and deliver their functions effectively, reliably, transparently, and innovatively. Is not a question of expanding or reducing government size and expenditure, but is more a question of improving how institutions work. A smarter approach is needed, based on data and empirical evidence to improve effectiveness, reduce corruption, and gain legitimacy. By doing so, a positive cycle is created whereby improving government functioning, will improve policy formulation, which in turn will help reduce crime.

When it comes to crime, clarity of the nature of a problem and its complexity is the first step towards tackling it. Institutional functioning is indeed a part of the security problem in Latin America. Researchers of crime and policymakers in the region would be wise to better understand institutional functioning to effectively reduce crime. While the causes of high homicide levels in Latin America should incorporate social and economic factors present within the region, it would be incomplete to reason about these homicide levels without recognising the influence of institutional functioning and policy formulation. If homicides are to be reduced in Latin America, improvements in institutional capacities are vital.

## 10. Reference List

- Aboal, Lorenzo & Perera. (2007). Crimen y violencia en Uruguay. *Informe de investigación de proyecto financiado por la CSIC de la Universidad de la República*.
- Abt & Winship. (2016). *What works in reducing community violence: A meta-review and field study for the northern triangle*. USAID.
- Adam, & Fazekas. (2018). Are emerging technologies helping win the fight against corruption in developing countries. *Pathways for Prosperity Commission Background Paper Series, (21)*.
- AIC. (2003). *Australian Institute of Criminology*.
- Aires & Di Landri. (2018). *Estimación de la pobreza por el Método del Ingreso 2017*. Montevideo: INE.
- Alda, E. (2017). Drivers of Homicide in Latin America and the Caribbean: Does Relative Political Capacity Matter? In M. & Brookman, *The Handbook of Homicide* (pp. 432-450). John Wiley & Sons, Inc.
- Allen, Qian & Shen. (2018). Corruption and competition. *CEPR Discussion Paper No. DP13218*.
- Alzheimer, & Boswell. (2012). Reassessing the association between gun availability and homicide at the cross-national level. *American Journal of Criminal Justice, 37(4)*, 682-704.
- Alvarado & Muggah. (2018). *Crime and Violence: Obstacles to Development in Latin American and Caribbean Cities*. Washington DC: IDB.
- Alvazzi del Frate, A. (2003). *Comparing crime trends on the basis of survey data: problems and prospects*. UNODC.
- Alves & Arias. (2012). Understanding the Fica Vivo programme: two-tiered community policing in Belo Horizonte, Brazil. *Policing and Society, 22:1*, 101-113.
- Andersen & Kragh. (2010). Sense and sensibility: two approaches for using existing theory in theory-building qualitative research. *Industrial Marketing Management 39*, 49–55.
- Andresen, M. A. (2006). A spatial analysis of crime in Vancouver, British Columbia: A synthesis of social disorganization and routine activity theory. *The Canadian Geographer/Le Géographe canadien, 50(4)*, 487-502.
- Aranda, S. M. (2013). Stories of drug trafficking in rural Mexico: territories, drugs and cartels in Michoacán. *European Review of Latin American and Caribbean Studies/Revista Europea de Estudios Latinoamericanos Y Del Caribe, 43-66*.
- Argüello, & Ziff. (2019). *Hacking Corruption*. Washington DC: The Inter-American Dialogue.
- Arias & Ungar. (2009). Community Policing and Latin America's Citizen Security Crisis. *Comparative Politics Vol. 41, No. 4*, 409-429.
- Arias, & Barnes. (2017). Crime and plural orders in Rio de Janeiro, Brazil. *Current Sociology, 65(3)*, 448-465.
- Arias & Goldstein (2010). Violent Pluralism: Understanding the New Democracies of Latin America. In E. D. Arias, & D. M. Goldstein, *Violent Democracies in Latin America*. Duke University Press.
- Armstrong, Hall, Doyle, & Waters. (2011). 'Scoping the scope' of a cochrane review. *Journal of Public Health, 33(1)*, 147-150.

Aron, J. (2000). Growth and institutions: a review of the evidence. *The world Bank research observer*, 15(1), 99-135.

Arteaga, J. J. (2018). *Historia Contemporanea del Uruguay*. Montevideo: Ediciones Cruz del Sur.

Astbury, B. (2013). Some reflections on Pawson's Science of Evaluation: A Realist Manifesto. *Evaluation*, 19(4), 383-401.

Athanasiadis, L. (1999). Drugs, alcohol and violence. *Current Opinion in Psychiatry*, 12(3), 281-286.

Avison & Loring. (1986). Population diversity and cross-national homicide: The effects of inequality and heterogeneity. *Criminology*, 24(4), 733-749.

Azaola, E. (2009). The Weaknesses of Public Security Forces in Mexico City. In & L. M. Bergman, *Criminality, public security, and the challenge to democracy in Latin America*. University of Notre Dame Press.

Aziani, Favarin & Campedelli. (2020). A Security Paradox. The Influence of Governance-Type Organized Crime Over the Surrounding Criminal Environment. *The British Journal of Criminology*, 60(4), 970-993.

Baba, Iso & Fujiwara. (2016). Area-level and individual-level factors for teenage motherhood: a multilevel analysis in Japan. *Plos one*, 11(11), e0166345.

Bailey, W. (1984). Poverty, Inequality, and City Homicide Rates. *Criminology*, 531-550.

Barnes, N. (2017). Criminal politics: An integrated approach to the study of organized crime, politics, and violence. *Perspectives on Politics*, 15(4), 967-987.

Baumer & Wolff. (2014). The breadth and causes of contemporary cross-national homicide trends. *Crime and Justice*, 43(1), 231-287.

Beall & Fox. (2009). *Cities and development*. Routledge.

Beato & Silveira. (2014). Effectiveness and evaluation of crime prevention programmes in Minas Gerais. *Stability: International Journal of Security and Development*, 3 (1).

Becker. (1968). Crime and punishment: An economic analysis. *Journal of Political Economy* 78.

Beittel, J. S. (2012). Mexico's drug trafficking organizations. *Trends in Organized Crime*, 15(1), 64-74.

Béland, D. (2007). Ideas and institutional change in social security: Conversion, layering, and policy drift. *Social science quarterly*, 88(1), 20-38.

Bell, Fairbrother, & Jones. (2019). Fixed and random effects models: making an informed choice. *Quality & Quantity*, 53(2), 1051-1074.

Bennett, R. R. (1991). Development and crime: A cross-national, time-series analysis of competing models. *Sociological Quarterly*, 32(3), 343-363.

Benoit, F. (2013). Public policy models and their usefulness in public health: The stages model. *Québec: National Collaborating Centre for Healthy Public Policy, Institut national de santé publique Québec*.

Berens, & Ruth-Lovell. (2021). Does clientelism hinder progressive social policy in Latin America? *Acta Politica*, 1-25.

Bergman & Whitehead. (2009). *Criminality, public security, and the challenge to democracy in Latin America*. Notre Dame: University of Notre Dame Press.

Bergman, M. (2009). Rising Crime in Mexico and Buenos Aires. In & L. M. Bergman, *Criminality, public security, and the challenge to democracy in Latin America*. Notre Dame: University of Notre Dame Press.

Bergman, M. (2018). *More money, more crime: Prosperity and rising crime in Latin America*. Oxford University Press.

Berk-Seligson, Orcés, Pizzolito, Seligson, & Wilson. (2014). *Impact Evaluation of USAID's Community-Based Crime and Violence Prevention Approach in Central America: El Salvador Country Report*. USAID.

Bitar & Long. (2019). International Security in Latin America. In *Oxford Research Encyclopedia of Politics*. Oxford.

Blanco & Ruiz. (2013). The Impact of Crime and Insecurity on Trust in Democracy and Institutions. *American Economic Review*, 103 (3), 284-88.

Blau & Blau. (1982). The Cost of Inequality: Metropolitan Structure and Violent Crime. *American Sociological Review*, 114-129.

Bleakley, P. (2020). The Cult of Corruption: Reframing Organizational Frameworks of Police Corruption from a Cultic Perspective. *Deviant Behavior*, 1-13.

Blumstein, Cohen & Farrington. (1988). Criminal career research: Its value for criminology. *Criminology*, 26(1), 1-35.

Blumstein, Wallman, & Farrington. (2006). *The crime drop in America*. Cambridge University Press.

Bonner, M. D. (2021). Reclaiming citizenship from police violence. *Citizenship Studies*, 1-16.

Borenstein, Hedges, Higgins & Rothstein. (2010). A basic introduction to fixed-effect and random-effects models for meta-analysis. *Research synthesis methods*, 1(2), 97-111.

Bourguignon, Nuñez & Sanchez. (2003). A structural model of crime and inequality in Colombia. *Journal of the European Economic Association*, 1(2-3), 440-449.

Bozeman, & Sarewitz. (2011). Public value mapping and science policy evaluation. *Minerva*, 49(1), 1-23.

Bradford, Milani, & Jackson. (2017). Identity, legitimacy and “making sense” of police use of force. *Policing: an international journal*.

Braga & Weisburd. (2012). The effects of focused deterrence strategies on crime: A systematic review and meta-analysis of the empirical evidence. *Journal of research in crime and delinquency*, 49(3), 323-358.

Braga, & Pierce. (2005). Disrupting illegal firearms markets in Boston: the effects of Operation Ceasefire on the supply of new handguns to criminals. *Criminology & Public Policy*, 4(4), 717-748.

Braga, & Weisburd. (2012). The effects of “pulling levers” focused deterrence strategies on crime. *Campbell systematic reviews*, 8(1), 1-90.

Braga, A. A. (2005). Hot spots policing and crime prevention: A systematic review of randomized controlled trials. *Journal of experimental criminology*, 1(3), 317-342.

Braga, A. A. (2015). *Crime and policing revisited*. US Department of Justice, Office of Justice Programmes, National Institute of Justice.

Braga, Hureau & Papachristos. (2014). Deterring gang-involved gun violence: Measuring the impact of Boston's Operation Ceasefire on street gang behavior. *Journal of quantitative criminology*, 30(1), 113-139.

Braga, Papachristos, & Hureau. (2014). The effects of hot spots policing on crime: An updated systematic review and meta-analysis. *Justice quarterly*, 31(4), 633-663.

Brantingham & Faust. (1976). A conceptual model of crime prevention. *Crime & Delinquency*, 22(3), 284-296.

Briceño León, Ávila & Camardiel. (2012). *Violencia e institucionalidad: Informe del Observatorio Venezolano de Violencia 2012*. Alfa.

Briceño-León, R. (2008). La violencia homicida en América Latina. *América Latina Hoy*, 50.

Briceño-León, Villaveces & Concha-Eastman. (2008). Understanding the uneven distribution of the incidence of homicide in Latin America. *International Journal of Epidemiology*, Vol. 37, Issue 4, 751–757.

Brockett, C. D. (2019). *The Drug Kingpin Decapitation Strategy in Guatemala: Successes and Shortcomings*. Cambridge University Press.

Bruneau, Dammert & Skinner. (2011). *Maras: Gang Violence and Security in Central America*. Austin: University of Texas Press.

Burawoy, Burton, Ferguson & Fox. (1991). *Ethnography unbound: Power and resistance in the modern metropolis*. University of California Press.

Bussell, J. (2012). *Corruption and reform in India: Public services in the digital age*. Cambridge University Press.

Bustillo & Velloso. (2015). Insecurity and Development in Latin America and the Caribbean. *Crisis: A Journal of the Center for Complex Operations*, 5(4), 48-67.

Butcher & Piehl. (1999). Cross-city evidence on the relationship between immigration and crime. *Journal of Policy Analysis and Management*, 17(3), 457-493.

Buvinic, Morrison & Shifter. (1999). *Violence in Latin America and the Caribbean: a framework for action*. Inter-American Development Bank.

Bye, E. K. (2007). Alcohol and violence: use of possible confounders in a time-series analysis. *Addiction*, 102(3), 369-376.

Caldeira & Holston. (1999). Democracy and violence in Brazil. *Comparative studies in society and history*, 41(4), 691-729.

Calderón, L. (2018). *Organized Crime and Violence in Baja California Sur*. San Diego: Justice in Mexico.

Campbell & Stanley. (1967). *Experimental and quasi-experimental designs for research*. Chicago: Rand McNall.

Cano & Rojido. (2016). *Mapping of Homicide Prevention Programmes in Latin America and the Caribbean*. Rio de Janeiro: UERJ.

Cano, Rojido & Borges. (2020). *Guía de evaluación para programas de prevención de homicidios en América Latina y el Caribe*. Montevideo: Laboratório de Análise da Violência Universidade do Estado do Rio de Janeiro.

Capano, & Pritoni. (2020). Policy Cycle. In *The Palgrave Encyclopedia of Interest Groups, Lobbying and Public Affairs* (pp. 1-7). Publisher: Palgrave Macmillan.

Carbonari, Willman, Manolio, Reinach, & Marques. (2020). *A Review of the Evidence and a Global Strategy for Violence Prevention*. Pathfinders.

Carpenter, A. C. (2010). Beyond drug wars: transforming factional conflict in Mexico. *Conflict Resolution Quarterly*, 27(4), 401-421.

Carreras, M. (2013). The impact of criminal violence on regime legitimacy in Latin America. *Latin American Research Review*, 85-107.

Cassidy, Bowman, McGrath & Matzopoulos. (2016). Brief report on a systematic review of youth violence prevention through media campaigns: Does the limited yield of strong evidence imply methodological challenges or absence of effect? *Journal of adolescence*, 52, 22-26.

CdE. (2013). *Inventario de Encuestas de Victimización en América Latina y el Caribe*. PNUD.

Cecchini, Filgueira, Martínez & Rossel. (2015). *Towards universal social protection. Latin American pathways and policy tools. Towards Universal Social Protection*. Latin American Pathways and Policy Tools. Santiago: CEPAL.

Ceobanu, Wood & Ribeiro. (2011). Crime victimization and public support for democracy: Evidence from Latin America. *International Journal of Public Opinion Research*, 23(1), 56-78.

CEPAL. (2014). *The employment situation in Latin America and the Caribbean: Employment formalization and labour income distribution*. Santiago: CEPAL.

CEPAL. (2016). *Latin America and the Caribbean: Challenges, dilemmas and commitments of a common urban agenda*. CEPAL.

CEPAL. (2018). *Latin American economic outlook 2018: Rethinking institutions for development*. CEPAL.

Cerqueira & Lobão. (2004). Determinantes da criminalidade: arcabouços teóricos e resultados empíricos. *Dados: Revista de Ciências Sociais* (2), 233-269.

Chainey & Monteiro. (2019). The dispersion of crime concentration during a period of crime increase. *Security Journal*, 32(3), 324–341.

Chainey, Serrano–Berthet & Veneri. (2021). The impact of a hot spot policing program in Montevideo, Uruguay: An evaluation using a quasi-experimental difference-in-difference negative binomial approach. *Police Practice and Research*, 22(5), 1541-1556.

Chainey, Pezzuchi, Rojas, Ramirez, Monteiro & Valdez (2019). Crime concentration at micro-places in Latin America. *Crime Science*, 8(1), 1-5.

Chamlin & Cochran. (2006). Economic Inequality, Legitimacy, and Cross-National Homicide Rates. *Homicide Studies*, 10(4), 231-252.

Chen, & Shapiro. (2007). Do harsher prison conditions reduce recidivism? A discontinuity-based approach. *American Law and Economics Review*, 9(1), 1-29.

Chinchilla & Vorndran. (2018). *Challenges and Innovation in Management and Public Policies in the Last 10 Years*. Washington DC: IDB.

Chioda, L. (2017). *Stop the Violence in Latin America: A look at prevention from cradle to adulthood*. The World Bank.

Chon, D. (2011). Factors for High Homicide Rate in Latin America: A Critical Test of Neapolitan's Regional Subculture of Violence Thesis. *Journal of Family Violence*, 26(4), 299-307.

Clark, Grynspan & Muñoz. (2013). *Human Development Report for Latin America*. Panama: UNDP.

Clark, Whelan, Barbour & MacIntyre. (2005). A realist study of the mechanisms of cardiac rehabilitation. *Journal of advanced nursing*, 52(4), 362-371.

Cohen & Felson. (1979). Social change and crime rate trends: A routine activity approach. *American Sociological Review*, 44, 588–608.

Concha-Eastman, A. (2002). Urban Violence in Latin America and the Caribbean: Dimensions, Explanations, Actions. In S. Rotker, *Citizens of Fear: Urban Violence in Latin America*. Rutgers University Press.

Contreras, Delgadillo & Riveros. (2019). Is home overcrowding a significant factor in children's academic performance? Evidence from Latin America. *International Journal of Educational Development*, 67, 1-17.

Corbacho, Philipp & Ruiz-Vega. (2015). Crime and erosion of trust: Evidence for Latin America. *World Development*, 70, 400-415.

Cordis, & Warren. (2014). Sunshine as disinfectant: The effect of state Freedom of Information Act laws on public corruption. *Journal of public economics*, 115, 18-36.

Coughlan, Cronin, & Ryan. (2009). Survey research: Process and limitations. *International Journal of Therapy and Rehabilitation*, 16(1), 9-15.

Crutchfield, Geerken & Gove. (1982). Crime rate and social integration the impact of metropolitan mobility. *Criminology*, 20(3-4), 467-478.

Cruz, J. (2016). State and criminal violence in Latin America. *Crime, Law and Social Change*, 66(4), 375-396.

Cruz, J. M. (2011). Criminal violence and democratization in Central America: The survival of the violent state. *Latin American Politics and Society*, 53(4), 1-33.

Cutrona, S. (2018). Violence and Security in Argentina: Major Trends and Policy Responses. In K. & Rosen, *Violence in the Americas*. Lexington Books.

CVG. (2021). Retrieved from *Cure Violence Global*: <https://cvg.org/>

D'Amato, Silver, & Newsome. (2020). The Effects of Social Disorganization Mechanisms: Examining the Influence of Community-Level Factors on Recidivism Across Various Correctional Programmes. *Criminal Justice and Behavior*, 0093854820969745.

Dahlström, Lapuente & Teorell. (2012). The Merit of Meritocratization. *Political Research Quarterly*, Vol. 65/3, 656-668.

Dakolias, M. (1995). A Strategy for Judicial Reform: The Experience in Latin America. *Va. J. Int'l L.*, 36, 167.

Dal Bó, Finan, & Rossi. (2013). Strengthening state capabilities: The role of financial incentives in the call to public service. *The Quarterly Journal of Economics*, 128(3), 1169-1218.

Dammert, L. (2018). The importance of rehabilitation: What works? *Justice Trends Magazine*.

Dammert, Salazar, Montt & González. (2010). *Crimen e inseguridad: indicadores para las Américas*. FLACSO-Chile/Banco Interamericano de Desarrollo (BID).

Darke, S. (2010). The toxicology of homicide offenders and victims: a review. *Drug and alcohol review*, 29(2), 202-215.

de Leon Villalba, F. J. (2018). Imprisonment and Human Rights in Latin America: An Introduction. *The Prison Journal*, 98(1), 17-39.

DeShazo & Vargas. (2006). *Judicial Reform in Latin America an Assessment*. Washington DC: Center for Strategic and International Studies (CSIS).

Di Tella, Edwards & Schargrodsky. (2010). Introduction. In R. E. Di Tella, *The economics of crime: Lessons for and from Latin America*. University of Chicago Press.

Di Tella, Edwards, & Schargrodsky. (2010). *The economics of crime: Lessons for and from Latin America*. University of Chicago Press.

Díaz, A. (2014). Los barrios populares y el desarrollo de la ciudad: Montevideo y su área metropolitana. *América Latina Hoy*.

Dicristina, B. (2004). Durkheim's Theory of Homicide and the Confusion of the Empirical. Literature. *Theoretical Criminology*, 8(1), 57-91.

Dijk & Waard. (1991). A two dimensional typology of crime prevention projects; with a Bibliography. *Criminal Justice Abstracts*, 483-503.

Dolan, M. (2018). Radical responses: Architects and architecture in urban development as a response to violence in Medellín, Colombia. *Space and Culture*.

Drago, Galbiati, & Vertova. (2011). Prison conditions and recidivism. *American law and economics review*, 13(1), 103-130.

Dreyfus, P. (2009). Vino viejo en odres todavía más viejos: Tendencias regionales del Crimen organizado en Latinoamérica en la primera década del siglo XXI y más allá. In Mathieu, & A. (Eds.), *Seguridad Regional en America Latin y el Caribe*. Bogota: Friederich Ebert Stiftung.

Dudley & Bargent. (2017). *The prisoners dilemma*. Insight Crime.

Duran-Martinez, A. (2015). To Kill and Tell? State Power, Criminal Competition, and Drug Violence. *Journal of Conflict Resolution*, 59(8), 1377-1402.

Durán-Martínez, A. (2018). Drugs Around the Corner: Domestic Drug Markets and Violence in Colombia and Mexico. *Latin American Politics and Society*, 57(3), 122-146.

Durlauf & Nagin. (2011). Imprisonment and crime: Can both be reduced? *Criminology & Public Policy*, 10(1), 13-54.

Echebarría & Cortázar. (2007). Public administration and public employment reform in Latin America. In *The State of State Reform in Latin America* (pp. 123-56).

Eck & Weisburd. (2015). Crime places in crime theory. *Crime and place: Crime prevention studies*, 4.

ECLAC. (2015). *Social Panorama of Latin America*. Santiago de Chile: Economic Commission for Latin America and the Caribbean.

Ehrlich, I. (1973). Participation in Illegitimate Activities: A Theoretical and Empirical Investigation. *Journal of Political Economy*, 521-565.

Eisner & Nivette. (2013). *Violence Research Centre Working Paper*. University of Cambridge.

Eisner, M. (2013). What causes large-scale variation in homicide rates? In & H. Kortüm, *Aggression in Humans and Other Primates Biology, Psychology, Sociology* (pp. 137-63).

Eisner, M. (2015). How to reduce homicides by 50% in the next 30 years. *Homicide Dispatch*, 1.

Elgar & Aitken. (2011). Income inequality, trust and homicide in 33 countries. *European Journal of Public Health*, Vol. 21, Issue 2, April, 241–246.

Ellis, E. (2018). *Transational Organized Crime in Latin America and the Caribbean*. Lexington Books.

Esty & Rushing. (2007). The promise of data-driven policymaking. *Issues in Science and Technology*, 23(4), 67-72.

Fajnzylber, Lederman & Loayza. (1999). What causes violent crime? *European economic review*, 46(7), 1323-1357.

Fajnzylber, Lederman & Loayza. (2002). Inequality and violent crime. *The journal of Law and Economics*, 45(1), 1-39.

Farrell, Tilley & Tseloni. (2014). 'Why the Crime Drop?' in M. Tonry (Ed.) *Crime and Justice*; pp.421-490. Chicago: University of Chicago Press.

Farrell, Tseloni, Mailley, & Tilley. (2011). The crime drop and the security hypothesis. *Journal of Research in Crime and Delinquency*, 48(2), 147-175.

Fearon, J. D. (2011). *Homicide Data, Third Revision*. Washington, DC: World Bank.

Felbab-Brown, V. (2010). Conceptualizing crime as competition in state-making and designing an effective response. *Security and Defense Studies Review*, 10, 155-158.

Feng, Y. (2017). Determinants of foreign direct investment (FDI). In *Oxford Research Encyclopedia of Politics*.

Fernandez, & Kuenzi. (2010). Crime and support for democracy in Africa and Latin America. *Political Studies*, 58(3), 450-471.

Ferraz, Finan, & Moreira. (2012). Corrupting learning: Evidence from missing federal education funds in Brazil. *Journal of Public Economics*, 96(9-10), 712-726.

Fontaine, G. (2015). *El análisis de políticas públicas. Conceptos, teorías y métodos*. Anthropos Editorial–Flacso.

Frühling, H. (2009). Research on Latin American police: Where do we go from here? *Police Practice and Research: An International Journal*, 10(5-6), 465-481.

Frühling, Tulchin, & Golding. (2003). *Crime and violence in Latin America: Citizen security, democracy, and the state*. Woodrow Wilson Center Press.

Fuenmayor, J. (2017). Actores en las decisiones públicas: aportes desde el enfoque de análisis de políticas. *Económicas Cuc*, 38(2), 43-60.

Gaes & Camp. (2009). Unintended consequences: Experimental evidence for the criminogenic effect of prison security level placement on post-release recidivism. *Journal of Experimental Criminology*, 5(2), 139-162.

Garzón-Vergara, J. C. (2016). *What is the relationship between organized crime and homicide in Latin America?* Igarape.

Gibbs, J. P. (1975). *Crime, Punishment, and Deterrence*. New York: Elsevier.

Gilbert, A. (2015). Bogota: Countering Violence with Urban Government. In K. & Kruijt, *Violence and Resilience in Latin American Cities*. Zed Books.

Glaeser, & Sacerdote. (1999). Why is there more crime in cities? *Journal of political economy*, 107(S6), S225-S258.

Glaeser, Sacerdote & Scheinkman. (1996). Crime and social interactions. *The Quarterly journal of economics*, 111(2), 507-548.

Glebbeek, M.L. (2019). A Wolf in Sheep's Clothing. In K. & Koonings, *Ethnography as Risky Business: Field Research in Violent and Sensitive Context*. Lexington Books.

Global Corruption Barometer. (2019). *Global Corruption Barometer, Latin America & the Caribbean 2019-Citizens' Views and Experiences of Corruption*. Berlin: Transparency International.

Goldstein, P. J. (1985). The drugs/violence nexus: A tripartite conceptual framework. *Journal of drug issues*, 15(4), 493-506.

Goodman, Steffensmeier & Ulmer. (2005). *Confessions of a dying thief: Understanding criminal careers and illegal enterprise*. AldineTransaction.

Gove, Hughes & Galle. (1979). Overcrowding in the home: An empirical investigation of its possible pathological consequences. *American sociological review*, 59-80.

Graham, Leonard, Room, Wild, Pihl, Bois & Single. (1998). Current directions in research on understanding and preventing intoxicated aggression. *Addiction*, 93(5), 659-676.

Green, W. J. (2015). *A history of political murder in Latin America: Killing the messengers of change*. Suny Press.

Greenhalgh, Humphrey, Hughes, Macfarlane, Butler, & Pawson. (2009). How do you modernize a health service? A realist evaluation of whole-scale transformation in London. *The Milbank Quarterly*, 87(2), 391-416.

Grindle, M. S. (2010). Constructing, deconstructing, and reconstructing career civil service systems in Latin America. *HKS Faculty Research Working Paper Series*.

Gujarati & Porter. (2008). *Basic econometrics, 5th edn.* New York: McGraw Hill Education.

Gyimah-Brempong, K. (2001). Alcohol availability and crime: Evidence from census tract data. *Southern Economic Journal*, 2-21.

Haggard, & Tiede. (2011). The Rule of Law and Economic Growth: Where are We? *World Development*, Vol. 39, Issue 5, 673-685.

Hansmann & Quigley. (1982). Population Heterogeneity and the Sociogenesis of Homicide. *Social Forces*, 61(1), 206-224.

Harrendorf, Heiskanen & Malby. (2010). *International Statistics on Crime and Justice.* Vienna: HEUNI.

Heinemann & Verner. (2006). *Crime and violence in development: A literature review of Latin America and the Caribbean.* The World Bank.

Helmke, G. (2007). *The origins of institutional crises in Latin America: a unified strategic model and test.* Unpublished manuscript.

Hemenway & Miller. (2000). Firearm availability and homicide rates across 26 high-income countries. *Journal of Trauma and Acute Care Surgery*, 49(6), 985-988.

Hewitt, Sims & Harris. (2012). The realist approach to evaluation research: an introduction. *International Journal of Therapy and Rehabilitation*, 19(5), 250-259.

Hipp, Petersilia & Turner. (2010). Parolee recidivism in California: The effect of neighborhood context and social service agency characteristics. *Criminology*, 48(4), 947-979.

HMICFRS. (n.d.) What we do. Retrieved December, 2021, from, <https://www.justiceinspectors.gov.uk/hmicfrs/about-us/what-we-do/>

Hoffman & Centeno. (2003). The lopsided continent: inequality in Latin America. *Annual Review of Sociology*, 29(1), 363-390.

Hoskin, A. W. (2001). Armed Americans: The impact of firearm availability on national homicide rates. *Justice Quarterly*, 18(3), 569-592.

Hough, Jackson, & Bradford. (2013). Legitimacy, trust and compliance: An empirical test of procedural justice theory using the European Social Survey. In *Legitimacy and criminal justice: An international exploration.*

Howard, G., Graeme, N. & Pridemore, W. A. (2000). Theory, Method, and Data in Comparative Criminology. In G. J. Howard, G. Newman, & W. A. Pridemore, *Policies, Processes, and Decisions of the Criminal Justice System, vol. 4, Criminal Justice 2000.* (pp. 139-211).

Howard, Hume & Oslender. (2007). Violence, fear, and development in Latin America: a critical overview. *Development in Practice*, 17(6), 713-724.

Howlett & Ramesh. (2003). *Studying public policy: Policy cycles and policy subsystems.* Toronto: Oxford University Press Canada.

Howlett, & Cashore. (2014). Conceptualizing Public Policy. In & A. Engeli, *Comparative Policy Studies. Research Methods Series.* London: Palgrave Macmillan.

Howlett, M. (2014). Policy design: What, who, how and why. In *L'instrumentation et Ses Effets* (pp. 281-315).

Hsieh & Pugh. (1993). Poverty, Income Inequality, and Violent Crime: A Meta-Analysis of Recent Aggregate Data Studies. *Criminal Justice Review*, 18(2), 182-202.

Huebert & Brown. (2019). Due process and homicide: A cross-national analysis. *Political Research Quarterly*, 72(1), 190-204.

Huebert, E. (2021). Criminal procedure reform and the impact on homicide: evidence from Mexico. *Trends in Organized Crime*, 24(1), 42-69.

ICPS. (2005). *Guidance Note 4 - Dealing with prison overcrowding*. World Prison Brief.

IDB. (2012). *Gobernar la Seguridad Ciudadana en América Latina y el Caribe Amenazas, desafíos y nudos estratégicos de gestión*. Washington DC: IDB.

IDB. (2017). *Citizen Security and Justice Sector Framework Document*. Washington DC: IDB.

IDB. (2020). *Transparency and Integrity Sector Framework Document*. Washington DC: IDB.

Igarape Institute. (2017). *Latin America can reduce homicide by 50 percent in 10 years*. Igarape Institute.

IISS. (2019). *Armed Conflict Survey*. London: IISS.

Imbusch, Misse, & Carrion. (2011). Violence Research in Latin America and the Caribbean: A Literature Review. *International Journal of Conflict and Violence*, 5(1), 88-154.

INE. (2014). *Principales Resultados Encuesta Continua de Hogares*. Montevideo: INE.

INEGI. (2019). *National Survey on Victimization and Perception of Public Safety*. Mexico: INEGI.

IPI. (2019). *Index of Public Integrity*. Berlin: European Research Centre for Anti-Corruption and State-Building.

ISP. (2019). *Séries históricas anuais de taxa de letalidade violenta no estado do Rio de Janeiro e grandes regiões*. Rio de Janeiro: Instituto de Segurança Pública.

Iturralde & Altmann. (2018). *Fractura social y nueva pobreza urbana en Montevideo (2007-2016)*. Montevideo: Centro de Estudios para el Desarrollo.

Izquierdo, Pessino & Vuletin. (2018). *Better Spending for Better Lives: How Latin America and the Caribbean Can Do More with Less*. Washington DC: IDB.

Jacobs & Richardson. (2008). Economic inequality and homicide in the developed nations from 1975 to 1995. *Homicide Studies*, 12(1), 28-45.

Jaitman & Ajzenman. (2016). Crime Concentration and Hot Spot Dynamics in Latin America. *IDB working paper series N° IDB-WP-699*.

Jaitman & Machin. (2016). Crime and violence in Latin America and the Caribbean: towards evidence-based policies. *Centre for Economic Performance, LSE*.

Jaitman & Anauati. (2019). The Dark Figure of Crime in Latin America and the Caribbean. *Journal of Economics, Race, and Policy*, 76-95.

Jaitman, L. (2017). *Los costos del crimen y de la violencia: Nueva evidencia y hallazgos en América Latina y el Caribe*. Washington DC: IDB.

Jann & Wegrich. (2007). Theories of the policy cycle. In *Handbook of public policy analysis: Theory, politics, and methods*. (pp. 43-62).

Johnson, Tilley & Bowers. (2015). Introducing EMMIE: An evidence rating scale to encourage mixed-method crime prevention synthesis reviews. *Journal of experimental criminology*, 11(3), 459-473.

Judge, McNatt & Xu. (2011). The antecedents and effects of national corruption: A meta-analysis. *Journal of world business*, 46(1), 93-103.

Nalla & Nam. (2021). Corruption and trust in police: investigating the moderating effect of procedural justice. *International journal of offender therapy and comparative criminology*, 65(6-7), 715-740.

- Kahn, Baron & Vieyra. (2018). *Digital Technologies for Transparency in Public Investment: New Tools to Empower Citizens and Governments*. Washington D.C.: IDB.
- Karstedt, S. (2014). Organizing Crime: The State as Agent. In L. Paoli, *The Oxford Handbook of Organized Crime*. Oxford: Oxford University Press.
- Kaufmann, Kraay & Mastruzzi. (2010). Response to 'What do the worldwide governance indicators measure?'. *The European Journal of Development Research*, 22(1), 55-58.
- Kaufmann, Sanginés, & Moreno. (2015). *Building effective governments: Achievements and challenges of public management results in Latin America and the Caribbean*. Washington DC: IDB.
- Kaztman, Filgueira & Errandonea. (2008). La ciudad fragmentada: respuesta de los sectores populares urbanos a las transformaciones del mercado y del territorio en Montevideo. In *Ciudades latinoamericanas: un análisis comparativo en el umbral del nuevo siglo* (pp. 441-508). Prometeo Libros.
- Kaztman. (1997). *Marginalidad e integración social en Uruguay*. CEPAL.
- Kennedy, Braga & Piehl. (2001). *Reducing gun violence: the Boston gun project's operation ceasefire*. US Department of Justice, Office of Justice Programmes, National Institute of Justice.
- Kessler, G. (2004). *La Sociología del Delito Amateur*. Buenos Aires: Paidós.
- Kim, C. K. (2014). Anti-corruption initiatives and e-government: a cross-national study. *Public Organization Review*, 14(3), 385-396.
- Kingston, Huizinga, & Elliott. (2009). A Test of Social Disorganization Theory in High-Risk Urban Neighborhoods. *Youth & Society*, 41(1), 53-79.
- Kleck & Patterson. (1993). The impact of gun control and gun ownership levels on violence rates. *Journal of Quantitative Criminology*, 9(249).
- Koepfel, Rhineberger-Dunn, & Mack. (2015). Cross-national homicide: a review of the current literature. *International Journal of Comparative and Applied Criminal Justice*, 39(1), 47-85.
- Koonings & Kruijt. (2015). Exclusion, Violence and Resilience in Five Latin American Megacities. In K. & Kruijt, *Violence and Resilience in Latin American Cities*. Zed Books Ltd.
- Koonings, K. (2001). Armed actors, violence and democracy in Latin America in the 1990s: Introductory notes. *Bulletin of Latin American Research*, 20(4), 401-408.
- Krisch, Eisner, Mikton, & Butchart. (2015). *Global Strategies to Reduce Violence by 50% in 30 Years*. Cambridge: University of Cambridge.
- Krug, Mercy, Dahlberg, & Zwi. (2002). The world report on violence and health. *The Lancet*, 360(9339), 1083-1088.
- Kubrin, C. E. (2010). Shaw, Clifford R., and Henry D. McKay: Social Disorganization Theory. In F. T. Cullen, *Encyclopedia of Criminological Theory*. Sage.
- Kuhns, Exum, Clodfelter, & Bottia. (2014). The prevalence of alcohol-involved homicide offending: A meta-analytic review. *Homicide Studies*, 18, 251-270.
- Kurtenbach, & Scharpf. (2018). *The Return of the Military*. Hamburg: GIGA German Institute of Global and Area Studies.
- Kyprianides, Yesberg, Milani, Bradford, Quinton & Clark-Darby. (2020). Perceptions of police use of force: the importance of trust. *Policing: An International Journal*, Vol. 44 No. 1, 175-190.

LaFree & Tseloni. (2006). Democracy and crime: A multilevel analysis of homicide trends in forty-four countries, 1950-2000. *The Annals of the American Academy of Political and Social Science*, 605(1), 25-49.

LaFree, Curtis & McDowall. (2015). How effective are our 'better angels'? Assessing country-level declines in homicide since 1950. *European Journal of Criminology*, 12(4), 482-504.

LaFree, G. (1999). A summary and review of cross-national comparative studies of homicide. In *Homicide: A sourcebook of social research* (pp. 125-145).

Land, McCall & Cohen. (1990). Structural Covariates of Homicide Rates: Are There Any Invariances Across Time and Social Space? *American Journal of Sociology* 95, no. 4, 922-963.

Landberg, & Norström. (2011). Alcohol and homicide in Russia and the United States: a comparative analysis. *Journal of studies on alcohol and drugs*, 72(5), 723-730.

LAPOP. (2017). *The Political Culture of Democracy in the Americas, 2016/17: A Comparative Study of Democracy and Governance*. Vanderbilt.

Lappi-Seppälä & Lehti. (2014). Cross-Comparative Perspectives on Global Homicide Trends. *Crime and Justice*, 43(1), 135-230.

Lasswell, H. D. (1956). *The decision process: Seven categories of functional analysis*. Bureau of Governmental Research, College of Business and Public Administration, University of Maryland.

Latinobarómetro. (2018). *Informe 2018*. Santiago: Corporación Latinobarómetro.

Lee, Maume & Ousey. (2003). Social isolation and lethal violence across the metro/nonmetro divide: The effects of socioeconomic disadvantage and poverty concentration on homicide. *Rural sociology*, 68(1), 107-131.

Leslie, G. (2010). *Confronting the don: The political economy of gang violence in Jamaica*. Geneva: Small Arms Survey.

Lessing, B. (2016). *Inside Out: The Challenge of Prison-Based Criminal Organizations*. Washington DC: The Brookings Institution.

Lessing, B. (2017). *Making peace in drug wars: Crackdowns and cartels in Latin America*. Cambridge: Cambridge University Press.

Lester, D. (1995). The association between alcohol consumption and suicide and homicide rates: a study of 13 nations. *Alcohol and alcoholism*, 30(4), 465-468.

Levitsky & Murillo. (2009). Variation in institutional strength. *Annual Review of Political Science*, 12, 115-133.

Levitsky & Murillo. (2013). Lessons from Latin America: Building Institutions on Weak Foundations. *Journal of Democracy*.

Levitsky & Murillo. (2014). Building Institutions on Weak Foundations: Lessons from Latin America. In Brinks, Leiras, & Mainwaring, *Reflections on Uneven Democracies: The Legacy of Guillermo O'Donnell*. JHU Press.

Limoncelli, Mellow, & Na. (2020). Determinants of Inter-country Prison Incarceration Rates and Overcrowding in Latin America and the Caribbean. *International Criminal Justice Review*, 30(1), 10-29.

Lindstedt, & Naurin. (2010). Transparency is not enough: Making transparency effective in reducing corruption. *International political science review*, 31(3), 301-322.

Lipman, Georgiades & Boyle. (2011). Young adult outcomes of children born to teen mothers: Effects of being born during their teen or later years. *Journal of the American Academy of Child & Adolescent Psychiatry*, 50(3), 232-241.

Lochner & Moretti. (2004). The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self-Reports. *American Economic Review*, 94(1), 155-189.

López-Iturriaga & Sanz. (2018). Predicting public corruption with neural networks: An analysis of Spanish provinces. *Social indicators research*, 140(3), 975-998.

Lopoo & London. (2016). Household crowding during childhood and long-term education outcomes. *Demography*, 53(3), 699-721.

Loureiro & Silva. (2012). What causes intentional homicide? *Journal of International Development*, 24(3), 287-303.

Lustig, N. (2014). Income Redistribution and Poverty Reduction in Latin America: The role of social spending and taxation in achieving development goals. *Development* 57(3-4), 388-399.

Machin, Marie & Vujić. (2011). The Crime Reducing Effect of Education. *The Economic Journal*, 121(552), 463-484.

Mainwaring & Pérez-Liñán. (2015). Cross-currents in Latin America. *Journal of Democracy*, 26(1), 114-127.

Mainwaring & Pérez-Liñán. (2015). La democracia a la deriva en América Latina. *POSTData: Revista de Reflexión y Análisis Político*, 20(2), 267-294.

Makinde, Björkqvist & Österman. (2016). Overcrowding as a risk factor for domestic violence and antisocial behaviour among adolescents in Ejigbo, Lagos, Nigeria. *Global Mental Health*, 3.

Malone & Dammert. (2020). The police and the public: policing practices and public trust in Latin America. *Policing and society*, 1-16.

Malone, M. F. (2010). The verdict is in: The impact of crime on public trust in Central American justice systems. *Journal of Politics in Latin America*, 2(3), 99-128.

Mann. (1984). The autonomous power of the state: Its origins, mechanisms and results. *European Journal of Sociology*, 25(2), 185-213.

Marshall, Marshall & Ren. (2009). Mixed method measurement of homicide events in comparative research: An illustration of the potential of qualitative comparative analysis. *International Journal of Comparative and Applied Criminal Justice*, 33(2), 273-307.

McCall & Nieuwbeerta. (2007). Structural Covariates of Homicide Rates: A European City Cross-National Comparative Analysis. *Homicide Studies*, 11(3), 167-188.

McCall, & Brauer. (2014). Social welfare support and homicide: Longitudinal analyses of European countries from 1994 to 2010. *Social science research*, 48, 90-107.

McCall, Nieuwbeerta, Engen & Thames. (2012). Explaining Variation in Homicide Rates Across Eastern and Western European Cities: The Effects of Social, Political, and Economic Forces. In P. W. Liem M., *Handbook of European Homicide Research*. New York, NY: Springer.

McDowall, D. (1991). Firearm availability and homicide rates in Detroit, 1951–1986. *Social Forces*, 69(4), 1085-1101.

McGuinn, B. (2015). In the name of Vindice: Latin America's Endemic Pattern of violence. A conceptual analysis. In R. & Bagley, *Reconceptualizing security in the Americas in the twenty-first century*. Lexington Books.

Mercy, Butchart, Rosenberg, Dahlberg, & Harvey. (2008). Preventing violence in developing countries: a framework for action. *International Journal of Injury Control and Safety Promotion*, 15(4), 197-208.

Messner & Golden. (1992). Racial inequality and racially disaggregated homicide rates: An assessment of alternative theoretical explanations. *Criminology*, 30(3), 421-448.

Messner & Tardiff. (1986). Economic inequality and levels of homicide: An analysis of urban neighborhoods. *Criminology*, 24(2), 297-316.

Messner, Raffalovich & Shrock. (2002). Reassessing the cross-national relationship between income inequality and homicide rates: Implications of data quality control in the measurement of income distribution. *Journal of Quantitative Criminology*, 18(4), 377-395.

Messner. (1982). Poverty, Inequality, and the Urban Homicide Rate: Some Unexpected Findings. *Criminology*, 20(1), 103-114.

Ministerio del Interior. (2018). *Homicidios 1º de Enero al 31 de Diciembre (2017 – 2018)*. Montevideo: Ministerio del Interior.

Miron, J. A. (2001). Violence, guns, and drugs: A cross-country analysis. *The Journal of Law and Economics*, 44(S2), 615-633.

Mishra, M. (2018). *Understanding Panel Data Regression*. Medium.

Moncada, E. (2016). *Cities, business, and the politics of urban violence in Latin America*. Stanford: Stanford University Press.

Morales, A. (1995). Homicide. In *Encyclopedia of social work*, 2. (pp. 1347-1358.).

Moreno, A. (2019). *Political cleavages: Issues, parties, and the consolidation of democracy*. Routledge.

Moser & McIlwaine. (2006). Latin American Urban Violence as a Development Concern: Towards a Framework for Violence Reduction. *World Development*, 34(1), 89-112.

Muggah & Aguirre. (2018). *Citizen security in Latin America: Facts and Figures*. Rio de Janeiro: Igarape Institute.

Muggah, & Aguirre. (2013). *Mapping citizen security interventions in Latin America: reviewing the evidence*. NOREF Report.

Muggah, & Tobón. (2018). Reducing Latin America's violent hot spots. *Aggression and Violent Behavior*.

Muggah, Aguirre & Chainey. (2017). Targeting “Hot Spots” Could Drastically Reduce Latin America’s Murder Rate. *Americas Quarterly*.

Muggah, de Carvalho, Alvarado, Marmolejo & Wang. (2016). *Making Cities Safer: citizen Security innovations from Latin America*. Washinton DC: IDB.

Muggah, R. (2017). The Rise of Citizen Security in Latin America and the Caribbean. *International Development Policy| Revue internationale de politique de développement*, 9(9), 291-322.

Müller, M.-M. (2018). Governing crime and violence in Latin America. *Global Crime*, 171-191.

Mungiu-Pippidi, & Dadašov. (2016). *Measuring Control of Corruption by a New Index of Public Integrity*. Berlin: European Research Centre for Anti-Corruption and State-Building.

Nadanovsky & Cunha-Cruz. (2009). The relative contribution of income inequality and imprisonment to the variation in homicide rates among Developed (OECD), South and Central American countries. *Social science & medicine*, 69(9), 1343-1350.

Nagin, Solow & Lum. (2015). Deterrence, criminal opportunities, and police. *Criminology*, 53(1), 74-100.

Neapolitan, J. L. (1994). Cross-national variation in homicides: The case of Latin America. *International Criminal Justice Review*, 4(1), 4-22.

Neumayer, E. (2003). Good policy can lower violent crime: Evidence from a cross-national panel of homicide rates, 1980–97. *Journal of Peace Research*, 40(6), 619-640.

Nivette, & Eisner. (2012). Do legitimate polities have fewer homicides? A cross-national analysis. *Homicide Studies*, 17(1), 3-26.

Nivette, A. E. (2011). Cross-national predictors of crime: A meta-analysis. *Homicide Studies*, 15(2), 103-131.

Norström, T. (2011). Alcohol and homicide in the United States: Is the link dependent on wetness? *Drug and alcohol review*, 30(5), 458-465.

O'Donnell, G. (2004). *El desarrollo de la democracia en America Latina*. Buenos Aires: UNDP.

O'Brien, Ciomek & Tucker. (2021). How and Why is Crime More Concentrated in Some Neighborhoods than Others? A New Dimension to Community Crime. *Journal of Quantitative Criminology*, 1-27.

OAS. (2012). Alerta América (2012), *Informe sobre Seguridad Ciudadana en las Américas: Estadísticas oficiales de Seguridad Ciudadana producidas por los Estados miembros de la OEA*. Washington DC: OAS.

OAS. (2019). *Plan de Acción Hemisférico para Orientar la Elaboración de Políticas Públicas de Prevención y Reducción del Homicidio Intencional*. Medellín: OAS.

Observatorio Nacional sobre Violencia y Criminalidad. (2018). *Homicidios*. Montevideo: Ministerio del Interior.

Oberwittler, D. (2019). Lethal violence: a global view on homicide. In *Oxford Research Encyclopedia of Criminology and Criminal Justice*. Oxford: Oxford University Press.

Ocampo & Vallejo. (2012). Economic Growth, Equity and Human Development in Latin America. *Journal of Human Development and Capabilities*, 13(1), 107-133.

OHCHR. (2019). *UN Human Rights report on Venezuela urges immediate measures to halt and remedy grave rights violations*. Geneva: UN.

Ortega, D. (2018). *The challenge of improving police behavior in Latin America*. Washington DC: Brookings.

Osborn & Tseloni. (1998). The distribution of household property crimes. *Journal of quantitative criminology*, 14(3), 307-330.

Oshio, Taku, Hirano & Saeed. (2018). Resilience and Big Five personality traits: A meta-analysis. *Personality and Individual Differences*, 127, 54-60.

Ousey, G. (2000). Explaining regional and urban variation in crime: a review of research. *Criminal justice*, 1, 261-308.

Pare, & Felson. (2014). Income inequality, poverty and crime across nations. *The British Journal of Sociology*, 65(3), 434-458.

Parker, McCall, & Land. (1999). Determining social-structural predictors of homicide: Units of analysis and related methodological concerns. *Homicide: A sourcebook of social research*, 107-124.

Pawson & Tilley. (2004). *Realist evaluation*. London: British Cabinet Office.

- Pawson, Greenhalgh, Harvey & Walshe. (2004). *ESRC Research Methods Programme: Realist synthesis: an introduction*. Manchester: University of Manchester.
- Pawson, R. (2002). Evidence-based policy: The promise of realist synthesis'. *Evaluation*, 8(3), 340-358.
- Pearce, J. (2010). Perverse state formation and securitized democracy in Latin America. *Democratization*, 286-306.
- Peirce, & Fondevila. (2020). Concentrated violence: The influence of criminal activity and governance on prison violence in Latin America. *International criminal justice review*, 30(1), 99-130.
- Peisakhin & Pinto. (2010). Is transparency an effective anti-corruption strategy? Evidence from a field experiment in India. *Regulation & Governance*, 4(3), 261-280.
- Peisakhin, L. (2012). Transparency and corruption: Evidence from India. *The Journal of Law and Economics*, 55(1), 129-149.
- Peixoto, Andrade & Azevedo. (2008). Prevention and Control of Homicides: An Evaluation of Impact in Brazil. In *The Annual Meeting LACEA-LAMES* (pp. 20-22).
- Perez, O. (2013). Gang Violence and Insecurity in Contemporary Central America. In S. & Jonson, *Murder and Violence in Modern Latin America*. Society for Latin American Studies.
- Perl, A. (2020). Studying policy dynamics: policy cycles and regimes. In *A Modern Guide to Public Policy*. Edward Elgar Publishing.
- Piccato. (2013). Homicide as Politics in Modern Mexico. In S. S. Johnson, *Murder and violence in modern Latin America*. Bulletin of Latin American research book series.
- Pinchevsky & Wright. (2012). The impact of neighborhoods on intimate partner violence and victimization. *Trauma, violence, & abuse*, 13(2), 112-132.
- Pion-Berlin & Carreras. (2017). Armed Forces, Police and Crime-fighting in Latin America. *Journal of Politics in Latin America*, 9(3), 3-26.
- Pogarsky, Lizotte & Thornberry. (2003). The delinquency of children born to young mothers: Results from the Rochester Youth Development Study. *Criminology*, 41(4), 1249-1286.
- Pogarsky, Thornberry & Lizotte. (2006). Developmental outcomes for children of young mothers. *Journal of marriage and family*, 68(2), 332-344.
- Ponce, A. (2016). Carteles de Droga, Violencia y Competitividad Electoral a Nivel Local. *Latin American Research Review*, 62-86.
- Pratt & Godsey. (2003). Social support, inequality, and homicide: A cross-national test of an integrated theoretical model. *Criminology*, 41(3), 611-644.
- Pridemore, W. (2008). A methodological addition to the cross-national empirical literature on social structure and homicide: a first test of the poverty-homicide thesis. *Criminology*, 46(1), 133-154.
- Prillaman, W. C. (2000). *The judiciary and democratic decay in Latin America: Declining confidence in the rule of law*. Greenwood Publishing Group.
- Prillaman, W. C. (2003). Crime, democracy, and development in Latin America. *Policy Papers on the Americas*, 14(6), 1-30.
- Quiroz Félix, Castillo Ponce, Ocegueda Hernández & Varela Llamas. (2015). Delincuencia y actividad económica en México. *Norteamérica*, 187-209.
- Raphael & Winter-Ebmer. (2001). Identifying the Effect of Unemployment on Crime. *The Journal of Law and Economics*, 44(1), 259-283.
- Ratcliffe, J. H. (2016). *Intelligence-led policing*. Routledge.

Regoeczi, W. C. (2008). Crowding in context: An examination of the differential responses of men and women to high-density living environments. *Journal of health and social behavior*, 49(3), 254-268.

Reid, Weiss, Adelman & Jaret. (2005). The immigration–crime relationship: Evidence across US metropolitan areas. *Social Science Research*, 34(4), 757-780.

Reinikka & Svensson. (2005). Fighting corruption to improve schooling: Evidence from a newspaper campaign in Uganda. *Journal of the European economic association*, 3(2-3), 259-267.

Rennó Santos, Testa & Weiss. (2018). here Poverty Matters: Examining the Cross-national Relationship Between Economic Deprivation and Homicide. *The British Journal of Criminology*, 58(2), 372-393.

Restrepo, E. (2009). The Pursuit of Efficiency and the Colombian Criminal Justice System. In & L. M. Bergman, *Criminality, public security, and the challenge to democracy in Latin America*. University of Notre Dame Press.

Retamoso & Corbo. (2003). *La evolución del sistema urbano uruguayo: una aproximación al fenómeno de la delincuencia y criminalidad en Montevideo*. Princeton University.

Reuter, P. (2009). Systemic violence in drug markets. *Crime, law and social change*, 52(3), 275-284.

Ridder. (2017). The theory contribution of case study research designs. *Business Research*, 10(2), 281-305.

Rios-Figueroa & Hammergren. (2009). Envisioning Reform: Improving Judicial Performance in Latin America. *Journal of Latin American Studies*, 41(1), 205-207.

Ríos, V. (2013). Why did Mexico become so violent? A self-reinforcing violent equilibrium caused by competition and enforcement. *Trends in organized crime*, 16(2), 138-155.

Risse, T. (2011). *Governance Without a State? policies and politics in areas of limited statehood*. New York: Columbia University Press.

Rivera, M. (2016). The sources of social violence in Latin America: An empirical analysis of homicide rates, 1980–2010. *Journal of Peace Research*, 43(1), 84-99.

Rogers & Pridemore. (2020). Perceived Inequality and Cross-National Homicide Rates. *Justice Quarterly*, 1-27.

Romero, Magaloni & Díaz-Cayeros. (2016). Presidential Approval and Public Security in Mexico's War on Crime. *Latin American Politics and Society*, 100-124.

Rose-Ackerman, S. (2005). The challenge of poor governance and corruption. *Especial 1 DIREITO GV L. Rev.*, 207.

Rosen & Kassab. (2018). *Violence in the Americas*. Lexington Books.

Rosenfeld, Baumer & Messner. (2001). Social capital and homicide. *Social Forces*, 80(1), 283-310.

Rosenfeld, Baumer & Messner. (2007). Social trust, firearm prevalence, and homicide. *Annals of epidemiology*, 17(2), 119-125.

Rosenfeld, R. (2009). Homicide and Serious Assaults. In M. Tonry, *The Oxford Handbook of Crime and Public Policy*. Oxford: Oxford University Press.

Rossow, I. (2001). Alcohol and homicide: A cross-cultural comparison of the relationship in 14 European countries. *Addiction*, 96, 77-92.

Rotberg, R. I. (2003). *State failure and state weakness in a time of terror*. Brookings Institution Press.

Ruel, M. T. (2000). Urbanization in Latin America: Constraints and opportunities for child feeding and care. *Food and Nutrition Bulletin*, 21(1), 12-24.

Ruiz-Tagle & Urria. (2021). Household overcrowding trajectories and mental well-being. *Social Science & Medicine*, 114051.

Rustiarini, N. W. (2019). The role of e-government in reducing corruption: A systematic review. *Jurnal Perspektif Pembiayaan dan Pembangunan Daerah*, 7(3), 269-286.

Sabet, D. M. (2013). Corruption or insecurity? Understanding dissatisfaction with Mexico's police. *Latin American politics and society*, 55(1), 22-45.

Sampó, C., & Troncoso, V. (2022). Cocaine trafficking from non-traditional ports: examining the cases of Argentina, Chile and Uruguay. *Trends in Organized Crime*, 1-23.

Sampson, & Groves. (1989). Community structure and crime: Testing social-disorganization theory. *American journal of sociology*, 94(4), 774-802.

Sampson, R. J. (1985). Neighborhood and crime: The structural determinants of personal victimization. *Journal of research in crime and delinquency*, 22(1), 7-40.

Sánchez et al. (2011). Policies for alcohol restriction and their association with interpersonal violence: a time-series analysis of homicides in Cali, Colombia. *International journal of epidemiology*, 40, 1037-1046.

Sandoval, E. A. (2017). Todos Somos Juárez." Competition in state-making" y la guerra contra el narcotráfico (2006-2012). *Revista española de ciencia política*, (43), 83-111.

Savard, & Banville. (2012). Policy cycles. In & S. Côté, *Encyclopedic dictionary of public administration*.

Savedoff, W. D. (2007). *Transparency and corruption in the health sector: a conceptual framework and ideas for action in Latin American and the Caribbean*. Washington DC: IDB.

Schaible & Altheimer. (2016). Social structure, anomie, and national levels of homicide. *International journal of offender therapy and comparative criminology*, 60(8), 936-963.

Schilling, H. (1999). *Die neue Zeit: vom Christenheitseuropa zum Europa der Staaten, 1250 bis 1750 (Vol. 3)*. Siedler.

Schmidt, Oh & Hayes. (2009). Fixed-versus random-effects models in meta-analysis: Model properties and an empirical comparison of differences in results. *British Journal of Mathematical and Statistical Psychology*, 62(1), 97-128.

Schultze-Kraft, Chinchilla & Moriconi. (2018). New perspectives on crime, violence and insecurity in Latin America. *Crime, Law and Social Change*, 69(4), 465-473.

Schuppert. (2011). Law Without a State? A "New Interplay" Between State and Nonstate Actors in Governance by Rule Making. In T. Risse, *Governance Without a State? Policies and Politics in Areas of Limited Statehood*. Columbia University Press.

Schuster, C. (2014). When the victor cannot claim the spoils: Patronage control and bureaucratic professionalization in Latin America. In *Trabajo presentado en la 85 Annual Conference of the Southern Political Science Association*. Nueva Orleans (Vol. 9).

Scott, M. S. (2005). Shifting and sharing police responsibility to address public safety problems. In N. Tilley, *Handbook of Crime Prevention and Community Safety*. (pp. 385-409). Devon UK Willan Publishing.

Seelke, R. (2016). *Gangs in Central America*. Washington DC: Congressional Research Service.

Seligson, M. A. (2006). The measurement and impact of corruption victimization: Survey evidence from Latin America. *World Development*, 34(2), 381-404.

Shaw & McKay. (1969). Juvenile delinquency and urban areas: A study of rates of delinquency in relation to differential characteristics of local communities in American cities. *Classics in environmental criminology*. Routledge.

Sherman, Gartin & Buerger. (1989). Hot spots of predatory crime: Routine activities and the criminology of place. *Criminology*, 27(1), 27-56.

Shirk & Wallman. (2015). Understanding Mexico's Drug Violence. *Journal of Conflict Resolution*, 59(8), 1348-1376.

Shirk, D. A. (2010). Drug violence in Mexico: Data and analysis from 2001-2009. *Trends in Organized Crime*, 13(2-3), 167-174.

Shleifer & Vishny. (1993). Corruption. *The quarterly journal of economics*, 108(3), 599-617.

Sidebottom, Tompson, Thornton, Bullock, Tilley, Bowers & Johnson. (2018). Gating alleys to reduce crime: A meta-analysis and realist synthesis. *Justice Quarterly*, 35(1), 55-86.

Silveira, A. (2008). Homicide Prevention: the experience of the Fica Vivo Program in Morro das Pedras. *Education & Reality*, 33 (2).

Silveira, Assunção, Silva & Beato. (2010). Impact of the Fica Vivo Program in reducing homicides in the community of Belo Horizonte. *Journal of Public Health*, 44, 496-502.

Singer, Chouhy, Lehmann, Stevens & Gertz. (2019). Economic anxieties, fear of crime, and punitive attitudes in Latin America. *Punishment & Society*, 22(2), 181-206.

Snyder & Duran-Martinez (2009). Does illegality breed violence? Drug trafficking and state-sponsored protection rackets. *Crime, law and social change*, 52(3), 253-273.

Soares & Naritomi. (2010). Understanding high crime rates in Latin America: The role of social and policy factors. In *The economics of crime: Lessons for and from Latin America*. Chicago: University of Chicago Press.

Solari & Mare. (2012). Housing crowding effects on children's wellbeing. *Social science research*, 41(2), 464-476.

Staats, Bowler & Hiskey. (2005). Measuring judicial performance in Latin America. *Latin American Politics and Society*, 47(4), 77-106.

Stake. (2005). Qualitative case studies. In & Y. N.K. Denzin, *The SAGE handbook of qualitative research*, 3rd ed (pp. 443-466). London, Thousand Oaks: Sage Publications.

Stamatel, J. P. (2006). Incorporating Socio-Historical Context into Quantitative Cross-National Criminology. *International Journal of Comparative and Applied Criminal Justice*, 30(2), 177-207.

Stamatel, J. P. (2009). Contributions of cross-national research to criminology at the beginning of the 21st century. In *Handbook on Crime and Deviance* (pp. 3-22). New York, NY: Springer.

Stretesky, Schuck & Hogan. (2004). Space matters: An analysis of poverty, poverty clustering, and violent crime. *Justice Quarterly*, 21(4), 817-841.

Sullivan, L. E. (2009). *The SAGE Glossary of the Social and Behavioral Sciences*. Sage.

Šumah, Š. (2018). Corruption, causes and consequences. In *Trade and Global Market*. IntechOpen.

Summerfelt, T. (2003). Program Strength and Fidelity in Evaluation. *Applied Developmental Science, 7*(2), 55-61.

Tankebe, J. (2013). Viewing things differently: The dimensions of public perceptions of police legitimacy. *Criminology, 51*(1), 103-135.

Tankebe, Reisig & Wang. (2016). A multidimensional model of police legitimacy: A cross-cultural assessment. *Law and Human Behavior, 40*(1), 11–22.

Telep, & Weisburd. (2018). Crime concentrations at places. In B. & Gerben, *The Oxford handbook of environmental criminology*. Oxford University Press.

The Institute for Economics & Peace. (2018). *Positive Peace Report 2018: Analysing the factors that sustain peace*. Sydney: IEP.

Thorp, Caumartin & Gray-Molina. (2006). Inequality, ethnicity, political mobilisation and political violence in Latin America: The cases of Bolivia, Guatemala and Peru. *Bulletin of Latin American Research, 25*(4), 453-480.

TI. (2010). Corruption Perceptions Index 2010: Long Methodological Brief. Berlin: Transparency International.

Tilley, N. (2016). EMMIE and engineering: What works as evidence to improve decisions? *Evaluation, 22*(3), 304-322.

Tilly, C. (1985). War making and state making as organized crime. In R. & Evans, *Bringing the State Back*. Cambridge: Cambridge University Press.

Transparency International. (2019). *Global Corruption Barometer Latin America & The Caribbean 2019*. Berlin: Transparency International.

Trent & Pridemore. (2012). A review of the cross-national empirical literature on social structure and homicide. In *Handbook of European homicide research* (pp. 111-135). New York, NY: Springer.

Tseloni, A. (2006). Multilevel modelling of the number of property crimes: Household and area effects. *Journal of the Royal Statistical Society: Series A (Statistics in Society), 169*(2), 205-233.

Tseloni, Wittebrood, Farrell & Pease. (2004). Burglary victimization in England and Wales, the United States and the Netherlands: A cross-national comparative test of routine activities and lifestyle theories. *British Journal of Criminology 44*(1), 66-91.

Tuttle, C. R. (2017). *Where we get our news: A multilevel analysis of the media framing of immigration and crime*. University of Arkansas.

Tuttle, J. (2017). Murder in the shadows: evidence for an institutional legitimacy theory of crime. *International Journal of Comparative and Applied Criminal Justice*.

UNDP. (2013). *Regional Human Development Report 2013-2014 Citizen Security with a Human Face: Evidence and Proposals for Latin America*. New York: UNDP.

UNDP. (2019). Human Development Index (HDI). Retrieved from Human Development Reports: <http://hdr.undp.org/en/content/human-development-index-hdi>

UNDP. (2020). *Análisis sobre innovación en seguridad ciudadana y derechos humanos en América Latina y el Caribe*. UNDP.

Ungar, M. (2009). Policing Youth in Latin America. In *Youth Violence in Latin America* (pp. 203-224). New York: Palgrave Macmillan.

Ungar, M. (2013). The Rot Within: Security and Corruption in Latin America. *Social Research, Vol. 80*, No. 4, 1187-1212.

UNODC. (2010). *Handbook on the crime prevention guidelines: Making them work*. New York: United Nations Publications.

- UNODC. (2014). *Global Study on Homicides 2013*. Vienna: United Nations Office on Drugs and Crime.
- UNODC. (2019). *Global Study on Homicide: Understanding homicide: typologies, demographic factors, mechanisms and contributors*. Vienna: UNODC.
- van Dijk, Nieuwbeerta & Joudo Larsen. (2021). Global Crime Patterns: An Analysis of Survey Data from 166 Countries Around the World, 2006–2019. *Journal of Quantitative Criminology*, 1-36.
- Veysey & Messner. (1999). Further testing of social disorganization theory: An elaboration of Sampson and Groves's "community structure and crime". *Journal of Research in Crime and Delinquency*, 36(2), 156-174.
- Vilalta & Fondevila. (2019). *Prison populism in Latin America: Reviewing the Dynamics of Prison Population Growth*. Rio de Janeiro: Igarape.
- Vilalta & Muggah. (2014). Violent disorder in Ciudad Juarez: a spatial analysis of homicide. *Trends in organized crime*, 17(3), 161-180.
- Vilalta, & Muggah. (2016). What Explains Criminal Violence in Mexico City? A Test of Two Theories of Crime. *Stability: International Journal of Security and Development*.
- Vilalta, C. (2015). *Global Trends and Projections of Homicidal Violence: 2000 to 2030*. Rio de Janeiro: Igarape Institute.
- Vilalta, Castillo & Torres. (2016). *Violent Crime in Latin American Cities*. Washington, DC: IDB.
- Villaveces, Cummings, Espitia, Koepsell, McKnight & Kellermann. (2000). Effect of a ban on carrying firearms on homicide rates in 2 Colombian cities. *Jama*, 283(9), 1205-1209.
- Vito, Maahs & Holmes. (1994). *Criminology: Theory, Research, and Policy*. Belmont, CA: Wadsworth.
- Waldmann, P. (2006). *El Estado anómico: Derecho, seguridad pública y vida cotidiana en América Latina*. Madrid: Iberoamericana.
- Warf, B. (2019). *Global corruption from a geographic perspective*. Springer International Publishing.
- Warner, & Pierce. (1993). Reexamining social disorganization theory using calls to the police as a measure of crime. *Criminology*, 31(4), 493-517.
- Weaver, & Maddaleno. (1999). Youth violence in Latin America: current situation and violence prevention strategies. *Revista Panamericana de Salud Pública*, 5, 338-343.
- Weisburd, & Telep. (2014). Hot spots policing: What we know and what we need to know. *Journal of Contemporary Criminal Justice*, 30(2), 200-220.
- Weisburd. (2015). The law of crime concentration and the criminology of place. *Criminology* 53(2), 133–157.
- Weiss, Testa & Rennó Santos. (2018). Hazardous Alcohol Drinking and Cross-National Homicide Rates: The Role of Demographic, Political, and Cultural Context. *Journal of Drug Issues*, 48(2), 246-268.
- Weitzer & Tuch. (2005). Determinants of public satisfaction with the police. *Police quarterly*, 8(3), 279-297.
- Wellford, C. F. (2004). *Firearms and violence: a critical review*. Washington DC: National Academies Press.
- Welsh & Farrington. (2012). Crime Prevention and Public Policy. In F. & Welsh, *The Oxford Handbook of Crime Prevention*. Oxford: Oxford University Press.

Welsh & Farrington. (2012). The Science and Politics of Crime Prevention: Toward a New Crime Policy. In W. & Farrington, *The Oxford Handbook of Crime Prevention*. Oxford University Press.

Whitehead, Fair & Payne. (2010). *Violent Democracies in Latin America*. Duke University Press.

WHO. (2014). *Global Status Report on Violence Prevention 2014*. Geneva: WHO.

Wilkinson, R. (2004). Why is Violence More Common Where Inequality is Greater? *Annals of the New York Academy of Sciences*, 1036(1), 1-12.

Williams, R. (2015). *Panel data 4: Fixed effects vs random effects models*. University of Notre Dame.

Willis, G. D. (2017). Before the Body Count: Homicide Statistics and Everyday Security in Latin America. *Journal of Latin American Studies*, 49(1), 29-54

Wolff, M. J. (2018). Violence and criminal order: the case of Ciudad Juarez. *Urban Geography*, 39(10), 1465-1483.

World Bank. (2002). *World Development Report 2002: Building Institutions for Markets*. New York: Oxford University Press.

World Bank. (2019). World Bank Open Data. Retrieved from *World Bank Open Data*: <https://data.worldbank.org/>

World Development Indicators. (2019). World Development Indicators (WDI). Retrieved from *World Development Indicators (WDI)*: <http://datatopics.worldbank.org/world-development-indicators/themes.html>

Worrall, J. L. (2005). Reconsidering the relationship between welfare spending and serious crime: A panel data analysis with implications for social support theory. *Justice quarterly*, 22(3), 364-391.

Young & Kearns. (2017). Empirical Challenges to Studying Terrorism and Homicide. In M. & Brookman, *The Handbook of Homicide* (pp. 231-248). John Wiley & Sons, Inc.

Yukhnenko, Sridhar & Fazel. (2019). A systematic review of criminal recidivism rates worldwide: 3-year update. *Wellcome Open Research*, 4.

Zagha & Nankani. (2005). *Economic Growth in the 1990s: Learning from a Decade of Reform*. Washington DC: World Bank Publications.

Zechmeister, Elizabeth & Lupu. (2019). *Pulse of Democracy*. Nashville, TN.: LAPOP.

Zepeda & Rosen. (2018). Violence in Mexico: An examination of the Major Trends and Challenges. In K. & Rosen, *Violence in the Americas*. Lexington Books.

## 11. Annex

### 11.1. Annex 1: List of countries included in the study

<b>Country</b>
Argentina
Australia
Austria
Belgium
Belize
Bolivia
Bosnia and Herzegovina
Brazil
Bulgaria
Canada
Chile
Colombia
Costa Rica
Cuba
Czech Republic
Denmark
Dominican Republic
Ecuador
El Salvador
Estonia
Finland
France
Germany
Greece
Guatemala
Guyana
Honduras
Hungary
Ireland
Italy
Jamaica
Mexico

Netherlands
Nicaragua
Norway
Panama
Paraguay
Peru
Poland
Portugal
Romania
Russia
Serbia
Slovakia
Slovenia
Spain
Suriname
Sweden
Switzerland
Trinidad and Tobago
United Kingdom
United States
Uruguay
Venezuela

## 11.2. Annex 2: Survey of Casavalle

Welcome to this survey!

We are interested in understanding your opinion about safety in your neighborhood. To achieve this goal, you will be asked to answer a few questions about it. There are no previous studies in this regard, so your participation is very important. Your responses are anonymous and will be kept confidential.

The survey is short, completing it will take you around 5 minutes. Your participation in this research is voluntary. If you do not want to finish the survey, you have the right to not participate or withdraw at any time you consider appropriate.

By clicking the button below, you understand that:

- Your participation in the study is voluntary.

- Your participation will remain anonymous.

- You are aware that you can choose to cancel your participation at any time and for any reason.

(1) I give my consent; I want to participate in the study

(2) I do not give my consent; I do not wish to participate

Name of the school you attend:

Neighbourhood you live in:

Age:

Gender:

1. Do you feel that crime is a problem in your neighbourhood? (1) It's a big problem (2) It's a problem (3) It is something of a problem (4) It is not a main problem (5) I do not know

2. Have you or someone in your household been the victim of a crime in the last 12 months? (1) Yes (2) No (3) I don't know

3. How many people live in your household? (1) 1-3 (2) 3-5 (3) 5-7 (4) 7 or more

4. Do you think you are likely to be a victim of crime in the next 12 months? (1) very likely (2) Likely (3) Somewhat Likely (4) Unlikely (5) Don't know

5. Thinking about your daily life, how afraid are you of being a direct victim of a crime? (1) Very afraid (2) Somewhat afraid (3) A little afraid (4) I am not afraid

6. Do you think the current level of violence in your neighbourhood is higher, almost equal to or lower than in other neighbourhoods? (1) Higher (2) More or less the same (3) Lower (4) I don't know

7. Do you think the current level of violence in your neighbourhood is higher, more or less equal to or less than 12 months ago? (1) Greater (2) About the same (3) Lower (4) I don't know

9. If you were the victim of robbery or assault, do you think the judicial system would punish the offender? (1) Yes, I have no doubts (2) I have some doubts (3) I think it is unlikely (4) I don't think it will be punished (5) I don't know

10. To what extent do you respect the police? (1) I have the highest respect for the police (2) I have respect for the police (3) I have some respect for the police (4) I have no respect for the police (5) I don't know

11. To what extent do you trust the police? (1) I trust the police a lot (2) I trust the police (3) I trust the police a little (4) I don't trust the police (5) I don't know

12. To what extent do you trust the judiciary? (1) I have a lot of trust in the Judiciary (2) I trust in the Judiciary (3) I trust the Judiciary a little (4) I do not trust the Judiciary (5) I don't know

13. How would you classify police work? (1) Very good (2) Good (3) Neither good nor bad (fair) (4) Bad (5) Very bad

14. If you were the victim of a crime, would you report it to the police? (1) Yes (2) No (3) Maybe (4) I don't know

15. If you are the victim of a crime at home, how long do you think it would take the police to get to your home on an average day at noon? (1) Less than 10 minutes (2) Between 10 and 30 minutes (3) More than 30 minutes and up to one hour (4) More

than one hour and up to three hours (5) More than three hours (6) They would never arrive (6) I don't know

16. Do you think the police is corrupt? (1) It is very corrupt (2) It is a bit corrupt (3) The corruption occurs in exceptional situations (3) The police are not corrupt (4) I don't know

17. In your opinion, what is the most serious problem facing the country before the pandemic? (1) Education (2) Economics (3) Security (4) Unemployment (5) Other

18. Do you feel that state services are present in your neighbourhood? (State services are, for example, public security, public education, public health, public transportation, etc.) (1) Very present (2) Somewhat present (3) Little present (4) Not present at all (5) I don't know

19. Would you say that the services that the municipality is providing to the people are...? (services municipalities are, for example, street maintenance, lighting, collection garbage, sanitation) (1) Very good (2) Good (3) Neither good nor bad (fair) (4) Bad (5) Very bad (6) I don't know

20. Do you feel that the people in your neighbourhood are trustworthy? (1) very trustworthy, (2) they are trustworthy (3) they are not very trustworthy (4) not trustworthy

21. How proud are you of living in your neighbourhood? (1) I am very proud (2) I feel somewhat proud (3) I feel a little proud (4) I am not proud (5) I do not know

22. How safe do you feel walking in your neighbourhood during the day? (1) I feel very safe (2) I feel safe (3) I feel a little insecure (4) I feel very insecure

23. How safe do you feel walking in your neighbourhood at night? (1) I feel very safe (2) I feel safe (3) I feel a little insecure (4) I feel very insecure

24. Are you afraid at your school? (1) Very afraid (2) Somewhat afraid (3) A little afraid  
(4) I am not afraid