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The Social and Developmental  
Dimensions of Drug Violence in Mexico  
2006-2012

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## Abstract

Drug violence in Mexico has claimed over 120,000 victims since it escalated in 2007. The government's policy response has been driven by an emphasis on security and militarisation, but with a growing focus on social issues as part of its strategy since 2010. Given the government's increasing emphasis on social and poverty issues in its drug enforcement strategy and the persistent high levels of drug violence, this thesis sets out to explore the under-researched social drivers of drug violence in order to understand the nature of the relationship between poverty, inequality and drug violence.

In so doing, it introduces a distinctive framework for explaining the persistence of drug violence based on the argument that there is a misunderstood dimension in government policy frameworks, namely, the social and development contexts in which drug violence is embedded. The thesis contends that the government's increasing focus on the social issues of drug violence is important, but its concentration on the issue of absolute poverty is misplaced. The thesis analysis finds that in terms of drug violence patterns, relative inequality seems to be more important than poverty.

In order to develop this argument, the thesis uses a mixed methods approach to explore two sets of social conditions and trends in Mexico – poverty and inequality. In each case, the analysis uses quantitative indicators and qualitative interview material gathered during field research to explore the importance of each set of conditions in explaining the social dimensions of drug violence, and, in a second step, to assess their relative importance as explanatory factors. The quantitative analysis centres on indicators of development at the national and sub-national levels. The qualitative material, gathered from 23 semi-structured interviews with government officials, members of non-governmental organisations, former drug traffickers, academics and journalists draws from their experience to flesh out an understanding of the social and developmental context of drug violence within our case study of Monterrey.

The findings of the thesis are counterintuitive and surprising, given dominant assumptions in the literature and policy debates about the relationship between drug violence, poverty and inequality. Contrary to these prevailing assumptions, the research findings indicate that the most drug-violent sub-national units are not the most impoverished, nor the most unequal. Instead, they frequently show the highest levels of development within their respective states, and throughout the country. The thesis draws on these findings to suggest a new way of understanding the relationship between violence and development, and specifically the dynamics of drug violence in Mexico. It suggests that such an understanding offers important wider policy implications for addressing the problem.



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## List of abbreviations

Abbreviation	English	Spanish
CCT	Conditional Cash Transfer	
CEEY	Espinosa Yglesias Studies Centre	Centro de Estudios Espinosa Yglesias
CERESO	Centre for Social Re- adaptation	Centro de Rehabilitación Social
CONAPO	National Population Commission	Consejo Nacional de Población
CONASUPO	National Company of Popular Subsistence	Compañía Nacional de Subsistencias Populares
CONEVAL	National Council for the Evaluation of Social Development Policy	Consejo Nacional de Evaluación de la Política de Desarrollo Social
DEA	Drug Enforcement Administration	
DH	Drug-related homicides	
DT	Drug trafficking	
DTOs	Drug-trafficking organisations	
DV	Drug violence; drug-violent	
ECLAC	Economic Commission for Latin America and the Caribbean	Comisión Económica para América Latina y el Caribe
EI-PC	Economic inequality-political conflict nexus	
EMOVI	Mexican Social Mobility Survey	Encuesta de Movilidad Social

ENIGH	National Survey of Income and Expenditure at Households	Encuesta Nacional de Ingresos y Gastos de los Hogares
ENCASEH	National Survey of Households' Socioeconomic Characteristics	Encuesta de Características Socioeconómicas de los Hogares
ESRU	Espinosa RuGarcía Foundation	Fundación Espinosa RuGarcía
EU	European Union	Unión Europea
FSD	Federal Security Directorate	Dirección Federal de Seguridad
IAT	Institutional Anomie Theory	
ICG	International Crisis Group	
IMSS	Mexican Social Security Institute	Instituto Mexicano del Seguro Social
INEGI	National Institute of Statistics and Geography	Instituto Nacional de Estadística y Geografía
MMA	Monterrey Metropolitan Area	Área Metropolitana de Monterrey
NAFTA	North American Free Trade Agreement	Tratado del Atlántico Norte
NEETs	Not in education, employment or training	NINIs: "Ni estudia, ni trabaja"
NGOs	Non-government organisations	Organizaciones No Gubernamentales
NL	Nuevo León	Nuevo León
OCGs	Organised crime groups	Grupos de Crimen Organizado
PAN	National Action Party	Partido Acción Nacional

PRI	Institutional Revolutionary Party	Partido Revolucionario Institucional
PGR	Attorney's General Office	Procuraduría General de la República
PR	Office of the Mexican President	Presidencia de la República
PROSPERA	Previously known as OPORTUNIDADES	
PROGRESA	Programme of Education, Health and Food	Programa de Educación, Salud y Alimentación
PRONASOL	National Solidarity Programme	Programa Nacional de Solidaridad
OPORTUNIDADES	Previously known as PROGRESA	
SDT	Social Disorganisation Theory	
SEDENA	Secretariat of National Defence	Secretaria de Defensa Nacional
SES	Socioeconomic status	
SNSP	National Public Security System	Sistema Nacional de Seguridad Publica
TBI	Trans-Border Institute	
TI	Innovative Tijuana	Tijuana Innovadora
TSJ	We are all Juárez	Todos Somos Juárez
UN	United Nations	Naciones Unidas
UNODC	United Nations Office on Drugs and Crime	
UTC	Together Transforming my Community	Unidos Transformando mi Comunidad
USA	United States of America	
WB	World Bank	Banco Mundial



## CHAPTER I: AN INTRODUCTION TO DRUG VIOLENCE IN MEXICO

“Mexico’s violence is a constellation of conflicts involving competition among heavily armed criminal organizations, state combat with these groups, and increasingly predatory violence by these groups targeting ordinary civilians for extortion, kidnapping, and robbery” (Shirk and Wallman, 2015, p.1368).

Shirk and Wallman’s (2015) representation of Mexico’s drug violence (DV) reveals much about the importance of this security issue, not only for the authorities but, mainly, for the public. After a decade since former President Felipe Calderón (2006-2012) launched a military campaign against drug trafficking organisations (DTOs) alongside an increased focus on social issues, and the continuation of these drug policies by his successor, the current President Enrique Peña Nieto, there has been no decrease in the levels of drug violence (Hope, 2015). The gravity of the security issue is illustrated with several indicators: the persistently high number of drug-related homicides (DH) with over 120,000 victims (Heinle et al., 2014) and 60-70,000 estimated “additional” DH (Shirk and Wallman, 2015); the growing number of drug-related crimes that have increased exponentially, such as kidnappings (by 188%), human trafficking and extortion (100%), and aggravated robbery (42%) (Felbab-Brown, 2011) for the period between 2007-2010; and the control of drug trafficking routes into the USA by the Mexican DTOs, such as the Sinaloa crime organisation, considered the most powerful of its kind in the world, and their power on political institutions (Beittel, 2013).

As a result of decades of government ineffectiveness to tackle drug violence, the Mexican government’s focus is moving towards integrating a new dimension into its policy frameworks, the social dimensions of DV. Alongside the security-driven approach, a greater emphasis on social programmes is increasing and is the focus of this thesis. The social programmes introduced by the Mexican government to address DV levels have been recently incorporated in 2010 at the end of former President Calderon’s presidential administration. This growing social emphasis derives from the Mérida Initiative, the latest joint drug enforcement operation

between the United States of America (USA) and Mexico. The second phase of the Mérida Initiative, Beyond Mérida, has as one of its main aims to address the social and economic factors that contribute to violence in the country, particularly DV. The fourth pillar of Beyond Mérida provided the platform for social policy to be mobilised in the drug policy framework during Calderón's term. This growing policy shift towards the socioeconomic dimensions of DV are reflected on the local socioeconomic development packages aimed at tackling drug violence, starting with Todos Somos Juárez (TSJ), implemented in Ciudad Juárez (Chihuahua); Monterrey- Together Transforming my Community (UTC) introduced as part of the case study of this research-the city of Monterrey; and, Innovative Tijuana (TI) hosted in the state of Baja California Norte. The TSJ and UTC local initiatives indicate the increasing focus on poverty reduction programmes as part of drug policy frameworks as explored further in chapter II.

Within these policy frameworks and the academic literature, it is assumed there is a relationship between poverty, inequality and (drug) violence. However, detailed empirical research regarding the nature of this relationship remains scarce, and there have been very few attempts to explore its dimensions in the particular context of Mexico. As DV continues to be the country's most pressing national security issue and due to the growing policy shift towards anti-poverty (focused on absolute levels of poverty) programmes within the Mexican drug frameworks, this thesis therefore sets to explore and analyse the relationship between poverty, inequality and drug violence in contemporary Mexico, using quantitative and qualitative methods of investigation.

The core finding from this thesis is that, contrary to dominant assumptions in both the academic literature and policy frameworks in Mexico and beyond, the focus on absolute poverty cannot adequately account for patterns of DV. Instead, quantitative and qualitative evidence suggest that levels of relative inequality explain the patterns of DV more accurately than absolute poverty. Thus, inequality has to take a much more central place in the analysis of DV and this outcome has significant policy implications. This finding is not only academically significant, but entails important policy implications: if the Mexican government continues to place its focus narrowly

on poverty reduction programmes, it will continue to overlook the central importance of inequality and its relationship to DV patterns, and thus prove only partially capable of addressing the ongoing problem.

### [An introduction to drug violence in Mexico](#)

Defining DV is a critical first step in our discussion. There is a general assumption that there exists causation between drug violence (DV) and drug trafficking (DT), as the first one is considered to result from the latter one. In order to explore the aforementioned relationship, we need to start by defining drug trafficking, the driver of DV and the defining characteristic that separates drug trade organisations (DTOs) from other criminal organisations.

According to the United Nations Office on Drugs and Crime (UNODC, 2013), “Drug trafficking is a global illicit trade involving the cultivation, manufacture, distribution and sale of substances which are subject to drug prohibition laws”. The latter definition relates to the whole process that involves the creation and distribution of illegal drugs. Drug trafficking is the main activity that characterises DTOs, described as “...organised crime groups because they generate illegal profits, create serious damage to society and are able to conceal their criminal activities from authorities” (Kleemans and de Poot, in Campbell & Hansen, 2012, p.2).

As the main criminal activity of the perpetrators of DV, the DTOs, has been defined, we can focus on explaining the violence in question. Rios and Shirk (2011, p.3) define DV as the “...high rates of violent crime and increased violence among organised crime syndicates involved in drug trafficking and other illicit activities”, and Werb et al (2011, p.88) describe it, “...as violence (homicides, assaults, and shootings) arising from the illicit drug market”. Following these definitions, this research will define DV as the violence perpetrated by the DT organisations (DTOs), whose illegal economic activities are not exclusive to DT; however, it is one of their main sources of income.

Drug trafficking (DT) is classified as a particular type of organised crime in Mexico; and, as such, DTOs are considered organised crime groups (OCGs). Since 1996, OCGs have been legally defined in the country as “A de facto organisation of three or more persons, in permanent or recurring form to commit crimes, according to the terms

of the relevant area of the law” (in Heinle et al., 2014, p.12). This legal concept is embedded in the Federal Criminal Code and the Federal Law against Organised Crime.

Notwithstanding the legal definition of OCGs in the Mexican legal statutes, a problem exists with the formal legal definitions of DV and DH. Rios and Shirk argue that “‘Drug violence’ and ‘drug related homicide’ are not formal categories in Mexican criminal law, and there is some disagreement among scholars and analysts over the appropriate terminology used to describe the phenomenon” (2011, p.4). The main problem with the aforementioned lack of legal definitions is that, without an agreed classification between the authorities, the measurement of DV in the country becomes problematic, as the quantification of DH is one of the main methods to determine the levels of violence in question.

Regardless of this lack of legal classification, DV is a social phenomenon that has been perceived by the Mexican public in the form of bodies found with decapitated and/or cut limbs, casualty shoot-outs, mass graves, hanging corpses from bridges, and bodies left with messages from DTOs (specifying their motivations and/or affiliation), amongst other examples of criminal activity (Rios and Shirk 2011; Reuters 2009). In order to distinguish drug-related homicides from other murders, a set of similar criteria have been constructed by both the Mexican government and other organisations (Trans-Border Institute, 2012; Rios and Shirk, 2011) as follows;

- a. The use of automatic and high calibre arms common to DTOs (AK-47, AR-15 and .50 types).
- b. Extreme forms of violence (decapitation, torture, mutilation) and execution style (suggestive markings, rare configuration of bodies and messages to other DTOs or authorities).
- c. Public displays of violence, including hanging bodies from bridges, mass shootings and mass graves.
- d. Specific tactics (street battles) and the presence of a large number of illegal drugs, arms or cash.

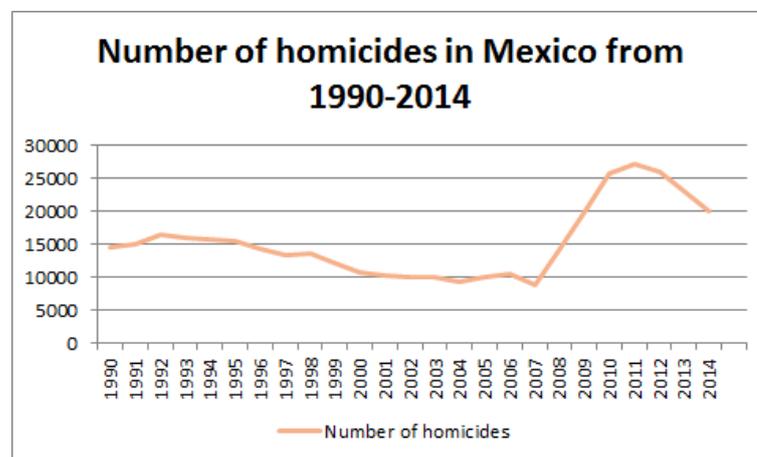
e. The official reports provided by the Mexican authorities, associating these homicides to DTOs following their particularities.

This classification is relevant because it helps to introduce the levels of DV in the country, examined in the following section.

### Levels of drug violence in Mexico

We will first examine the evolution of the number of homicides in Mexico from 1990 to 2014, using the data from the National Institute of Statistics and Geography (INEGI).

Graph 1.1: Number of homicides in Mexico from 1990-2014

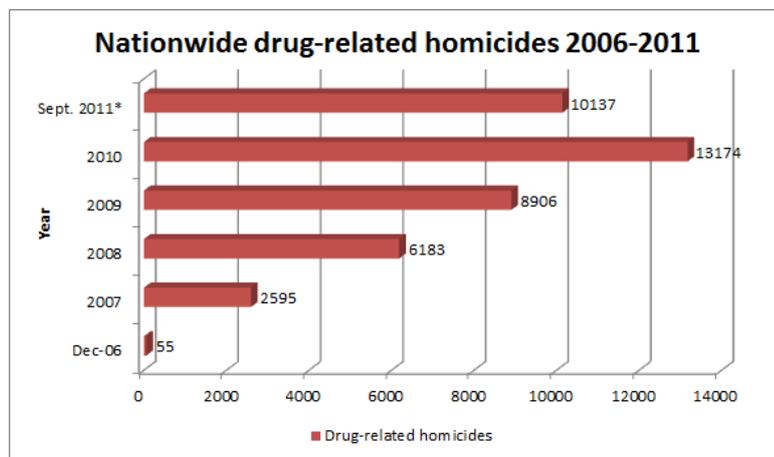


Own elaboration based on data from INEGI (2016)

Graph 1.1 shows the evolution in the number of homicides in the country has followed an overall decreasing trend for most of the period from 1990 to 2006. However, the number of homicides escalated significantly from 2007 up until 2012, which could be compared to our research period 2006-2012. However, notwithstanding INEGI's regard as a reliable and consistent source of information (Shirk and Wellman, 2015), its data cannot be used for this study, as it accounts for all types of homicides and not the ones exclusively related to OCGs, particularly DTOs. Nevertheless, Graph 1.1 helps to exemplify the scale of the violence in question by showing how the overall decreasing trend in homicides in Mexico since 1990 was reversed by 2007.

The measurement of DV in the country has relied on accounting for the number of drug-related homicides (Shirk and Wellman, 2015). The following graph 1.2 displays the levels of DV from December 2006 until September 2011, close to the period of study for this research and Calderón’s presidential term (2006-2012). Drug violence (DV) was quantified by analysing drug-related homicides (DH) from two government sources, Office of the Mexican President (PR, 2011b) and the Attorney’s General Office (PGR, 2012).

Graph 1.2: Drug-related homicides nationwide from 2006 to 2011

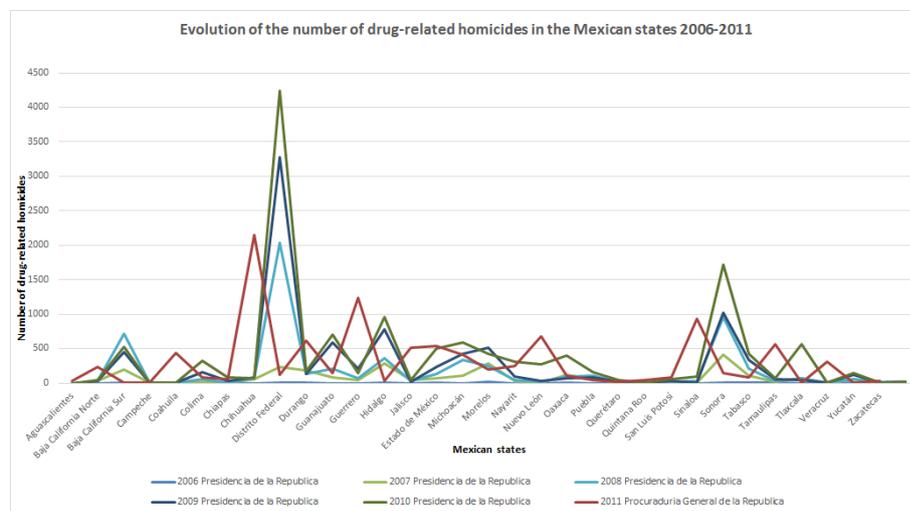
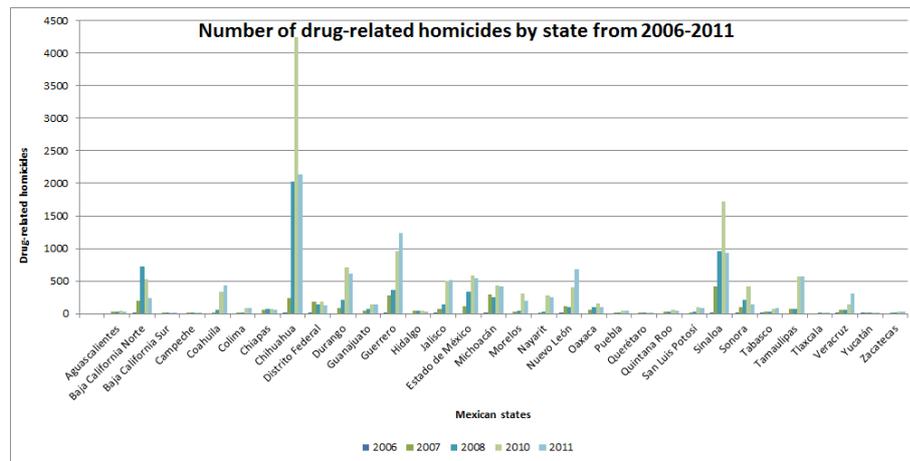


Own elaboration based on data from PR (2011); \*PGR (2012).

Graph 1.2 shows the increasing levels of drug violence in the country from December 2006 until September 2011, the last official update during Calderón’s term. Calderón’s administration started with a total of 2,595 DH in 2007, reached its peak in 2010 with over 13,000 DH and the official tally concluded in September 2011, with over 10,000 DH. More recent estimates, however, account for a larger number of victims, over 120,000 casualties (Heinle et al., 2014).

As the national levels of DV have been briefly introduced, the subsequent graphs 1.3 will focus on the same period, but for the 32 Mexican states, as our research focuses on both national and sub-national levels.

Graphs 1.3: Annual levels of drug violence by Mexican state from 2006 to 2011



Own elaboration, based on data from PR (2011) and PGR (2012).

Graphs 1.3 shows the Mexican states that accounted for the largest amount of DH, from December 2006 until September 2011, were Baja California Norte, Chihuahua, Durango, Guerrero, Nuevo León, Tamaulipas and Sinaloa. It is relevant to consider that not all of these are located on the border with the US or in the Golden Triangle, the fertile region where marihuana is grown in the country. We will analyse these states' levels of DV in detail in chapter IV. One of these most drug violent states, Nuevo León, was the location for our field research, explained later in this chapter and more in-detail in Chapter V which focuses on its capital city, Monterrey, as our case study.

Not only have these graphs shown the continually high levels of DV during Calderón's presidential term (2006-2012), but they help to introduce this thesis' rationale and research questions in the following subsections.

### Rationale for the research

Drug trafficking is an issue that has existed in Mexican history for decades. However, the exceptional levels of DV that have been observed in the last decade escalated when former President Felipe Calderón (2006-2012) decided to launch a military campaign against DTOs in 2006, as part of his security-driven drug policy focused on the "War on Drugs" (Vilalta, 2013) alongside a recent growing focus incorporating its social issues into drug policy frameworks. For most of Mexican history (analysed in detail in Chapter II), the government policy response to address DT and DV has been dominated by the security-driven approach (reflected in military operations in Chapter II) and has gradually incorporated a focus on social issues (Chapter II and VI) reflected as anti-poverty measures in the most drug violent localities in the country.

The gradual drug policy shift provides the rationale for the thesis in two main ways, both in policy terms and in terms of the academic literature. Firstly, in policy terms, given the Mexican government's increasing focus on the social dimensions of DV, this growing shift in drug policy demands an examination of the relationship between DV and poverty, due to the shift's concentration on absolute poverty exclusively, as reflected in anti-poverty programmes (TSJ, UTC). Exploring whether there exists a relationship between poverty, inequality and DV will allow us to evaluate the effectiveness of this policy shift on DV levels and its wider policy applicability. The second justification for the research relies on the academic literature which tends to expect a positive relationship between violence, poverty and inequality. However, the literature regarding the specific relationship between drug violence, inequality and poverty is scarce, particularly for the Mexican case, and this research intends to contribute towards these academic discussions.

The topic of this research is highly significant as it involves Mexico's highest security problem, not only has it taken such a high death toll for its victims, but it has affected

the whole Mexican society due to its vicious forms of homicides. In addition, the increase in the number of drug-related crimes pervades the Mexican population, including its citizens, academics, journalists, civil society and government officials.

### Research questions and key argument

The unwavering high levels of DH in the country point towards an ineffective drug policy, even alongside the increasing focus on the social issues of DV, and raise a number of questions that this thesis aims to explore. In sum, the main research questions for this thesis are:

1. Is there a relationship between poverty, inequality and drug violence in Mexico?
2. If so, what accounts for the nature of the relationship and what are the implications for government policy?

As indicated earlier, the argument elaborated in the thesis is the government's increasing focus on the social issues of drug violence is important, but its concentration on the issue of absolute poverty is misplaced. The thesis analysis finds that in terms of drug violence patterns, relative inequality seems to be more important than poverty. Insofar as the government policy shift places the focus exclusively on anti-poverty measures, the research argues drug policy in Mexico is based on a partial understanding of the problem. The policy tendency to focus exclusively on poverty results in a limited approach to address the problem, which explains why government policy has not been as effective given the findings from this research. The research examines two sets of social dynamics and patterns in the country- poverty and inequality- in order to explore the relevance of each set of social conditions in explaining patterns of drug violence.

### The contributions of the research

This thesis makes contributions to the scholarly literatures on drug violence in the fields of politics, development studies, and criminology, alongside the more specific literature on drug policy and drug violence in Mexico. There is no significant body of

literature regarding the under-researched social drivers of drug violence and the relationship between drug violence, poverty and inequality.

The research contributes to a detailed exploration of the social roots of Mexico's drug violence and its wider policy applicability based on two broad empirical findings. First, the main empirical contributions of this research are based on its thorough examination of the roots of the under-researched social drivers of Mexico's drug violence. The thesis introduces empirical analysis on the previously misunderstood social dynamics of DV –poverty and inequality - in order to assess the relationship of these two social dynamics and drug violence within the Mexican policy context, and evaluate their relative importance in explaining patterns of drug violence in the country. This detailed exploration of the social roots of DV in Mexico is studied in two ways: with descriptive statistics to determine the correlation between DV, poverty and inequality; and, with the case study of the Metropolitan Area of Monterrey (MMA) to determine why we may have these particular results.

Second, the two empirical findings of the thesis offer wider policy applicability based on its counterintuitive results, given the dominant assumptions in the literature debates regarding the positive relationship between poverty, inequality, and drug violence (chapter III). Contrary to these predominant assumptions, the two main research empirical findings indicate that the most drug-violent sub-national units are not the most impoverished nor the most unequal. Instead, they frequently show the highest levels of development within their respective states and throughout the country by having the lowest levels of poverty and the largest changes in inequality levels. The thesis draws on these findings to suggest a new way of understanding the relationship between violence and development, and specifically the dynamics of drug violence in Mexico, drawing from the thesis' empirical findings that suggest a negative relationship between multidimensional poverty and DV, as well as between inequality changes and DV on national and sub national levels. It suggests that such an understanding offers important policy implications for addressing the problem and the way we evaluate Mexico's current policies towards drug violence.

Overall, the main contribution of the research is based on its detailed exploration of the under-researched social roots of the drug violence in Mexico and the wider policy

applicability this exploration offers based on its two counterintuitive analytical findings. These contributions will be further explored throughout the thesis and will be revisited in the last chapter on conclusions.

### Research methods and data sources

The research deploys a mixed-methods approach based on both quantitative data and qualitative material in order to construct a multifactorial framework that considers both economic and social aspects of DV.

The decision to use this type of approach relies on the opportunity this research design presented by providing a more comprehensive understanding of the research problem, as Creswell (2014, p.11) explains, "...for the mixed methods researcher, pragmatism opens the door to multiple methods, different worldviews, and different assumptions, as well as different forms of data collection and analysis".

The choice of mixed methods is novel, in the sense that the academic literature regarding DV in the country usually deals with them separately. Analysis of the drug problem in Mexico tends to focus on the security approach, relying on the law enforcers' operational success or failure, and crime figures (Heinle et al. 2014, Hope 2014); only a handful of studies rely on qualitative research (Campbell and Hansen, 2015; Shirk 2014; Payan 2014). Rarely are both mixed and matched in the search for interdependent and complementary levels of analysis, as is the aim of this thesis.

Our approach helps to construct a detailed and clearer picture of the social context in which DV patterns develop, by including a macro-level perspective with quantitative data for both national and subnational levels of analyses, as well as micro-level insights provided by qualitative material that will be drawn from interviews conducted in Monterrey's Metropolitan Area (MMA), our case study. These two levels of analysis help us to better understand the role these two social dimensions-poverty and inequality-play in DV patterns. The following subsection will explain in more detail the analyses conducted for both methods.

## Quantitative methods

The quantitative methods used indicators of levels of DV and development at both the national and sub-national levels by analysing data from the country, covering the 32 Mexican states and their respective more than 2,000 municipalities. The indicators analysed were grouped on the two sets of social conditions – poverty and inequality– as the focus of the social dynamics of DV for this research that will be explored in chapter IV.

The data analysis consisted of descriptive statistics to determine the correlation between poverty and inequality as our independent variables and drug violence as the dependent variable for this research. The thesis focuses on correlation coefficients between these three variables, illustrated in xy graphs, to explore the aforesaid relationship-the social roots of drug violence levels. The indicators used to represent these variables were, drug-related homicides (DH) for drug violence levels; the multidimensional components of poverty (education, health, housing, basic services and social security); and, the Gini coefficient for inequality. The detailed explanation of the indicators and their respective data sources, used for each set of social conditions, are explored in detail in the quantitative chapter IV.

The quantitative data helped to explore and describe the importance of these sets of dynamics in explaining DV; it also evaluated their relative importance as descriptive factors of DV in the country by exploring their correlation. These indicators provided a macro-level perspective of the levels of DV in the country that helped to identify the similarities and differences between and within the most drug violent states and municipalities, versus the least drug violent units. The aforementioned comparison explored whether there is actually a relationship between the states and their subnational units' (municipalities) levels of poverty and inequality and levels of DV, and what the nature of this relationship represented. Understanding this relationship was essential in order to explore the importance these inadequately understood social dimensions may have within policy frameworks and the wider policy applicability this might represent. The analysis was not only done on a sub national level, but it also involved emphasis and section on our case study of the Monterrey

Metropolitan Area by analysing the correlation between multidimensional poverty, inequality and drug-violence levels.

The subnational level approach helped incorporated all states regardless of location, whether they were border states with the United States; drug production zones; corridor regions; or none of the latter. Additionally, the subnational approach was beneficial in order to consider the similarities and differences in the social dimensions considered, by comparing the dynamics of both drug violent and non-drug violent states and their respective municipalities.

### Qualitative methods

The research aimed not only to provide an overview of the social dimensions of DV nationwide and on a subnational level, for a specific period of time, but also a voice and a detailed perspective of the issue from the agents involved, including perpetrators, authorities and the civil society. The fieldwork involved conducting 23 face-to-face semi-structured interviews with government officials, members of non-governmental organisations, former drug traffickers, academics and journalists, in order to pull insights from their experience to flesh out an understanding of the social and developmental context of DV.

Our case study involved field research in one of the most drug violent Mexican states, Nuevo León and its capital city of Monterrey (MMA: Monterrey Metropolitan Area), during the selected period of research (2006-2012). The case study of Monterrey (Chapter VI) allows the research to provide a specific context for the quantitative findings and help to determine the reasons behind the quantitative results, particularly related to why an area with low levels of multidimensional poverty suffers from high levels of drug violence. This analysis highlights the role of economic exclusion in the context of a dynamic local economy (Chapter V).

The fieldwork was conducted on our home state to address the safety threats posed both to the interviewees and the researcher, due to the sensitivity of the topic. The researcher's support network and local knowledge of the area helped to approach these safety concerns and obtain access to the participants. Moreover, given the

scarcity of academic literature on the city of Monterrey and its high levels of DV (Avila Loera, 2010), the MMA presented an academic opportunity to contribute towards these debates, especially given our empirical findings of why we may have high levels of DV in areas with low poverty levels, such as the case of Monterrey.

The selection of the interviewees was based on representing the different groups with a degree of involvement in DV, drawing from first-hand experience from individuals actively perpetrating it (DTO members) or combatting it (government officials), together with, diverse individuals from civil society (non-government organisations, academics and journalists) affected by the violence in question and working closely with it. The aim was to provide a more illustrative and comprehensive understanding of the social dimensions of DV by drawing from these individuals' particular insights on the problem. The 23 semi-structured interviews were categorised as follows:

- Eight interviews were conducted with workers either in non-government organisations (NGOs) and rehabilitation centres, focused on helping recovering drug addicts and drug traffickers reinstate into society; or working in state penitentiaries, or in the areas of youth criminality, urban security and the justice system.
- Five interviews were directed at recovering drug addicts and former DTO members, approached through the NGOs (who served as gatekeepers) in order to address the safety issues; these interviews were conducted within the NGO's premises.
- Six interviews centred on government officials working in security, education and local government agencies.
- Lastly, four interviews were conducted with academics and journalists working in development and drug-related research.

As can be observed from the number of interviews conducted in each category, they were illustrative of each category and included both male and female participants ranging from 18 to 65 years. The number of interviews conducted was based on the saturation bias criterion as the ability to obtain further information from the

participants became repetitive and there were no new themes or data emerging from the interviews, as explained in more detail in chapter V. The fieldwork's relevance relies on the quality of the interviews, and not their number; these interviews offered a granular perspective that helped to illustrate the social context where DV takes place, directly from the social groups that interact with it.

Greater weight was placed on the participants involved directly in the DV context, the former DTO members and the individuals working closely with them, the NGOs, as the former group could not be easily approached due to safety concerns. Additionally, greater focus was placed on the government officials in order to better understand the authorities' understanding and approach in addressing the DV issue. Less investment was placed on the academics and journalists, as the thesis aimed to understand first-hand experiences from the interviewees concerning the research topic; yet, their insights were invaluable to the research to construct a broader understanding of all the factors involved on the research problem, by incorporating these specialists' perspectives and their expertise in the topic.

For each category of interviewees, there were different types of insights drawn. The interviews directed at government officials provided insights into the government's understanding of DV and how this has influenced their increasing focus on the social dimensions of the problem concentrating mainly on anti-poverty measures. Interviews conducted towards the former DTO members provided invaluable insights into their social context. The latter perspectives were complemented by the perceptions offered by the interviewed NGO members, as they work closely with them. These conversations helped to illustrate the under-researched social dimensions, particularly the relationship between poverty, inequality and drug violence. Finally, the interviews aimed at academics and journalists offered more detailed information about these social dimensions, particularly addressing the nature of the relationship between poverty, inequality and violence in the Mexican context. Further information on the interviewees' organisation, job role, and date of the interview is provided; however, the participants' names remain unidentified, in order to protect their anonymity.

Additionally, the research involved participant observation in two of Nuevo León state's penitentiaries, the Centres for Social Re-adaptation (CERESO) Topo Chico and Apodaca, which hold 72% of total inmates in the state of Nuevo León. Access to these penitentiaries was permitted due to the NGOs serving as gatekeepers, as they conduct work within these institutions. Interviews could not be conducted due to legal reasons, as interviews are not allowed inside of penitentiaries in the state of Nuevo León. Nevertheless, personal stories were shared during two visits to the prisons, one to a female class group and the other to a male group in the prison's substance abuse rehabilitation centre. These visits represented a valuable opportunity to learn more about the social context where DV develops and listen to the participants' life stories and perspectives on the research topic, explored in detail in chapter V.

Once the material was collected, the emerging themes were examined using the software NVivo to help illustrate the research, and provide a personal narrative from the interviewees' experiences.

Overall, the value of relying in both qualitative and quantitative methods relies on their usefulness in providing a more detailed picture of the problem on both macro and micro levels of analyses. The quantitative analysis provides macro-level insights into the Mexican states and municipalities for the wider policy implications and the qualitative material illustrates the reality of the problem, providing a platform for the core findings to be explored within our case study of the MMA. The case of Monterrey exemplifies the complexity of the perceptions about the relationship between poverty, inequality and the drug violence that currently affects the city. The different components of both methods build into each other to allow a more considered response to the overarching research questions and the analytical implications for both levels of analyses in the wider Mexican policy context and their significance for the problem.

## Methodological Challenges

As with all research, there were expectedly several limitations surrounding its development. One of the main limitations of this study's methodology involved attempting to isolate other factors that could be influencing the multifaceted issue of DV, in order to understand the social dimensions that surround it. It was difficult to analyse whether the two sets of social conditions influence the patterns of DV and, if they do, what is their role and how can we explain this relationship. This represented one of the biggest methodological challenges for this study since it was impossible to isolate all the factors that could be affecting the social drivers of drug violence in the country. The implications for the latter methodological concern are that, by introducing a different line of enquiry highlighting the social context of DV, by extending the focus beyond poverty and incorporating inequality, the research mainly attempts to contribute to (and not dismiss) the explanatory debates surrounding the social drivers of the violence in question. It does not intend to diminish the importance of other factors within the scholarly literature (chapter III) nor undervalue their findings, but rather, highlight how a different line of study could contribute to the discussions surrounding the explanatory factors, and the opportunity it represents for future research.

There were also several conceptual and methodological issues concerning the definition and quantification of DV levels. These concerns were related to the reliability and availability of the information, particularly for drug-related homicides (DH), if these were isolated as this type of homicide, within the available databases. There was also a concern regarding the possible manipulation and withholding of related data by the government agencies. In order to understand these challenges, we introduce the context within which to assess the government's database.

The Mexican government has been accounting homicides related to DT and OCGs since 2000, through a database constructed by the Attorney General's Office (PGR) (Heinle et al., 2014). Nevertheless, the figures were only released when there was pressure from NGOs, the media and transparency agencies (Shirk and Wellman, 2015). The data was released in January 2010 and 2011, for the period from December 2006 until September 2011. In November 2012, the database was

withdrawn from the public domain, when former President Calderón announced the figures would not be made public, as there was no legal foundation for their release (Heinle et al., 2014). Pachico (2012), however, argues the decision was based on Calderón's administration termination, in the same month.

During Peña Nieto's current administration (2012-2018), the data was released in mid-2013 by the SNSP (National Public Security System) and showed a decrease in the levels of DV. Nonetheless, this database follows a different methodology and categorisation; its reliability has been questioned, as levels of DV persist, or have actually increased (Hope, 2014). For the latter reasons and due to the period of research for this study (2006-2012) the data from SNSP will not be considered for this study. As Shirk and Wellman (2015, p.1371) explain, "These shifts illustrate the politicization of crime statistics in Mexico".

Notwithstanding this politicisation of the figures, the research draws specifically from the government databases (PR 2011 and PGR 2012) as it represents the best platform for data analysis, as it was the only official source that documented only drug-related homicides, on a state and municipality level, for the period of December 2006 until December 2010, which constitutes the majority of this research's period of study. Additionally, other studies continue to use the same source for DH even after its removal from the public domain (Espinosa and Rubin 2015; Beittel 2013; World Bank 2012; Guerrero Gutierrez 2011; Vilalta 2011).

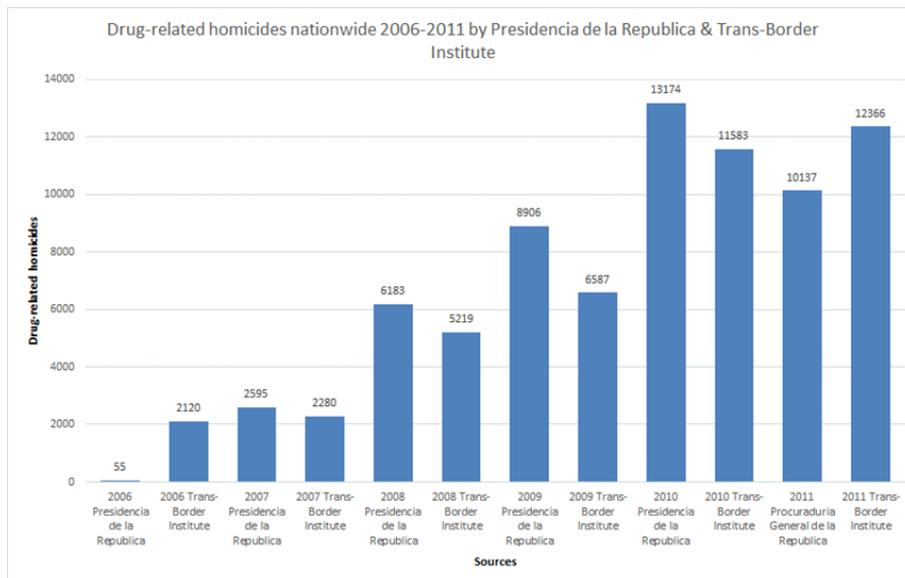
Additionally, there are some clear limitations to the government's data that need to be acknowledged such as: it has only been available irregularly; the data is incomplete for certain time periods; it appears to use different classifications (PGR vs SNSP), depending on the year it was released; it cannot be tested as its core information remains classified; and, there is no transparency on the collection of the data (Heinle et al., 2014). Despite these aforementioned limitations, it is relevant to also consider the data's strengths. According to Martinez Morales (2012), the importance of relying on this government database is due to the rigidity in the methodology, which allowed for some cases to be validated once the information on each case was updated, increasing the source's reliability and validity. Moreover, PR (2011) and PGR (2012) were the official sources that accounted exclusively for DH;

contrary to INEGI, which records all types of homicides and deaths annually, without a DH distinction. SNSP, as mentioned earlier, only started to release data during Peña Nieto's current administration which raises the following difficulties: it does not cover our research period; does not consider a municipal level for all years; has not made its methodology publically available; and is believed to underreport in its DH figures (Mexico Evalúa 2013; Heinle et al. 2014, Hope 2014). For the latter reasons, neither INEGI nor SNSP databases will be considered as sources for this research's empirical chapters.

These limitations are addressed by comparing the government's database (PR 2011 and PGR 2012) using a secondary data source, compiled by the Trans-Border Institute (TBI), following Reforma's (national newspaper) information from 2006 to 2012 (Molzahn et al. 2013; TBI 2010, 2011, 2012). The TBI (2010, 2012) used Reforma's database as one of their main sources of drug-related data because it regarded the data as trustworthy, consistent, and complete due to its nationwide coverage (TBI, 2012). This database was constantly updated during Calderón's term, but has not continued with the current administration of Peña Nieto's. However, since mid-2013 Reforma resumed its report of the figures, but without regularity or thoroughness (Heinle et al., 2014). Nevertheless, Reforma's data still helps to build the comparison for this research's main data source, as it was considered reliable during the main period of study, from 2006-2012. The TBI follows Reforma's methodology as it utilised certain criteria to identify DH, similar to the government's criteria (explained earlier), but, the newspaper was allegedly more consistent in reporting the data. This secondary source is only used on the national and state-levels, as it does not contain information regarding municipality levels like the government sources.

Graph 1.4 helps to tackle the aforementioned weaknesses of the government's data by comparing the national levels of DV in the country according to the government's database, this research's primary sources, and TBI, our secondary source that draws from Reforma's database.

Graph 1.4: Drug-related homicides nationwide 2006-2011: The Mexican government vs the Trans-Border Institute

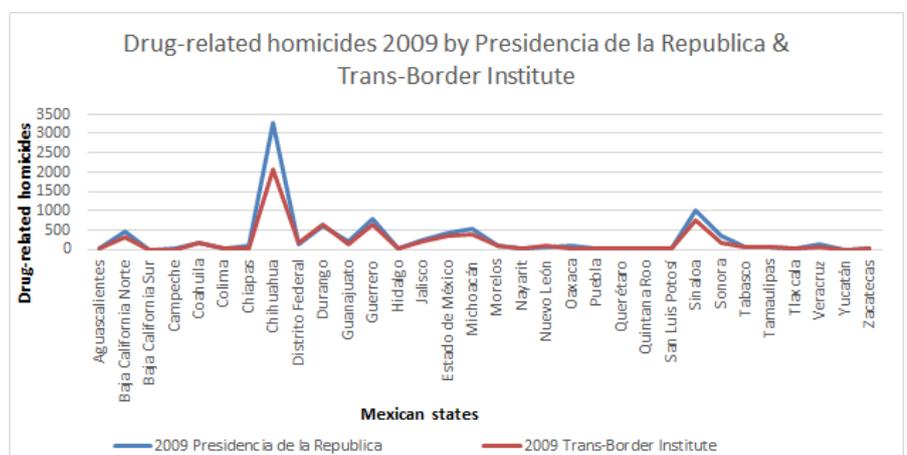
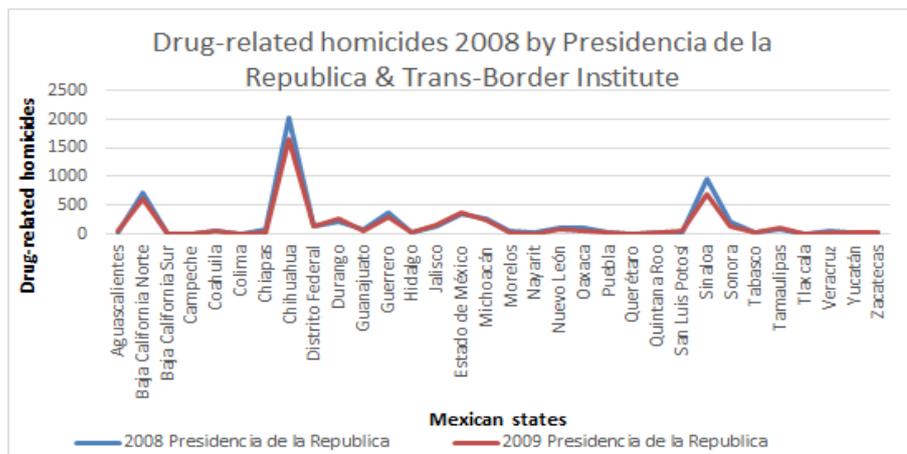
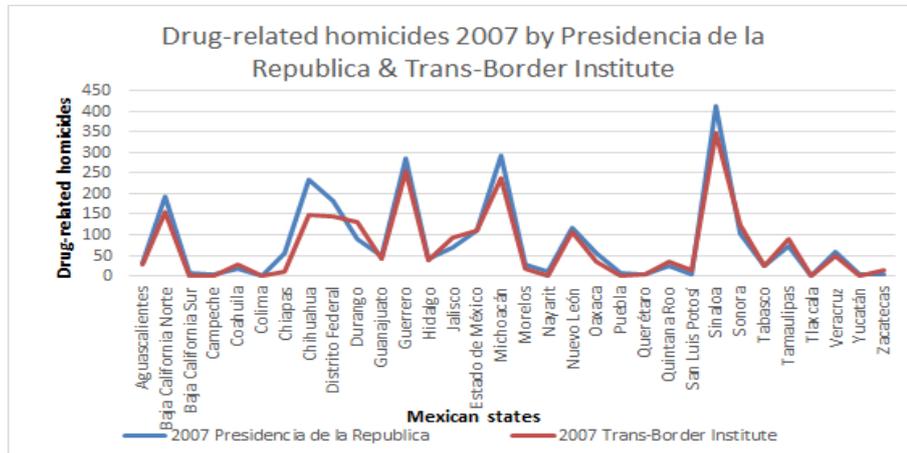


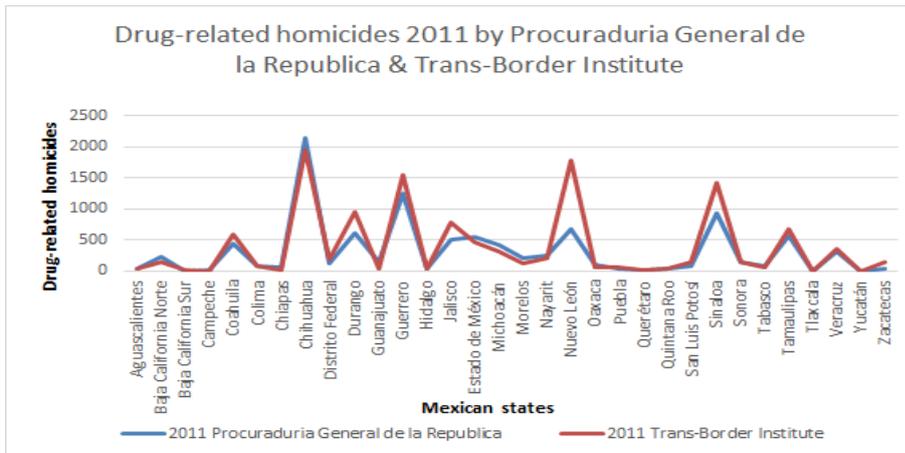
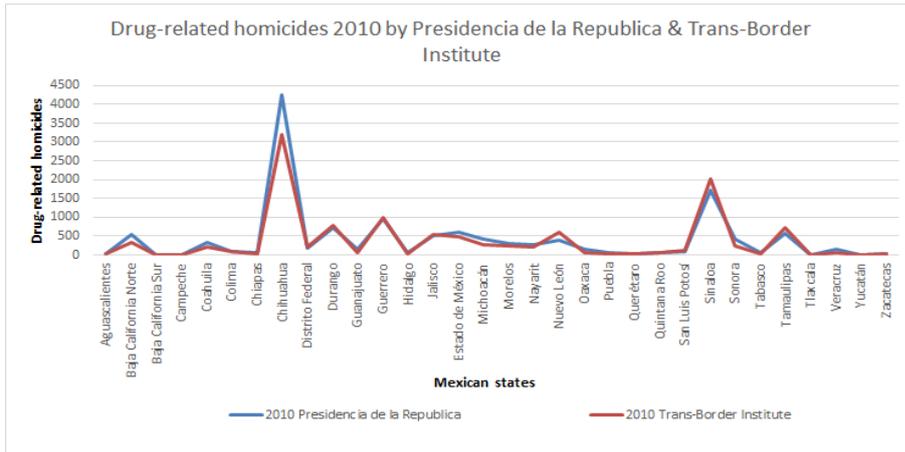
Own elaboration based on data from PR (2011); TBI (2012); PGR (2012).

Graph 1.4 shows some differences on the levels of drug-related homicides (DH) considered by both sources (government and TBI). Particularly interesting is that for the majority of the years, it is the government data (PR 2011 and PGR 2012) that accounts for a larger number of DH. The year 2006 is difficult to compare, as the government's figures only account for December 2006, but it has been included as a starting point. The following year of 2007, we can observe a difference of 315 DH that are accounted by PR (2011b), but not by the TBI. In 2008, the difference is even greater with the government accounting for an extra 964, unaccounted by TBI; a similar, but even larger difference for 2009, with an additional 2,319 DH introduced by PR; and the same for 2010 when the government accounted for an extra 1,591 drug-related deaths in comparison with the TBI's tally. It is only the year 2011 when TBI quantified an extra 2,229 DH in comparison with the Mexican government. The differences between the government's and TBI in the 2011 figures could be attributed to changes in the classification and methodological aspects, as it relied on the PGR (2012), rather than on PR (2011), as with the previous years. As observed on graph 1.4, the differences between both databases are evident, but they are not

substantial, and the government does not seem to have underreported on its figures, providing a larger amount of DH for most of the years considered.

Graphs 1.5: Drug-related homicides on a states' level 2007-2011: The Mexican government vs the Trans-Border Institute





Own elaboration, based on data from Presidencia de la República (2011); Trans-Border Institute (2012); PGR (2012).

Graphs 1.5 show that for the majority of the years, the states follow the same trend from both sources. However, as was previously mentioned, the Trans-Border Institute (2012) accounted for less drug-related homicides from Reforma’s database than the information available from Presidencia de la República (2011); the latter shows on the graphs by different spikes, but with similar trends. Moreover, these graphs 1.5 on the state level have shown how both sources have provided similar statistics regarding drug-related homicides and, by doing so, have helped verify the data by cross-referencing it.

It is important to highlight that these comparisons (Graphs 1.4 and 1.5) between the databases can only be done on the national and states’ levels, as this information was not provided for the municipalities’ level for the secondary source. Even for our primary source, the municipalities’ information was incomplete for certain years. As

a result, the analysis had to be limited to the year of 2010 as it was the only year when the data was available for both DH, and the sets of social conditions-poverty and inequality. More information of the strengths and weaknesses of the database sources chosen will be explained for the quantitative analysis in chapter IV. Additionally, in the aforementioned chapters, when analysing the relationship between the sets of social conditions and the levels of DV, the research drew from the same data source for the DH (primary source) in order to ease the comparability of the data throughout our empirical chapters.

Lastly, an additional important research challenge concerning the quantitative data was that its findings are based on descriptive statistics that serve only as preliminary findings for the particular time period analysed and for the particular case of Mexico. This limitation was mainly due to the lack of data available on a municipality level for both the levels of DV and the sets of social conditions, for additional years, rather than solely 2010. The lack of information available for several years limited the amount of comparative statistical analysis that could be pursued. Moreover, the research's descriptive statistics analyse the level of correlation between poverty, inequality and drug violence; yet, the analysis does not imply a causal relationship between these variables. The case study of the MMA, however, allowed us to explore why we may have these results for this particular metropolitan area. In order to address this issues, the limitations of the research have been explained in this section, the data has been compared between the government sources and TBI nationwide and on a states' level, and the qualitative material helped to balance this weakness on the quantitative research design.

It is important to highlight that the results will require rigorous additional statistical analysis for additional periods of time to further their validity and understanding. Nevertheless, the preliminary findings point towards an emerging trend that is valuable as a starting point for future research, and presents an original contribution to the academic literature.

## Structure of the thesis

This introductory chapter has set the research context by explaining the research topic, its rationale and contributions, key research questions, and the methodology and its challenges. Additionally, this chapter defined DV and its measurement and examined the levels of DV on the national and states' levels for the research period.

The following chapter II has the objectives of demonstrating the ineffectiveness of the traditional approach to DV based on security, and describing the policy shift towards more attention to anti-poverty measures to reduce DV. In order to do so, the chapter focuses on the various Mexican governments' policy approaches to drug enforcement, by briefly analysing the historical evolution of drug policies in the country, including the Mérida initiative, the last phase of the cooperation between Mexico and the USA governments in order to address drug-trafficking (DT) and drug-violence (DV). Subsequently, the chapter focuses on the last three presidential administrations construction of DT as a national security threat in order to provide context for the emerging policy shift. We explore the adverse effects of the militarisation of drug enforcement which justify why the government is integrating a new policy shift in drug policy, including anti-poverty initiatives.

Chapter III engages with the bodies of literature that explore theoretically the relationship between drug violence, poverty, and inequality. The chapter draws from the scholarly literature on social disorganisation theory, institutional anomie theory and the economic inequality-political conflict nexus. This review of the theoretical frameworks helps to construct the theoretical framework that suggests some of the causal links between poverty, inequality and DV. This literature review will inform the empirical findings from chapter IV and the case study in chapter V, in order to assess the relative utility of these bodies of literature for the Mexican case in the research period.

Chapter IV uses quantitative analysis to explore the nature of the relationship between poverty and inequality in explaining the patterns of DV in Mexico. It introduces the literature on poverty and inequality, including their definition and measurement, and the current levels in the country. Subsequently, it develops the quantitative analysis for each of the multidimensional poverty components

(education, health, social services, housing quality and services) in relation to the states and municipalities' levels of DV. The data analysis of inequality focuses on the Gini coefficient and its relationship to DV in the Mexican states and municipalities. Successively, the descriptive statistics explore the correlation between inequality, poverty and drug violence in Mexico. Lastly, the chapter focuses on the state of Nuevo León to introduce our case study of the Metropolitan Area of Monterrey (MMA) by analysing the relationship between multidimensional poverty levels, inequality and drug violence on its 52 municipalities.

Chapter V develops the qualitative case study analysis, drawn from our field research based on 23 semi-structured interviews and participant observation conducted in two state prisons. This chapter allows a detailed understanding of the complexity of the research participants' perceptions about the relationship between inequality, poverty and drug violence that currently exist in Monterrey and explores the counter-intuitive negative relationship between multidimensional poverty and DV that emerged from the quantitative analysis.

Chapter VII centres on evaluating the key social programmes addressing DV levels, Beyond Mérida and Todos Somos Juárez. The chapter starts with a brief introduction of social policy in the country to reflect on the recurring focus on poverty within social policy frameworks, mainly reflected in PROSPERA, the government's flagship social programme. It goes on to examine and evaluate Beyond Mérida initiative and the first local socioeconomic policy initiative implemented during former President Calderón's term, Todos Somos Juárez. The chapter finishes by linking Todos Somos Juárez to the theoretical frameworks explored in chapter III.

Lastly, the Conclusion revisits the research questions and key findings from the chapters to reflect on their significance and wider implications.

## CHAPTER II: THE MEXICAN GOVERNMENT'S POLICY APPROACH TO DRUGS

“Those who ignore Mexico will never understand the fate of democracies transfigured by the flow of drug trafficking” (Saviano, 2014.p.57).

### Introduction

This chapter has two main objectives: firstly, to set out the literature review which surveys the record of the traditional security-driven approach taken by the Mexican government to address drug violence; and secondly, to describe the increasing policy shift towards anti-poverty measures to reduce drug violence.

In order to do so, we will introduce the political context by analysing the most important political landmarks in the evolution of drug policy, with a particular focus on the drug enforcement cooperation strategies between the Mexican and American governments and the construction of DV as a national security threat by the four most recent presidential administrations. Subsequently, the chapter will focus on the security-driven drug enforcement strategy and an examination of its adverse effects in order to explain the context behind the emerging policy shift that will be reviewed in more detail at the end of the chapter.

### The historical evolution of the Mexican drug policy

During the first three decades of the 1900s, the main illicit trade developing between the USA and Mexico was focused on alcohol and drug smuggling from Mexico into the USA and also the prostitution and gun trade flow from the northern border into Mexico (Payan 2006).

The unconditional presidential powers (referred as *Presidencialismo*) conferred via the 1917 Constitution and the establishment of the PRI (Institutional Revolutionary Party) in 1929 during the Revolutionary turmoil, served to secure the hegemony of this political party for the following seventy-one years (Grayson, 2010). This ‘political stability’ during the PRI’s rule helped to keep a ‘control’ over the Mexican DTOs

throughout this time period, referred to as “pax narcotica”, as the DTOs prospered unchallenged by the authorities (Morton, 2012).

Since the decade of the 1920s, when the drugs’ (marijuana and poppy) injunctions were introduced in the country, the emphasis on enforcement changed from public health to public security (Grayson, 2010). Nevertheless, the categorisation of drug crimes remains as “crimes committed against public health” until the present year of 2017, and includes possession, consumption, production, traffic, supply and criminal association of illegal drugs (Serrano, 2007).

Since 1930, eradication programmes were implemented and continue to be enforced by the military (Grillo, 2011), as these efforts had become a “permanent campaign” for years (Shirk, 2011b, p.10). In the late 1930s, President Cardenas sent the armed forces to destroy all cultivation of poppy and marijuana in Sinaloa due to pressure from the American government (Grayson, 2010). Conversely, according to some accounts (Grayson 2010; Grillo 2011) the official stance taken by the American government was not held in practice, as there was a need for a new supplier of opium due to the Second World War restricting other sources worldwide. By the 1940s, the opium cultivated in Sinaloa had increased considerably, as Mexico became the supplier of opium for both the illicit and legal markets (Grayson, 2010).

The drug enforcement cooperation strategies between the USA and Mexico have consisted of three large operations: Operation Intercept (1969), Operation Condor (1976) and, the latest one, the Mérida Initiative (2008) (Grillo, 2011). The first cooperative drug enforcement strategy, Operation Intercept, was implemented in 1969 and focused on border security involving the meticulous inspections of every transport and pedestrian crossing in the border. After 17 days of operation, it was shut down due to complaints from the travellers, given the extensive security checks (Serrano 2007; Grillo, 2011).

In 1973, during American President Nixon’s (1969-1974) term, the Drug Enforcement Administration (DEA) was established to enforce federal drug policies, and the “War on Drugs” was declared, as DT was classified as a national security threat (Grillo,

2011). Therefore, the joint drug enforcement operations between Mexico and the USA intensified.

The next cooperative effort between both countries was Operation Condor (1976), which consisted of spraying the drug crops in the Golden Triangle (Sinaloa, Chihuahua and Durango) in an attempt to eradicate its cultivation in Mexico. Operation Condor was the largest drug enforcement cooperation conducted by the PRI's 71 years of presidential rule. Grillo (2011) argues that the PRI agreed to cooperate with the American government due to the equipment they were able to acquire from them as part of the training, which converted the Mexican police fleet into the largest in Latin America.

As a result of the American efforts on drug enforcement, the *modus operandi* and routes used previously by the Colombian DTOs into the American market were disrupted, particularly in the Florida border, where the main ports of entry for illegal drugs were used by the Colombian cocaine drug traffickers. Consequently, the Colombian DTOs had to look for new ports of entry into the USA. By 1983, the Mexican territory had become the new best available route for cocaine. Thus, the Colombian DTOs had to rely more and more on the Mexican DTOs to smuggle the drugs inside the American territory (Astorga & Shirk, 2010). The relocation of routes and entry ports, added to the cooperation between the American and the Colombian governments to combat DTOs in Colombia (Plan Colombia), resulted in the weakening of the Colombian DTOs, once considered the most powerful DTOs during the decades of 1960s and 1970s. The dismantling of the Colombian DTOs resulted in the Mexican drug traffickers benefiting from a bigger share of the American drug market, until they became the main drug smugglers into the USA (Friman 2009). This increase in drug-related profits allowed DTOs to achieve a level of wealth, entry, and government protection from the Mexican authorities more far reaching than that of the Colombian DTOs (Grillo 2011; Grayson 2010).

As the Mexican DTOs continued to increase their participation in the illicit drug market during the 1980s, the Mexican government strengthened its drug enforcement strategies. In 1983, President De la Madrid (1982-1988) increased the army's participation in the crop eradication programmes of marijuana and opium

(Toro, 1998). This greater participation in crop eradication was reflected in the increased participation of military personnel; during the 1960s it had only 300 personnel involved in this task but by the end of the 1970s, it had increased by an extra 4,700 individuals; in the late 1980s, it had 25,000 army members and by 2009 it had an estimated of 45,000 military personnel involved in this task (Fondevila & Quintana-Navarrete, 2015). This greater involvement is also reflected in budget matters; since 1985 and during the following ten years, the Mexican authorities spent approximately 60% of the PGR's budget in drug control strategies (Toro, 1998).

It was also during President De la Madrid's term, in 1987, that DT (drug trafficking) was declared a national security problem, allowing for the military to be more actively involved in drug enforcement strategies, as reflected by the increase in military personnel (Shirk 2011b).

The Mexican and American governments' classification of DT as a national security problem, during the 1980s and 1970s respectively, was a result of the enlargement of the illegal drugs market during the 1970s, partly due to the plaza system. Within the DTOs, the plaza system consisted in administering a particular DT corridor, referred to as 'plaza'. The head of the plaza would charge anyone using its plaza for DT; in exchange, they would bribe the authorities and provide protection for the smuggling operation (plaza was previously linked to the jurisdiction of a specific police force). This system could have only emerged in a corrupted regime like the one existent during the PRI's administration (Toro 1998; Shirk 2011b). Within this corrupted system, protection, access to the market and distribution privileges were given to the DTOs by government officials (at all levels) in exchange for payoffs (Shirk, 2011b).

In 1985, the American DEA agent Camarena was murdered in Mexico with the alleged involvement of corrupted Mexican officials, causing tension in the relationship between both governments. As a result of the American pressure on the Mexican government to react, Felix Gallardo, the top leader of the Guadalajara DTO (the most powerful at the time), was arrested in 1989. This leadership removal caused inter-DTO conflicts between the four largest remaining criminal organisations, Sinaloa, Tijuana, Gulf of Mexico and Juárez, which erupted DV levels.

In 1994, the North American Free Trade Agreement (NAFTA) was signed between the USA, Canada and Mexico, to open the trade barriers amongst these three countries. This created one of the biggest free trade zones and the largest consumer market in the world (O'Neil, 2013). On the same year the NAFTA treaty was signed and at the start of former President Zedillo's administration (1994-2000), the 'Tequila Crisis' erupted due to: the overvaluation of the currency, the peso, which lost half of its value; the vulnerability of the banking sector; the decline of foreign reserves; and the highly expensive PRI's political campaign (O'Neil, 2013). NAFTA allegedly helped in the recovery of the Mexican economy by increasing international trade between the signing members (O'Neil, 2013). NAFTA not only helped to increase the legal trade between these countries but it also facilitated the smuggling of the illegal drugs trade which benefited the Mexican DTOs (Campbell & Hansen, 2013). As Payan (2006, p.34) argues, "Over time, the four large cartels have come to rely on trucking as the primary conveyor belt of illegal drugs across the border".

Astorga and Shirk (2010) argue that in the decades before the 2000s, DTOs operated in a less violent way because they followed agreements on their territories (consented between the DTOs and 'blessed' by the PRI); DTOs were not confronted by the Mexican government, as it was an accomplice in their illicit drug trade (Grillo 2011; Grayson 2010); and their extent was smaller than at the present time (Guerrero-Gutierrez, 2009). As mentioned earlier, this period of time is considered as the "pax narcotica" because the DTOs prospered unchallenged by bribing municipal, state and federal government officials, and police authorities (Morton, 2012). Mares (2009) argues that, during this period of time, the DTOs' illegal activities went mostly uninterrupted by the Mexican authorities, as government officials were involved in complicity, even at the top levels of power (Astorga & Shirk, 2010). Bull (2011) explains the relationship between the DTOs and the Mexican government, as he claims profits which originated from DT have served to finance political campaigns, providing these OCGs with political power; DTOs have included police officers and government officials in their payrolls and these OCGs have managed to recruit military deserters as part of their membership (Los Zetas). Corruption often occurred at top government levels, resulting in a trickle-down effect amongst the

political institutions, such as the local police and the Federal Security Directorate (FSD); the latter was established in 1947 as the first drug enforcement agency and dissolved in 1985 due to corruption problems (Serrano, 2007).

Mexico enjoyed this “pax narcotica” for as long as the hegemonic PRI was in power. During these seven decades, the country’s power structure was extremely dependent on the president (Presidencialismo). Throughout this period, the government was not only lenient with criminal networks, but also defensive of them; this was a result of the corruption that eroded the political institutions (FSD) through bribes from OCGs (Flores Perez 2009, in Astorga & Shirk, 2010).

The democratisation process started in 2000 with the presidential election of Fox (PAN), resulting in the collapse of the DTOs arrangements with the former PRI government, and the end of the “pax narcotica”. Key institutional changes occurred, such as the emergence of democratic pluralism at both the regional and national level and the process of the decentralisation of power began (Rios, 2012c). Consequently, DV escalated, as the DTOs continued to protect and ensure their plazas, as the previously consolidated system plunged, and the DTOs resorted to violence as their settling of accounts mechanism (Snyder and Duran-Martinez 2009).

The demise of PRI affected the whole Mexican political apparatus. Its single party power structure was tremendously centralised and hierarchical, which gave them total monopoly on the legitimate use of force and territorial control of the country (Rios, 2012c). This, in turn, provided them with the ability to be lenient towards OCGs (Astorga & Shirk, 2010). With this corruptive system, crime was ‘allowed and controlled’, and everyone benefited economically. As democratisation started, it constrained the PRI’s hegemonic power, hindering it from providing protection to the DTOs at all government levels. Consequently, this weakened the state-sponsored protection racket developed throughout the PRI’s administration until it finally collapsed and resulted in an eruption of DV, as Snyder and Duran-Martinez (2009) explain: “The case of Mexico, where democratisation fuelled violence by contributing to the breakdown of the state-sponsored protection racket...” (2009, p.270). According to Snyder and Duran Martinez (2009, p.254) state-sponsored protection rackets refer to the

“...informal institutions through which public officials refrain from enforcing the law or, alternatively, enforce it selectively against the rivals of a criminal organization in exchange for a share of the profits generated by the organization”.

The reasons behind the collapse of the main state-sponsored protection racket is directly related to corruption, since previous agreements between the government and DTOs (particularly, the Guadalajara DTO) deteriorated, making them lose credibility towards present and future state-sponsored rackets. This made it more difficult for them to form new alliances between corrupt authorities and their OCGs (Snyder and Duran-Martinez, 2009). Snyder and Duran (2009, p.262) argue the main DTOs’ state-sponsored protection racket collapsed in Mexico during the late 1980s because of:

- (i) Anti-corruption reforms inside the PGR, changing the geography of enforcement by decentralising it.
- (ii) The start of political competition against the PRI.
- (iii) The participation of Colombian DTOs, which changed the internal dynamics of the Mexican DTOs and their relationship with the state-sponsored protection rackets.

The recent outburst of DV does not mean drug policy was successful in addressing DT in the past; but, rather that as the state-sponsored protection rackets broke, DV became more visible and, thus, the government’s unsuccessful drug policies became more evident as they surfaced into the public eye calling for a change in policy shift. Snyder & Duran-Martinez further explain, “Violence thus supplanted state-sponsored protection as the main survival strategy of drug traffickers” (2009, p.270).

O’Neil (2009) highlights how the first states that showed spikes of DV were states where PRI had lost its control, such as Baja California (1989) and Chihuahua (1992), as he describes the democratisation effect:

“Electoral competition nullified the unwritten understandings, requiring drug lords to negotiate with the new political establishment and encouraging rival

traffickers to bid for new market opportunities. Accordingly, Mexico's drug-related violence rose first in opposition-led states" (2009, p.65.)

The election of President Fox's administration (2000-2006), the first of PRI's contending National Action Party (PAN), marked the beginning of the democratisation effect. During Fox's presidential administration, the government began to attempt to dismantle the most powerful DTOs (Shirk 2011b) in the country and incorporated a wider definition of regional security (analysed in the following sub section).

In 2008, during Calderon's administration (2006-2012), the latest joint operation for drug control between Mexico and the USA- the Mérida Initiative- was launched, the name given the city where the agreement was signed. This cooperation agreement directed \$1.4 billion USD of American aid towards Mexico to control DTOs and combat DT activities in the country throughout a period of three years; the aid included hardware, information technology, infrastructure, inspection equipment and training (Chabat 2010; Isaacson et al. 2011). The Mérida Initiative not only provided financial aid on top of the \$4.3 billion USD that Mexico directs to drug enforcement yearly; it also delivered the Mexican government with training, intelligence-sharing, capacity building, institutional reforms, equipment and technical support and encourages the implementation of rule of law programmes (Shirk, 2011b).

In 2010, the Mérida Initiative's second phase, Beyond Mérida, was unravelled, focusing not only on security aspects of drug policy as has been done historically by the Mexican drug government, but also integrating social preventative programmes tackling DV. The implementation of socioeconomic initiatives to tackle DV in Mexico has only been recently incorporated by the Mexican government, during former President Calderón's presidential administration. The majority of the strategies against DT in the country have been focused on a security and militarisation approach (as evidenced by this section) and continue under this approach with the current President Peña Nieto. As Felbab-Brown explains,

“Historically as well, Mexico has not emphasized socioeconomic approaches to reduce illicit economies and criminality. The government has, for example, not adopted any alternative livelihoods programs to wean Mexico’s poppy and marijuana farmers off their drug-producing crops, preferring to address illicit crop cultivation through forced eradication” (2011, p.18).

According to Felbab-Brown (2011), there were several factors that motivated the Mexican government to implement socioeconomic development packages as part of their strategies to combat DTOs during former President Calderón’s administration. One of these factors was linked to the appointment of Carlos Pascual as the American Ambassador to Mexico in 2009, due to his influence on a socioeconomic focus of US policies towards Mexico. According to Shirk (2011b, p.18) Negroponte (2011, p.4) and the U.S. Department of State (2015), the four pillars of the Mérida Initiative are:

“(1) Disrupt and dismantle organised crime: combat DTOs by coordinating drug enforcement strategies and sharing intelligence.

(2) Reinforce state institutions: particularly the judicial and security sectors and institutionalise the rule of law while protecting human rights.

(3) Construct a 21<sup>st</sup> century smart border: secure the border and prevent DV spilling into the USA.

(4) Address the social and economic factors contributing to violence and build strong and resilient communities: fortify civil society through social programmes, targeting employment and education.”

The objectives of the Mérida Initiative show how the priorities of both governments continue to be mainly security-driven, as they have been historically, by aiming to combat the DTOs (first pillar), reinforce the security institutions (second pillar), and protect the border (third pillar). Nevertheless, the last pillar introduced a substantial new drug policy shift by centring on a comprehensive approach to reduce DV levels through the strengthening of the Mexican institutions and prevention programmes as part of their main objectives, building into the new policy approach focusing on anti-poverty measures to reduce drug violence levels. Shirk (2011b) explains how the

Mérida Initiative has not only covered security threats as part of its priorities; it has actually enlarged its framework to cover community development and the strengthening of institutions, as “...Mexico’s primary challenges are rooted in its social and economic underdevelopment” (p.18). The latter quote brings the attention into this research’s new line of investigation as it places the focus on the under-researched social dimensions of drug violence as they become increasingly mobilised in drug policy frameworks. This policy shift will be further explored on the last section of this chapter.

Our following sub section provides the context in which the Mérida Initiative unravelled following the last three presidential administrations’ construction of national security.

### [The construction of drug trafficking as a national security threat by the Mexican presidents](#)

In order to provide further context on how this policy shift emerged, this section focuses on the construction of drug policy frameworks by the four latest presidential administrations.

This section will focus on how the three latest presidential administrations have constructed DT as a national security threat through a short analysis of their speeches on an international and national level. This discourse analysis will illustrate how the government’s understanding of DV has influenced the government’s traditional strategy to address it.

It is important to highlight that the research’s main period of study focuses on Calderón’s administration from 2006-2012, regarded as the start of the escalation of DV levels, thus the main focus on this section. However, as we are analysing the construction of drug policy frameworks, we need to examine their historical evolution in order to grasp each administration’s understanding of the problem.

The classification of DT as a national security threat heightened the militarisation of drug control strategies since 1987, as Fondevila & Quintana-Navarrete (2015) explain “...the drug control policy of every Mexican president has characterised illegal drug trade as a national security risk; thus allowing the intervention of the armed forces”

(p.1). However, the authors (2015) argue its identification as a national security threat is not the only reason for this militarisation, as this would have been reflected through a continuous increase in militarisation since then. Instead, Fondevila & Quintana-Navarrete (2015) claim that the militarisation of drug enforcement is strictly related to the presidential administration's meaning of national security risk in relation to their definition of sovereignty. Their study (2015) analysed the official presidential speeches of the Zedillo (1994-2000), Fox (2000-2006) and Calderón (2006-2012) administrations, including discourses on both international (with government officials of other countries) and internal (media interviews and towards the armed forces) levels, collected from the national presidential archives.

In order to grasp the attention placed on particular topics in presidential speeches, Fondevila and Quintana-Navarrete's (2015, p.7) analysis showed the number of speeches that made reference to key topics, particularly related to this research: the "fight against drug trafficking", Zedillo (22), Fox (33) and Calderón (10); "drug trafficking", Zedillo (128), Fox (185), and Calderón (178); "national security" Zedillo (29), Fox (134), and (75) for Calderón; and to "organised crime", Zedillo (56), Fox (186), and Calderón (430). The latter high number of references made by Calderón towards organised crime and fight against DT show the increasing importance that was given to OCGs as a national security issue. The topic of "militarisation" was rarely mentioned in any public speech before Calderón, whose administration only referenced it three times (Fondevila & Quintana-Navarrete, 2015, p.7). The latter is quite an interesting discovery, as Calderón increased the military's participation in drug control strategies and embraced a military approach regarding his own public image.

Zedillo's (1994-2000) official discourse was based on a limited cooperation with the USA against DT, emphasising a non-intervention approach, as Shirk claims on this limited cooperation: "For many years, U.S. and Mexican security cooperation floundered because of mutual suspicions and a lack of agreement on basic principles...aid to Mexico has traditionally been low, mainly due to political concerns in both countries about the prospect of greater U.S. government assistance" (2011b, p.18). Zedillo's definition of sovereignty encompassed the integrity of its territory,

thus emphasizing the non-intervention cooperation principle and the military's role enforcing drug control within its boundaries. This concept of sovereignty was strictly related to the Estrada Doctrine that discarded any form of intervention from other countries into Mexico's internal matters and was used as a core principle of international relations during the PRI's rule since the 1930s (Daly et al. 2012). We can observe this emphasis of non-intervention in Zedillo's speeches:

"What we have with the United States is a good and respectful bilateral relationship to combat drug trafficking and it is based on a very concrete principle...always respecting each country's sovereignty" (Zedillo, 11 November 1996, in Fondevila and Quintana-Navarrete's, 2015, p.8).

Zedillo also highlighted the importance of DT as a national threat by linking the protection of the territorial integrity in speeches given to the armed forces:

"In the defence of our sovereignty..., the men and women that have dedicated their lives to safeguard Mexico's seas have never wavered in exerting great efforts...for the battle to death that is waged daily against drug trafficking" (Zedillo, 23 November 1999, in Fondevila and Quintana-Navarrete, 2015, p.8).

Zedillo not only praises the military forces in the former speech, but he also incorporated military staff into his security cabinet. Similarly, during Fox's (2000-2006) administration, military officers were incorporated into the criminal justice system; an example was the Attorney General replaced by General Macedo (Shirk, 2011b).

Fox's presidential administration (2000-2006), from the opposition (PAN), incorporated a wider definition of security threats, as he includes Canada as part of a regional security cooperation; he does not follow the Estrada Doctrine of non-intervention and does not exclusively refer to DT, but defines a more encompassing definition of security issues. Fox incorporates the threats posed by OCGs and terrorism in his speeches to integrate the American post 9/11 concerns into the region's security agenda:

“...We can unite our strengths and succeed in the battle against terrorism, so that we can also achieve our goals in the battle against organised crime, drug trafficking, and ultimately, so we can have a secure NAFTA territory, under the association between these three nations” (Fox, 9 November 2001 in Fondevila and Quintana-Navarrete, 2015, p.9).

This wider definition helps to place the focus of both countries’ security priorities, DT and terrorism respectively, and link them together as part of the security agenda, as Fondevila & Quintana-Navarrete (2015, p.9) explain: “...just as the United States has been attacked by terrorism, Mexico has also endured attacks from drug trafficking”. This attempt was a direct result of the post 9/11 events, which shifted the USA’s security agenda towards the “War on Terror” and thus, less attention was placed on the “War on Drugs”.

Fox not only widens the definition of regional security, but also incorporates the integrity of the democratic institutions and encourages the armed forces to protect democracy by tackling DT:

“In defence of sovereignty, the (armed forces) protect Mexico from threats like drug trafficking and organised crime. These adversaries may weaken our autonomy and undermine our democratic institutions” (Fox, 10 February 2004, in Fondevila and Quintana-Navarrete, 2015, p.9).

Fox’s focus on democracy is a result of his presidential election in 2000, the first president elected from PAN; he expands the national security threat definition by encompassing the “survival” of the democratisation process. Similarly to the second pillar of the Mérida Initiative, Fox highlights the importance to reinforce the government institutions as part of national security.

During Calderón’s administration (2006-2012), the security threat definition posed by DT and overall OCGs, continued to expand; his speeches centred not only on preserving the democratic institutions, but on protecting the State’s legitimacy and society’s wellbeing:

“Mexico faces new enemies, criminals that defy the State, defy its institutions and besiege and damage society; that threaten the nation. In the fight against this scourge, Mexico’s army has been at the frontline” (Calderón, 23 July 2009, in Fondevila and Quintana-Navarrete, 2015, p.10).

Calderón not only highlights the importance of the Mexican institutions as its predecessor, but also emphasises the importance of the damage to society as a threat to the country, running parallel to the fourth pillar of the Mérida Initiative regarding the importance of constructing resilient communities.

Even as we start to identify this subtle emerging trend towards a social approach to tackle the “new enemies”, the traditional security-driven approach remains active. Calderón was one of the first presidents in recent decades to publically associate himself with the military. At the beginning of his presidential term, Calderón addressed the military troops, “I come as the supreme commander to recognise your work, to urge you to go boldly forward, and to tell you that we are with you” (Calderón 2007, in Shirk 2011b, p.1). While addressing this speech, he was not only complimenting the military troops deployed in his home state (Michoacán) to combat DTOs but he also made sure to identify himself with the military by wearing a uniform with the five stars’ emblem of Mexico’s Commander in Chief. Calderón also continued to focus his speeches on the security challenges DTOs (referred to as “the Narco”) posed to the State’s legitimacy, the monopoly of the use of force, and territorial control of the country:

“...These groups are beginning to apply their own law, raising their own taxes and utilising law enforcement” (Calderón, 24 November 2012 in Fondevila and Quintana-Navarrete, 2015, p.10).

“Organised crime seeks territorial control, it will be a war without a military headquarters because there is no possibility to coexist with the narco. There is no turning back; it is them, or us” (Calderón, 27 February 2009 in Benitez Manaut, 2009, p.1).

Organised crime is no longer just a security threat to the country’s territorial integrity, since it also threatens the state’s institutions and society by turning into

parallel power structures that threaten the “community life”, similarly expressed on the fourth pillar of the Mérida Initiative:

“Organised crime is unfolding a strategy of territorial control, that is, showing and marking its presence in growing territories as it is being allowed to advance territorially...It takes control of community life, substituting, replacing and, unfortunately in the worst-case scenario, utilising the legally constituted authority” (Calderón, 1 March 2012, in Fondevila and Quintana-Navarrete, 2015, p.10).

As with Fox’s administration, Calderón considers this territorial security threat is not only directed at Mexico, but at the whole North American region, as OCGs become a regional threat:

“There cannot be full security, neither in (the United States), nor in Canada, nor in Mexico, if we do not implement a system that enables, specifically, co-operation mechanisms to respond to threats that do not acknowledge the existence of borders, to threats that are transnational” (Calderón, 2 April 2012 in Fondevila and Quintana-Navarrete, 2015, p.11).

Calderón continues to widen the definition of regional security, as he shifts the cooperation approach from one of non-intervention with Zedillo’s administration and one of mutual interests during Fox’s administration; towards a shared responsibility with the USA, drawing from the Mérida Initiative (launched on the same year of 2007) and particularly regarding OCG and illegal drugs’ consumption:

“That is why we have insisted that the United States take on greater responsibility in the task of reducing consumption and combatting the crime rings active in its territory and from its territory, as well as in a bilateral co-operation strategy” (Calderón, 10 August 2007 in Fondevila and Quintana-Navarrete’s, 2015, p.10).

Calderón specifically encourages the US to take responsibility as the main illicit drugs market consumer and the main driver of the demand for illegal drugs in Mexico:

“...My government seeks to improve the co-operation between Mexico and the United States, since drugs are not only my problem...the problem is that we are neighbours to the world’s main consumer” (Calderón, 11 February 2008 in Fondevila and Quintana-Navarrete, 2015, p.10).

Calderón brings the focus onto tackling OCGs, particularly DTOs, as a shared binational security threat and urges the American government to intervene by curbing the demand side, in a completely opposite approach to Zedillo’s previous non-intervention position (Estrada Doctrine).

A clear example from Calderón’s approach of cooperation with the USA and the identification of OCGs and DT as a transnational security threat, is the Mérida Initiative.

The quotes reviewed from presidential speeches have shown how the definition of national security threats has evolved during these three presidential administrations. Fondevila & Quintana-Navarrete (2015) conclude that the construction of national security is dependent on the administration’s conception of sovereignty, which they define as what is at risk due to these security threats. The three administrations considered DT and organised crime as national security threats; yet, there were some differences in the vocabulary used and the approach taken regarding cooperation with the United States.

Zedillo emphasised a non-intervention cooperation approach with the US, following the Estrada Doctrine that had led the PRI’s foreign policy for over 70 years. Zedillo’s administration considered an American intervention as a larger threat to the country’s sovereignty than DT or OCGs, as he perceived the threat of organised crime only within its territorial borders. Subsequently, the concept of an ‘American threat’ radically changed with Fox’s administration. Fox’s administration considered OCGs as the largest national and regional threat, particularly to the democratisation process that had erupted with his presidential election (a process he strived to protect). By Calderón’s administration, an American intervention did not represent a threat anymore, as his administration urged the USA to share the responsibility of the main transnational security threat, OCGs, and blamed the role of the American demand on

DV in Mexico. During Calderón's administration OCGs became not only a territorial risk, but a threat to the State's legitimacy, its institutions, and the Mexican society, given place to the new emerging policy shift with a social approach alongside the primary security-driven traditional one. The latter resulting in the highest militarisation peak occurred during Calderón's administration; yet, also in the closest cooperation between the USA and Mexico to tackle DT reflected in the Mérida Initiative. Calderón's government started to change the focus towards the threat OCGs pose towards society's wellbeing and community life and towards the state's institutions, legitimacy and monopoly use of force.

This section not only illustrated the difference in the construction of DV and DT as security threats during the four most recent presidential administrations; but, the presidential discourses also evidenced the continuous traditional security-driven drug policy that has historically characterised the Mexican governments in recent history, as well as a brief introduction into the emerging new policy shift towards the integration of a social approach into drug policy (explained at a later section).

As the historical setting of drug policy in the country has been described, we will continue to set out the contours of the emerging policy shift given the inefficiency of the traditional security approach explored in the following section.

### [The Mexican government's failed drug enforcement strategies](#)

As the evolution of the Mexican drug policy and the construction of drug policy frameworks have been examined, the objective of the following sections is to demonstrate the ineffectiveness of the traditional approach based on security to tackle DV. The focus will be placed on the government's security-driven strategies, the militarisation and the DTO's leadership removal, and its detrimental effects, the fractionalisation of DTOs and persistent high DV levels. Analysing the effects of this security-driven approach will allow us to understand the context in which the policy shift has begun to incorporate anti-poverty measures due to the unsuccessfulness of the traditional approach.

According to Campbell & Hansen (2013), former President Calderón launched a military campaign against DTOs as a result of three national issues: the increasing levels of insecurity in the country; a lack of legitimisation of him as a President, in relation to its presidential contestant (Isaacson et al.2011); and the escalating power of DTOs (Grillo, 2011). Calderón's drug enforcement strategy in Mexico rested in four pillars (Shirk, 2011b, p.2):

- 1) Direct participation of the military force and federal police officers, in order to target DTOs and remove their leadership structures.
- 2) Long-standing reforms of the law enforcement institutions, with a special emphasis on curbing corruption within them.
- 3) Judicial restructuring aimed at improving the transparency and effectiveness of criminal proceedings.
- 4) Binational cooperation with the USA, particularly operational intelligence sharing and prosecution of DTO members.

In this section we will focus on the first three pillars of the government's strategy and the fourth pillar will be examined in the policy shift section.

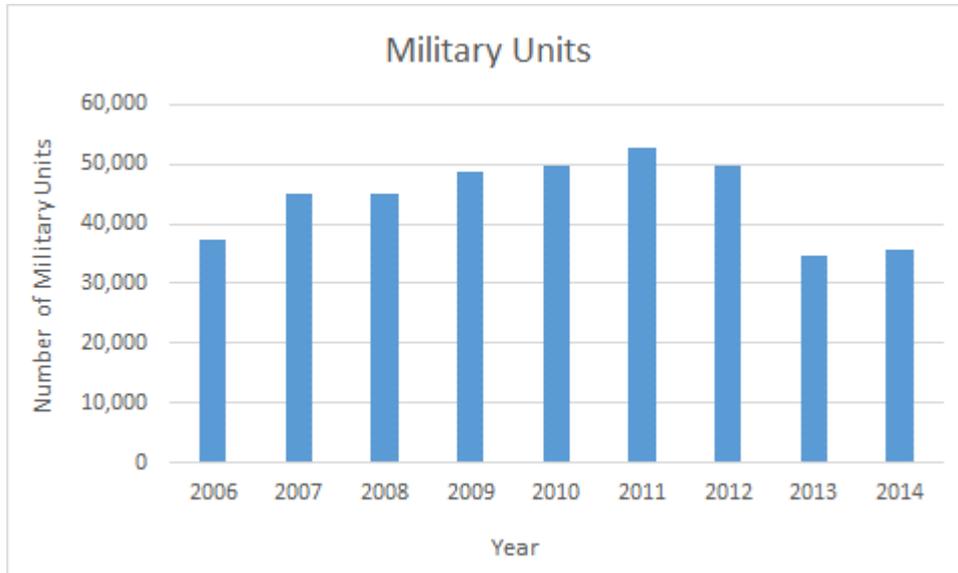
Military operations in the country did not start with Calderón's term. DV started to escalate after former President Fox took office in 2000; thus, Operation Safe Mexico was launched in 2005, sending federal police and military troops into Nuevo Laredo to remove more than 700 corrupted municipality police officers (Freeman 2006; Manaut 2009).

In 2006, the exceptional levels of DV intensified when President Calderón decided to launch a military campaign against DTOs, following his administration's main priority of security (Shirk 2011b; Reuter, 2009). Consequently, the military's budget and its size were enlarged, the military budget increased by 24% and more than 45,000 military troops were deployed in the most drug-violent states and cities throughout Calderón's administration (Guerrero-Gutierrez 2011; Shirk 2011b).

According to Perez Correa et al. (2015), drawing from information obtained from the Secretariat of National Defence (SEDENA), the following graphs 2.1 and 2.2 show the

number of military units and the total amount of drug-related operations, from 2006 to 2014.

Graph 2.1: Military units from 2006 to 2014

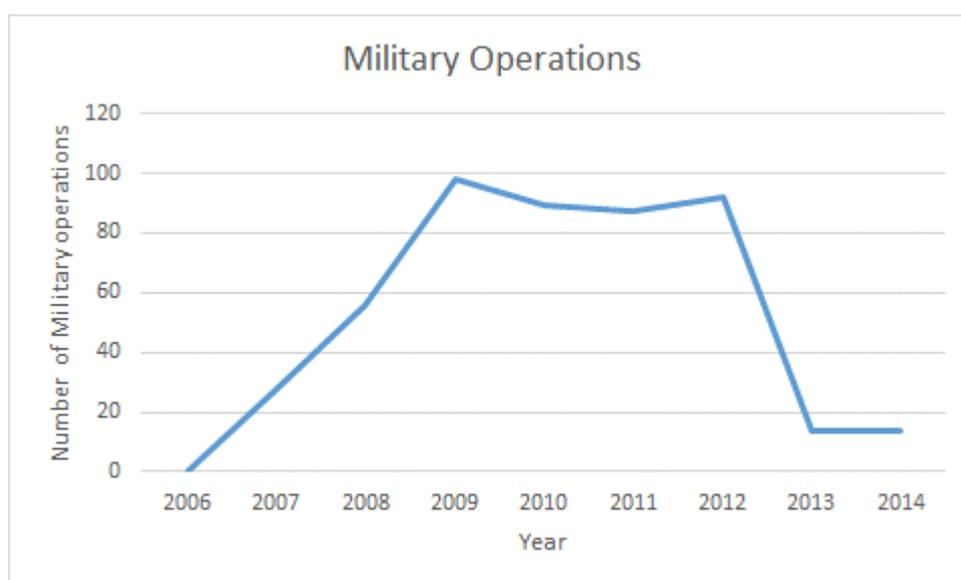


Source: Own elaboration based on data from Perez Correa et al. (2015).

As graph 2.1 shows, the number of military units increased from 2006 to 2011, when it reached its peak, with 52,690 units. Since 2013, there has been a decline; yet, the number of units has remained stable for 2013 and 2014 with an average of 35,000 units, showing a significant reliance on the military to combat DT, similar to the number deployed in 2006 (Perez Correa et al, 2015). This high number of military units shows how Peña Nieto has not followed up on his promise of demilitarising drug enforcement and continues to follow a security-driven policy strategy (Campbell & Hansen, 2013).

Between 2006-2015, the states that had military operations implemented include: Baja California Norte; Tamaulipas; Nuevo León; Coahuila; Chihuahua; Sonora; Sinaloa; Jalisco; Guerrero; Michoacán; Durango; Veracruz; and Estado de Mexico (Escalante 2011; Milenio in InSight Crime 2013; Molzhan et al. 2012). The following graph 2.2 shows the number of military operations from 2006 to 2014:

Graph 2.2: Military Operations from 2006 to 2014



Source: Own elaboration based on data from Perez Correa et al. (2015).

Graph 2.2 shows that the largest number of military interventions occurred during the year of 2009, with 98 operations. From then onwards, there was a slight decrease in the number of operations down to 89 and 87, for the years 2010 and 2011 respectively; with the following year of 2012 increasing the number back up to 95. Since 2013 and 2014, the number of military interventions has decreased with Peña Nieto's administration, down to 14 operations. According to Perez Correa et al. (2015), this significant decrease could possibly be explained as a result of a change in definition of what military intervention entails, confirmed by how the number of military units remains similar to the number in 2006; military operations continue to be deployed in the most drug violent regions and the military continues to be the main enforcer of drug policies.

Shirk (2011b) argues that the decision of the Mexican government to employ the military for their main drug enforcement strategy rests on the weaknesses of the police force, pervaded by corruption; it suffers from a lack of resources and issues of institutional design. An example of the police force's insufficiencies relies on how the majority of the police force, 75%, did not have any investigative training even though they were mainly employed in crime prevention activities (Shirk, 2011b).

The main objective of Calderón's militarisation strategy consisted in cracking down on the most powerful DTOs by targeting their leaders, known as the "kingpin strategy" (Althaus, 2013, n.a.), and "leadership removal" defined as, "...an instance in which a high-ranking DTO member lost his position in the group due to actions by government security forces...either by being killed or captured" (Dickenson, 2014, p.661). The government's assumption is that removing the DTOs' leadership would result in their weakening; yet, as these DTO leaders are removed or taken down by the military, a vacuum of power arises, and the leaders next in line fight to fill the vacuum, resulting in an escalation of DV reflected through DH (Guerrero-Gutierrez, 2011). In other cases, it is an existent or even a new DTO who takes over this power vacuum opportunity.

The process of the main DTOs dividing into new OCGs is called the fractionalisation of the DTOs. The aforesaid process can result from the government's leadership removal strategy and/or internal DTO differences between its leadership (Rios 2013; Guerrero-Gutierrez, 2011). The new emerging smaller DTOs, resulting from this fractionalisation process, are less structured and more a militant-type of organisation; they compete for territory, not only with the authorities, but internally (for leadership) and with other DTOs. As this increased militarisation strategy developed, the old and new DTOs obtained heavier arms to be able to match those of the Mexican army and their competitors (Guerrero-Gutierrez 2011; Werb et al 2011); this resulted in an 'arms race' between the two sides. The leadership removal and the emergence of new DTOs destabilised and challenged the existent cease-fire agreements and resulted in higher levels of DV (Bull 2011; Dickenson 2014; Phillips 2015).

The intensity of the 'arms race' displayed by both the Mexican government and the DTOs can be observed in monetary terms, \$1.5 billion USD worth of weapons have been purchased by the Mexican government from the American administration (Partlow, 2015) and an additional \$2 billion USD from private American companies (Partlow, 2015). These figures represent "...a 100-fold increase from prior years", according to Admiral Gortney (in Partlow, 2015, n.a.). Moreover, the Mexican government's military spending has increased by threefold, since 2006 to 2015, from

\$2.6 to \$7.9 billion USD. The increase in military spending, and the large numbers of military operations and units deployed, show how there is a persistent security-driven approach to drug enforcement, during the previous and with the current presidential administrations.

### The adverse effects of the militarisation of drug enforcement strategy

Analysing the adverse effects of the traditional approach to DV based on security help to illustrate not only its ineffectiveness, but also the context and the justification for this growing policy shift.

Studies have been conducted to statistically analyse the relationship between drug law enforcement and DV levels. Werb et al.'s (2011) systematic review analysed 15 (11 longitudinal quantitative, 2 mathematical models of illegal drugs market dynamics and 2 qualitative studies) scientific papers to examine the effect of drug enforcement on DV. Their study concluded that 93% of these studies showed a positive relationship between DV and drug enforcement measures. The authors explained their results:

“...Increasing drug law enforcement is unlikely to reduce drug market violence. Instead, the existing evidence base suggests that gun violence and high homicide rates may be an inevitable consequence of drug prohibition and that disrupting drug markets can paradoxically increase violence” (Werb et al., 2011, p.1).

The longitudinal empirical studies used measures of law enforcement (drug arrests as a proportion of total arrests, drug seizures, number of police officers and their expenditure) as the dependent variable and violent crime (DV rates) as the independent variable. From the latter studies, 91 per cent indicated a significant positive link between DV and drug enforcement measures (Werb et al., 2011). The systematic review conducted by Werb et al. (2011) concluded that the enlargement of drug enforcement is unlikely to reduce DV, as their results showed that it actually contributed to an upsurge in gun violence, and even higher homicide tolls. For the case of Mexico, Werb et al. (2011, p.92) argue that “...the recent outbreak of violence in Mexico, where there is widespread agreement that law enforcement efforts

sparked drug market clashes, but this has not been evaluated in a scientific study". With this claim, the authors recognise the limitations of their study towards the particular Mexican case.

One of the latest studies is Espinosa and Rubin's (2015), which used Rubin's causal model to analyse the relationship between military interventions and homicide rates in Mexico. They considered two possible results for each region they examined, under military intervention (treatment group) and without (control group), within the period from 2007 to 2010. They defined their regions as a group of municipalities within the same state, as they considered the effect military interventions can have, not only on the specific municipalities targeted but also on its surrounding municipalities. In order to compare these units of analysis, they defined regions of non-military intervened municipalities that were similar in certain characteristics (demographics, location, education, economics, health, politics and infrastructure) to the regions that did account for military operations; they grouped them into 18 regions (including 248 municipalities, 10% of the country's total). Espinosa and Rubin's (2015) study revealed that military interventions had a positive effect on homicide rates, with only two exceptions to this trend. The overall trend showed that the majority of the regions that have had military interventions displayed a higher rate of homicides the following year, indicating how this drug enforcement strategy is not successful at diminishing DV levels in the short term and could have raised the need for a policy shift. Nevertheless, Espinosa and Rubin (2015) recognise several limitations of their research, such as: a lack of consideration of the DTOs' information within the regions and their effects; an absence of a complete list of military interventions, undisclosed (by the government) due to security reasons; and the lack of information regarding the long term, as it only considered the one-year post-intervention period. Espinosa and Rubin explain the latter short versus long –term impact:

"It would not be surprising if, initially, a military intervention upset the local balance in power between cartels and local police -which is particularly relevant if these bodies were infiltrated by organized crime- thereby

increasing the violence in the short term, but that military presence also decreased homicide rates in the long term” (2015, p.26).

Espinosa and Rubin (2015) argue that the military interventions are one of the factors for the increase in DV levels in the short-term but not necessarily in the long term; they recognised the weakness of their statistics due to the unavailability of the databases (PR 2011 and PGR 2012).

Merino (2011) arrived at a similar conclusion to Espinosa and Rubin’s (2015) study regarding the relationship between homicide rates and military interventions but did not use the same analysis. Merino (2011) based his statistical analysis on propensity score matching to estimate the effect of the military interventions in relation to homicide rates for both the year of study before and after the military operation. Merino (2011) concluded that the states targeted by military interventions increased their homicide rates dramatically, such as: Sinaloa, Nuevo León, Durango, Chihuahua and Tamaulipas (intervened in 2008); Baja California Norte and Guerrero (deployed in 2007); and Michoacán (implemented in 2006).

Escalante (2011) also obtained a similar result from Merino (2011) and Espinosa and Rubin’s (2015) research, as he analysed the difference between the states that have had military interventions compared with the rest of the country. His study (2011) recognises that the intervened states were the most drug violent at the time of the military interventions, which would make them more likely to remain as such. Escalante’s (2011) results were based on a control group, which makes it difficult to disaggregate if the increase of DH was either a direct result of these military interventions, the already existent levels of DV, or a combination of both. Nevertheless, Escalante’s (2015) analysis showed the increase in homicides by 2008 was much larger after the military operations. Not only was it higher than the rest of the country’s homicide rate (which remained fairly similar), but it reached an historical peak of almost double the total for the most violent period during the last 26 years. Another aspect to consider for Escalante’s (2011) study was that it used information from sources like INEGI, which do not account for specific DH (explained in chapter I). It is relevant to consider that Merino’s (2011) research did tackle both issues present in Escalante’s (2011) analysis, as he used the statistical analysis of

propensity score matching and two different sources of data: the INEGI that classifies all types of homicides and the SNSP, which allegedly accounts for DH since Peña Nieto's administration.

The particular weakness of the aforementioned studies is that these mainly account for the short term effects of the militarisation strategy. In order to tackle this weakness regarding the short term impact, we also examine studies with a long term effect criterion.

A statistically significant study is Dickenson's (2014), which analysed the results of the "leadership removal" strategy. His study (2014) focused on the relationship between DH and, the main DTOs' leadership removals in their home states. Dickenson's (2014) analysis uses a time-series cross-sectional negative binomial modelling on a state-level, from the period 2006 to 2010, which accounts for 25 DTO leaders' removals (imprisoned or killed). According to Dickenson's (2014) results, the leadership removal strategy resulted in an increase of DH; the latter result intensifies when these leaders are executed, instead of captured, as there is a power vacuum that provokes internal conflict within the DTO, and invites market competition with other DTOs (Dickenson, 2014). Dickenson (2014) concluded that DH increased in the home state, rather than the state where the leader was removed, and there were 415 more DH as a result of this leadership removal strategy. This increase in DV levels in the DTO's leader's home state allegedly indicates it mainly derives from the DTOs' successional internal conflicts for leadership; not as a direct result of retaliation towards the authorities. If the latter were the case, the author (2014) argues DV would be targeted towards the state where the leader was captured, instead of his home state. Following either reason, Dickenson (2014) clarifies that these results show that DH have not decreased; instead, they have actually increased, particularly in the DTO leader's home state. The author (2014) clarifies that this strategy cannot solely account for the DV levels in the country, as there are other influencing factors. Nonetheless, Dickenson (2014, p.672) concludes that "...leadership targeting as it was conducted under President Calderón will not help to reduce violence".

Phillips (2015) used a time-series cross-sectional negative binomial regression analysis, similar to Dickenson's (2014), to analyse the relationship between

“leadership decapitation” and DH. The author (2015) focused his empirical analysis for the period between 2006 and 2012 and found 54 arrests and 9 executions of DTO leaders during the period studied. Phillips’ study (2015) concluded that DV decreases in the short-term (3-6 months) only if the DTOs’ leaders are arrested, and not killed. The latter result, Phillips (2015) argues, is because incarcerated DTO leaders continue to direct their criminal activity from prison, which disrupts its operations but does not fully open a competition for the leadership position; this reduces DV in the short term. This study (2015) is interesting as it contradicts the previous research reviewed by showing a difference to the outcome depending on whether the DTO leader is arrested or killed. Additionally, Phillips (2015) argues that another effect that reduces DV in the short-term is targeting a mid-level leader within the DTO, as opposed to the main one, as this position is the one that entails all the day-to-day handling of the DTO. Contrary to these short term results, Phillips (2015) also agrees that in the long term, the leadership removal strategy actually manages to retain or increase DV levels, as new leaders and DTOs emerge and fight over territory and market competition.

Phillips (2015, p.334) concludes, “Leadership decapitation does not seem to be a fruitful solution for long-term reductions in violence. Alternative solutions include addressing supply or demand issues, increasing opportunities for people likely to join criminal groups, and improving judicial institutions”. The focus of Phillips (2015) on increasing opportunities for individuals joining DTOs highlights the social dimensions of DV, strictly related to our research questions and topic and brings into focus one of the dimensions this research will consider, inequality (chapter IV).

The impacts of the militarisation strategy and leadership removal in the short and long-term lead to similar results in the studies reviewed. Merino (2011), Escalante (2011) and Espinosa and Rubin (2015) argued that it resulted in an increase in DV levels in the short term, as the period of time was a limitation of their research, whilst Dickenson (2014) also claimed it resulted in higher levels of DV, for both the short and long term. Phillips (2015) disputed that DV levels actually decrease in the short-term only if the leader is captured or a mid-lever manager targeted. Nevertheless, Phillips (2015) did agree with Dickenson (2014) that in the long-term DV levels were

maintained or increased following leadership removal. The different results achieved from the leadership removal strategy, for both the short and long term, are explained according to the nature of the DTOs: "...incentives explain shorter-term effects, while market forces can explain longer-term consequences" (Phillips 2015, p.327). The DTO offers material incentives (financial) for its members so if its activities are disrupted by a leadership removal, then DV levels are reduced in the short-term. However, the DTOs' criminal activity is defined by the illegal market forces, and as a result, as long as there is a demand for illegal drugs, there would be a supply for it; new leaders and different DTOs would emerge and replace the weakened ones, increasing or maintaining the levels of DV in the long-term (Phillips, 2015). This replacement of DTOs by new emerging ones will be explained in the next subsection.

This section explored in detail the ineffectiveness of the security-driven drug enforcement approach by examining studies that conclude on the unsuccessfulness of this strategy in both the short and long terms. Within this context, it is possible the Mexican government has started a different strategy to integrate into its drug policy.

#### [The fractionalisation and landscape of the DTOs](#)

The government's militarisation approach has not only resulted in higher DV levels; it has managed to scatter DV across the country due to the resulting fractionalisation of the DTOs. This fractionalisation process has actually resulted in further competition inter- and intra- DTOs, whose members struggle to fill in the power vacuum left by either the removed leader of the same DTO or from a competing OCG (Grayson 2010; Shirk 2011b).

Rios (2013) claims this dissemination effect of DV across the country is a result of drug enforcement policies, as many of the Mexican states and cities have had sudden outbursts of DV and have later managed to return to their 'normal' levels (Ex: Tijuana). However, other states such as Sinaloa, Chihuahua and Guerrero are characterised by persistent levels of DV. Grayson also questions the "success" of the government's drug policies as he argues that their security-focused approach has only managed to spread DV across the country:

“While he (Calderón) has undoubtedly eradicated parts of a malignant growth, he has inadvertently triggered the displacement and mitosis of lethal narco-cells throughout the Mexican state. Outbreaks of bloodshed inevitably have erupted when surviving lieutenants competed with each other to succeed any fallen capo, and just as often a rival cartel moved in to fill a power vacuum in the aftermath of ‘successful’ government initiatives” (2010, p.251).

Rios further analyses how the government’s drug enforcement efforts lead to what she refers to as a “self-reinforcing violent equilibrium” (2013, p.138), explained as a progressive cycle that results from two factors, the DV perpetrated between DTOs in the form of turf wars, related to the market and territorial competition, and the fatalities and apprehensions caused by the drug enforcement strategies against these drug traffickers. This cycle follows this logic, as clashes (turf wars) between the DTOs worsen, producing more DV in the form of drug homicides, the Mexican authorities have greater incentives to try to impeach drug traffickers, as there is more pressure from the general public to do so. As the government directs military interventions and police reinforcements into the places affected with DV to contain this violence, clashes between the DTOs and the authorities erupt, leading into further DV. The increased military presence facilitates the number of captures of DTO leaders, as part of the leadership removal strategy; this in turn leaves a power vacuum within the affected OCG, and as there are no formal succession rules within these illegal organisations, internal battles erupt with the aim of filling the new leadership position (Rios, 2013). These internal battles within the DTOs are referred to by Reuter (2009, p.277) as “successional violence”.

The loss of a DTO leader represents a great loss for the OCG business, as there is difficulty in recreating his expertise and network of contacts to continue with the illicit trade, as Rios elaborates, “contract enforcement is achieved through informal mechanisms, personal relationships play a central role in establishing and maintaining trust between trade partners” (2013, p.144).

Reuter (2009) and Freeman (2006) also argue that the government’s security strategy has failed to address DV in the country, as Reuter claims: “...the crackdown itself is probably one the principal causes of the upsurge of violence” (2009, p.283). Freeman

agrees (2006, p.20) that "...aggressive drug enforcement might actually increase drug-related violence". Reuter (2009) and Friman (2009) claim that DV is only likely to decrease once the illegal drugs market has been consolidated; however, as the security driven approach continues alongside the emerging policy shift, the fractionalisation process will persist, which makes it difficult for the existing and emerging DTOs to consolidate the illegal drugs market.

It is not only the scholarly literature which refers to the vacuums of power left by leadership removal strategies; Peña Nieto (2012-2018) stresses the "power voids" originating from Calderón's "frontal assault" on the Mexican DTOs as an influencing factor for the current levels of DV (in Althaus, 2013, n.a.). Mexico's former Attorney General, Karam (2012-February 2015), also criticised the former President's kingpin removal strategy as "disproportionate and inefficient", as once the DTOs leaders were removed, their lieutenants "who were typically more violent" took over the leadership vacuum and resorted to other forms of crimes (extortion and kidnapping) to obtain revenues (in Corcoran, 2012b, n.a.). Notwithstanding these references, the current administration continues with a security-and-military driven approach on DV and the social focus has only started to be incorporated into drug policy-making.

The fractionalisation process could be illustrated using Hydra's mythological analogy. Hydra was an ancient Greek mythical legend with nine heads; every time one of these heads got beheaded, two new heads would grow to replace it. In the Mexican DTOs' case, by cracking down (beheading) one OCG, it only results in new DTOs taking over the power vacuum and then, once these are weakened, they multiply, and the process carries on resulting in a larger number of competing DTOs. The aforementioned competition generates higher levels of DV, as the turf wars intensify between the new and existing Mexican DTOs (Guerrero-Gutierrez, 2011). This DTOs' competition is heightened when there is internal conflict within the DTOs and when new DTOs arise, aiming to conquer the competing territory. As Rios (2013, p.139) argues: "Turf wars emerge when monopolistic control of territories by drug trafficking organisations is broken, when territories become competitive and traffickers fight for them".

In order to understand how the fractionalisation process has been developing, Table 2.3 shows the evolution of the number of DTOs in Mexico, from 2006 to 2012, following Guerrero-Gutierrez's (2011; 2013), Morton's (2012) and Beittel's (2013) analysis.

Table 2.3: The fractionalisation of the main DTOs in Mexico 2006-2012

The fractionalisation of the Mexican DTOs 2006-2010				
2006	2007-2009	2010	2011	2012
Sinaloa	Sinaloa	Sinaloa	Sinaloa	Sinaloa
	Beltran Leyva	Pacífico Sur	Pacífico Sur	Pacífico Sur
			La Mano con Ojos	
			La Nueva Administración	
Gulf	Gulf and Zetas	Gulf Zetas	Gulf Zetas	Gulf Zetas
Tijuana/Arellano Felix	Tijuana	Tijuana	Tijuana	Tijuana
	Faccion del Teo	Faccion del Teo		
Milenio	Milenio	La Resistencia	La Resistencia	Jalisco-New Generation
		Jalisco-New Generation	Jalisco-New Generation	
		Nueva Federacion para Vivir Mejor	Nueva Federacion para Vivir Mejor	
La Familia Michoacana	La Familia Michoacana	La Familia Michoacana	La Familia Michoacana	La Familia Michoacana
			Knights templar	Knights Templar
			La Empresa	
			Los Incorregibles	
Juarez/Vicente Carrillo Fuentes	Juarez	Juarez	Juarez	New Juarez
<b>Number: 6 DTOs</b>	<b>8 DTOs</b>	<b>12 DTOs</b>	<b>17 DTOs</b>	<b>9 DTOs</b>

Own elaboration, based on data from Guerrero-Gutierrez (2011; 2013); Morton (2012); Beittel (2013).

Table 2.3 shows how in 2006 there were 6 main DTOs operating in Mexico. From 2007 to 2009, new DTOs were formed from the Sinaloa, Gulf and Tijuana OCGs, which included the Zetas, Beltran Leyva and the Familia Michoacana DTOs. It was in the years 2010 and 2011 that this fractionalisation process further intensified, as 4 and 5 new DTOs, respectively, resulted from the division of the main DTOs; consequently, a total of 17 DTOs were operating in the country in 2011. By 2012, Mexico's former Attorney General, Karam, claimed there was an estimated 80 Mexican DTOs operating in the country (in Corcoran, 2012). If in 2006 there were only six major DTOs and, by 2012, there were an estimate of either nine DTOs (Table 2.3) or 80 (Karam, in Corcoran 2012), this persistently increasing number of DTOs clearly shows how the Mexican government's drug policies have failed to effectively address DV levels in the country and could explain why the new policy shift is emerging.

The latest information regarding the number of DTOs in Mexico also varies according to the source. The first source is the national newspaper *El Universal*, that claims it

obtained information from the PGR and the USA Department of Justice; it argues there are 9 main DTOs active in the country that include the Sinaloa, Beltran Leyva, Gulf, Zetas, Tijuana, Jalisco New Generation, Familia Michoacana, Knights Templar, and Juárez DTOs. The official source, the Mexican Criminal Investigation Agency, claims that there only remain two allegedly main DTOs in the country, the Jalisco New Generation and the Sinaloa DTO assuming the presence of only three main DTO leaders, two from the Sinaloa OCG and, one from the Jalisco New Generation (Zeron in Lohmuller, 2015). The official source seems less reliable as it is only based on one government institution, contrary to the first source that is also supported by the USA Department of Justice; in 2015, DV levels escalated in regions of the country (Nuevo León and Tamaulipas) where neither the Sinaloa nor the Jalisco New Generation DTOs have a strong presence, but are considered contested territory between the Zetas and Gulf DTOs (Lohmuller, 2015).

It is relevant for this research to consider the official source, as it shows that the current administration evaluates their security-driven drug policy as successful, by allegedly claiming there has been a reduction in the number of DTOs, yet have still started to incorporate antipoverty measures into their drug policy framework as an emerging policy shift. However, "...Zeron's claim that only two cartels remain risks oversimplifying and minimizing the nature of the threat still present in Mexico" (Lohmuller, 2015, n.a.). The minimising of the security threat regarding the number of DTOs has been downplayed by the current administration since 2012, and has provided unclear data regarding DH in the country (Hope, 2014; InSight Crime 2013). There is one matter on which both sources agree: the most powerful DTOs in 2015 are the Sinaloa and the Jalisco New Generation OCGs.

Other sources agree there have been an increase in the number of DTOs, particularly DTO cells, with an additional 45 operating OCGs working for these main DTOs. These newer DTOs cells rely on the "...buy into another gang's smuggling network in order to ship drugs northward" (Corcoran, 2012b, p.1) and obtaining revenues by abusing the local citizens. As the DTO cells lack the networks to be able to rely on DT, they have diversified their criminal activities to include kidnapping, human trafficking, extortion, money laundering, local drug selling, arms trading, petrol theft, pirate

merchandising, cars and bank theft (Gomora et al., 2015; Pachico, 2015). These criminal activities not only increase DV levels and crimes in the country, but generate further sources of income for these OCGs to subsist, and inflict a larger cost on society.

Not only have drug enforcement strategies resulted in a larger number of DTOs and higher levels of DV, but they have increased the illegal drugs retail prices (Toro, 1998). According to the UN Drug World Report (2012), it costs around \$2,400 USD to manufacture a kilogram of cocaine in Colombia. This price translates into \$33,300 USD when it is sold wholesale and an estimated \$120,000 USD retail price on the American market (UN Drug World Report, 2012). This original price for a kilogram of cocaine increases by fifty-fold, representing huge profits for the Mexican DTOs in the American market. As Kleiman (2011, p.89) explains the impact of the American demand, “most of the illicit drugs consumed in the United States come through or from Mexico, and virtually all the revenue of Mexican drug-trafficking organizations comes from sales to the United States”. Shirk argues that the extensive size of the American illegal drugs market and the “inflationary effect of prohibition” on the drugs retail prices, provides the Mexican DTOs with substantial revenues of an estimated \$6-7 billion USD yearly; 70 per cent of these profits come from the hard drugs, such as heroin, cocaine, and methamphetamines (2011, p.13).

The current economic power of DTOs in Mexico is significant, as their profits are estimated to account for \$25-35 billion USD annually, approximately 4% of the country's GDP (Farah 2010 and Tammaro 2010, in Schatz 2011). O'Neal (2009) estimates revenues of \$15-25 billion USD; another study suggests a more conservative estimation of \$6.2-7.1 billion USD annually (Campbell & Hansen 2013; Shirk 2011b). The large economic power acquired by the Mexican DTOs is not only a result of the displacement of Colombia from the illegal drug market, since the PRI's presidential rule of the country for 71 years also facilitated this empowerment. These OCGs grew stronger during the PRI's rule due to the combination of the high corruption levels permeating the government and their increasing economic profits, which served to purchase their protection (Grillo, 2011; Grayson 2010).

The Mexican political institutions are not only characterised by high levels of corruption, weakness and lack of institutional capacity also characterise the Mexican judiciary system (Schatz, 2011). It is estimated that the Mexican administration of justice system only prosecutes and imprisons 2% of all the crimes committed in the country (Carlsen, 2012). As Krauze argues: “The lack of rule of law, the stain of corruption and the disaster of the criminal system in Mexico is probably Mexico’s No. 1 problem” (in Neuman & Ahmed, 2015).

According to Mexico Evalúa (2012), the impunity percentage level across the country was 80% in 2010. This number is only worsened by the result showed in victimisation surveys which suggest that only 25%, or less, of all crimes in the country are even reported, due to the Mexican citizen’s distrust in the authorities, particularly the local police. Only one in every five reported crimes are investigated (Ingram & Shirk, 2010). Shirk (2011b) claims a similar 75% of all crimes go unreported, reflecting a lack of the citizen’s confidence in the Mexican justice institutions. As Ingram & Shirk (2010, p.208) properly conclude using these estimates, “For the victims of crimes in Mexico, there is rarely any justice”. The citizen’s lack of trust in the local police derives from the corruption that has characterised them, attributed to their low wages (Stanford Crime and Violence Research Collaboratory, 2011). The corrupt police officials across the Mexican states represent the inability of local governments to control DV in their states and municipalities; this then hinders the capacity of the Mexican federal state to subdue DV across the country. In order to avoid this corruption of police forces, some Mexican states have already implemented a unified state police, such as Nuevo Leon with its Fuerza Civil (one of our interviewees) examined in Chapter V as part of this research’s case study.

Shirk calculates that at least half of the homicides in the country are related to DT (2010). On the national level, as organised crime is considered a federal crime, federal courts prosecute offences related to DT, drug possession, money laundering, firearms possession and kidnapping under the ‘crimes against health’ category (Schatz, 2011). Federal courts have no better rate than state courts; between 2006 and 2010, they only issued an average of 100 prison sentences for all the organised crime categories (Schatz, 2011).

The judiciary system is not only weak due to its courts and enforcers; its penitentiary system is also fragile. Thoumi (2009) assures that the illegal drugs market thrives because the conditions that sustain it have not been addressed, which are linked to governance and the rule of law. The weak status of the rule of law in Mexico is not only retained by its enforcers, but by the penitentiary system itself. Prisons in Mexico fail to reinstate criminals into society and end up serving more as recruiting centres for DTOs members (García de la Garza, 2012). Olson from Woodrow Wilson International Centre points out about the government's strategy:

“The strategy has been to arrest a lot of people, but when you warehouse prisoners in prisons that are overcrowded and poorly managed, you are likely to have this kind of warfare break out inside prisons” (in García de la Garza, 2012, n.a.).

The poor management and corruption permeating the Mexican prisons can be observed in recent riots and escapes which occurred, with the help of prison officials, in Tamaulipas, Durango, Reynosa and Nuevo Leon (García de la Garza, 2012). This research conducted participant observation in two state prisons of Nuevo Leon (Topo Chico and Apodaca); it was pointed out that the security checks had ‘increased’, but the prison population remained affected by this event as it resulted in prisoners’ deaths. Notwithstanding these ‘security checks’, this incident repeated itself recently, in February 2016 when over 50 inmates were killed during a riot inside the prison of Topo Chico (Gagne, 2016), where participant observation was also conducted as part of this study’s field research and will be explored in Chapter V. These aforementioned numerous violent riots have resulted in several deaths and are only another example of the high levels of corruption and impunity in the country. Another example of the corruption and mismanagement of the Mexican penitentiary system was the escape from prison by the top DTO leader in Mexico of the Sinaloa OCG, Guzman Loera, “El Chapo”, from Mexico’s allegedly highest security prison in July 2015 (Neuman & Ahmed, 2015); he was, recently, recaptured again in 2016.

This section has analysed the adverse effects of the security driven approach followed by the Mexican government to address DV, which has resulted in: an arms

race between the authorities and the DTOs, the self-reinforcing violent equilibrium vicious cycle; a greater competition inter and intra DTOs for territory and a share of the illegal drugs market; an increase in the drug retail prices, making it more profitable for the DTOs; and the fractionalisation of the DTOs, as a consequence of the leadership removal strategy. Additionally, this fractionalisation process has caused the dissemination of DV across the country, since as the criminal landscape continues to change and the number of criminal organisations increases, they resort to the diversification of their activities, resulting in the increase of the drug victimisation rate. Not only does corruption have an impact on the Mexican political apparatus, but the lack of institutional capacity of its judiciary system alongside the poor conditions of its prison system have not contributed to the effectiveness of drug enforcement strategies.

All of these damaging effects explored in this section help to show how the government has failed to address DV in the country effectively. Given the ineffectiveness of the traditional security-driven approach, the government has only recently started to incorporate anti-poverty measures to reduce drug violence- explored in detail in the following chapters- and leads into the discussion for this emerging policy shift with a growing focus on social issues to be explored in the subsequent section.

#### [The emerging drug policy shift](#)

It is important to highlight how the fourth pillar of the Mérida Initiative provided the platform for social policy to be mobilised in the drug policy framework during Calderón's term resulting in an emerging policy shift, evolving from a security-based strategy (pillars I, II and III) towards a preventative approach (pillar IV). The first three pillars have been examined in this chapter, this section will focus on the fourth pillar, whose objective is to,

“Address the social and economic factors contributing to violence and build strong and resilient communities: fortify civil society through social programmes, targeting employment and education” (Shirk,2011b, p.18).

The fourth pillar follows a social preventative approach by focusing on the underlying social drivers of Mexico's DV, the social and economic factors that influence the levels of DV and are not encompassed as part of the traditional security-driven approach. The focus of the fourth pillar socioeconomic initiatives were directed towards three of the most drug violent cities in the country at the time, Juárez, Monterrey (our case study) and Tijuana. These initiatives integrated drug violence-reduction programmes designed with the collaboration of civil society in order to empower their representatives, local leaders and the private sector with the purpose to improve public infrastructure and public spaces, the supply of jobs and the reduction of the demand for illicit drugs (Olson and Wilson, 2010; Seelke and Finklea, 2017).

The first local initiative that marked the emerging policy shift ever implemented in the country was Todos Somos Juárez (TSJ), implemented in Ciudad Juárez (Chihuahua) on the same year (2010) the second phase of the Mérida Initiative-Beyond Mérida- was unravelled. The objective of the programme was to finance projects that would make communities more resilient to violent crime (International Crisis Group: ICG, 2015) and the official aim of TSJ was to tackle the "vicious circle of violence" (PR, 2010b). Thus, Juárez became the first development package of its kind, in the country, that attempted to reduce DV levels.

The official understanding of the "vicious circle of violence" (PR, 2010b) was operationalised as a cycle of insecurity (DV and DT), related to lack of social opportunities (poverty and inequality), weak social ties (lack of trust and civic participation) and antisocial behaviour (youth, gangs and drugs). The specifics of this operationalisation is explored on chapter VI, yet this brief description serves as evidence of the new policy shift emerging in drug policy in the country. The consideration of the lack of socioeconomic opportunities is significant for this study as it addresses our research questions regarding the relationship between poverty, inequality and DV in Mexico and illustrates the implications this understanding has for government policy.

Former President Calderón explains the objective of the TSJ as follows,

“...We launched an ambitious program to rebuild the social fabric, and we called it “Todos Somos Juárez” (TSJ) or “We are all Juárez”. This program aims to solve the social roots of insecurity, and has three main characteristics: community participation, a holistic, comprehensive approach, and coordination and co-responsibility within the three levels of government (federal, state and municipal)” (Calderón, 2013, n.a.).

This explanation of the initiative’s objective shows more clearly the emerging policy shift in drug policy towards social preventative approach rather than a security-driven one and highlights the importance in rebuilding the social fabric strictly related to this study’s exploration of the social roots of Mexico’s DV.

#### [Local initiatives between the government and the private sector](#)

There were two other local initiatives implemented by the local governments in drug violent cities, Tijuana Innovadora (TI) or Innovative Tijuana, and, Unidos Transformando mi Comunidad (UTC), translated as Together Transforming my Community, implemented in Monterrey, where our field research was conducted.

Tijuana Innovadora was an initiative to attempt to reclaim the public spaces from the DTOs led by the private sector. The programme started with a business promotional fair that attempted to attract investment into the city in October 2010. However, in order to improve the security levels of the city, Felbab-Brown suggests it would be necessary to “...accompany any improvements in security with socioeconomic interventions, such as public infrastructure development, to reduce the social drivers of crime in the chosen neighbourhoods” (2011, p.7), this quote highlighting the importance of our research questions. TI was launched in 2010 with a business conference series of events aiming to showcase Tijuana's innovative business sectors, and improve the city’s positive image by fostering investment in education, art, research and cultural events (Bustamante, 2013).

Tijuana Innovadora has developed “spheres of influence” that focus on a specific project to “...improve Tijuana’s quality of life, to make the most of the Tijuana-San Diego relationship and to position our region to be the most successful in the world” (Tijuana Innovadora, 2015, n.a.). TI has concentrated in organising social events

aimed at the business sector, and has provided training aimed at civil society with the aim of revitalising Tijuana (Dudley and Rodriguez, 2013). This business focus could be a consequence of Tijuana's lack of funding from the national government to address DV issues, which other cities like Ciudad Juárez have had (Felbab-Brown, 2011).

Monterrey, our case study, also implemented a social programme named Together Transforming my Community (UTC for its initials in Spanish, "Unidos Transformando mi Comunidad"). Similarly to TI, UTC was mainly a collaborative response between the private sector and the government. The programme in question will be analysed in more detail on chapter V, our chapter focused on our case study of Monterrey.

## Conclusions

The main purpose of this chapter has been to provide a detailed literature review on the ineffectiveness of the traditional approach to drug violence based on security and introduce the growing policy shift towards anti-poverty measures. In order to understand drug policy in the country, there was a need to understand the government's construction of the problem by exploring the context in which drug policy developed. The chapter introduced the discussion on how anti-poverty measures have been increasingly integrated into drug policy frameworks, as part of the Mérida Initiative, and particularly, Beyond Mérida.

Once the drug policy evolution and the presidential administrations' construction of DT as a national security threat were reviewed, we focused on the detrimental effects of the security-driven approach for drug enforcement. The failure of drug enforcement, particularly the militarisation and leadership removal strategies, was reviewed by considering its effects: the fractionalisation of DTOs and the increase of criminal cells; the diversification of DTOs crimes; and the dissemination and persistence of high levels of DV, both in the short and long terms. The chapter examined studies that analysed the impacts of the militarisation and leadership removal strategies in both the short (Merino 2011, Escalante 2011, Espinosa and Rubin 2015, Dickenson 2014) and the long-term (Phillips 2015; Dickenson 2014). All

of these adverse results indicate how the Mexican government's policies to address DV have been largely unsuccessful, as they have not captured the complexity of the problem and have been obscured by a security-driven approach.

The weaknesses of the Mexican political institutions, including its high levels of corruption and impunity, were also explored. The chapter explored how, when the state-sponsored protection racket collapsed, DV levels became more visible as the democratisation and decentralisation processes developed; but the violence in question already existed in the past. The high levels of corruption and impunity pervading the Mexican institutions have unquestionably worsened the insecurity situation (Schatz 2011; Ingram and Shirk 2010).

The examination of the Mexican governments' drug enforcement strategies allowed us to understand more clearly their failure, as illustrated by its detrimental effects, and identify the emerging drug policy shift. The emerging policy shift justifies the importance of this study's research questions as we continue to explore the relationship between poverty, inequality and DV in order to assess its policy implications and how the understanding of this relationship has begun to shape drug policy in the country.

This chapter has set the contextual framework for our thesis and opens up the analysis of a different line of investigation. We will proceed to introduce the theoretical framework for this research.

## CHAPTER III: THE RELATIONSHIP BETWEEN POVERTY, INEQUALITY AND (DRUG) VIOLENCE: THEORETICAL PERSPECTIVES

“Narco-violence in Mexico corresponds to... a revenge and retribution-oriented act of violence that responds to perceived social inequality, trauma, abuse, marginalisation, frustration and humiliation; it is dramatic and spectacular and designed to seek publicity, renown, celebrity, recognition and reaction; and it is violence committed primarily by young males, many of whom are poor and socially deprived (although those ordering narco-terror do not necessarily share these characteristics); it is violence that transforms society and instils fear, chaos, alarmism and governmental response” (Campbell and Hansen, 2012, p.5).

### Introduction

This research aims to explore the relationship between poverty, inequality and drug violence in Mexico. In order to do so, this chapter has two main objectives: to review the literature that links (drug) violence and poverty and inequality; and, to propose a theoretical framework that discusses the key causal links between poverty and inequality on the one hand, and drug violence on the other. The analysis of what accounts for the nature of this relationship will help to build towards a detailed exploration of the social roots of Mexico’s drug violence and its implications for government policy.

Similarly, to other studies (Vilalta et al. 2016; Moser and McIlwaine 2006; Fajnzylber 2000) that have constructed a theoretical framework regarding violence, this chapter will start by categorising the different types of violence following its relationship to drugs (Goldstein, 1985) and within the Latin American context (Moser and McIlwaine 2006). These typologies will help us to locate the violence in question within these categories and introduce the context surrounding drug violence in Mexico by its regional location and its relationship with drugs.

The second element for the construction of this theoretical framework will involve analysing the underlying roots of DV by reviewing the theoretical literature and the empirical evidence explaining the nature of the relationship between poverty, inequality and violent crime (which includes DV as part of its categorisation), drawing

from social disorganisation theory (SDT) and institutional anomie theory (IAT); complemented by studies analysing the relationship between political violence and inequality. As we review the theoretical literature and empirical evidence, the following sub sections will discuss the insights drawn from this literature review in order to build our theoretical framework focusing on the nature of the relationship between poverty/inequality and (drug) violence. These aforementioned discussions will help to inform the empirical material of the following chapter IV and our case study explored in chapter V in order to evaluate the theoretical approaches' relative utility for the particular case of Mexico, in the research period 2006-2012. Lastly, the chapter will introduce the relationship of DV, poverty and inequality in the Latin American region to give way to our following chapter on the particular case of Mexico. Overall, this chapter will build this research's theoretical framework in order to assess what accounts for the nature of the relationship between poverty, inequality and drug violence in Mexico and help inform our understanding of the social context that surrounds the violence in question.

#### Understanding (drug) violence: typologies of violence and the role of drugs

In order to help us construct a better framework to understand drug violence and its relationship to poverty and inequality, we need to firstly examine the relationship between drugs and violence as an introduction into the academic literature. Within the Criminology literature, one of the most influential studies about the aforementioned relationship is Goldstein's (1985) tripartite conceptual framework. In this study, Goldstein (1985, p.146-154) categorised violence derived from drugs into a threefold framework:

1. *Psychopharmacological violence*: when the violent act is the result of drugs' consumption by the victim or the offender, and its psychological effects.
2. *Economically compulsive model*: refers to when the perpetrator feels obliged to commit violent acts to finance drug addiction.
3. *Systemic violence*: relates to the violent patterns of interaction that characterise the drugs world as an illegal market.

As specific as these three categories may seem, Goldstein (1985) argued that these were ideal categories, and that an overlap between them was very likely to occur. However, most studies (Goldstein 1985; Brownstein et al. 1992) agree that the majority of violence related to drugs can be ascribed to systemic violence. For the latter reason, and because drug violence in Mexico could be categorised within this third classification, it will remain as the main focus of this chapter's theoretical framework.

Systemic violence can be exemplified as: the dispute resolution and settlement of accounts intra and inter-DTOs; territorial quarrels between the DTOs; retaliation acts and personal vendettas against other DTOs; disputes over drug produce and distribution; retribution for tainted drugs sales; eradication of informers; failure to pay drug debts; and assassinations or assaults committed to enforce the 'normative' codes throughout the DTO's hierarchy, as disciplinary acts to punish subordinates (Goldstein 1985; Friedman 2001; Freeman 2006). DV is frequently restricted to the clashes between the DTOs and the authorities, or internal battles amongst the DTOs, regarding successional leadership and internal issues (Thuomi 2009; Dickenson 2014). Friman (2009) specifies that these clashes are not uniform, as the violence between the DTOs usually relates to the market and distribution of drugs, whilst the violence against the authorities results from its efforts to enforce the law. Friedman (2001) refers to the latter type of violence, resulting from drug enforcement efforts, as an additional category to Goldstein's (1985) tripartite framework, which includes the confrontation between drug traffickers, drug addicts and the authorities, directly related to our research topic, and explored in the previous chapter II.

The illegal drugs market is also considered the most violent and largest market of the illegal global economy (Andreas & Wallman, 2009). As a result, the authorities place a special focus on this illicit market, as Friman suggests, "Drug markets and violence are often presented by policymakers and pundits as inextricably linked" (2009, p.285). A reflection of this attention is mirrored in the American National Drug Control Strategy Report from 2008 in which drug-related violence is identified as a global threat (Friman, 2009) and globally reflected through the United Nations Special Session on the world drug problem (2016).

Regarding the relationship between DV and the illegal drugs market, several authors (Freeman 2006; Andreas and Wallman 2009; Williams 2009; Weber et al. 2011; Phillips 2015) point towards the illegality of the market as the source of violence, resulting from the unavailability of legal mechanisms to solve disputes intra and inter DTOs. Freeman (2006, p.9) agrees, “Drug-related violence in Mexico is largely a consequence of the drug trade’s illegality”. This claim can be illustrated by the difference between the licit and the illicit trade of drugs’ industries: the former is free of violence whilst the latter is characterised by high levels of violence, pointing towards a plausible positive relationship between prohibited trade of drugs and violence.

Illicitness, however, does not necessarily result in violence for all industries, as there are both examples of illegal markets being peaceful (poaching in Namibia and South Africa) and, legal markets linked to high levels of violence, such as diamond mining in Liberia and Sierra Leone (Snyder & Duran-Martinez, 2009; Friman 2009). In addition, there are also examples of illicit markets that run peacefully and parallel to their legal counterparts, such as: the intellectual property, endangered species, alcohol and cigarettes, and the arts’ and antiquities’ markets (Andreas and Wallman, 2009).

Other explanations (Reuter 2009) regarding the violence that characterises the illegal drugs’ market focus more on the authorities’ role and their enforcement strategies that result in a larger eruption of violence, as analysed in depth in chapter II. Thoumi (2009) builds on this argument by claiming that when the illicit drug revenues are large and easily attainable, then there is no reason for OCGs to resort to violence. Lastly, other studies (Zahn, 1975) concentrate on the particularities that characterise the social strata involved in DT activities, as Andreas and Wallman claim, “...those who make their living illegally tend to derive from social strata in which violent self-help is relatively common” (2009, p.226). This insight about the potential social context of DTO membership will be further explored with our qualitative case study in Chapter V.

Moser and McIlwaine (2006) also constructed a typology for violence, particularly for the Latin American context explored in the following sub section. Moser and

McIlwaine (2006) typology consists of four types of violence: economic, political, institutional and social. Economic violence is driven by material reward and is frequently manifested in the form of robberies, thefts, street crime, assaults and drug trafficking (closely related to DV). Political violence is motivated by the desire to acquire political power reflected via armed conflict, guerrilla, paramilitary and political assassinations. Institutional violence is closely related to the political category as it is exerted by the state institutions and some of its manifestations include violent acts perpetrated by the police and army, ministries and social cleansing by vigilante groups. Lastly, social violence tends to be gender-based to obtain social power and is exemplified with sexual assault on women and children and interpersonal violence (Moser and McIlwaine, 2006). As with Goldstein's typology, these categories are not static and they tend to overlap and interconnect in reality, reflected through their different manifestations and DV in Mexico is no exception.

Following Moser and McIlwaine's (2006) typology, drug violence in Mexico could be classified within the four categories: economic due to its motivation reflected via drug trafficking activities; political as it has involved political assassinations of state actors exemplified with 82 mayors during the last 10 years (LaSuza, 2016); institutional due to the crimes and human right violations committed by the army with over 6,000 formal complaints of abuse reported at the National Human Rights Commission between 2009-2012; and socially, due to the large extent of female murders in the country making Mexico one of the top ten countries worldwide with the highest female murder rate, particularly reflected in Ciudad Juárez (Yagoub, 2016).

Notwithstanding the limitations of categorising overlapping types of violence, a typology helps with three purposes for public policy. Firstly, it promotes the adoption of integrated violence reduction policies recognising the intersecting types of violence in question and moves the policy-makers focus away from the traditional approaches based on one type of violence. Secondly, it emphasises the policy implications of numerous identities and incentives of the perpetrators. Thirdly, the typology enables the justifications as to why interventions to decrease one category

of violence may not result in similar reductions in other types of violence (Moser and McIlwaine, 2006).

Moser and McIlwaine's (2006) study helps to introduce our following sub section on urban violence in Latin America to set the context in which DV takes place in the region.

### Understanding drug violence: the link between inequality, poverty and (drug) violence

The link between violence and inequality has been studied across the different disciplines of the social sciences since Aristotelian times, as his teacher Plato stated:

“We maintain that if a state is to avoid the greatest plague of all-I mean civil war, though civil disintegration would be a better term-extreme poverty and wealth must not be allowed to arise in any section of the citizen-body, because both lead to both these disasters” (Plato, cited in Cramer 2005, p.1).

Since the beginning of Philosophy in Ancient Greece (B.C.), philosophers already considered that discontent could arise from the uneven distribution of resources and wealth, and not only from the economic level. Plato's quote alludes to the importance inequality plays in political stability, even then. In the 19<sup>th</sup> century, De Tocqueville supported this correlation, stating that, “Almost all of the revolutions which have changed the aspect of nations have been made to consolidate or to destroy social inequality” (1835 cited in Muller 1985, p.47).

Within the different social science's disciplines and fields, such as Sociology, Politics and the Political Economy of Development, and the behavioural sciences, such as Criminology, there has been a long discussion supporting this relationship between violence and inequality, on one side, while on the other one denying its existence, with no consensus being reached until the present time. This discussion has even been given its own name, commonly referred as the “economic inequality-political conflict” (EI-PC) nexus (Lichbach, 1989 cited in Cramer, 2005). This relationship has been examined throughout diverse theoretical frameworks, which involve different

types of violence (as shown on our violence typologies), and do not focus exclusively on DV. This section will build upon their insights to have a clearer understanding of the relationship between (drug) violence, inequality and poverty.

There are several theoretical frameworks that study the nature of the aforementioned relationship, grouped as the Ecological theories of crime, and considered as one of the most influential bodies of theories exploring the relationship between inequality and violence. The Ecological theories of crime's main aim is to advance the explanations regarding the prevalence and variations in crime rates across different locations, providing a macro-level of analysis; the latter type of analysis places a greater emphasis on structural and social dynamics, rather than on an individual approach.

The most influential within these macro-level theories are social disorganisation theory (Shaw and McKay, 1942) and, within strain theories, institutional anomie theory (Messner and Rosenfeld, 1997), both selected for this study. The justification for the choice of these two theories relies on their ability to analyse the social dimensions and processes that influence violent crime (homicides) rather than property crimes (Kelly 2000; Thorbecke & Charumilind 2002), as drug-related homicides is the main indicator used in this study to measure DV levels. In addition, both of these theories provide a holistic framework that allows us to analyse the variation in homicide rates within and across regional and sub-regional levels of analysis.

The distribution of violent and property crime is frequently spatially concentrated (Vilalta and Muggah, 2016), particularly in the urban sphere (Muggah, 2015). Both Social disorganisation theory (SDT) and Institutional Anomie Theory (IAT) explain the differences between areas characterised by higher levels of criminal activity (hot spots) and advance the understanding of the diverse incentives and restrictions that influence disparities in criminality throughout different geographical levels (countries, states, regions, municipalities). Both theoretical frameworks provide different explanations for these aforesaid differences, explored in the following sub sections. The selection criteria for these two theories was based on: their macro-

levels of analyses, similarly to the quantitative data we will explore in the empirical chapter V; their approach on the contextual characteristics of a community, closely related to the social dimensions-poverty and inequality-and that will help to inform our case study; and their focus on violent crime, manifested as drug-related homicides in our research. All the aforementioned reasons provide further justification for the choice of these two theories to build upon our theoretical framework.

The Economic theory of crime (Becker, 1968), which focuses on the economic incentives to commit a crime, was also considered as an option for the literature review. Unlike IAT and SDT, the Economic theory of crime is rather based on an individual approach and focuses on property crime; for these two reasons, it was not selected for this thesis, as our focus is on violent crime and on a macro-level of analysis following our quantitative methods.

It is important to highlight the novelty of framing this research based on these two theories (SDT, IAT), as they have been rarely applied to developing countries, such as Mexico (Vilalta and Muggah, 2016) on a sub-regional level of analysis, within states and cities, as with our case study, the Metropolitan Area of Monterrey (MMA). The literature surrounding these theoretical frameworks has been focused on the North American and Western European regions due to the lack of data in developing cities and it has covered the Latin American region on a country-level of analysis (Vilalta et al., 2016). Vilalta and Muggah's (2016) study on Mexico City represents one of the first of its kind in Mexico on a sub-regional level and helps to inform this research.

From the numerous studies that will be considered throughout these theoretical frameworks, many have developed a cross-national examination to evaluate the relationship between inequality and violence, using the Gini coefficient (not exclusively though) as a measure of income inequality, and criminality rates for both property and crimes against the person (homicides), by drawing conclusions on the comparison between the data obtained from different areas within and across countries. The latter helps to inform our research, as we will also draw from violent crime based on drug-related homicides and the Gini coefficient to measure inequality

levels throughout our empirical chapter (Chapter IV). The following sections will focus on reviewing the theoretical evidence on the relationship between this study's dependent variable, (drug) violence, and its independent variables, inequality and poverty.

### Social disorganisation theory

This section will start by examining the theoretical claims of SDT followed by the empirical evidence of studies conducted relying on this theoretical framework.

Social disorganisation theory (SDT) focuses on the ecological conditions of a 'place' (neighbourhood, community, area) that favours or hinders criminal activity, as it "...seeks to explain aggregated criminal behaviour by focusing on the compositional and contextual characteristics of specific settings" (Vilalta & Muggah 2012, p.4). Social disorganisation refers to the lack of capacity of a community to achieve communal goals and resolve chronic issues through social control; thus, crime is more effectively prevented in socially organised communities (Kubrin and Weitzer 2003; Bursik 1988). Social disorganisation theorists research the impact of community context (structural characteristics) on delinquency by comparing between community processes related to crime; in particular, concentrated disadvantage (above average poverty), population heterogeneity and residential mobility (Patchin et al., 2006).

The seminal study conducted by Shaw and McKay (1942), considered as part of the Chicago Ecological School, used spatial maps to analyse criminal rates in 21 locations across Chicago and focused on their different socioeconomic conditions. Their study (1942) concluded that, regardless of the generation of people, ethnic group, nationality or changes over time of the residential groups, crime tended to concentrate and persist in the same urban areas and neighbourhoods, at a similar rate. Their study (1942) highlighted the importance of the ecological conditions of a place, rather than the characteristics of individuals, in influencing criminality rates.

Shaw and McKay (1942) also observed that these prone to crime urban spaces were not only characterised by heterogeneity, mobility and a high population turnover, as their residents moved away when they were able to do so, but were also characterised by economic deprivations and poverty. As these areas were considered unwanted, they became transitional zones defined by prompt variations in their social composition. The 'conventional' institutions of social control (schools, families, churches, and other social organisations) were fragile and had no institutional capability to control social behaviour within the community; thus, they were classified as 'socially disorganised'. According to SDT, the aforesaid lack of social control facilitates the transmission of criminal values (Shaw and McKay 1942; McMurtry & Curling 2008; Kubrin 2010).

Shaw and McKay's (1942) research concluded criminal behaviour was based on a city's patterns of territorial distribution and the weak capability of local social institutions to exert informal social control. McMurtry & Curling (2008, p.53) complement Shaw and McKay's (1942) study, claiming that "...crime was likely a function of neighbourhood dynamics, and not necessarily a function of the individuals within the neighbourhoods".

Several exogenous (external) factors are considered to influence criminal behaviour within the SDT discussions (Sampson and Groves, 1989):

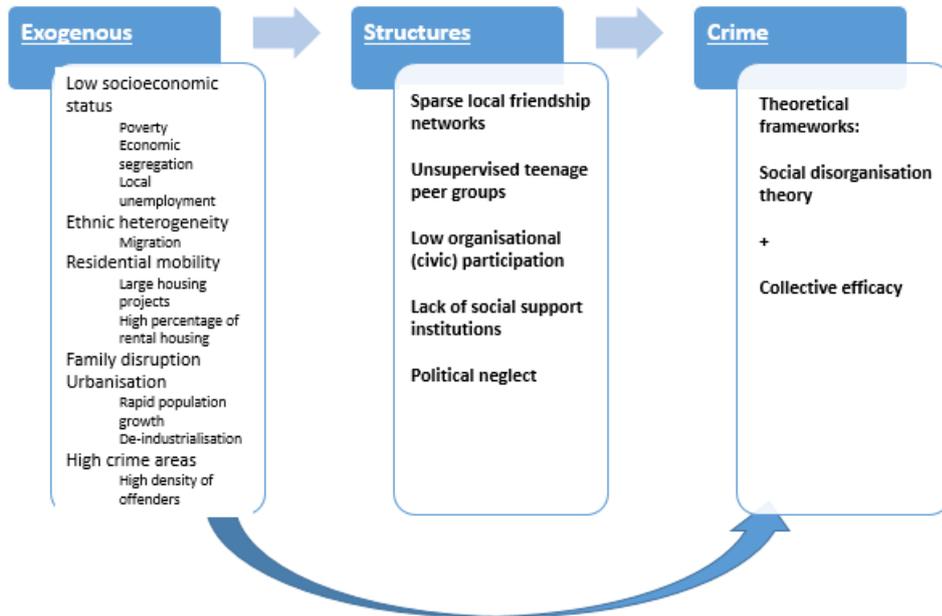
- a) Socioeconomic status (SES) and related factors, such as poverty, local unemployment, economic segregation. There exists evidence on the link between SES and the level of involvement with voluntary and formal organisations (Sampson and Groves, 1989) reflected as low organisational participation. Shaw and McKay's (1942) theory argued that communities characterised by low SES would have a lower level of participation in local activities and, thus, a lower organisational base, making them socially disorganised. "The effects of socioeconomic status on crime and delinquency rates are thus hypothesized to operate primarily through formal and informal controls as reflected in organizational participation and community supervision of local youth" (Sampson and Grover, 1989, p.780). Additionally,

Bursik and Grasmick (1993) argue that poverty diminishes the resources available to satisfy the community's needs and, thus, decreases the likelihood to exert social informal control within the community, as neither the individual's nor community's needs can be met (Bursik and Grasmick, 1993). Additionally, areas with low SES will also be more likely to be characterised by residential instability (as they become transitional zones) and ethnic heterogeneity due to migration population; the latter weakens the social networks and social control (Bursik and Grasmick, 1993).

- b) Residential mobility is a temporal process that puts strains on the levels of resources available in the community; it causes instability as it takes time to assimilate the new individuals and disrupts social ties within it (Sampson and Groves, 1989; Bursik 1988; Osgood and Chambers 2000).
- c) Ethnic heterogeneity, including differences in language and culture, make it more difficult for individuals to agree on a consensus due to the mistrust that follows heterogeneity (Sampson and Groves, 1989).
- d) Family disruption (divorce or single parents), as households led by two parents are more likely to provide effective informal social control, not only within their homes, but also over the local community (Osgood and Chambers, 2000). Sampson (1987 in Sampson and Groves, 1989) studied how family disruption had an influence over youth crime.
- e) Urbanisation, as social ties are weaker within urban communities than in rural or suburban areas and this weakness obstructs involvement in local activities (Fischer 1982, in Sampson and Groves, 1989).
- f) Areas with a high population of criminal offenders, as juvenile delinquency (aged 10-16) has a correlation as high as 0.90 with adult (aged 17-20) crime; 70% of youth living in areas with high gang crime were arrested as adults (Shaw and McKay, 1969, p.95; p.134).

Model 3.1 illustrates Social disorganisation theory (SDT), as it elucidates the exogenous characteristics of a community which influence its capability to construct social structures; and, its direct and indirect effects on crime, according to SDT and its developed branch of Collective efficacy (explored later in this section).

Model 3.1: Social disorganisation: direct and indirect structures affecting crime



Source: Adapted from Shaw and McKay (1942); Sampson and Groves (1989); Kubrin and Weitzer (2003); Vilalta and Muggah (2012, 2016).

Model 3.1 facilitates the explanation of SDT. Exogenous factors negatively impact social ties and social control as part of the “social disorganization causal model” (Kubrin, 2010, p.228). Exogenous factors tend to cluster the deprived population: they weaken the social ties of the community, both its quality and quantity, due to insufficient resources; decrease the ability of communities to regulate its members’ behaviour and, thus, increase the likelihood of criminal activity (Kubrin 2010; Vilalta and Muggah, 2016).

Informal social control and social ties (represented as “Structures” in model 3.1) are critical for the community to prevent criminal activity. Informal social control incorporates the residents’ attempts to sanction and prevent criminal behaviour by means of surveillance and intervention in their localities; examples of the latter include: questioning suspicious individuals, notifying parents of their children’s misbehaviour, and reprimanding individuals’ misconduct (Kubrin and Weitzer, 2003). Social ties include local social networks (friendship, family), and community activities (meetings, recreational) (Kubrin and Weitzer, 2003). As several of the exogenous

community factors are part of an on-going process (migration, rapid population growth, and population turnover), they constantly change, and potentially disrupt, the community social ties. Thus, the social bonds remain only provisional, weak, and not fully developed (Vilalta and Muggah, 2012).

Bursik and Grasmick (1993, p.17) classified the levels of social networks providing informal social control within the community into three levels. The first level is located within the private realm and includes the informal “primary” relationships of an individual, followed by the “parochial” level, which is defined by interpersonal and local networks (friendships) within the community; the third one focuses on the “public” realm, the external networks between the community and others outside of the community, reflected through civic participation and social support institutions. These levels of networks allow for social control to be extended beyond the individual households and throughout the community. The link between these different levels of social control influences the exogenous factors; ethnic heterogeneity, for example, can potentially weaken the parochial system (Osgood and Chambers, 2000).

A new development within SDT related to the importance of social networks is collective efficacy, explained as “...the degree of social cohesion between residents of a given community and their preparedness to act on behalf of a common good” (Vilalta and Muggah, 2016, p.4) and, “...the level of active engagement by neighbourhood adults in the support and supervision of youths” (Beyers et al., 2003, p.36). Morenoff et al. (2001) and Kubrin (2010) emphasised the importance of the collective efficacy of a community as being key to preventing urban violence, as it reflects as the connection between social control and social institutions and is a measure of strong social ties.

Not only does collective efficacy characterise socially organised communities but also, social integration, solidarity, and consensus on the norms within the community. The aforementioned factors help to lower criminal behaviour within the community, whilst socially disorganised communities, on the contrary, fail to socially regulate behaviour due to a lack of consensus on their community values (Morenoff

et al. 2001; Kubrin 2010). Sampson et al. (1997) claim that a community's capacity to sustain social control depends on a high level of collective efficacy; neighbourhoods with strong social ties have the ability to foster trust and willingness towards collective action between its residents. A strong level of collective efficacy tends to be more difficult to achieve within impoverished and unstable communities as residential mobility and concentrated disadvantage weaken social ties within its residents (Sampson et al., 1997).

Since the early development of SDT, its proponents "assumed" that social control and social ties helped determine crime rates within a community (Kubrin and Weitzer, 2003). Recent studies (Sampson and Groves, 1989; Vilalta and Muggah 2016) relevant to our research have started to empirically test the theory at both national and subnational levels as they consider different locations (localities, counties) within a country, instead of the traditional SDT approach of relying on a neighbourhood level.

As the theoretical review of SDT has been covered, the rest of this section examines the empirical evidence of a number of studies that have relied on SDT to inform their analysis.

Directly related to our research, most social disorganisation theorists highlight the positive effect of concentrated disadvantage, particularly poverty, low socioeconomic status, and crime rates in a community (Shaw and McKay 1942; Kornhauser, 1978; Sampson 1986; Bursik 1988; Kubrin and Weitzer 2003; Lee and Bartkowski 2004; Baron 2006; Wong 20212; Vilalta and Muggah 2016) showing that many authors propose a positive relationship between poverty and (drug) violence. We will discuss two of these studies that particularly relevant our research variables.

Sampson and Grove's (1989) studies used data from 238 and 300 localities in the UK, drawing information from the national surveys conducted in 1982 and in 1984, respectively. The authors (1989) concluded that the participation in formal and informal (voluntary) groups, local networks (friendships and family), and the informal control of adolescent peer groups (gangs) are social structures that help to explain

the impact of the community's exogenous dynamics for criminal behaviour. The importance of these aforesaid social structures relies on the evidence that shows that delinquency is frequently a group phenomenon (Shaw and McKay 1942; Bursik 1988). As such, "the capacity of the community to control group-level dynamics is a key mechanism linking community characteristics with delinquency" (Sampson and Groves, 1989, p.778). The consideration of social control over gangs and the importance of group dynamics for violence is strictly related to our research dependent variable, the drug violence conducted by DTOs, as some members can be considered as peer groups due to their age and DTOs can be regarded as organised gangs.

Vilalta and Muggah's (2016) study conducted spatial tests in Mexico City to analyse the distribution of crime in the capital city. Their research (2016, p.15) concludes that "...municipalities vary significantly in their crime rates and that these variations cannot be fully explained by a single macro theory". The aforesaid conclusion provides further substance for the choice of this research to rely on two structural theoretical frameworks to inform our empirical findings. Vilalta and Muggah (2016) conclude how the highest predictor of crime was family disruption measured by the number of female-headed households. This study (2016) is one of the handfuls of analyses that consider Mexico as a case study for these two criminological theories and is relevant for our research due to its sub national level of analyses, its choice of case study and the two choice of theories it relied on.

Most SDT proponents also emphasise the positive effect of unequal opportunities on violent crime (Bellair et al. 2003, Kelly 2000, Morenoff et al. 2001). Bellair et al. (2003) argue the lack of opportunities (economic, employment) has a positive relationship with youth delinquency. Kelly (2000) concluded that income inequality has a solid effect on violent crime and explains that SDT considers inequality causes crime by being indirectly associated with poverty. The aforementioned studies suggest the importance of the social dimensions of DV studied in this thesis (poverty and inequality) as having a positive effect on violent crime, such as drug-related homicides for our study's case. Morenoff et al. (2001) highlight the importance of a community's socioeconomic conditions, as they argue, "Spatial dynamics coupled

with neighbourhood inequalities in social and economic capacity are therefore consequential for explaining urban violence” (2001, p.517).

Nevertheless, other studies challenge the role of SDT exogenous factors (Model 3.1), particularly socioeconomic status, when other variables are controlled for, and consensus has yet to be reached on their role for the propensity for crime. According to Pfohl (1985, in Bursik 1988, p.167) “...it was erroneously assumed that neighbourhoods characterized by low socioeconomic status and high degrees of minority composition were, by definition, disorganized”. Bordua’s (1958, in Blau 1982) study found that a neighbourhood’s economic level was not directly influenced by its criminality rate, as long as the other exogenous conditions were controlled for. Anderson’s (1999 in Lee and Bartkowski 2004) fieldwork suggests that individuals living within areas with economic deprivations are not encouraged to rely on the use of violence (subculture of violence), as individuals from “decent families” still follow normative controls and values.

Other studies (Patchin et al. 2006, Beyers et al. 2003, Rankin et al. 2002, Osgood and Chambers 2000, Bursik and Grasmick 1993) highlighted how poverty played out through other forms of deteriorated social ties, as there were other factors that had a significant effect on violent crime. Patchin et al. (2006) study analysed the effect of exposure to community violence on youth delinquency. Their research (2006) conducted 187 interviews directed at young individuals aged 9-15 from disadvantaged neighbourhoods based on the number of households below the poverty line, unemployment levels and welfare claimants. Patchin et al. (2006) findings indicate how the individual’s perceptions and exposure to community violence had a greater correlation to delinquency, than the aforementioned exogenous and structural factors of neighbourhood disadvantage.

Bursik and Grasmick (1993) recognise the positive effect poverty has on delinquency yet argue that disadvantaged communities have different levels of social (dis)organisation; a strong social organisation can help counterbalance the impact of poverty and economic deprivations of the community. According to Osgood and Chambers (2000), poverty does not make a community socially disorganised, but

rather, the links of other exogenous structural factors (ethnic heterogeneity and residential instability) related to poverty deteriorate the social ties within a community. Wilson and Herrnstein (1985, in Patchin et al. 2006) claim that violent crime offenders start their criminal activity at an early stage, earlier than structural disadvantage factors (poverty, welfare recipients, single parent, and unemployment) could have an impact on their development.

Beyers et al. (2003) research used a longitudinal sample of youth aged 11-13 to analyse the impact of parenting control on behaviour issues that can lead to youth criminality. Their results (2003) indicate how the less affluent communities increased the likelihood of youth behavioural problems; the latter result only followed for the males and not for the female population. The authors (2003) suggest residential mobility (renting vs. owning property) had a greater effect on adolescent behavioural problems than other structural disadvantage (poverty, unemployed, benefit claimants and female-headed households) characteristics of a community. Additionally, Hoffmann's (2002) findings on the analysis of a longitudinal study suggest that if male unemployment levels are controlled for, the effect of poverty in delinquency is diminished.

Rankin et al.'s (2002) study on 59 Chicago neighbourhoods concluded that residential instability had a greater effect upon behavioural problems leading to crime than any other neighbourhood structural characteristic. The exogenous factors (model 3.1) they accounted for were: concentrated disadvantage indicators, poverty and unemployment levels; female-headed households and benefit claimants; and residential mobility based on individuals renting versus owning property.

Osgood and Chambers (2000) research focused on youth delinquency in 264 rural counties in the USA. Their study (2000) concluded that poverty levels (simple poverty and extreme poverty) were not directly related to youth violence, as higher poverty levels did not result in higher levels of violent crime. In their research, other structural factors proposed by SDT had a greater influence on youth criminality, such as ethnic heterogeneity, residential mobility and family disruption. Contrary to urban settings,

poverty and residential instability are negatively associated in rural areas (Osgood and Chambers, 2000).

This disagreement regarding the effect of exogenous factors (particularly poverty) on crime, when other variables are controlled for, follows with our research's analysis and demonstrates poverty's role in violent crime is still highly contested by the aforementioned studies. Our analysis can contribute to these discussions as our empirical analysis (chapter IV) suggests poverty might not be the main determinant of DV in Mexico as several dynamics interconnect and also have an effect on levels of DV. Several of the other exogenous factors of SDT will be explored in this research's qualitative case study in the city of Monterrey (chapter V).

#### Applying Social disorganisation theory (SDT) to our research

An adaptation of SDT will be used to inform the evaluation of the empirical material (chapter IV) in order to help determine their relative utility in the particular case of Mexico for the research period and help inform the discussions on our qualitative chapter V.

One of the main insights from SDT for our research is that crime (in this case, drug-related) has an inclination to remain spatially concentrated, particularly in the urban sphere in large cities and its outskirts (Vilalta 2010; Rios 2012; Vilalta & Muggah 2012); criminal offenders (DTO members) tend to live in close proximity to zones in which they operate (Vilalta 2010). Rios (2012b, p.55) claims that out of the 2,438 municipalities in Mexico, DTOs only operate in 713 of these, an estimated 30% of the total municipalities in the country. This allocates importance to the insights of SDT, as it is only particular municipalities and communities where most of the DV occurs in the country, placing the emphasis on location and its structural characteristics, as SDT proposes. More information on these drug-violent municipalities will be examined in the empirical chapter IV and exemplified locally with our case study in the city of Monterrey (chapter V).

Another application of SDT for this thesis relates to the levels of analyses examined. According to Bursik (1988) and Osgood and Chambers (2000), one of the main weaknesses of Shaw and McKay's (1942) and other SDT studies, is their sole focus on the differences in criminality rates between neighbourhoods. The weaknesses of the aforesaid type of analyses are that they do not provide sufficient foundation for generalising their results on a wider level. Osgood and Chambers (2000) propose using a county (municipality) level analysis, drawing from different states in the USA, and Wong (2012) follows a similar approach in the Canadian municipalities. Our thesis is based on the same type of subnational analysis, focusing our empirical analysis on both states and municipalities in Mexico for a wider applicability; and, concentrating on the MMA for our case study to highlight in more detail the specific dynamics playing a role in location.

The main relevance of Vilalta and Muggah's study (2016) for our research is that it considers economic inequality measured by the Gini coefficient as an indicator of SES for SDT and economic opportunity for IAT; it concluded that criminality rates within Mexico City correlate with economic inequality. Our thesis uses the same indicator to measure inequality (Chapter IV) and its adaptation of SDT and IAT. Additionally, Vilalta and Muggah's study (2016) provided further substance for this research's choice to rely on two macro structural theoretical frameworks to evaluate our empirical chapters. The authors (2016) concluded that more than one theory was needed to explain the level of variation within the municipalities in Mexico City. Drawing from the latter conclusion, even more dissimilarities are presented when our level of analysis focuses on not only one city, but on the more than 2,000 municipalities in Mexico, as is the case for this thesis' empirical analysis.

Several of the exogenous factors (model 3.1) proposed by SDT as influencing violent crime are similar to the ones proposed by the UN Habitat (2008) regarding urban violence and will be integrated into our study as follows:

- i. The increasing inequalities and poverty levels, with their economic and social deprivations involved (UN Habitat, 2008), particularly, low socioeconomic status (SES), one of the main exogenous characteristics considered by SDT.

This focus highlights the relevance of exploring what role poverty and inequality could play in influencing patterns of DV; they are the subject of the following empirical and qualitative chapters. SES and concentrated disadvantage will be measured by the levels of multidimensional poverty and economic segregation by measuring the Gini coefficient (chapter IV) and their role will be discussed in our case study (chapter V).

- ii. Unemployment and lack of occupational mobility (UN Habitat 2008; Vilalta and Muggah 2012; Kubrin 2010). There is a high level of youth unemployment in Mexico, with an estimated 8 million individuals not in education, employment or training (NEETs), which represents 7% of the whole population in the country (Ramsey, 2012). A recent report by the World Bank (2016) found a positive and significant correlation between the rate of NEETs and the number of homicides for the period from 2008 to 2013, covering most of our research period (Gagne, 2016). This variable will be further explored with our case study.
- iii. The unequal access to basic services such as health, education, employment and infrastructure and uneven resource distribution, as a result of inefficient urban planning and management (UN Habitat, 2008). Mexico is a country with several zones of social exclusion, where not all the basic services are provided for the majority of the population, as the cities' structures have not been carefully planned (Vilalta and Muggah, 2012). These aforementioned factors will be analysed in-depth as part of the multidimensional components of poverty (health, education, and infrastructure) in chapter IV; the same chapter will provide an overview on the unequal distribution of resources based on the inequality indicators. Moreover, we will explore in-depth the role of social exclusion on Chapter V.
- iv. Internal migration from the rural to the urban spheres, and the increase in population density within the urbanisation process (UN Habitat, 2008). According to the World Bank (2016), the percentage of the Mexican population living in urban areas was half (51%) in 1960; it has now increased to cover almost 80% of the total population in 2015, showing a rapid

population increase. An example of this rapid urbanisation and residential mobility is Ciudad Juárez, which will be covered in more detail in chapter VII on social policy.

- v. The intergenerational transmission of violence, common to domestic violence and child abuse (UN Habitat, 2008). This factor is more related to ethnographical studies, and thus, is not the main focus of this study. The field research (Chapter V), however, provides insights on the subculture of violence, family disruption, and characteristics of individuals' social structures, following SDT.
- vi. The remaining exogenous factors proposed by SDT will be also taken into consideration. High drug-related crime areas will be examined in the following empirical chapter. Ethnic heterogeneity, measured in the country as the number of individuals who speak indigenous languages, amounts to almost 15% of the total population; they only reside in a fifth of the total national territory, particularly in the southern states of Oaxaca, Chiapas and Yucatán (INEGI, 2010). The total number of internal migrants in Mexico for the period 2005 to 2010 was over 6 million residents, with over 3.1 million individuals migrating from one state to another; another 3.3 million residents migrated from one municipality to another within their residence state (CONAPO, 2016). The states receiving the highest number of internal migrants were Baja California Sur, Quintana Roo, Colima, Nayarit and Querétaro; the majority of internal migrants originate from Distrito Federal, Guerrero, Tabasco, Chiapas and Sinaloa (CONAPO, 2016).

As explained in this section, our research will implement an adaptation of SDT by measuring a number of above-mentioned exogenous factors proposed by the theory in our empirical chapter and informing the discussions on our qualitative chapter by analysing several of these variables in our case study, providing a mixed-methods approach on the applicability of this theory for the research.

Lastly, the operationalisation of SDT and IAT for the empirical chapters is shown in Table 3.3, once IAT has been discussed.

## Strain theories

As with the discussions of SDT, this section will begin by reviewing the theoretical literature on IAT followed by an examination of studies with relevant empirical evidence relying on this theory.

Strain theories focus on the 'strains', or the inducements and stresses, that lead people to commit a criminal activity. Strain theories are in four categories: anomie (Merton, 1938), institutional anomie (Messner and Rosenfeld, 1997), general strain (Agnew 1992) and relative deprivation theories (Gurr 1970). The four theories contend that strains represent enticements and pressures for individuals to commit criminal activities as a result of an experienced strain, when their expectations are not met; however, anomie and Institutional Anomie Theory (IAT) focus on the macro-level, and general strain and relative deprivation on the micro-level of analysis. This section will mainly focus on IAT, as we continue to draw from macro-level theories as the main focus of this research, corresponding with SDT and our quantitative analysis. We will begin by exploring the development of IAT with anomie theory.

### Anomie theory

Merton (1938) proposed that crime was rooted in the social and cultural structures of a society. The development of anomie theory is based on Durkheim's (1897, in McMurtry & Curling 2008) notion of anomie, defined as the deterioration of the social rules that helped to regulate order in society. Merton's (1938) study stressed the cultural values passed through different generations in the USA and its social structure, which placed greater and disparate value on materialistic gains, particularly economic success above anything else; thus, lesser importance was placed on moral standards. The economy, as a leading social structure in the American system, "...exerts a definite pressure upon certain persons in society to engage in nonconformist rather than conformist conduct" (Merton, 1938, p.672) in order to obtain economic success.

Merton (1938) claimed the rigid social structure of the American society was the base for inequality, and hindered the individuals' availability to access legal means to achieve the desired economic motives, thus, hampering the possibility of upward

social mobility. The latter rigidity within the socioeconomic ladder resulted from the disproportionate distribution of opportunities within the society (low social mobility) and, added to the inability to meet the expected economic success and values (“American Dream”), resulted in the condition of endemic anomie. The “American Dream” was defined as “a value orientation characterized by the universal achievement goal of personal monetary success” (Messner and Rosenfeld 1997 in Savolainen 2000, p.1022). Due to the unequal opportunities given to achieve personal monetary success, the larger strains are forced upon the individuals at the bottom of the socio-economic ladder of society; thus, inequality has an impact on anomie, and the latter has a larger effect on the most impoverished individuals. Moreover, the likelihood of the aforesaid individuals adopting deviant adaptations to anomie would increase their likelihood of recurring to criminal activity (Merton 1938; Maume and Lee 2003; Baron 2006; Bjerregaard & Cochran 2008).

Merton’s (1938) and Cloward and Ohlin’s (1960) studies concluded that criminal activity resulted from the failure of individuals to achieve the expected economic goals. An example of the existent obstacles would be the inability of all individuals to obtain a university degree, which could facilitate attaining economic success. Unfortunately, structural barriers do not allow all people to be able to afford a degree, especially individuals located at the bottom of the socio-economic ladder in society.

#### [Institutional Anomie theory](#)

The seminal study of Messner and Rosenfeld (1997, p.1396) helped to develop Institutional Anomie Theory (IAT), ascribing high levels of criminality rates to the structural and cultural dynamics between interconnected social institutions, that result in an “institutional balance of power”, distinctive of each society. According to IAT, the social institutions that have an effect on crime are the economy, family, polity, education and religion. IAT puts forward the protective effect that the non-economic institutions (family, education, polity, and religion) can have against crime rates, if these are solid. However, if the aforesaid non-economic institutions are weak, they fail to provide social protection, moral regulations and alternatives of

success to economic goals. According to Messner and Rosenfeld (1994), these non-economic institutions help to alleviate anomic pressures depending on the different social institutions: polity by encouraging involvement and altruism; the family by providing emotional support for its family members and education by instructing non-economic values of self-worth; and religion by providing a platform to convey moral values.

IAT proposes how the cultural values of the “American Dream” inflict strains for economic success, resulting in the dominance of the economy on the institutional balance of power (Messner and Rosenfeld, 2001). The impact of the dominance of the economy on criminality is due to: the economic motivations having a higher priority than non-economic goals and the lack of regard for other goals; social status mainly relying on economic goals; and materialistic values infiltrating the other non-economic structures (Maume and Lee, 2003). The dominance of the economic goals results in an institutional imbalance that allows for the anomic pressures from the economy to infiltrate the other social structures, as the latter do not provide the protective effect expected. The result is that the social control anticipated from the aforementioned non-economic social institutions deteriorates (Messner and Rosenfeld, 1997). An example of the balance of institutional power is the economic value placed on a university degree (education) due to the financial rewards (economy) expected from its use in the labour market (Messner and Rosenfeld 1997).

Several proponents of IAT (Messner and Rosenfeld’s 1997, LaFree 1997, Bjerregaard and Cochran’s 2008, Pratt and Godsey 2003) suggest there is a positive relationship between economic inequality and violent crime (homicides) and their studies’ empirical evidence is examined as follows.

Messner and Rosenfeld’s (1997) cross-national study drew data of homicide rates from 45 countries to analyse the relationship between the decommodification of labour and crime. The decommodification of labour, defined as the resilience of citizens against market forces (economy), is measured by the levels of social welfare expenditure. The weaker the decommodification in a society, the higher the reliance on the market for survival; and the stricter the criteria for welfare benefits is, the higher likelihood of the dominance of the economy as the main social institution

(Messner and Rosenfeld, 1997). The decommodification of labour is a reflection of the institutional balance between the economy and the polity, following IAT. In order to measure the decommodification of labour, Messner and Rosenfeld (1997) constructed a proxy measure based on social security programmes' resources, distribution and expenditure.

Additionally, Messner and Rosenfeld's (1997) focused on economic inequality as an indicator of the economy because "...previous cross-national research indicates that economic inequality is one of the most important structural correlates of homicide rates" (p.1402). In order to measure economic inequality, their research (1997) used the Gini coefficient and the economic discrimination index, based on the economic disadvantages experienced by a particular country's subgroup (based on religion, language, ethnicity, etc.). The authors (1997) concluded that the countries with the greater levels of decommodification of labour have lower homicide rates, as the national citizens relied less on the economy for their wellbeing and had greater social security coverage. The latter result showed an inverse relationship between decommodification of labour and homicide rates, stressing the importance of the relationship between the social structures of the economy and polity (Messner and Rosenfeld, 1997). LaFree (1997) analysed 34 quantitative cross-national homicide studies, including Messner's and Rosenfeld's (1997) research, and concluded that one of the most consistent findings was that, "Economic inequality is one of the most robust determinants of cross-national variation in homicide" (1997, p.132).

Chamlin and Cochran (1995) further analysed the effect on instrumental crime of the social structures of IAT and their corresponding variables: percentage of households below the national poverty line for the economy; divorce rates for the family; church participation for religion; and voting turnout for the polity. Their findings (1995), which used the American states as units of analysis, concluded that when non-economic institutions are solid (shown in this case with high voting participation, low divorce ratios, and high church membership rates), the effect of poverty on economic crime (instrumental crime) would be weaker. The latter result corresponds with Messner and Rosenfeld's (1997) proposition on the importance of the non-economic

social structures reducing the impact of poverty on crime (Chamlin & Cochran, 1995; Bjerregaard & Cochran, 2008).

Even if Chamlin and Cochran's (1995) study was not focused on violent crime, it is still relevant to extrapolate its insights on the importance of strong non-economic social institutions as crime deterrents. Moreover, their study (1995), one of the first to test IAT applicability, conducted a subnational level of analysis as the authors considered cultural values were difficult to measure due to the lack of data available for macrosocial units (countries). The reason for the importance of a cross-national sample is that culture is one of the main determinants of the values within a society, which are considered as inducements of anomie pressures.

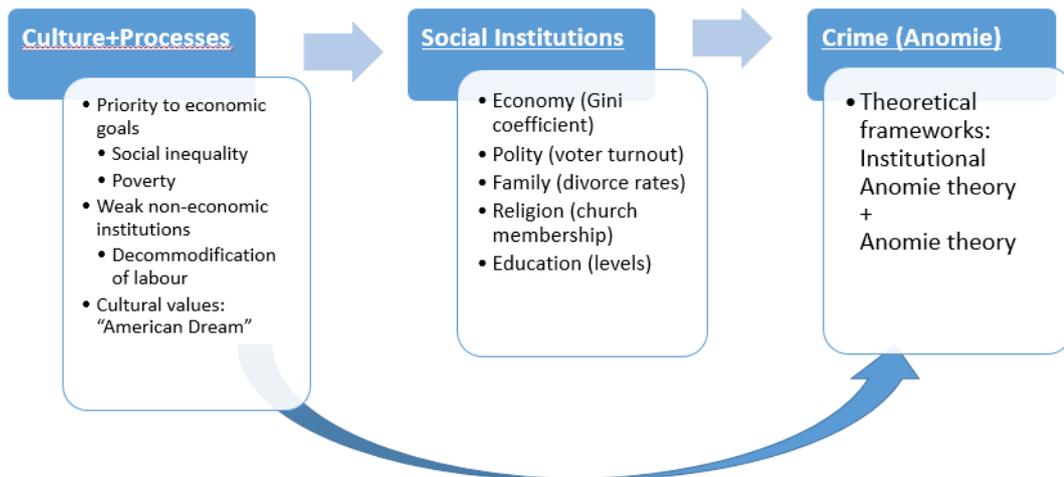
Messner and Rosenfeld's (2001) further research continued to highlight the predominance of the economy ("American Dream") as a social institution in the US, thus reducing the protective effect of the other non-economic social structures. Moreover, the authors (2001) explain how the priority placed on the economy has an impact mainly on the most vulnerable members of society who are not able to achieve the expected economic success and, due to the unequal access to opportunities in society, are more likely to resort to criminal activities to obtain it.

Bjerregaard and Cochran's (2008) cross-national study analysed homicide and theft crime data derived from 49 countries and their relationship to IAT social institutions. The set of indicators considered for the economic structure were: the Gini coefficient for a measure of the levels of inequality; the degree of economic freedom based on the Heritage Foundation economic index; and the social security expenditure. The other set of indicators considered for the effectiveness of the non-economic social institutions were: family disruption reflected through divorce rates; illiteracy rates and teacher-to-pupil proportion for education; and, for the polity, the voting participation at the latest election. Bjerregaard & Cochran (2008) concluded that homicide rates on the cross-national sample were directly affected by economic relative deprivation, displayed as the Gini coefficient, as high levels of inequality were associated with higher homicide rates; the latter result was especially heightened within countries with a weak educational system. In a similar study, Pratt and Godsey

(2003, in McMurtry & Curling 2008) determined that economic inequality had a lower effect on homicide ratios, as the levels of social support increased.

The following IAT 3.2 model helps to illustrate the propositions of IAT and draws from several of the variables considered in the studies we have reviewed in this section.

Model 3.2: Institutional anomie theory: cultural processes and social institutions and their influence on crime



Adapted from Chamlin and Cochran (1995); Messner and Rosenfold (1994; 1997; 2001); Maume and Lee (2003); Vilalta and Muggah (2016).

As has been reviewed, several IAT proponents set forward the importance of economic inequality as an indicator of violent crime. However, consensus is yet to be reached on this matter. Savolainen (2000, p.1036-1037) disagrees with the importance of economic inequality, "It seems that the average distance between the rich and the poor is not as significant a factor as the presence of an economically marginalized population". Savolainen's (2000) study contributed to Messner's and Rosenfeld's (1997) research by integrating 36 additional countries to the previous cross-national sample, resulting in a new total of 81 countries analysed.

Savolainen's (2000) study showed that the percentage of the population living in a marginalised condition is more important than economic inequality itself, as the countries with the strongest welfare programmes and lower percentage of impoverished people, presented the lowest homicide rates. The author (2000) measured these indicators by analysing: the percentage of the population living

below the poverty line of the country; the Gini coefficient; the level of decommodification; and the government's level of spending in welfare programmes and social security, as a percentage of total government expenditure. The latter indicator helped to measure the balance of institutional power for each country analysed (2000). Savolainen (2000) concluded that countries with extensive welfare programmes (Finland) had the lowest levels of poverty; thus, economic inequality in these countries had a lesser effect on homicide rates.

Blau and Blau (1982) conducted a study focused on the socioeconomic conditions and inequality of violent crime (homicide, rape, assault and robbery) by considering the 125 largest American metropolitan and urban areas. Blau and Blau argued that "Crimes against persons as well as property crimes are correlated with poverty, yet the United States, a very affluent country, has one of the highest crime rates in the world" (1982, p.114). The latter quote indicates that this common assumption on the relationship between poverty and violent crime can be sometimes misleading. One of the main findings of Blau and Blau's (1982) study was that violent crime was positively correlated to poverty and economic inequality; however, they concluded that when the poverty factor was controlled for, it did not influence these results, as would have been expected.

As Messner and Rosenfeld (1994, p.101) clarify, "...a war on poverty or on inequality of opportunity is not likely to be an effective strategy for crime control in the absence of other cultural and structural changes". The latter quote refers to the importance that should be placed not only on economic opportunities but on strengthening the other non-economic social institutions in order to moderate the economy's effect on crime. Maume and Lee (2003) agree, as they explain that "... providing more equitable access to legitimate opportunities in the economic domain will not only fail to reduce crime, but may in fact increase crime rates by increasing emphasis on the cultural goal of economic success" (2003, p.1139). Messner and Rosenfeld (2001) propose reinforcing the non-economic social structures by means of increasing the individual's active participation and involvement in these non-economic social institutions. Examples of the latter reinforcement would be targeting disrupted

families, increasing involvement in religious organisations, and encouraging participation in political bodies (Vilalta and Muggah, 2016).

### Applying Institutional Anomie Theory (IAT) to our research

One of the main propositions of IAT is that the relationship between the social institutions and cultural values has an impact on both instrumental and violent crime. The social institutions were measured by different variables throughout the studies examined. For the economy, the Gini coefficient was used to measure economic inequality and unequal opportunities; for poverty levels, households below the national poverty line were measured. Both of the aforementioned indicators are the subject of our following chapter IV, which allow us to evaluate the relative applicability of IAT for our empirical findings. As an overview on the levels of poverty, more than half of the Mexican population (51.3%) in 2010 were living below the national poverty line (World Bank, 2013). Regarding social mobility in the country, surveys from 2006 and 2011 indicated that the country is characterised by having a rigid society, where both wealth and poverty seemed to be hereditary, and with low levels of social mobility. The survey from 2011 indicated that 81% of the Mexicans in the richest quintile of the population continue in this group, while 60% of the individuals in the most impoverished quintile remain on the same situation (CEEY, 2012). This rigidity does not only characterise the socioeconomic aspect, but also the educational levels; the latter is related to another of the non-economic institutions considered by IAT.

Moreover, Messner and Rosenfeld's (1997) study highlighted the dominance of the economy as the major social institution in the United States. Extrapolating IAT's predominance of economic success (economy) above all the other non-economic institutions for the case of Mexico, it is important to highlight the market size of the illegal drugs market, estimated to account for \$25-\$40 million USD per year to the economy. The aforementioned estimate could show the Mexican economy received larger profits from illicit drug activity than from its largest legal export, oil (Lange, 2010). Additionally, the informal economy employment rate percentage has been

increasing from 4.4% in 2008 up to 5.7% in 2010 (Stauffer & Rucker, 2010). It is important to highlight these estimates as, if it is the case that Mexican society places the highest cultural value on economic success, this would place anomic pressures for the Mexican population to acquire this goal. The sheer size of the illegal drugs market linked to the increasing informal employment rate percentage could represent a seductive option, possibly leading into crime.

There were other indicators used to measure the non-economic social institutions' impact on crime and their influence on the institutional balance of power; we will briefly extrapolate them to the Mexican context in this section and further discuss some of these variables in our case study chapter V. Voting turnout was one of the indicators used to measure polity's impact. The last presidential election of 2012 in the country gathered a voting participation of 63%, higher than in previous years (58%), yet not a high percentage of the voting population (Institute for Democracy and Electoral Assistance, 2013). An indicator used for religion's effect in the previously examined studies has been church membership. In Mexico, the country with the second largest population of Catholics worldwide, the number decreased from 89% in 2000 down to 85% in 2010 (Pew Research Center, 2013). The Catholic Church has been losing its influence in the country (Briceño-León et al, 2008) and the drop has continued for the last 60 years, amounting to a loss of almost 4 million individuals in the last decade alone (Blancarte, n.a.). In order to measure for the family's influence as a social institution, divorce rates were used as an indicator. In Mexico, divorce rates continue to increase with 7.4% in 2000 up to 11.3% in 2004 (Haber et al., 2008). As a result of the latter divorce rates and more females integrating into the workforce, the family's composition continues to change (Briceño-León et al, 2008).

This brief overview of the non-economic institutions in Mexico provides us with a slight glimpse into the institutional balance of power. The figures showed how the family and church seem to be losing influence, due to the higher divorce rates and lower membership rates respectively, and the polity did not seem to represent a strong institution to condition the economy either, with its low voting participation. When considering the levels of poverty in the country and the size of the illegal drugs

market, in comparison with the other non-economic social institutions indicators, there is a possibility of the economy having the dominance for our country case. Nevertheless, more research on the economy's indicators for IAT will be conducted in the following empirical chapter and helped to inform the discussions in our case study.

Additionally, an indicator used to measure the institutional balance of power was a proxy measure of the decommodification of labour (Messner and Rosenfeld 1997; Savolainen 2000) based on social security expenditure, access and distribution, as a percentage of total public expenditure. Similarly, our research will introduce social programmes in the country, in the last chapter VI; one of the multidimensional poverty components (chapter IV) examined is the access to social security coverage, which can also represent a proxy measure for the decommodification of labour. According to Messner and Rosenfeld's (1997) and Savolainen's (2000) studies, the stronger the social protection institutions and their welfare programmes were, the less reliance the citizens had on the economy. The latter had an inverse relationship with the homicide levels in the corresponding country, as the homicide rates were lower when the social programmes were stronger. In Mexico's case, its social programmes' expenditure is constrained due to the government's low tax revenue, as it is regarded as the lowest tax return rate out of the 34 countries belonging to the Organisation for Economic Co-operation and Development (Reuters, 2013).

The dependent variable used in IAT research is frequently both instrumental (Messner and Rosenfeld 1997; Chamlin and Cochran 1995) and violent crime (LaFree 1997; Savolainen 2000; Bjerregaard and Cochran's 2008). This thesis also draws from homicides as an indicator of violent crime, particularly drug-related homicides as the manifestation of our dependent variable drug violence.

The level of analysis used for several studies considered was based on cross-national data (Messner and Rosenfeld 1997; Savolainen 2000; Bjerregaard and Cochran 2008). However, according to Maume and Lee (2003), one of the weaknesses of IAT has been these high levels of analyses used by the majority of its studies, focusing on countries and states. As the authors (2003) suggest, subnational units also reveal

their particular institutional dynamics; they propose using a smaller level of analysis, based on counties, similar to municipalities, as is the case for this thesis. Following this justification, there are numerous studies (Chamlin and Cochran 1995; Blau and Blau 1982; Piquero and Piquero 1998) that do rely on a subnational level, such as states and even municipalities, for their units of analysis (Maume and Lee 2003; Vilalta and Muggah). The unit of analysis for this research is mainly on a subnational level, examining both the Mexican states and municipalities.

Lastly, IAT brings the attention towards the importance of inequality and its influence on violent crime, as is the case with this research analysis of the social dimensions influencing the patterns of DV in the country. Following this theory, some individuals are already born at disadvantage from being able to achieve financial prosperity, and the Mexican case is not an exception. The levels of inequality will be analysed more in-depth in the following chapter IV and considered in the qualitative chapter V.

### The link between social disorganisation and institutional anomie theories

As we have examined the discussions surrounding the ecological theories of SDT and IAT, and their explanations for the degree of variation of crime across different locations and communities, this sub section will focus on bridging both theories. The aim is to provide a clearer theoretical framework that will help to evaluate the following empirical chapters as we draw the parallels between the latter and informs the discussions in our case study.

SDT and IAT share parallels in their explanations of the nature of both violent and instrumental crime. Together they propose that criminal behaviour is determined by deficiencies in the institutional balance of power between social institutions (IAT) that give dominance to economic success as the driving cultural value; it is also related to the weakness of the informal social control (SDT) exerted within a community. Criminality emerges as a result of social institutions' inability to regulate informal social control within a community (IAT), failing to control the behaviour of

its residents due to a lack of civic participation and weak social ties (SDT). Both theories are influenced by the particular cultural processes, exogenous factors, and social structures of a macro-social unit, which can result in anomic pressures and the collapse of normative values, resulting in violent crime.

SDT focuses on the structural characteristics of a location and its community, particularly analysing economic disadvantages, social ties and civic participation, whilst IAT emphasises the role of the social institutions, economy, polity, family, religion and education. Both theoretical frameworks place value on the economic characteristics and social structures that characterise a macro-social unit. Nonetheless, there are some particular differences between these bodies of literature. SDT places a greater focus on the particular socioeconomic conditions and social ties within a community and its informal social control; whilst IAT stresses the importance of cultural values and norms, and the balance of power between social institutions.

One of the issues of testing both IAT and SDT empirically is that the Mexican government does not collect data on all the variables that would need to be tested. Additionally, testing several variables for two different theories at a subnational level, considering over 2000 municipalities, will involve a great amount of resources (time) to collate the Big Data. For the latter reason, our research will rely on a handful of variables related to the theories analysed to inform our study and will inform our qualitative material drawing from their academic debates. Moreover, as the research uses a mixed methods research, it does not attempt to base its insights solely on quantitative indicators but aims to complement the latter with the qualitative material, to provide a clearer picture of the dynamics of drug violence in the country. Nevertheless, as the field research was based in 5 municipalities within the Monterrey Metropolitan Area (MMA), it is worth recognising that it does not provide appropriate variation to test the theories, but the theoretical framework does help to inform the insights gathered. The implication for this shortcoming is that the case study represents only qualitative material that helps to illustrate our empirical analysis but by no means represents a general representation of the country. Despite this limitation, the use of the MMA as a case study is particularly relevant for this

research as it is the third largest city in the country and one of the most developed in Latin America, as well as one of the most drug violent cities in the country during our research period. These dynamics present a unique opportunity to explore in more detail the relationship between inequality, poverty and drug violence in the country and will be further explored in chapter V.

As we have reviewed macro-social studies and their application of SDT and IAT, we will continue to analyse the relationship between economic inequality and collective political violence, referred to earlier as the EI-PC nexus. The scholarly literature on the EI-PC nexus also draws from a macro-level perspective but considers a different type of violence: collective political violence.

### The relationship between inequality and collective political violence

As with the previous theoretical sections on SDT and IAT, a number of academic debates propose a positive relationship between collective political violence and inequality (Wilkinson and Pickett 2010, Briceño-León et al. 2008, Fajnzylber et al. 2002, Denny and Walter 2012). However, there remains disagreement on this argument and this section explores the surrounding debates and their empirical evidence to further examine this relationship.

Snyder, refers to collective violence as it “...encompasses events which meet some minimum criteria of size and damage to persons and/or property. Following conventional usage of the term, international wars and acts of individual violence are excluded...” (1978, p.500). Political violence is considered a result of the normalisation of violence when it follows a particular system of rules (Acharya, 2011). Normally, the government is the only one allowed to use legitimate physical force to enforce the law. Nevertheless, occasionally, other agents such as DTOs abuse this right, which should be exclusive to the state, and enforce their own set of rules as parallel power structures (Chapter II). An example of the latter for our research would be the Sinaloa DTO in the municipality of Badiraguato in the state of Sinaloa (Beith, 2011).

Alesina and Perotti's (1996) cross-national study of 71 countries concluded that income inequality is related to a larger prevalence of social restlessness and political instability. The authors (1996) argued that collective political violence could be measured following two dimensions: the incidence of government downfalls and the socio-political events related to political protests against the government, considering government officials' homicides and the population's death toll which occurred during these protests.

The current high levels of DV in Mexico are not strictly political, but they do have indeed a socio-political dimension embedded within them as it has affected the whole Mexican population, claiming over 120,000 victims since its escalation in 2007 (Heinle et al. 2014); these victims include the homicides of more than 2,500 public servants, including 2,200 policemen, 200 soldiers, dozens of federal officials, a gubernatorial candidate (Grillo, 2012), and 82 mayors (former and current) during the last ten years (La Suza, 2016). These figures on the public servants' homicides have even been considered by authors such as Grayson (2010) and Watt and Zepeda-Martinez (2012) to represent a threat to the Mexican state's legitimacy. As explained earlier, DV is the main type of violence studied in this research, yet the violence in question encompasses socioeconomic and political implications, as the death toll figures on both citizens and public servants has shown, and could be classed as economic, political, institutional and even social violence following Moser and McIlwaine (2006) typology. As the violence in question has been defined within our research context, we will now centre on the nature of the relationship between collective political violence and inequality.

Muller (1985) also conducted cross-national research which consisted in testing empirically the income inequality-political violence hypothesis across different countries, in the regions of America, Europe and Asia, for the periods from 1958-1967 and 1968 to 1977. Muller's (1985) study used the Gini coefficient as a representation of income inequality and the deaths from domestic political conflict as the dependent variable for violence, amongst other variables. Muller's (1985) study found a positive linear relationship between income inequality and deaths from political violence, as the majority of the countries followed the trend of a steep slope; yet there were

several exceptions in these results. Interestingly, Muller's (1985) study considered the homicide rate to be a time-lagged function of income inequality and warned how inequality is not the only factor that leads into violence; however, he suggests that, frequently when violence occurs, it is within a highly unequal environment.

Fajnzylber et al.'s (2002) study concluded that there exists a positive relationship between crime and income inequality, measured with the Gini index for the latter and homicide and robbery rates for the former indicator as the dependent variable. Their study (2002) involved 39 countries in the period from 1965-1995 for the homicide data. Additionally, the same result followed within and between countries' comparisons. Their key conclusion is that "...an increase in income inequality has a significant and robust effect of raising crime rates...the rate of poverty alleviation has a crime-reducing effect" (Fajnzylber et al., 2002, p.7). Fajnzylber et al. (2002, p.26) clarify the levels of violent crime decrease as the economy grows, as crime rates were influenced by the rate of change of nationwide income and its distribution. Their suggestion derives from the belief that national poverty levels are reduced whenever there is a decrease in the income inequality gap, in conjunction with economic growth; the latter allegedly implies a better distribution of this wealth, though this cannot be assured.

A study by Wilkinson and Pickett (2010) also supports the positive relationship between inequality and violence as they analysed cross-national case studies, mainly the most developed countries, and focused on a particular case study, the fifty states within the United States of America. Their study (2010) considered that wealthier people, within a country, are more likely to have a better health condition and wellbeing than impoverished people within the same society, which has been commonly acknowledged. Homicide rates were higher in the most unequal areas of the cities they studied, as they argued:

"We can see that the association between inequality and violence is strong and consistent; it's been demonstrated in many different time periods and settings. Recent evidence of the close correlation between ups and downs in

inequality and violence show that if inequality is lessened, levels of violence also decline” (Wilkinson and Pickett, 2010, p.144).

Wilkinson and Pickett (2010) also found another striking conclusion: when the developed wealthy countries are compared with each other, even if there are major income differences of almost double the amount, there seems to be no significant change in their levels of well-being or health. Moreover, the authors (2010) conclude that what seems to matter most is how individuals perceive their socio-economic position and how flexible the socioeconomic ladder is within their society; this is also reflected in a country’s social mobility levels. This conclusion highlights the importance of considering relative levels of inequality, rather than solely absolute terms; an approach taken in this thesis.

Briceño-León et al. (2008) also highlight the importance of individuals’ perceptions on income inequality and violent crime. Their study (2008) of how countries with high inequality and urbanisation levels have a significant homicide rate suggests there might be a link with the perceived fair possibility of upward mobility; they exemplify this with the American case, where people are willing to admit inequality, as long as they trust in the fairness of the system and the rewards of personal effort, explored as the “American dream” in the IAT literature.

Denny and Walter (2012) argue that homicide rates are more likely to increase when there is an increase in the gap between the rich and the impoverished people, within the same society. Denny and Walter’s (2012) distinctive contribution to the inequality-violence debate is their suggestion that it might be related to the (in)equality in the law enforcement provision; in an unequal society, not everyone receives the same level of state security, and this is usually related to high impunity levels reflected in an unfair system of justice. The latter unequal law enforcement provision could result in further frustration from this implementation of selective justice on the same society. According to Denny and Walter (2012), selective justice derives from the concern that wealthy and powerful citizens enjoy a higher level of state security, as they can influence the government and acquire private supplementary security mechanisms; impoverished people cannot afford the same level of security.

As the discussion on inequality's role in homicide rates at a broader sense continues, Stewart (2000, cited in Cramer, 2005) sustains that, for inequality to result in violent acts, it needs to be rooted in horizontal inequality, which means an uneven allocation of resources throughout ethnic, religious or regional groups; this is because he argues collective violent acts result from competing groups that share a collective identity. On the same subject of inequality of opportunities, Passas (1997) concluded that in societies where there was a low social mobility level, or lack of opportunities, the effect of deprivation would be heightened.

As several studies have agreed on a positive relationship between inequality and political violence, there is also contesting research that presents arguments against the nature of this relationship. In the late 1970s, from the first academics to develop a cross-national study to examine the relationship between political violence and income inequality, Siegelman & Simpson (1977, p.124) argued that "Societal well-being is a more critical determinant of political violence than is income inequality, a measure of relative well-being", as they argued income inequality had a minor role in the levels of political violence. Weede (1986) rejected a link between income inequality and political violence by criticising the methodology used in the studies that support it, and suggesting there was a greater link between violence and regime repressiveness. Bourguignon adds to the discussion by stating that, "The significance of inequality as a determinant of crime in a cross-section of countries may be due to unobserved factors affecting simultaneously inequality and crime rather than to some causal relationship between these two variables" (1998, cited in Fajnzylber et al. 2002, p.3).

Cramer (2005) suggests that the main problem behind the studies of the relationship between violence and inequality relies on its foundations on a large amount of quantitative data aimed as statistical patterns; but based in no consensus or consistency. Cramer (2005) regards some of the variables considered as difficult to measure, as there seems to be no agreed categorisation on which specific variables should be taken into account for the study of this relationship; as a result, it becomes difficult to extrapolate the measurement of inequality and violence into cross-

national studies. Cramer (2005) suggests focusing on smaller samples or more case-study focused research, centred on the factors that generate and underpin these two variables through a relational analysis, rather than just analysing a bulk of cross-national related-results.

Furthermore, Cramer (2005) argues that even if violence and inequality could be considered as a constant within human lives, political collective violence does not always arise and it usually lasts for only certain periods of time because: (1) it might be that inequality is not a source of conflict or is not a sufficient condition for it to upsurge; (2) the relationship could be more related to certain inequality features more than its sole presence; and (3) it could be more about the level of inequality instead of its mere existence. Nevertheless, the author (2005) does not completely reject a link between these two factors but suggests a change in approach, by focusing more towards inequality's level and particular characteristics as one of the reasons behind violence, but not exclusively. Cramer's (2005) critique stems from the belief that an unequal society relies on what individuals believe to be equal and not on the actual absolute levels of inequality, highlighting the importance of relative levels of inequality. Even if a society ideally achieved equality in socioeconomic terms, Cramer (2005) argues that if its citizens did not agree with this, it would result in frustration derived from a perceived deprivation.

Grenier (1996, in Cramer, 2005) supports this belief in the importance of other factors that result in collective violence, as he suggests that inequality is an ever-present condition in all societies but not necessarily violence; thus, there must be other factors that provoke collective violence. Grenier (1996, in Cramer 2005) exemplifies this with the case of Central America, in which different forms of political violence have been observed throughout the years, suggesting they were driven by different ideologies, such as the communist revolutionist ideologies influenced by the Cuban Revolution.

## Applying the economic inequality-political violence nexus (EI-PC) to our research

The cross-national studies conducted on the EI-PC nexus provided valuable insights for this research. Most of these studies used the Gini coefficient as the independent variable to measure economic inequality and homicides as the dependent variable for political violence. Even if drug-violence overlaps between the different types of violence (political, economic, social and institutional) explored earlier (Moser and McIlwaine, 2006), this thesis explores the relationship between inequality/poverty and DV in Mexico, as well as conducts an in-depth analysis of inequality in our empirical chapter IV.

Moreover, there were contesting conclusions regarding the nature of the relationship between violence and inequality, with some studies arguing a positive relationship between these two variables (Muller 1985; Fajnzylber et al. 2002; Wilkinson and Pickett 2010; Denny and Walter 2012); others questioned the robustness of the positive link, if other factors were taken into consideration (Sampson and Siegelman 1977; Cramer 2005; Grenier 1996; Weede 1986). The latter studies did not reject the link between inequality and political violence, but rather argued there were many factors influencing political violence, as inequality is a condition present in most societies that does not necessarily result in political violence.

Following Cramer's (2005) critique of the use of cross-national studies, the current research focuses on one country-case study only, Mexico, to attempt to minimise the bulk of statistical data and try to achieve a deeper analysis. Moreover, it draws not only from quantitative analysis but also uses qualitative material to provide a richer analysis not only based on numerical patterns. Furthermore, Muller (1985) considered the homicide rate as a time-lagged function of income inequality, which helps to inform our analysis of our empirical findings in chapter IV.

Moreover, several of the studies focused on both cross-national and sub national levels of analyses, similarly to our focus for our empirical chapters. Furthermore, the focus was not only placed on absolute levels of inequality; but relative inequality

levels were considered to have an effect on homicides (Stewart 2000; Fajnzylber et al. 2002; Briceño-León's et al. 2008; Wilkinson and Pickett 2010; Denny and Walter 2012). An insight drawing from the importance of relative inequality was Denny and Walter's (2012) selective justice. Frequently, affluent individuals in Mexico are able to hire private security and receive better results from the state's security apparatus. The latter has been exemplified in the case of the homicides of sons from influential figures in the country attributed to DTO members, such as Fernando Martí in 2008 (son of a prominent businessman), Juan Francisco Sicilia in 2011 (son of an influential writer), and, José Eduardo Moreira in 2012 (son of an ex-governor and president of PRI) (Corcoran, 2011). With these specific homicide cases, the Mexican authorities have arrested and shown efficiency in the judicial process; whether they have captured the actual killers, remains questionable.

Muller (1985), however, claimed that income inequality is not necessarily a determinant of political violence, but that it is frequently present within highly unequal environments where violence takes place. The latter is relevant to our research, as Mexico is considered to be one of the most unequal countries in the world, located in the Latin American and Caribbean region, the region with the highest levels of inequality worldwide (ECLAC, 2011). This insight on the Latin American and Caribbean region helps to introduce our following sub section.

### [Drug violence in Latin America](#)

As the academic debates surrounding the relationship between violence, poverty and inequality have been examined, we will now briefly review the aforementioned relationship for the specific case of drug violence, reflected as drug-related homicides, as the form of violent crime. Given the scarcity of research of the social dimensions of DV in Mexico, one of the main justifications behind this thesis, we rely on the academic literature on the region of Latin America and the Caribbean to draw insights about the relationship in question.

The Latin American region is one of the most violent regions in the world with one of the highest homicide rates worldwide with 23-25 per 100,000 inhabitants, a rate that is four times higher than the average worldwide of 6.2 per 100,000 (UNODC, 2014).

Central America has the highest homicide rate with 24 per 100,000 population and South America and the Caribbean have a lower homicide rate of 16-23 per 100,000 (UNODC, 2013). For this particular analysis, Mexico is accounted for as part of Central America. In 2015, 47 of the 50 cities with the highest homicide rates globally were located in the region. The population in the region represents less than 10% of the global population; and yet, the region registered one third of the total 437,000 homicides reported worldwide in 2012 (Vilalta et al., 2016; UNODC, 2014).

There was a significant rise in homicide rates in the region for the period from 2007-2011 (most of this research's period, 2006-2012) from 15.16 per 100,000 population in 2007 escalating to 28.5 in 2011. This escalation in homicide rates is attributed to drug-related violence deriving from organised crime and drug trafficking, particularly in Mexico, Guatemala, Honduras and El Salvador (UNODC, 2014), making this sub-region one of the most violent worldwide and highlighting the importance of this study's rationale.

Within these academic debates of violence in the region, "...the common stereotype that poverty is the primary cause of violence has been challenged" (Moser and McIlwaine, 2006, p.90). Fajnzylber et al. (2000) study analysed the determinants of victimisation for violent crime in Latin American cities and concluded there were other dynamics- income inequality and economic exclusion - overlapping with poverty to trigger violent crime. The aforesaid dynamics related to the uneven distribution of political, social and economic resources and were measured with several variables ranging from access to health, education, employment, state protection, infrastructure; and other related variables, income, poverty rate, alcohol and drugs (Fajnzylber et al., 2000). Both income inequality and economic exclusion in Mexico will be explored in the following Chapters IV and V, respectively; as well as access to health and education as part of the multidimensional poverty components.

Fajnzylber et al. (2000) argue the high levels of violence in the region are also associated to the illegal drugs' market, as countries that manufacture drugs and have a larger rate of drug possession tend to have higher homicide rates, as explored earlier in this chapter. The authors' (Fajnzylber et al., 2000) research highlights the importance of income inequality, drug-related crime and economic growth as

significant determinants of violence in the region. The latter emphasizes the importance of this research's aim to analyse the nature of the relationship between these variables-inequality, drug-related homicides and poverty- within the Mexican context.

A recent review (Zarate Tenorio, 2015) of 163 empirical studies regarding violence and crime in the Latin American region indicated that half of these studies relied on a high level of analysis (countries and states) and only 13% used a local level of analysis within the same city. This result suggests how only a small percentage of the analyses conducted in the region concentrate on the sub national and local level; as a result, this level of analysis could be overlooking the interaction between the local dynamics that could be influencing violent crime (Vilalta et al., 2016) and that our study aims to address with our case study of the MMA (chapter V).

In addition, homicide rates tend to fluctuate following a country's income level, showing a plausible connection between resident's security and economic development (Vilalta et al., 2016). Nonetheless, over the last decade, the homicide rates in Latin America have increased for all countries regardless of their income level. The latter trend contrasting with other regions worldwide where the homicide rates have primarily increased in the countries with the lowest income levels. This difference in homicide trends and their relationship to economic development between Latin America and other regions suggests that there could be further dynamics that influence the variance of homicide rates in the region and not exclusively economic development or lack of thereof (Vilalta et al., 2016). This particularity of the Latin American region provides regional context for this study's research questions that aim to explore the nature of the relationship between poverty and inequality on the one hand and drug violence in on the other for the particular case of Mexico.

## Conclusions

This chapter helped to build a theoretical framework to inform the findings from our subsequent empirical chapter IV and our case study in chapter V. The criteria that

will be used in our empirical chapters to evaluate the relative application of these bodies of literature is based on our research questions, regarding the nature of the relationship between drug violence and poverty and inequality in the Mexican context.

The chapter started by introducing two different typologies of violence, one specifically related to the relationship of violence and drugs, and the second categorisation based on urban violence in the Latin American. Subsequently the two main bodies of literature, IAT and SDT, were presented to allow us to examine the nature of the relationship between violent crime, inequality and poverty. These two theories provided insights that showed that many authors expected a positive relationship between violent crime (homicides) and poverty and inequality based on the social structures and institutions that characterise a particular community and location, on a macro-level analysis. Notwithstanding these studies, the academic debates pointed towards a remaining contestation regarding the nature of the aforesaid relationship, particularly when other factors were controlled for. These debates open the line of investigation for this research to analyse what accounts for the nature of the relationship between poverty, inequality and violence and its policy implications for the particular case of Mexico. In order to do so, the following chapter will centre on exploring the social dimensions in question, poverty and inequality, within the Mexican context.

Social disorganisation theory stressed how certain areas were more prone to criminal activity due to their dynamics, as they were characterised by economic deprivations (poverty, inequality, segregation); they were socially disorganised, as they had a high turnover and served as transition zones, and they lacked the resources for social control and support institutions that constrained the development of social ties. These insights will help to understand why DV in Mexico is concentrated in certain states and particular municipalities, as its distribution is not widespread across the entire country; this supports our sub national level of analysis on states and municipalities that we will explore in more detail in the upcoming chapters. SDT will inform the empirical findings from chapter IV on the multidimensional levels of

poverty and the nature of its relationship with patterns of DV and will contribute to the discussions of the case study of the MMA in chapter V.

Institutional anomie theory focused on the impact on crime of the dynamics of social institutions (economy, family, polity, religion, education), highlighting the economy as the most dominant social institution within the institutional balance of power. The latter predominance on economic success placed greater strains on the individuals at the bottom of the socioeconomic ladder, making them more likely to recur to criminal activity. Thus, IAT highlighted the effect on crime of economic inequality and unequal opportunities and the role of the other non-economic institutions to serve as a buffer in order to moderate the impact of the economy. Our empirical chapter, particularly the sections on inequality, will help to evaluate the relative utility of IAT in our research context in Mexico and provide a framework to illustrate the discussions in our qualitative chapter.

The EI-PC nexus was also examined, as DV in Mexico has some political and economic elements embedded within it, as it has resulted in over 100,000 victims that include both citizens and public servants. Several of these studies also concluded that there exists a positive relationship between income inequality and political violence in the form of homicides; however, other studies contested the role of economic inequality on political violence, as they pointed towards the consideration of other factors. Insights from these studies helped to analyse the nature of the relationship of EI-PC, not only between countries via studies of cross-country cases, but also within countries, pointing towards the importance of relative levels of inequality and the individuals' perceptions of the former. These debates particularly emphasized the importance of examining relative levels of inequality and poverty, rather than focusing on the traditional absolute levels.

The operationalisation of these three bodies of literature, drawing from the theoretical models 3.1 and 3.2 and the insights drawn from EI-PC nexus, are illustrated in the following Table 3.3, which will help to inform our empirical findings in the particular case of Mexico for 2006-2012, for the following chapter IV and apprise our qualitative material in chapter V.

Table 3.3: Operationalisation of SDT, IAT and EI-PC in relation to the empirical chapters on Poverty, Inequality and Social mobility

Theoretical Framework	Institution/Structure/Variable	Indicator	Chapters
Social disorganisation theory (SDT)	Socioeconomic status	Multidimensional poverty levels	IV-V
Institutional Anomie theory (IAT)	Economy	Gini index	IV-V
Economic Inequality- Political Violence (EI-PC) nexus	Relative levels of inequality	Gini index	IV-V

Lastly, we briefly explored the high homicide rates in the Latin American and the Caribbean region, given its recent increase attributed to DV. This sub section introduced how there were other dynamics-social exclusion and economic inequality- intersecting with poverty influencing the homicide rates in the region, which we will explore in the following chapters. This section allow us to introduce our following chapter that will focus on exploring two of these social dynamics-poverty and inequality-in the case of Mexico.

## CHAPTER IV: THE ROLE OF POVERTY AND INEQUALITY IN EXPLAINING LEVELS AND PATTERNS OF DV IN MEXICO

“It has been known for some years that poor health and violence are more common in more unequal societies. However, in the course of our research we became aware that almost all problems which are more common at the bottom of the social ladder are more common in more unequal societies” (Wilkinson and Pickett, 2010, p.17).

### Introduction

In this chapter, we will analyse what, if any, relationship exists between poverty and inequality and drug violence in Mexico. Analysing the nature of this relationship will help us to understand whether, how, and to what extent, poverty and inequality play a role in generating patterns of DV.

This chapter will examine the empirical relationship between poverty and inequality and the levels of drug violence in the country, based on a quantitative approach drawing from descriptive statistics. The chapter will first introduce these two social dimensions - poverty and inequality - by exploring their definition, classification, and their measurement, and how their measurement approaches have evolved to measure inequality and poverty levels in the country. Thereafter, the focus will be set on measuring the current levels of income inequality and multidimensional poverty, on the national, state and municipality levels of analyses, and the nature of their relationship to levels of drug violence in Mexico. The following sections will analyse the correlation between each multidimensional poverty components and the levels of drug violence; followed by the empirical analysis of the relationship between inequality levels and DV. Lastly, the chapter introduces the specific case of Nuevo León by measuring the relationship between the levels of multidimensional poverty and inequality and DV in the state’s municipalities, in order to introduce our case study of the Monterrey Metropolitan Area (MMA).

### Defining multidimensional poverty and income inequality

Poverty, in its most general sense, can be considered to be the inability of individuals to secure adequate resources to be able to meet their basic human needs (UN, 2008); this is a result of the lack of availability of material resources for everyone worldwide, mainly due to its uneven distribution (UN, 2008). The World Bank (2011) defines it as “...whether households or individuals have enough resources or abilities today to meet their needs” (Haughton & Khandker, 2009, p.1). It is relevant to consider this particular conceptualisation since this one-dimensional approach, based only on economic terms, has been the one to dominate most of the measurement of poverty literature, based on a household’s income or consumption as the main indicators. This traditional approach on poverty considers the individuals’ wellbeing, related exclusively to their levels of income and compared to a minimum income threshold, in order to define if they can meet their basic needs (Jenkins & Micklewright 2007; Haughton & Khandker 2009).

The weaknesses of focusing exclusively on income as the indicator to determine poverty levels is that a household’s income is not only reflected in cash, but also needs to consider other factors that influence its income and that are not reflected in this measure, such as the presence of savings and/or debt over time; investment reflected in durable goods and property; self-employment and production of goods at home; and the availability of welfare services provided by the government, such as health, education and housing (Haughton & Khandker, 2009). Furthermore, this method additionally fails to identify factors that influence the household’s income and its distribution due to its size, preferences, structure, and differences in costs and prices due to geographical location. There is also the possibility of incomplete income information due to deliberate or unintentional misreporting, as individuals can forget their yearly income information, or may well decline to reveal precise information due to illegal activities or for insecurity reasons (Nolan & Whelan, 2007).

The reviewed income-based definitions of poverty are provided by two of the main international organisations targeting poverty worldwide, the World Bank and the United Nations, but it is important to consider what the actual individuals living in this condition describe as poverty. According to the Oxford Poverty and Human

Development Initiative (2009), the most impoverished people describe the condition of poverty as not exclusive to a lack of income, but also comprising their deprivations related to health, work, education, accommodation, and personal security. There is no worldwide consensus on how to measure poverty, as income is frequently the main indicator considered and the aforementioned dimensions are often disregarded. However, during the last four decades, the study of poverty has shifted away from its one-dimensional income-based perspective towards a multidimensional approach, similarly to the approach deployed for this research.

The second social dimension analysed in this research, inequality, can be defined in several ways given its classification. The most commonly used definition of inequality is based on the one-dimensional approach based on income and commonly referred to as income inequality, which only accounts for economic wellbeing (Neckerman & Torche, 2007). Haughton and Khandker argue that inequality is a more encompassing concept than poverty as it involves the entire population, and not just the one beneath the national poverty line, as they define inequality as "...the distribution of attributes, such as income or consumption, across the whole population" (2009, p.3). The latter definition focuses solely on a one-dimensional approach, either income or consumption, respectively.

As these two variables have been defined, we will now focus on their measurement and classification.

The measurement of poverty has been based on different counting approaches. The prevailing approach until the 1970s, referred as the income method, centred on the insufficiency of income and relied on a poverty line to identify the impoverished population (Alkire et al. 2015). In 1974, the basic needs approach was adopted by the Cocoyoc Declaration which focused on the importance of several basic needs including food, clothing, health, shelter, work, freedom of expression and education. The basic needs approach was not the only informing measures of poverty in the European region; the social exclusion approach was adopted in the same year by the Council of the European Union (Alkire et al. 2015). The Council extended the definition of poverty to include social exclusion defined as, "individuals or families whose resources are so small as to exclude them from the minimum acceptable way

of life of the Member State in which they live” (Atkinson et al. 2005, p.18, in Alkire et al. 2015). The social exclusion framework is frequently depicted as relative poverty as it relies upon the evaluative area where it is measured. The difference between relative and absolute poverty is described by Sen (1985, p. 673) as,

“...judging a person’s deprivation in absolute terms (in the case of poverty study, in terms of certain specified minimum absolute levels), rather than in purely relative terms vis-à-vis the levels enjoyed by others in society”.

The multidimensional approach to poverty, the selected framework to measure poverty for this research due to its closer definition of poverty by being all-encompassing of the condition and covering what impoverished individuals define as necessities, draws from Amartya Sen’s work- the capability approach. The capability approach builds upon the basic needs approach and Townsend’s (1979) pioneering work, as both helped stimulate the multidimensional approach on poverty by redefining it, not only as a lack of access to goods, but to basic services and to participate in society.

Sen’s (1984) capability approach claims that an individual’s wellbeing is based on its fundamental capabilities to participate and function in society, in order to achieve a decent level of life. The condition of poverty is described as the absence of these fundamental capacities to participate in society that the person requires for its wellbeing (Sen, 1984). As Sen explains about an individual’s capabilities, “The notion of capabilities relates closely to the functioning of a person. This has to be contrasted with the ownership of goods, the characteristics of the goods owned, and the utilities generated” (1984, p.324). With this definition, Sen (1984) follows Townsend’s (1979) multidimensional approach and focuses not only on the goods and services the individual is able to acquire, but, also on their capacity to function in society in order to achieve its wellbeing. These deprivations can be related to health, education, freedom, rights, food, or income, the individual’s capabilities, wellbeing and functioning in society are negatively affected; as such, these deprivations characterise the condition of poverty and this condition can be understood as the deprivation of capability (Nolan & Whelan, 2007; Alkire et al. 2015).

As with the income-based approach, the multidimensional perspective also has strengths and weaknesses. Amongst the latter, there is a lack of worldwide consensus on its indicators, including their measurement and weighting, if they were to be constructed as part of a wellbeing aggregate index. With a wellbeing aggregate index, various dimensions of welfare have to be aggregated and given a particular weight, which entails giving them a relative significance based on a subjective judgement (Duclos et al., 2007). Thus, when attempting to conduct cross-country poverty studies, it is difficult to compare the results since dimensions may be given different importance or weight, depending on the country case. Nonetheless, the UN's Human Development Index is the closest to an international consensus on this matter, and it has helped to summarise the different dimensions considered on this multidimensional approach, making it easier to assess, compare and present the results to the public (Nolan & Whelan, 2007).

The strengths of the multidimensional approach rely on its ability to identify impoverished individuals in a more integrated approach, examining not only their income, but also their overall welfare based on different dimensions. Moreover, this multifaceted approach takes into consideration the factors disregarded by the income variable that also influence the extent of deprivation within a household; factors related to its composition, size, and number of dependents. These aforementioned factors help to understand the distribution of the household's income, its geographical location (either urban or rural) and the difference in living costs this entails, and the household's particularities that could affect its wellbeing levels. These particularities within a household are related to the presence of disabilities within its members that could represent an economic pressure, unemployment within its economic active members, and the characteristics of the head of household, such as a single parent supporting the home, etc. (Nolan & Whelan, 2007). All of these aforesaid dimensions are neglected with the income approach, and thus the multidimensional represents a more accurate measurement of poverty.

This comprehensive approach considers the multi-layered nature of poverty by linking the diverse deprivations that affect it, and by this, it can better help to

understand and tackle the underlying causes of poverty. As Nolan & Whelan argue (2007, p.156), "...a multidimensional approach is needed to understand the causes of poverty and frame policy responses". Furthermore, this multidimensional approach comes closer to the definition impoverished individuals grasp as part of their multifaceted condition; this is contrary to the income-based approach which fails to identify people's capability, or lack of it, to participate in society, due to insufficient resources. As a result of this closer conceptual similarity to this complex condition, and the strengths this approach provides, this study will concentrate on the multidimensional approach on poverty as one of the two key social dimensions for this research, in order to understand the nature of the relationship between poverty and DV levels in the country.

The pioneering work of Townsend (1979) and Sen (1984) helped to introduce the multidimensionality of poverty into the remit of international institutions. One of the first international organisations to promote the multidimensionality approach was the United Nations with its Human Development Index (HDI) introduced in 1990, which includes several wellbeing indicators following Sen's (1984) definition of poverty, such as literacy and school enrolment levels, life expectancy, and GDP per capita. Several of the UN's documents integrated the multidimensional approach to poverty, including the Human Development Report of 1997 and of 2000, both examining the HDI, and the Millennium Development Goals (MDGs) Declaration in 2000, endorsed by 189 states, that included decreasing by half the worldwide proportion of individuals living daily on less than a dollar by 2015 (Oxford Poverty and Human Development Initiative, 2009; Jenkins & Micklewright, 2007).

At a regional level, the European Union (EU) also adopted a multidimensional approach during the Laeken Council in 2001 –the latter by following the indicators used to measure social inclusion (in relation to poverty and its deprivations) such as, educational detriments, joblessness, income inequality and poverty (Nolan & Whelan, 2007). Following this shift of approach on poverty, currently more than 130 countries have started to incorporate the multidimensionality of poverty into their national household surveys' indicators (Oxford Poverty and Human Development Initiative, 2009). The inclusion of the multidimensional approach shows not only a

change on an international and regional level but, most importantly, on a national one; this improves the availability of poverty data, as it is the national governments who collect their country's poverty data. For the Mexican case, the multidimensional measure was integrated into the government's evaluation of poverty since 2009, and will be explored in more detail later in this chapter.

#### Classification and measurement of poverty: absolute and relative

For the purposes of measurement, poverty is classified into two categories, relative and absolute. The latter type is calculated according to a common standard of wellbeing and is frequently used to measure poverty worldwide via the international poverty lines, which serve to illustrate the proportion of the global population living on less than \$2.00, \$1.25 or \$1.00 dollars per day. These poverty lines are measured in relation to the international prices from 2005 and adjusted according to each country's purchasing power parity (White, 2002). This measurement of absolute poverty is used to compare poverty levels across different countries and across time, allowing the examination of its evolution. Nevertheless, it only considers the amount of money necessary for the individual's survival, as it is based on the income approach and disregards other important factors, such as education and health considered within the multidimensional approach (White, 2002; Haughton & Khandker, 2009).

The other type considered is relative poverty that is more specific because it is measured within the society in which the individual lives. According to Townsend, individuals suffer from relative poverty, when "...their resources are so seriously below those commanded by the average individual or family that they are, in effect, excluded from ordinary patterns, customs and activities" (1979, p.31). Following this definition, poverty is directly related to the deprivations individuals suffer within their own societies, deprivation entailing "...being denied the opportunity to have or do something" (Nolan & Whelan, 2007, p.154). Relative poverty focuses on the most impoverished segment of a country's population by dividing it into quintiles and concentrating on the worst one or two-fifths (Haughton & Khandker, 2009). Relative poverty is founded on the multidimensional approach as it considers the individual's deprivations in relation to their society.

The measurement of this relative poverty varies across each country and the period of time, as it uses a national poverty line based on the particular country's prices, development and standards. This national poverty line is usually derived from the basket of basic food needs (food basket) from the country and it is adjusted according to the change in prices over time (Palmer, 2010). Moreover, Townsend's (1979) conceptualisation of relative poverty has been adopted by several European countries and the EU as part of their definition of national poverty.

It is important to understand the two ways of classifying poverty, absolute and relative, and their measurement processes. This research will draw both from the multidimensional approach in order to measure the relative levels of poverty in Mexico. This measurement of poverty levels, on a national and subnational level, will allow us to explore the nature of the relationship between DV and poverty following our main research questions.

### [The measurement of income inequality](#)

The main method used to measure inequality relies on an individual welfare measure, frequently reflected as the household income per capita, or the consumption expenditure in some case. The former measure remains the most commonly used variable to measure inequality because it is considered to represent a valuable indicator to understand how wealth, earnings, and other economic resources are distributed within a country. This inequality measure differentiates from the Gross Domestic Product (GDP) measure, which only indicates the overall economic growth of a state, but not its allocation within the society. As there are methods to measure GDP, so are there certain indicators to measure how unequal any given society is, the Gini coefficient being the most frequently used (Haughton & Khandker 2009; Torche 2009).

The Gini coefficient is the most widely used (particularly by the United Nations) method to calculate inequality within a society, which according to the World Bank (WB, 2010c, p.1) "...measures the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution". For its measurement, 0 (0.00) represents ideal equality, while the opposite of ideal, 100 (or in its coefficient form 1.00), stands for total inequality

within a society (WB, 2010). The Gini coefficient divides the population into quintiles or fifths, or into deciles or tenths, from the most impoverished to the richest subgroups, since it analyses the proportions of the income variable within each quintile (Haughton & Khandker, 2009).

The measurement of inequality in Mexico is based on relative inequality, the most common classification of inequality used in empirical studies, and defined as the “...proportionate differences in incomes...” (Ravallion, 2004, p.3); relative inequality is also understood as the comparison between the individuals’ income ratio in relation to the society’s income average. The other classification considered for inequality is absolute, which is the measure that “...depends on the absolute differences-the income gap between rich and poor” (Ravallion, 2004, p.3).

For the purposes of this research, the main focus on the second social dimension of DV will be on economic inequality, measured through the Gini coefficient, as this is the data available on both a state and municipal level in Mexico.

As the classification and measurement of poverty and inequality have been explained, we will direct the attention towards the evolution of the poverty measures in the particular case of Mexico, the case study for this research.

#### [Evolution of the measurement of poverty in Mexico: the income approach](#)

It is important for this research to understand the evolution of poverty measures in Mexico, as it reflects the different approaches the Mexican government has taken to tackle this social issue throughout the years. Moreover, the construction of poverty measures helps to build the social policy programmes implemented by the Mexican state, which will be analysed in chapter VI. By analysing the role and extent poverty plays in DV in Mexico, we can understand if the Mexican government considers the underlying development issues of DV when constructing its social programmes (chapter VII).

Prior to the introduction of the multidimensional poverty measurement in Mexico in 2009, poverty was assessed based on the current income per capita. This measure

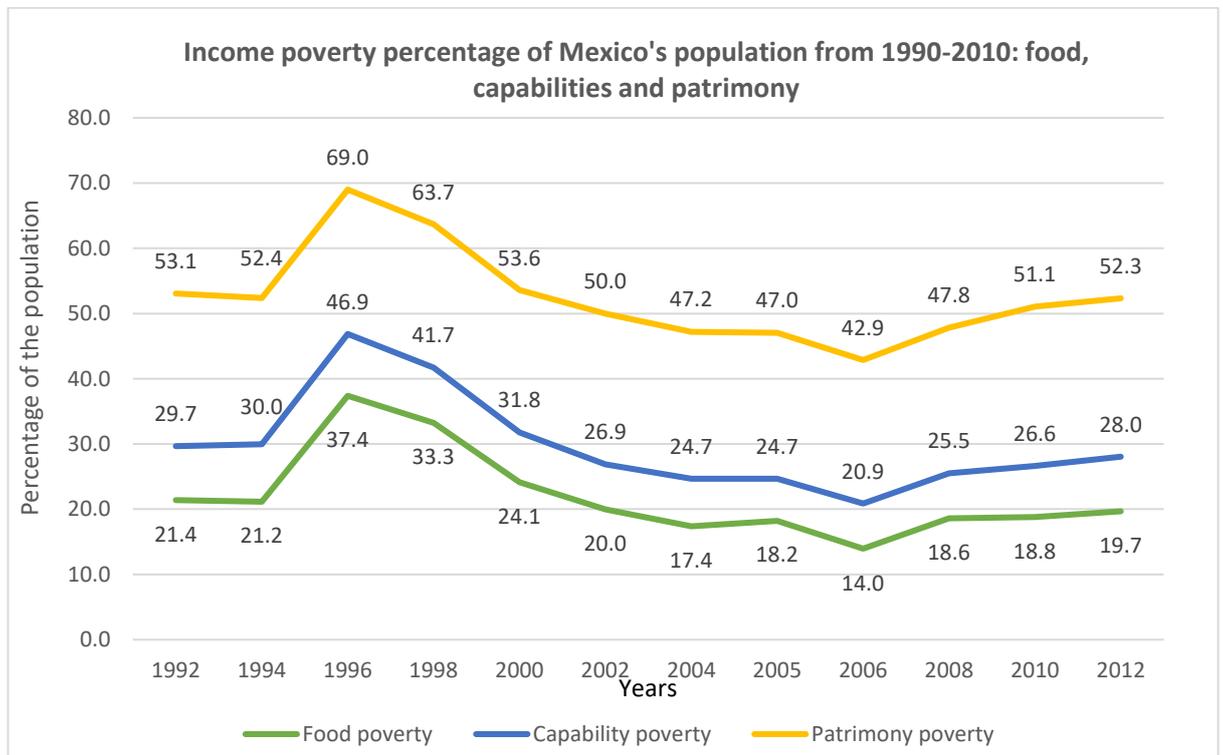
was built using the National Survey of Income and Expenditure at Households (ENIGH), produced by the National Institute of Statistics and Geography (INEGI), which compiles both the rural and urban spheres nationwide, according to the National Council for the Evaluation of Social Development Policy (Coneval, 2010). Income poverty in Mexico was measured following the international poverty lines methodology, comprised of the three following classifications (Coneval 2011; 2011e):

- (a) Food poverty: insufficient income to attain the basic food basket, even if the complete household's income is directed to this priority only.
- (b) Capabilities poverty: inability to obtain the basic food basket plus the necessary health and education requirements with the available household income, even if the whole household's income is aimed at this purpose.
- (c) Patrimony poverty: incapacity to procure the basic food basket, the required education and health expenditures, and the housing, transportation and clothing necessities, even if the total household's income is directed for these purposes.

We can observe from these indicators that the closest classification to a multidimensional poverty approach was the patrimony poverty, as it integrates several of the basic necessities for an individual's survival, and not just food security. However, the weaknesses of this approach resides in its failure to illustrate how the household income is distributed for each of the basic necessities considered; it only accounts for the complete household's income directed towards these necessities and it does not consider emergency expenditures that are difficult to foresee (these weaknesses considered as part of the income approach in the previous section).

The following graph 4.1 can help to illustrate the nationwide level of poverty, following the three classifications based on income poverty, and prior to the introduction of the multidimensional approach in Mexico for the period of 1990 to 2010,

Graph 4.1: Income poverty percentage from 1990 to 2010: food, capabilities and patrimony



Source: Coneval (2010b, 2011).

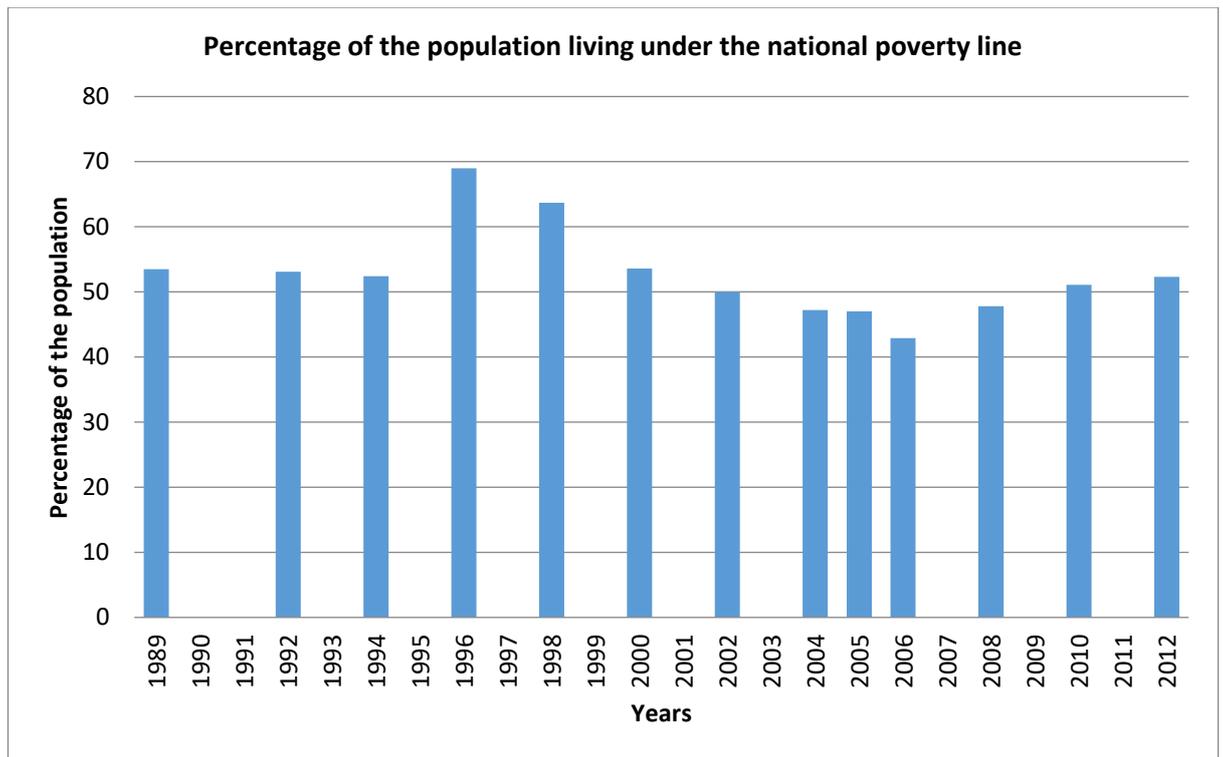
Graph 4.1 shows how patrimony poverty has been the classification with the highest percentage of the population, as it entails more factors than just food security and income. The highest peak was during 1995-1996, and was the result of the 1994 Tequila crisis that hit the country's economy hard. Since then, income poverty in Mexico has been decreasing, up until 2007 when it started to increase again; it has continued with this trend up until the last year of this graph, 2010. Interestingly, this graph shows 2006 as the lowest point for poverty, suggesting an improvement in the overall levels of development in the country. Nevertheless, the year of 2006 also marks the start of the official discourse on the 'War on Drugs' by the Calderón administration, marking the escalation of DV nationwide and the starting year for this research's main period of interest, 2006-2012.

According to Coneval (2010b,2011), for the period from 2006 to 2010, there has been an increase in all poverty classifications: patrimony poverty rose from 42.7% to 52.3% (more than 5.9 million individuals), capability poverty escalated from 20.9% to 28%

(more than 5 million people) and food poverty deepened from 14% to 19.7% (more than 5 million Mexicans). Nevertheless, as an overall analysis of graph 4.1, poverty levels since 1992 to 2012 have slightly decreased in the three income poverty classifications: patrimony poverty from 53.1% to 52.3%, capability from 29.7% to 28%, and food poverty declined from 21.4% to 19.7%. Throughout 22 years of this graph 4.1, there has been a growth of the Mexican population. As a result of this population growth, Coneval (2011) asserts that even as the percentages have been decreasing, the total number of individuals living in patrimony poverty has increased by 4.5 million people; there were 993,000 more individuals for capability poverty and 880,000 individuals for food poverty. Even as the aforementioned figures represent an upsurge in poverty levels nationwide, the larger increases in absolute terms have mainly characterised the period from 2006 to 2010, the latest income poverty information available (Coneval, 2011).

As the majority of this data has been drawn from Coneval (2010b, 2011), an agency from the Mexican government, it is also relevant to consider an international organisation's measure of poverty in Mexico. Data provided by an international organisation, such as the World Bank, can be useful as it can be cross-examined to other levels of poverty worldwide. According to the World Bank (2014), the national poverty line reflects the resident's perception on the income required to not be considered poor, as they take into account the economic and social situation of the country. The World Bank's (2014) national poverty line is based on subgroup estimates from national household surveys, the World Bank's country poverty assessments, and country Poverty Reduction Strategies. All poverty lines are assessed based on the price of the basic food basket, the national diet of the impoverished individuals and non-food related, normal activity (World Bank, 2014). Graph 4.2 illustrates the evolution of the percentage of the Mexican population living under the national poverty line:

Graph 4.2: Percentage of the population living under the national poverty line



Source: World Bank (2014).

For the period of interest for this research, the percentage of the Mexican population living beneath the national poverty line has been increasing since 2006; as mentioned previously with Coneval's data, not only have the percentages increased, but so too has the total number of individuals living in poverty.

The data illustrated in Graph 4.2 for the period from 1992 to 2012 reflects similar percentages of the population living under the national poverty line following the World Bank's (2014) assessment and Coneval's (2012) income patrimony poverty classification. Nevertheless, there are differences for the multidimensional approach observed on the subsequent Graph 4.3. The data on Graph 4.3 indicates a lower percentage of the population living in multidimensional poverty than the one considered for the income poverty assessments, with the difference of 3.5% for 2008, 5% for 2010, and 7.1% for 2010 (Coneval, 2013). However, these differences may be attributed to the different methodologies implemented for the construction of these poverty indexes, the different weights given to each of its components, and the new classification of moderate and extreme poverty levels, including their total sum. All

of this will be explained in the following section on the multidimensional approach on poverty in Mexico.

### [The introduction of the multidimensional measurement of poverty in Mexico](#)

The multidimensional measurement of poverty was only introduced in Mexico in December 2009. This introduction was only possible following the approval of the General Law for Social Development in 2004, which led to the creation of the National Council for the Evaluation of Social Development Policy (Coneval) in 2006.

Coneval is a federal decentralised public organisation, whose key objective is related to the collection of information regarding the measurement of poverty and social policy implemented in Mexico. The General Law for Social Development directed Coneval to design a multidimensional measurement of poverty that could combine both social rights and economic wellbeing, with equal weights on both dimensions; each social right is equally weighted to a total sum of 50% for all social rights, plus the 50% weight given to income as a measure of economic wellbeing. This is the first nationwide poverty measure to integrate a fuller extent of poverty at the household level with a social rights approach, that not only comprises social aspects such as education, housing, social cohesion and health, but also integrates food security and income-based features on a municipal, state and nationwide level. The multidimensional poverty assessments are conducted every two years for the state and national level (2008, 2010, 2012, 2014) and every five years for the municipalities (2010).

Due to the unavailability of more time periods during this thesis' analysis and our research period (2006-2012), this chapter will focus on 2010 as the year of study on a municipality level, as this is the only year that has been provided with a multidimensional poverty evaluation on both state and municipality levels; and it is also regarded as one of the years with the highest levels of DV in the country. On a national level, the presently available results from 2008, 2010 and 2012 will be the ones taken into account as it covers the research period.

According to Coneval's (2010) measure, an individual is classified as living in multidimensional poverty in two levels:

- (1) Moderate poverty: if their income is below the minimum wellbeing line, and if they are deprived in one or more of the aforementioned social rights, considered as deprivations.
- (2) Extreme poverty: if they are deprived in three or more of these dimensions, plus their income is lower than the minimum wellbeing line.

When Coneval (2010) refers to multidimensional poverty in the country and on a subnational level, it encompasses the sum of both the (1) moderate and (2) extreme poverty percentages and figures aforementioned within the geographical domain. This summation of both categories will be the main classification considered for this chapter, as it integrates the previously mentioned classifications into one, and it is the main classification used by Coneval, the main source of poverty figures (Oxford Poverty and Human Development Initiative 2009; Coneval 2010) for Mexico, our case study.

According to Coneval (2010; 2011; 2012; Oxford Poverty and Human Development Initiative 2009), an individual is regarded as 'deprived' depending on the extent of the deprivations of their social rights, as the following classification describes:

- (a) Income, when a person has insufficient resources to acquire the services and goods needed to satisfy their needs.
- (b) Food security, if they are in the moderate or severe level of food insecurity.
- (c) Access to health services, if the individual is not entitled nor enrolled to receive medical attention from public government agencies (Mexican Social Security Institute: IMSS; Seguro Popular; Institute for Social Security and Services for State Workers: ISSSTE, Pemex, the Army or the Navy) or private services.
- (d) Basic housing services, if the person's residence is not in a location with access to electricity, drainage and clean water.

- (e) Social security coverage, if the individual is not enrolled to receive a pension and medical services. The latter services depend on the employment status and an individual is not considered to have a social security deprivation if,
- i. Employed individuals, if they have access to medical services, pension and paid incapacity through their jobs, funded by the employer, individual and/or the state contributions.
  - ii. Self-employed individuals, if they are provided with medical services as part of their job, or if they are voluntarily subscribed to the service of the Mexican Social Security Service (IMSS) and if they have a pension service.
  - iii. For the general population, if they have a pension, or a family member within their household with social security coverage.
  - iv. For the senior citizens (individuals aged 65 or more), if they are the beneficiaries of a pension programme.
- (f) The quality and space of housing, if the construction materials are made of soil or residue material and the ratio of individuals per room is greater than 2.5.
- (g) The level of educational gap, considering that individuals between the age of 2 and 15 should be attending formal education; individuals above 16 would be deprived if they had not completed basic mandatory education at the time.

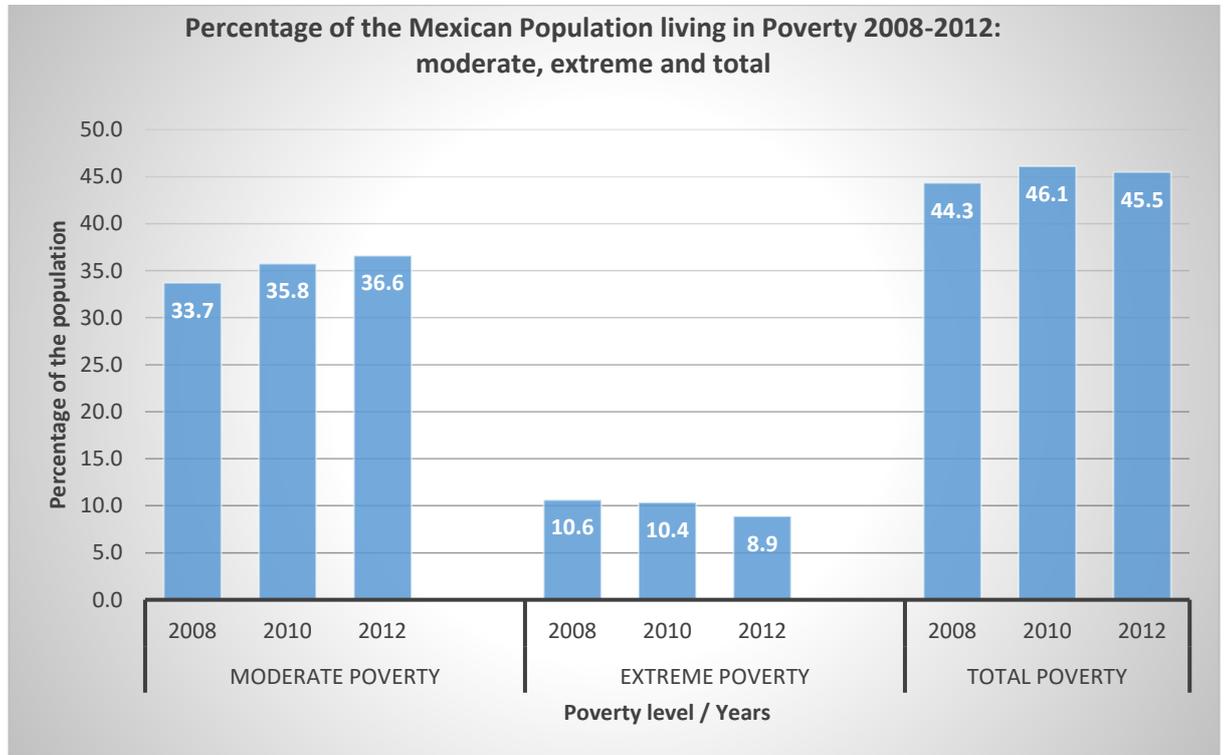
As the multidimensional poverty approach and its measurement have already been explained, the focus will now continue with measuring the current levels of multidimensional poverty in the country, and on a subnational level.

### [The multidimensional levels of poverty in Mexico](#)

The levels of multidimensional poverty in Mexico have overall been increasing since its evaluation first started in 2008. The total level of multidimensional poverty (often referred to solely as poverty in Coneval's studies since 2008) considers both moderate (1 or more deprivations) and extreme (3 or more deprivations) poverty levels from the aforementioned social rights; plus, the variable of insufficient income, regarded as the national poverty line, or below the minimum wellbeing line. The

following graphs 4.3 and 4.4 help to illustrate how the levels of multidimensional poverty have been evolving nationwide and on a subnational level in Mexico, from 2008 until 2012.

Graph 4.3: Percentage of the Mexican population living in poverty from 2008-2012



Source: Adapted from Coneval (2013).

According to Coneval (2013) and illustrated in graph 4.3, 44.2% of the Mexican population was living in multidimensional poverty in 2008, as there were 49 million Mexicans deprived of at least one of the aforementioned social rights, from a total population of 106 million. By 2010, 46.1% of the Mexican population was living in multidimensional poverty, as an estimated 52.8 million, out of the total population of 114.5 million, were deprived in at least one of the dimensions (social rights) considered by Coneval (2013), and their income could not reach the minimum wellbeing line. These individuals within the multidimensional poverty scope had an average of 2.6 deprivations, considered as moderate poverty, but were only 0.5 points from extreme poverty (Coneval, 2013). By year 2012, it was estimated that 53.3 million Mexicans were deprived in at least one of the considered poverty dimensions; 45.5% of the Mexican population lived in poverty, out of the total

Mexican population of 117.3 million. This percentage of the population had an average of 2.4 deprivations (Coneval, 2013).

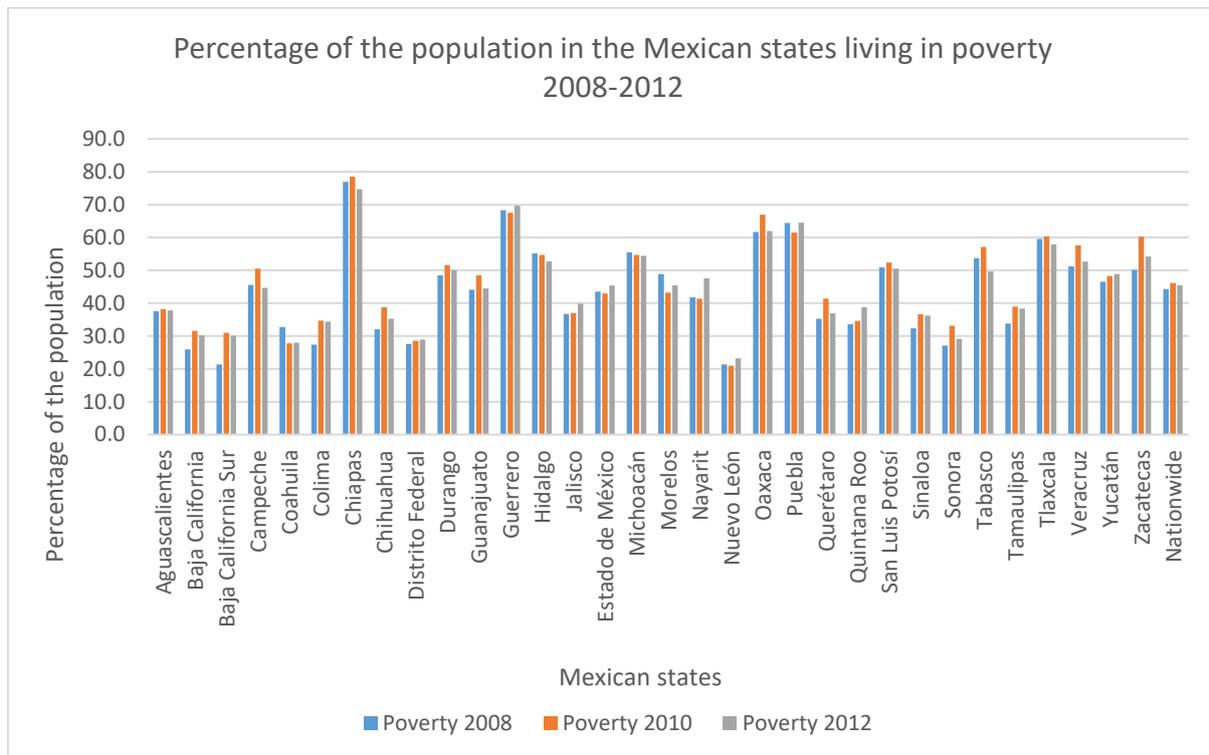
According to the Oxford Poverty and Human Development Initiative (2009), there was an upsurge in the basic services coverage in the country in the period from 2008 to 2010, including social security coverage, access to education and health services, quality of housing, and its basic services. Nevertheless, as a result of the global financial crisis of 2008, other variables of the approach were negatively affected, such as income and food security. The latter aspects had an effect on the poverty figures in the country, as throughout the period of 2008 and 2010, it increased by 3.2 million individuals, amounting to a total of 52 million people. However, the figures of extreme poverty slightly decreased from 12,964 down to 11,529, a difference of 1,435 people (Coneval, 2013). The Oxford Poverty and Human Development Initiative (2009) explains this slight decrease as a result of social policy directed towards the individuals suffering from the most intense level of poverty, extreme. Thus, contrastingly to the increasing number of the population living in moderate poverty, the number of Mexicans living in extreme poverty has decreased from 13 million (10.4 % of the total population) in 2010 to 11.5 million (8.9 % of the total population) in 2012 (Coneval, 2013).

When analysing the percentage of the population living in poverty, we discover the percentages have not changed as much as the total number of people aforementioned. This can be explained due to an increase in the population in the country, as the population increased from 106 million people in 2008 to 114.5 million in 2010, and up to 117.3 million in 2012. As the population increases, even if the number of people living in poverty increased from 49 to 53.3 million, the percentage of the population would not reflect this change as accurately. Nonetheless, for the purpose of this research which has a subnational scope, the focus will be on the percentages of the population within the states, rather than the total number of people nationwide. The latter will not only allow a focus on the poverty levels within the states and their municipalities, but also a comparison between the Mexican states, following the differences in their population rates.

An explanation that could be considered for the decrease in extreme poverty, but increase in moderate poverty levels, could be the possibility of individuals moving from the extreme classification up to the moderate poverty level, slightly improving their economic situation, but still characterised by an impoverished situation. Yet, for the period from 2010 to 2012, moderate poverty increased by 0.8%, but the extreme poverty percentage decreased by 1.5%. This decrease could indicate that part of the 0.8% increase in moderate poverty could be derived from both sides, either individuals living in extreme poverty improving their situation, or individuals not considered previously in the poverty classification who have worsened their situation. Nonetheless, there is a minimum of 0.7% from the decrease in extreme poverty that does not reflect in the increasing 0.8% in the moderate poverty levels, as there was a total decrease of 1.5% in extreme poverty levels. This means that at least 0.7% of the population moved from extreme poverty to no poverty classification, which remains unexplained, and represents an estimated 821,100 Mexicans, out of the total population of 117.3 million people.

Having analysed the poverty levels on a national scope, we will now focus on a subnational level. It is important to consider the multidimensional poverty levels on a subnational level since the 32 Mexican states are very diverse and different from each other. The following graph 4.4 helps to illustrate the difference between the states by analysing the period from 2008 to 2012, the first year since the multidimensional approach was implemented in Mexico, until the latest available report from 2012.

Graph 4.4: Percentage of the population living in multidimensional poverty by state from 2008 to 2012



Adapted from Coneval (2013).

Graph 4.4 shows the 32 Mexican states and their respective levels of multidimensional poverty from the period of 2008 to 2012. The states with the highest levels of multidimensional poverty, with 60% or more of their population suffering from this condition, are Chiapas, Guerrero, Oaxaca, and Puebla. These states have higher percentages of multidimensional poverty than the nationwide average of 45%. One of the key points of this graph is that none of these aforementioned states suffer from high levels of DV within this period from 2008-2012 (part of the research period), with the exception of Guerrero (PR, 2011). In the following sections, we will analyse in more detail this relationship between DV and multidimensional poverty. Furthermore, the states that have 50% or more of their population living in multidimensional poverty, higher than the national average of 45%, are Campeche, Durango, Hidalgo, Michoacán, San Luis Potosí, Tabasco, Tlaxcala, Veracruz and Zacatecas. From the aforesaid states, only Durango and

Michoacán have been characterised by having high levels of DV during this period from 2008 to 2012 (PR, 2011).

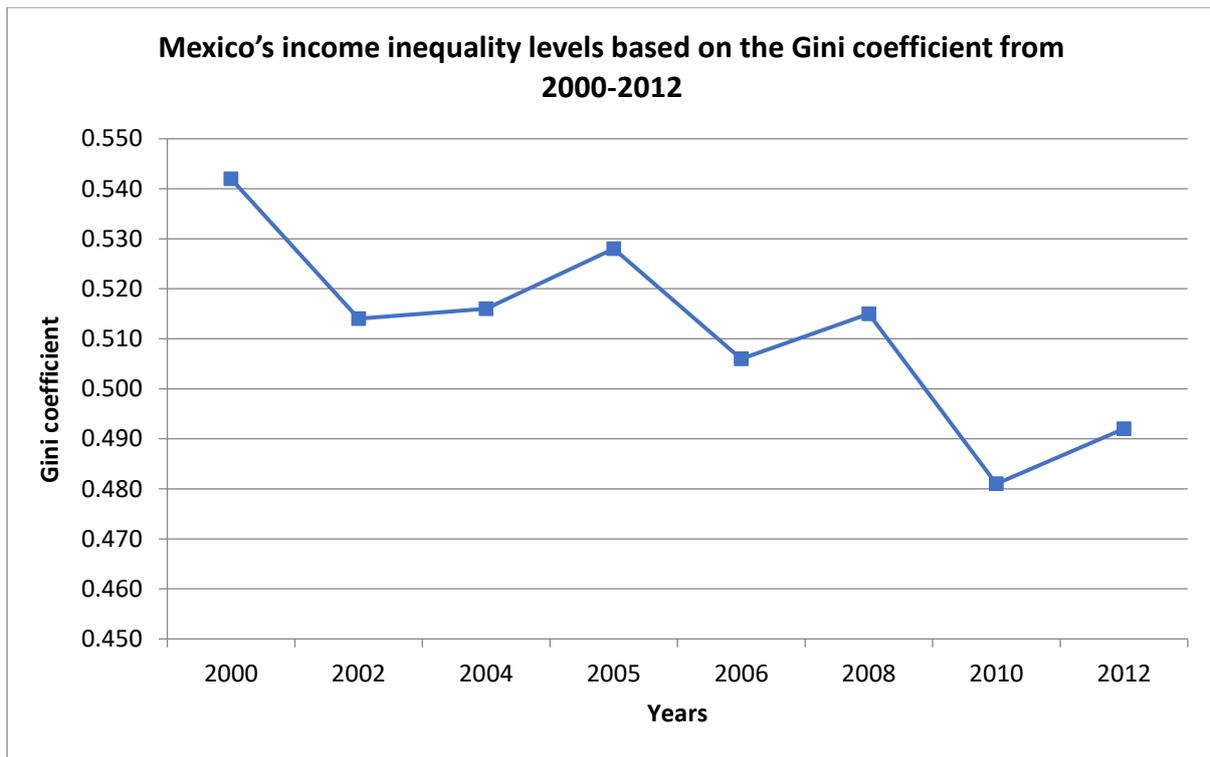
When analysing poverty levels in Mexico, a subnational scope can provide a more accurate perspective. Even on a state approach, the multidimensional poverty levels can be misleading, as they only display an average population percentage of the whole state, but not specifically to each municipality. The municipality level analysis is important because each state varies extremely by size and population, as there are some states that have 570 municipalities (Oaxaca), whilst other states have only 5 municipalities, like Baja California Norte and Baja California Sur (Coneval, 2013). As a result, with this extreme diversity in the division within the states, the average of all municipalities could potentially be misrepresentative of the state and result in a comparison between states as misleading, since their ample differences would be unaccounted for. Nonetheless, the analysis on the national and state levels still helps to create a better perspective on the current levels of multidimensional poverty in Mexico, and thus, will continue to be examined.

Having examined the levels of multidimensional poverty in the country, we will focus on measuring income inequality in Mexico in the following section.

#### Levels of income inequality in Mexico

Our first analysis of income inequality levels in Mexico comes from the Economic Commission for Latin America and the Caribbean (ECLAC), shown in the following graph 4.6:

Graph 4.6: Mexico's income inequality levels from 2000-2012



Source: ECLAC (2014)

As the previous graph 4.6 shows, from ECLAC's (2014) analysis, the Gini coefficient in Mexico has been decreasing during the last twelve years, from 0.54 in 2000, down to 0.49 in 2012. Its sharpest declines were observed from 0.54 in 2000 down to 0.51 in 2002, and from 0.51 in 2008 to 0.48 in 2010. However, the latest information available indicates that the Gini coefficient has been on the rise since 2010 to 2012, from 0.48 in 2010 to 0.49 in 2012.

When observing a trend, it is useful to consider a longer period of time and different sources. The evolution of the Gini coefficient can be clearly observed in the following graph 4.7 that focuses on Mexico's income inequality levels since the 1980s according to the latest report from the World Bank:

Graph 4.7: Evolution of Mexico's Gini index from 1984-2013



Source: Adapted from World Bank (2014)

At the beginning of the 1990s, the Gini coefficient was decreasing overall; nevertheless, by the late 1990s, it increased substantially, reaching one of its highest peaks in 2000, with 0.52. Interestingly, this varies from ECLAC's (2014) Gini coefficient measure of 0.54, for 2000. Since 2000, according to the World Bank (2013), the Gini index has started to gradually decrease, until it has reached its lowest point in 2004, down to 0.46 (0.51 according to ECLAC, 2014). The index varied considerably between 1992 and 2008, with its most significant decrease from the period of 2000 to 2005 (conversely to ECLAC's most substantial decrease periods of 2000-2002 and 2008-2010). Since then, it has increased back to 0.48 (0.51 according to ECLAC, 2014) in 2008 and slightly decreased down to 0.47 (0.48 according to ECLAC, 2014) in 2010, and its more recent reading from 2013 shows a static coefficient of 0.47 for 2013 (UNDP, 2013, from World Bank, 2013). It currently holds the number 56 in the Gini coefficient worldwide ranking (World Bank, 2013).

The previous two graphs about Mexico's income inequality levels, reflected via the Gini coefficient, showed different estimates, when two international sources are

used; this could be a result of the usage of different datasets. However, both sources agreed that the Gini coefficient reached one of its highest points in 2000 and one of its lowest in 2010. However, the latest information available from ECLAC for 2012 shows that the Gini coefficient trend is on the rise again (ECLAC, 2014). This increase from 2010 to 2012 could be a result of the Global Financial Crisis from 2008, since the high peak in 2000 could be a result of the Tequila Crisis in 1994. Nevertheless, the most recent data available from the World Bank (UN, 2014) shows that the trend could be decreasing again, as 2013 showed a 0.47 coefficient.

As the analysis of the Gini coefficient from both the ECLAC (2014) and the World Bank (2014) have shown, there are significant differences between these two sources' estimates. Furthermore, it is important to examine the information available from the Mexican government agencies, like Coneval (2011c, 2013c), since their information is the data used for a subnational level for the following subsections. In an attempt to obtain the most accurate estimations of the Gini coefficient evolution from 2000 to 2012, including information from two international organisations and a Mexican agency, we have encompassed all of this information in the following table 4.8.

Table 4.8: Different measures of the Gini coefficient by source at a national level from 2000-2012

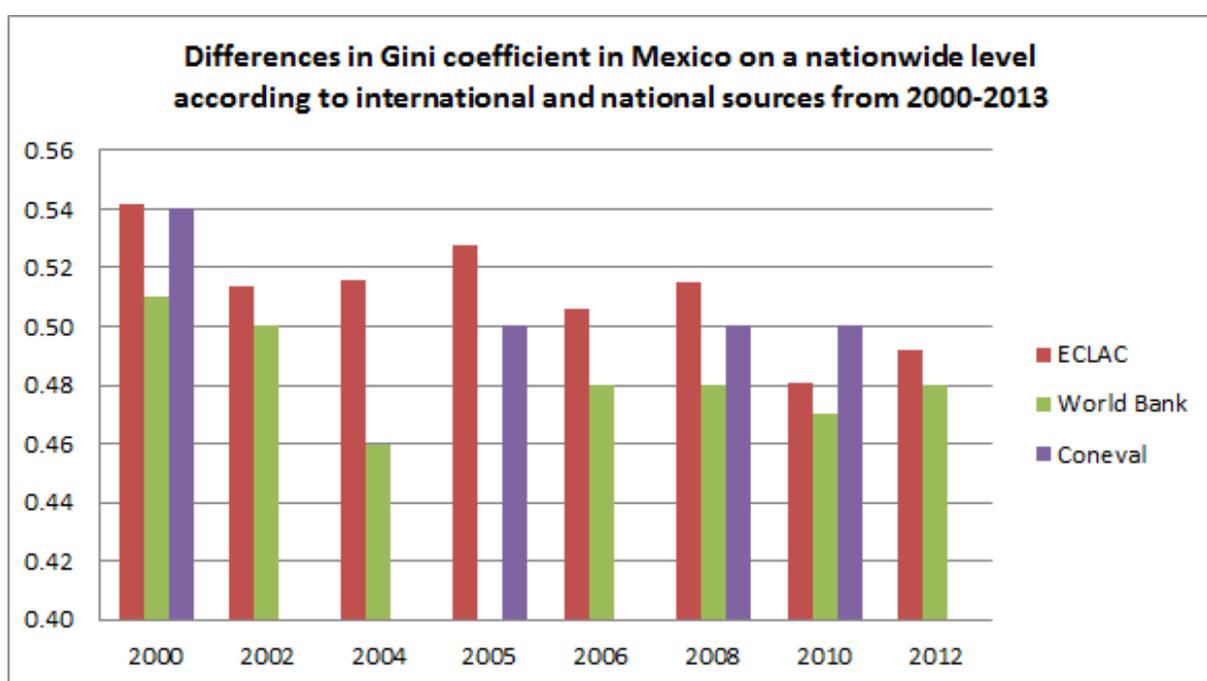
Gini coefficient in Mexico 2000-2013 according to international and national sources									
Organisation	2000	2002	2004	2005	2006	2008	2010	2012	2013
<b>Coneval (Mexican government)</b>	0.54			0.50		0.50	0.50		
<b>ECLAC</b>	0.54	0.51	0.52	0.53	0.51	0.52	0.48	0.49	
<b>World Bank &amp; United Nations</b>	0.51	0.50	0.46		0.48	0.48	0.47	0.48	0.47
<b>Average</b>	0.53	0.51	0.49	0.51	0.49	0.50	0.48	0.49	0.47

Own elaboration, based on data from Coneval (2011c, 2013c), ECLAC (2014), World Bank (2014), UN (2013)

The previous table 4.8 indicates the dissimilar estimates of Gini coefficient for Mexico on a national level. By including the estimates from these three sources on the same table, we can estimate an average of the Gini coefficients provided, and with this, obtain a clearer picture of the actual changes. According to the latest information from the World Bank (2014), the Gini coefficient in Mexico for 2013 was 0.47. The

latest information available from the National Council for the Evaluation of Social Development (Coneval, 2013c) shows a 0.47 Gini coefficient for the year 2010. However, the Economic Commission for Latin America and the Caribbean (ECLAC, 2014) displayed a coefficient of 0.48 for the same year of 2010 and an increasing coefficient to 0.49 for 2012. The following graph 5.6 shows these latest Gini coefficient developments in Mexico, for the period of 2000-2012, from information acquired from the three sources.

Graph 4.9: Different measures of the Gini coefficient by source at a national level from 2000-2012



Own elaboration, based on data from Coneval (2011c, 2013c), ECLAC (2014), World Bank (2014), UN (2013)

As can be observed from graph 4.9, only the years of 2000, 2008 and 2010 include data from the three sources, with an average of 0.53, 0.50 and 0.48 respectively, the latter average being the most agreed estimation between the three sources. Furthermore, the average Gini coefficient of the Mexican states from 2000 to 2010 has been an average of 0.50 and it had an overall decrease from 0.53 in 2000 to 0.49 in 2012.

As the national levels of poverty and income inequality have been reviewed, the subsequent sections centre on the subnational levels for these two variables.

### [Analysis of multidimensional poverty and DV levels of the Mexican states](#)

Following our research questions, in this section we will continue to focus on exploring the relationship between poverty and DV at both a state and municipality levels, by comparing municipalities within the same state and across different states, throughout the following sections.

As a brief reminder of the importance of this section's analyses, we can briefly recall the conclusion from the previous chapter that pointed towards a positive relationship between inequality, poverty and violence, although not specifically DV (only scarce literature is available). However, several of the studies analysed within these bodies of literature challenged the common assumption on the positive relationship between these two conditions and violence; rather, they highlighted how the nature of the relationship is dependent on the dynamics between social institutions, structures and exogenous factors and their impact on violent crime. The data analysis conducted in this particular research challenges this conventional perspective on the positive relationship between poverty and violence and puts forth some interesting insights on the state and municipal level, in the particular case of DV in Mexico.

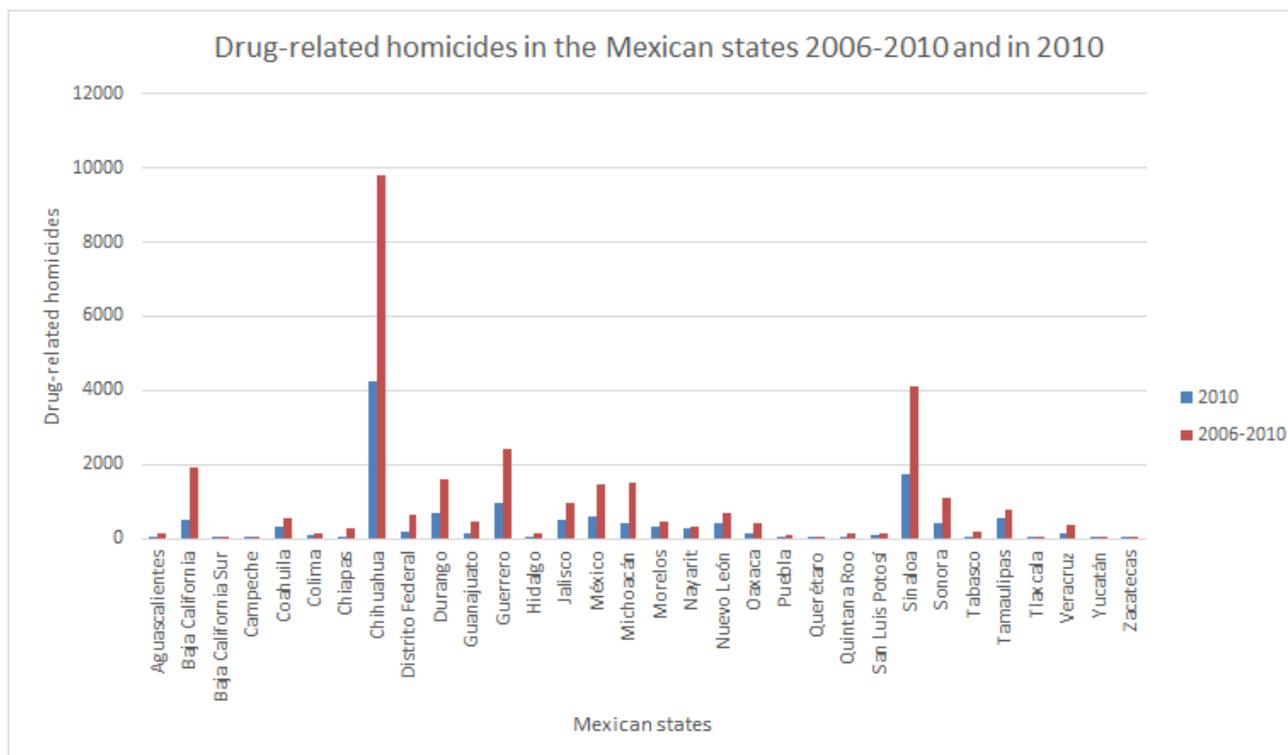
With figure 4.10, we start by reviewing a general perspective of the most drug violent states from 2006 to 2010, the only period of information available from an official source, for the specific DH criteria. The most drug violent states were considered according to the criteria of equal or above the Mexican states' average of 900 DH, for the period of 2006-2010. The most drug violent states for this period were Baja California Norte, Chihuahua, Durango, Guerrero, Jalisco, Estado de Mexico, Michoacán, Sonora, Tamaulipas and Sinaloa (PR, 2011). However, if we were to consider the subnational level within the states and followed the criteria of more than 90 DH per municipality (as per used by the TBI) for this same period of time, we

add Aguascalientes, Coahuila, Distrito Federal, Morelos, Nayarit, Nuevo León and Quintana Roo as states that had drug-violent municipalities.

For this particular section, the year of study will be 2010 as it is the only year when multidimensional poverty levels have been assessed on both a state and municipal level for our research period; it is also one of the years when drug-related violence has been exclusively accounted for by an official source (PR, 2011) and it is regarded as one of the most drug violent years, providing a good opportunity to compare both poverty and DV, and understand the nature of their relationship.

When considering the year of 2010, following the criteria of equal or higher than the average of the states' DH for this particular year (equal or above 400 DH), the most drug violent states are similar to the ones from the period of 2006-2010: Baja California Norte, Chihuahua, Durango, Guerrero, Jalisco, Estado de Mexico, Michoacán, Sinaloa, Tamaulipas, Sonora. Nuevo León, the state where our qualitative case study of the MMA belongs to (Chapter V), is added to the list as a comparison with the most drug violent states from 2006-2010.

**Graph 4.10: Drug-related homicides in 2010 in relation to the period 2006-2010**



Own elaboration, based on data from PR (2011) and PGR (2011).

One of the key insights that graphs 4.4 and 4.10 both illustrate is that most of the drug-violent states' (2010) levels of multidimensional poverty remain below the nationwide average of 45%. This quantitative finding suggests that the most drug-violent states in the country are in fact not the most impoverished states, as conventional wisdom from the theoretical frameworks analysed would dictate; but, rather, the most DV states actually remain beneath the average multidimensional level of poverty for the whole country.

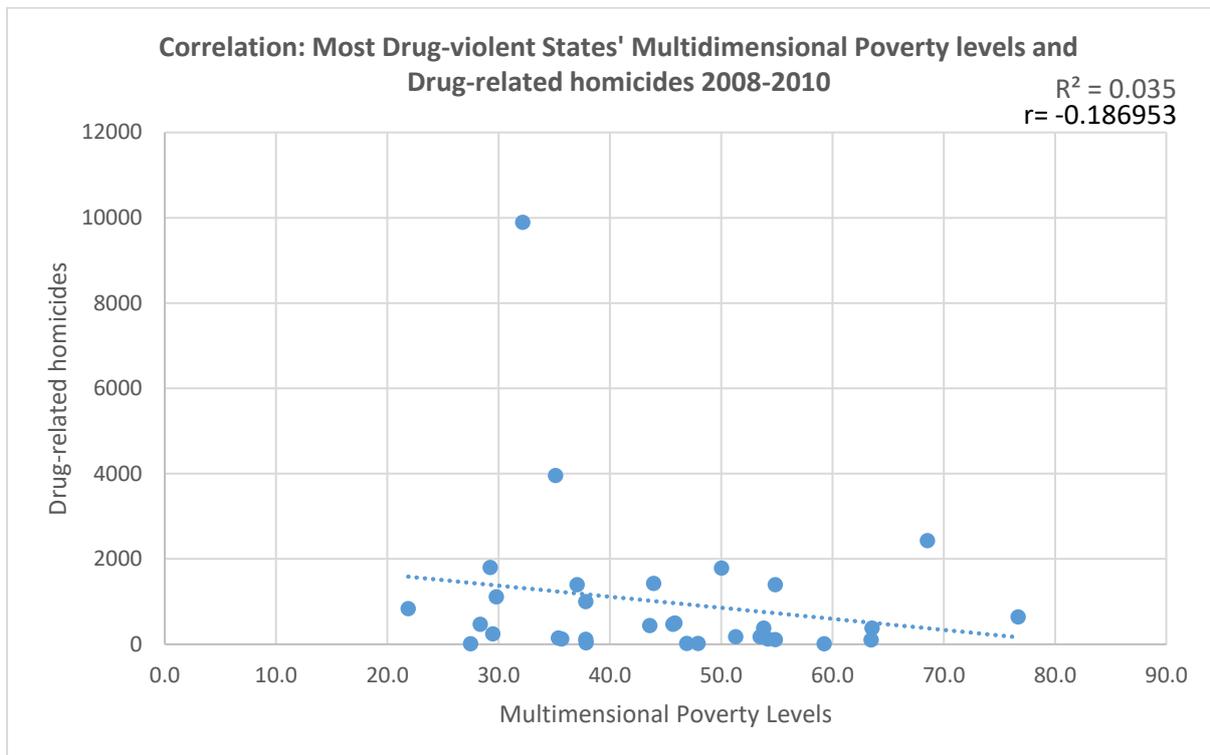
Examples of the most drug-violent states with their respective average levels of multidimensional poverty from 2008 to 2012, are Baja California Norte at 29%; Chihuahua at 34%; Jalisco at 37%; Estado de Mexico at 43%; Nuevo León at 21%; Sinaloa at 34%; Sonora at 29%; and, Tamaulipas at 36% (Graph 4.4). The only three exceptions to the trend are Guerrero at 68%, Michoacán at 54%, and Durango, which is barely above the nationwide average of 45% with 49%. Furthermore, graph 4.5 shows that the most impoverished states, with 60% or more of their population living in poverty, Chiapas, Oaxaca, and Puebla, are actually the states with the least DV levels during this period; Guerrero is the only exception. Additionally, the states with high levels of multidimensional poverty, 50% or above of their citizens living in poverty, do not suffer from high levels of DV either, such as Campeche, Hidalgo, San Luis Potosí, Tabasco, Tlaxcala, Veracruz and Zacatecas; the only exceptions are Durango and Michoacán.

In order to understand in more detail the relationship between these two variables, the multidimensional poverty levels and DV (represented by drug-related homicides-DH) on a state level, we will look into their trends and correlation. Correlation refers to the measure of the strength of association between variables. The type of relationship between the variables can be positive if both variables decrease or increase together; or, can be referred as a negative association, if one variable decreases when the other increases, respectively. In order to visualise the correlation between the data in more detail, we will rely on scatter (X Y) graphs, also referred as scatterplots. A scatter graph helps to analyse "...whether there seems to be a relationship between variables, what kind of relationship it is and whether any cases are markedly different from the others" (Field, 2009, p.116).

The analysis will also draw from the correlation coefficient and the coefficient of determination. Pearson's correlation coefficient is defined as, "...a measure of the strength of relationship between two variables". (Field, 2009, p.57). The correlation coefficient ( $r$ ) "...is a commonly used measure of the size of an effect: values of  $\pm 1$  represent a small effect,  $\pm .3$  is a medium effect and  $\pm .5$  is a large effect" (Field, 2009, p.173). The Pearson correlation coefficient squared is referred to as the coefficient of determination ( $R^2$ ), defined as "the proportion of variance in one variable explained by a second variable" (Field, 2009, p.783). The coefficient of determination is also an appropriate measure for interpretation for this thesis as it is used to analyse the proportion of the variation in Y (drug-violence) that can be explained by the X (poverty and inequality) variable and is frequently expressed as a percentage (Field, 2009). It is important to highlight that correlation does not imply causality between these two variables as there may be other variables affecting the results, a problem identified as the third-variable problem or the tertium quid (Field, 2009). Thus, this analysis will not explore the causal relationship between both variables. As mentioned earlier, DV is the dependent variable considered for this thesis, and for this particular section, multidimensional poverty levels are the independent variable.

The following scatter(XY) graph examines the correlation between the levels of multidimensional poverty and the most drug violent states in the country for the period of 2008-2010, as the data is available for both variables on a state level,

Graph 4.11.: Correlation: Most Drug-violent States' Multidimensional Poverty levels and Drug-related homicides 2008-2010



Source: Own elaboration, based on data from PR (2011), PGR (2011) and Coneval (2013).

The graph 4.11 indicates there is no strong correlation between these two variables- poverty and drug-related homicides- in the most drug-violent states in Mexico for the period from 2008-2010. The correlation coefficient (r) is .19 (rounded) suggesting a small effect and a negative relationship, suggesting that as one variable increases, the other decreases. The coefficient of determination ( $R^2$ ) suggests that only 3.50% of the variation of drug-related homicides can be related to multidimensional poverty levels in the most drug-violent states in the country.

This is a significant insight because it challenges what would be expected from the theoretical frameworks reviewed in chapter III, as several of the reviewed authors would suggest that the most impoverished states and municipalities would suffer from the highest levels of drug violence. Nevertheless, graphs 4.10 and 4.11 show that this is not the case for the particular Mexican case, for the particular period of research considered for the data analysis aforementioned. Furthermore, this level of

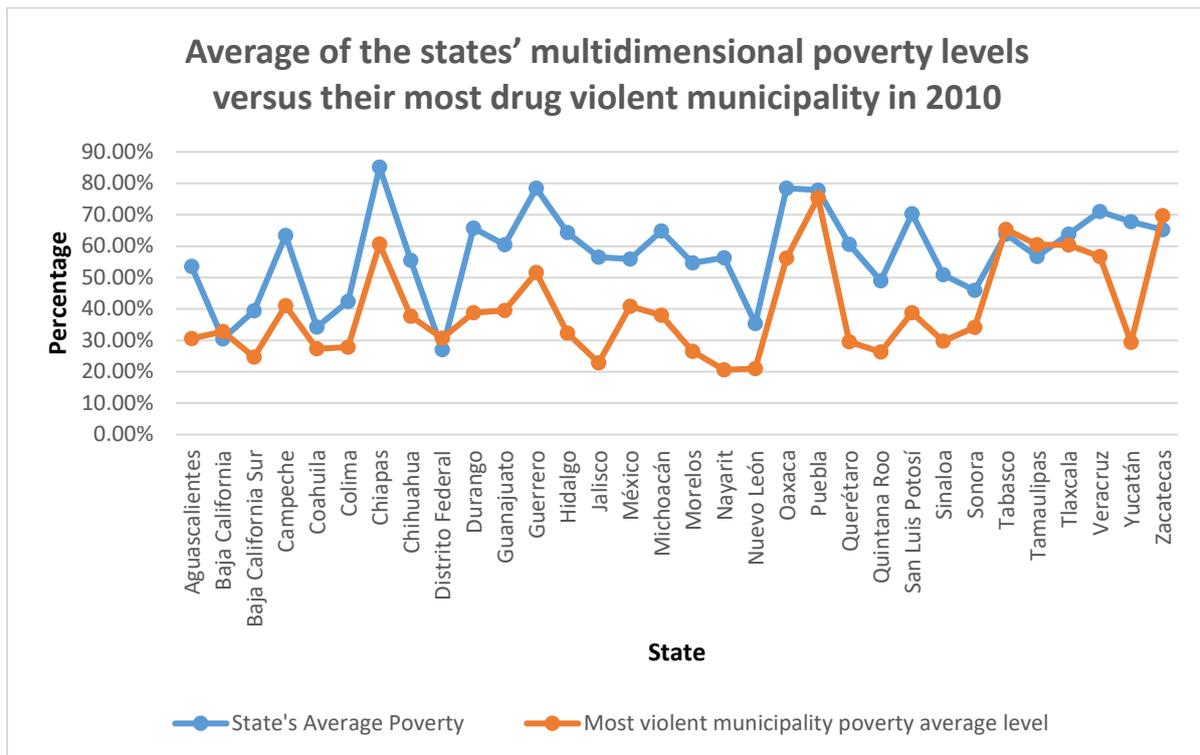
comparison between the Mexican states exemplifies why analysing on a municipal level can provide a more accurate perspective into whether there is a relationship and what the nature of the relationship between DV and multidimensional poverty is for our case study. The insights drawn from graphs 4.10 and 4.11 help to explain the importance on focusing not only on a subnational level, but more specifically, on a municipality one, as we will on the following sub sections.

### The multidimensional poverty levels of the Mexican states versus their most drug violent municipalities in 2010

As the importance of focusing on the municipality level has already been established in the previous section, we will now compare the average level of multidimensional poverty on each state and on its most drug violent municipality, with the aim of comparing municipalities within the same state and the relationship between DV and relative levels of multidimensional poverty. The focus on this section will be on the year 2010 given the data is available for both poverty and DV on a municipality level within our research period.

The following graph 4.12 displays the average multidimensional poverty level of each state, plus the average multidimensional poverty level of the most drug violent municipality within that same state, the municipality with the highest number of DV when comparing all the state's municipalities. This level of analysis can present a more accurate comparison between these two variables as it is comparing municipalities within the same state.

Graph 4.12: Average of the states' multidimensional poverty levels versus their most drug violent municipality in 2010



Own elaboration, based on data from PR (2011) and Coneval (2011).

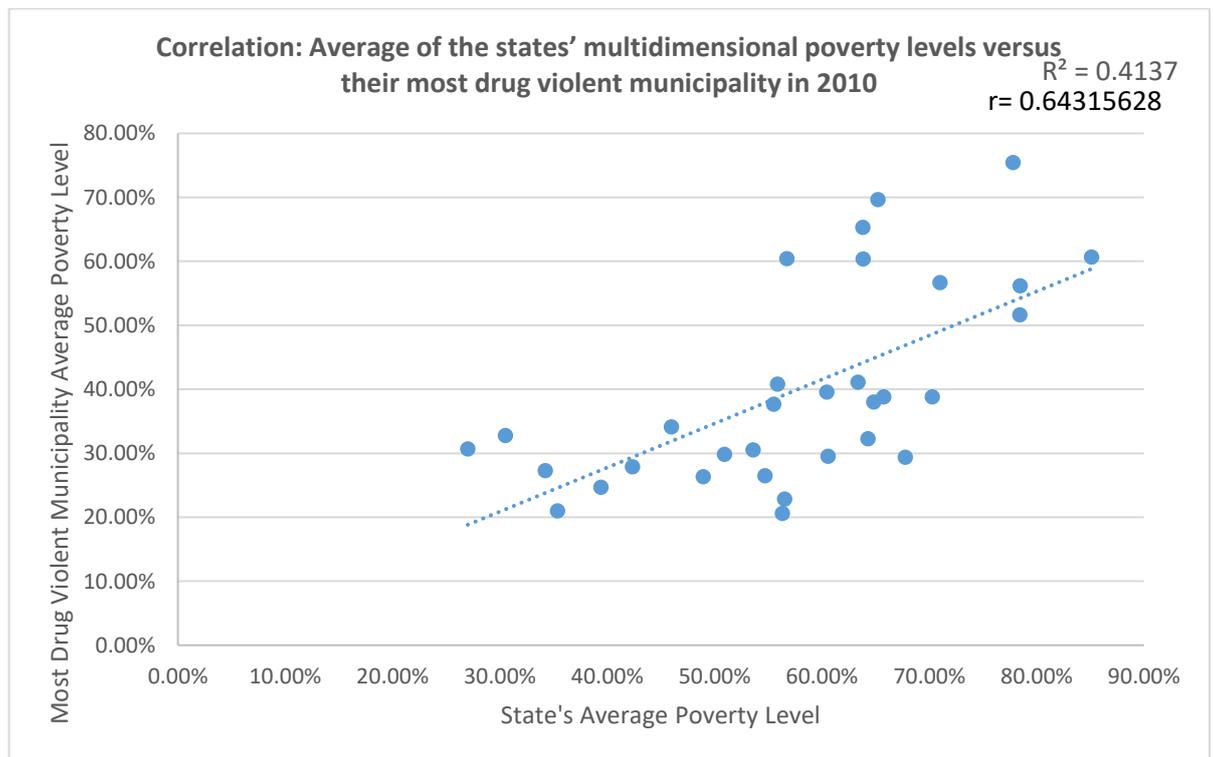
The crucial point we can observe on graph 4.12 is that the state's most drug violent municipality is generally beneath the state's average multidimensional poverty level. The significance of the aforementioned insight relies on how the most drug violent municipality within each of its states is less poverty-stricken than the rest of the municipalities of that same state. The most drug violent municipalities within each state have a lower level of multidimensional poverty than the average poverty level of all the municipalities within the same state. The significance of this trend is that the insight about the positive relationship between poverty and violent crime (explored within the theories of chapter III) does not apply for DV in the Mexican states, for the period of research. There are only a few exceptions to this trend, such as Baja California Norte, Distrito Federal, Tabasco, Tamaulipas and Zacatecas; five states out of the 32 Mexican states. Additionally, the multidimensional poverty percentage difference between the state's average and the most drug violent municipalities in these five state exceptions are minimal, with a slight difference of

less than 5% for each case. Furthermore, out of these five states' exceptions, only two are considered to have high levels of DV, Baja California Norte and Tamaulipas.

Graph 4.12 also shows that on average the multidimensional poverty levels of all 32 Mexican states is 57.65%, whilst the average of their most violent municipalities is 39.19%. These results indicate that there is a difference between the two of them of 18.47 percentage points, between the average multidimensional poverty levels of the states versus the most drug violent municipalities across the country. This significant difference will be fully explored in the next section, as it analyses each of the components that integrate the multidimensional poverty index.

As we have analysed the trend of these aforesaid variables, the following graph 4.13 focuses on examining their correlation.

Graph 4.13: Correlation: Average of the states' multidimensional poverty levels versus their most drug violent municipality in 2010



Source: Own elaboration, based on data from PR (2011), PGR (2011) and Coneval (2013).

The graph 4.13 indicates a large effect between the states' average multidimensional levels of poverty and their most drug violent municipality, with a .64 correlation coefficient. The coefficient of determination suggests that 41.37% of the variability in the state's most drug violent municipality average poverty level is accounted by their state's average poverty level. This large effect was expected as we are comparing the same variable-poverty levels- for two different entities-the state and its most drug violent municipality, explaining its close degree of correlation. The trend explored in the previous graphs prevails, as the most drug violent municipalities' poverty levels remain lower than the average poverty level of their respective state. Nevertheless, given the two entities-state and its most DV municipality-belong within the same location-the state-it is illustrative to include these scatterplots as they show the distribution between the states and their most DV municipality across the country.

It is important to highlight that this research explored the relationship between all the Mexican municipalities (at the same time) and their corresponding multidimensional poverty levels via scatterplots. However, given the more than 2,000 municipalities in the country and the existent outliers in drug-related homicides ranging from 0 to over 6,000 homicides, the graphs were unclear and thus not included on this section. As a result, the research will continue to focus on the relationship between the states and their respective municipalities.

### [Analysis of the multidimensional poverty components within the Mexican states versus their most drug violent municipalities in 2010](#)

The last section introduced an important empirical finding when exploring the relationship between DV and multidimensional poverty levels in 2010 for the Mexican states and its municipalities. This overall trend has pointed towards the idea that for most of the Mexican states, the most drug violent municipalities within a state present lower levels of multidimensional poverty than the average of the same state, a negative correlation between these two variables. Nonetheless, as mentioned earlier, correlation does not imply causation and as such, cannot explain the direction of causality. The correlation coefficient does not provide any information regarding which variable influences which one and does not determine

if there are any other variables influencing this relationship (third-variable problem) (Field, 2009). Even if it is appealing to conclude that these drug violent municipalities have a better economic and social development than the rest of the municipalities within the same state; the outcome could also suggest these localities are the most drug violent, as they account for more material resources than their counterparts within the same state (reverse causality) or that as these municipalities have lower levels of poverty given the illegal drugs market that operates within them (third-variable problem). However, by analysing the coefficient of determination ( $R^2$ ) we can take the research further as it is a measure of the degree of variability in one variable that is shared by the other one, making it a valuable measure of the significance of an effect even if it cannot conclude causal relationships between these variables and thus, cannot conclude the direction of causality (Field, 2009). Notwithstanding these issues, the analysis still introduces an important line of research regarding the relationship between poverty and DV in Mexico for the research period, particularly given the government's introduction of anti-poverty programmes as the emerging drug policy focus.

In order to continue to explore this line of investigation, we will examine each of the multidimensional poverty components and their relationship with DV in this section, observing the trend and correlation between these, as this will make it easier to illustrate the particular relationship of each component of poverty with DV levels by state and municipality.

As previously mentioned, the multidimensional poverty measure is built by several components that include:

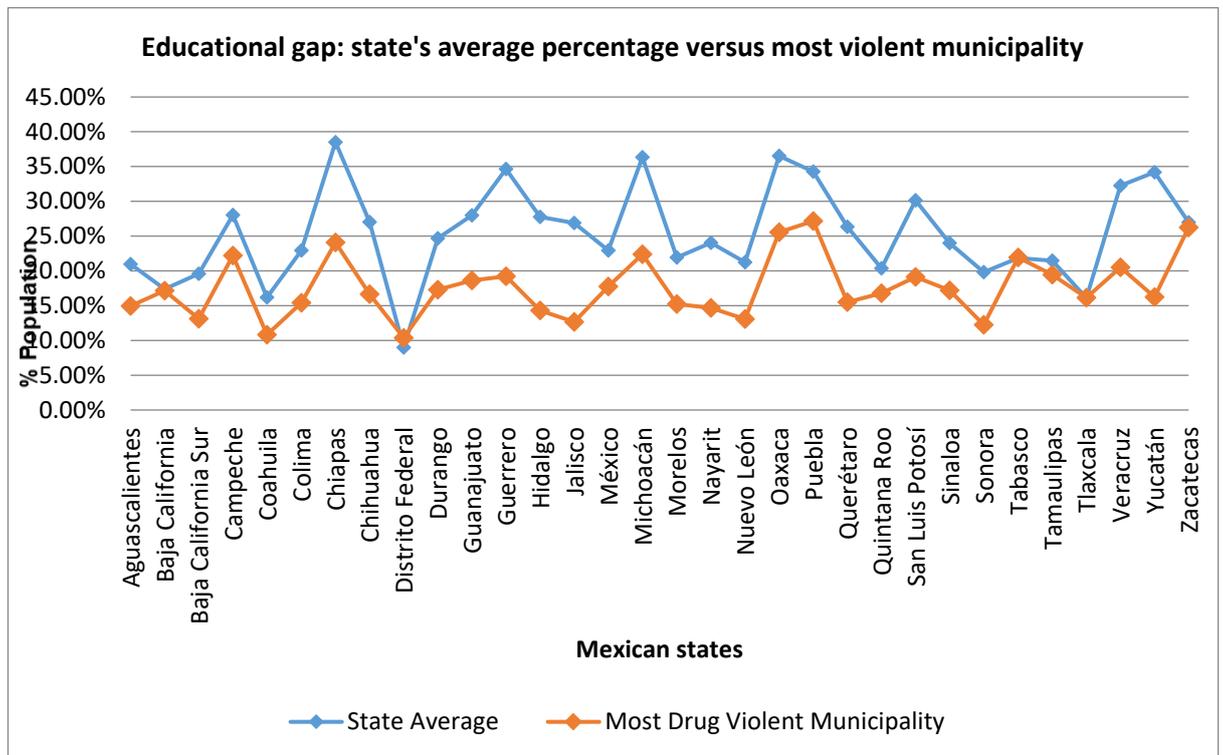
- (a) Food security
- (b) Educational gap
- (a) Access to health services
- (b) Quality and space of housing
- (c) Access to the basic housing services
- (d) Social security coverage
- (e) Income per capita
- (f) Degree of social cohesion

In the following sections, we will individually analyse six (a-d) of these eight components within a state, the ones from which the data is available. We will compare the average of the population of the state who suffer from a lack of one of these poverty components, with the levels displayed on the same poverty component on the same state's most drug violent municipality. With this, the aim is to analyse the relevance of each multidimensional poverty component and its particular relationship with DV levels. As was mentioned earlier, the weight for the multidimensional poverty components, both social rights and economic wellbeing, amounts to 50% each category for the overall multidimensional levels of poverty; income per capita is used as the sole measure for economic wellbeing. As income per capita has already been examined in the previous sections (graph 4.1), this subdivision will focus on the social rights instead, the other 50% of the total multidimensional poverty measure. The other component that will not be considered in this section is the degree of social cohesion, as Coneval (2011) explains that it is included on a separate evaluation and it uses a qualitative indicator that could not be integrated into this data analysis. The rest of the social rights' components will be analysed in subsequent sections.

### Educational gap

The first multidimensional poverty component we will analyse is the level of educational gap, illustrated in the following graph 4.14. This multidimensional poverty component considers the individuals of 16 years old or above that are deprived from basic mandatory education, regarded as educational gap (Coneval, 2010). Graph 4.14 illustrates the state's average percentage of its population with educational gap, versus the percentage of the population with educational gap in the most drug violent municipality within the same state.

Graph 4.14: Educational gap: state's average percentage versus their most drug violent municipality



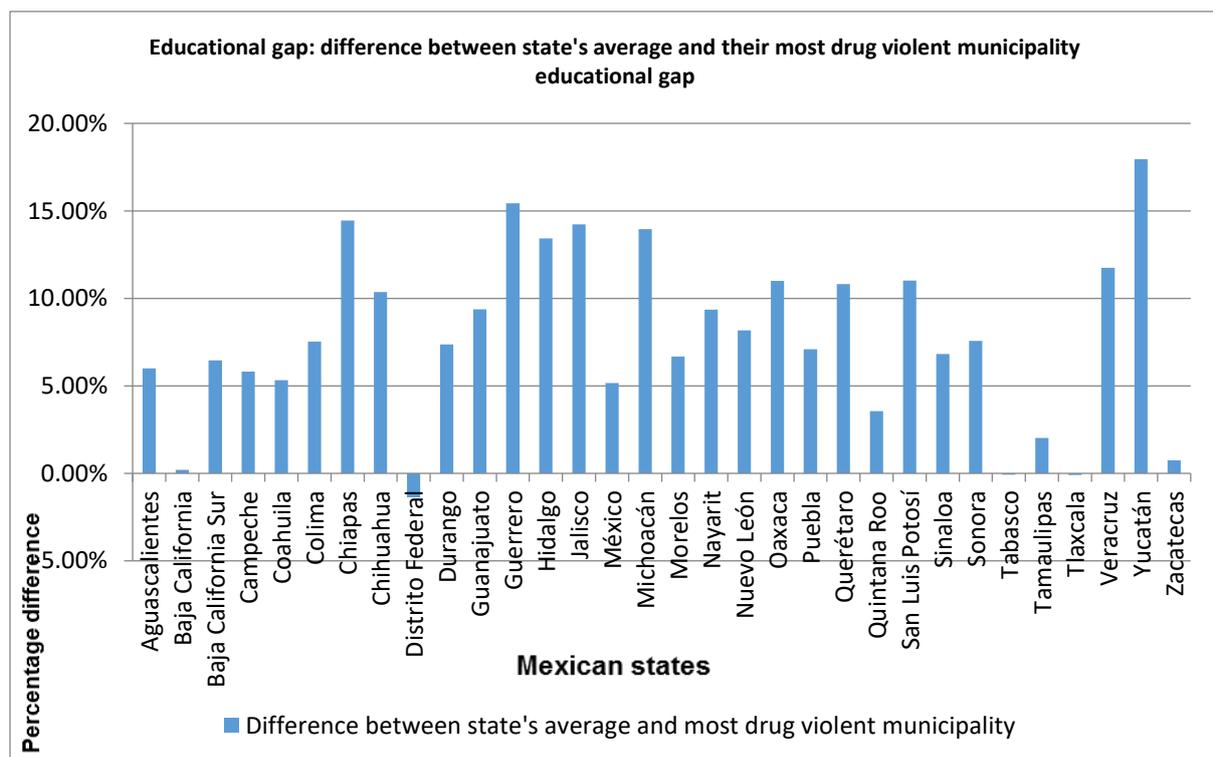
Own elaboration, based on data from PR (2011) and Coneval (2011).

Graph 4.14 shows the important trend that continues several of the studies from our theoretical framework (Chapter III), since the previous section. The aforesaid graph shows how the majority of the most drug violent municipalities' levels of educational gap fall below the average percentage of educational gap within their state; the significance of this finding relies on how the most drug violent municipalities have higher levels of education than the rest of the municipalities within the same state, many of which are non-drug violent localities. This finding indicates that the most drug violent municipalities within a state have a lower educational gap, as they show a lesser degree of the population deprived of basic mandatory education, than the rest of the municipalities within the same state. A few exceptions are, again, Distrito Federal's most drug violent municipality, which scores 1% higher in educational gap than the rest of the state, and Baja California Norte and Tabasco that present the same level of educational gap between the most violent drug-related municipality and the average of the state. Additionally, the differences within these exceptions

are not as high as the ones displayed by the rest of the cases in the graph that do support the trend.

On average, the most drug violent municipalities' educational gap levels are 7.75% below the educational gap of the state's average of all its municipalities. The larger the difference between these two indicates how the most drug violent municipality has an even lesser degree of educational gap in comparison with the rest the state. This can be better appreciated in graph 4.15, which displays the difference between each Mexican states' average educational gap and its corresponding most drug violent municipality in the educational gap poverty component.

Graph 4.15: Educational gap: difference between state's average and their most drug violent municipality educational gap

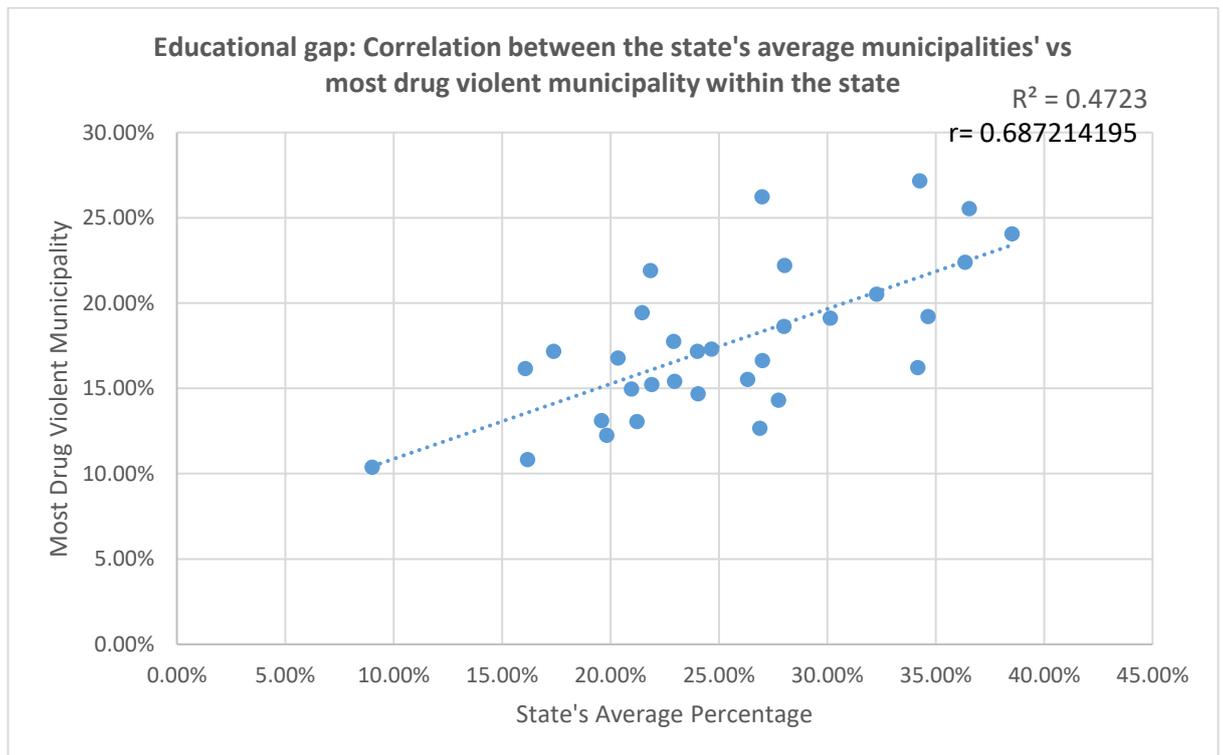


Own elaboration, based on data from PR (2011) and Coneval (2011).

Graph 4.15 shows that all states, except Distrito Federal, have the characteristic that their most drug violent municipality has a lesser percentage of the population with educational gap than the rest of the state, as mentioned in graph 4.14. The exception of Distrito Federal is not considered a drug violent state for the research period. This, again, follows the overall trend that the most drug violent municipalities have a lower

level of educational gap than the rest of their corresponding states. Some of the most drug violent states that show the highest differences between the average of the state and their most drug violent municipalities, are Guerrero, Jalisco and Michoacán. The subsequent graph 4.16 analyses the correlation between the educational gap on the state's average municipalities and their corresponding most drug violent municipality.

Graph 4.16: Educational gap: Correlation between the state's average municipalities vs most drug violent municipality within the state



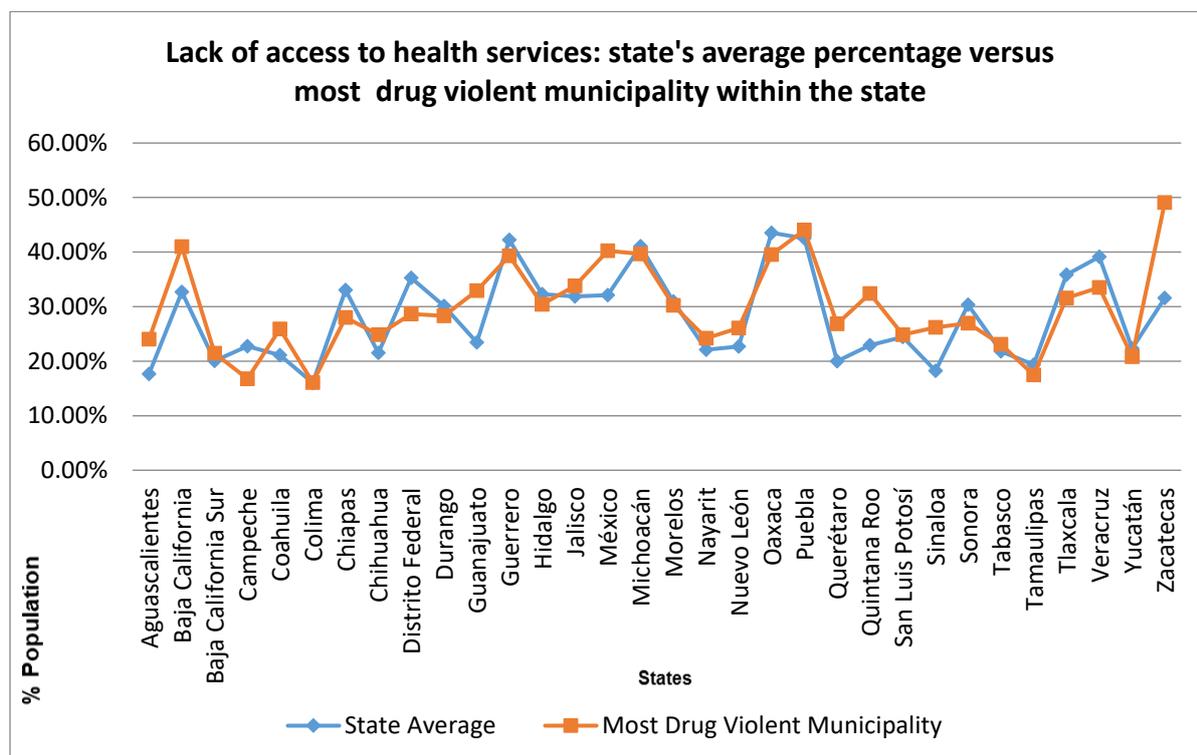
Source: Own elaboration, based on data from PR (2011) and Coneval (2011).

The graph 4.16 shows that the states' average percentage of educational gap was significantly correlated to their most drug violent municipality average gap, given a correlation coefficient of .69 (rounded). The coefficient of determination suggests that 47.23% of the variability in the state's most drug violent municipality educational gap percentage is accounted by the state's average educational gap. Once again, the degree of correlation is high given the comparison between the most drug violent municipality of a state and all the municipalities within the same state.

### Lack of access to health services

We will now place the attention on the second multidimensional poverty component, lack of access to health services, which refers to the entitlement of an individual to receive medical attention from private, popular or social security services (Coneval, 2010). The access to private health care depends on the individual's independent payment for the service, whilst the medical attention belonging to popular or social security services depends on the individual's workplace. For the latter reason, individuals working in the informal sector of the economy are not usually enrolled to receive medical attention; this is dependent on the employer's decision to register their employees with the Mexican Social Security Institute (IMSS). The following graph 4.17 shows the state's average lack of access to health services versus its most drug violent municipality percentage of its population.

Graph 4.17: Lack of access to health services: state's average percentage versus their most drug violent municipality within the state



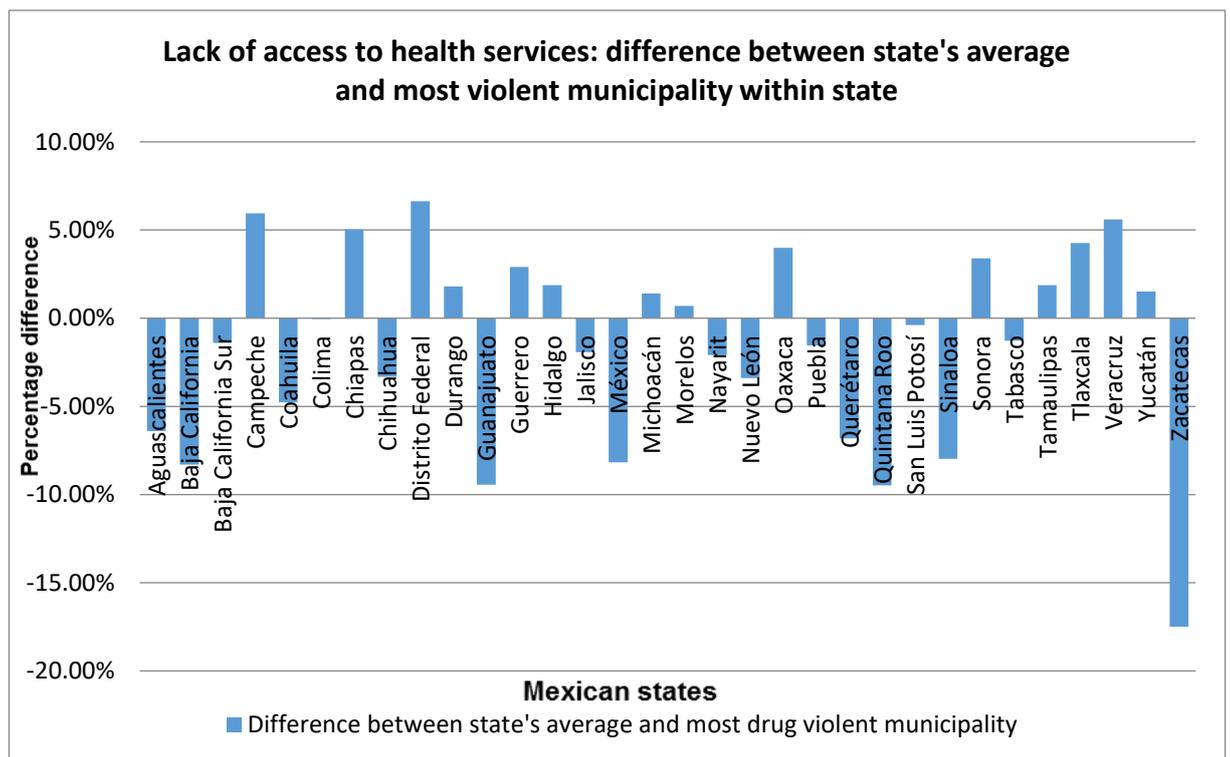
Own elaboration, based on data from PR (2011) and Coneval (2011).

Lack of access to health services is the only multidimensional poverty component that represents an exception to the trend we have observed in the previous sections;

graph 4.17 shows no trend for or against the idea of the most drug violent municipality within the state having better or worse access to health services than the rest of the state. This could be the component influencing the multidimensional poverty index; it potentially represents an outlier of the trend in Graph 4.12 that is reflected in the rest of the components.

Below is graph 4.18, which shows all the difference in percentages between the state's average access to health services and their most DV municipality, reinforcing the idea of this component not following the trend. To have a grasp of this dissimilarity, the average difference between the state's average and its most drug violent municipality in terms of lack of access to health services is -1.48, which could potentially alter the trend in graph 4.12.

Graph 4.18: Lack of access to health services: difference between state's average and most drug violent municipality within state

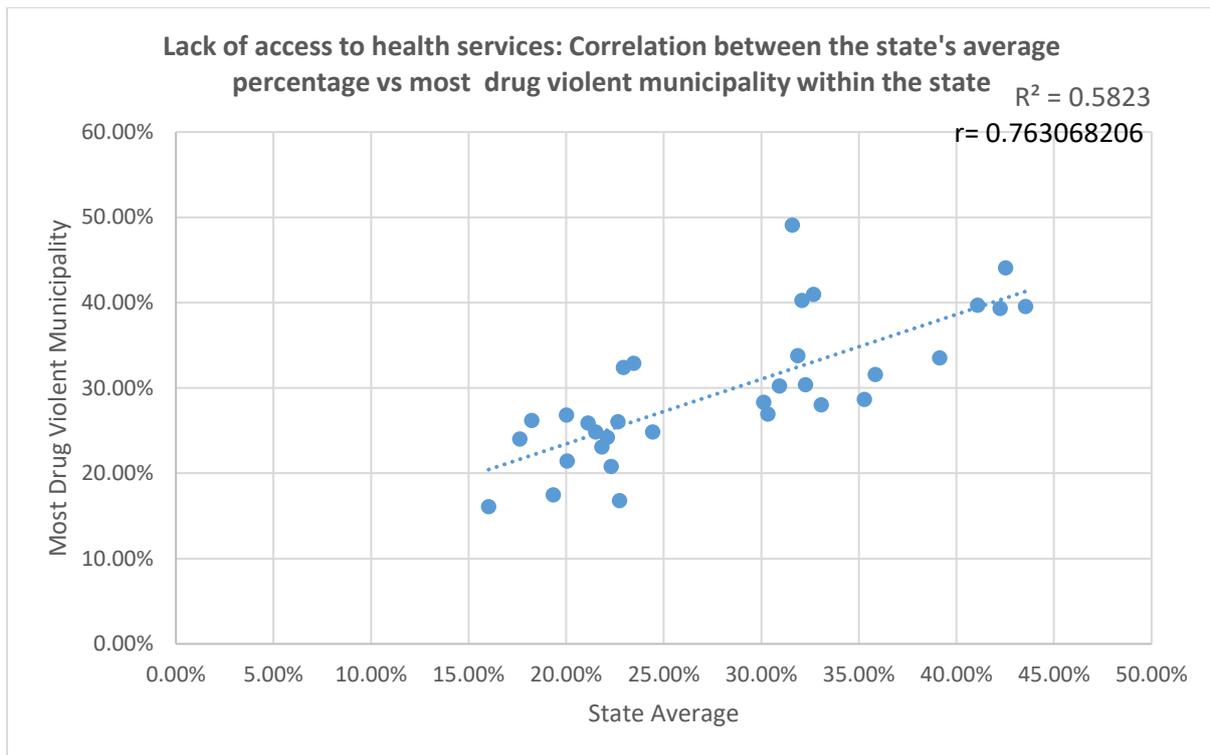


Own elaboration, based on data from PR (2011) and Coneval (2011).

It is difficult to explain why graphs 4.17 and 4.18 do not follow the trend we have been looking at and it is difficult to speculate as we are not looking at causality, but only correlation. Yet, it is important for the research to attempt to understand the

nature of the relationship between DV and all of its multidimensional poverty components, even if this lack of access to health services seems to be the overall exception to the trend. As this multidimensional poverty component did not follow the trend, we will continue to examine the correlation coefficient and the coefficient of determination for these variables.

Graph 4.19: Lack of access to health services: Correlation between the state’s average percentage vs most drug violent municipality within the state



Own elaboration, based on data from PR (2011) and Coneval (2011).

The above graph 4.19 suggests there is a strong effect between the states’ average percentage of lack of access to health services and their most drug violent municipality, with a .76 correlation coefficient. The coefficient of determination indicates that state’s most drug violent municipality educational gap percentage shares 58.23% of the variability in their state’s average educational gap. This effect is predictable as we are comparing the same variable-lack of access to health services- for two different entities-the state and its most drug violent municipality, explaining its close degree of correlation.

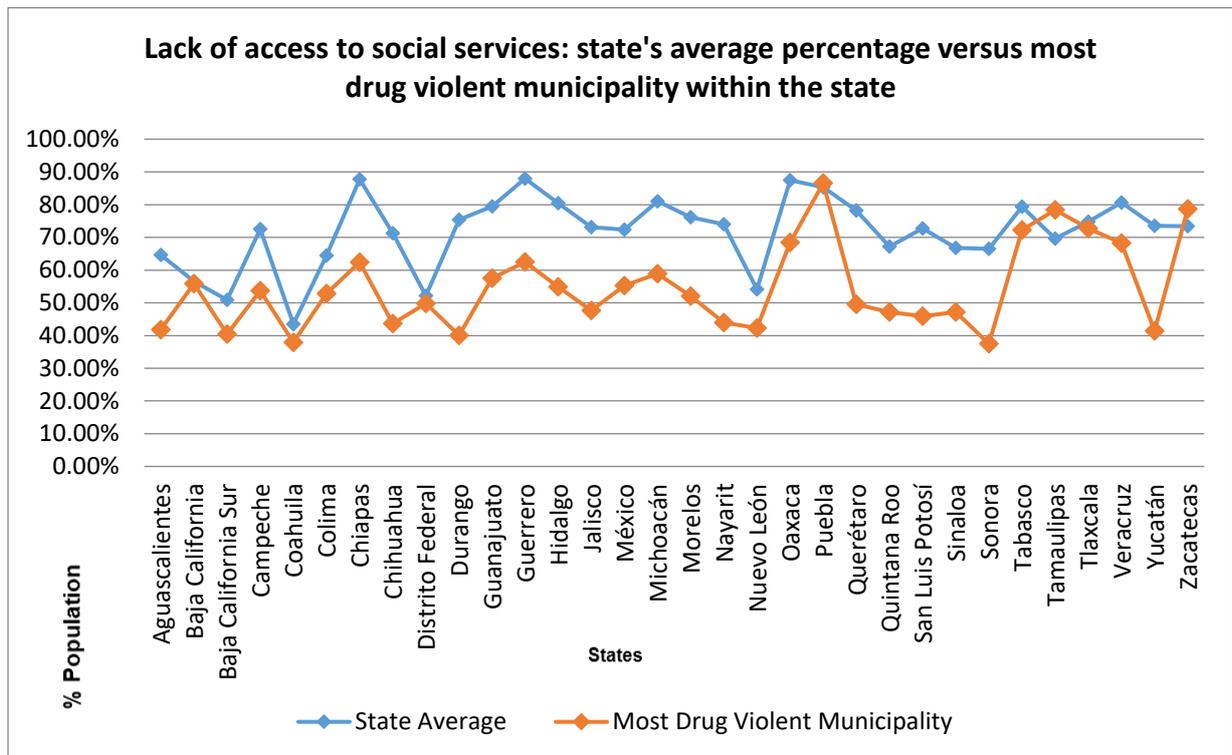
### Access to social services

The next variable to evaluate is the lack of access to social services. The social security coverage refers to an individual's enrolment to a pension scheme and medical services.

- a. For the general population, the individual does not lack social security coverage if they have a pension or a family member within their household with social security coverage.
- b. For the senior citizens (individuals aged 65 or more) are not considered to have a social security deprivation if they are the beneficiaries of a pension programme (Coneval, 2010).

One of the limitations of social security in Mexico is that it does not take into account individuals working for the informal sector of the economy; since their economic activities are not officially reported to the government, they cannot be enrolled for these services through their job status. Furthermore, it is not specified by Coneval (2010) if the figures considered for this multidimensional poverty component, access to social coverage, is only representative of the formal sector of the economy; yet, this is the most probable option, as it will be difficult to quantify economic activities within the informal sector. Nevertheless, individuals working in the informal sector have the possibility to subscribe to social coverage via a family member (working in the formal economy) within their household; if this were to be the case, it provides a better overall estimate of social coverage in the country, as this measure can possibly reflect both workers from the formal and informal sectors of the economy. If it were the case that all members of a household were working on the informal sector, then none of these could be officially subscribed to social coverage from public government agencies. Thus, it will be unlikely for them to be part of a private pensions and health programme (as this is normally the case for formal employment), directly reflecting this lack of social coverage on the component. As a result, this would have no large implications for the argument, as the component still serves to reflect a closely accurate estimation of individuals without social coverage. We can examine this variable in more detail in the subsequent graph 4.11.

Graph 4.20: Lack of access to social services: state's average percentage versus most drug violent municipality within the state

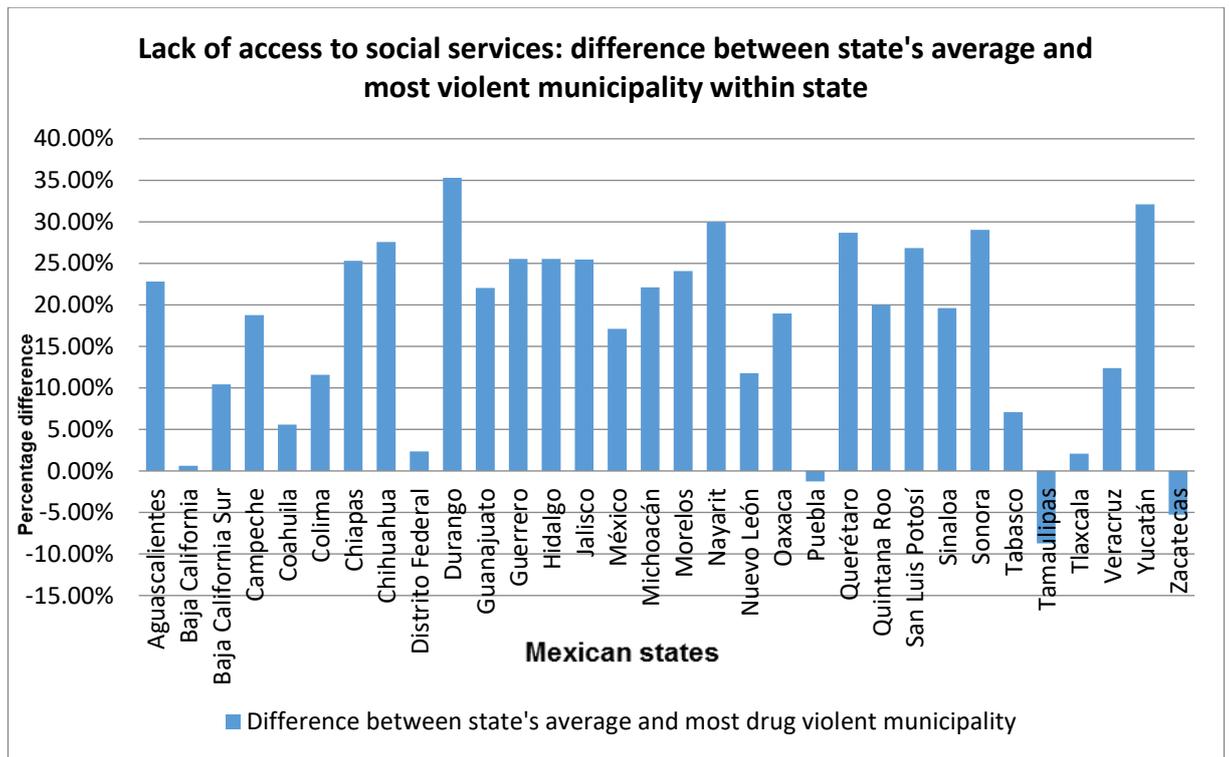


Own elaboration, based on data from PR (2011) and Coneval (2011).

Graph 4.20 shows persistence in the trend of drug violent municipalities having a lesser degree of multidimensional poverty, according to the specific component under examination. For this particular case, the most drug violent municipalities have a lesser percentage of lack of access to social services than the rest of the state. There are only a few exceptions, such as Tamaulipas, Puebla, and Zacatecas, whose drug violent municipalities have a larger percentage of the population with a lack of access to social services than the rest of the state; however, only one of these three states is regarded as having high levels of DV for the period of the research, Tamaulipas. Nevertheless, the average difference between the state's average and its most drug violent municipality, in terms of lack of access to social services, is 17.05%; whilst the difference between the aforementioned three state exceptions and their most drug violent municipalities is less than 8%. These differences are better illustrated on the following graph 4.21, as it reflects on how the differences between the most drug violent municipality and the state are quite large for the majority of the cases,

showing that the most drug violent municipalities have a lesser degree of lack of access to social services than the average of the state. Several of the most drug violent states show a large extent of differences between the average of their state and their most drug violent municipality, particularly Chihuahua, Durango, Guerrero, Jalisco, and Sonora.

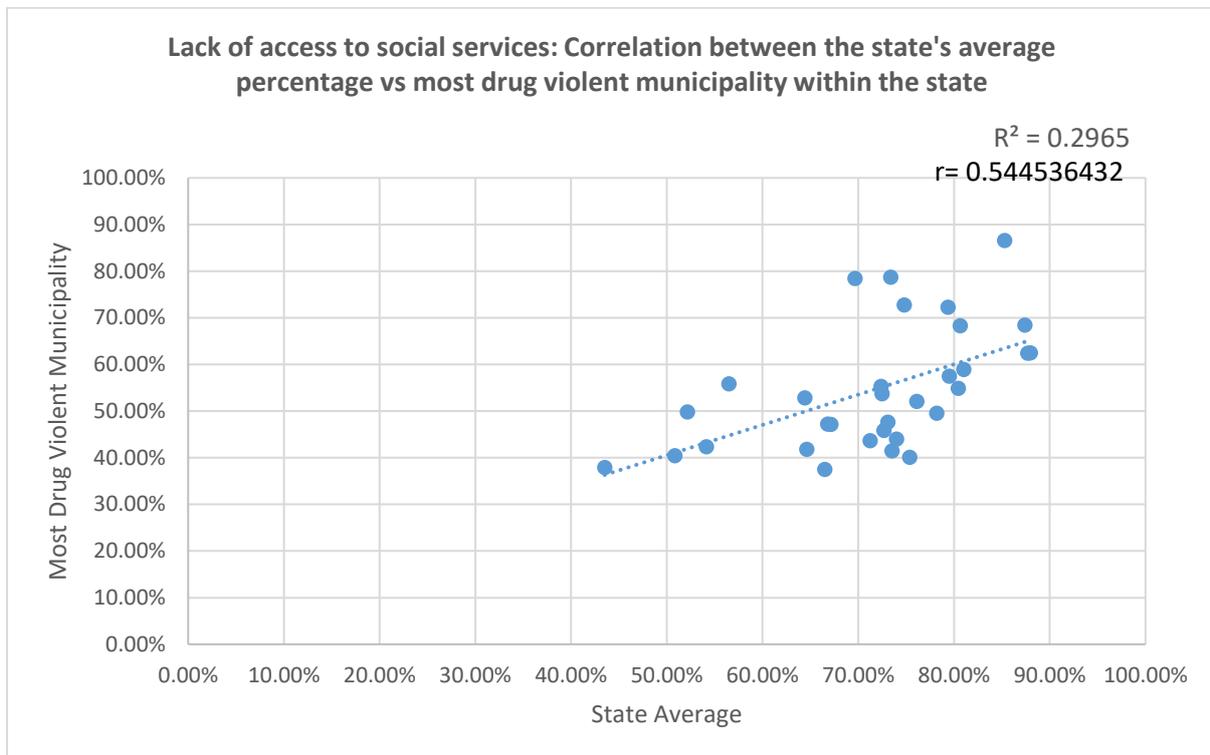
Graph 4.21: Lack of access to social services: difference between state's average and most drug violent municipality within state



Own elaboration, based on data from PR (2011) and Coneval (2011).

As the trend has been examined, the subsequent graph 4.22 concentrates on the correlation between these two variables.

Graph 4.22: Lack of access to social services: Correlation between the state's average percentage vs most drug violent municipality within the state



Own elaboration, based on data from PR (2011) and Coneval (2011).

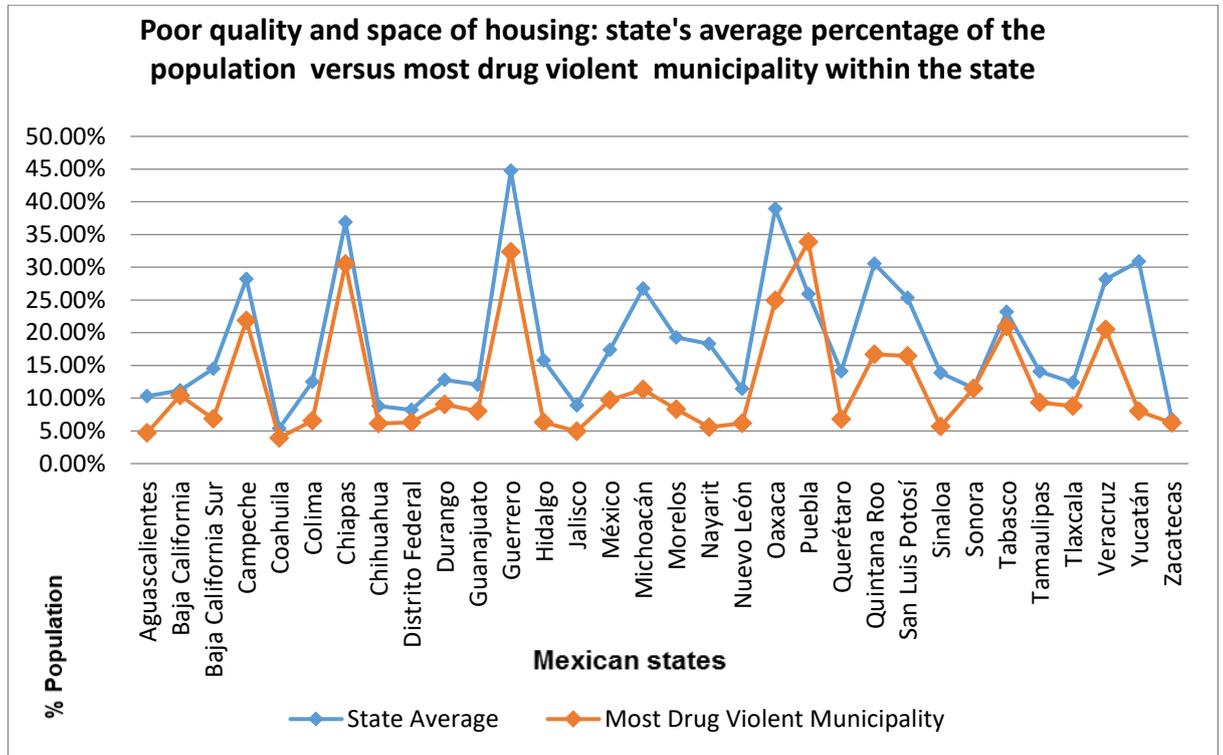
Graph 4.22 denotes a significant correlation between the two variables, the states' average percentage of lack of access to social services and their most drug violent municipality, with a .54 correlation coefficient. The coefficient of determination indicates that 29.65% of the variance in the state's most drug violent municipality percentage could be accounted by the state's average lack of access to social services. As with previous graphs, this is the expected result given the comparison of the same variable-lack of access to social services- for two different entities-the state and its most drug violent municipality.

### Quality and space of housing

The next multidimensional poverty component is quality and space of housing. This refers to the construction material used for housing (roofs, floors, and walls) and the ratio of individuals per room. If the construction materials are made of soil or residue material, and the ratio per room is greater than 2.5, then it is considered to have

poor quality and a lack of housing space (Coneval, 2010). In the following graph 4.23, we can examine this component in more detail.

Graph 4.23: Poor quality and space of housing: state's average percentage versus most drug violent municipality within the state

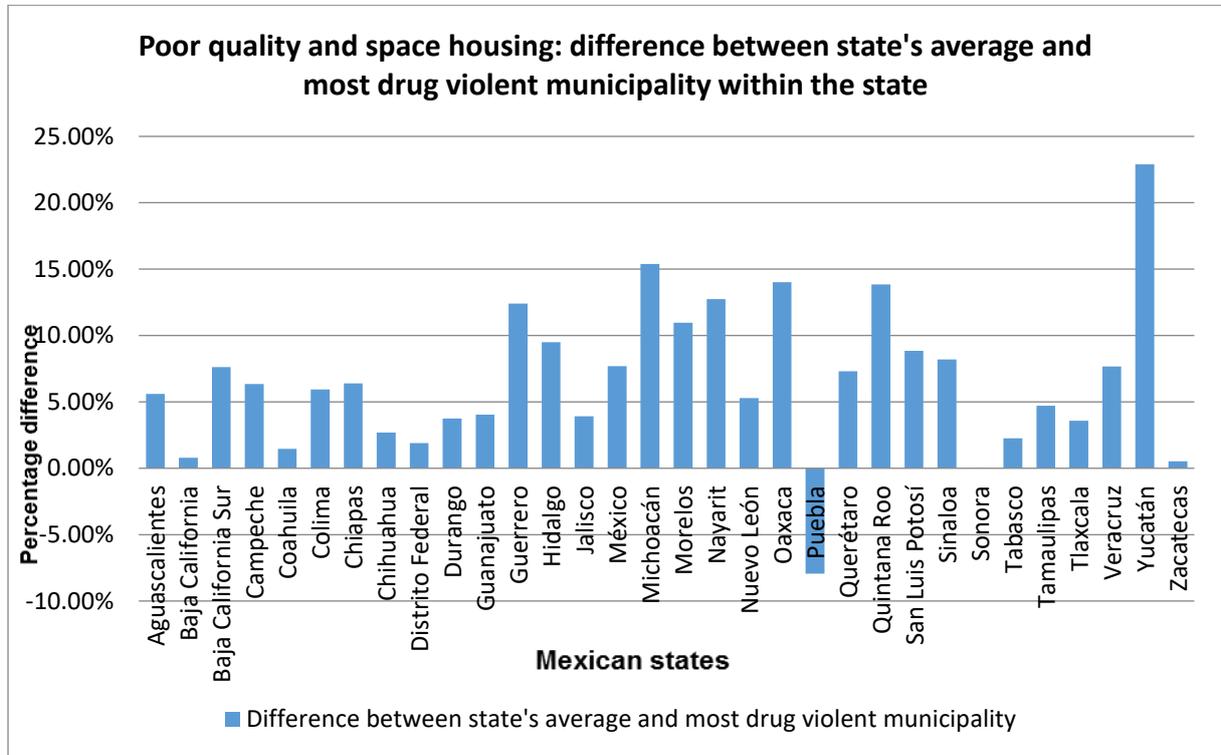


Own elaboration, based on data from PR (2011) and Coneval (2011).

Graph 4.23 also follows the trend by which the most drug violent municipalities within the state have a lesser percentage of multidimensional poverty, specifically the component regarding the population with poorer quality and housing space than the rest of the state. The trend in this component is even more evident, with Puebla representing the only exception to the continuous trend, and not even considered as a drug violent state in the period of research. The average percentage difference between the state's average, and the most drug violent municipality's average of poor quality and space housing is 6.57%; this continues to follow the trend of the most drug violent municipalities having a lesser percentage of their population affected by the multidimensional poverty components. This difference is better reflected in the subsequent graph 4.24. Michoacán and Guerrero are some of the

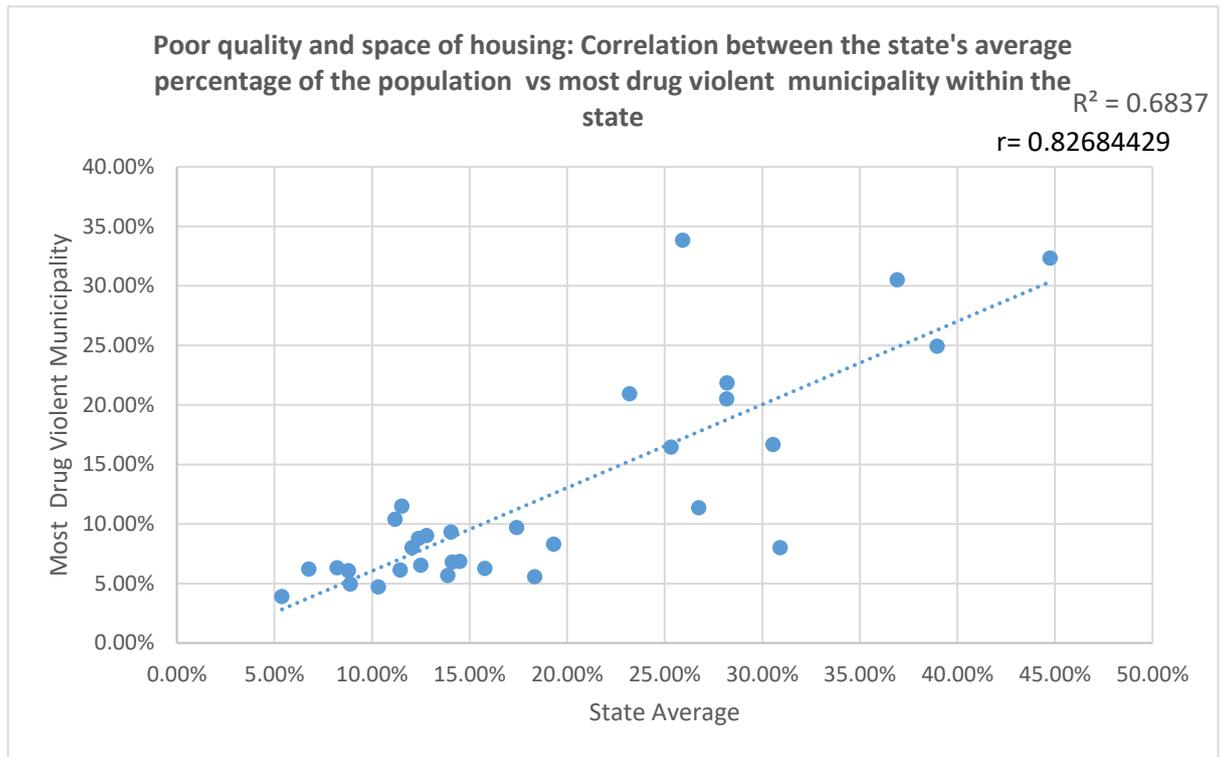
most drug violent states that show the larger difference between the average of their state and their most drug violent municipality.

Graph 4.24: Poor quality and space housing: difference between state's average and most drug violent municipality within the state



Own elaboration, based on data from PR (2011) and Coneval (2011).

Graph 4.25: Poor quality and space of housing: Correlation between the state's average percentage versus most drug violent municipality within the state



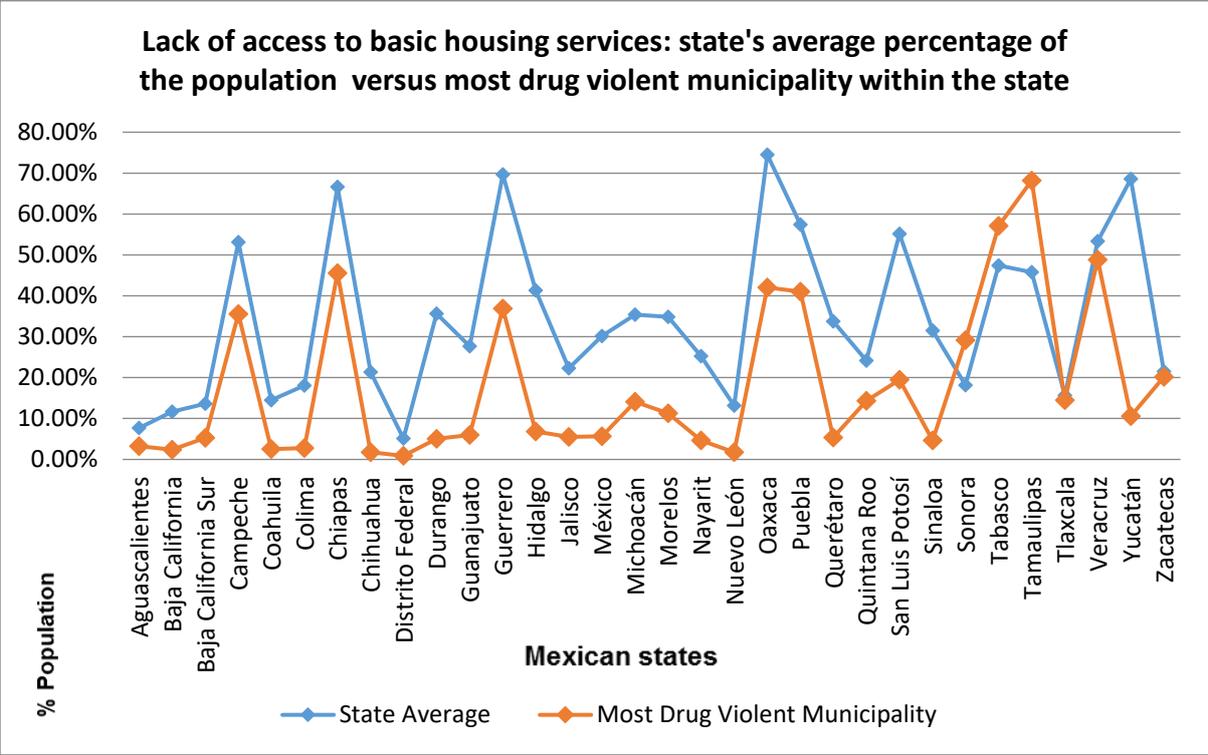
Own elaboration, based on data from PR (2011) and Coneval (2011).

As with the previous multidimensional poverty components, graph 4.25 explores the correlation between the two variables of interest, the poor quality and space of housing on the state and their corresponding most drug violent municipality. The correlation coefficient of  $r = .83$  (rounded) correlation coefficient suggests a large effect and the coefficient of determination suggests that 68.37% of the variability in the state's most drug violent municipality's poor quality and space of housing percentage is accounted by state's average percentage; both results are as expected with this type of correlation comparing a municipality and its state's average poor quality and space of housing variables, same variable and two different entities.

#### [Access to basic housing services](#)

We will now focus on the access to basic housing services, as both of these variables are strictly related. Lack of access to basic housing services is related to the provision of clean water, drainage and electricity (Coneval, 2010).

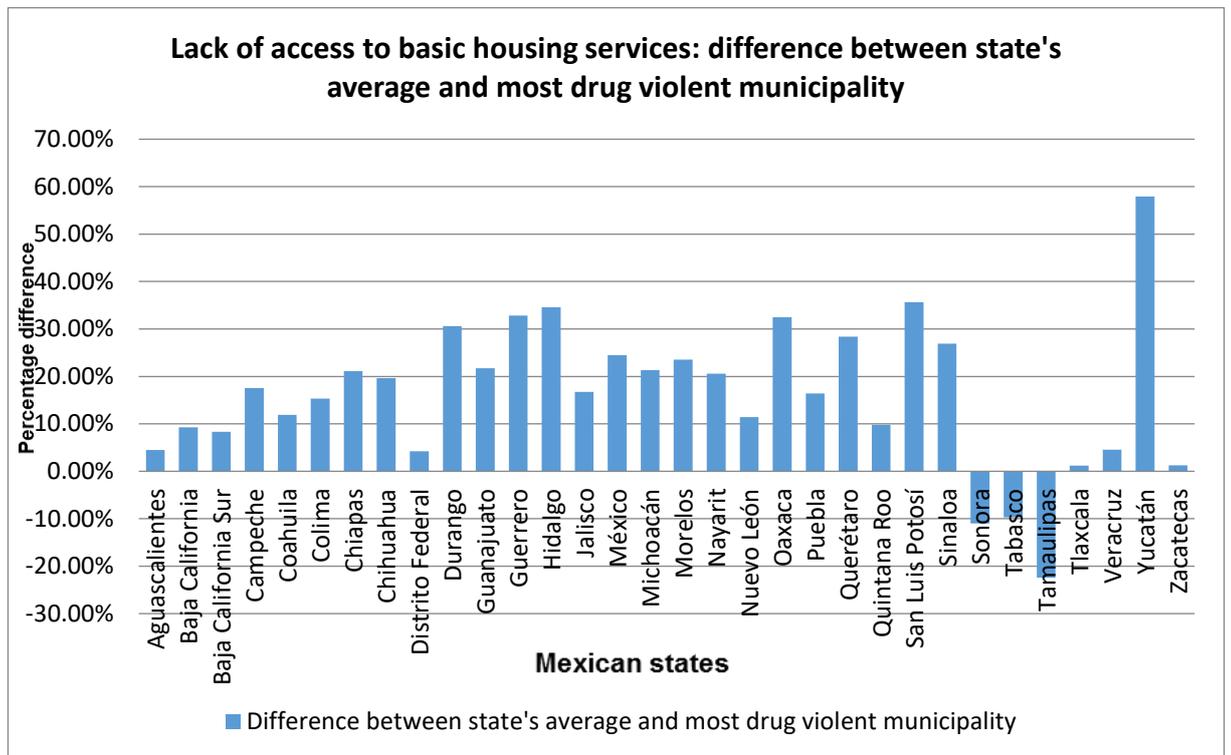
Graph 4.26: Lack of access to basic housing services: state’s average percentage of the population versus most drug violent municipality within the state



Own elaboration, based on data from PR (2011) and Coneval (2011).

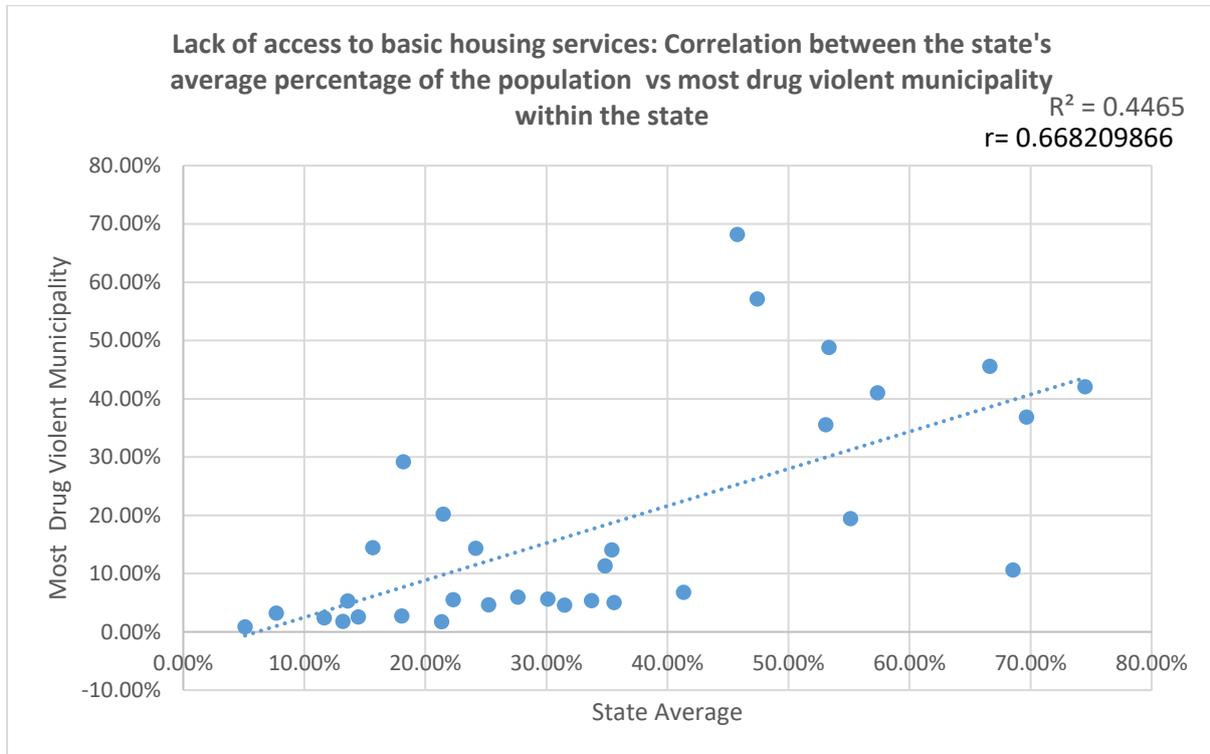
Graph 4.26 also follows the trend that the most drug violent municipalities within the states have a lesser degree of multidimensional poverty than the other municipalities within the same state, reflected through the component regarding the lack of access to basic housing services in this section. There are only two exceptions to this case that are considered drug violent states, Sonora and Tamaulipas, and one that is not, Tabasco. Regardless of these exceptions, the difference between the state’s average percentage and its most drug violent municipality in lack of access to basic housing services is still quite obvious with 16.28%, better illustrated in the subsequent graph 4.27.

Graph 4.27: Lack of access to basic housing services: difference between state's average and most drug violent municipality



Own elaboration, based on data from PR (2011) and Coneval (2011).

Graph 4.28: Lack of access to basic housing services: Correlation between the state’s average percentage of the population versus most drug violent municipality within the state



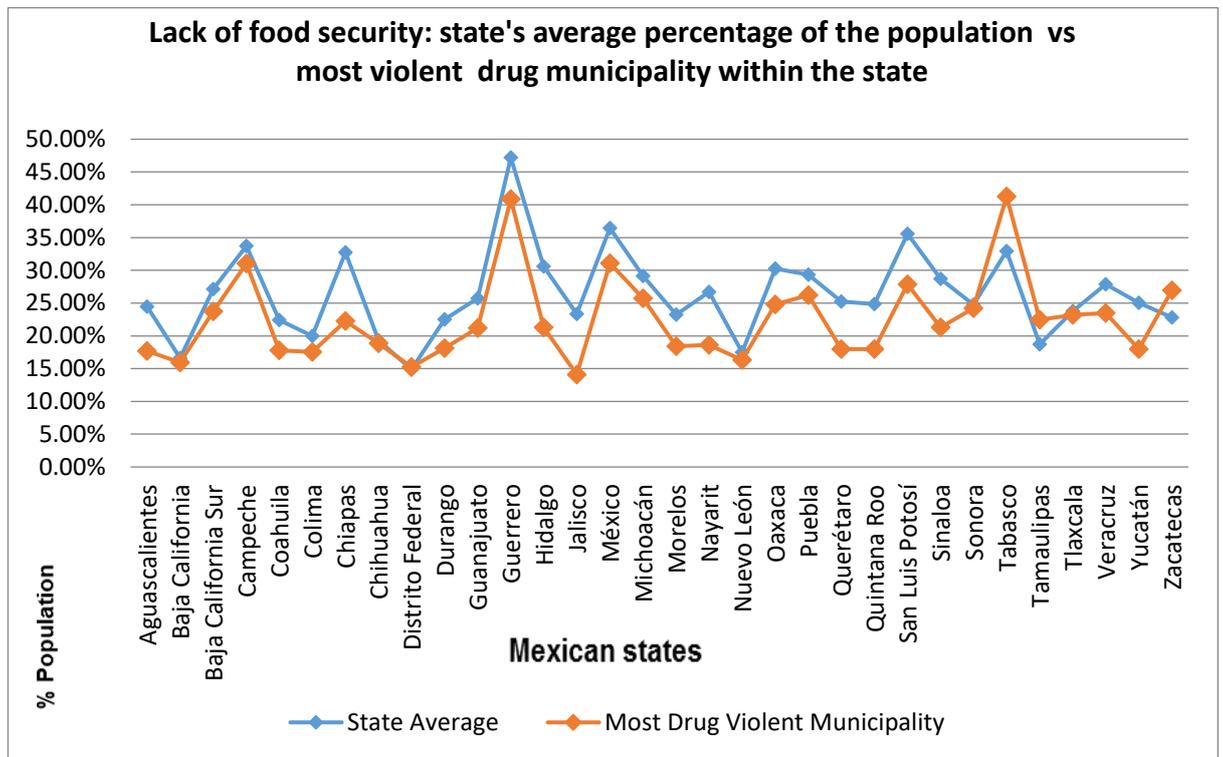
Own elaboration, based on data from PR (2011) and Coneval (2011).

Following with our correlation analysis, the above graph 4.28 shows a strong correlation between the states’ average percentage of lack of access to housing services and their most drug violent municipality, whereas  $r = .67$  (rounded). From the coefficient of determination, it is suggested that 44.65% of the variability in the state’s most drug violent municipality lack of access to basic housing services is accounted by their stat’s average percentage, given the expected outcome for the association between these two variables comparing entities within the same state.

### Food security

Finally, we turn to food security, which refers to a measure of food provision, where food insecurity is classified according to slight, moderate or severe levels (Coneval, 2010). This will be illustrated in both graphs 4.29 and 4.30.

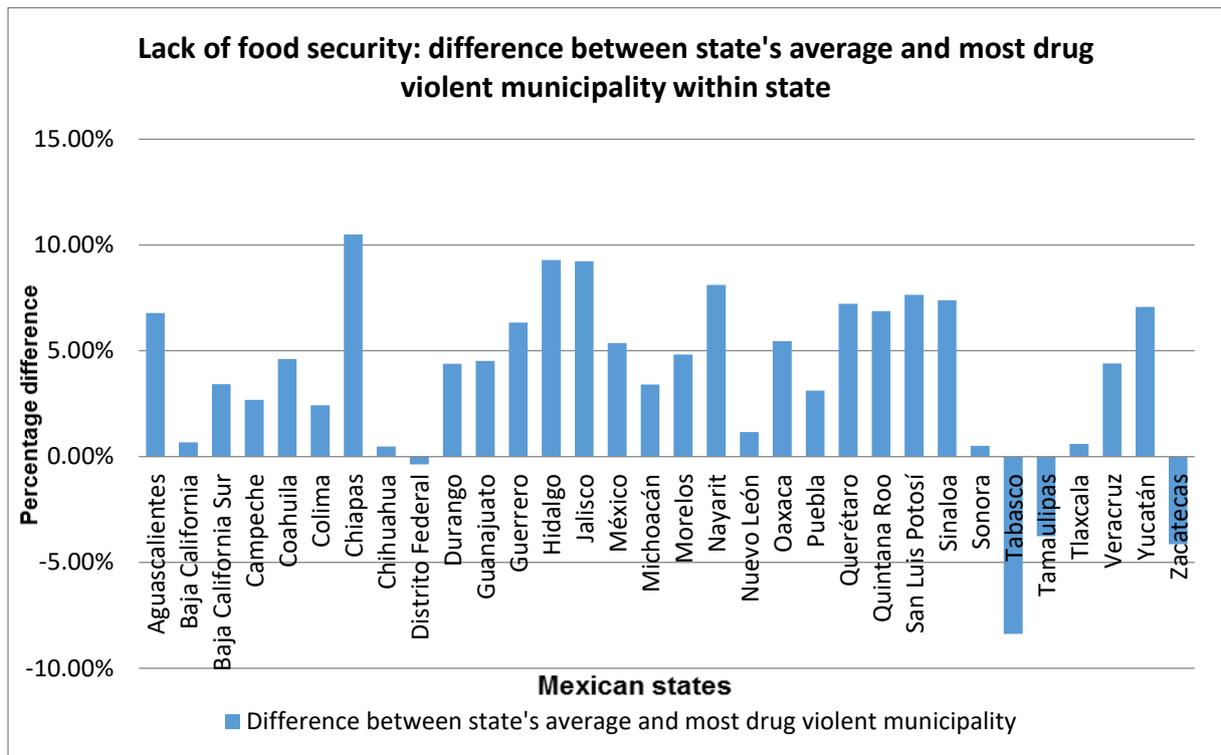
Graph 4.29: Lack of food security: state's average percentage of the population versus most drug violent municipality within the state



Own elaboration, based on data from PR (2011) and Coneval (2011).

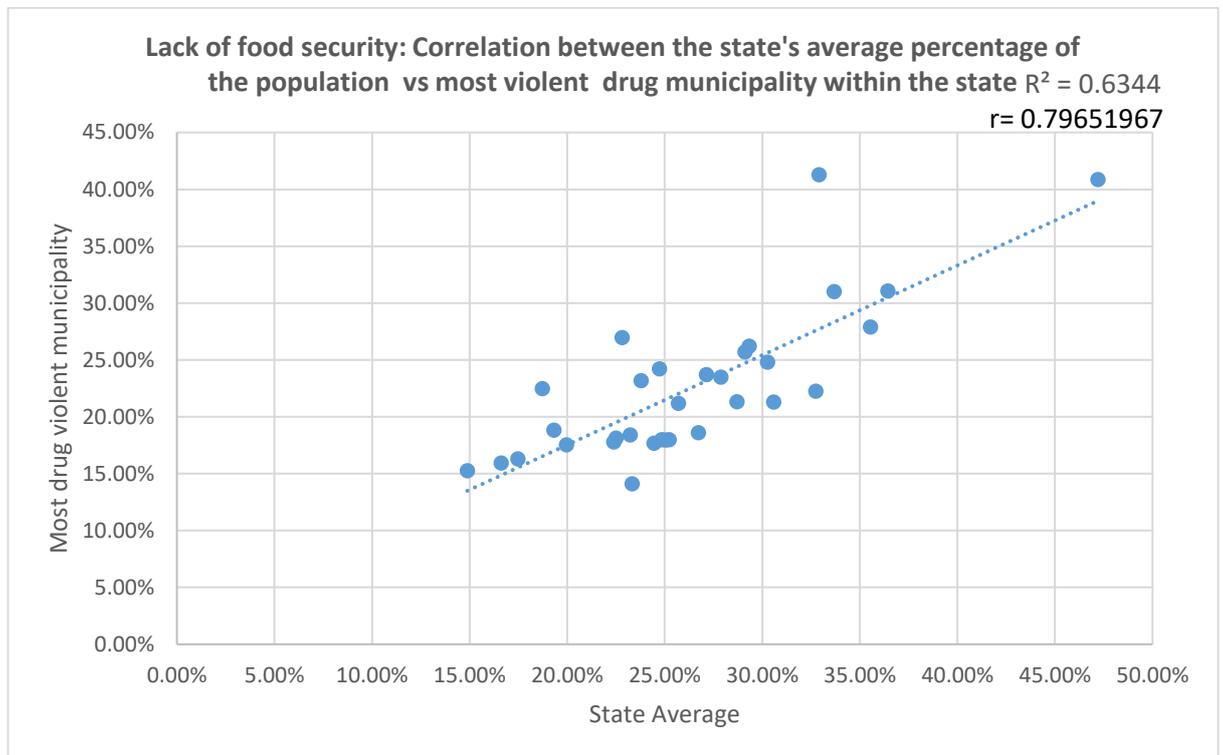
Graph 4.29 shows that the trend persists, as the most drug violent municipalities are the ones that suffer from the lesser extent of food insecurity than the rest of the municipalities within the same state, the former showing a lesser degree of multidimensional poverty. Additionally, the state's average is slightly larger in terms of food insecurity than its corresponding most drug violent municipality, with an average difference of 3.81%, shown in graph 4.30. However, there are still exceptions to this trend with this variable, represented by Tabasco, Tamaulipas, and Zacatecas; yet, only Tamaulipas is regarded as a drug violent state for the research period. Nevertheless, the overall trend continues for most of the Mexican states and their multidimensional poverty levels.

Graph 4.30: Lack of food security: difference between the state's average and the most drug violent municipality within the state



Own elaboration, based on data from PR (2011) and Coneval (2011).

Graph 4.31: Lack of food security: Correlation between the state's average percentage of the population versus most drug violent municipality within the state



Own elaboration, based on data from PR (2011) and Coneval (2011).

Our last multidimensional poverty component scatterplot 4.31 indicates a large effect between the states' average percentage of lack of food security and their most drug violent municipality, with a .80 (rounded) correlation coefficient. The coefficient of determination suggests that 63.44% of the variability in the state's most drug violent municipality's percentage of lack of food security is shared by the state's average percentage. This result is expected as we are comparing the same variable- lack of food security- for two different entities- the state and its respective most drug violent municipality, explaining its close degree of correlation.

As each of the six components of the multidimensional poverty index have been analysed and displayed in the previous graphs, we can observe a persistence of the trend, as the most drug violent municipalities show a lesser extent of each multidimensional poverty component than the average of their corresponding state, thus a lesser degree of poverty than the majority of the state. The only component that represented an exception to this trend was the lack of access to health services,

and this could be the outlier from the overall levels of multidimensional poverty displayed in graph 4.12. It is difficult to speculate why this particular multidimensional poverty component represents an exception to the trend and the rest of the variables analysed because this exercise does not allow us to look at causality, but only at their degree of association. There were also a few exceptions (states) for each multidimensional poverty component, but the exceptions remain fairly small as an overall trend, and most of these exceptions are not drug-violent states. The correlation coefficients and coefficients of determination scatterplots analysing the association between the most drug violent municipalities and the average of its corresponding state suggested a high correlation given the entities in question-analysing the average of all the municipalities within a state and their most drug-violent municipality poverty components-were located within the same state. Moreover, the correlation between the state's average poverty levels and their drug-related homicides show a small effect, supporting our argument that the relationship between DV and poverty is negative, as one variable decreases, the other one increases.

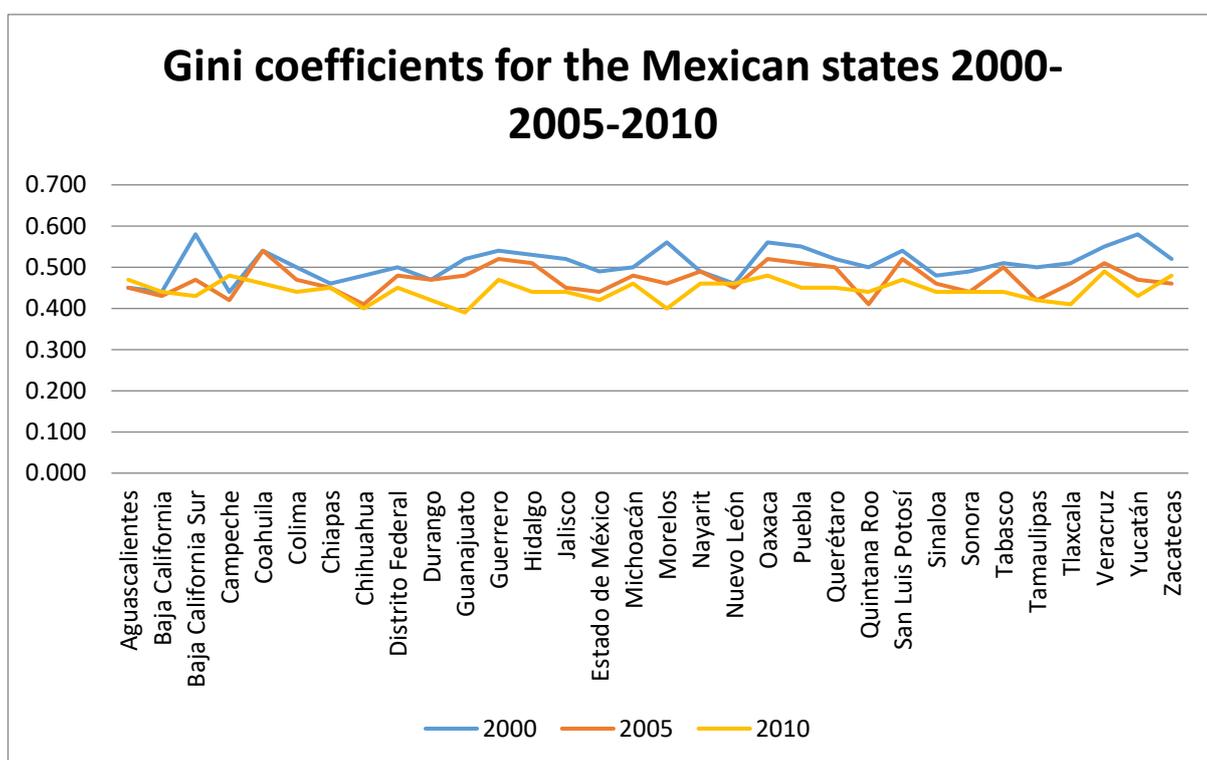
The main finding from analysing this data makes us rethink the common assumption of poverty's positive relationship with drug violence and criminal activity; although this research does not attempt to disregard poverty's influence in the latter, the persistent trend we have observed with these analyses challenges this common assumption for the particular case of DV in Mexico for the research period. Not only is the positive relationship between poverty and violence conceived as a common assumption, it was also integrated within the bodies of literature we examined in the previous chapter III (SDT, IAT, and EI-PC). This novel and puzzling trend makes us question what is the actual role of poverty in DV in Mexico for the period of the research, and how can its understanding be integrated adequately into policy-making. This quantitative insight challenges the common assumption that underpins academic debates (chapter III) and policy debates (explored in chapter VII) regarding the positive relationship between poverty and violent crime explored, allowing this research to further contribute into these discussions.

## Analysis of the Gini coefficient and its relationship to DV levels in the Mexican states

As we have reviewed poverty levels in the country, the following sections will concentrate on examining the levels of inequality and their relationship to DV in Mexico.

It is important to consider Mexico's income inequality levels not only on a nationwide level, but accounting for its specific particularities, a country divided into 32 federal states that encompasses more than 2,000 municipalities. The following graph 4.32 and table 4.33 help to have a clearer picture of the income inequality levels all over the country, from 2000 up to 2010.

Graph 4.32: Gini coefficients of the Mexican states from 2000-2005-2010



Adapted from Coneval (2011c, 2013b)

What can be observed from graph 4.32 is how, during 2000, the coefficient had many more spikes, while it started to stabilise during 2005 and has reached a further stabilisation in 2008. Nevertheless, it has not been decreasing continuously or across all the states during the last years. Only certain states have changed significantly, such as Baja California Sur, Morelos, Oaxaca, San Luis Potosí and Yucatán.

Interestingly, these five states that showed the greatest Gini coefficient changes are not considered to be drug-violent states. More on the importance of these changes will be explained more specifically with table 4.33.

The following table 4.33 shows more specifically the evolution of the Gini coefficient on a state-level from 2000 to 2010, the national average of each state's Gini coefficient throughout the same period, and the changes in Gini coefficient between three periods, 2010 minus 2000, 2008 minus 2000, 2010 minus 2005. By choosing to analyse the differences between these three periods, we have selected to compare a high drug-violent year against a non-drug-violent year: 2000 and 2005 as non-drug violent, and 2008 and 2010 as high drug-violent years. For the latter criteria, we have also included a 5 years' period difference as a minimum, in order to account for the Gini coefficient changes more clearly, and take into consideration the possibility that DV could be a time-lagged function reflecting later on the Gini coefficient levels following Cramer's (2005) study on the relationship between inequality and violent crime. And, finally, the last column to the right shows the average of the three period differences to determine whether a Mexican state changes in Gini coefficient over these three periods.

Table 4.33: Changes in the Gini coefficient of the Mexican states 2000-2010

GINI COEFFICIENTS OF THE MEXICAN STATES	2000	2005	2008	2010	Average 2000-2010	Difference 2010-2000	Difference 2008-2000	Difference 2010-2005	Average of 3 period differences
National	0.54	0.50	0.50	0.50	0.51	-0.04	-0.04	0.00	-0.03
Aguascalientes	0.45	0.45	0.47	0.47	0.46	0.02	0.02	0.00	0.01
Baja California Norte	0.44	0.43	0.41	0.44	0.43	0.00	-0.03	0.03	0.00
Baja California Sur	0.58	0.47	0.47	0.43	0.49	-0.15	-0.11	-0.04	-0.10
Campeche	0.44	0.42	0.49	0.48	0.46	0.04	0.05	-0.01	0.03
Chiapas	0.54	0.54	0.49	0.46	0.51	-0.08	-0.05	-0.03	-0.05
Chihuahua	0.50	0.47	0.49	0.44	0.48	-0.06	-0.01	-0.05	-0.04
Coahuila	0.46	0.45	0.44	0.45	0.45	-0.01	-0.02	0.01	-0.01
Colima	0.48	0.41	0.45	0.40	0.44	-0.08	-0.03	-0.05	-0.05
Distrito Federal	0.50	0.48	0.46	0.45	0.47	-0.05	-0.04	-0.01	-0.03
Durango	0.47	0.47	0.46	0.42	0.46	-0.05	-0.01	-0.04	-0.03
Guanajuato	0.52	0.48	0.43	0.39	0.46	-0.13	-0.09	-0.04	-0.09
Guerrero	0.54	0.52	0.49	0.47	0.51	-0.07	-0.05	-0.02	-0.05
Hidalgo	0.53	0.51	0.46	0.44	0.49	-0.09	-0.07	-0.02	-0.06
Jalisco	0.52	0.45	0.43	0.44	0.46	-0.08	-0.09	0.01	-0.05
Estado de Mexico	0.49	0.44	0.40	0.42	0.44	-0.07	-0.09	0.02	-0.05
Michoacan	0.50	0.48	0.45	0.46	0.47	-0.04	-0.05	0.01	-0.03
Morelos	0.56	0.46	0.46	0.40	0.47	-0.16	-0.10	-0.06	-0.11
Nayarit	0.49	0.49	0.45	0.46	0.47	-0.03	-0.04	0.01	-0.02
Nuevo Leon	0.46	0.45	0.47	0.46	0.46	0.00	0.01	-0.01	0.00
Oaxaca	0.56	0.52	0.49	0.48	0.51	-0.08	-0.07	-0.01	-0.05
Puebla	0.55	0.51	0.46	0.45	0.49	-0.10	-0.09	-0.01	-0.07
Queretaro	0.52	0.50	0.46	0.45	0.48	-0.07	-0.06	-0.01	-0.05
Quintana Roo	0.50	0.41	0.45	0.44	0.45	-0.06	-0.05	-0.01	-0.04
San Luis Potosi	0.54	0.52	0.47	0.47	0.50	-0.07	-0.07	0.00	-0.05
Sinaloa	0.48	0.46	0.46	0.44	0.46	-0.04	-0.02	-0.02	-0.03
Sonora	0.49	0.44	0.44	0.44	0.45	-0.05	-0.05	0.00	-0.03
Tabasco	0.51	0.50	0.48	0.44	0.48	-0.07	-0.03	-0.04	-0.05
Tamaulipas	0.50	0.42	0.45	0.42	0.45	-0.08	-0.05	-0.03	-0.05
Tlaxcala	0.51	0.46	0.42	0.41	0.45	-0.10	-0.09	-0.01	-0.07
Veracruz	0.55	0.51	0.46	0.49	0.50	-0.06	-0.09	0.03	-0.04
Yucatan	0.58	0.47	0.45	0.43	0.48	-0.15	-0.13	-0.02	-0.10
Zacatecas	0.52	0.46	0.48	0.48	0.49	-0.04	-0.04	0.00	-0.03

Own elaboration, based on data from Coneval (2011c, 2013b)

The average change altogether of the three periods for all states is -0.04, and for this reason 0.05 has been chosen as the benchmark difference, as it is above the average. The latter benchmark allows determining how much a state's Gini coefficient changes over a period of five to ten years. If a state changes to a level of 0.05 or above, it is marked in black colour as a sign of a substantial Gini coefficient change. Moreover, to compare the possible influence of the Gini coefficient over the DV levels, we are considering the period from 2006 to 2010 (PR, 2011) due to the availability of data on drug-related homicides.

As we can observe from table 4.33, there were 15 Mexican states, out of the total 32, that showed a minor change, of less than the benchmark of 0.05, or no amount

of change in their Gini coefficients from the selected three periods that overall account for 2000 to 2012. These states with no significant change in Gini coefficient are the ones coloured in white on the last column to the right from the table, and will be classified as “static” states to facilitate their identification. Out of these 15 states, the “static” states, there were 12 states that were characterised by being drug violent, from the period of 2006 to 2010 (PR, 2011) using as the criteria the states that had more than 90 DH in one or several of their municipalities; the three exceptions were Campeche, Zacatecas, and Veracruz (the latter has become drug-violent since 2011). Moreover, this translates into an 80% of the “static” states with their Gini coefficient from 2000 to 2012, which became drug-violent in the period from 2006-2010. On the other side of the spectrum, the states that showed a significant amount of change, of more than the benchmark of 0.05 (coloured in black on the last column to the right), amount to a total of 17 states. Out of these 17 states, 12 are not considered to be drug violent states, accounting for 70% of the states that had significant changes in their Gini coefficient during the selected period of 2000-2012, showing that only 30% of these states became drug-violent (exceptions being Guerrero, Jalisco, Estado de México, Tamaulipas and Morelos for this period of time).

These initial findings on a state-analysis indicate that changes in inequality levels are clearly important; however, rather than the absolute levels of inequality, the focus will be placed on the relative levels and difference between these as it allows us to compare the evolution of inequality levels within and across states in the country. It is important to highlight the main outcome suggested by table 5.7 as it shows that 80% of the “static” (no significant change in Gini) states are considered to be drug-violent for the period of 2006-2011; whilst, 70% of the states that showed a substantial change in Gini (higher than the benchmark of 0.05) are considered to be non-drug violent states for the period of 2006-2011. This indicates the importance of overall changes in the states’ Gini coefficient levels, rather than a focus on how high (unequal) or low (equal) is this coefficient. These initial results confirm that the focus should be placed on the relative changes on the Gini coefficient, and not necessarily on its absolute levels. Moreover, these substantial changes or lack of thereof in the Gini coefficient point towards the importance of how rigid the Mexican society is,

and therefore, how easy or difficult it is to move up or down the socioeconomic ladder, expressed as social mobility and a reflection of inequality of opportunities.

However, it is important to analyse this relationship between economic inequality and DV levels, not only on a state-level, but on a local level. For the latter reason, the following sections will focus on the municipality level in order to consider not only the existent differences between the states, but within these as well, and attempt to build a clearer perspective of whether and how this social dimension influences DV patterns.

### Analysis of the levels of inequality of the Mexican states, in the periods from 2000-2005 and 2005-2010, versus their most drug violent municipalities in 2010

In the following analysis, we examine the Gini coefficient changes within a municipality level. As this information is only provided every five years for the municipal level, we have attempted to account for the Gini changes within two periods of time, 2000-2005, and 2005-2010. The reasons for the period criteria are that these two periods could be influencing the period of study of this research, 2006-2012, characterised by high DV levels; this provides a comparison between drug violent and non-drug violent periods of time, since 2010 is the latest information available on a municipal level for the research period. Furthermore, the analysis is focused not only on the levels of inequality within and throughout the Mexican states, in relation to their levels of DV; the focus is also placed on the changes that have occurred within these municipalities' levels of inequality. By doing this, we are attempting to analyse how changes in inequality levels on a municipality level, before and throughout the period of research, could be influencing patterns of DV in the same municipalities.

Additionally, as every Mexican state is heterogonous from the rest of the country, we will focus on comparing municipalities within the same state, as these will be more likely to share characteristics; this approach will help to isolate other influencing factors that are more frequent when comparing municipalities from

different states. In the following table 4.34, we will analyse the changes in the levels of income inequality, reflected via the Gini coefficient, on the most drug violent municipalities within each state, and we will compare the Gini changes between the average of the state's municipalities, and the most drug violent municipality within the same state. With this comparison, we avoid a general comparison of all the 2,438 municipalities at once as the levels of DV by municipality in the country range from 0 up to 6,000 DH (drug-related) which will make a trend and correlation difficult to illustrate, as previously explained on the multidimensional poverty section. Thus, we focus the attention on an evaluation of the municipalities within the same state. This analysis within the state's municipalities could help us to understand why certain municipalities within a state become more drug violent than others; since the same state's municipalities are more likely to share similarities, and we can try to divert the attention from their geographical location.

Table 4.33: Difference between state's average Gini coefficient change and its most drug violent municipality's Gini change within their state, for the periods of 2000-2005 and 2005-2010

States	Most drug violent municipality	Drug-related homicides 2006-2010	Difference between state's average Gini coefficient change and its most drug violent municipality's Gini change within the state over periods 2000 - 2005 and 2005 - 2010
Aguascalientes	Ags, AGS	111	-0.035
Baja California	Tijuana, BCN	1667	-0.012
Baja California Sur	La Paz, BCS	9	-0.042
Campeche	Carmen, CAMP	24	-0.008
Coahuila	Torreon, COAH	524	-0.020
Colima	Colima, COL	44	-0.023
Chiapas	Tapachula, CHIS	46	-0.053
Chihuahua	Juarez, CHIH	6437	-0.052
Distrito Federal	Iztapalapa, DF	130	-0.019
Durango	Gomez Palacio, DGO	553	-0.019
Guanajuato	Celaya, GTO	87	-0.001
Guerrero	Acapulco de Juarez, GRO	661	-0.033
Hidalgo	Pachuca de Soto, HGO	40	0.023
Jalisco	Zapopan, JAL	164	0.024
México	Ecatepec de Morelos, MEX	212	-0.027
Michoacán	Morelia, MICH	260	0.022
Morelos	Cuernavaca, MOR	178	0.008
Nayarit	Tepic, NAY	258	-0.027
Nuevo León	Monterrey, NL	297	-0.019
Oaxaca	San Juan Bautista Tuxtepec, OAX	39	-0.003
Puebla	Puebla, PUE	13	0.020
Querétaro	San Juan del Rio, QRO	13	-0.031
Quintana Roo	Benito Juarez, Q ROO	101	0.006
San Luis Potosí	Ciudad Valles, SLP	50	0.004
Sinaloa	Culiacan, SIN	1890	-0.020
Sonora	Nogales, SON	442	-0.084
Tabasco	Centro, TAB	41	0.008
Tamaulipas	Reynosa, TAMPS	230	-0.015
Tlaxcala	Tlaxcala, TLAX	4	0.055
Veracruz	Veracruz, VER	69	0.025
Yucatán	Merida, YUC	22	0.059
Zacatecas	Fresnillo, ZAC	25	-0.010

Own elaboration, based on data from PR (2011) & Coneval (2011c, 2013b)

Table 4.33 shows the 32 Mexican states on the first column; their most drug violent municipality on the second column; the number of DH (drug-related homicides) for the most drug violent municipality from 2006-2010; and the last column indicates

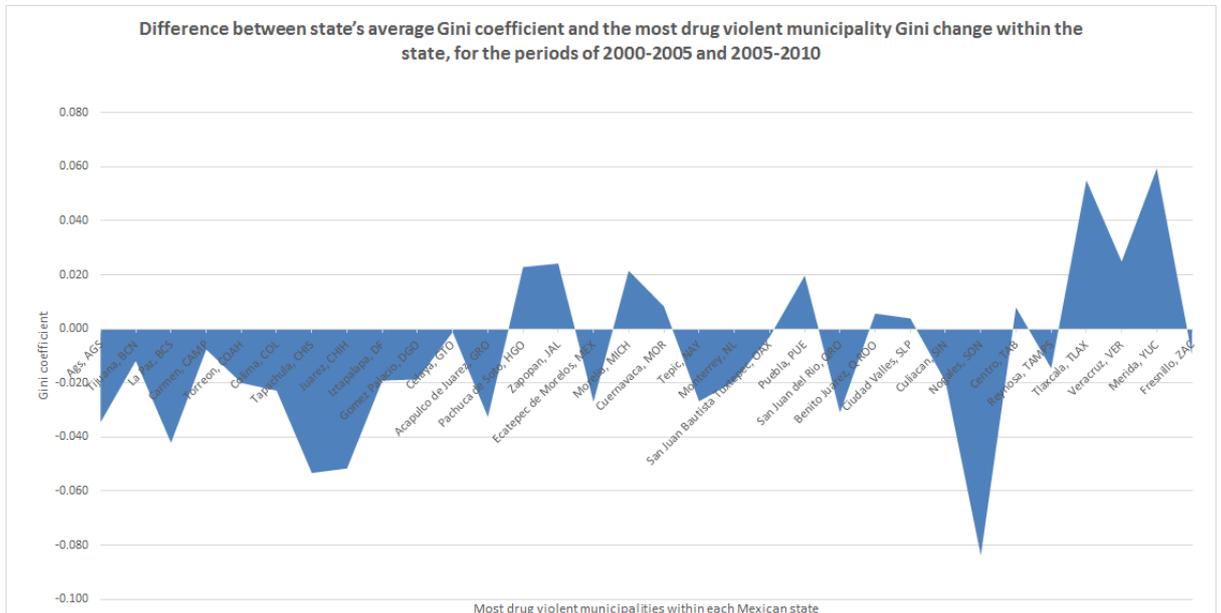
the difference between each state's average Gini coefficient change, and the same state's most drug violent municipality Gini coefficient change, for both periods of 2000-2005 and 2005-2010. The latter two periods have been chosen as the Gini coefficient on a municipal level is only available every five years since 2000, following with 2005 and the latest available for this research period, 2010. When the last column to the right shows a positive number, this translates into a higher Gini coefficient change, from the most drug violent municipality, than the average of the state it belongs to; whilst the negative numbers indicate that the Gini coefficient of the most drug violent municipality changed less than the average of its state.

What table 4.33 indicates is that out of the 32 Mexican states, 21 (shown as a negative number) follow the trend that their most drug violent municipality has had a lower Gini coefficient change than the average of the same state. This trend applies to 65.63% of the Mexican territory, more than half of it, including our case study of the MMA located on the state of Nuevo León. Out of the remaining 12 states that show a positive number, the majority of these are not considered to be drug-violent states nor drug-violent municipalities, as they show less than 90 DH (criteria considered earlier to define a drug-violent municipality) in the four-year period considered (2006-2010); the latter states that are not regarded as drug violent for the period of study are Hidalgo, Puebla, San Luis Potosí, Tabasco, Tlaxcala, Veracruz, Yucatán and Zacatecas.

Moreover, the average Gini difference between all these drug violent municipalities, and their corresponding states, is -0.009; this negative number indicates that the most drug violent municipalities have, in the majority of the cases, a lower Gini coefficient change than the average of the rest of the municipalities within their same states.

The Gini difference between the most drug violent municipality and the average of its state can be observed in the following graph 4.34:

Graph 4.34: Difference between state's average Gini coefficient and the most drug violent municipality Gini change within the state, for the periods of 2000-2005 and 2005-2010



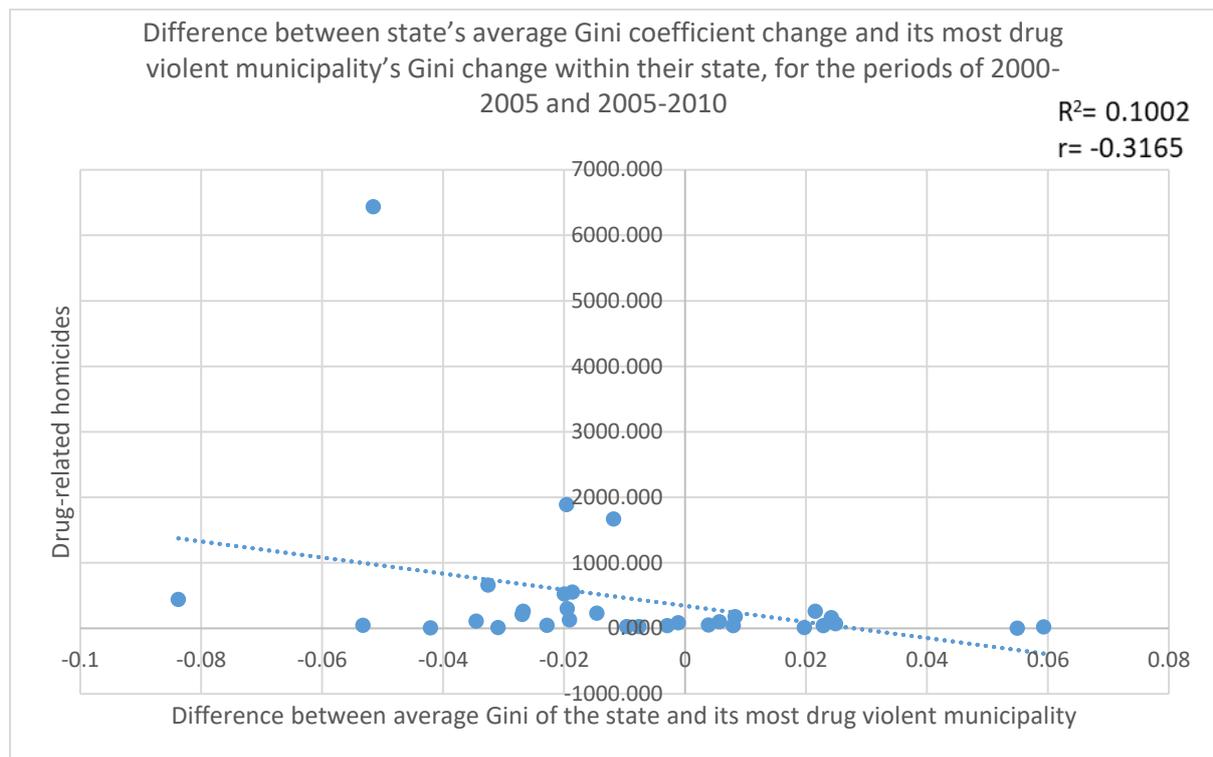
Own elaboration, based on data from PR (2011) & Coneval (2011c, 2013b)

The trend continues to be observed in the above graph 4.34, where the majority of the most drug violent municipalities have a negative value due to their lower Gini coefficient change, in comparison to the rest of the municipalities within their state, in the periods from 2000-2005 and 2005-2010. This finding places the focus once more on the importance of the relative changes of the Gini coefficient both on a municipal level (and not only on a state level) and, in comparison with the rest of the municipalities within the same state, which are expected to share more similar characteristics, than a comparison between municipalities of different states. Furthermore, following the previous section, the trend continues as the most drug violent states and municipalities are the ones with the lesser change in Gini coefficient levels, highlighting the importance of relative inequality levels, rather than absolute terms.

As with the previous section measuring multidimensional poverty levels, this section will also include scatterplot graphs to illustrate the correlation between drug-related

homicides and changes in the levels of inequality within and across the Mexican states.

Graph 4.35: Correlation: Difference between state’s average Gini coefficient change and its most drug violent municipality’s Gini change within their state, for the periods of 2000-2005 and 2005-2010



Own elaboration, based on data from PR (2011) & Coneval (2011c, 2013b)

The graph 4.35 shows a medium effect correlation coefficient of .32 (rounded) between the state’s average Gini coefficient change and its corresponding most drug violent municipality for the periods of 2000-2005 and for 2005-2010. The coefficient of determination suggests that 10.02% of the variability in drug-related homicides is shared by the difference between the state’s average Gini coefficient change and its most drug violent municipality. In addition, this scatterplot 4.35 presents negative values as this translates into the most drug violent municipalities of the states having a lower Gini coefficient change than the average of their corresponding state, as illustrated in the previous two graphs 4.33 and 4.34.

It is important to focus not only on the most drug violent municipalities within each state, but also, on the overall most drug violent municipalities in the country, as these

could likewise provide some interesting insights regarding similar levels of inequality. This analysis is displayed in the following table 4.36 that considers the municipalities throughout the country with over 90-DH as the criteria, and for the period from 2006 to 2010.

Table 4.36: Difference between the state's average Gini coefficient change, and the country's most drug violent municipalities' Gini change within their state, for the periods of 2000-2005 and 2005-2010 (See next page)

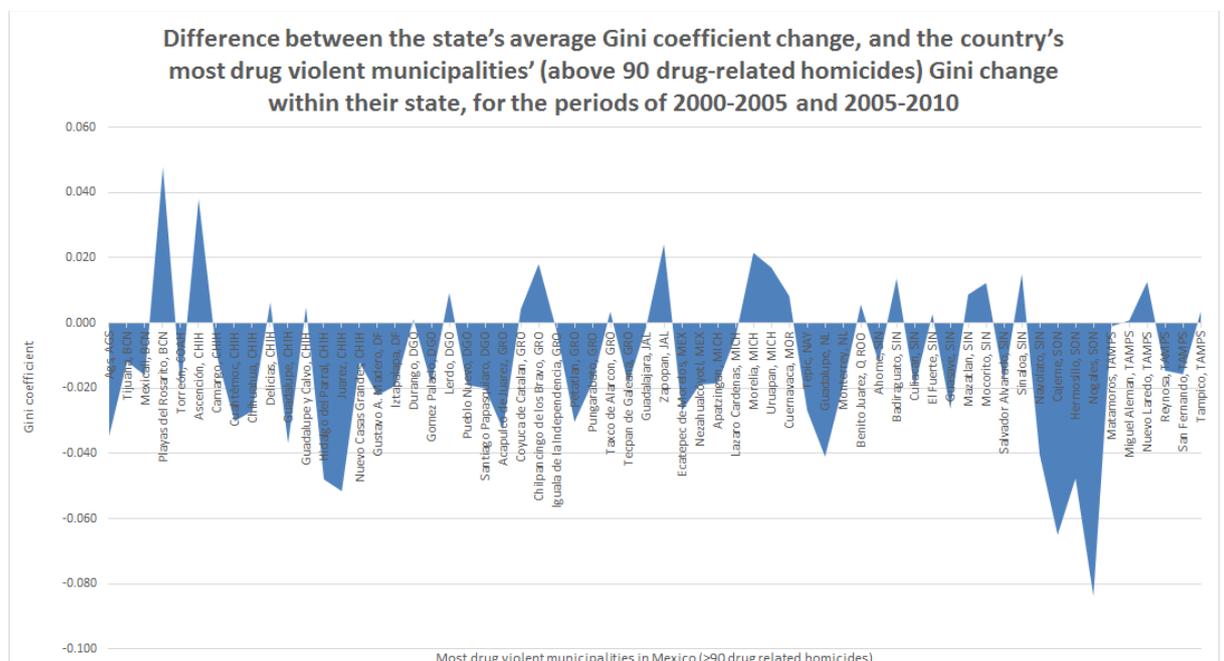
States	Most drug violent municipalities nationwide >90 drug-related homicides	Drug-related homicides 2006-2010	Difference between state's average Gini coefficient change and its most drug violent municipality's Gini change within the state over periods 2000 - 2005 and 2005 - 2010
Aguascalientes	Ags, AGS	111	-0.035
Baja California Norte	Tijuana, BCN	1667	-0.012
Baja California Norte	Mexicali, BCN	129	-0.016
Baja California Norte	Playas del Rosarito, BCN	101	0.048
Coahuila	Torreón, COAH	524	-0.020
Chihuahua	Ascención, CHIH	109	0.038
Chihuahua	Camargo, CHIH	119	-0.010
Chihuahua	Cuahtémoc, CHIH	102	-0.030
Chihuahua	Chihuahua, CHIH	1415	-0.027
Chihuahua	Delicias, CHIH	125	0.006
Chihuahua	Guadalupe, CHIH	139	-0.037
Chihuahua	Guadalupe y Calvo, CHIH	115	0.005
Chihuahua	Hidalgo del Parral, CHIH	212	-0.048
Chihuahua	Juarez	6437	-0.052
Chihuahua	Nuevo Casas Grandes, CHIH	125	-0.012
Distrito Federal	Gustavo A. Madero, DF	98	-0.022
Distrito Federal	Iztapalapa, DF	130	-0.019
Durango	Durango, DGO	390	0.001
Durango	Gomez Palacio, DGO	553	-0.019
Durango	Lerdo, DGO	189	0.009
Durango	Pueblo Nuevo, DGO	134	-0.019
Durango	Santiago Papasquiaro, DGO	133	-0.020
Guerrero	Acapulco de Juarez, GRO	661	-0.033
Guerrero	Coyuca de Catalan, GRO	112	0.004
Guerrero	Chilpancingo de los Bravo, GRO	116	0.018
Guerrero	Iguala de la Independencia, GRO	97	-0.002
Guerrero	Petatlan, GRO	136	-0.030
Guerrero	Pungarabato, GRO	135	-0.018
Guerrero	Taxco de Alarcon, GRO	105	0.004
Guerrero	Tecpan de Galeana, GRO	112	-0.018
Jalisco	Guadalajara, JAL	145	-0.001
Jalisco	Zapopan, JAL	164	0.024
Estado de Mexico	Ecatepec de Morelos, MEX	212	-0.027
Estado de Mexico	Nezahualcóyotl, MEX	166	-0.019
Michoacan	Apatzingan, MICH	147	-0.018
Michoacan	Lazaro Cardenas, MICH	125	-0.004
Michoacan	Morelia, MICH	260	0.022
Michoacan	Uruapan, MICH	206	0.017
Morelos	Cuernavaca, MOR	178	0.008
Nayarit	Tepic, NAY	258	-0.027
Nuevo Leon	Guadalupe, NL	92	-0.041
Nuevo Leon	Monterrey, NL	297	-0.019
Quintana Roo	Benito Juarez, Q ROO	101	0.006
Sinaloa	Ahome, SIN	260	-0.012
Sinaloa	Badiraguato, SIN	103	0.014
Sinaloa	Culiacan, SIN	1890	-0.020
Sinaloa	El Fuerte, SIN	93	0.003
Sinaloa	Guasave, SIN	216	-0.026
Sinaloa	Mazatlan, SIN	518	0.009
Sinaloa	Mocorito, SIN	108	0.012
Sinaloa	Salvador Alvarado, SIN	175	-0.018
Sinaloa	Sinaloa, SIN	190	0.015
Sinaloa	Navolato, SIN	383	-0.040
Sonora	Cajeme, SON	128	-0.065
Sonora	Hermosillo, SON	112	-0.048
Sonora	Nogales, SON	442	-0.084
Tamaulipas	Matamoros, TAMPS	130	-0.001
Tamaulipas	Miguel Aleman, TAMPS	113	0.001
Tamaulipas	Nuevo Laredo, TAMPS	159	0.013
Tamaulipas	Reynosa, TAMPS	230	-0.015
Tamaulipas	San Fernando, TAMPS	173	-0.016
Tamaulipas	Tampico, TAMPS	92	0.004

Own elaboration, based on data from PR (2011) & Coneval (2011c, 2013b)

Table 4.36 is set out similarly to previously analysed table 4.35; the difference is that this table is solely focused on the most drug violent municipalities throughout the country, using the abovementioned criteria of 90 or more drug-related homicides per year and incorporating it as closely as possible to this thesis period of research (2006-2012). As noted, the latest available data on Gini coefficient only extends to 2010 for our research period.

The findings from table 4.36 show that out of the 62 most drug-violent municipalities in the country, 40 drug violent municipalities follow the trend of having changes in their Gini coefficients that are lower than the average of their respective states, including two municipalities from our case study of the MMA-Monterrey and Guadalupe—from the state of Nuevo León. These 40 municipalities represent 64.52 percentage of the total most drug violent municipalities in the country. The following graph 4.37 illustrates this information to make its observation easier:

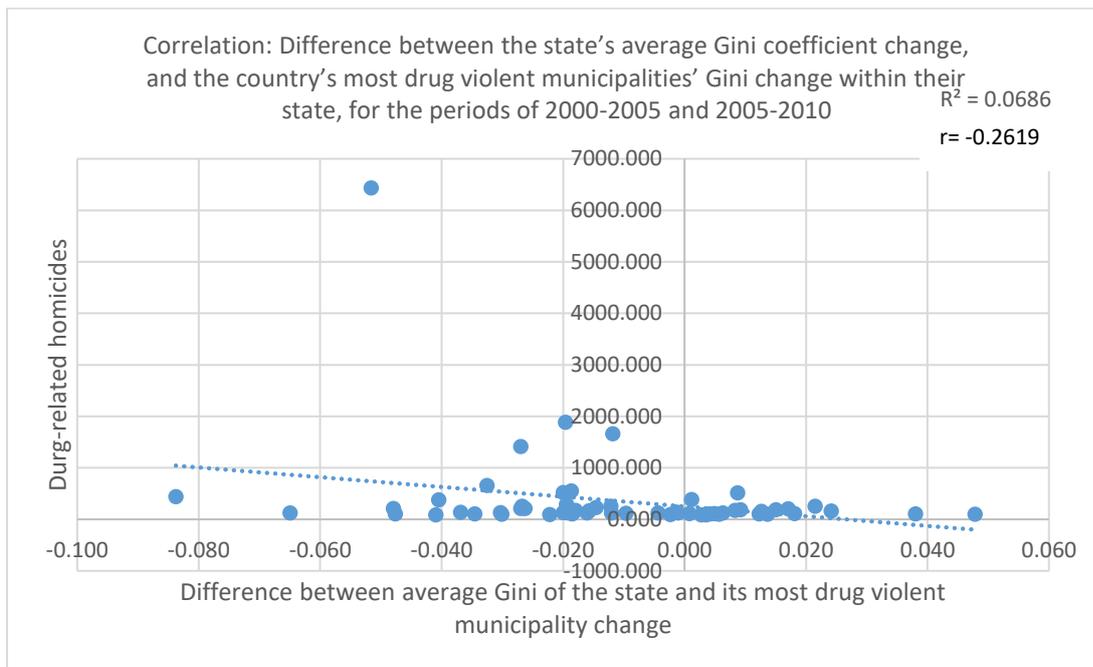
Graph 4.37: Difference between the state’s average Gini coefficient change, and the country’s most drug violent municipalities’ Gini change within their state, for the periods of 2000-2005 and 2005-2010



Own elaboration, based on data from PR (2011) & Coneval (2011c, 2013b)

Graph 4.37 indicates that the majority of the most drug violent municipalities in the country have a negative value due to their smaller Gini coefficient change, in comparison to the rest of the other municipalities within their particular state. The average difference between these drug violent municipalities and their respective states was of -0.012. We can observe that the majority of the municipalities that do not follow this trend, do not display a substantive difference change than the average of their own states, with only some exceptions from Playas del Rosarito (Baja California Norte) and Ascención (Chihuahua).

4.38: Correlation: Difference between the state’s average Gini coefficient change, and the country’s most drug violent municipalities’ Gini change within their state, for the periods of 2000-2005 and 2005-2010



Own elaboration, based on data from PR (2011) & Coneval (2011c, 2013b)

The graph 4.38 shows a small effect correlation coefficient of .26 and a negative relationship between drug-related homicides and the difference between the average Gini of the state and the country’s most DV municipalities’ Gini change within their state. The coefficient of determination indicates that 6.86% of the variance in drug-related homicides could be ascribed to the difference between the

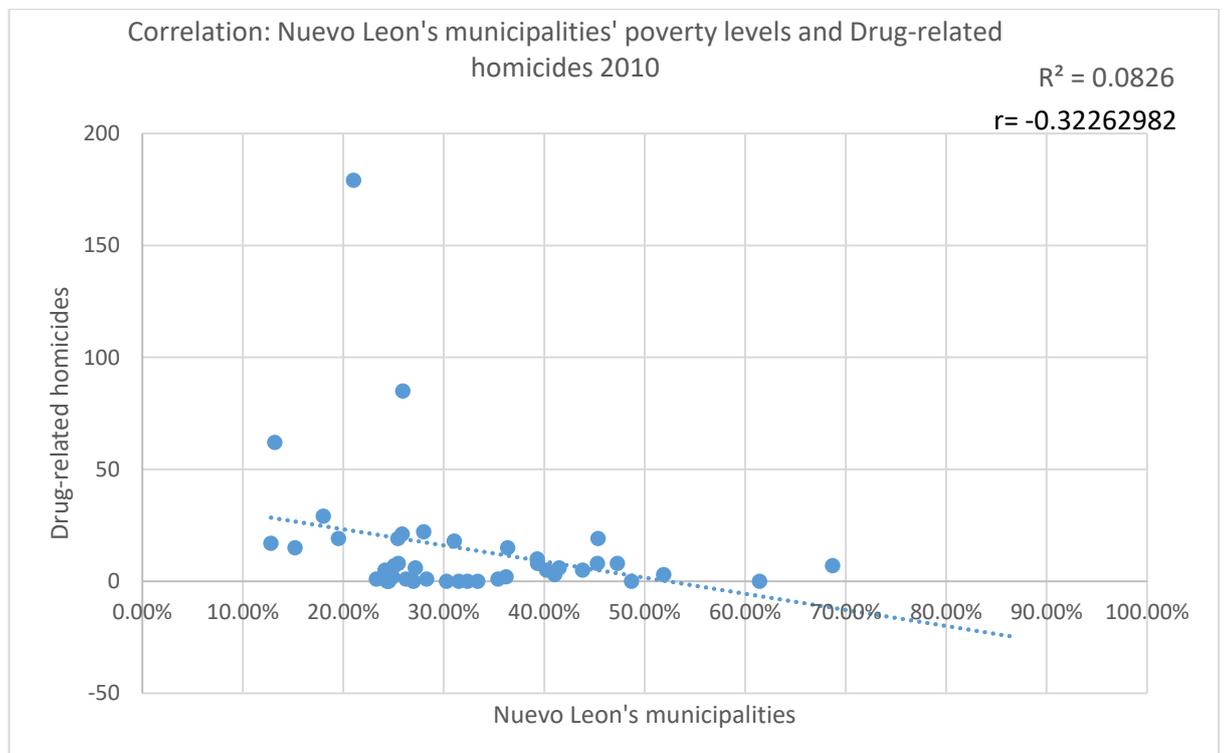
state's average Gini coefficient change and its corresponding most drug violent municipality within the country.

As we have analysed poverty and inequality levels and their relationship to DV on a national and states' level, the following sub section focuses on examining these levels on Nuevo León, the state of our case study (MMA).

## Nuevo León

This research's case study is located within the state of Nuevo León, the city of Monterrey and its Metropolitan Area (MMA). This section will introduce the subsequent qualitative chapter by exploring the correlation between the multidimensional poverty levels for the 52 municipalities in the state of Nuevo León and their relationship to DV levels in 2010, when the data is available for our research period. We begin by examining the correlation between the overall levels of multidimensional poverty and drug-related homicides in 2010,

4.39: Correlation: Nuevo León's municipalities' poverty levels and drug-related homicides 2010

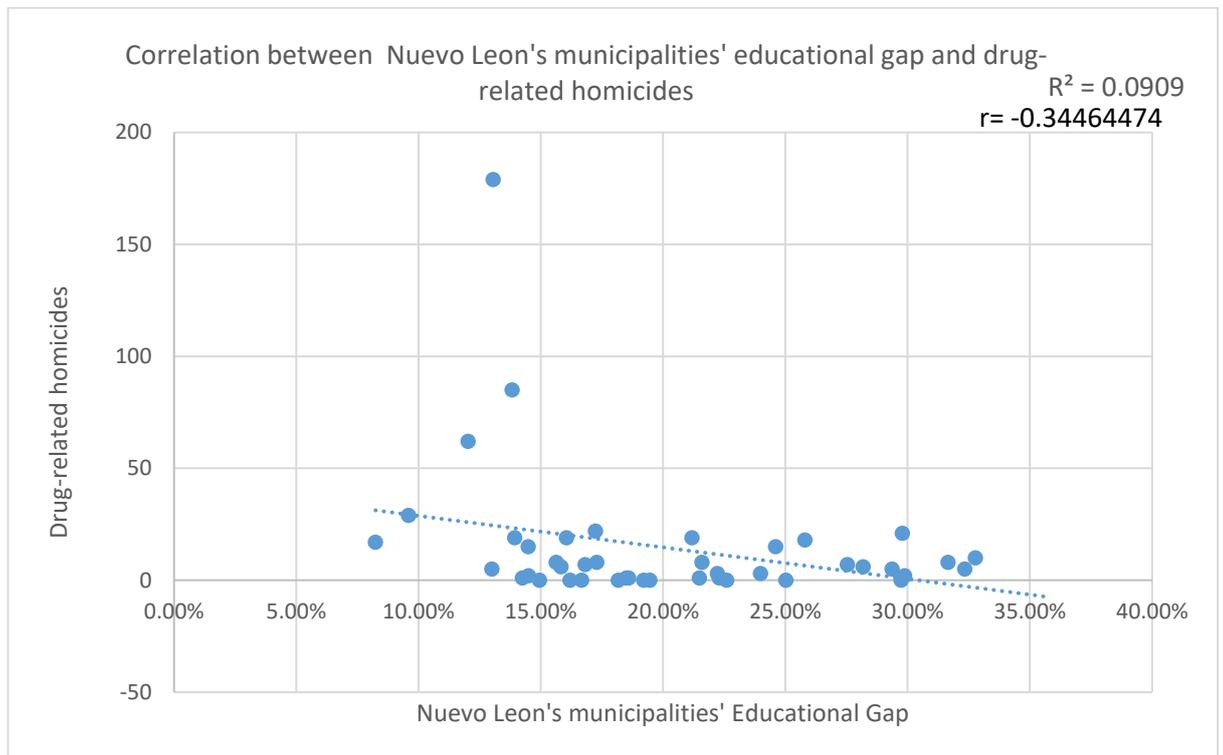


Own elaboration, based on data from PR (2011) & Coneval (2011c, 2013b)

The graph 4.39 shows a medium effect correlation between drug-related homicides and the levels of multidimensional poverty in Nuevo León for the year of 2010 and a negative relationship between these two variables suggesting that as one variable goes up, the other one goes down. This scatterplot 4.39 indicates the correlation between poverty and DV levels is of medium effect given its .32 correlation coefficient. Moreover, as the correlation between these two variables is negative it challenges most of the studies reviewed on Chapter III which suggested a positive relationship between violence and poverty; and, this was not the case for DV and multidimensional poverty in the particular case of NL in 2010. Important to stress out this does not mean causation between these variables, but correlation explores the relationship between these two variables. The coefficient of determination indicates that 8.26% of the variability in drug-related homicides is shared by the municipalities' multidimensional poverty levels, thus the remaining 91.71% could be ascribed to other factors. This negative relationship between DV and multidimensional poverty levels in the state of Nuevo León follows with the trend we explored on the previous sections at the national level. Moreover, as it challenges the academic debates explored in chapter II, it provides justification for the selection of the MMA as our case study, given it is its capital city and integrates several of its municipalities. Further justification for the selection of this case study is provided on the following chapter V.

In order to analyse the levels of multidimensional poverty and DV in the state of Nuevo León in more detail, we will examine each multidimensional component and its correlation to drug-related homicides, as previously done for the national level.

#### 4.40: Correlation between Nuevo León's municipalities' educational gap and drug-related homicides

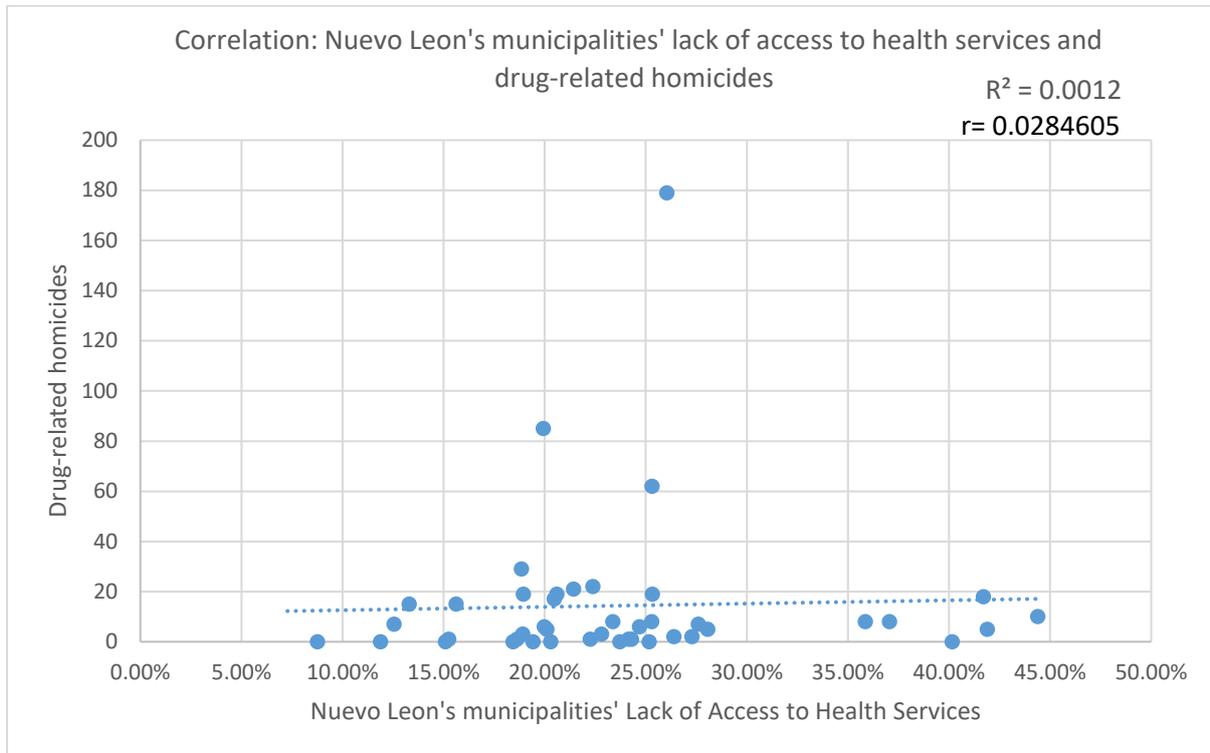


Own elaboration, based on data from PR (2011) & Coneval (2011c, 2013b)

The graph 4.40 shows there is a medium effect with  $r = .34$  correlation between the educational gap and drug-related homicides in the state of Nuevo León, with a negative relationship. The coefficient of determination suggests 9.09% of the variability in drug-related homicides is shared with the educational gap of the state of Nuevo León, suggesting there is 90.91% of variability to be accounted for other factors. The correlation remains negative, following with the trend of multidimensional poverty and DV.

The following graph 4.41 examines the correlation between Nuevo León's lack of access to health services and drug-related homicides within its municipalities,

4.41: Correlation between Nuevo León's municipalities' lack of access to health services and drug-related homicides

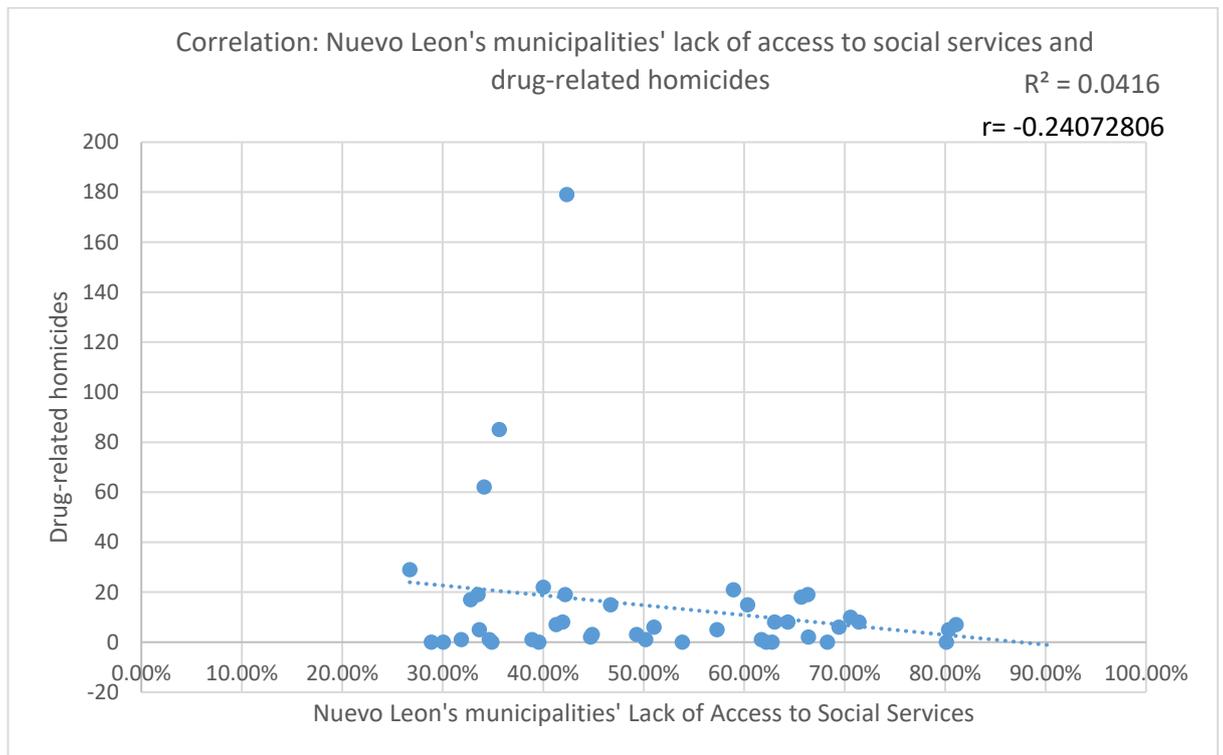


Own elaboration, based on data from PR (2011) & Coneval (2011c, 2013b).

The graph 4.41 indicates a very small correlation between drug-related homicides in Nuevo León and lack of access to health services with a coefficient of .03 (rounded), and an even lower coefficient of determination of 0.0012%. Similarly to the nationwide component, this is the only multidimensional poverty component that does not follow the trend on the negative relationship between DV levels and poverty levels for the case of Nuevo León.

The subsequent chart illustrates the correlation between the lack of access to social services and DHs in Nuevo León,

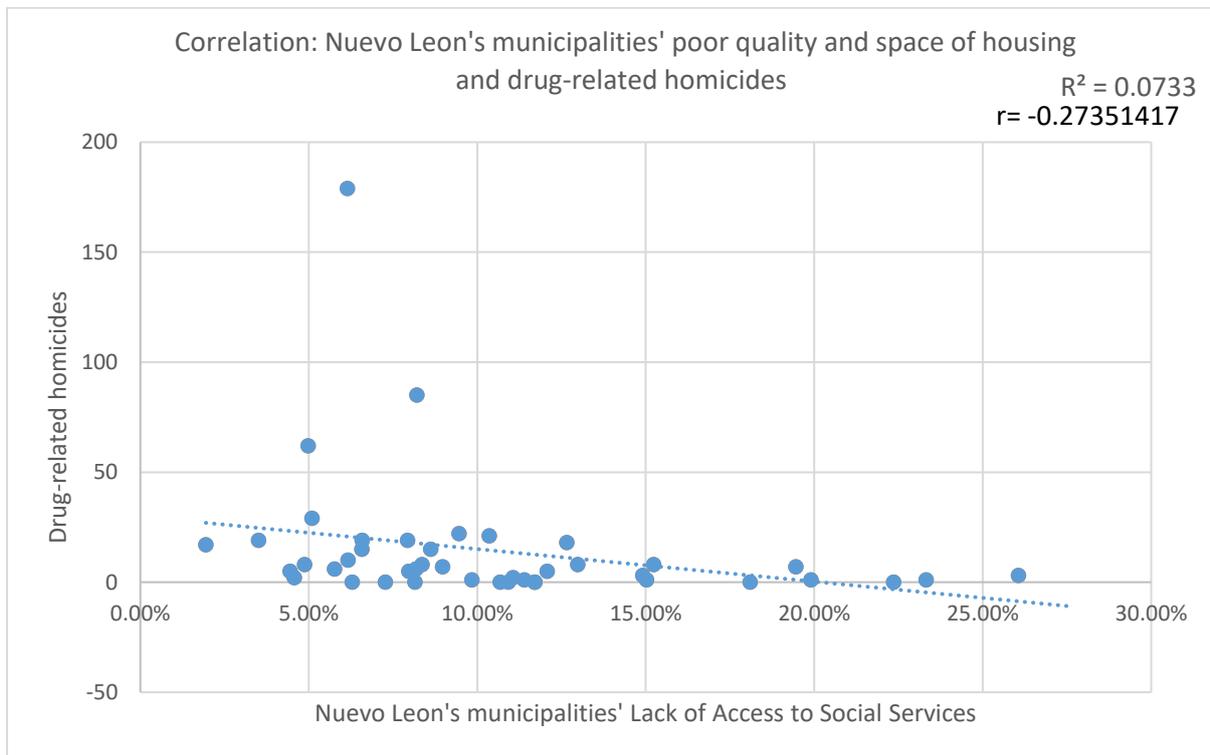
Graph 4.42: Correlation between Nuevo León’s municipalities’ lack of access to social services and drug-related homicides



Own elaboration, based on data from PR (2011) & Coneval (2011c, 2013b)

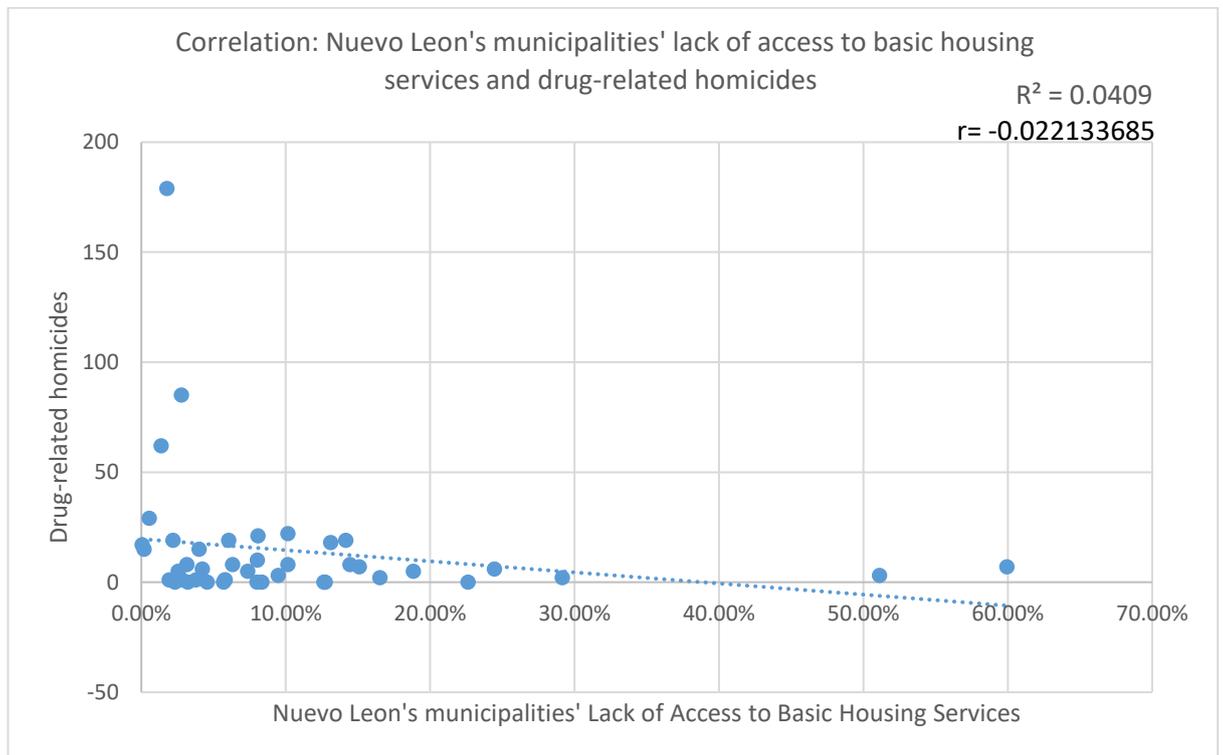
The chart 4.42 suggests a low correlation between drug-related homicides and Nuevo León’s municipalities’ lack of access to social services with a .24 correlation coefficient and a negative relationship between these two variables. In addition, the variance of DHs accounted by the lack of access to social services is also very low with 4.16%. The negative relationship between the multidimensional poverty component and DH prevails.

Graph 4.43: Correlation between Nuevo León's municipalities' poor quality and space of housing and drug-related homicides



The above graph 4.43 again shows a small effect correlation between drug-related homicides in Nuevo León and the multidimensional poverty component of poor quality and space of housing. The correlation coefficient of .27 suggests a low correlation with a negative relationship between DV and this multidimensional poverty component; and the coefficient of determination suggests the variability of DHs is shared only by 7.33% of poor quality and space of housing.

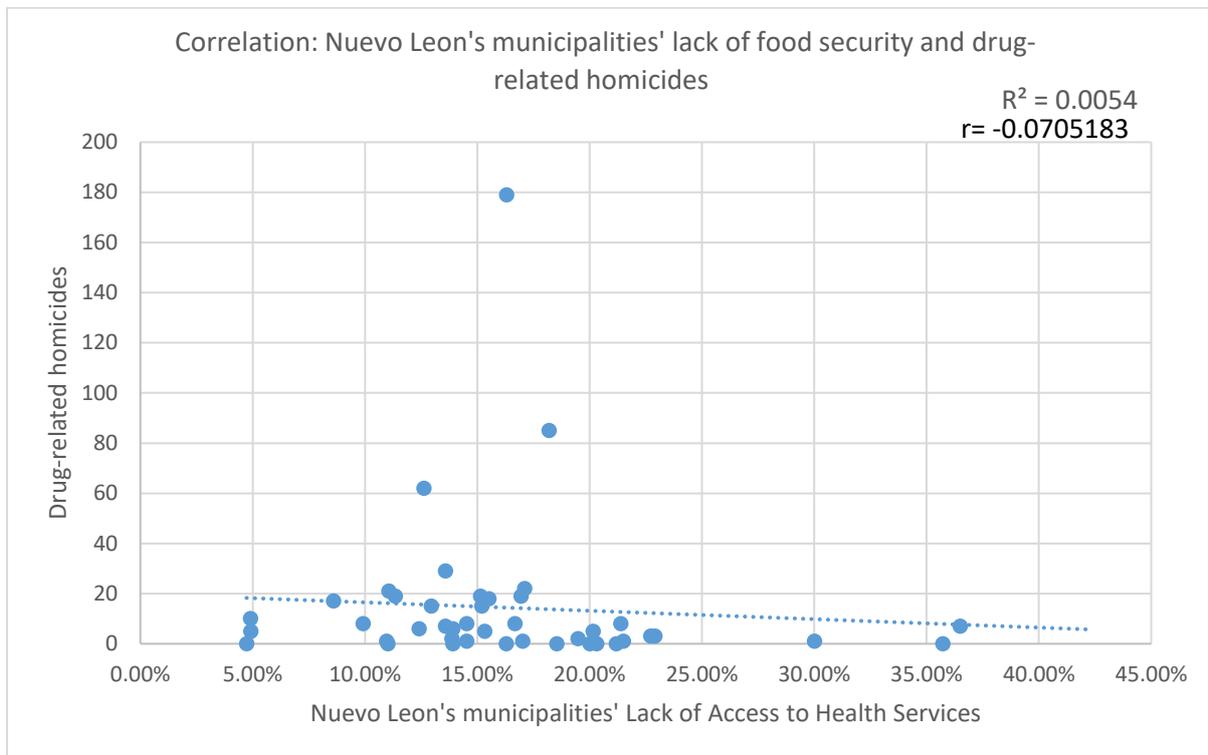
Graph 4.44: Correlation between Nuevo León's municipalities' lack of access to basic housing services and drug-related homicides



Own elaboration, based on data from PR (2011) & Coneval (2011c, 2013b)

The preceding graph 4.44 indicates again a very low correlation between the lack of access to basic housing services and drug-related homicides in the municipalities in Nuevo León, with a negative correlation coefficient of .02 and a coefficient of determination of 4.09%. Lastly, the lack of food security will be examined in the following graph 4.45.

Graph 4.45: Correlation between Nuevo León's municipalities' lack of food security and drug-related homicides



Own elaboration, based on data from PR (2011) & Coneval (2011c, 2013b)

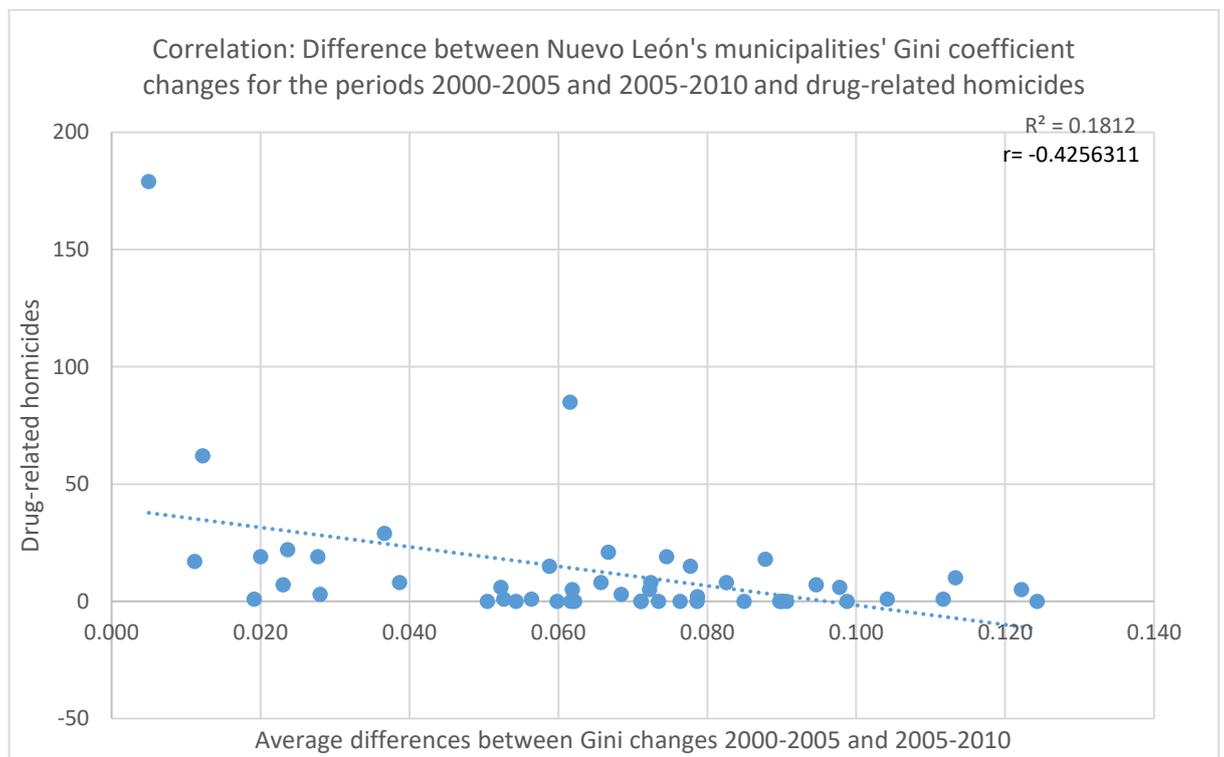
Lastly, graph 4.45 shows a similar trend as with the previous ones from this section, a low correlation coefficient of .07 and a negative relationship between drug-related homicides and the lack of food security for the municipalities of Nuevo León. The coefficient of determination was once again very low with 0.54%.

This section suggests that overall there is no strong correlation between DV and poverty levels in the state of Nuevo León, as the correlation coefficient effect remained predominantly low as shown by all of its municipalities and as it follows with the trend for the national level and the 32 Mexican states. Nevertheless, the relationship between each multidimensional poverty component and DV levels remained negative for most of these components, suggesting that as one variable increases, the other one decreases, suggesting an opposite correlation than the one expected from the academic debates explored in chapter III.

As we explored the relationship between multidimensional poverty and DV levels for Nuevo León, we now focus on inequality levels and their relationship to DHs on the

state. As the previous section on inequality levels on a national level explored the changes in Gini coefficient and included the state of Nuevo León, this section will focus only on the relationship between the two variables, DHs and inequality levels. The following graph 4.46 explores the relationship between Nuevo León's inequality levels and drug-related homicides.

Graph 4.46 Correlation: Difference between Nuevo León's municipalities' Gini coefficient changes for the periods 2000-2005 and 2005-2010 and drug-related homicides



Own elaboration, based on data from PR (2011) & Coneval (2011c, 2013b)

Graph 4.46 suggests a medium effect correlation coefficient of -0.42 (r) with a very low coefficient of determination of 18.12%. As explored earlier, the relationship between drug-related homicides and average differences between Gini changes for the years 2000-2005 and 2005-2010 remain negative as expected from the national trend.

## Conclusions

This chapter has introduced counterintuitive findings regarding the nature of the relationship between poverty and drug-related homicides. The chapter analysed the relationship between drug violence and the multidimensional poverty levels by calculating the correlation coefficient and the coefficient of determination. The correlation coefficient indicated there is no strong relationship between the multidimensional poverty levels in the Mexican states and drug-related homicides (Graph 4.11), and DHs had low variance accounted by poverty levels following the coefficient of determination. Moreover, the relationship between these two variables was negative, suggesting that as one variable increases, the other one decreases. Even though correlation does not imply causality, it does help to explain the relationship between poverty and drug violence following our main research questions. Moreover, the negative relationship between these two variables challenges several of the studies examined in chapter III which suggested a positive relationship between violence and poverty; even though the violence in question is a different type of violence from the studies, and only for the particular case of Mexico in 2010, it integrates a different perspective into these academic challenges.

Not only did the chapter analysed the correlation between these two variables, but it also examined the trends that characterised the nature of their relationship. Our quantitative analyses indicated a trend of how the most drug violent Mexican states and municipalities were not the most impoverished ones; rather, they were frequently the less impoverished within their respective states, and in comparison with the average of the country. This key insight developed after analysing the multidimensional poverty components of: educational gap; quality and space of housing; lack of access to basic housing services; lack of access to social coverage; and lack of access to food security. The significant discernment is that we had not seen this outcome before; yet our findings indicate that within all of these variables (except for the lack of access to health services), the majority of the most drug violent municipalities scored lower percentages (displaying a positive economic outcome) of multidimensional poverty, than the rest of the municipalities within the same state. This data does challenge the common assumption about poverty and its determinant

role influencing violent crime rates; particularly, DV levels for the specific case of Mexico in the year 2010. As the data is only available for this year, it only provides a snapshot into the problem and the nature of the relationship between DV and multidimensional poverty. However, the multidimensional data on poverty for the single year of 2010 is still particularly revealing, as it was considered one of the most drug violent years in Mexican history.

In addition, we continued to attempt to examine the correlation coefficient between the multidimensional poverty components and drug-related homicides in the Mexican states. However, given the range of outliers in DHs from 0 to over 6,000 across the over 2,000 municipalities, we followed our correlation coefficient analyses with the trend analyses focusing on the relationship between the Mexican states and their most DV municipality in order to account for these outliers and continue to compare municipalities within and across the Mexican states. As expected, the correlation coefficient between the most drug violent municipalities' poverty component and their corresponding state's average poverty component remained high as we were comparing the same variable for two different but related entities, explaining the close degree of association for these correlation analyses throughout the multidimensional poverty components. For the same reason of exploring the correlation between the most drug violent municipality and its corresponding state's multidimensional poverty component, not only was the degree of correlation high (as it considered localities within the same state), but also showed a positive relationship (as it was not being correlated directly to drug-related homicides). The negative relationship between DHs and multidimensional poverty was indeed illustrated in Graph 4.11 (that made this comparison on a national level) and on the section on the state of Nuevo León which does compare multidimensional poverty components directly with drug-related homicides.

The chapter not only challenged the normal assumptions about violence and poverty, reviewed in chapter's III theoretical frameworks, but also indicated key variations in the relationship between DV and multidimensional poverty, for our research and particularly case study. Poverty is clearly important, as some of the areas with high levels of DV are still deprived; however, these do not represent the most

impoverished areas within or between the Mexican states, as might be presumed. Furthermore, as the analysis has focused on comparing municipalities within the same state, it puts forward the need to focus on the relative levels of poverty and economic inequality, rather than a focus on absolute levels. The approach on poverty should focus on why DV occurs more in less impoverished municipalities, or more economically developed. As mentioned throughout the chapter, the analyses cannot indicate the direction of causality and several explanations for this outcome could be placed forward: these municipalities have lower levels of poverty given the illegal drugs market that operates within them (third-variable problem) as their earnings could be distributed within the municipality; or perhaps these localities are the most drug violent as they account for more material resources than their counterparts within the same state (reverse causality), amongst other possible explanations. Given correlation does not imply causation and the quantitative analyses cannot specify anything regarding the cause behind this outcome, we will explore in more detail possible explanations for this outcome in the following chapter for the specific case of the MMA, drawing our qualitative material from our field research.

The second part of this quantitative chapter analysed the relationship between inequality and DV by focusing on the changes of inequality levels of the Mexican states and municipalities in relation to their levels of DV, in order to examine what role relative inequality plays in patterns of DV. When considering inequality and its relationship with DV, the quantitative data strongly proposes rethinking about our approach on economic inequality by focusing not only on its levels, but on the changes it presents throughout time. The data's preliminary findings present the possibility that states and municipalities in Mexico are characterised by higher drug violence levels when they have not experienced a substantial Gini coefficient change, regardless of whether it is an increase or decrease of inequality levels, emphasising the significance of relative inequality levels. This again does not suggest causality between inequality and DV, but this quantitative finding does indicate a negative relationship between DV levels and changes (either increasing or decreasing) in inequality levels, the states that experience substantial changes in Gini coefficient were not characterised by high levels of DV. The research has clearly revealed that

the conventional understanding of socioeconomic inequality in absolute terms should not be our only focus; attention needs also to be placed on relative levels of inequality in the country. This focus on relative inequality follows with recent research conducted by the World Bank in Indonesia that highlights the importance of perceptions on inequality, closer to relative inequality levels, rather than absolute levels of inequality (Hoy, 2017). This quantitative analyses on relative inequality introduces what we will explore in more detail in the following chapter V regarding people's perceptions on inequality and its relationship with DV levels for the MMA.

The inequality data analysis on the state level highlighted that more importance should be placed on the changes of the Gini coefficient. From the total 32 Mexican states, 15 showed a minor or no change of Gini coefficient on the three periods considered, 2000-2010, 2000-2008 and 2005 to 2010. Out of these 15 "static" states, 80% of them were drug violent in the period from 2006 to 2010. The remaining 17 states that did account for a significant change in their Gini coefficient for the overall period 2000 to 2010 (considered under the three periods aforementioned), 70% of these states were non-drug violent states for the period of 2006-2010. These state-level findings indicate the clear importance of not just inequality levels, but its actual changes, and a need to focus on the relative levels of inequality, rather than just the absolute figures.

On the other level of the quantitative data, the municipality level, also brought the attention to the significance of Gini coefficient changes, especially in comparison with the rest of the municipalities within the same state. The trend remained that the most drug violent municipality within each state, and the most drug violent municipalities throughout the country, showed a lesser Gini coefficient change than the average of their corresponding state's municipalities; the trend applied to a majority of 65% for the most drug violent municipality within each state, and 64% for the most drug violent municipalities in the country. The findings from tables 4.33 and 4.36, and graphs 4.34 and 4.37, place the focus on the actual changes these municipalities have experienced in their Gini coefficient, rather than in their absolute inequality levels. This does not mean that we should dismiss the absolute levels of inequality, as they are still important; but it does suggest that more attention should

be directed at the relative levels of inequality, as they provide us with a more detailed picture than the state level.

The critical insight of the quantitative analysis of inequality in this chapter points towards a pattern in which the most drug violent units of analysis have experienced a lesser degree of change in their Gini coefficients than their corresponding units, during the periods analysed. The significance of these findings is that it indicates a negative relationship between DV levels and changes in the levels of inequality for the particular case of Mexico's DV, directly related to our research questions. Moreover, it is important to highlight that this finding challenges the common assumptions (examined in chapter III) that high levels of Gini coefficient increase the probability of violence, as from our analysis it was not the absolute level of inequality, but rather the relative level illustrated in changes on the Gini coefficient. It is important to clarify this does not imply causation, but it does suggest a different type of relationship between inequality and DV for the particular case of Mexico in the drug-violent and non-drug-violent periods considered.

As with the previous section on poverty, we also analysed the correlation coefficient and coefficient of determination between changes in inequality levels and DV levels which suggested a low to medium effect (Graphs 4.35 and 4.38) correlation coefficient and a very low coefficient of determination, an inconclusive outcome from this type of analysis that did not reflect the trend observed with the descriptive statistics regarding static and non-static states; or the negative relationship between inequality changes and DV, as the correlation coefficient for these two graphs (4.35 and 4.38) indicated a negative relationship. This outcome could potentially be a result of the negative changes displayed by several municipalities in the three periods analysed.

Additionally, this quantitative analysis suggests a focus not only on economic inequality, but on the inequality of opportunities available for the Mexican population. The lack of these opportunities can result in no significant changes in economic inequality levels, leading to "static" states and municipalities in Mexico, when compared in relative terms; this lack of change in economic inequality, independent of an improvement or worsening of inequality levels, could be a factor

influencing DV levels. Nevertheless, these preliminary findings are puzzling, as they challenge the theoretical frameworks that set out to explain the relationship between violence, inequality and poverty in Chapter III. Drawing from SDT and IAT respectively, the quantitative findings challenge several of its studies, as it is not the most drug violent states or municipalities which are characterised by the highest levels of inequality or poverty; instead, our findings indicate that it is frequently the sub national units that did not experience any change in their Gini coefficient and the ones with the lowest levels of multidimensional poverty, are the ones characterised by the highest levels of DV.

Lastly, the chapter introduced our case study of Nuevo León by analysing the correlation between each multidimensional poverty component and DHs within the 52 municipalities of the state of Nuevo León. Most of the correlation coefficients of this section presented a negative correlation coefficient between DV and the multidimensional poverty components, indicating that as one of the variables increased, the other one decreased. This quantitative finding again challenges several of the studies from Chapter III which suggested the relationship between poverty and violence would be positive. Yet, this thesis suggests that for the particular case of Mexico in 2010 this was not the case. The correlation coefficient had a lower to medium effect for most of the components and a low coefficient of determination. This followed with the national trend regarding a low correlation between poverty and DV levels and a negative relationship between these two variables (Graph 4.11). Lastly, the section explores the correlation between Nuevo León's municipalities' Gini coefficient changes for the periods 2000-2005 and 2005-2010 and drug-related homicides, suggesting a medium effect correlation coefficient with a negative relationship, following with the national trend.

This last section of the chapter helps to introduce the subsequent qualitative chapter on the MMA located within the state of Nuevo León where we conducted our field research and where we will explore in more detail the links between the quantitative findings and the qualitative material.

## CHAPTER V: THE MONTERREY METROPOLITAN AREA (MMA): QUALITATIVE CASE STUDY

“It appeared likely that the narcotrafficker was commonly viewed by non-elite Mexicans as a ‘social bandit’, as a symbol of power and efficacy outside the domination of the United States or of the Mexican elite, in short, as a model for how to be a person of status and importance even in the face of subordinate social position—a model, one could say, of social mobility” (Duncan, 2013, p.22).

### Introduction

This chapter will focus on a case study within the state of Nuevo León (NL), Monterrey and its Metropolitan Area (MMA). The chapter will draw from our field research conducted in the MMA in order to build on the quantitative analysis (chapter IV) to test the empirical findings for the particular case of the MMA to help determine why we may have these results for our research period. The fieldwork involved conducting 23 face-to-face semi-structured interviews with government officials, members of non-governmental organisations, former drug traffickers, academics and journalists, in order to pull insights from their experience to flesh out an understanding of the social and developmental context of DV. The number of interviews conducted was based on the saturation bias criterion that will be explained further in this chapter’s conclusions section. These qualitative discussions will provide an in-depth analysis of the relationship between poverty and inequality and drug violence to understand the extent and nature of their connection and test the validity of our quantitative findings for the particular case of the MMA in the research period. Lastly, we will analyse the relationship between the field research material collected and the theoretical frameworks explored in our previous chapter III.

We will begin by introducing our case study, the Monterrey Metropolitan Area’s context and history of drug violence in order to explore in more detail the justification for the selection of the case study.

### Monterrey Metropolitan Area: city context

The city of Monterrey is the capital of the state of NL and its municipalities integrate to conform the third largest metropolitan area in the country: the Monterrey Metropolitan Area (MMA). The MMA is integrated by 13 municipalities: Apodaca, Cadereyta Jiménez, Carmen, García, General Escobedo, Guadalupe, Juárez, Monterrey, San Nicolás de los Garza, San Pedro Garza García, Santa Catarina, Salinas Victoria and Santiago. The 13 municipalities from the MMA are part of the 51 municipalities that make up the state of NL (which represents 3.27% of the national territory) and has a population of over 5 million inhabitants, representing 4.3% of the total Mexican population. The majority (95%) of the population live on the urban sphere and the average schooling years (10.3) is higher than the national average (9.2) (INEGI, 2010).

The MMA is not only considered economically developed, but it was once regarded as “Mexico’s richest city and a symbol of progress in Latin America” (Emmot, 2011, N.A.). Monterrey’s position as an economic powerhouse in Mexico is reflected on how it produces 7.3% of the national gross domestic product with only 4.3% of the Mexican population (INEGI 2015); had a growth rate of almost double the national average between 2005 to 2007, just before the escalation of DV; an average annual income per capita of \$17,000 dollars which represents double the national average; ranks first in economic competitiveness amongst the metropolitan areas in the country; and, its economy is based on the industry and business reflected on the over 1,800 foreign factories it hosts and the home of several of the largest corporations in Latin America, such as Cemex, Femsas, Alfa, Vitro and Cydsa (Emmot 2011; Avila Loera 2010).

As Monterrey was once considered one of the safest cities in Latin America, it is important for the research to briefly examine its history of drug violence as it became one of the most drug-violent cities during our research period.

### History of drug violence in Nuevo León

The high levels of DV in NL reached their peak in 2009-2010, contrary to other states in the north of the country such as Sinaloa, Sonora, Chihuahua and Durango, where the violence in question had already spiked by 2008-2009 (Heinle et. al., 2014). In

2011, the homicide rate in the state was double the national average, as opposed to previous years when the homicide rate had remained below the national average (Villanueva, 2015). As a result of this peak in the levels of DV, some residents of the MMA left the city and moved towards the USA, particularly Texas due to its geographical proximity and historical links (Durin, 2012).

The levels of DV in the MMA escalated significantly in 2011, from a rate of 4.36 per 100,000 inhabitants in 1997, considerably lower than the national average of 17.35; up to 41.75 per 100,000 inhabitants in 2011, its most drug violent year. This escalation was significant as the homicide rate had a small increase in 2007 with 6.31 and 5.7 in 2008-2009, both ratios still beneath the national average of their respective years; it was not until 2009-2010 when the ratio surpassed the national average of 17.53 with 18.1 (Gonzalez, 2015). According to the Mexico Peace Index (2016), the state of NL shifted from being the fourth most peaceful state in Mexico in 2004 down to number 27<sup>th</sup> (out of 32 states) in 2011, illustrating its escalation of DV.

During the peak of the DV period in NL (2009-2012), which covers most of our research period (2006-2012), the MMA was heavily affected both by the presence of different DTOs and deployment of the military. The authorities argued these DV were exclusive to DTO members; however, this was not the case as it became visible several of the victims were civilians (Villanueva, 2015). A high-profile example was the murder of two students from Tecnológico de Monterrey (a private university) on 2010; the case gained further media attention as soldiers implanted arms next to the bodies as alleged evidence for their status as DTO members (Campos Garza, 2014). Another high-profile example of the escalation of DV in the MMA happened in 2011 with the attack on the Casino Royale Monterrey which resulted in the loss of life of 61 individuals (Gonzalez, 2015).

Other examples of DV in the MMA included: assassinations on public spaces, casualties resulting from attacks between DTOs and the military, attacks on the local media offices, and riots on the state prisons (Topo Chico and Apodaca-where this research conducted participant observation) which resulted in over a 100 homicides inside the penitentiaries and 13 prison guards' assassinations outside the prisons,

plus the escape of several prisoners during the period from 2011-2012; and, other type of drug-related activities such as extortion from businesses, roadblocks (“narcobloqueos”) and the increase in car theft and kidnappings in NL (Mariscal-Odriozola, 2014). Another high-profile example of the intensification of DV in the MMA is known as the “Cadereyta Massacre”, when 49 decapitated bodies were found in a motorway in Cadereyta, another municipality within the MMA; this massacre occurred in the last year of our research period, 2012.

As DV levels escalated in NL, several security operations were deployed to address this security issue. One of the first military operations on the state occurred in February 2007, with the objective of capturing an illegal drugs distribution centre in Linares (Mariscal-Odriozola, 2014). On May of the same year, Operation Monterrey was implemented, which involved a stronger police presence in the MMA. On January 2008, the Joint Operation of the Northeast (“Operación Conjunto del Noreste”) was implemented in the states of NL and Tamaulipas. The aforesaid operation involved three airplanes, six helicopters and the deployment of almost 3,500 soldiers with the aim of tackling the two DTOs with the strongest presence during the research period, the Gulf Cartel and Los Zetas (Grayson, 2009; Merino 2011).

In 2010, as part of the state’s development plan (“Plan Estatal de Desarrollo 2010-2015”) from the newly elected state Governor, Rodrigo Medina, and the federal government’s new model for the police (“Modelo de Policía Acreditable”), NL became the first state to implement a unified state police force (rather than independent municipality police forces). The objective of the new model was to improve the country’s police forces by unifying their command, making them more professional, and combatting corruption within their ranks. This model became the origin of “Fuerza Civil”, the NL state police that unified the municipalities’ police forces and whose commander was interviewed during our field research. The creation of Fuerza Civil involved the cooperation between the state and federal governments, as well as the private sector and the formation of the University of Security studies for the state of NL (“Universidad de Ciencias de la Seguridad del Estado de Nuevo León”). Before the formation of Fuerza Civil, 4,200 municipality

police officers did not pass the necessary security background checks. In order to address the high levels of corruption, Fuerza Civil hired individuals who had never worked before in police forces, and offered better employment benefits ranging from wages that are more than double (\$13,500 Mexican pesos-MXN) when compared with former police officers in the state (\$6,500 MXN), health and life insurance, educational scholarships for their children and housing support. The first generation of Fuerza Civil officers graduated in 2011, the most DV year registered for the state of NL (Mariscal-Odriozola, 2014).

Another security strategy implemented by the state of NL was the creation of community centres in order to foster social inclusion and participation of local residents to help develop the community's social ties. These centres included different types of local courses (110), including educational, cultural, artistic and sports programmes (Mariscal-Odriozola, 2014). One of the main local initiatives from these community centres is referred to as Unidos Transformando Mi Comunidad (UTC), briefly introduced in chapter II and explained in more detail in the following sub section.

[Unidos Transformando mi Comunidad \(UTC\): Together Transforming my Community.](#) The Together Transforming my Community (UTC) programme was based on improving the public infrastructure and basic services, and focusing on the vulnerable groups and most impoverished communities within the city; it was integrated within the Nuevo León's development plan (2010-2015) mentioned earlier. UTC focused on six streams: infrastructure, security, civic engagement, sports and culture, employment and education. The programme had two main objectives, the first centred on violence prevention by reinforcing public infrastructure, and the second aim was directed at police coordination, by incorporating a single command centre for the newly created state police Fuerza Civil (one of our interviews) and better police equipment (Robledo, 2012).

The UTC initiative was mainly driven by pressure and investment from the private sector, including large companies such as Oxxo, Femsas, Cemex and Gruma, in cooperation with the state of Nuevo León's government (*The Economist*, 2013; Robledo 2012; Thomson 2011). This public-private collaboration was led by the

Council of Civic Institutions of NL (CCINL AC), integrated by the largest businesses in the city, including chambers of commerce, businesses, services companies, sports teams, and civil society organisations (Dudley and Rodriguez, 2013). The former director of CCINL AC, Miguel Treviño, explained the Council's rationale, "We have realised that the origins of violence are in the lack of opportunities for many young people and adolescents" (2011, in Thomson, n.a.). Similarly, Lorenzo Zambrano, the late CEO of Cemex (second largest supplier of building materials in the world headquartered in San Pedro) argued that, "Violence is an expression of social inequality" (2012, in Malkin, n.a.). These quotes are relevant for the thesis as they highlight the importance of inequality and its relationship to DV, similarly to our quantitative findings and further explored with our qualitative material on this chapter.

The neighbourhood of La Independencia was one of the selected target areas for one of the UTC initiatives. La Independencia, located in the municipality limits between Monterrey and San Pedro, is recognised as one of the most marginalised neighbourhoods in the MMA (Villareal, 2015). The focus of the initiative was inspired by the case of Medellín, Colombia (Malkin, 2012) and included developments in the urban infrastructure of the locality. The latter investment was mainly directed at a community centre, the "Community Bicentennial Macrocentre" (also referred to as Community Centre Independencia), with provision for the following: arts and music classes and sports facilities; an addiction prevention centre; technological skills training; the improvement of 4,500 houses facades; a square, gym and a police station (Robledo 2011; Felbab-Brown, 2011; Malkin 2012). According to the former Governor of NL, Rodrigo Medina (2009-2015), the aim of the project was "...to provide the people with a social project to transform their communities; this is how we detected 70 sectors in Monterrey's metropolitan area that had some type of violence, poverty, marginalisation, abandonment, that these were the ones we should rescue to provide our people with a life project" (2011, in Robledo, n.a.)

According to Thomson (2011), the local private university Tecnológico de Monterrey proposed the construction of the Community Centre Independencia, as it matched with the goals proposed by the UTC framework; thus, this project was selected by

the local government to be the first local initiative implemented as part of UTC. This project once again shows the importance of the collaboration between the private and the public sectors in the state of NL.

Other municipalities within the MMA also implemented initiatives to address the high levels of DV. Guadalupe became one of the most DV municipalities in Mexico, second only to Ciudad Juárez (Fernandez, 2012). As a result, the neighbouring municipality of San Nicolás de los Garza not only built a wall within their limits, but also led the “Armouring Neighbourhoods” programme in 2007 to armour public spaces such as football fields and parks. Following the aforementioned programme, the municipality of Guadalupe implemented the “Safe Neighbourhood” programme, similar to the one from San Nicolas de los Garza which also involved armouring different public spaces and even fences to close off specific neighbourhoods. Monterrey and other municipalities in the MMA similarly implemented programmes to attempt to regain their public spaces; one of the most popular ones being “recreational routes”, an initiative of closing local streets for the weekends in order to allow for leisure activities (Villanueva, 2015).

Whilst neighbouring municipalities Guadalupe and San Nicolás de los Garza were armouring their public spaces, business centres and leisure activities from the elite were relocated to the municipality of San Pedro Garza García, and informal curfews were also implemented (Villarreal, 2015). San Pedro is the richest municipality in Mexico and one of the wealthiest in the Latin American region, as well as traditionally the home of the local elite (Emmot, 2011; Villareal, 2015). San Pedro became the refuge not only for the MMA citizens, but also for high-ranking DTO members as suggested by its (then and current) Mayor in a documentary “If you see San Pedro is politically marketed as the safest municipality in Mexico, then that is an invitation not only for good people but also for bad people” (Fernandez Garza, 2012, in Villanueva 2015, p.5). Since 2009, San Pedro has been marketed as the “armoured municipality” (Villareal, 2015) of the MMA, reflected with the Mayor’s (Mauricio Fernandez) plan to invest \$65 million dollars in security equipment, over 2,000 security cameras and more modern police stations (Emmot, 2011). As Villanueva

argues, “For many San Pedro residents, the borders of this municipality represent rigid limits for their everyday activities” (2015, p.7).

This brief history of drug violence in the MMA provides context for the discussion of our field research. Given the upsurge of drug violence and the high level of economic development of the MMA analysed in this section, and the quantitative findings regarding the section on NL from the previous chapter IV, the city of Monterrey and its Metropolitan Area (MMA) is an appropriate case to explore the counter-intuitive negative relationship between multidimensional poverty and DV. The selection of this case study is suitable given its classification as one of the most economically developed cities in the country, including the country’s richest municipality, as well as one of the most drug violent in the research period (2006-2012). The latter allows us to explore in more detail this unexpected negative relationship between poverty and drug violence levels, as well as the relationship of the latter with inequality levels. In addition, the academic research conducted on the MMA remains scarce (Avila Loera, 2010).

The remaining sections of this chapter will concentrate on the qualitative findings obtained during our field research in the state of Nuevo León, particularly in the MMA.

#### [Field research: the relationship between drug violence, poverty and inequality](#)

As a quick reminder of what was mentioned earlier on Chapter I (Qualitative methods section), our qualitative research consisted of 23-semi structured face-to-face interviews and participant observation. The selection of interviewees relied on representing the different groups with a degree of involvement in DV, including first-hand experience from DTO members (5) as individuals actively perpetrating the type of violence in question and government officials (6) as the individuals tackling DV; as well, as civil society representatives including NGO members (8), academics (3) and journalist (1). The majority of the interviews were conducted in Monterrey where most of the MMA’s population is located. The 23 interviews were conducted in the municipalities of Monterrey, San Pedro Garza García, Guadalupe, San Nicolás de los

Garza and Santa Catarina (5 out of the 13 municipalities of the MMA); and, the participant observation was conducted in two out of the three state prisons, the Centres for Social Re-adaptation (CERESO) Topo Chico and Apodaca. The interviewees profile and location were diverse, given their different roles and their place residence, from marginalised neighbourhoods like La Independencia, as well as affluent areas from San Pedro, and working-class neighbourhoods in Monterrey such as Guadalupe and Santa Catarina.

The diverse sample of interviews allows us to explore in more detail the complexity of the perceptions of our interviewees regarding the relationship between poverty, inequality and drug violence in the state. The following sections will explore the relationship between poverty, inequality and DV from our interviewees' perspectives and their link to the quantitative findings (Chapter IV), as well as insights from the theoretical frameworks (Chapter III).

The interviews illustrated the research by providing a first-hand experience on the situation, as they offered valuable insight information into the social context of the individuals involved in DV in the state of Nuevo León, particularly for the MMA. The qualitative material helped to connect these insights with the quantitative data studied and, altogether, offer a voice for our participants regarding DV in Mexico. Moreover, as the main research questions are related to the relationship between drug violence, poverty and inequality, it is important to examine the perspectives of the people involved in this matter and NL provides an appropriate example to do so given its economic development and high levels of DV during the research period.

It is important to note that there is no guarantee that DTO members live and operate within the same municipality, as the DV information could be referring to the operations figures and the poverty levels to their residence information. Nonetheless, Vilalta and Muggah argue that there is a "...tendency of criminals to live close to areas where they operate" (2012, p.5), claiming a link between the area of criminal behaviour and dwelling; this helps us to connect this information between DV and poverty levels.

As a brief reminder of the quantitative findings from both the national and the NL level of analysis, these indicate how the majority of the most drug violent municipalities had a lesser degree of multidimensional poverty than the rest of the municipalities within the same state, pointing towards the former's overall better economic development. More specific to NL, DV and multidimensional poverty (graph 4.39) had a negative relationship of medium effect with a correlation coefficient of .32, suggesting that as one variable increased (poverty), the other one decreased (DV) or the other way around. The aforesaid quantitative finding challenges the majority of the theoretical frameworks from chapter III regarding the relationship between poverty and violence as the relationship was expected to be positive and with a large effect. For the majority of the multidimensional poverty components the relationship was negative and of a lower to medium effect. As NL was considered a drug-violent state during our research period and its municipalities with the lowest levels of poverty showed the higher levels of DV, the rest of the chapter will draw from our field research to explore the perceptions of why is it that you may have high DV levels in environments with low levels of multidimensional poverty.

### Social exclusion and (drug) violence

The main recurring theme in our field research was social exclusion (referenced in several of our interviews), whose definition and relationship to violence we explore in this section. Social exclusion is a multidimensional process that,

“...involves the lack or denial of resources, rights, goods and services, and the inability to participate in the normal relationships and activities, available to the majority of people in a society, whether in economic, social, cultural or political arenas. It affects both the quality of life of individuals and the equity and cohesion of society as a whole” (Levitas et al., 2007, p.9)

This definition of social exclusion is highly relevant to our research as it is related to the lack of equal access of individuals to resources, services and rights which affects their ability to participate in society, similarly to our definition of multidimensional poverty and inequality, the main two social dimensions studied in this thesis. Similarly, Popay et al. (2008, p.2) define social exclusion as,

“...dynamic, multi-dimensional processes driven by unequal power relationships interacting across four main dimensions—economic, political, social and cultural—and at different levels including individual, household, group, community, country and global levels. It results in a continuum of inclusion/exclusion characterized by unequal access to resources, capabilities and rights which leads to health inequalities”.

This definition complements the former one by highlighting the impact of unequal power relationships and the four different levels involved: individual, household, community, country and global levels. This consideration of different levels draws parallels with our theoretical framework, the different social structures from SDT (local, civic, social and political institutions); and, the different types of participation (economic, political, social and cultural) similar to the institutions considered with IAT, the economy, polity, family (social), religion (social) and education (cultural).

Moreover, the Bristol Social Exclusion Matrix (B-SEM) indicates the 10 dimensions of potential importance in social exclusion and groups them in three: resources, participation and quality of life. The resources category involves material, economic and social resources, as well as access to public and private services. The participation type covers social, economic, political and civic, and cultural and educational participation. Lastly, quality of life incorporates criminalisation and harm, well-being and health and the living environment. These dimensions are referred both as risk factors and outcomes of social exclusion (Levitas et al., 2007, p.9-10). The close relationship between multidimensional poverty, inequality and social exclusion is that “people who are socially excluded are generally also poor...in most cases social exclusion implies inequality or relative deprivation” (Khan et al., 2015, n.a.); however, if the majority of the population in a particular society were impoverished, it would not imply that they were all socially excluded as there would need to be agents and processes responsible for this social exclusion (Khan et al., 2015), as detailed on the following paragraph.

Berkman (2007) clarifies that social exclusion is one of the factors leading to violent crime as individuals suffering from this aforementioned process tend to lack the legitimate economic, political and social opportunities often available to the rest of

the population, and tend to live in marginalised communities. Not only do these individuals lack access to the aforementioned arenas available to the rest of the society, but also suffer from the weaknesses of the state institutions that fail to serve only certain segments of the society (the socially excluded); institutions such as the judicial system, that fail to provide them with the administration of justice and security. Thus, other informal actors (OCGs, violent local leaders, corrupt authorities) replace these state institutions by providing illegal means of economic opportunities, security and the administration of justice. As a result, socially excluded individuals have to either accept this lack of provision of basic services and goods (as they lack money for bribes to the corrupt authorities or to pay off extortion to DTOS); have to rely on violent local leaders, the corrupt police or OCGs; and/or end up resorting to violence and illicit activities to address their needs and security issues (Berkman, 2007).

Socially excluded communities resort to the use of violence for several reasons: to enforce security and for the provision of justice, assert power and visibility, seek vigilante-related justice, acquire economic goals and obtain cultural identity (Berkman, 2007). It is not uncommon for individuals from socially excluded communities to rely on their own methods of justice and security given the lack of provision from state institutions. For example, Goldstein (2003) explains that homicide rates are more prevalent in marginalised communities rather than middle-income or affluent neighbourhoods, as the individuals use of violence can be an attempt to replace the non-functional justice system they lack, and the provision of informal (vigilante) form of justice is seen as the only alternative.

Not only do local leaders (such as DTOs) provide justice and security services, but often they provide other services for the community, such as the provision of medicines, food, child care and other basic necessities; this provision of services can encourage the community to tolerate their illegal methods and abstain from reporting them to the authorities. Moreover, this lack of formal mechanisms to cover the individual's basic necessities (goods and services), strengthens the OCG (DTOs) recruitment grounds, as it seems a more profitable option that allows them to cover their needs (Moser and McIlwaine, 2000; Berkman, 2007). This explanation on the

provision of basic needs and services by OCGs is related to the meaning of parallel power structures which we examined in Chapter II and will continue to do so in this section, drawing from our qualitative material.

For the particular case of the youth, which are often the building blocks of DTOs, violence can be used as a method to increase their visibility and assert their connection to the community, as a way of participating in the community life, as their socially excluded community might ignore them (Riaño-Alcalá, 2006). For some of the DTO members, these OCGs become their first “job” or the only labour opportunity they have ever encountered (Dowdney, 2005); especially for the youth as they are experiencing a transitional period when they could be finishing school, leaving their own support systems (family) and starting to form their own families, making the allure towards the OCG even more appealing (Berkman, 2007). This need for the youth to create social ties with their community and joining DTOs as a way of finding a replacement for their (lack of) support system is strictly related to our theoretical framework: IAT’s weakness of the non-economic social institutions (family) and the characteristics of SDT structures that lead to violent crime, lack of social support institutions, unsupervised teenage peer groups.

The lack of opportunities in socially excluded communities, especially when compared to affluent neighbourhoods, creates a sense of frustration on the individuals from these communities given their lack of economic, labour and skills opportunities, amongst other types. As the choices of socially excluded individuals are limited when compared to the mainstream society, but particularly with affluent communities-the stark difference between the individuals who have and the ones who do not- result in feelings of envy, frustration and dissatisfaction regarding their ability to acquire desirable goods and services. These feelings make the recruitment grounds for OCGs more attractive in these socially excluded communities (Berkman, 2007). These feelings of frustration and lack of opportunities are also related to IAT priority to Economy as the predominant social institution and the failure of the “American dream”, even if it is being applied within the Mexican case.

As described by Popay et al. (2008), social exclusion results from unequal power relationships, as these can potentially be prolonged by the authorities (failure to

provide basic public services), the community (blaming them for the community's problems) and even the individual's own family (domestic violence). The aforesaid could become risk factors influencing the youth joining OCGs where they seek acceptance and social connection as these criminal organisations replace the social structures and ties they often lack (Dowdney, 2005). Rodgers (2006) even argues some OCGs provide a form of collective social organisation within socially excluded communities as they are afflicted by insecurity, as in some cases social ties develop between socially excluded communities and the OCGs that plague them (Dowdney, 2005). This significance of social ties and the DTOs potentially providing a form of collective social organisation is directly related to SDT, as collective efficacy is often a form of preventing crime by relying on the communities' social ties and cohesion.

As we have explored the meaning and relationship of social exclusion to violence and its close relationship to inequality and multidimensional poverty, we will draw from our field research to continue to explore this research's two social dynamics-inequality and poverty-and social exclusion as the recurring theme on our interviews.

### [Multidimensional poverty, inequality and social exclusion in the Monterrey Metropolitan Area](#)

One of the key aspects analysed in the multidimensional poverty index was the educational gap component. Education was also one of the most recurrent issues mentioned during the interviews.

The three graphs (4.14-4.16) from the nationwide level illustrated the educational gap and the relationship between the state's average and the most drug violent municipality within each state. They suggested a critical discernment: the majority of the most drug violent municipalities' levels of educational gap fell below the state's average. What these graphs revealed is that the most drug violent municipalities in question have better educational levels than the rest of the municipalities within the same states. There were only two or three exceptions to this trend from each of the diagrams aforementioned. Additionally, the difference between the state's average and the most drug violent municipalities within each state and throughout the whole country was above 7.2% each. More specifically to NL, graph 4.40 illustrated the correlation between the educational gap and DV levels on the state and the outcome

was a negative relationship between these two variables, suggesting that as one increased, the other one decreased (the higher the educational gap, the lower level of DV; or the higher the DV, the lower level of educational gap) with a medium effect of .34. This quantitative finding suggests the municipalities in NL with high level of educational gap have a lower level of DV than the ones with a low level of educational gap, suggesting the municipalities with the higher levels of education have higher levels of DV. As mentioned earlier this does not indicate causality, but it does help to explore the nature of the relationship between poverty and DV levels, drawing from the particular case of NL, and addressing our main research questions. As NL was considered a drug-violent state during our research period and the educational gap is one of the multidimensional components, this finding suggests there are high levels of DV in municipalities with low levels of multidimensional poverty.

Most of the participants stressed the importance of secondary school in keeping the youth away from drugs and DTOs, focusing on desertion and performance as key indicators. The majority of the interviewees, especially NGOs and government officials, agreed that most of the DTO members were mainly secondary school dropouts, or in some cases, even dropouts from primary schools. However, this insight regarding DTO members' level of education did not seem to reflect on the quantitative data of the most drug violent municipalities, as the latter were usually the ones with the lowest levels of educational gap. Moreover, the qualitative material reflected contrasting perceptions and realities, our interviewed DTO members' educational level was diverse and ranged from primary to university dropouts and airplane pilots, reflecting how even within a non-representative sample, there exists considerable variation. As we have explored the corresponding educational data both on the national and state of NL level, it is important to complement the findings with an understanding of the different perceptions about the individuals interviewed in relation to education and poverty, as it helps to build a more accurate picture of the issue at hand.

NGOs, such as Promoción de Paz reflected upon the secondary dropouts and their relationship with the involvement in DTOs:

“...They are almost condemned to start a criminal life because they are going to be outside without anything to do, joining groups of people that don't have anything to do either. A young man who finishes secondary school has a completely different possibility. Maybe he won't start high school immediately because he doesn't have money, he won't continue; but, he will look for a job, as he has a platform, and he or she knows it, most of them.... If they do not finish secondary level, they are condemned to go through a violent road. It is strictly related, education with a criminal life, it is proved”<sup>1</sup>.

Promoción de Paz was not the only NGO that emphasised the importance of education; Desarrollo Integral en Movimiento also highlighted the importance of desertion from school. The interviewee also assured that most of these young DTO members have issues integrating into the school system, reflecting a low performance at school. This NGO brought not only the school desertion rate into focus, but concentrated on school performance levels as another important indicator for educational level. The director from the Organised Crime Research Centre at Universidad Autónoma de NL referred more specifically to the name of this multidimensional poverty component, and DTOs and their corresponding DV, by arguing, “...one of the risk factors is the educational gap”<sup>2</sup>. This qualitative material continues to reflect the common assumption regarding the relationship between educational gap and DV; yet, this was not particularly reflected on the multidimensional poverty components analyses of chapter IV, illustrating contrasting but equally accurate realities explored in more detail in this section.

The authorities also had a similar perspective on the role of education, like the Director from the Northeast Regional Academy of Public Security, who emphasised that the age range of an individual's criminal life averages between the 15 and 35 years of the individual's life. The Director determined the importance of secondary schools, between 11 and 16 years, and their role in keeping the younger population within this age “...busy, well, far from the streets and vices for them to have a healthy

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<sup>1</sup>Interview with Promoción de Paz, A.B.P., NGO' headquarters, Monterrey, Nuevo León, 07/11/13.

<sup>2</sup> Interview with the Director of the Organised Crime Research Centre, Universidad Autónoma de Nuevo León, San Nicolas de los Garza, Nuevo León, 18/12/13.

development...it is vital because at this stage it is when we can lose them..."<sup>3</sup>. On the same Academy, the Director of the Social Prevention of Violence and Delinquency Department asserted, in reference to DTO members, that "...just because they are young, they do not have any working experience, they do not have any educational degree, they do not have any job opportunities"<sup>4</sup>. These two quotes are relevant as they help to construct the authorities' understanding of DV, and its relationship with poverty reflected through one of its components, educational gap.

As we have observed from the aforementioned quotes, several of the interviewees referred to a lack of education, or educational gap, as having a direct effect on criminal activities, that could potentially lead to DV; the insight was that the higher the level of educational gap an individual had, the more likely the individual was to resort to criminal activities, as a result of a lack of job opportunities. Nevertheless, this common conception on the importance of educational levels to avoid individual's involvement with DTOs is regarded from a different perspective from the actual DTO members interviewed. Juan and Mateo (their names have been changed to protect their identities) stated they were secondary school dropouts. However, the other three DTO interviewees were characterised by a higher degree of education than the latter two participants, Jorge was an airplane pilot, Alfredo, a university dropout, and Antonio did not specify his level of education, but did highlight an interesting relationship between the educational level and the recruitment selection process for DTOs:

"...They check for your level of studies, how you think, they take care of the details...they want you to be responsible, not a party animal, for them it is better if you don't drink so you can take care of them...your appearance, the way you speak, if you are not a working class, because they move in the high levels of society..."<sup>5</sup>.

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<sup>3</sup> Interview with the Director of the Northeast Regional Academy of Public Security, Northeast Regional Academy of Public Security, Santa Catarina, Nuevo León, 22/11/13.

<sup>4</sup> Interview with Director of the Social Prevention of Violence and Delinquency Department, Northeast Regional Academy of Public Security, Santa Catarina, Nuevo León, 22/11/13.

<sup>5</sup> Interview with recovering drug addict and former DTO member "Antonio", Desarrollo Integral en Movimiento, Monterrey, Nuevo León, 21/12/13.

This quote from Antonio regarding education is also relevant to consider within the context of the participant's job position in the DTO, as Antonio confessed he was in charge of a segment of the drugs transportation process, from Mexico into the USA and from Central America into Mexico. Antonio's job position shows he had a higher rank within the DTO than Juan and Mateo had, as they were more involved in the legwork. Jorge was also involved in the transportation process, as he is an airplane pilot, also a higher position than the former two. However, Alfredo had a higher degree of education but did not seem to be involved in a higher level within the DTO, as he mentioned his DTO activities were stealing cars and transporting them to the USA, battling competing DTOs, and moving drugs inside nightclubs and bars; all of these activities linked him more to the legwork, similarly to Juan and Mateo.

Clearly, these five interviews are in no respect a representative sample of DTO members in the MMA; however, their experiences help to build up a possible explanation of why the most drug violent municipalities are characterised by having a lesser percentage of educational gap than the state's average. This, again, challenges the conventional wisdom that presumes educational gap would make it more likely for individuals to resort to DTOs for 'job' opportunities. Moreover, of all the interviews, it was only the former DTO members that discredited the common belief about educational gap, a variable of multidimensional poverty, as an influence for criminal activity, and potentially, DV; the latter shows the complexity of the perceptions on the relationship between the educational gap (as part of multidimensional poverty) and DV in NL .

From the life stories shared by former DTO members, we gathered some insights from their educational backgrounds that help us to illustrate the educational gap as part of the multidimensional poverty components. Juan<sup>6</sup> was laid off from school when he was on secondary level. Following this interruption to his educational studies, he started to work as a construction worker in order to manage to buy his own drugs; however, this salary was not enough to keep up with his drug addiction,

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<sup>6</sup> Interview with recovering drug addict and former DTO member "Juan", Desarrollo Integral en Movimiento, Monterrey, Nuevo León, 20/12/13.

and he confessed this led him to assault and burglary. Mateo<sup>7</sup> was also a secondary school dropout due to his substance abuse issue, involving drugs and alcohol, as he kept missing classes and was eventually laid off.

However, the other three interviewees were characterised by a higher degree of education than the latter two participants. Alfredo<sup>8</sup> had a higher level of education, as he was studying his second year of Radiology at the public university, before he got involved with DTOs. Jorge<sup>9</sup> was born in Monterrey and studied to become an airplane pilot in New York City. Antonio<sup>10</sup> did not specify his level of education during the interview, but he did highlight an interesting relationship between the educational level and the recruitment selection process for DTOs:

“...They check for your level of studies...contrary to what people think, it is not easy to be here, to lead that kind of life, it is not easy, whoever thinks that is completely wrong. Perhaps in my case it wasn't difficult to get in or get to know the people I know...”<sup>11</sup>.

This quote is relevant to consider within the context of the participant's job position within the DTO, as Antonio<sup>12</sup> confessed he was in charge of a part of the drugs transportation process, from Mexico into the USA, and from Central America into Mexico. The aforementioned job position shows Antonio had a higher rank within the DTO, than Juan and Mateo had, who were more involved in the legwork. Jorge<sup>13</sup> was also involved in the transportation process as he is an airplane pilot, also a higher position than the former two. Alfredo<sup>14</sup>, however, had a higher degree of education

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<sup>7</sup> Interview with recovering drug addict and former DTO member, “Mateo”, Desarrollo Integral en Movimiento, Monterrey, Nuevo León, 20/12/13.

<sup>8</sup> Interview with recovering drug addict and former DTO member, “Alfredo”, Desarrollo Integral en Movimiento, Monterrey, Nuevo León, 20/12/13.

<sup>9</sup> Interview with recovering drug addict and former DTO member, “Jorge”, Desarrollo Integral en Movimiento, Monterrey, Nuevo León, 20/12/13.

<sup>10</sup> Interview with recovering drug addict and former DTO member, “Antonio”, Desarrollo Integral en Movimiento, Monterrey, Nuevo León, 20/12/13.

<sup>11</sup> Interview with recovering drug addict and former DTO member, “Antonio”, Desarrollo Integral en Movimiento, Monterrey, Nuevo León, 20/12/13.

<sup>12</sup> Interview with recovering drug addict and former DTO member, “Antonio”, Desarrollo Integral en Movimiento, Monterrey, Nuevo León, 20/12/13.

<sup>13</sup> Interview with recovering drug addict and former DTO member, “Jorge”, Desarrollo Integral en Movimiento, Monterrey, Nuevo León, 20/12/13.

<sup>14</sup> Interview with Recovering drug addict and DTO member, “Alfredo”, Desarrollo Integral en Movimiento, Monterrey, Nuevo León, 20/12/13.

but did not seem to be involved in a higher level. Alfredo explained he stole cars and took them to the US, fought and scared the competing DTOs, and managed to move drugs into nightclubs and bars, linking his DTO tasks more to legwork. Regardless of this exception, it is significant to reflect on the importance of education within the DTOs' levels, as we analysed the educational gap as part of the multidimensional poverty components.

In conclusion, there were three of the five former DTO interviewees who had a level of university or related education; out of these three, two made reference to the importance of education, and these two were the ones who had a higher ranking within the DTO, providing a plausible explanation for these quotes. Yet, the other two former DTO interviewees were primary school drop outs, as conventional wisdom and the majority of the remaining interviewees, would dictate. As a result, just with this small sample (5) of former DTO members we can observe how different their particular educational levels are; this reflects the diversity that characterises the perpetrators of DV in the country. This could indicate that neither the quantitative data nor the qualitative material are incorrect, but they manage to reveal what could be two opposite, but still accurate, complex realities of the social context of DV in Mexico.

Participants from NGOs also highlighted educational levels throughout our field work, particularly the organisations which have had more experience relating to DTO members. The rehabilitation centre *Mujer Renovada* emphasised that most of their beneficiaries, on average, had not finished secondary school. Similarly, *Promoción de Paz* highlighted the importance of secondary school's desertion and DTOs involvement, as they explained that a school expulsion often resulted from the student skipping classes, or perhaps because they did not have enough money to buy the school uniform, or they got into a fight with a teacher, or failed with their grades. For whatever reason, this NGO stressed the following regarding secondary school deserters:

“...They are almost condemned to start a criminal life because they are going to be outside without anything to do, joining groups of people that don't have anything to do either. They start inhaling solvents (usually glue). From then

onwards, they start to develop addictions to other types of drugs; while abusing them, they run out of money so they start committing crimes, and so then they start selling. This is how the circle begins which is very difficult to abandon.”<sup>15</sup>

This quote from Promoción de Paz briefly illustrates the vicious cycle that characterises drug addiction and DTOs’ involvement. Promoción de Paz insights are useful as this organisation has worked in 15 secondary schools considered as “highly drug violent” located in the vulnerable neighbourhoods of Nuevo León, classified as such by both the organisation and the Mexican government. The participants from this NGO not only underlined the importance of school desertion and its relationship to DTOs, but they have created a scholarship programme to help these conflictive students. As the interviewees explain, they have begged both school directors and teachers not to expel students from their schools, but to refer them to their organisation instead. The main purpose of these programmes is to help these “difficult” students to evade a prison term, as they explain:

“A young man who finishes secondary school has a completely different possibility. Maybe he won’t start high school immediately because he doesn’t have money, he won’t continue; but he will look for a job, as he has a platform, and he or she knows it, most of them. Because we see it in the correctional juvenile, they haven’t finished secondary level. We have scholarships for preparatory school, which we cannot give them because they haven’t finished school, that’s why we opened an INEA (National Adult Education Institute) programme here, so they can finish secondary school, and then, we can give them the preparatory scholarship. If they do not finish secondary, they are condemned to go through a violent road. It is strictly related, education with a criminal life, it is proved.”<sup>16</sup>

These strong allegations are made by an organisation that has been working at the riskiest neighbourhoods and its related schools, and in the three main state prisons

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<sup>15</sup> Interview with Promoción de Paz, A.B.P., NGO’ headquarters, Monterrey, Nuevo León, 07/11/13.

<sup>16</sup> Interview with Promoción de Paz, A.B.P., NGO’ headquarters, Monterrey, Nuevo León, 07/11/13.

(two that served as participant observation for this research) and juvenile correctional facilities in the state of Nuevo León. Their working experience provides us with further insights into the relationship between socially excluded neighbourhoods, secondary school dropouts, and the prison's population characteristics.

Another important inference about education and drug addiction was made by Regalos Sin Envoltura rehabilitation centre. The participant accentuated how, since 2010, the rehabilitating drug addicts, "...are younger and younger, and most of them have not finished primary school, so they don't have a way to find a job"<sup>17</sup>. This rehabilitation centre indicates a lower level of education for most of its patients, primary school, representing a bigger challenge, as they suggest it is even more difficult to find a job with less than that level of education completed; the latter highlights a lack of opportunities for socially excluded individuals, both labour and educational opportunities. However, the director of this organisation did stress that they have individuals from all educational levels,

"...Individuals aged 40 and on, that did accomplish a professional career, for example 60 years old with a degree in business and a high socioeconomic level; however, he ended exactly the same as all the others, without anything. The same as the young one, that does not have anything, no studies, nothing, they end up the same."<sup>18</sup>.

The above quotation suggests DTO membership is not strictly related to poverty levels, but possibly to social exclusion as the individuals do not have the same opportunities to participate in the economic and social arenas. Desarrollo Integral en Movimiento highlighted that most of these young DTO members and drug addicts have issues integrating into the school system, reflecting a low performance at school; the latter points not just to the desertion rate, but to school performance levels. The director from the Organised Crime Research Centre at Universidad

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<sup>17</sup> Interview with Centro de Tratamiento Regalo sin envoltura, A.C., Director, Monterrey, Nuevo León, 25/11/13.

<sup>18</sup> Interview with Centro de Tratamiento Regalo sin envoltura, A.C., Director, Monterrey, Nuevo León, 25/11/13.

Autónoma de NL also agreed and argued “...one of the risk factors is the educational gap”<sup>19</sup>. The latter a form of social exclusion regarding the educational participation category. Criminólogos Libres<sup>20</sup> could not specify an educational level for its beneficiaries, as they mentioned that most of their beneficiaries were finishing their criminal sentence in the correctional juvenile, where they were provided with compulsory basic education. As a result, most of their beneficiaries had finished secondary school by the time they had finished their prison term.

Interestingly, it was when the interviewees were asked about the age of involvement with DTOs that the educational level was highlighted the most. Most of the participants stressed the importance of secondary school in keeping the youth away from drugs and DTOs, focusing on desertion and performance as key indicators. However, only less than half of the former DTO members interviewed were secondary school dropouts, raising further questions about education’s role. Nevertheless, it is important to reflect on the link between educational levels and the role within the DTO; the secondary school dropouts focused on legwork, while individuals with higher education levels work on the transportation aspects of the DTOs. Even if the DTO members cannot be considered a representative sample for all DTOs in Mexico, it still provides engaging and illustrative insights to reflect on.

The authorities also had a similar perspective on the role of education, like the Director from the Northeast Regional Academy of Public Security who emphasised the age range of an individual’s criminal life, ranging between their 15 and 35 years. The Director determined the importance of secondary schools, between 11 and 16 years, and their role in keeping the younger population within this age, “...busy, well, afar from the streets and vices for them to have a healthy development...is vital because at this stage is when we can lose them and they become the future criminals”<sup>21</sup>. According to the participant, the aforementioned age range is usually

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<sup>19</sup> Interview with the Director of the Organised Crime Research Centre, Universidad Autónoma de Nuevo León, Monterrey, Nuevo León, 18/12/13.

<sup>20</sup> Interview with the Director of Libres A.C., Criminólogos por una Libertad Responsable, Universidad Autónoma de Nuevo León, Monterrey, Nuevo León 09/12/13.

<sup>21</sup> Interview with the Director of the Northeast Regional Academy of Public Security, Northeast Regional Academy of Public Security, Santa Catarina, Nuevo León, 22/11/13.

the key age to start a life of delinquency. Interestingly, this quote relates to the social structure in SDT that can lead to crime, the unsupervised peer teenage groups.

Most civil society organisations overall agreed that the key age for involvement in DTOs was during secondary school, especially adolescence and between the years of 12 and 17 on average. According to our participants, the latter is presumed to be because this is the age when the individual is at his most vulnerable period, particularly more at risk of substance abuse problems developing, allegedly one of the relevant factors that could lead to DTO membership. However, not all of the participants agreed and some mentioned exceptions within their organisations, mentioned as follows.

The rehabilitation centres agreed with the aforementioned age range, such as Desarrollo Integral en Movimiento which estimated the range between 12 and 16 years old as being the most vulnerable population because this is the age where they start showing their abuse tendencies. Mujer Renovada, another rehabilitation centre, expands the range and affirms that the most common age group of their patients is between 13 and 18 years; yet, the centre stresses on how they also have 50 and 60-year-old patients, and younger patients, 11 year-olds, which they consider is the current starting age for drugs consumption. Regalos Sin Envoltura, another rehabilitation centre, referred to the age of their patients ranging from 14 years up to 60. This centre emphasised how their youngest patients frequently had not finished school; whilst the ones ranging on their 40s to 60s had a professional career but they still ended up falling for a drugs addiction that could lead to DTO membership. It is interesting to notice this emphasis on the educational component from the latter rehabilitation centre, perhaps pointing towards the universality of the drugs addiction problem, attempting to divert the commonly placed attention from the young, and in many cases uneducated, population; to the more professionally experienced cases who had also succumbed to this addiction and potential involvement with OCGs, possibly alluring to social exclusion characteristics rather than poverty. As it was mentioned earlier, the data analysis showed drug-violent municipalities had an average of a higher degree level of education than non-drug violent municipalities.

Not only did rehabilitation centres highlighted the age feature of the problem, but so did other civil associations like Promoción de Paz which stressed the secondary school age (12-15) as being the most vulnerable and problematic age range for individuals to adopt a substance abuse problem that could lead to DT activities. Factor 360 sustained that,

“...between 15-18 years, the individual already knows what to do with their lives; from 10-12 years old is when they start to have a certain restlessness to know what to do; between 12-14 is the key to transformation...”<sup>22</sup>.

Factor 360 considered this was the time period where individuals were more vulnerable, as they were more open to listen, learn and change, for a positive or negative outcome. Additionally, other participants stretched the age range to a larger extent, like the Director of the Organised Crime Research Centre<sup>23</sup> determined the most vulnerable age group to be between 20-30 years, but most frequently before 20, because this is when the interviewee considered the drug addiction developed.

From the authorities’ approach, the Director from the Northeast Regional Academy of Public Security determined that once individuals reach the age of 35,

“...you calm down as you finish with the development of your judgement, the frontal part of the brain, you calm down, mature, right? And they stop committing crimes. The truth is they are not as impulsive as before, they become more averse to risks, in general, it is a physiological process, common and normal. If you examine, and this is very common, you are not going to find individuals aged over 40 that are being prosecuted because they become adverse to risk; those kids they are impulsive, dangerous, the younger they are, the more impulsive and dangerous and they do not measure risk...Additionally, it is very likely that once they have (committed a crime), the first time, they will relapse, it’s very probable...it’s very difficult for an

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<sup>22</sup> Interview with Coordinator of high impact projects for Factor 360, Starbucks, Monterrey, Nuevo León, 23/12/13.

<sup>23</sup> Interview with the Director of the Organised Crime Research Centre, Universidad Autónoma de Nuevo León, Monterrey, Nuevo León, 18/12/13.

individual who commits a crime to say I won't do it again with this justice system we have"<sup>24</sup>.

This quote allegedly suggests most individuals reach an age in which maturity deters them from continuing to commit crimes, even if they have carried out criminal activities all their lives. This perspective does not seem to be a sound explanation of why there are not over-40 aged criminals, as other participants emphasised the unlikelihood (although not impossible) of meeting former and older DTO members. Nonetheless, the latter has been explained as a difficult task as it is problematic to leave a DTO once the individual has been involved; it usually entails repercussions for both the individual's personal and family's safety (mentioned in Promoción de Paz interview). Nevertheless, this statement does place a focus on the possibility of recidivism.

As both the authorities and civil society approaches have been considered for this aspect, it is now relevant to link this information to the actual individuals that have been involved in DTOs and drug consumption, and who are now 5 recovering patients. Concerning the age aspect, it varied between the participants; Juan affirmed he started when he was 12-13 years old; Alfredo when he was 17; Mateo started when he was in secondary school, between 12-15 years; Antonio when he was 25 and Jorge when he was 28 years.

It is interesting to contrast the different views on age adopted by the actual individuals involved with the DTOs, the people who work with them (civil society), individuals studying them (Academia), or the ones who have to prosecute them (authorities). Overall, most of the participants agreed that the starting age of drugs consumption and involvement with DTOs is during secondary school, at an average of 12-17 years old. Yet, two of the former DTO members had started their involvement at an age range above their 20s, disagreeing with the former general view. However, as this was not a representative sample for DTO members, it can only help to construct an idea of their shared characteristics.

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<sup>24</sup> Interview with the Director of the Northeast Regional Academy of Public Security, Northeast Regional Academy of Public Security, Santa Catarina, Nuevo León, 22/11/13.

For the educational gap it is relevant to consider the age in which individuals engage with DTOs. As mentioned in the previous section on the relationship between violence and social exclusion, the youth are considered a high risk sub group of the population given the transitional period they are experiencing of finishing school and leaving their families to create and support their own. The youth tend to resort to violent crime as a method to increase their visibility and assert their power within their socially excluded communities, where they feel often ignored. Moreover, the “job opportunity” provided by the DTO represents for many their first entry into the labour market, even if it is within the informal and illegal sector.

As the educational gap component of the multidimensional poverty index has been examined, we will continue to focus this section on, an overall analysis of multidimensional poverty as a representation of the rest of the index’s components, inequality following our main research questions, and social exclusion which was the recurring theme. The reason for this generalised overview is that there was no specific reference to the rest of the individual poverty components within the fieldwork interviews; yet, there were references to the lack thereof opportunities in reference to inequality and social exclusion.

Several of the interviewees referred to the socioeconomic conditions of the individuals as a motive for the involvement with DTOs, possibly leading to DV. However, more than a few also assured that these individuals were not particularly nor exclusively driven by poverty, but by several factors that played an important role. The Director of the Social Prevention of Violence and Delinquency Department from the Regional Academy of Public Security highlighted the economic focus that has always been placed on studying DT and DV:

“DT has always been studied as an economic process, a process of economic inclusion, economic possibilities, economic growth, for the youth. In this case in point, people in the political discourse already name them ‘vulnerable’, for the simple fact of being young, of not having any experience, or educational degree, or work opportunities. However, within all of this analysis, I realised that perhaps economic inclusion was the trigger, the main attraction, or we can call it ‘the tip of the iceberg’, that attracts the young individual; but, we

would be discarding the whole cultural and organisational process of the DTOs'.<sup>25</sup>

This quote points towards the importance of taking a multidimensional approach on DT, and its related DV analysis; it highlights how political discourse and common assumptions already identify DTOs members as 'vulnerable'. Moreover, the quote brings into focus the importance of the Economy as the main social institution, drawing from IAT. We will examine more closely what the interviewee refers to when talking about economic inclusion as the reason behind DTO membership:

"... Economic inclusion, 'which possibilities are allowed within the environment where I develop'; economic inclusion inside the formal market, because effectively there is a social inclusion but only in the informal market. An economic inclusion made them feel a power role. 'I am an 'halcón' (vigilant), I'm standing all day in a street corner, they gave me a mobile, they bought me some tennis shoes and perhaps they give me \$500 pesos (23 GBP) for the week just to be standing in a corner and making a call every time it is required'. And, as long as he continues to progress in their hierarchical processes, 'maybe at the beginning I'm just working as an 'halcón', then I start to distribute, and then other activities and so on'"<sup>26</sup>.

This quote is interesting as it reflects how some of the individuals involved in DV could have economic inclusion as one of their main motives. As this option could possibly only be allowed in the informal market of the economy for socially excluded individuals, presumably due to their lack of education or professional experience; then, the DTO represents an attractive option as it presents an 'easy' way of earning income and, of 'professional growth' within the DTOs hierarchy. This economic inclusion within the informal sector of the economy can be linked to one of the multidimensional poverty components, the lack of access to social services, as it requires formal employment status in order to be enrolled to receive a pension and

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<sup>25</sup> Interview with the Director of the Social Prevention of Violence and Delinquency Department, Northeast Regional Academy of Public Security, Santa Catarina, Nuevo León, 22/11/13.

<sup>26</sup> Interview with the Director of the Social Prevention of Violence and Delinquency Department, Northeast Regional Academy of Public Security, Santa Catarina, Nuevo León, 22/11/13.

medical services. Thus, this component fails to integrate and take into account the active members of the informal sector of the economy given their informal employment status impeding their enrolment. In our quantitative analysis, this component showed a negative correlation coefficient of .24 between DV and lack of access to social services (graph 4.42) with a low effect between these two variables for the case of NL; the latter does not indicate causality but merely how these two variables relate, as the lack of access to social services increases, the DV levels decrease or the other way around. Linking the quantitative finding with the interviewee's perception, this could potentially be explained: as more individuals become involved in DTOs, the DV levels increase, whilst their access to social services decreases, given their participation in illegal economic activities and potentially explaining the negative relationship between the lack of access to social services and DV levels.

Moreover, this interviewee's quotes highlight the need for economic inclusion as a motivation for DTO membership. The latter potential motive brings also into focus the impact of social exclusion on DTOs recruitment, as social exclusion is directly related to economic exclusion. The type of social exclusion mentioned by our interviewee that could be influencing the youth joining DTOs covers the B-SEM three categories: participation (economic, social, political and educational), as well as quality of life (criminalisation) and resources (economic, material and public services).

Renace also brings the focus to the importance of social exclusion and particular socioeconomic characteristics on the individual's decision to resort to DTOs' criminal activities,

“...Socioeconomic conditions lead, out of desperation, disintegration, lack of family cohesion, of a sense of belonging to a community, lack of a productive activity, which leads and generates the conditions for these individuals to

resort to drugs abuse and then mix up, like a cocktail that leads them to commit crimes”<sup>27</sup>.

With this quote, Renace describes the conditions that characterise socially excluded communities and that could be factors influencing DTO membership. The interviewee refers to the impact of the individuals’ inability to participate in society and their lack of economic opportunities referring to the participation and quality of life categories of B-SEM typology. These factors also relate to our theoretical frameworks: family disruption and low socioeconomic status related to the exogenous factors of SDT and the economy and family social institutions from IAT.

Factor 360 similarly mentioned the importance of economic inclusion for the young individuals, as the DTOs could offer them \$2000 pesos (less than £100), a mobile, a bike and all the things nobody else offered them, and they became ‘halcones’, as they see this as an opportunity for ‘easy money’; making a reference to the resources type of social exclusion. The Director of Organised Crime Research Centre agreed on the importance that ‘quick money’ presents to the youth and their DTOs membership, “...they want quick and easy money, overvaluation of the material aspects, specifically money”<sup>28</sup>. Both of these quotes make reference to the priority of the Economy as the main social institution for the Mexican society, as suggested with IAT and its analysis on the American society and the American dream.

Another related topic mentioned by the interviewees was the parallel power structures to the authorities that the DTOs represented. This suggestion of parallel power structures developing via the DTOs provides interesting insights on how the Mexican government could be neglecting certain sectors of the population, an exclusion of public services to socially excluded communities. This social exclusion for certain population groups could possibly represent the recruitment space for DTOs as the OCGs replace the state institutions within their communities. It is even the Mexican authorities who flagged this problem. The Director of the Social

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<sup>27</sup> Interview with the Director of Investigation and Project Development, Renace A.C. office, Monterrey, Nuevo León, 18/12/13.

<sup>28</sup> Interview with the Director of the Organised Crime Research Centre, Universidad Autónoma de Nuevo León, San Nicolas de los Garza, Nuevo León, 18/12/13.

Prevention of Violence and Delinquency Department from the Regional Academy of Public Security emphasised the importance of the DTOs becoming power parallel structures to the Mexican state as he argued:

“...Analysing the state and the hierarchical formation of DTOs, one can observe the conformation of these groups like authorities. At the beginning, these structures were really structured and, afterwards, with the security policy implemented, they became ‘microcells’ of this new entity, in a matter of speaking, for the whole organisation of the DTO. These ‘microcells’ maintain internal hierarchies, with a ‘plaza’ manager, a department of hit men, a department of distributors, a department of money launderers, etc. As a result, each of these processes creates a hierarchy, and the related legitimacy that these people acquire is the same as the normal state. The state is recognised for charging taxes. Well inside the, let us call it between quotations, inside the ‘state of organised crime’ in these DTOs, there is someone who extorts and charges ‘rent’ and ‘protection’ for local businesses. This way, some recognition is given, a legitimacy for this organisation from the economic charge as a starting point, and, from the recognition that ‘I identify you as the authority’”<sup>29</sup>.

The interviewee explains how the DTOs have a certain degree of internal structure and organisation which allows them to obtain a level of legitimacy given the activities they cover, figuratively comparing the extortion of local businesses from DTOs to the taxing system implemented by the government. Moreover, The Director of the Social Prevention of Violence and Delinquency Department from the Regional Academy of Public Security explains more in detail how the DTOs become parallel power structures,

“For example, in the Independencia neighbourhood, it was much simpler to resort to a delivery guy or a hit man inside the community, than the police. That is the legitimacy process they have, and this is how they start ‘earning

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<sup>29</sup> Interview with the Director of the Social Prevention of Violence and Delinquency Department, Northeast Regional Academy of Public Security, Santa Catarina, Nuevo León, 22/11/13.

ground' inside these organisations against the state, against the legal institutions of the state...This, extrapolated to the present time, we could take the example of natural disasters, as it is precisely the DTOs the ones that take food to the community. This type of participation that comes from the organisation, and that could be perceived as social and political participation. And, in the legitimacy process, as I mentioned earlier with the Independencia neighbourhood, is how they go along earning the authority within those spaces, maybe providing food, perhaps mediating between community problems, but this recognition becomes more and more frequent in those spaces"<sup>30</sup>.

This is an interesting quote, especially coming from an authority, as it helps to explain how and why DTOs could possibly become the parallel power structures in the most marginalised neighbourhoods in Mexico, such as La Independencia. As the government fails to address the necessities of the socially excluded communities, it is sometimes the DTOs who fill in the vacuum of power unfilled by the Mexican government, by attending to the communities' necessities more efficiently than the authorities. Examples of these necessities attended by the DTOs, as mentioned by the interviewee, could be providing food during natural disasters and protection in exchange for money. Again this quote highlights the significance of social exclusion from public services as a potential factor supporting DTO recruitment.

Moreover, DTOs becoming parallel power structures could even be linked to the multidimensional poverty components regarding the lack of access to food security, basic housing services, and to health services, as the government would have failed in those cases to provide for the basic necessities for its population; yet the quantitative findings did not show the most drug violent units experiencing a high extent of lack of services in comparison with the rest of the municipalities. This could potentially be explained by the DTOs filling in this role from the authorities by becoming their parallel power structures, and potentially attending to the basic necessities of the most marginalised population; if this were the case, the latter

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<sup>30</sup> Interview with the Director of the Social Prevention of Violence and Delinquency Department, Northeast Regional Academy of Public Security, Santa Catarina, Nuevo León, 22/11/13.

would not be reflected on the official statistics, thus would not affect the levels of multidimensional poverty.

Libres A.C. likewise highlighted the importance for the young population to enjoy a degree of 'positioning' within the DTOs hierarchical group, providing them with opportunities to 'improve' within this criminal activity, even if it is within the illegal and informal sector of the economy. This positioning and improvement alludes again to social exclusion as the individuals find a way (even if it is illegal) to gain access to the economic and social arenas. Additionally, the Director of the Social Prevention of Violence and Delinquency Department claims that DTO members not only join for economic incentives, but they also occasionally contribute economically to their society as DTO members:

“...Become the Robin Hoods of drug-trafficking, they start making profit, making money, they build a church, a school, a sports facility...and these are the kind of cultural, economic and political factors that, consciously or unconsciously, let's call them, promote or propitiate the young individual, to at least in these cases, a desire to get involved with DTOs”<sup>31</sup>.

The interviewee claims that as the DTOs cater for the communities' necessities and offer economic rewards for its members, they start to be perceived as the 'authority', and they, allegedly, slowly engage in a 'legitimation' process within their own communities. This quote also draws parallels with the parallel power structures theme as the DTOs become for the socially excluded communities; and, the access DTO members gain to economic and social resources, as well as social, civic and economic participation via this membership.

The Director of the Social Prevention of Violence and Delinquency Department is not the only one to highlight the importance of the parallel power structures constructed by DTOs in certain communities, as Renace explains how these parallel power structures emerged and how they relate to poverty:

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<sup>31</sup> Interview with the Director of the Social Prevention of Violence and Delinquency Department, Northeast Regional Academy of Public Security, Santa Catarina, Nuevo León, 22/11/13.

“...Mainly y urban poverty that created ghettos, resulting in exclusion zones where there was a lot of frustration, an impossibility to incorporate to the productive activities of the community, of a city like Monterrey, neighbourhoods like La Independencia, where generations were growing in those powerless zones, without being able to attend school, high school or university or getting a job”<sup>32</sup>.

The interviewee also mentions the importance of the power vacuums, reflected as powerless, deprived and exclusionary zones where the government does not attend to the necessities of its citizens, which provides the perfect space for DTOs to fill in these power vacuums, as the parallel power structures to the government. Moreover, this description of exclusionary zones, ghettos, powerless zones that characterise marginalised neighbourhoods like La Independencia, and their inability to access education translating into frustration is strictly related to our definition of social exclusion and its relationship to (drug) violence. The latter could help to explain why economically developed urban areas like the MMA suffered from high levels of DV, even if their levels of multidimensional poverty are lower than the national average, as the socially excluded individuals characterise La Independencia neighbourhood. In addition, the interviewee continues to explain several factors that could have influenced the escalation of DV in the MMA,

“When the eruption of DV occurred, caused by a strong mobilisation of DTOs, they started having territorial disputes for the control of the drug routes. Then, these DTOs started to have greater contact with the urban populations, as they have always been involved in rural zones, and, as they are in the urban sphere, their battles becoming more visible than in the mountains of Sinaloa or Durango, and shootouts more obvious. This generated a perception that the DV had drastically increased; but this was a phenomenon that had been occurring since DT has existed in Mexico, just in a lesser extent. All of these elements, added to the high levels of corruption within the authorities, police forces, justice system, judges, etc. generated conditions where there are

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<sup>32</sup> Interview with the Director of Investigation and Project Development, Renace A.C. office, Monterrey, Nuevo León, 18/12/13.

vacuums of power, and, this results in conflict and mistrust amongst the civil society, and this generates the perfect conditions for DTOs to use in their favour and recruit individuals from these marginalised communities”<sup>33</sup>.

Renace’s quote is very elucidating as it uses a multidimensional approach, equivalent to this research, to try to explain all the factors that could be contributing to the higher levels of DV in the country and, with this, highlighting the importance of taking such an approach to explain the issue in question. Renace also pointed towards the presence of the DTOs in rural areas, long before the DV levels became a matter of national security, highlighting the difference between urban and rural municipalities, and why high levels of DV seems to affect more the former. There are several explanations that could help explain this difference between the two spheres. Firstly, it might be that urban municipalities are more drug-violent, as they represent important drug corridors or lucrative illegal market opportunities that the rural municipalities might not, although they could potentially be production zones (depending on the type of illicit drug). Secondly, it might be that DTOs are so immersed in the rural society that they become parallel power structures to the government that cater for the community and there would no need for DV to erupt between DTOs and the authorities; or it could be rural zone’s levels of DV are underreported, as the authorities’ presence is not as strong as in the urban communities. Another possibility is that as urban municipalities have the largest density levels and contain the majority of the Mexican population (both in the MMA and the national territory), the likelihood of drug-related crimes is higher. Moreover, it is a possibility that what differentiates these two types of marginalised communities is not only their location within the rural or urban spheres, but perhaps is more about the level of poverty that they suffer from. Rural poverty is very different to urban poverty, as it affects the remote community overall, and the majority of the individuals suffer from similar levels of deprivation; whilst urban poverty is the opposite, characterised by different levels of marginalisation, surrounded and close by prosperous zones, creating a vast difference within the

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<sup>33</sup> Interview with the Director of Investigation and Project Development, Renace A.C. office, Monterrey, Nuevo León, 18/12/13.

urban communities, characterised by both levels of poverty and opulence in the same zone. The latter points towards the importance of social exclusion in explaining the high levels of DV in economically developed localities with low levels of poverty, particularly for the urban spheres, where these differences between socially excluded and affluent communities are more prevalent and visible. As there exist several possibilities, we continue to draw from our field research to learn more about the complexity of the diverse perceptions of our interviewees.

Factor 360 also highlighted the difference between the impoverished rural communities from the urban sphere, as they highlighted that poverty was not the key determinant for DTOs criminal activities:

“...With many years of rural social projects, we already suspected poverty was not a determinant factor because many of these rural communities have much less access to basic services, or to things that city boys do have, and they were not necessarily bad communities; on the contrary, they were really good ones (rural), they welcome you, open their doors to you, they treat you like family...”<sup>34</sup>.

Factor 360 emphasises again how poverty in the rural and urban spheres can have different results in relation to criminal behaviour, placing the focus on relative poverty more than the overall levels of poverty itself. As the interviewee claims, rural areas frequently endure higher levels of poverty than the urban sphere; however, perhaps because this poverty is evenly distributed along the rural communities, it has less influence on the individual’s likelihood of criminal behaviour, as the relative poverty differences are less obvious than in the urban areas, where this is more evident for the socially excluded communities in comparison with the affluent neighbourhoods. This insight also supports the quantitative analysis that showed that the least impoverished municipalities and states were the most drug violent within their respective states.

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<sup>34</sup> Interview with Coordinator of high impact projects for Factor 360, Starbucks, Monterrey, Nuevo León, 23/12/13.

Additionally, the interviewee from Factor 360 mentions that there is a relevance to the access to basic housing services, and this was one of the key components in the data analysis of the multidimensional poverty approach. The basic housing services are considered to be electricity, clean water, and drainage. Graphs 4.26 and 4.27 concluded that the most drug violent municipalities within their respective states had a lesser degree of lack of access to basic housing services than the rest of the municipalities within the same state. This indicates that the most drug violent municipalities in the country have better housing services than the rest of the municipalities with a remarkable difference of 16.28% of the most drug violent municipalities and their corresponding state's average. Graph 4.44 from the NL section indicated a very low correlation coefficient between DV levels and lack of access to basic housing services and a negative relationship between these two variables, suggesting that as one variable increased, the other decreased.

Factor 360 claims rural areas are frequently characterised by having a higher lack of access to basic housing services; these are also the ones that suffer the least from drug-related violence, in comparison with their urban counterparts. This insight illustrates once again the difference that the urban and rural spheres could present in the role of poverty and DV and follows from the quantitative insights explored earlier and how poverty is not necessarily the most significant factor determining DV levels.

Libres A.C. also stressed that they did not think poverty played a predominant role in DTOs' involvement and drug addiction, as they pointed out, "It is not a motive, money, not more than any others, yes? No more than drugs, no more than positioning in a DTO"<sup>35</sup>. This 'positioning' that Libres A.C. mentions could also be related to the importance of economic inclusion for socially excluded communities.

Factor 360 also reflected on the particularities of the rural sphere when analysing poverty and DTOs involvement, drawing from their experience of these rural social project experiences:

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<sup>35</sup> Interview with the Director of Libres A.C., Criminólogos por una Libertad Responsable, Universidad Autónoma de Nuevo León, Monterrey, Nuevo León 09/12/13.

“...It was not poverty, is another element. Well yes, these communities being as tiny as they are had a shared identity and a familiarity with each other, as they are usually related, right? But in the urban, sometimes we don’t even know our neighbour, the one next to you...”<sup>36</sup>.

This insight from Factor 360 also builds upon the reflection of the importance of the social community and social cohesion within a neighbourhood, and how this familiarity with the community could prevent its individuals from resorting to criminal behaviour, as they have strong social ties. This discernment is important for the research, as the NGO has been working in rural projects for years, and can provide first-hand experience from these communities’ characteristics; this can also help to illustrate why there is such a difference between DV levels in rural and urban locations. In addition, these relevance of social ties and social cohesion are related to collective efficacy from SDT; and, the weakness from non-economic institutions on the urban sphere from IAT.

Promoción de Paz also referred to the importance of particular neighbourhood’s characteristics, as they believed DTOs’ criminal activities within a locality were more related to its criminal history, the culture of illegality permitted within the neighbourhood, and, if there were informal economies involved; all of these characteristics of socially excluded communities. This NGO went beyond just focusing on the neighbourhood’s socioeconomic conditions, as it stressed that drug violent neighbourhoods are not necessarily poor or the poorest, “they are not necessarily synonyms”<sup>37</sup>. The later quote has been reflected on the data analysis presented in the previous sections of this chapter which showed the most drug violent localities within their state were not the poorest ones and for the NL case study, the correlation coefficient between DV levels and multidimensional poverty was of medium effect and a negative relationship suggesting high levels of DV relate to low levels of poverty and vice versa.

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<sup>36</sup> Interview with the Project Coordinator, Alianza Cívica Nuevo León A.C., Monterrey, Nuevo León, 12/12/13

<sup>37</sup> Interview with the Director of Promoción de Paz A.B.P., NGOs office, Monterrey, Nuevo León, 07/11/13.

Even if these interviews are merely perspectives from the interviewees, they do help to illustrate the complexity of the perceptions about the relationship between poverty and inequality and DV levels, as they are drawn from individuals working more closely with the issues in question. Promoción de Paz is an NGO with years of experience working to help reintegrate former prisoners and rehabilitate drug addicts, through their social reinsertion programmes implemented within the state of Nuevo León's prison populations. It is presumed that a large percentage of the prisons' populations have been involved with DTOs, which are directly related to DV. Moreover, Promoción de Paz clarified a very important issue for this research, since the interviewee explained that there are certain neighbourhoods that are more prone to criminal activity:

“...We are focused in the areas identified by the Secretariat of Public Security; but, we also did, more or less, our own study with a sample of 1000 individuals from 3 prisons. And, we agreed that there is, more or less, a sample of 30 neighbourhoods that ‘feed’ the prison population, of people that come from these neighbourhoods that are being sent to jail. Therefore, we have been involved in these 30 neighbourhoods, since these are areas that have, especially the young population, a high possibility of starting a criminal life”<sup>38</sup>.

This quote is extremely relevant for the research, as it helps to clarify one of the issues presented when analysing the data, from multidimensional poverty and DV in Mexico in 2010. When analysing this relationship, it becomes difficult to discern if the levels of multidimensional poverty are reflected in the municipalities where the individuals are born, or where they develop, or where they have migrated to. This is an important matter to consider, as the individuals perpetrating DV might not be reflected in the municipalities' multidimensional poverty statistics, if they are not living there at the time the evaluation was conducted by Coneval (2011). However, data from the multidimensional poverty and DV levels were both obtained from the

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<sup>38</sup> Interview with the Director of Promocion de Paz A.B.P., NGOs office, Monterrey, Nuevo León, 07/11/13.

same year, which could help to reduce the likelihood of the perpetrators migrating to a different municipality or state. Additionally, the Promoción de Paz quote helps to clarify by some means how the same 30 neighbourhoods are the ones composing the larger extent of the state's prison populations which they describe as socially excluded, for the particular case of Nuevo León.

Alianza Cívica incorporated its own perspective on poverty's influence over Nuevo León's case:

“...So it is not all about poverty, but there is a lot of money here too, and this is what hastened the increase in the use of drugs and the public denied it; they argued it was all a matter of a war between the DTOs, or amongst the impoverished neighbourhoods, but the seed was already there”<sup>39</sup>.

The interviewee centred on the importance of poverty not just being an influencing factor on the DTOs' DV, but the presence of both poverty and money, leading towards the debate of economic inequality's influence instead. The project coordinator of Alianza Cívica also made a point of how even in the most impoverished neighbourhoods around Monterrey, you will still be able to find a TV or videogame within the household, which could indicate that the poverty level is not as severe as could be expected. The “seed” the interviewee refers to could be potentially ascribed to social exclusion that characterises these communities as she explained the recruitment of DTOs does not draw only from impoverished communities. Libres A.C. also agreed on this view on poverty not being the only key factor for DTOs membership, as they affirmed their beneficiaries did not suffer from this condition, but most of them were involved in DTOs.

The Director of the Social Prevention of Violence and Delinquency Department from Northeast Regional Academy of Public Security also explored how poverty is not the only key determinant factor for DTOs involvement; economic inclusion, with the values and benefits it brings, like social coverage and health insurance, as these are

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<sup>39</sup> Interview with the Project Coordinator, Alianza Cívica Nuevo León A.C., Monterrey, Nuevo León, 12/12/13.

not readily available in socially excluded communities and play an important role for the youth:

“...young people...are not in the conditions to include themselves in the formal economy, in a formal job, with health insurance, social coverage, etc. They do not participate in any way because they are not motivated to participate politically, and they do not recognise any of the legal institutions. They see the possibility, inside of the DTOs, to identify values that they have perceived in some positive way, or with the authority within their own communities, they feel part of and share certain values and principles. Normally, if you tried to extrapolate them to the ideal, we would be talking about values and principles that an entrepreneur could have resilience, leadership, decision making. Obviously, all of the latter inside a non-legal and non-formal structure, but still sharing a power role and feelings that could make them feel part of the process, with economic inclusion being the most obvious one”<sup>40</sup>.

The interviewee also emphasised the importance of the social processes that characterise an individual, including identity, community participation, and sense of belonging. He also shifted the focus back to the problem of the parallel power structures the DTOs become, as the DTO members lack recognition of the formal authority provided by the state institutions, which results in them looking for this elsewhere, in the DTO. Moreover, social exclusion is a recurring explanation that is not exclusively related to poverty, but also to the availability of opportunities (inequality) to participate in the formal market of the economy; that can include access to health services (graph 4.41) and social coverage (graph 4.42), two of the multidimensional poverty components studied in the NL section. Both graphs showed a low to medium correlation coefficient between DV and the multidimensional poverty component; but, it was only the latter that followed the trend of a negative relationship between these two variables.

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<sup>40</sup> Interview with the Director of the Social Prevention of Violence and Delinquency Department, Northeast Regional Academy of Public Security, Santa Catarina, Nuevo León, 22/11/13.

Desarrollo Integral en Movimiento, another rehabilitation centre, also considers several social and community risk factors in relation to DTO membership and drugs substance abuse, such as the social permissiveness in a specific neighbourhood, where certain dynamics characterise 'damaged' (socially disorganised following SDT) neighbourhoods. What the interviewee referred to with 'damaged' dynamics within the communities, is that the DTOs become parallel state institutions that respond to citizen's demands promptly; individuals have developed in this environment since they were young, and so this DV situation becomes the normalisation of violence which characterise socially excluded communities. This in turn contributes to the social permissiveness explained in SDT theory following the lack of collective efficacy.

Mujer Renovada, a rehabilitation centre, also pointed towards the importance of the social context that surrounds an individual and their involvement with DTOs. The interviewee pointed towards the similarities their patients share in their social context, such as living in an atmosphere immersed in violence and drug addictions and living near drug sale points and in zones where there was a lot of DT activity, highlighting the role of social exclusion in these particular communities. An interesting insight drawn from this quote is that the interviewee did not think poverty was a key factor for DTOs involvement; however, it was presumed that the social exclusion that characterised the communities where their patients developed is what played a major role in their decision, perhaps their patients did not come from impoverished backgrounds and this is the reason behind her understanding. Promoción de Paz and Desarrollo Integral en Movimiento also stated that the environment dynamics and the neighbourhood's story played key roles in DTOs' involvement and made reference to characteristics described on our socially excluded communities' definition from the previous section.

Alianza Cívica claimed that the DTOs' recruitment process occurs even in the most developed municipalities of the state of Nuevo León, such as San Pedro (the richest municipality in Mexico) and San Nicolás de los Garza (one of the most affluent municipalities in the MMA), both considered as role models for quality of life in the country, and municipalities not affected by extreme poverty. With this comment the participant stressed again that DV is not strictly related to poverty as it is commonly

understood. This reflection follows the trend analysed in the quantitative data as it suggested it was not the most impoverished municipalities within their respective states, the most drug violent ones (graph 4.12); and, for the case of NL (graph 4.39) the relationship between poverty and DV levels was negative.

Some of the interviewees suggested inequality played a role in DV in Mexico, by influencing the youth to join DTOs, as their only available “opportunity” to enjoy an economic inclusion, even outside the formal market as the individuals were mainly drawn from socially excluded communities. Our data analysis from the previous chapter IV provided relevant insights regarding how the changes in Gini coefficient, or lack thereof, could influence patterns of DV in the country (Graphs 4.33 and 4.34).

The Director of the Social Prevention of Violence and Delinquency Department explains:

“...Economic inclusion, ‘which possibilities are allowed within the environment where I develop’; economic inclusion inside the formal market, because effectively there is a social inclusion but only in the informal market. An economic inclusion made them feel a power role”<sup>41</sup>.

This lack of access and opportunities to the formal labour market are characteristics of socially excluded individuals, as the participant claims that some of the DTO members see the DTOs as an “opportunity” to progress economically, and feel a “sense of power”. This sense of power was also referred to when exploring the relationship of social exclusion to violence, the latter an outcome of a way for socially excluded individuals to assert their power and visibility within the community.

The Director of the Northeast Regional Academy of Public Security also highlighted why young individuals could get involved with DTOs, stressing material aspirations as being key. This may seem quite obvious and self-explanatory. However, his direct quote helps to illustrate his understanding that it is not exclusively linked to an

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<sup>41</sup> Interview with Director of the Social Prevention of Violence and Delinquency Department, Northeast Regional Academy of Public Security, Santa Catarina, Nuevo León, 22/11/13.

impoverished condition, but is more related to social pressures and inequalities regarding material aspirations:

“...fashion, money, opulence, to make a better living in a quick way as portrayed by the TV, but not sold as such; the social pressure these boys experience, to have a better mobile, a better watch, a better car, etc. They submerge in these, so they aspire to what the drug trafficker owns”<sup>42</sup>.

These material aspirations are not necessarily linked to an impoverished condition, but rather as perceptions of socially excluded individuals’ lack of opportunities when comparing themselves to the affluent communities. The case could be made that, in a poverty-stricken area, there would be no direct social pressure to aspire for these material belongings, as they would not be available for the majority of the neighbourhood. Yet, in a community where there exists a large difference between the socioeconomic conditions of its citizens, or where marginalised neighbourhoods are spatially located near a richer community, this inequality could negatively influence individuals’ decisions and lead them to resort to criminal activities related to DTOs. As the individuals perceive these significant differences in inequality levels, between their socioeconomic status and that of the DTO members, they succumb to this idea of “easy and quick” money. This desire follows with the importance given to the Economy proposed by IAT and the weakness of the other economic institutions and the importance the EI-PC nexus places on relative inequality.

The Director of Promoción de Paz also explained poverty was not the sole factor influencing individuals’ involvement with DTOs; there were certain socioeconomic characteristics playing an important role in the DTOs’ criminal behaviour, as the Director argued, “Social inequality is a very, very important element that we have observed. An impoverished neighbourhood in front of a rich residential area tends to become drug-related violent”<sup>43</sup>. This quote is essential for this research’s emphasis on the importance of relative levels of inequality and relative poverty on patterns of

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<sup>42</sup> Interview with the Director of the Northeast Regional Academy of Public Security, Northeast Regional Academy of Public Security, Santa Catarina, Nuevo León, 22/11/13.

<sup>43</sup> Interview with the Director of Promocion de Paz A.B.P., NGOs office, Monterrey, Nuevo León, 07/11/13.

DV; it is not solely related to the degree of inequality or poverty within a community, but the experience of socially excluded communities being in close proximity with prosperous neighbourhoods and relating to the social and economic inequality permeating society, as explored on the EI-PC nexus.

Promoción de Paz also claimed how many of the impoverished colonies surrounding San Pedro (richest municipality in Mexico) and in front of Valle Oriente (a highly developed zone), tend to become more drug violent. Disadvantaged and socially excluded neighbourhoods, such as Sierra Ventana, el Cerro de la Campana, Canteras and Altamira; all of these aforementioned localities are close to these two aforesaid affluent zones and are characterised by having high levels of DV. The interviewee claimed this geographical proximity, "... generates anger and frustration amongst the impoverished population"<sup>44</sup>. This quote draws similarities with the frustration and envy described as some of the factors that influence socially excluded individuals to resort to violence to gain access to the opportunities they are lacking.

Factor 360 agreed with the importance of close neighbourhoods having clear material differences as a factor influencing DTOs criminal activities, as they revealed, "It is not about poverty, it is not about having or not having, it is about who has more"<sup>45</sup>. Again, the participants bring the focus to relative inequality, rather than absolute levels of disadvantage and the visible differences between the haves and the have-nots that characterise the frustration prevalent in socially excluded communities.

Alianza Cívica pointed towards similar conditions that developed during 2010 and that influenced the upsurge in DV in Nuevo León, which were re-emerging at the present time:

"We are concerned because now there are not too many companies open anymore, especially small ones. And now the people migrating to Monterrey are not as wealthy, they arrive and they are not rich, like the ones that used

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<sup>44</sup> Interview with the Director of Promocion de Paz A.B.P., NGOs office, Monterrey, Nuevo León, 07/11/13.

<sup>45</sup> Interview with Coordinator of high impact projects for Factor 360, Starbucks, Monterrey, Nuevo León, 23/12/13.

to live here 3 or 4 years ago; so, we could be talking about an amplification of the social and economic inequality, stronger and larger”<sup>46</sup>.

The former quote highlights the importance of migration as another factor influencing the levels of economic inequality in the state of Nuevo León, which is considered a recipient state, as will be explored in the following section. It is interesting to consider how the participant points towards the migration of wealthy individuals outside of Monterrey and the arrival of people that are not as wealthy as the former inhabitants used to be. These migration patterns could translate into three different results: either an increase in the social and economic inequality levels in the long term, as there is less investment brought into the state and resources are taken out; or the opposite, an actual decrease on inequality levels in the short term and possibly long term, as the wealthier individuals are the ones moving outside of the state, and the arriving migrants are not as wealthy as the former used to be. The third option could simply be no change at all in the Gini coefficient levels, as other affluent individuals could replace the individuals leaving, and people looking for jobs could have lesser job opportunities as companies are suggested to be closing down, which would worsen off some of the individuals’ economic situation. The last possibility is probable as our quantitative findings indicated NL did not have any prominent changes in its Gini coefficient from the period from 2000 to 2010, covering most of our research period; and, following the quantitative trend that the states who showed a lesser degree of change than the nationwide average, the static states, were characterised by higher levels of DV, not implying causation but rather an interesting relationship between these two variables.

Alianza Cívica also underlined the importance of inequality, but in relative terms, as a motive for the youth to join DTOs:

“...Not the one that characterises impoverished individuals not having what to eat, and others having too much; but more about if the young person has

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<sup>46</sup> Interview with the Project Coordinator, Alianza Cívica Nuevo León A.C., Monterrey, Nuevo León, 12/12/13.

to travel in buses, and the other guy has a car, then ‘yes, why not, I want to have a car, I must have a car’<sup>47</sup>.

The aforementioned quote also brings the focus on socially excluded individuals who are not particularly characterised by an impoverished situation, but rather by a restriction on the access to the opportunities they lack when compared to more wealthy individuals; again pointing towards one of the factors influencing socially excluded individuals resorting to (drug) violence, the difference in opportunities between the haves and the have-nots, and strictly related to relative inequality levels.

Another interesting perspective to consider was that of the former DTO members interviewed. Juan mentioned that he lived in the La Independencia neighbourhood (one of the most marginalised in the MMA), and explained how as part of his DTO activities he used to commit burglaries in affluent houses, in the richest municipality in Mexico-San Pedro-as his determining criteria. Juan explained, “I went and robbed from the houses of the rich that were closer to me...in San Pedro, is the closest”<sup>48</sup>. It is important to denote how the interviewee refers to the victims of his robbery as “the rich”, an insight into the classification of social groups the interviewee could be designing, between these two groups, “them, the rich”, and “us, the poor”, the haves and the have-nots. This quote highlights the frustration and envy suffered by the individuals of socially excluded communities (La Independencia) within close proximity of prosperous neighbourhoods, such as San Pedro. Even though the quote refers to robberies, this is an instrumental crime, that can be violent, and that covers one of the several illegal economic activities committed by DTOs and Juan did belong to a DTO, and thus relates to this research.

Several of our interviewees placed a focus on the lack of opportunities available within the Mexican society. NGOs, like Desarrollo Integral en Movimiento, also underlined the importance of not only economic inequality but, the unequal

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<sup>47</sup> Interview with the Project Coordinator, Alianza Cívica Nuevo León A.C., Monterrey, Nuevo León, 12/12/13.

<sup>48</sup> Interview with former DTO, Juan, Desarrollo Integral en Movimiento clinic, Monterrey, Nuevo León, /12/13.

availability of work opportunities and the high levels of unemployment affecting the country, as they considered these were key factors strengthening the DTOs' reach. This mention of a lack of opportunities continues to reflect the recurring of social exclusion as an explanation for the high levels of DV in a state with low levels of multidimensional poverty when compared to the nationwide average.

Mujer Renovada also added the importance of the individuals to feel a sense of belonging, particularly in their decision to involve themselves in DTOs activities. The participant also added the influence of joining a DTO due to the lack of opportunity to study, due to a resource deficiency from the family that needs all family members to work, and a lack of economic inclusion within the formal market. This lack of opportunities in both education and the workplace translates into social exclusion, as well as the need for a sense of belonging and social ties that the DTOs could provide a socially excluded individual, as previously explored.

Academics also agreed on the importance of inequality of opportunities. The Director of the Organised Crime Research Centre also emphasised the importance of the inequality of opportunities available and its relationship with DV, "...injustice is key to violence, as it leads to inequality, poverty, and in some cases, even misery"<sup>49</sup>. Inequality, poverty and misery are often characteristics of socially excluded communities.

#### [Linking the qualitative material and the quantitative findings with the theoretical frameworks](#)

The majority of the studies that followed SDT concluded that there exists a positive relationship between violence and poverty. Social disorganisation theory supported how the spatial concentration of DV remains within certain states and municipalities; due to the locations' structural characteristics, DTOs are concentrated in only 30% of the total municipalities in the country (Rios, 2012b). Following the influence of the exogenous factors of SDT on crime rates, the majority of the most drug-violent municipalities were located in the urban spheres which could make their social ties weaker and thus, more prone to criminality (Sampson and Groves, 1989). For our

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<sup>49</sup> Interview with the Director of the Organised Crime Research Centre, Universidad Autónoma de Nuevo León, Monterrey, Nuevo León, 18/12/13.

case study, 30 neighbourhoods represent the origin of the majority of the prison population within the three state penitentiaries.

The poverty quantitative findings suggested how for the particular Mexican case in the research period did not completely follow the propositions set by SDT. These thesis findings showed that it was not the areas with the highest levels of multidimensional poverty, the ones characterised by DV; but, on the contrary, it was the municipalities and states that showed the lesser degree of multidimensional poverty, the ones characterised by higher levels of DV (graph 4.12). The most drug violent municipalities were frequently the ones characterised by the higher levels of economic development within their states, and the most drug violent states were not the most impoverished in the country. Moreover for our case study of NL, the correlation coefficient showed a negative relationship between multidimensional poverty and DV levels (graph 4.39) with a medium effect, suggesting as one variable increased, the other one moved in the opposite direction. Even as this correlation analysis does not explain causation, it did help illustrate more the nature of the relationship between poverty and DV levels, as per our main research questions.

SDT exogenous factors of concentrated disadvantage (above average poverty) and low SES did not follow the geographical patterns of drug violence in Mexico for the research period. Nevertheless, the aforementioned conclusion does not mean our empirical findings completely reject SDT propositions. The positive effect between criminality and poverty is only expected when other structural factors (ethnic heterogeneity and residential mobility) are taken into consideration, in order for poverty to have an actual weakening impact on social networks within a location. As Osgood and Chambers (2000, p.106-107) help to explain, "...it is not poverty per se that produces social disorganization, but rather associations of poverty with other structural factors that weaken systems of social relationships in a community". Moreover, as most of our interviewees perceptions suggested most of the communities that serve as recruitment grounds for DTOs rely on socially excluded neighbourhoods, rather than merely impoverished ones.

Moreover, SDT propositions did follow for the rural settings analysed in this thesis, as the aforementioned municipalities are frequently characterised by higher levels of

poverty; yet, these localities had the lowest levels of DV in comparison with the urban ones. Osgood and Chambers (2000) research on rural counties in the USA determined higher poverty levels did not result in higher levels of violent crime, as the other structural factors had a greater influence; it seemed this conclusion similarly applied to the rural municipalities in Mexico, as these were more impoverished but less drug-violent than their urban counterparts. There were several potential explanations for this outcome that were discussed in the previous section.

Quantitative analysis could not be conducted for the other exogenous factors given the lack of data on a municipality level and are not the focus of this research. However, on the rather brief overview of the exogenous factors (residential instability, ethnic heterogeneity, and migration) on a state's level, SDT propositions did not seem to apply for our particular national research context. The most drug violent states (Baja California Norte, Chihuahua, Durango, Guerrero, Jalisco, Sinaloa, Tamaulipas and Nuevo León) were not the states characterised by the largest influx of internal migrants (Baja California Sur, Quintana Roo, Colima, Nayarit, Querétaro). The three states with the largest indigenous population (Oaxaca, Chiapas and Yucatán), representing ethnic and linguistic heterogeneity, did not account for the highest levels of DV, either on a state or a municipality level. However, an important insight regarding poverty and linguistic and ethnic heterogeneity is that two of these states with the largest indigenous population (Oaxaca and Chiapas) were the most impoverished states in the country, as over 60% of their population lives in poverty.

For the particular case of NL, it is considered a recipient state for internal migration and one of the most economically developed in the country. In 2010, more than 113,657 individuals from other Mexican states arrived to live in Nuevo León; the majority from the states of San Luis Potosí, Tamaulipas and Veracruz. On the same year, 76,153 individuals left the state to live in another entity with the majority moving to Tamaulipas, Coahuila and San Luis Potosí. The majority (80%) of the state's migrants who move abroad do so to the United States (INEGI, 2015). This influx of internal migration could potentially have a positive effect on NL levels of DV following SDT; yet, this is difficult to determine as it is not quantified by municipality. There were other recurring topics to SDT, such as migration, economic segregation, and

residential mobility. The participants mentioned there were waves of migration and residential mobility occurring in Monterrey. According to SDT, migration and residential mobility weaken the social ties and social cohesion in neighbourhoods, as there is not enough time to build these social relationships, making these zones more prone to crime-related activities. Additionally, it was proposed by both DTO members and NGOs that individuals felt more compelled to commit crimes in wealthier areas, particularly in spatially close zones characterised by high levels of inequality, including economic segregation.

The qualitative material did follow some key conclusions of SDT, particularly related to the structures and social networks. SDT stressed the importance of developing informal social control within a community, in order to prevent criminal behaviour. Factor 360 reflected on how DV levels are lower in rural areas due to the close-knit social ties these type of communities develop. Several NGOs (Promoción de Paz, Renace, Factor 360, Desarrollo en Movimiento) agreed on how certain neighbourhoods' dynamics that characterise socially excluded communities make them prone to DV, what SDT would classify as socially disorganised (Mujer Renovada, Desarrollo en Movimiento). One of the most striking insights was that 30 neighbourhoods represented the main population for the three state prisons of Nuevo León, two where participant observation was conducted. Moreover, if the majority of the prison population belongs to these neighbourhoods, it is likely these are characterised by having a high density of offenders and several other of the exogenous factors of SDT that also characterise socially excluded neighbourhoods, which SDT refers as socially disorganised.

Some of the propositions of SDT were also emphasised on our field research. Local unemployment and the existence of unsupervised teenage peer groups were mentioned as factors having an effect on individuals' involvement with DTOs, related to SDT's social structures. Additionally, NGOs stressed how 15 secondary schools were considered as part of vulnerable neighbourhoods in Nuevo León, following SDT proposition of socially disorganised localities where crime is concentrated, one of the exogenous factors of SDT and following the proposition that crime is concentrated in particular localities.

According to SDT, the development of social structures within a community is influenced by exogenous factors. Political neglect was an emerging theme during our field work, mentioned by government officials, NGOs and academics. Several participants suggested DTOs developed as parallel power structures to the government, as these CGOs provide goods and services in areas the government does not reach. However, this expected outcome was not shown on the quantitative analysis, as the most drug violent units had the lesser degree of lack of access to basic services, following the multidimensional poverty components. Nonetheless, political neglect can encompass more than access to basic services, such as, infrastructure, civic participation, law enforcement, and other factors that are not accounted for in the multidimensional poverty components. For the case study, both for the lack of access to basic housing services (graph 4.44) and lack of access to social services (4.42) showed a negative relationship between these two variables and DV levels, suggesting that DV were high, the lack of access to basic services or the lack of access to social services was low, or vice versa. This did not follow with the propositions of SDT but did follow with the overall trend on the national and case study levels, suggesting the relationship between multidimensional poverty components and DV levels is not as expected by the academic debates.

Another related structure proposed by SDT is social support from institutions that can be analysed by the lack of access to social security (Figure 4.11). This structure again did not follow on the quantitative analysis, as the most drug violent states and municipalities were not the ones with the highest degrees of lack of access to social security, as SDT would have predicted.

Nevertheless, another social structure that was mentioned by the participants as having an influence on their criminal behaviour (specifically DV) were the local friendship and family networks, following the primary and parochial levels (Bursik and Grasmick, 1993). Most of the DTO members explained how they were first introduced into these CGOs by their families and friendships, which does follow what SDT proposes regarding the social control these social ties fail to exert within the community; the lack of informal control can also have an effect on the relationship between the community and the public level.

Overall, SDT puts forward the notion that several exogenous factors come into play when analysing the propensity for crime in a location. Moreover, several social disorganisation theorists argue other structural factors have more influence on criminality than poverty (Beyers et al. 2003; Sampson and Groves 1989); poverty does not result in higher criminality rates if other factors are controlled for (Osgood and Chambers 2000; Bordua 1958) and communities have been wrongly identified as socially disorganised if only their low SES is considered (Pfohl, 1985). These studies could point towards the importance of social exclusion as an explanation for the high levels of DV in the case study, rather than poverty levels.

It should be noted that SDT studies provide evidence on violent crime, homicides, and not particularly drug-related homicides; this difference in the type of homicide could be influencing the relative utility of this theory for our research. There is an opportunity for future research to control for the poverty indicator and analyse more structural and exogenous factors on a sub national level in order to examine their relationship with drug-related homicides, if the data became available for the municipality level, for example for our case study.

Strain theories, particularly institutional anomie, focused on the social institutions within a society, and regarded the economy as the priority for most societies. It proposed that individuals were more likely to resort to violent crime if they suffered from economic deprivations and if the non-economic institutions (polity, family, religion, education) were weak. The findings from the quantitative analysis in this research's particular context, however, did not follow the importance of the economy as the main priority, as the most drug violent states and municipalities were the least impoverished ones. Nonetheless, the importance given by DTO members to material assets was mentioned by several NGOs and government officials and even the former DTOs themselves during fieldwork.

Additionally, the data analysis actually showed that the most drug violent states and municipalities had the highest levels of education; thus, reflecting the strength of the social institution of education. Nonetheless, the qualitative material revealed two conflicting realities of the levels of education of DTO members, as several NGOs and government officials emphasised that the majority of DTO members were secondary

school dropouts and had a low performance. Conversely, the former DTO participants' level of education did not follow this presumption; yet, this was not a representative sample, but rather an illustrative perspective.

IAT proposed the economy, measured as the Gini coefficient, had the greatest effect of all social institutions, on violent crime within a society, as the main priority was given to personal economic success. The quantitative analysis on socioeconomic inequality did not completely follow the propositions of IAT. It was not the most unequal states or municipalities, reflected with the highest Gini coefficients, which were the most drug violent in the country, but rather it was the states and municipalities that showed no changes in their levels of relative inequality which became the most drug violent. 80% of the states with no changes in their Gini coefficient and 65% of the municipalities with no variation in their inequality levels became the most drug violent localities, throughout the whole country, with three different periods examined. However, these findings do not fully contradict IAT propositions on the influence of economic inequality on violent crime; they, rather, suggest an explanation could be placed on the relative levels of inequality, rather than absolute terms. Priority to economic goals is highly the case for Mexican society, as our qualitative material helped to inform. What our data analysis could reveal is that there are no opportunities for individuals to improve their socioeconomic status as the Economy is still the most important social institution; however, they are not allowed to go up or down the socioeconomic ladder and remain stagnant within their current socioeconomic status. For the inequality analysis on NL, there was a low correlation between inequality and DV levels, following the nationwide empirical analysis, and the relationship between these two variables was positive as predicted by IAT as it focused on absolute levels of inequality, and not in changes in inequality as with the previous sections.

Furthermore, the qualitative insights pointed towards the weakness of another non-economic institution, the family. Several of the former DTO members and NGOs interviewed explained how they were introduced into DTOs by their family members and social ties, showing how the cultural values were not maintained by this institution. The weakness of the family as a social institution shows how it might not

be conditioning for the effect of poverty on violent crime, following the IAT proposition. The rest of the non-economic institutions (polity and religion) were not measured in this chapter at a sub national level and their conditioning effect on poverty and crime cannot be accounted for; the latter represents an opportunity for future research.

The qualitative material for this section on inequality was not as extensive as it was for our former chapter on poverty. The reason for the latter outcome is that, not only was there simply less mention of inequality during our interviews but it is difficult for our participants, who are drawing from personal experience, to account for changes in inequality levels throughout the six years of our research period. This difficulty arises from the possibility that their views could be subject to memory bias, as these insights would require a longitudinal study for them to account for these inequality changes, and the plausible influence these changes could be exerting on DV levels would require them to focus on a macro-level perspective. Yet, this section helped to illustrate the nature of the relationship between inequality and DV in Mexico in the period of research, by drawing from the participant's personal experiences, and not only focusing on a macro-level analysis looking for quantitative trends and patterns.

The qualitative material insights did follow strain theories' outcome on the importance of an aversive environment in being conducive to homicide. During the participant observation conducted in the Cereso of Topo Chico rehabilitation clinic, the majority of the prisoners described how they were abused (physically, emotionally and/or sexually) during their childhood. This insight was also shared by the NGOs Promoción de Paz and Desarrollo en Movimiento during the interviews.

Lastly, the two theoretical frameworks (SDT and IAT) informed us on the importance on focusing on a subnational level, as this research focused not only on the comparison between the Mexican states, but also within them due to the municipalities' approach. However, the findings of this thesis did not follow the main propositions of the literature regarding the impact of poverty on violent crime; as mentioned earlier the most drug violent units were the ones with the lesser extent of multidimensional poverty. Nevertheless, the two theoretical frameworks

suggested poverty was not the only condition influencing homicides; but rather, the dynamics between different social institutions and structures had a role on violent crime, and social exclusion seemed to play a critical role in drug-violent neighbourhoods and DTO recruitment communities.

IAT helps to appraise some of the insights from our qualitative material. The qualitative material illustrates how there is priority given to the economy (“American Dream”) as the dominant social institution and to financial economic success. This priority was exemplified with quotes repeated by NGOs, in reference to comments heard from DTO members, “I would rather live like a king for three years, than a fool for a lifetime”; and, “It is better to be a ‘Zeta’<sup>50</sup>, than nothing in life”<sup>51</sup>. These quotes help to illustrate what motivates certain DTO members, as they would rather enjoy economic success for a limited period of time, under the threat to their own lives, than live for a lifetime in impoverished conditions. These quotations were strictly related to social exclusion as they keep highlighting the importance of having opportunities within the different arenas (economic, social, political, cultural, educational) and the striking difference these socially excluded individuals feel between the haves and the have nots.

Moreover, the cultural value placed on personal economic success could be based on an individuals’ perception of un(equal) opportunities; if the individuals’ perception on economic opportunities is that these are non-existent, becoming a DTO member and recurring to illegal economic activities might become their available option to obtain this economic goal. The latter was mentioned by the participants’ emphasis on the impact of a lack of “economic inclusion” for all individuals, particularly the youth and in one of the factors linking social exclusion to violence, particularly for the youth.

Our interviews followed recurring topics related to IAT, particularly the lack of opportunities for all individuals to achieve economic success, a characteristic of social exclusion; this was reflected via a lack of access to education and the formal labour

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<sup>50</sup> Zeta refers to the name of a DTO; and, is also the name for letter ‘Z’. In colloquial Mexican Spanish nothing is often referred as being the letter ‘X’.

<sup>51</sup> Interview with Promoción de Paz, A.B.P., NGO’ headquarters, Monterrey, Nuevo León, 07/11/13.

market. The participants stressed how the lack of opportunities had an impact on individuals, particularly the youth, involvement with DTOs. These insights continue to stress the importance of the economy and the impact of non-economic institutions to condition its effect on crime, following IAT. Additionally, one of the insights drawn was how some individuals did not have the opportunity to access education, as their family expected them to work instead. This discernment emphasises how the family and education as social institutions do not seem to condition the effect of the economy on DV, as there seems to be no institutional balance of power between IAT social institutions and the economy remains the most dominant. Lastly, the references to inequality were linked to relative inequality rather than absolute inequality levels, similarly to the EI-PC discussion that highlighted the importance of relative inequality.

## Conclusions

The findings of the qualitative material stayed closer to the core premises of the literature introduced in chapter III, than the quantitative findings from chapter IV, given the participants' insights of the role of poverty and lack of education on DTO membership. Still, most interviewees agreed that DV was not predominantly influenced by absolute levels of poverty and more than often described social exclusion as a main determinant for DTOs recruitment and drug-violent communities. The participants argued it was indeed social exclusion that influenced the levels of DV the most, even in an economically developed state as NL and a metropolitan area such as the MMA.

The qualitative material helped to test the empirical findings from chapter IV for this particular case and illustrate the relationship between poverty, inequality and DV, providing a voice to our participants and revealing a different reality to the data analysed. The recurring topics included social exclusion and economic inclusion, education, relative poverty and inequality and power parallel structures to the state. The majority of the interviewees highlighted that DTO members were secondary school dropouts, and suggested that the higher the level of educational gap an individual had, the more likely he would resort to criminal activities, such as DTOs.

However, some of the former interviewed DTO members discredited the common belief on educational gap as an influence for joining DTOs, with their statements and experience; 2 out of the 5 had a university level or related education and these two interviewees made reference to the importance of education; they were the ones who had a higher ranking within the DTO. The other 3 interviewees were primary school drop outs, as conventional wisdom would dictate, and had a legwork position within the DTOs. The DTOs interviewed were a very small sample, and not representative of the DTO population, yet, it already provided different results from the quantitative findings. Nevertheless, the field research reached the saturation bias criteria from the different interviewed groups: former DTO members, the authorities, NGO members and academics and journalists. The saturation bias (Fusch, 2015) was reached as the ability to acquire further information was obtained as the insights from the participants became repetitive and further coding was no longer feasible given the field research time period in the case study location. There were no new data or themes emerging and this defined the saturation bias for our research (Fusch, 2015).

Social exclusion and economic inclusion and available economic opportunities were also recurring explanations of DTOs membership. Some interviewees suggested DV levels erupted when a socially excluded neighbourhood was close to a rich one, pointing towards the importance of social exclusion and economic inequality.

Another recurring subject was the parallel power structures that the DTOs represent to the Mexican state. Interviewees argued that when the government fails to address the necessities of the socially excluded communities, frequently DTOs fill in the vacuum of power by attending to the communities' necessities more efficiently than the authorities. However, when analysing the lack of access to basic housing services, for example, it is the rural areas that are frequently characterised by having a higher lack of access to basic housing services; yet, these are also the ones that suffer the least from drug-related violence, in comparison with their urban counterparts. Additionally, data showed most drug violent municipalities had a lesser degree of lack of access to basic housing services, illustrating again a different reality between

the data and the insights provided by the interviewees; two different perspectives but still accurate realities of the social context where DV develops.

The qualitative material was difficult to link with this focus on the prominence of a change or lack thereof of Gini coefficient. The reason behind the latter is that it is a difficult task to expect interviewees to overcome their memory bias, in order to remember if there have been any changes in the socioeconomic level of their communities. However, certain references were made about the interesting relationship between spatially close zones characterised by high inequality levels and social exclusion, where the DTOs were more “attracted” to commit criminal behaviour against wealthier areas. A great emphasis was placed on the lack of opportunities, for both work and education, as an influencing factor for the youth to join DTOs.

Additionally, it was more difficult to find references to inequality than poverty throughout our interviews. The latter could be a result of imperfect memory bias and the invisibility of inequality changes. Poverty and social exclusion are visible conditions for the naked eye, without a need to formally understand its concept and measurement; the changes on socioeconomic inequality is more difficult to observe, as it would require a comparison exercise. Even if the qualitative material is not comprehensive, it still helps as illustrative material for our multidimensional research.

These results support the quantitative findings from this research that the most drug-violent municipalities remain the ones with the higher levels of development, in comparison with the rest of the municipalities within the same state. The argument follows that perhaps it is not the most impoverished or more unequal municipalities which are the ones that remain or become drug violent, but possibly, the opposite. These results have followed throughout the quantitative analysis of both poverty and inequality, as the most drug violent municipalities showed lesser degrees of multidimensional poverty and lesser degrees of change in their Gini coefficients.

The most recurring theme within the qualitative material was social exclusion as a means of explaining high levels of DV in an economically developed state, such as NL

and particularly the MMA, following both the negative relationship (between poverty and DV) introduced by the quantitative findings on the case study of NL and the insights provided by the theoretical frameworks explored; and, the socially excluded communities where the field research participants argue most of the DTO recruitment occurs. Perhaps neither the quantitative data nor the qualitative material are incorrect, but they manage to reveal what could be two-layered, but still accurate, realities of the social context of DV in Mexico for the particular case of NL and its MMA.

## CHAPTER VI: EVALUATING THE SOCIAL PROGRAMMES ADDRESSING DRUG VIOLENCE IN MEXICO: BEYOND MÉRIDA AND TODOS SOMOS JUÁREZ

“Social protection provides a policy map, linking an understanding of poverty and vulnerability as multidimensional and persistent to policy interventions”  
(Barrientos, 2011, p.248)

### Introduction

This chapter’s objective is to evaluate the effectiveness of the social programmes addressing DV in Mexico, particularly the Beyond Mérida and Todos Somos Juárez programmes, in order to explore the policy significance of the quantitative findings in the context of Mexico’s wider approach to address the high levels of DV.

We will begin the chapter by exploring the evolution of social policy frameworks in the country in order to understand the policy shift more clearly. We will start with an overview of the types of social programmes, particularly focusing on Conditional Cash Transfer (CCT) programmes, as these have become cornerstones in Mexican social policy. We will continue with a brief review of PROSPERA, the flagship Mexican CCT programme which has been the emphasis of social policy in the country. The review of this social programme will provide us with a contextual understanding of social policy in Mexico for the emerging drug policy shift by reviewing the traditional nationwide approach moving towards a focus on local socioeconomic initiatives.

We will then move on to explore Beyond Mérida, the last phase of the Mérida Initiative, implemented by both the Mexican and U.S. governments since 2010. This last phase will help to inform how the Mexican government mobilised the new policy shift of social issues within drug policy frameworks.

After analysing the nationwide social policy response of the government to tackle drug violence in the country, we will focus on a subnational level. We will examine the initiative Todos Somos Juárez (TSJ, We are all Juárez), implemented by President Calderón’s administration in the most drug violent city during Calderon’s presidential

term. The main purpose of examining this initiative is to exemplify the emerging drug policy shift at a local level.

There were two other key local initiatives implemented by the local governments in drug violent cities, Tijuana Innovadora (TI, Innovative Tijuana) and Unidos Transformando mi Comunidad (UTC, Together Transforming my Community), implemented in Monterrey, where our field research was conducted; both of these initiatives originated in 2010. These two local initiatives were briefly examined in chapters II and V respectively, as there is insufficient information available regarding their implementation; moreover, they were mainly driven by the private sector (TI) and in collaboration with the local government (UTC), rather than conceived by the national government, and were implemented at a neighbourhood level rather than a municipality level, as our quantitative analysis shows. Thus, this chapter will only focus on TSJ as part of the local initiatives and Beyond Mérida on the national level.

The examination of these programmes aimed at tackling drug violence, Beyond Mérida and Todos Somos Juárez, will help to understand the policy implications of this research findings regarding the nature of the relationship between DV, poverty and inequality.

### Introduction to social policy programmes

“Social protection is associated with a range of public institutions, norms, and programmes aimed at protecting workers and their households from contingencies threatening basic living standards” (Barrientos, 2011, p.240). Social protection programmes are grouped into three categories according to their aims: social insurance programmes; labour market regulation; and social assistance. Social protection programmes tend to be focused on safeguarding living standards and wages maintenance in developed countries, where they are frequently well-established. However, in developing countries, where their need is most pressing, they tend to be unequally developed, as their main objective is to provide support for the impoverished population and decrease poverty levels (Barrientos, 2011).

Social insurance programmes serve as protection for all households from risks, such as unemployment, health conditions (diseases, disabilities), maternity, and old age. The social insurance programmes encompass all households irrespective of their income level (Levy, 2015). However, there are certain criteria for access that determine which groups are allowed to benefit from the social policy, and the costs of the programmes. Social insurance programmes are only available to workers within the formal economy as part of their salaried jobs, and, as a result, workers within the informal economy are left without any social protection of this kind. The reason for this difference in access to the programmes is that the social insurance programmes are frequently paid by companies with contributions from their workers' salaries. Thus, the source of these social insurance initiatives leaves self-employed, informal workers, and employees for firms that evade paying these contributions, unprotected from these risks (Levy, 2015). The second category of social protection related to labour market regulation, which safeguards workers' rights within the workplace and provides a voice for their organisation (Barrientos, 2011).

The main focus of this chapter is social assistance programmes. These types of programmes only target impoverished households in order to increase their income, and thus aim to redistribute wealth. This redistribution is tax-financed and takes the form of price subsidies, food stamps and Conditional Cash Transfers (CCT). The costs of this type of social programme are frequently less burdensome than the social insurance category, as their scope does not cover the whole population (Levy, 2015). In developed nations, programmes of social assistance are frequently safety nets that protect a minor group of the population from the detrimental outcomes of poverty, particularly when the other two types of social programmes (social insurance and labour market regulation) have failed. Nevertheless, in the case of developing countries, these social assistance programmes are the key mechanisms to address poverty levels; they result from deregulated labour markets and low coverage of social insurance, due to the high levels of informal employment (Barrientos, 2011).

CCTs, also referred to as targeted human development programmes or transfers schemes, target impoverished individuals with the short-term objective of reducing

poverty by improving the individuals' livelihoods. CCTs have the long-term goal of disrupting the intergenerational transmission of poverty (ITP or poverty trap) by focusing on human capital (World Bank, 2007). The ITP refers to "...the process by which poor parents pass on poverty and disadvantage to their children" (Moran 2003, p.1). These CCT programmes focus on transferring money directly to the impoverished individuals in the form of cash; instead of relying on food stamps, subsidies or the direct distribution of food, as has been done with programmes in the past (Levy, 2015).

In order to ensure that these monetary transfers do not become a permanent necessity, they are conditioned on the recipient's investments in human development within their households, particularly regarding attendance to school; improvements in consumption, nutrition, and health; and the availability and use of basic services, in order to tackle ITP (Barrientos, 2011). These imposed conditions aim to improve the health and educational level of the young population, and in addition, attempt to provide them with financial earnings and better opportunities within the labour market than the older generations. The rationale behind the conditioning is that better educational levels will allow better and more working opportunities in the long term future (Levy, 2015). CCTs are aimed to be only temporary investments in human capital rather than a permanent welfare solution. Their reach covers all impoverished individuals, irrespective of working within the formal or informal economy, or being unemployed.

There are several drawbacks that derive from the differences between social insurance and redistributive programmes. As the social insurance programmes are paid through the formal workers' wage contributions, they can be frequently perceived as a form of tax and even considered more expensive than beneficial by the paying employees. Otherwise, the beneficiaries of the redistributive social programmes (CCT), such as informal workers, might not value their rewards, as they can be perceived as free because they do not involve a direct contribution from their salaries. Moreover, informal workers could lose access to redistributive social programmes if they were to acquire a formal job. The latter outcome would result in a type of tax for formal employment and a subsidy for informal workers; thus, this

could help to explain the large proportion of the informal economy within the Latin American region (Levy, 2015).

According to Levy (2015), CCTs have contributed to decrease levels of poverty; but, they are inadequate to provide long-lasting benefits in social welfare. As Barrientos (2011, p.244) explains about social assistance programmes, "...It is highly unlikely that a single social protection instrument could achieve the manifold objectives of protecting household consumption, promoting asset accumulation, strengthening productive capacity and inclusion, and reducing poverty, vulnerability and inequality." Thus, complementary programmes should be pursued that emphasise employment, skills and participation of the target population (Barrientos, 2011).

### PROSPERA, the Mexican government's flagship social programme

This section will cover a brief introduction into Mexican social policy to exemplify how the main focus of social policy programmes in Mexico has been on addressing poverty levels by providing food subsidies and conditional cash grants. This is relevant to our research as it provides context into the emerging drug policy shift that we analyse on the following section and the evolution of social policy in the country.

The Mexican government classifies anti-poverty programmes into three types, investment in human capital, development of infrastructure, and focus on income earning (Skoufias, 2001). PROSPERA is not the only programme within the first category, but it is the government's flagship social programme, aimed at human capital development, and the only one that integrates income transfers with basic services provision.

The beginning of CCT programmes in Mexico can be traced back to 1962 with the introduction of the National Company of Popular Subsistence (Conasupo), a government agency that coordinated food and agricultural subsidies (Gomez, 2011). The first and second generations of social programmes in Mexico were characterised by food subsidies and the third generation was marked by the implementation of PROSPERA.

PROSPERA, was originally established as the pilot programme PRONASOL in 1989, during former President Salina's administration; it was later relaunched as PROGRESA (Programme of Education, Health and Food) in 1997 during former President Zedillo's term, retitled OPORTUNIDADES in 2002 under Fox's former presidential office, and recently relaunched as PROSPERA in 2014 with the new presidential administration of Peña Nieto (Giles, 2014). The renaming of the programme is a result of the change of presidential administrations. The survival of the programme through different political party administrations is considered a success within the scope of Mexican social programmes' implementation; frequently, a change in presidential administration entails changes in social policy initiatives (Levy, 2009). In order to avoid confusion, this thesis will continue to refer to the programme by its latest rename of PROSPERA.

PROSPERA was implemented in 1989 as a pilot programme in four Mexican states: NL (the state from our case study of the MMA), Estado de México, Tamaulipas, and San Luis Potosí. The objective of the programme was to reduce the levels of poverty in the most impoverished households, particularly targeting families with a 'vulnerable' individual (children under 5 years, pregnant and breast feeding women). The programme benefited over 33,000 households with cash and food packages, based on their compliance with health and nutritional check-ups (García Verdu, 2003). However, there was no evaluation implemented for this pilot programme. This lack of assessment was, though, considered before the official launch of PROSPERA, and evaluation methods have been implemented since its introduction (García Verdu, 2003). Thus, before its official launch in 1997, the Mexican government appointed PROSPERA's evaluation to the International Food Policy Research Institute. As the programme was progressively implemented, it allowed for an experimental evaluation process; both control and treatment groups were created, following their gradual integration into PROSPERA in 1999 and 1998, respectively (Barrientos and Villa, 2015).

PROSPERA was not the only social programme implemented in the country during the decade of the 1990s. There were 15 other isolated social programmes executed in the country with the same objective of reducing poverty. Most of these other

initiatives, however, were different to PROSPERA, as there were in the form of subsidies to the Mexican basic-needs basket. According to Levy (2009), these subsidies' programmes main weakness was their main focus on food security, as they disregarded other basic needs, such as health and education, which PROSPERA integrates. Additionally, the target population of these other programmes did not always reach the most impoverished individuals and there was no focus placed on the most vulnerable members within a household, such as pregnant women and children, which PROSPERA takes into account. Furthermore, there were some issues surrounding the implementation of the programmes, as they were only aimed for short term results; there was a lack of coordination between government agencies and the majority of the funds were being depleted by administrative costs, rather than to benefit the target population (Levy, 2009).

In order to incorporate the existent subsidies programmes into a single one, PROSPERA was officially launched in 1997. As PROSPERA was implemented following the Tequila Crisis of 1994, there was a constraint on the available resources and competition from the other social programmes at the time. Consequently, there was a strong political appetite to justify PROSPERA's effectiveness via a robust evaluation process (Barrientos and Villa, 2015). The aim of PROSPERA was not only to integrate food security as with the subsidies' programmes, but also to incorporate the health, nutrition and educational components, as a CCT initiative. This programme was considered a first of its kind in the Latin American region, as it facilitated the widespread of CCTs in the region due to its rigorous impact and evaluation assessments (Barrientos and Villa, 2015), broadened the scope of the cash transfers given and served as a reference for similar programmes in the region, such as Brazil's "Bolsa de Familia" (Giles 2014).

The selection criteria for the beneficiaries of PROSPERA was implemented in three phases. The first stage geographically identified the rural communities with the highest levels of marginalisation within seven states (Guerrero, Hidalgo, Michoacán, Puebla, Querétaro, San Luis Potosí, and Veracruz); the programme was originally introduced only in rural areas. The next phase consisted of the selection of the most impoverished households within these communities, following a ranking of their

socioeconomic status. Lastly, in order to review the selected households, a community validation process was followed (Barrientos and Villa, 2015). The selection process relied on information collected from the National Survey of Households' Socioeconomic Characteristics (ENCASEH); surveys were conducted as follow up every 6 months for three years (Barrientos et al., 2011b). Nonetheless, since 2000, both experimental and control groups have now been integrated indiscriminately, hindering the evaluation process itself (Levy, 2009).

The programme has undergone positive modifications, such as the enlargement of the target population to include both impoverished urban and rural communities, and the expansion of the educational component in order to include the high school level (Levy, 2015). The 'rebranding' of the programme has intended to: extend the programme's target population, from 6.1 to 6.5 million families in the country; enlarge the cash transfers in order to include credit access; and provide university scholarships for the most impoverished individuals (Giles, 2014). This 'rebranding', however, is an attempt to improve PROSPERA's long term impact, as the programme has not shown the expected results (Giles, 2014). Nevertheless, Levy (n.a., 2015) disagrees with the programme's outcome by arguing:

“Evaluations of Mexico's PROGRESA-OPORTUNIDADES show that these programmes have been more effective in reaching the poor than previous ones, and have had a positive effect on critical indicators like school attendance, grade progression, nutrition, and health. They have also helped, indirectly, reduce inequalities in the distribution of income”.

Similarly, these positive indicators of the impact of PROSPERA have not only been proposed regarding its recipients' improved levels of education, nutrition, and health (Martinelli and Parker, 2003; Skoufias 2001), but they have also included developments in food consumption (Angelucci and De Giorgi) and asset accumulation for both its beneficiaries and non-beneficiaries (Barrientos and Sabatés-Wheeler, 2011b).

As briefly reviewed on this section, social policy in the country has not been directed at particular local areas, but have followed a nationwide approach. This is relevant to

our research because the emerging drug policy shift focus on social issues stems from the Mérida Initiative (next section) and was implemented in the form of local socioeconomic initiatives (TSJ, UTC, TI); this brief review of PROSPERA suggests an additional change in social policy, moving from a solely nationwide approach towards local initiatives. This growing focus on a local level is important to acknowledge because if the particular dynamics of the most drug violent areas have not been assessed and social programmes do not tailor their specific necessities, it lowers the chances of these initiatives making a significant change to drug-related violence in the country.

### Beyond Mérida

The second phase of the Mérida Initiative, referred to as Beyond Mérida, was officially launched in 2010. As we briefly reviewed the Mérida Initiative on Chapter II and its influence on the emerging policy shift in drug policy, this section will focus on the fourth pillar of the drug enforcement bilateral cooperation between Mexico and the USA in more detail, as it is closely related with our research theme.

In 2011, the fourth pillar of Beyond Mérida was officially approved and consisted of addressing the economic and social factors that contribute to crime and violence in order to build resilient and strong communities to withstand the violence in question (U.S. Department of State, 2015). Olson and Wilson (2010) describe this pillar's focus on the economic and social factors' role as the drivers of the violence in question. As the authors (2010, p.5) describe: "This last pillar represents an expanded view of the issues in play and a significant evolution from the original Mérida Initiative vision". The budget for this fourth pillar has already exceeded \$100 million dollars (Seelke and Finklea, 2017).

Moreover, this fourth pillar became the origin of the TSJ (explored in the following section), UTC and TI initiatives mentioned earlier, as these were three of the most drug-violent cities during its launch in 2010 (Olson, 2017). The budget for these local initiatives was of \$50 million dollars targeting local communities in order to attempt to reduce the crime and violence in question, improve the collaboration between the

public and the private sectors, as well as between the police and civil society and engage at-risk youth (Seelke and Finklea, 2017).

This fourth pillar guides the relationship between the Mexican federal agencies and the USA Department of State and USAID (United States Agency for International Development) to offer technical expertise and implement the community strategies. The objectives of this partnership are the introduction of evaluation and monitoring processes; strengthen the capacity of the federal, state and local governments and their crime prevention and reduction programmes from local and state governments; offer the Mexican at-risk youth an alternative to crime and increasing their engagement; and, accelerate efforts to scale up effective initiatives (Negroponte, 2012; Seelke and Finklea, 2017).

In addition, this pillar covers programmes developed by the Bureau of International Narcotics and Law Enforcement (INCLE) which integrate four main aims, "...Creating communities of law (1); developing strategic communications (2); drug demand reductions (3); and the tip-line project (4)" (Negroponte, 2011, pp.9-10). The first objective aims to foster a "culture of lawfulness" (Negroponte, 2011, p.9) by teaching ethical values (fighting against bribery) through police training, mass media and in schools. This first initiative followed a grant provided to the NGOs, Mexico Unido Contra la Delincuencia (MUCD: Mexico United Against Delinquency) and the US National Strategy Information Centre, organisations from both countries that focus on the provision of education to improve security, democracy and the rule of law. The second aim refers to the overall improvement of strategic communications between both governments, and within government agencies through this binational programme. The third aim, regarding the reduction of drug demand, focused on five specific programmes: long distance learning for remote communities; increasing the certification of drug counsellors to meet international standards; constructing drug free coalitions by fostering public awareness through drug-free campaigns; training drug counsellors; and the formation of drug courts. Lastly, the tip line project created an anonymous tip line number for victims of drug-related and organised crime (Negroponte, 2011, pp.9-10).

The Mérida Initiative has not been considered a success by several authors (Campbell & Hansen 2013; Watt & Zepeda 2012; Isaacson et al. 2011) who argue it has actually worsened the Mexican public security situation. Witness for Peace (2013) criticises how the use of resources have been mainly directed at equipment and training of Mexican soldiers and police, the lack of transparency on the allocation of funds, and how the resources have been given to the Mexican government even when they have not complied with the conditions set by the USA Congress, including human rights' violations (InSight Crime, 2010). Shirk (2011b, p.18) elaborates on the Mérida Initiative's accomplishment as a binational cooperation as he claims, "...this new framework for U.S.-Mexico cooperation is an achievement in itself...authorities from both countries have successfully identified their shared priorities, strategies, and avenues for cooperation".

### **Todos Somos Juárez (TSJ): We Are All Juárez**

During our period of research, Juárez was considered the most drug violent city in the world, as its homicide rate was thirty times the average worldwide, ten times the rate of the country, and its homicide rate increased fifteen fold in a three-year period (ICG: International Crisis Group, 2015).

Juárez is a city from northern Mexico characterised by having the largest amount of 'maquiladoras', manufacturing factories near the border with the USA, in the country, particularly after the implementation of NAFTA. These factories attracted Mexicans from all over the country for work and they settled on the peripheries of the city, creating neighbourhoods without any urban planning (Vilalta and Muggah, 2012). These peripheries are characterised by a weak presence from the State, reflected in inadequate provision in infrastructure, transport, and basic services (water, drainage, sewage, paved streets), and deficient services such as education and health (Calderón, 2013).

Our quantitative analysis in chapter IV (Graph 4.12) suggested that Ciudad Juárez, for the particular year of 2010, had an average of 37.68% level of multidimensional poverty, in comparison with the average of 55.52% poverty rate from all the

municipalities within the same state of Chihuahua (where Ciudad Juárez is located). The latter striking finding indicates how the most drug violent city in the world, in the year 2010, had a lower level of multidimensional poverty than the overall municipalities of its corresponding state; it was lower than the average level (39.19%) of poverty of the most drug violent municipalities in Mexico and a lower degree of multidimensional poverty than the national average of 57.65%, for all the Mexican states in the same year. Overall, Ciudad Juárez is not one of the most impoverished cities in the country, and non-drug violent states showed higher levels of multidimensional poverty (Aguascalientes, Campeche, Oaxaca, Puebla, Querétaro, etc.) than Juárez in the same year.

In addition, in 2010 Juárez had an income per capita (\$16,800 dollars) higher than the average of the state of Chihuahua (\$9,900 dollars) and the national average (\$8,000 dollars). Even on educational terms, Juárez had an average higher level of education than the rest of the state of Chihuahua (ICG, 2015). The latter figure also coincides with our quantitative findings from chapter IV on the multidimensional poverty component of educational gap (graph 4.14).

In February 2010, the Mexican government launched the local socioeconomic policy named “Todos Somos Juárez” (TSJ) in Ciudad Juárez, Chihuahua, for the period 2010-2011. The aim of the programme was to finance projects that would make communities more resilient to violent crime (ICG, 2015). This initiative had been in the making since 2009 due to the high levels of DV in the city; it focused on investment in public infrastructure, drug addiction treatment, health and education. The director of the National Centre for Crime Prevention and Citizen Participation, and deputy general director of social policy during Calderón’s term, explained, “The focus was Juárez, but the idea was to develop a collective impact approach that could be used throughout the country” (Enrique Betancourt, 2014, in ICG, 2015, p.10). Thus, Juárez became the first development package of its kind, in the country, that attempted to reduce DV levels. As Felbab-Brown (2011, p.16) describes, “...the city has become not only a meter of the effectiveness of Mexico’s security policy, but also a laboratory for the design of such socioeconomic programs”.

Not only was Ciudad Juárez the most drug violent city in Mexico in 2010, but a specific event led to fast-track the launch of TSJ; a DTO attack that resulted in 17 high school students being killed in the neighbourhood of Villas de Salvarcar (Cardenas, 2011). At first, former President Calderón attempted to dismiss the violent outburst by suggesting the victims were DTO members, which resulted in a political controversy, as the media criticised the President. Partly as a response of the political turmoil, Calderón's administration rapidly launched the socioeconomic package "Hundred Days of Juárez", later renamed as Todos Somos Juárez (Felbab-Brown 2011; Guerrero 2013). According to former President Calderón, the programme:

"...Aims to solve the social roots of insecurity, and has three main characteristics: community participation, a holistic, comprehensive approach, and coordination and co-responsibility within the three levels of government (federal, state and municipal)" (Calderón, 2013, n.a.).

Expanding on the aforementioned three main principles of the programme, its main aim was to address the social and economic risk factors of violence in the city; it promoted civic participation and engagement with the authorities during its design and implementation and required the close collaboration between different government agencies at both national and subnational levels (ICG, 2015). In order to fulfil the second parameter, local working groups referred to as "mesas" (tables in Spanish) were organised to serve as public forums to discuss the proposals on areas of socioeconomic development, education, health, security, culture, recreation, sports and employment, and a civic council was formed with each one (Guerrero 2013; Calderón 2013).

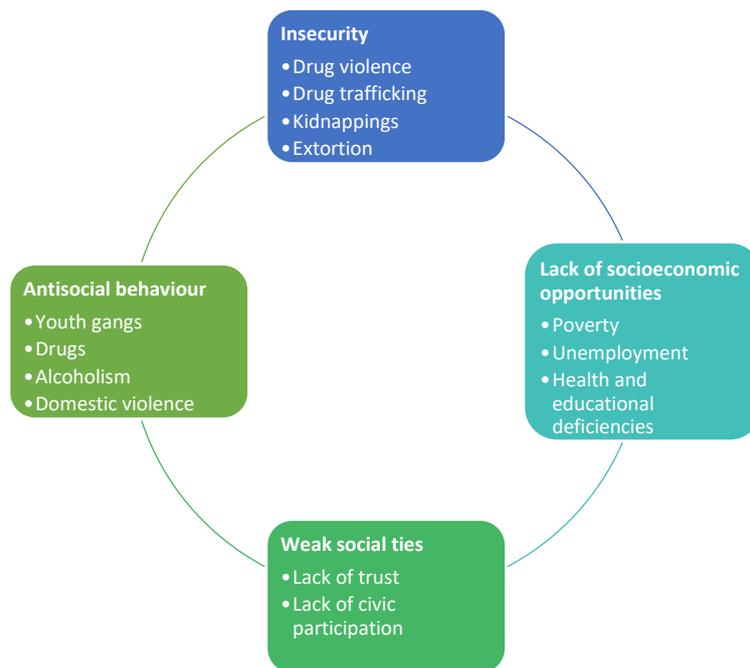
According to the official sources, the programme engaged not only the different levels of government (national and local), but also the community of Ciudad Juárez, by integrating panels that included individuals from NGOs, businesses, community leaders, youth groups and trade unions (Calderón 2013). Moreover, to guarantee the achievement of the objectives, individuals in charge of these initiatives had to report to the President once a week (Felbab-Brown, 2011).

These working groups agreed on 160 actions to be achieved by the end of 2010, within 100 days after their implementation (“A Hundred Days of Juárez”). Several of these proposed actions merely extended existing social programmes in the city, such as increasing the number of scholarships provided via PROGRESA, and increasing the coverage of the “Seguro Popular”, the federal government’s free health insurance. The rest of the projects involved improving and enlarging public infrastructure and increasing the provision of security services in the city (ICG, 2015). Other actions included: “...decrease the response times of emergency and law enforcement personnel” (Justice in Mexico, 2010, n.a.) by introducing satellite navigation systems in 760 vehicles; “strengthen security in customs” (Justice in Mexico, 2010, n.a.) by implementing more mobile X-ray machines, security cameras and canine units to improve the customs’ inspections; training on crisis issues and mental health aimed at 350 individuals; improving the environment by renovating public spaces, such as parks, sports facilities, community centres and related projects, and the enlargement of infrastructure, resulting in employment; and improving IT equipment in local libraries and schools (Justice in Mexico, 2010).

According to Calderón (2013), it is the local governments who are constitutionally responsible for their citizen’s security and the federal government is only allowed to support the local authorities in states of emergencies. As a result of the high levels of DV in Juárez, it was declared a state of emergency. Thus, TSJ federal funding amounted to an overall investment of more than \$380 million dollars for the period 2010-2011 (International Crisis Group, 2015), including additional resources pledged in 2011 (Justice in Mexico 2010; Guerrero 2013). Moreover, the distribution of these resources also shows the Mexican government’s growing focus on social issues, particularly poverty, as part of its drug policy frameworks. However, the traditional security approach persists alongside as a quarter of the budget’s resources were directed towards security projects, and almost all of the remaining three quarters were invested in education and health programmes, a reflection of the multidimensional poverty components and the emerging policy shift.

The official aim of TSJ was to tackle the “vicious circle of violence” (PR, 2010b). The official understanding of the “vicious circle of violence” (PR, 2010b) and its operationalisation (briefly described on chapter II) was illustrated in the official document, as shown:

Figure 7.1: Mexican government’s understanding of the “vicious circle of violence”



Source: Adapted from PR (2010b).

Figure 7.1 illustrates how the Mexican government operationalised its understanding of DV for the implementation of TSJ. The cycle shows how insecurity was mainly defined by drug violence and drug trafficking, and the other crimes DTOs engaged with. The government’s definition of antisocial behaviour is strictly related to DTOs and IAT’s definition of anomie (particularly, violence); weak social ties are associated with violent crime, as proposed by our theoretical frameworks of SDT and IAT. The consideration of the lack of socioeconomic opportunities (poverty and inequality) is significant for this research as it illustrates the emerging drug policy shift that justifies our research questions regarding the nature of the relationship between poverty, inequality and DV. However, the main focus of TSJ remains on poverty (7.1), also

reflected with the focus on social policy (PROGRESA) in the country explored in the previous section. Not only does TSJ consider poverty as the main condition characterising insecure areas, but it also incorporates the education and health components which we have already examined in chapter IV, on the multidimensional components of poverty, and similarly to the conditions considered for PROGRESA. However, as mentioned earlier, our quantitative findings indicated that the most drug violent entities had lower levels of educational gap (chapter IV), and our qualitative material on the levels of education from former DTO members (chapter V) offered contrasting perceptions within a small sample of five participants. Moreover, this particular component of the figure (“lack of socioeconomic opportunities”) shows that the government continues to focus on poverty as a response to drug violence, thus resulting in the criminalisation of poverty. Thus, the operationalisation of “the lack of socioeconomic opportunities” does not incorporate inequality, particularly relative levels of inequality and only integrates absolute levels of poverty, rather than relative levels of poverty. The lack of integration of relative inequality and poverty in TSJ operationalisation is important given our empirical findings (chapter IV) regarding the importance of changes in inequality and its negative relationship to DV, as well as the negative relationship between poverty and DV; moreover, the recurring theme of social exclusion (chapter V) in our field research and how it influences individuals joining DTOs.

Moreover, it is difficult to assess the achievements of the programme as the period of implementation was rather brief, only one year; there were no clear indicators set for its evaluation, and the development effects that could have been attained are difficult to measure regarding its influence on DV levels and its social dynamics (Felbab-Brown, 2011). Former President Calderón (2013) argues the programme was a success as he considers the reported decrease in DH in the city as a benchmark. Calderón (2013) claimed that by January 2012 the homicide figures had been reduced by 71% from their peak in 2010, and the murder rate had decreased by 90% from its highest point in 2010 (Wilson, 2013). Molzahn, however, provides a word of caution on the DH outcome, “...it is debatable how much of this decrease resulted from Todos Somos Juárez, as opposed to the likelihood that organized crime-related homicides

fell off due to the Sinaloa Cartel winning its turf war with the Juárez Cartel” (2014, n.a.).

Moreover, the initiative’s evaluation and impact has been rather difficult, as there were no clear indicators set to measure its success because there only a few needs-assessment evaluations fulfilled in certain areas of the city. Felbab-Brown (2011, p.19) elaborates, “...few analyses of the critical drivers of violence and poverty in any particular neighbourhood were conducted”. Guerrero (2013) adds on this evaluation matter that there has not been a precise assessment of the targeted population, the youth, as these are at the highest risk of joining DTOs, and argues that there is no justification for this type of initiative, as there is no evidence of increased expenditure in social welfare reducing DV or organised crime activities.

Calderón (2013, n.a.), the architect of the programme, stresses how several of the targets from the programme were assessed and achieved. In the educational aspect, a thousand schools were incorporated into the “Safe Schools” programme. The “Safe Schools” initiative aimed to promote a safer school environment, free from drug addiction, and incorporated a plan for the prevention of violence and the extension of school hours. Additionally, the number of high school and college scholarships (over 14,000) increased. There were improvement works on the infrastructure of 205 schools, and one new college and five new high schools were constructed (Calderón, 2013).

According to Calderón (2013), there were also some improvements regarding health matters. Health coverage was expanded through the “Seguro Popular”: four care facilities were constructed and several facilities improved, and drug addiction prevention and treatment programmes were introduced. In the social development theme, nineteen public spaces were renovated and the number of families participating in PROSPERA doubled (over 21,000 in the city). On public security, over 5,000 federal policemen were sent to Ciudad Juárez. Lastly, related to economic development, public loans were provided to over thousand small and medium enterprises; over ten thousand job seekers received training and more than 25,000 soft skills workshops (Calderón, 2013).

These targets achieved in education, health, public security, and in economic and social development, seem like positive outcomes for the city's population. Nevertheless, however specific these indicators may seem, they are not measurable or detailed, and there is no research into the nature of the relationship between these targets and drug violence for the particular communities where the initiative was introduced. The "Safe Schools" programme, for example, would need further explanation on how it promoted a safer environment and the prevention of violence. The increase in the number of scholarships and the construction of new schools and infrastructure improvements are measurable outcomes. However, it becomes difficult to find the connection between DV, infrastructure for schools, hospitals, and public spaces and public loans. The increase in the coverage of PROSPERA and Seguro Popular seemed strictly focused on poverty indicators, which our quantitative findings contest on their impact on DV. Moreover, this focus on poverty and the indicators on public security continue to support how the government has continued with a security-driven approach on drug policy, and even the new emerging drug policy remains poverty-driven without any consideration for social exclusion which represented the recurrent theme within our field research that helped explained high levels of DV within one of the least impoverished metropolitan areas in the country—the MMA.

As examined with the aforesaid pledges, the programme had to adopt an all-encompassing approach to its local initiatives, but there were not enough resources to cover all the troubled areas in-depth. As a result, projects were implemented superficially in all the impoverished communities (Felbab-Brown, 2011), instead of focusing in-depth on the drivers of the social dynamics of the local most drug violent neighbourhoods. Notwithstanding, as mentioned earlier and analysed in our chapter IV, our quantitative findings suggested it was not the most impoverished communities which had the highest levels of DV, but these were the main target of this initiative. Thus, these restricted handouts could have improved the community's wellbeing, but would not necessarily improve the community's resilience towards DTOs (Felbab-Brown, 2011). Moreover, following our quantitative findings regarding the most drug violent states and municipalities, experiencing the lesser levels of

multidimensional poverty; this type of poverty-driven initiative would not be expected to present a difference in DV levels.

Overall, the approach taken on this initiative was mainly on tackling poverty levels by building infrastructure, and improving health and education levels; combined with improving security measures. Hitherto, there was no research conducted to understand the particular needs and dynamics of each targeted community, and the majority of the initiatives were an extension of already existing projects (Felbab-Brown, 2011), suggesting there was no clear rationale for the selection process. Guerrero (2013) argues that a more effective implementation of local socioeconomic initiatives would require a detailed and multivariable analysis of the population at risk of joining DTOs, and the achievement of the proclaimed pledges not necessarily helped towards this objective.

Furthermore, the cooperation between different levels of government was not as smooth as suggested by the official sources. Felbab-Brown (2011), drawing from her fieldwork interviews in Mexico City and Ciudad Juárez, claims that in practice there was no real collaboration between the local community and the government; or between the different levels of government. The interviewed federal government officials claimed their cooperation with the local community was widespread and the community was involved in the local initiatives. However, the local communities (NGOs and businesses) claimed the opposite, as they argued they had not been included in the decision-making process regarding the initiatives. Additionally, both levels of government held each other responsible for an inefficient performance and low interest (Felbab-Brown, 2011).

Moreover, the short time period of implementation not only made it difficult to implement and assess the results of the programme in the long term, but it also generated pressure on the ministries to show results rapidly. According to the programme's website, by October 2010, more than half of the pledges had been completed, only 8 months after its launch. Additionally, due to the time pressure for the disbursement of money, instead of addressing the drivers of DV in certain areas, the ministries enlarged the existing initiatives. For example, one of the initiatives was to increase the number of beds available in a local hospital; this would be beneficial

for the community, but would not necessarily address the social dynamics of DV or build the communities' resilience towards this issue, especially if poverty was the rationale behind these initiatives and contrary to this research's quantitative findings regarding the negative relationship between poverty and DV. Another shortcoming regarding the unplanned infrastructure projects was how the children's hospital did not have the resources to perform complex surgeries or cancer treatment; the newly built mental hospital remained unused for more than 3 years until it was finally reopened in 2014.

Initially, the period of implementation was only set for a year which caused the time constraints. The planning of the initiative became problematic, as there was no certainty on the availability of resources after the programme's due date; also, the local authorities were expected to continue to manage the project, but without any assurance on its continuity. Notwithstanding, after the termination of the initial set date of TSJ, the government of Chihuahua revealed that the programme would receive additional funding, from both the national and local authorities, of a total \$498 million dollars for the continuance of the initiatives (Felbab-Brown, 2011). However, a part of this additional funding has been recently lost; funding planned for 52 of these pledges has been misplaced, with the majority of these funds already used, but the projects have not been undertaken (Avila, 2015). Thus, this loss points towards another issue, the mishandling of financial resources for the programme.

Even as the evaluation of the programme has proved to be difficult, it has resulted in some positive impact for the community. A local initiative developed as a result of the TSJ experience and has been implemented in the neighbourhood of Francisco Madero. This local project was led by the Group Paso del Norte, a business and community leader's organisation from El Paso and Ciudad Juárez, in an attempt to improve the levels of security of the area by reinforcement of the community's resilience against DTOs (Felbab-Brown, 2011). This initiative shows a grass-roots level initiative tailored towards a particular community, which hopefully will make it more effective and take into account social exclusion as a factor affecting drug-violent communities, as suggested by our fieldwork.

Several lessons can be drawn from these programmes' experiences. Firstly, the programme should follow a careful needs assessment of the target community to understand the dynamics in place, and the initiatives should be tailored for each particular community. Secondly, poverty should not be used as the main criteria for selecting these communities, as our quantitative findings indicated the most impoverished communities were not the most drug violent in the year TSJ was implemented. Social exclusion and marginalisation are important conditions to take into account for the selection criteria, but should not be the only one. Thirdly, Felbab-Brown (2011) also recommends funds should be assigned based on an assessment of what is locally needed, to address the particular structural drivers of drug-related crimes in the targeted zone, and not just attempt to extend the existing social programmes, as was done with several of the programmes initiatives.

Fourthly, the importance of targeting particular zones also depends on how severe is the entrenchment of DTOs within the community. "Socioeconomic programmes for reducing violence are not a substitute for security" (Felbab-Brown, 2011, p.22). They require a certain level of security in the community, in order to deter illegal economies from growing. Felbab-Brown (2011) highlights the importance of placing these socioeconomic initiatives in zones with sufficient security levels, as areas with high levels of DV could undercut their success. If the social development programme is comprehensively designed and efficiently executed, it can help to strengthen the social ties (following SDT) between the targeted communities and the authorities, and, by doing so, reduce the influence of the DTOs in the areas by fostering the communities' social ties (Felbab-Brown, 2011).

In conclusion, TSJ's main weakness relies on its lack of concrete indicators to measure its success and hindering its evaluation. Its short lifecycle process did not follow with its long term aims, as it was implemented in a state of emergency and without careful research and planning. Eventually, the funding stopped, with the change of presidential administration and as DV levels escalated in other parts of the country (ICG, 2015).

### The legacy of Todos Somos Juárez: the Juárez model

One of the best legacies of TSJ is referred to as the “Juárez model”, a model that aims to encourage citizen participation and engagement with the authorities (ICG, 2015). The encouragement for participation in these working groups can potentially address one of our most recurrent themes during our field research, social exclusion. Most of the participants highlighted the importance of social exclusion as a factor influencing individuals joining DTOs given their lack of opportunities and frustration derived from the existent differences between the haves and the have not’s. One of the working groups remains, the Security and Justice Working Group, whose main goal is to monitor and reduce criminality rates (homicides, theft, extortion and kidnappings). This group is composed of 14 voluntary and independent organisations that include academic, professional, youth and business associations; the latter can potentially provide an opportunity for different individuals to participate, translating into civic and political participation, one of the categories of social exclusion and importantly incorporate the youth, who are a vulnerable group more likely to experience social exclusion. The Security and Justice Working Group is divided into teams that address particular topics; it continues to meet with the local, state and national authorities, including the police. The working group has no formal power, but it promotes engagement between the civil society and the authorities by acting as an “executive body” and proposing new initiatives to target crime (ICG, 2015, p.20). The legacy of this model of civic engagement has also been adopted through other working groups in other Mexican cities, such as Córdoba (Veracruz) and Los Cabos (Baja California) (ICG, 2015).

The current administration of Peña Nieto has identified DV as a “...security threat, as a crisis of poverty that can be best solved with more jobs, better pay and welcoming streets” (Althaus, 2013, n.a.). Within this understanding of the DV issue, TSJ provided the framework for the current President Peña Nieto’s National Programme for Social Prevention of Violence and Crime, introduced in 2013. This crime prevention nationwide programme is modelled after TSJ principles: following a socioeconomic approach on reducing violent crime in the country; fostering civic participation; and, with the collaboration of all government levels, the local, state and national levels. Several of the key actions proposed are similarly close to TSJ: increase the number of

scholarships and access to health coverage; safe schools' programmes; food subsidies; financial loans for small and medium enterprises; and, public infrastructure (ICG, 2015). However, the success of this programme remains questionable. A study in 2014 suggested only 21% of the initiatives involved a needs assessment of the risk factors based on mixed methods research, such as crime surveys and reports; unfortunately, as few as 28% of the actions entail impact indicators that can be measured (Mexico Evalúa, 2014).

Within the scope of the National Programme for Social Prevention of Violence and Crime, Peña Nieto's administration launched Plan Michoacán in 2014, fairly similar to TSJ but for the state of Michoacán. The \$3.48 billion dollars' programme centres on five objectives: improving educational levels with an increase in the number of scholarships provided and improvements in schools' infrastructure; micro-credits for small businesses and households; social development via the improvement of public infrastructure and the extension of already existing social projects (food banks, elderly services); and the construction of new hospitals for the health component (Molzahn, 2014). Similarly to TSJ, the initiative encompasses 250 actions within the aforementioned objectives. Nonetheless, one of the main principles of TSJ regarding civic participation has not been introduced in Plan Michoacán or the National Programme for Social Prevention of Violence and Crime, which was regarded as one of its best legacies (ICG 2015; Negroponte 2011). Moreover, the focus on poverty for this new drug policy shift remains with the current presidential administration, conflicting with this thesis quantitative findings regarding the negative relationship between poverty and DV levels in the country.

### [Linking TSJ with the theoretical frameworks and our empirical findings](#)

TSJ shares similarities with the projects developed by social disorganisation theorist Shaw, the Chicago Area Project, during the 1930s. The aforementioned initiative was also focused on crime prevention by strengthening the social ties within economically deprived neighbourhoods. The project integrated investment in public infrastructure; youth leisure initiatives; the promotion of local employment; and

mediation exercises between the authorities and youth criminals (Hopkins, 2014). UTC (Chapter V) also seemed share some similarities with the Chicago Area Project, particularly the public infrastructure and leisure initiatives; contrary to TI (Chapter II) which was mainly centred on business fairs.

The rationale behind these development packages is that impoverished communities are more vulnerable to the infiltration of DTOs; this is similar to the insights drawn from the bodies of literature on social disorganisation and institutional anomie in chapter III. The proponents of this type of initiative (TSJ) claimed that impoverished communities suffer from absenteeism and/or deficiencies from the State's response (Felbab-Brown, 2011); they lack the provision of basic services and public goods such as infrastructure, education, health, safety, and the legal mechanisms to resolve conflicts (Calderón, 2013). Frequently, the DTOs take advantage of the State's absence and try to fill in the power vacuum by providing these overlooked basic services and public goods, and promoting illicit economic activities within the poor communities (Felbab-Brown, 2011).

Nevertheless, our quantitative analysis of the multidimensional poverty components in Chapter IV did not correlate with this proposition, as the majority of the most drug violent municipalities and Mexican states were not the most impoverished; they did not have the highest levels of educational gap or low level of access to basic housing services (as a representation of the provision of basic services), and lack of access to health services did not show a trend in the data analysis for the period of research. In addition, our quantitative analysis on inequality suggested that the most drug violent states and municipalities were not characterised by the highest levels of inequality, but rather by the least changes in their Gini coefficient throughout the periods analysed.

Even if our quantitative findings did not correlate with the poverty and inequality propositions of SDT and IAT, these bodies of literature still provide us with insights to complement these findings for the particular case of Ciudad Juárez, as analysed in this chapter.

Several social disorganisation theorists argue that poverty is one of the influencing conditions for violent crime, and that its impact depends on how the other exogenous factors are controlled for and condition the impact of poverty. Juárez is not stricken by the highest levels of multidimensional poverty (Chapter IV) within the state of Chihuahua nor across the country, but it is possible that other exogenous factors proposed by SDT had a larger impact on DV than poverty.

This thesis did not take into account the other exogenous factors for the particular case of Ciudad Juárez, but we can draw from other studies that have examined these factors. The city is characterised by a high density of criminal offenders, as the USA expanded the deportation of former criminals during the 2000s, and many of these remained in border cities, such as Juárez (ICG, 2015). Local unemployment was at one of its highest levels resulting from the global financial crisis of 2008; by 2014 the employment levels had improved but still remained at a lower level than their peak in 2000 (ICG, 2015).

Juárez was also described as a city characterised by high levels of internal migration and population turnover due to the maquiladoras expansion. The city also experienced rapid population growth, as it doubled in the period 1980 to 2000 from 567,000 up to 1.2 million citizens (ICG, 2015). According to SDT, migration, residential mobility and rapid population growth hinder the development of social ties within communities, and weaken the informal social control exerted by social structures. Social networks are difficult to construct on these areas because a large amount of the maquiladoras' employees spent most of their time at the factories, due to the inadequacies of the transport system; in addition, their contracts are temporary, making it difficult to create social bonds and affecting the stability of their income. The children of these employees, who are sometimes single-parents, spent most of their time on the streets, as a result of a lack of their parents' or extended families' presence; this lack of parental control makes them more vulnerable to DTOs recruitment (Felbab-Brown, 2011). These particularities of Juárez are linked to SDT social structures, unsupervised teenage peer groups and sparse local friendship networks.

These other exogenous and social structures information could help to explain why Juárez become highly drug violent; not determined by high levels of poverty, as common assumption would dictate, but because of the aforementioned factors and dynamics having an impact on violent crime and closely related to the social exclusion described in our fieldwork.

IAT can also help to explain how the particular characteristics of Juárez have made it more prone to violence. IAT proposed that the economy had the most dominant role in the social institutions balance of power. As we have explored, Juárez does not suffer from high levels of multidimensional poverty nor is it considered to be one of the most unequal municipalities in the state. Chihuahua is not considered as one of the most unequal states in Mexico, as its Gini coefficient indicates (Chapter IV). The state's inequality levels have decreased from 0.50 in 2000 down to 0.44. However, this change in inequality levels has been lower than the national average for the three periods considered, 2000-2010, 2000-2008 and 2005-2010. For the particular case of Ciudad Juárez, the inequality levels showed a lesser degree of change than the average of the state; indicating that the socioeconomic ladder within this municipality is more rigid than throughout its corresponding state. These quantitative findings from Chapter IV indicate the importance of focusing on relative inequality levels rather than absolute terms; the states and municipalities that showed the lower change in their Gini coefficient (in comparison with the national average) remained static and were more likely to be considered drug violent; showing a specific relationship (correlation) between these two variables, but no specifics on its causation. This importance of the relative levels of inequality can correlate with the IAT proposition of how economic success is the most important value; since individuals regard their socioeconomic position based not only on absolute levels, but rather on their position's comparison with the rest of the individuals within their localities, pointing towards the importance of relative inequality and socially excluded communities.

Furthermore, the other social institutions proposed by IAT seemed rather weak in Juárez, when compared with the effect of the economy. The family, seemed to be characterised by single parents; the weaknesses of the polity was indicated by the

political neglect that characterised this city, and perhaps the cultural value of the “American Dream” was even stronger than in other cities in the country, due to its proximity to the border. The extension of the coverage for PROGRESA and Seguro Popular could be a reflection of the weak decommodification of labour, which also has a negative effect on violent crime. Moreover, anomie seemed to be constantly present in the state, as the homicide resolution rate was less than 1% in 2011.

### Conclusions: poverty- a constant in Mexican social policy

Mexican social policy has primarily focused on tackling poverty in the country making poverty a constant within social policy frameworks. Irrespective of the changes in the type of programmes, from food subsidies to CCTs, and the changes of presidential administrations from different political parties, the focus on poverty has remained consistent. Even when PROSPERA has been ‘rebranded’, it has only introduced slight variations in the levels of education and the inclusion of rural areas. The majority of the programmes that address social issues have been constantly implemented on a nationwide level, without regard for the communities’ particular needs, and the evaluation process has been considered a difficulty, making it difficult to assess their success. Similarly to the focus on poverty reduction programmes for social policy in the country, the growing drug policy shift persists on addressing absolute levels of poverty in the country.

Remarkably, the focus on Beyond Mérida remained on the traditional security-driven approach of drug policy in Mexico reflected on its first three pillars (Chapter II). The focus on “building resilient communities” exposed on pillar IV introduced a social focus alongside an emphasis on the rule of law, binational cooperation, and drug-related awareness campaigns and alerts. Moreover, Beyond Mérida provided a platform for the introduction of TSJ, the first local socioeconomic initiative implemented as a direct response to the high levels of drug violence in the country.

Beyond Mérida, and particularly TSJ, is considered as the beginning of a change in policy discourse, regarding the drug violence issue. Calderón initiated the integration of local socioeconomic initiatives, aimed at crime prevention, into its security-driven

drug enforcement strategies. Unfortunately, the implementation of TSJ was urged by a political controversy, and there were several weaknesses that characterised its design (needs assessment), implementation (time constraints and resources), and evaluation (success indicators and measurable outcomes).

The indicators for TSJ launched by the federal government were not properly identified as there were no needs assessments conducted to understand the real needs for the communities within the target city of Juárez; this issue was similarly faced by the two other local initiatives discussed on this thesis, the TI (chapter II) and UTC (chapter V) for the cities of Tijuana and Monterrey. Additionally, the success indicator of TSJ that has been used by its architect, Calderón, relies on the homicide rate before and after the programme's implementation. Thus, the selection of this criterion is not surprising, as the programme was introduced as a response to the high levels of DV in the city, and as a political manoeuvre to react to the mishandling of the murder of more than a dozen high school students, wrongly first referred to as members of DTOs. The decrease in the murder rate in the city has been regarded as a success indicator (Calderón, 2013); yet, others question the reliability of this allegation, especially as no indicators or evaluation has ever been conducted (Molzahn 2014; Guerrero 2013). Similarly, the success indicators of both TI and UTC remain an unknown.

TSJ has not only become Calderón's legacy in social policy, but has also served as a model for the current government administration's social policy. President Peña Nieto introduced its National Programme for Social Prevention of Violence and Crime as one of its agenda priorities and Plan Michoacán is the most recent local initiative within this framework, based on the TSJ model. The parallels running between these two local socioeconomic initiatives (TSJ and Plan Michoacán) implemented by the federal government indicate the governments' persistent poverty-driven model for social policy to address high levels of drug violence at a subnational level. Whether this model will be successful in addressing DV in the long term is yet to be studied.

Moreover, as has been reviewed throughout this thesis, there is a common assumption that there exists a positive relationship between poverty and DV levels. Our quantitative findings throughout this thesis, however, have indicated that it is

not the most impoverished states (within the country) or municipalities (within their respective states) which are characterised by high levels of DV. On the contrary, it is repeatedly the most drug violent subnational units which are characterised by higher levels of development; in particular, lower levels of multidimensional poverty and a lesser degree of inequality. It is frequently the municipalities and states not showing any changes in their Gini coefficient, the static units, the most drug violent ones in comparison with their respective states and nationwide. These quantitative findings rather suggest a negative relationship between poverty and DV, contrary to what the Mexican government has introduced into its emerging drug policy shift. These counterintuitive quantitative findings and the recurring theme of social exclusion during our field research highlight the importance of the availability of opportunities for the population and the flexibility of the socioeconomic ladder; placing the focus on the relative levels of poverty and inequality becomes more significant than the absolute levels, as well as on socially excluded communities who might rely on DTOs as parallel power structures to the government to fulfil their basic needs. Dickenson (2014) agrees and suggests focusing social programmes not only on poverty and inequality, but more specifically, to provide opportunities for the youth and reduce their unemployment level, in order to target the DTOs recruitment candidates and decrease their membership.

Thus, as the Mexican government's emerging shift on drug policy relies tackles poverty, similarly to social policy in the country, addressing poverty levels remains the consistent approach for these two policy frameworks and their merging results on the 'criminalisation of poverty' by mobilising a focus on absolute poverty levels within their understanding of the social roots of DV in the country. The governments' policies show a misdiagnosed understanding of the relationship between DV and poverty: alongside the authorities' implementation of social local initiatives targeting the most impoverished communities, our research indicates the actual relationship between poverty and DV levels is negative, suggesting the most drug-violent municipalities are actually the least impoverished ones. Our findings on inequality indicate it is not the most unequal municipalities the ones that suffer from the highest levels of DV, but rather the localities that have not experienced significant

changes in their Gini coefficient levels in the last decade; this follows with our interviewees' reference to social excluded communities having the largest risk factors for DTOs recruitment grounds. Moreover, the tunnel-vision on poverty as the sole social issues strategy for tackling drug violence in the country illustrates the authorities' appetite to further understand the relationship between poverty, inequality and DV in the country, as this research has explored in detail.

In conclusion, the policy significance of our quantitative findings calls for a different approach regarding socioeconomic local initiatives, particularly an end to the criminalisation of poverty to address DV in the country. As poverty remains the main selection criteria for these type of programmes, as with TSJ and UTC, their lack of success demands for their design and implementation to be redefined, especially considered the actual negative relationship between poverty and DV revealed in this research and the integration of social exclusion as a key determinant of DV. Local programmes should be designed and implemented following the local needs of communities, and particularly socially excluded communities should be placed as the main targets for these type of programmes, given our qualitative findings. The broader findings of the study question the current government understanding of the relationship between inequality, poverty and drug-violence and demand their relationship should be carefully revisited and integrated into the emerging drug policy shift.

## CHAPTER VII: CONCLUSION

“...The interest in absolute poverty at the expense of relative poverty-invites a consideration of the links between poverty and inequality that need to be incorporated into an adequate understanding of poverty dynamics and appropriate remedies” (Phillips, 2010, p.160).

### Original contributions from our research

This thesis addressed the central research questions of whether there exists a relationship between poverty, inequality and drug-violence in Mexico, what accounts for the nature of this relationship and, what are the implications for government policy. The thesis contributes to the academic debates on drug violence in the fields of politics, development studies and criminology, particularly the scholarly literature on drug policy and drug violence in Mexico. The two broad empirical findings contribute towards a more detailed exploration of the under-researched social drivers of drug violence in Mexico and its wider policy applicability and they represent the research’s main contribution.

Firstly, the two key empirical findings contribute to the comprehensive investigation of the social roots of Mexico’s drug violence. As the academic literature regarding the social dimensions of drug violence remains scarce, the thesis introduced an empirical analysis of two social dimensions of drug violence-inequality and poverty-in order to evaluate their relative importance in explaining patterns of drug violence and their relationship to drug violence in Mexico. The descriptive statistics on the 32 Mexican states resulted in two broad empirical findings-there exists a negative relationship between multidimensional poverty and drug violence as most drug-violent states and municipalities had the lowest levels of multidimensional poverty; and, the relationship between changes in inequality and drug violence is also negative, given how the most drug-violent sub-national entities have not experienced a substantial Gini coefficient change (either increase or decrease), emphasizing the significance of relative inequality levels. The empirical analysis also examined the correlation between poverty and drug violence in the Metropolitan Area of Monterrey which also showed a negative relationship; as well as the

relationship between changes in inequality and the violence in question resulting in a negative correlation as observed with the national trend.

Our research showed that it is not the most impoverished or most unequal states and municipalities that are characterised by the highest levels of drug violence in the country; rather, it is the ones with the relatively higher levels of development, reflected in lower levels of multidimensional poverty. Moreover, it is the sub national entities showing the lesser change in their Gini coefficients, translated as a strong rigidity in their socioeconomic ladder, the most drug violent within their respective states, and throughout the country. Thus, the thesis stresses the importance of focusing on relative levels of inequality and poverty within and between states, rather than evaluating absolute levels, as well as the significance of social exclusion.

Social exclusion emerged as part of the MMA case study, used to explore the explanations behind the broad empirical findings-the counter-intuitive negative relationship between poverty and DV, and between inequality changes (regardless of an increase or decrease) and DV. The MMA allowed to explore the complexity of the participants' perceptions about the relationship between drug violence, inequality and poverty in the area.

Secondly, the two broad empirical findings offer a wider policy applicability given the government's increasing focus on the social issues of DV reflected in local poverty reduction programmes. The governments' understanding of the social dynamics of drug violence in Mexico has been inadequate, as it has misunderstood the role of poverty and overlooked the effect of relative inequality and social exclusion. This policy direction of focusing exclusively on absolute poverty results in a misplaced understanding of the problem given the research's counterintuitive findings, which explains why drug policy in the country has not been effective.

The main argument of the thesis is that the government's increasing focus on the social issues of DV is significant, but its exclusive concentration on the issue of absolute poverty is misplaced, and can only capture a part of the problem given the social settings in which DV is embedded. The empirical analysis and qualitative findings indicate that in terms of drug violence patterns, relative inequality and social

exclusion seem to be more important than absolute poverty, insofar as the government policy shift places the focus exclusively on anti-poverty measures. The policy tendency to concentrate entirely on absolute poverty results in a limited approach to address the DV problem, which explains why government policy has not been as effective, given the findings from this study.

### Revisiting the key findings from the chapters

This section will revisit the key findings and insights throughout the thesis following the study's structure.

Given the high levels of drug violence in the country (chapter I) and the ineffectiveness of the traditional security-driven approach on drug policy, the Mexican government introduced an emerging policy shift within drug policy frameworks that incorporates the social dimensions of DV. The traditional security-driven approach has been ineffective in addressing the high levels of DV given its short and long-term effects that have resulted in the fractionalisation of the DTOs, the diversification of their illegal economic activities and the dissemination of the DV in the country. These detrimental effects alongside the corruption that permeates the Mexican political institutions has resulted in high impunity and victimisation rates. All of these adverse results indicate how the Mexican government's policies to address DV have been largely unsuccessful, and helped to introduce why a growing policy shift, incorporating anti-poverty measures, might be gaining momentum considering the failure of the traditional approach (chapter II). The implications of examining the literature surrounding the failure of the security-driven drug approach allowed us to explore the gaps within the scholarly literature of DV in Mexico, such as the social dimensions of DV which this research incorporates.

The cooperation between Mexico and the USA in drug enforcement efforts, particularly the Mérida Initiative, have provided a platform for this emerging drug policy shift. This growing policy shift justified the rationale behind this thesis in policy terms in order to understand the government's mobilisation of the social dimensions within drug policy frameworks; and, in academic terms given the scholarly debates

regarding the expected positive relationship between poverty, inequality and violence (chapter II). The significance of this drug policy shift demanded a detailed understanding of the relationship between drug violence, inequality and poverty, which our main research questions address; and, the wider policy applicability of the social drivers of DV, including their mobilisation in drug policy frameworks and effectiveness addressing DV (chapter I).

Our third chapter set out the theoretical framework to help inform our quantitative and qualitative findings. The academic debates (SDT, IAT and EI-PC) surrounding the relationship between poverty, inequality and violence (given the lack of corresponding drug violence literature) suggest a positive relationship between these variables; meanwhile, the academic literature on the particular case of drug violence and its relationship to poverty and inequality remained scarce and this thesis aimed to address this gap in the academic literature. Moreover, these scholarly debates helped to construct the operationalisation of the thesis, SDT helped inform the empirical findings on the multidimensional levels of poverty and the nature of its relationship with patterns of DV and the discussions surrounding the case study of the Monterrey Metropolitan Area (MMA). IAT helped to evaluate the relative utility of inequality levels, whilst the EI-PC nexus helped to indicate the importance of the relative levels of inequality and poverty, rather than absolute levels (chapter III).

Our broad empirical findings concluded the relationship between multidimensional poverty and DV is negative, as well as the relationship between inequality changes and DV is negative. The critical insight from the analysis of the multidimensional poverty components is that the most drug violent states and most drug violent municipalities within the state, and throughout the country, are not the most impoverished ones; normally, the most drug violent municipalities have lower levels of multidimensional poverty than the average of their corresponding state. Our empirical findings challenge the academic debates as they conclude that for the particular Mexican context and in the year of 2010, the patterns of absolute poverty and drug violence do not correspond. Thus, relative poverty presented the most empirically significant explanation (chapter IV).

The second critical empirical finding showed how it was not the states or municipalities with the highest levels of inequality, which were characterised by the highest levels of drug violence. The critical insight suggests the most drug violent units of analysis have experienced a lesser degree of change in their Gini coefficients than their corresponding units, during the periods analysed. This analytical insight seems to indicate that the Mexican states and municipalities that do not experience any significant changes in their inequality levels, tend to be drug violent, regardless of whether the change is a decrease or an increase of the Gini coefficient, emphasising the significance of relative inequality levels (chapter IV).

For the particular case of Nuevo León, following our case study of the MMA, the correlation coefficient between each multidimensional poverty component and DV was also negative and had a low to medium effect, following the trend on the national level. For the case of changes in inequality levels, the effect is low and negative, also following with the nationwide trend explored. These two broad empirical findings regarding correlation between drug violence, poverty and inequality did not involve causation, but they help to understand the nature of their relationship. Moreover, they revealed that the conventional understanding of poverty and socioeconomic inequality in absolute terms should not be our only focus; attention needs also to be placed on relative levels of these two variables (chapter IV).

In order to test the empirical findings, we explored why we obtained these results within the particular case of the MMA, drawing from our interviewees' complex perceptions on the nature of the relationship between DV, poverty and inequality. The most recurring theme within the qualitative material was social exclusion as a means of explaining high levels of DV in an economically developed city, such as the MMA, and its influence on DTOs membership. This provided further justification for our case study given how the MMA has low levels of poverty but still high levels of DV. Within the explanations for DV, several mentioned it erupted when a socially excluded neighbourhood was close to a rich one, pointing towards the importance of social exclusion and relative levels of economic inequality (chapter V).

The quantitative and qualitative findings managed to reveal two contrasting, but still accurate realities of the social roots of Mexico's drug violence, highlighting the importance of using a mixed methods approach to understand not only the correlation between our variables, but the explanations behind them. As our analytical findings contested the dominant assumptions in scholarly literature; our qualitative material provided a contrasting reality that did follow with the academic debates and theoretical frameworks analysed given the expected positive role of poverty and lack of education on DTO membership. Still, most interviewees agreed that DV was not predominantly influenced by absolute levels of poverty and more than often described social exclusion as a main determinant for DTOs recruitment and drug-violent communities (chapter V). The research contends that the focus should be rather placed on the relative levels of poverty and inequality and on social exclusion as indicated by our qualitative findings.

As the collaborative drug enforcement efforts between Mexico and the USA deepened during Calderon's administration, Beyond Mérida and TSJ provided the platform for the introduction of the emerging drug policy shift, resulting in the Juárez model, closely related to our theoretical frameworks. The merging of social policy with anti-poverty measures within drug policy frameworks results on the 'criminalisation of poverty' by mobilising a focus on absolute poverty levels within the government's understanding of the social roots of DV in the country. Given how the majority of the social programmes in the country have been implemented on a nationwide level, the implementation of local socioeconomic initiatives (TSJ, UTC and TI) involved large policy implications; if the local community's needs could be assessed, these socioeconomic packages could tailor for the specific needs of the community and be more effective in targeting DV (chapter VI).

### [Reflections on the value and limitations of the study](#)

The value of the research relies on the two main contributions regarding the investigation of the social drivers of DV in Mexico and its wider policy applicability based on the two broad empirical findings.

The collective significance of the wider policy applicability of this thesis' findings is that if the government integrated our research's empirical and qualitative findings regarding the social dimensions of DV into drug policy frameworks, they could develop tailored local socioeconomic initiatives aimed at tackling DV that would take social exclusion and changes on inequality levels as their main consideration, after a careful local needs' assessment, rather than absolute poverty levels. The wider policy applicability of this finding would have significant effects drug policy. Moreover, the government could conduct a detailed analysis of the local social dynamics characterising the target population, in order to tailor the local society's needs and define success indicators for their evaluation. In addition, the government could continue with this local approach on DV by expanding the emerging drug policy shift to different DV municipalities throughout the country in order to test its success.

The thesis not only contributes to the academic literature surrounding DV in Mexico and its social drivers, but also challenged the scholarly debates examining the relationship between poverty, inequality and violence, for the specific case of drug-related homicides in the Mexican context.

The mixed methods approach used on the research allowed us to explore both empirical and qualitative findings, analytical results regarding the correlation between drug violence, poverty and inequality; and, qualitative findings exploring the explanations behind such results for the particular case of the Monterrey Metropolitan Area.

As well as considering the value of this research, attention must be placed on the several limitations of the study. Our empirical findings only provide a snapshot of the problem for the particular Mexican context in the year of 2010. In order to further their validity, more empirical analysis would be needed for other years and further data is necessary on a municipality level in order to consider the effect of other variables on violent crime, as proposed by SDT and IAT. The correlations explored between DV, poverty and inequality did not entail causation, and the participants' perceptions on the explanations behind this relationship could only be explored for the particular case of the MMA. Conducting field research on another drug-violent

city, such as Juárez, could have further explored the explanations behind the empirical analysis and the perceptions on the TSJ effects.

There were also several challenges regarding the government's data on drug-related homicides given their lack of availability after the change in presidential administration and how this politicisation of the figures made it difficult to conduct further empirical analysis. In addition, there was a lack of further data on a municipality level in order to consider different type periods and further the empirical findings validity.

### Future research directions

As the previous sections have revisited our main findings stemming from the research questions and have set forward our original contributions, this thesis opens up several opportunities for future research directions.

Firstly, the research points to further areas of scholarship by extending the fieldwork, in order to incorporate more drug violent and non-drug violent states and municipalities as case studies. This extension of the field research would be relevant as it could provide a platform for comparative analysis between the most drug violent and least drug violent sub national units, that could help to construct a more accurate and detailed perspective of the social dynamics embedded within DV.

Moreover, the counterintuitive quantitative findings indicate more research is required in order to understand their application and validity; future research could extend the research period in the country to analyse in more detail the pre and post drug violence spikes.

In addition, following social disorganisation and institutional anomie theories, more variables could be examined at a subnational level for the quantitative analyses if they become available on a municipality level; the latter is important as it would allow the measurement of other variables conditioning the effect on drug-related homicides. Integrating the remaining exogenous factors for SDT, such as local unemployment, migration, percentage of rental housing, and high density of

offenders for state and municipality levels, could help to provide a more detailed account of how these indicators interact with each other. As well as how the aforesaid variables help condition the effect of poverty on drug-related homicides. Along the same lines, we propose analysing the remaining social institutions for IAT at a subnational level, including voter turnout for polity; divorce rates for family; church membership for religion; and further explore education by incorporating performance indicators. If this data became available on a municipality level, the aim could be to show how the aforementioned indicators help lessen the impact of social inequality on DV. By integrating all of the aforementioned variables, we could further test the applicability of both IAT and SDT for the specific Mexican case in the period of research, and, examine whether the propositions of these bodies of literature apply for drug-related homicides.

There is also a clear need for analysing the long term effects of the local socioeconomic initiatives implemented to tackle drug violence, by conducting field research in the locations where these have been implemented, Juárez and Tijuana, and, thus, observe in more detail the key actions proposed and their impact on the localities. If this approach on local socioeconomic initiatives continues throughout the changing presidential administrations and is implemented in different localities in the country, it would be extremely helpful to examine how these programmes are implemented, in order to analyse if there are any improvements in their design, implementation and evaluation and what is their actual effect on drug-violence levels.

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