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Diego Flores

Fulbright Garcia-Robles Fellow

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How Can Economic and Social Marginalization Explain Mexico’s Drug War Violence?
An Assessment of the Role that Poverty and Social Marginalization Plays in Explaining Variations in Homicide Rates.

Diego Flores
April 25, 2022
Political Studies, Pitzer College

The violence characterizing the Mexican drug war necessitates studies that seek to understand the causal mechanisms at play in prompting this violence. Given that ongoing violence, is inherently a multicausal phenomenon, this study seeks to understand the role that marginalization plays in the increase of violence, specifically homicide rates in 2010 at the municipality level. The relationship between the independent variable, marginalization indexes of all Mexican municipalities, is run in multiple least squares regression with the dependent variables homicide rates per 100,00 also at the municipality level. I hypothesize that an increase in the marginalization index will lead to an increase in homicide rates at the municipal level; municipalities with higher levels of marginalization will have higher levels of homicides and vice versa. My findings result in statistical significance with the novel model and statistical insignificance in the multiple regressions that include control variables. The relationship between the two variables is inversely correlated, suggesting that municipalities with lower levels of marginalization can, to an extent, predict higher homicide rates. That is, many socially and economically “better off” municipalities are bearing the brunt of violence from the drug war. Lastly, through quantitative analyses, this study reaffirms the characteristics of municipalities facing the brunt of violence: they tend to be relatively well off to moderately well off, rural municipalities nestled in between much larger cities. These results suggest the need for different approaches in understanding the multicausal phenomenon of violence related to the drug war, such as smaller units of analyses that look at this relationship at the locality or even neighborhood level.
Acknowledgements

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I would like to acknowledge the love for my family whose foundation has propelled me to heights and spaces I did not know I could reach. For them, I am determined to continue pursuing research and opening formerly inaccessible spaces so those who follow will feel capable and supported. I am also incredibly grateful to Professor Omar Wasow for showing me the joy in statistical analysis and lending incredible support with the minutiae of coding. I owe a big thank you to Professor Geoffrey Herrera for being a flexible, supportive thesis advisor as well. Lastly, I am indebted to the folks at the Ralph Bunche Summer Institute at Duke University for the incredible investment they undertook in my studies as a young quantitative scholar.
Introduction

Since its inception, the War on Drugs (WoD) in Mexico continues to have consequential impacts on Mexican society, the political system, and human rights more broadly. Felipe Calderon (2006 - 2012) and his administration are markedly defined by their swift declaration of Mexico’s “War on Drugs.” Specifically, this meant increased militarization and shifting national strategies characterized by interdiction efforts, a ‘decapitation approach’ targeting drug-trafficking organization’s (DTOs) highest leaders, and a growing role of army forces in civilian law enforcement (Grayson 2012: 3). In addition, militarization meant the deployment of thousands of army, navy, and federal police forces to states with high drug trafficking activity and levels of violence (Grayson: 69). Only ten days into Calderon’s presidency, he deployed 4000 federal troops to his home state to pacify the increasingly violent state and highlands (Parish Flannery 2013). Subsequent operations deployed thousands of troops to Baja California (January 2007), Nuevo-Leon (January 2008), Tamaulipas (January 2008), and Chihuahua (March 2008), among other locations.

Calderon’s presidency is often seen as representing the height of the War on Drugs in Mexico given his swift declaration of the drug war, overt military deployment, and initiation of the Merida Initiative in 2008. The initiative is a joint US-Mexico security agreement aimed at counter-narcotics efforts in Mexico through intelligence sharing, efforts to institutionalize the rule of law, and the provisioning of military supplies and training. Evidently, the United States plays a significant role in promoting the Mexican war against drug trafficking through the appropriation of over $3.3 billion in aid (Congressional Research Service 2021). Despite the Calderon administration often characterized as the face of the drug war, Marcos Moloeznik’s (2006) analysis of public security and police reform in Mexico during Vicente Fox’s presidency
(2000 - 2006) suggests the need to view preceding and subsequent administrations as continuing or strengthening the militarized policies of past presidencies. While current president Andres Manuel Lopez Obrador (AMLO) has declared an official end to the drug war in January 2019 (Presidency of the Republic 2019) the entrenchment of punitive security policies, such as the consolidation of a Mexican national guard and ongoing military deployment to combat cartels, remain strong. From the start of the war on drugs in 2006 to AMLO’s current presidency, violence as a result of the drug war serves as one of Mexico’s insurmountable challenges. While violence remains a multicausal phenomenon, what is certain, are the chronic rates of acute violence that plague Mexico. The question stands: What explains all of this violence?

The number of homicides occurring in the country as a result of the “war” presents staggering evidence of the larger reverberations and impacts felt in Mexican society. While there are varying accounts of the official homicide tally, it is well agreed upon that the war on drugs has had devastating impacts on human life and the generation of violence in Mexico. Human Rights Watch (Wilkinson 2018) notes that since the war’s declaration in 2006, Mexico’s total homicide count was a staggering 240,000 people. This count, however, is the total number of homicides since 2006 and not the number of homicides directly related to the war on drugs. When releasing official data in January 2011, the Calderon administration attributed only 34,000 homicides to violence arising from organized crime during 2006 - 2011. Other scholars (Calderon, et al., 2015, Shirk & Wallman 2015) place the homicide rate since 2006 at somewhere between 60,000 - 70,000 based on Mexico’s official data and other sources. Despite the varying data on homicide rates from the conflict, scholars have demonstrated the correlation between increased homicide rates and the start of the war in late 2006 (Merino 2011, Shirk & Wallman 2015). This correlation is further emphasized when considering that homicide trends
observed a steady decline from the 1900s to the mid-2000s. Specifically, homicides dropped from 16.9 per 100,000 in 1995 to 8.1 per 100,000 in 2007, according to INEGI (2021), Mexico’s national statistics and geography agency. Mexico experienced an annual decline in homicides of 2.6 percent from 1990 to 2007 (Shirk & Wallman 2015), yet this is sharply contrasted with the dramatic rise in homicide rates of 2008 that show increases of more than 57 percent in 2008. Homicide rates continued to show an upward trend with increases of 41 percent in 2009, 30 percent in 2010, and 5 percent in 2011 according to INEGI data and Shirk and Wallman’s (2015) observations.

Violence has unequivocally defined the Mexican situation; thus, it becomes imperative to study the multi-faceted dynamics of violence as a way to understand Mexico’s seemingly incessant drug war. Empirically, scholars seek to understand the causes of such a dramatic increase in violence in the past decade by analyzing various causal factors like the government’s ‘decapitation strategy’ (Calderón et al., 2015) that disrupts cartels and leads to significant intra-cartel fighting among cartels and hence violence from the resulting disputes. Through innovative studies, data, and methods, scholars such as Calderon et al., Melissa Dell (2014), and Eduardo Guerrero (2011) find that leadership capture policies and state crackdowns on drug trafficking are indeed significant causes of violence due to territorial inter-cartel fighting and intra-cartel disputes that result from disrupting the existing structure of cartels.

What is often less discussed in the literature exploring the violence of the war on drugs is poverty and the economic wellbeing of the Mexican populace. The extent of poverty in Mexico is dramatic but revealing of important details. Mexico’s official multidimensional poverty measure collects data on economic wellbeing and six factors indicating social deprivation to observe a more accurate picture of what the government terms marginalization. In 2018, 42% of
Mexico’s population lived in poverty, or roughly 52.4 million people in the country (Inchauste 2020). Poverty and violence are inextricably related but what role does poverty have in explaining variation in homicides from the war on drugs? Does poverty play as influential of a role as other explanatory factors like government crackdowns, captures of cartel leaders, or a municipality’s location in or near an established trafficking route? These questions are necessary to further understand the complex nature, dynamics, and causes of violence from the war on drugs. In this paper, I seek to assess the relationship between marginalization (i.e. poverty and social deprivation) and drug war homicides in Mexico in 2010. Specifically, to what extent does marginalization explain variation, either increases or decreases, in homicides directly related to the WOD in 2010? Are municipalities with higher rates of marginalization experiencing higher homicide rates and vice versa? Furthermore, my question asks whether marginalization leads to disproportionate deaths among marginalized peoples throughout Mexican municipalities in 2010. In doing so, I hope to accomplish two goals: empirically assess how the drug war falls disproportionately on Mexico’s impoverished and how poverty can be thought of as an additional explanatory variable in the ongoing drug war violence. Furthermore, this study has the potential to inform the pressing debate surrounding the reduction of violence from the drug war. The paper looks at homicides from the drug war in 2010 using Princeton’s Empirical Studies of Conflict (ESOC) database which is originally sourced from the Mexican government’s database on drug war homicides. Homicide data at the municipality level will be cross-referenced with Mexico’s marginalization indexes, also at the municipality level, and empirically tested through a bivariate regression.

The rest of the paper is organized as follows. The second section will explore literature on the relation between violence and poverty and existing explanations of violence in the
Mexican context. The third section presents the theoretical underpinnings and hypothesis that assesses how marginalization, both economic and social, contributes to variation in homicide rates in 2010. The hypothesis predicts how poverty can be understood as an additional explanatory factor for increased drug war homicides. The fourth section describes the methods and data used. The fifth section summarizes the results and empirical approach while the final section discusses the results.

**Literature Review**

What set of factors influence and explain the increases in violence related to the war on drugs in Mexico? Broadly from conflict studies literature, major root causes of violent conflict (armed conflict, ethnic-racial conflict, etc.) in developing countries are structural and include political, economic, and social inequalities; acute poverty, economic stagnation, and unemployment; poor and inadequate government services, and individual economic incentives (Stewart 2002, 2001, Hoeffler 2000). Scholars have long looked at violent conflict in developing countries (Mansfield, E.D., and Snyder, J., 2007) but less attention has focused on drug war conflicts and its resulting violence. There has been a growing and rich literature exploring the dynamics, causes, and consequences of violence from the drug war in Mexico and Latin American more broadly. Since the war on drugs in Mexico is an ongoing conflict, the question surrounding the causes of violence is constantly evolving and is receiving renewed attention. Much of the empirical literature explored below overlaps with the theoretical explanations of armed conflict in peace and conflict studies mentioned above, but with a more precise focus. The literature explaining the dramatic increase in violence in the past decade and a half can be split into two broad categories, namely, that which links the rise in violence to Mexico’s process of democratization at the end of the 20th century and that which links rising violence to specific
Mexican policy approaches such as the ‘decapitation strategy’ and continued government incursions against DTOs.

Before diving into the literature explaining the causal and explanatory factors explaining increases in violence it will be helpful to establish an historical context and assess why drug trafficking has proliferated in Mexico. Cartels are an integral part of the Mexican economy and have been since the early 20th century when Mexican police were found to be selling drugs seized in raids and allowing imprisoned traffickers to continue their trafficking operations (Knight 2012). Furthermore, cartels are estimated to bring in annual revenues of anywhere from 25 billion to 45 billion dollars for the Mexican economy. (Friedman 2010; Reuters 2011). These figures, alongside evidence of DTOs’ connection to vital sectors of the economy (banking, stock market, etc.), provide insight into the entrenched relationship between drug trafficking operations and the Mexican economy (Burnett 2014; Gallegos 2020). The state is not simply corrupted by drug trafficking and cartels, as is usually concluded. Instead, it is best to frame both actors as co-existing with mutual benefit and exchange occurring between the two. With this in mind, it becomes clear how part of the proliferation of drug trafficking is undoubtedly due to the state and law enforcement’s complicity. Mexico was controlled by the Institutional Revolutionary Party (PRI) for 71 years from 1929 until 2000 providing centralized and hierarchical governance at almost every level of government. The flourishing relationships between the PRI’s regime and drug trafficking have been well documented (Snyder & Duran-Martinez 2009, Astorga 2001, Rios 2015). What this meant for drug trafficking were relatively stable regimes that, when working in conjunction (political donations, impunity, corruption, etc.), would be able to protect at most if not all levels of government (Shirk and Wallman 2015, 1359). Thus, with institutionalized one-party rule, there existed more relative stability in drug trafficking operations
that sharply contrast the shocking increase in violence experienced so flagrantly today (Morris 2010). Therefore, it is important to understand both the state and drug trafficking organization’s when considering the rise in violence in Mexico since 2006, rather than focusing solely on DTOs violent tactics and overemphasizing a one sided influence in the drug war dynamic of violence.

The claim that the process of democratization has led to increased violence and conflict, initially, sounds contradictory to expectations. Is increased democratization not beneficial and an ultimate goal to strive for? This branch of literature does not argue against the benefits or virtue of democratization, but rather analyzes how democratization in Mexico in the past four decades had unintended consequences for the increase of violence. After the fall of the PRI and subsequent democratization in 2000, Mexico experienced increased electoral competition, mixed party government, and political alternation. Several scholars argue that this broader democratization had impacts on the generation of violence by creating what Shirk & Wallman refer to as “fissures within the structure of governance,” (2015). Viridian Rios (2015) refers to these political fissures as “uncoordinated governance” across various political offices while Duran-Martinez (2015) refers to the process as “fragmented governments.” Regardless of terminology, these scholars argue that the democratization process is an indirect cause of the violence from the drug war because political change, competition, and alternations disrupted the relatively stable arrangements and mutual understandings between corrupt officials from the PRI and drug trafficking organizations. With the rise of political competition and pluralism, high-up bribes no longer translated into impunity and protection from the government across all different levels of governance. According to these scholars, the disruption of coordinated agreements meant DTOs no longer had guaranteed impunity and were more vulnerable to competition
among other trafficking organizations, thus resulting in more violence as matters of protection and competition were taken into their own hands.

Furthermore, increased political participation and pluralism from opposition parties made the governance process difficult because of documented sabotage from outgoing PRI governments (Espinoza Valle 2000; Rodriguez & Ward, 1995) and the inexperience and lack of capacity from new incoming administrations. The increased difficulty in governance means inadequate responses and navigation from the incoming administrations when it comes to handling drug trafficking-related violence or negotiations (Rodriguez & Ward 1994). A more recent complement to the democratization explanation is provided by Sandra Ley and Guillermo Trejo (2020) who find that political fragmentation at the national, gubernatorial, and municipal level has a significant effect on inter cartel violence. Just as important, however, the authors remind us that explaining the drug war violence is a multi-causal phenomenon that, like most conflicts, is not as straightforward as one may think.

The second major explanation that provides concrete, empirical support for the dramatic increase in violence, specifically homicides, in the late 2000s posits that militarized government policies have a more direct role in causing the sudden increase in violence. Both Calderon et al., (2015) and Osorio (2015) provide rigorous empirical studies that assess the relationship between the start of former President Calderon’s policies of military intervention and leadership arrest or capture and increases in homicides. Calderon et al. put forth four possible ways in which the dominant policy of leadership capture during former president Calderon’s administration may lead to increases in homicides: Captures may cause violent succession struggles within cartels; secondly, it may lead to inter cartel fighting for mutually prized territories; thirdly, it disrupts command chains that play a role in maintaining discipline and order; lastly, capture may lead to
violence from cartel retaliation in response to the initial crackdown of the cartels. After comparing (treated) municipalities where a leadership capture occurred with a (control) municipality where a capture did not occur, they conclude that there are substantial homicide increases of 30 to 34 percent in all types of violence across all neighboring municipalities. They also find that violence in places where a cartel leader is captured was concentrated in the first six months after the capture but the general spillover effects of leadership capture were more permanent (1481). Osorio, in his rigorous coding of thousands of documents containing reports of cartel and government violence, similarly finds that assaults, arrests, and seizures from the government, have a substantial positive effect on generating violence among trafficking groups the following day in the municipality where the intervention occurs. Lastly, there is growing literature about the effects of international government policies that disrupt drug supply chains and as result lead to increased violence. In Castillo, Mejia, and Restrepo’s study (2013), they find that the supply reduction of cocaine, caused by Colombian government policies, leads to an increase in the selling price and therefore more profitability. With more profitability, there was an observable uptick in violence due to cartels fighting for an increasingly profitable but shrinking market due to policy induced supply shortages.

While these bodies of literature provide strong explanations for the dramatic increases in violence from the drug war they are not without shortcomings. For example, poverty invariably operates in the dynamics of the drug trade, drug war, and resulting violence, yet it is rarely mentioned in research that seeks to explain ongoing violence and high rates of homicides in Mexico. The link between poverty, crime, and violence are generally well established yet many of these studies ignore the overall effect of poverty on homicide rates from the drug war. The aforementioned studies either omit poverty or only mention it briefly. In Mexico in 2018 where
42% of population lived in poverty, roughly 52.4 million people, it is evident that the relationship between poverty and homicides requires thorough inquiry. Questions of the policy implications, the violence generated, and causes of the violence continue to be studied, yet there are significant gaps in the literature regarding the suspected effect poverty plays in causing variation in homicides related to the war on drugs. Given this, I seek to study the impact that poverty has in explaining the increased violence from drug trafficking in 2010. Again, my research question asks how poverty may be an explanatory factor in the dramatic homicide rate in the year 2010 while the war on drugs was at its apex. Assessing the relationship between these two variables remains a crucial task to inform the larger debate that seeks to understand how violence in Mexico can be reduced. This paper will open the door to further studies that seek to understand the relationship between marginalization and drug war violence.

**Theory and Hypotheses**

The relationship between poverty, crime, and violence have been generally well established in the social sciences. For a long time, literature that looked at class and delinquency and poverty and violence suggested that the poor engage in more crime and interpersonal violence. This perspective explains the persistence of poverty and its accompanying consequences, such as violence and crime, as a consequence of the subculture of poverty (Banfield 1970, Murray 1984). Much of this literature focuses on the individual as a unit of analysis and relates the cultural aspects stemming from poverty and those living in poverty as a main cause of violence and crime. On the other hand, there are structural perspectives that relate poverty to the persistence of structural inequalities like the historical, economic, political, and social arrangements of specific societies (Wilson 1996; Massey and Denton 1993). In this branch of literature, structural phenomena, like racial stratification of the United States and the changing
international economy (deindustrialization, neoliberal restructuring, etc.), are major causes for the plight of those living in poverty. Social disorganization theory, which borrows from both aforementioned branches of literature, posits that breakdowns in community organization and cohesion, that result from the impacts of poverty, can foster an increase in violence (Crutchfield & Wadsworth, year). Poor communities, neighborhoods, or municipalities are not inherently disorganized or dislocated. The impacts of poverty lead to social dislocations, such as mobile populations, disrupted families, and weak community institutions, which are often a result of government disinvestment or neglect. As a result, social dislocation makes populations' proximity and association with violence much closer (Sutherland 1947). These theoretical explanations of the relationship between poverty and violence are helpful for explanatory interpretation but should be expanded to move past the “pathologies of poverty” to the critical poverty-conflict nexus (Marks 2016).

Poverty and conflict are closely related particularly in developing nations. Factors such as poverty, low per capita income, and large populations correlate with armed conflict and civil war (Marks 2016). Poverty can lower a government's resilience to respond to conflict by weakening institutions, state capacity and challenging the state's monopoly on violence and control (Marks). Conversely, poverty may also reduce the ability for communities to mount resistance against particular issues due to the increases in social dislocation that weaken community cohesion or community institutions, among other factors. Of course, poverty and its subsequent impacts are not the singular cause or explanation of conflict, but they have significant influence on and correlations with violence and conflict.

Essential to linking marginalization in Mexico with violence, is the literature that seeks to understand the way DTOs behave. Monica Medel, et al. (2014) takes an economic geography
and network analysis approach to model drug smuggling routes toward the US, using an explanatory model considering physical, socio-demographic, drug violence, and transportation cost factors. Key to this approach is treating DTOs as rational, economic actors seeking to maximize profits while minimizing costs and risks (2). As such, a key proposition of the paper is that “in addition to distance, the cost to traverse a path [smuggling route] depends on the quality of roads, population density, land use cover type, and poverty in the areas along the roads,” (3). These factors are important because low population density and land use cover type, such as forest land cover, allows drug smugglers to remain relatively hidden. Road quality allows for quicker transportation, and high poverty levels make it easier to buy people or community silence on drug operations. Medel concludes that their prediction model accurately lines up with existing relations and routes between drug producing states, which is to say the factors in their model have a strong grasp of the logic of DTOs. With this understanding we can treat places with high marginalization indexes as a proxy for low population density, clandestine cover, and poverty rates. The marginalization index directly incorporates poverty rates it into its calculation. Regions experiencing higher marginalization (IV) may be correlated with higher homicide rates (DV) because there may be a greater likelihood of drug trafficking routes to cross through and concentrate there given the presence of low population density and high poverty which offers forest, hill, or mountain cover, clandestine space, and ease in buying people’s silence. The ease in buying people or community silence is further accentuated when considering that communities with higher poverty may have less capacity to mount resistance against external issues. Ultimately, where DTOs pass through and concentrate for smuggling purposes means there is greater likelihood that violence affects these areas disproportionately.
With these theoretical underpinnings in mind, I am borrowing from structural, institutional, social disorganization, and economic-geography frameworks to explain the relationship between marginalization (dependent variable) in Mexico and violence, specifically homicides per 100,000 (independent variable), from the war on drugs. The guiding hypothesis is as follows:

**H1: An increase in marginalization in Mexican municipalities, meaning higher poverty and social deprivation, will lead to an increase in homicide rates from the war on drugs**

**Data and Methods**

To test whether poverty is a significant factor in explaining the increased number of drug war homicides in Mexico in 2010, I compare the multidimensional marginalization index data at the municipal level (independent variable) with homicides from the war on drugs in 2010 also at the municipal level (dependent variable). The primary source of data for the independent variable is the marginalization index collected by the National Council for the Evaluation of Social Development Policy (CONEVAL) that uses information from the National Institute of Statistics and Geography of Mexico (INEGI) to generate an index of marginalization at the municipal and state level. The unit of analysis for this study, municipality, is observed at 2,454 municipalities and ranges from -2 to 4; the lower the index number for a municipality, the lower the marginalization (poverty + social deprivations) experienced in that municipality. Alternatively, the higher the index number, say 3 or 4, the higher the marginalization experienced. This multidimensional poverty measure is one of few measures that link economic poverty with social rights, or social deprivations, to provide a greater understanding of poverty. In addition, this measure aims at a comprehensive understanding of poverty by quantifying social marginalization that is almost always present in situations of economic poverty. Social deprivations are defined
as follows: educational lag, lack of access to health services, lack of access to social security, housing of inadequate quality, lack of basic housing services, and lack of access to food. The framework identifies multidimensional poverty as lacking one social deprivation in addition to falling below the income threshold as defined by Mexico’s line of economic well-being. Someone living in extreme marginalization is defined as not meeting the income threshold and having three or more social deprivations.

This study looks at the interaction between marginalization of the Mexican populace and the number of homicides in the country in 2010 as a result of the drug war. The dependent variable, homicides related to the drug war, is gathered from Princeton’s Empirical Studies of Conflict data that consists of drug war homicides from 2006 to 2011. This data set is sourced from a Mexican government database released in 2012 that collected information on total homicides at the municipality level directly resulting from the war on drugs. Total recorded homicides from 2006 to 2011 stood at 47,400 but of relevance to this study are recorded homicides from the year 2010 which equal 15,258. This study looks at homicides and marginalization in 2010 because it is the year that marginalization is measured at the municipal level. Marginalization is measured at the municipality level every five years with the in between years only available at the state level. Total homicides are standardized to equal homicide rates per 100,000 people. Princeton’s ESOC data combines the original government data, which only provided the total number of homicides by year, and adds three subcategories of homicides, namely homicides due to executions, aggressions, and confrontations; total homicides per 100,000 are equal to the aggregate of the three listed homicide categories. These three subcategories, in addition to several new variables not included in this study, were obtained from anonymous data given to the Center for Research and Teaching in Economics (CIDE). This
anonymous data builds off of the original government data and provides new variables and opens
the door for in depth study of the dynamics of drug war related violence (Atuesta et al. 2019).
Given that the drug war remains a controversial topic, the Mexican government no longer
releases homicide data publicly and has removed the original database. The refined dataset,
however, is accessible through Princeton’s ESOC and CIDE’s online databases.

There are limitations to this data and methodology that should be recognized. For starters,
the relationship between marginalization and total recorded homicides from the drug war is only
observed as a cross-section in the year 2010. Ideally, a time series could be conducted that
contains marginalization indexes for years before the dramatic rise of violence in 2006 and up
until 2011 when data on homicides is no longer available. This would allow for a further look at
the correlative relationship between marginalization and drug war homicides because
comparisons between the two variables can be made at different levels of marginalization from
different years. Homicides prior to 2006 were significantly lower and including this data in the
analysis can provide a strong comparison in the correlative trends of marginalization and
violence related to drug trafficking organizations.

A second limitation of the data is primarily concerned with a possible underreporting of
homicide counts due to the contentious and controversial nature of the ongoing conflict for the
Mexican government. The original database from the Mexican government was only released in
January 2011 due to external pressure from civil society organizations but, as mentioned earlier,
has since been removed. The concern for underreporting homicide data stems from the
assumption that governments have an interest in minimizing the severity of situations or conflicts
that can lead to significant backlash and political consequences. Laura Atuesta, et al., (2019), in
their analysis of both the original government database and the anonymously received database,
discuss two principal biases related to underreporting. The first concerns differences in information gathering and documenting resulting from various government agencies collecting this data. The second concerns an underreporting of homicides (and subsequent inaccurate descriptions of the event) resulting from confrontations because the government agencies involved almost always report their action as a response to aggression from DTOs and not due to government agencies initiating the confrontation. Several events report Mexican military or police initiating confrontations or aggression such as the executions in a community close to Santiago Papasquiaro, Durango, on September 30, 2010, that was reportedly carried out by the military (Proceso 2010). Despite the reporting on this event, the crucial description is omitted in the reported 14 homicides from the database. The homicides are still registered in the database, but the concern lies in the fact that other events resembling the Papasquiaro confrontation may not have been reported at all due to the murky nature and details of military-cartel conflicts. Despite concerns about the integrity of the data, I believe this data is still reliable for the analysis at hand. Furthermore, in terms of violence statistics, homicide counts are the most thoroughly reported and collected data versus a measure of a more difficult variable to capture such as total disappearances related to the drug war. Additionally, these databases have been used various times in similar studies. Ultimately, the data set still provides strong, unique information about a largely understudied phenomenon. Brief summary statistics of principal variables of interest are provided in Table 1 above.

### Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Pctl. 25</th>
<th>Pctl. 75</th>
<th>Max</th>
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<tr>
<td>Marginalization Index</td>
<td>2455</td>
<td>0.001</td>
<td>1</td>
<td>-2.342</td>
<td>-0.76</td>
<td>0.678</td>
<td>4.363</td>
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<tr>
<td>Total Homicides</td>
<td>2455</td>
<td>0.005</td>
<td>28.124</td>
<td>0</td>
<td>2</td>
<td>670</td>
<td></td>
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<tr>
<td>Population</td>
<td>2453</td>
<td>0.005</td>
<td>132566.604</td>
<td>94</td>
<td>33209</td>
<td>1836582</td>
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<tr>
<td>Homicides per 100k</td>
<td>2453</td>
<td>0.005</td>
<td>72.366</td>
<td>0</td>
<td>4.495</td>
<td>1915.157</td>
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<tr>
<td>Marijuana Seizures</td>
<td>2455</td>
<td>0.005</td>
<td>7872.707</td>
<td>0</td>
<td>0.3</td>
<td>204106.609</td>
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When homicide rates are plotted against marginalization the results are both introspective and surprising. Figure 1 demonstrates that homicide rates decrease as marginalization index increases, demonstrated by the cluster of data points between -2 and 0 marginalization.

Conversely, as marginalization decreases there seems to be higher homicide rates, which, at first glance, contrasts the overarching hypothesis that homicide rates would be greater where greater rates of social and economic marginalization are present. It should be noted that the dependent variable is skewed to the right. The rightward skew of homicide rates was much more pronounced with the total number of homicide data, hence the reason for standardizing total homicide counts to reflect homicide rates per 100,000 people. Despite standardizing homicides,
the variable still demonstrates a rightward skew when plotted against marginalization as seen in Figure 1 above.

Results and Analysis

Five linear regressions are run to assess the relationship between the dependent variable, drug war homicide rates per 100,000 and the independent variable, marginalization of Mexican municipalities in 2010. All regressions are run without the major outlier of Juarez given it has an incredibly high total homicide count upwards of 2000. Excluding Juarez from the analysis does not significantly alter the results. Table 1 displays the respective regression models and will allow to assess the correlation between marginalization and homicide rates.

Table 2

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Estimates</th>
<th>CI</th>
<th>p</th>
<th>Estimates</th>
<th>CI</th>
<th>p</th>
<th>Estimates</th>
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<td>-4.25</td>
<td>-11.30 – 2.80</td>
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The regression models produce very surprising results (Table 2) regarding the relationship between poverty and drug war homicide rates. For every unit increase in the marginalization index, meaning higher levels of poverty and social deprivations at the municipality level, there is a homicide rate decrease of 7.5. When taking a look at the simple linear model between marginalization and homicides per 100k each unit increase in
marginalization means an increase of -7.5 homicides. Inversely, a one unit decrease in marginalization means an increase of 7.5 homicides. All of the multiple regression models have a negative coefficient for homicide rates meaning a 1 unit increase in marginalization will lead to a decrease in homicide rates per 100k with varying degrees of decreases depending on which model is looked at. Thus, marginalization and homicide rates are inversely associated and not positively associated as predicted earlier. For example, the second model in the table, which includes a state fixed effects to account for variation, events, or changes occurring at the state level that may impact homicide at the municipal level, has a homicide coefficient of -2.11, while model three has a coefficient of -3.8 homicides. The second model is a multiple regression and is used as a base model which the other multiple regressions are modeled after. The coefficient of the second and third model demonstrates that a one unit increase in marginalization results in a -2.11 decrease or a -3.8 decrease in homicides per 100,000, respectively, when holding all other specified predictors fixed. In substantive terms going from the minimum to maximum levels of marginalization (-2.3 to 4.3) is associated with a 12 to 48 unit decrease in homicides rates when taking the coefficient estimates from all models into account. Contrary to my initial hypothesis, a place with a higher marginalization index will, on average, experience less homicides than a municipality with lower marginalization.

Understanding the uncertainty of these five regressions is essential for assessing the predictive power of the different models. Taking a look at the adjusted R-squared value of the novel regression demonstrates how the model only predicts one percent of variation in homicides. Model two through four have higher adjusted R-squared values of 13% to 14%, meaning that anywhere from thirteen to fourteen percent of the variance in the measure of homicides can be predicted by marginalization when holding all other specified predictors
constant. When looking at the fifth model, that did not include a state fixed effects, the predictive power of the model drops to two percent, indicating that state or region level effects are a significant variable in explaining the variance in homicide rates. The multiple regression models that include a state fixed effect are demonstrably better models than the simple regression and fifth model, however, the adjusted R-squared values are still relatively low, meaning the overall predictive power of marginalization as a function of homicide rates is somewhat weak. The standard errors of the models are not reported in Table 2 but is similarly important to consider as a measure of uncertainty. The base model produces a standard error of 1.8, which is to say 1.8 units is about the size of the error the homicide rate intercept is making when estimating to the population parameters of all homicides. Models three through five have a standard error of 3.5 that indicates how far off we expect the estimates of the sample to be compared to the values for the full population. 3.5 can be thought of as the average distance that the observed values fall from the predicted regression line.

While the models tend to demonstrate high levels of uncertainty and variation, overall, they point to statistical insignificance between marginalization and homicide rates. Model 1 is the only model that demonstrates statistical significance between marginalization and homicides at the 99% level meaning there is a strong correlation between the principal variables of interest. This means we can tentatively reject the null hypothesis of no relation; however, the two variables are inversely related in the opposite direction predicted. As a result of the negative association between both variables, the initial hypothesis can be rejected. There does not seem to be a positive correlative relationship between higher marginalization and homicides. Despite this, the other four models must be considered in assessing the relationship between the primary variables of study. The simple regression model without control variables demonstrates that
marginalization is significantly associated with drug war homicides, in a negative direction, however, when controls are added, the effect on homicides remains negative, that is the coefficients remain negative, but marginalization is no longer statistically significantly associated with homicides. Table 1’s p-value column for all other four models demonstrates the lack of statistical significance. It can be concluded that marginalization is associated with drug war homicides in some way, but it is likely that it is serving as a proxy for other significant variables. This is further supported when taking a look at the control variables population per 10,000 and marijuana seizures that are statistically significant at the 99% level.

**Discussion**

All five regression models present surprising results that contradict my theoretical framework and hypothesis as a result of the negatively correlated relationship between the two variables and lack of statistical significance, however, both the regression models and plots provide highly informative analyses. Much of the scholarship surrounding these questions tends to agree that the brunt of the impacts of the war on drugs is felt by the most marginalized people both economically and socially. Given the regression results suggest that places with higher marginalization indexes experience lower homicide rates, it does not necessarily dispute this well-studied, positively correlated relationship between poverty and violence. Rather, it demonstrates the nuance and specificity of the phenomenon that is drug war violence in Mexico.

From the regression results, it should not be concluded that violence and homicides from the drug war throughout Mexico are low given the concentration of many data points near the zero line (see Figure 1). On average many municipalities are experiencing low rates of homicides related to the drug war with a mean homicide rate of 14 homicides per 100,000 people. In a real sense, the many data concentrated at the zero line is a positive reality. When considering the
relatively low mean homicide rate for Mexican municipalities and the absence of any drug war related homicides in numerous municipalities, it is apparent that drug war related violence is concentrated in specific locations and municipalities. Rather than assuming drug war violence plagues the entirety of Mexico evenly, Figure 2 below makes it clear that this violence is felt disproportionately on the basis of region and state. Specifically, homicides are felt overwhelmingly in the Northern region of Mexico that encompasses Baja California (North & South), Chihuahua, Coahuila, Durango, Nuevo Leon, Sinaloa, Sonora, and Tamaulipas.

Figure 2
Marginalization Levels and Drug War Homicides
Data points are homicide rates per 100,000 people

The Central and Central West regions that includes states like Mexico, Hidalgo, Guerrero, Oaxaca, Michoacán, Queretaro, Zacatecas, Nayarit, Queretaro, Jalisco, and Guanajuato are
disproportionately represented as well. Ultimately, we can observe from both plots and the regression model that the drug war is, in fact, felt disproportionately based on region and state.

While drug war violence is experienced disproportionately in the North and Central region of Mexico, a look at the regression table points to the importance of population in understanding drug war homicides. Population per 10,000 inhabitants is statistically significant with marginalization, where homicides decrease as population per 10,000 increases. This suggests that drug war violence may in fact be a rural phenomenon but one that may not be concentrated in extremely poor municipalities. Figure 3 demonstrates the relationship between lower population levels and the increased presence of drug war homicides. Population per 10,000 is as high as 175 per 100,000, but the x-axis is capped at 25 to emphasize the concentration of homicides in rural municipalities; there are not very many values outside of the 75 per 100,000 point on the x-axis. An important conclusion to draw is that it may not be the most marginalized municipalities that are experiencing the greatest brunt of drug war violence, rather it may be the well off and moderately well off, rural municipalities that are experiencing the highest rates of violence from the war on drugs.

One of the most interesting questions that remains is why the places with low marginalization and higher homicide rates are concentrated at such a high scale in the North? Why does the North of Mexico have greater rates of drug war homicides despite being characterized by lesser degrees of social and economic marginalization? In theory one can suspect that lower degrees of social and economic marginalization remain an important predictor for decreased homicide rates, yet the data for the Northern region suggests otherwise. Two possible explanations may provide some clarity over this phenomenon. The first is the importance of the role of infrastructure. In some ways infrastructure, primarily quality of roads
and existing ports of entry into existing markets, may be so much more important in understanding drug cartel presence and trafficking than other variables included in Medel’s (2019) study such as land cover, clandestine cover, or ability to bribe officials, among others. The North of Mexico has on average far less municipalities at the medium to higher ends (values 0 to -2.5) of the marginalization index (see Figure 1 & 2) and instead a significant cluster of municipalities with very low to low marginalization levels (values 0 to -2.5; well off and moderately well off municipalities) located at the negative side of the marginalization index in Figures 1 and 2. This points to less economic poverty and social marginalization and hence a greater likelihood of adequate infrastructure relative to places with greater levels of marginalization such as in the Southeast region. A greater presence of adequate infrastructure
paired with a state and region with large swaths of rural area to offer combines to provide and increasingly attractive landscape for DTO presence and activity.

A specific look at the cluster of Northern municipalities in Chihuahua and Tamaulipas with high homicide rates will provide further clarity. In 2010 the small municipality Praxedis G. Guerrero in Northeast Tamaulipas had a homicide rate of 706.5 per 100,000, located in Figure 1 as the highest point on the homicide rate axis. While not the municipality with the highest total drug war homicides in Mexico, its high homicide rate can be explained by the fact that its rural, low population of 4,954 inhabitants experienced a total of 35 homicides. The municipality with the highest total homicides was Juarez with 2738 total recorded homicides and Chihuahua in second with 670 total recorded homicides. Praxedis G. Guerrero, near El Paso, Texas, is one of many microcosms of the drug war in Mexico. In 2010, 20 year old college student Marisol Valles became the municipalities new police chief that was responsible for a force of just 13 agents, one working patrol car, three automatic rifles and a pistol (Cardona 2010). Considered to be one of the increasingly dangerous drug war towns of Mexico, Valles suddenly abandoned her post in 2011 as a result of numerous cartel death threats and consequently requested asylum in the US (Animal Politico 2011). Just months after Valles left, her successor Rosario Rosales was victim of an attempted assassination that left her and her family in critical condition. (Coria 2011).

Seven miles to the west of Praxedis, the relatively rural municipality of Guadalupe Distrito Bravos with a population of 6,683 inhabitants and a total of 55 recorded homicides experienced a similar trend where top police chiefs and commanders were either murdered or targets of attempted assassination (Del Bosque 2010, El Universal 2010). The municipality of Guadalupe is not pictured in Figure 1 but experienced a homicide rate of 833 per 100,000 people.
Flores 28

in 2010. Both Praxedis and Guadalupe share common features that hold up as important factors in explaining the presence of and variations in drug war homicides. Praxedis and Guadalupe are both rural, sparsely populated with moderate and low marginalization levels (-0.67 and -0.70, respectively). Both municipalities are directly adjacent to Mexico’s Federal Highway 2 and share a very close proximity to Texas and El Paso. Not only are these two municipalities microcosms of the precarious violence that characterizes the war on drugs in Mexico, but both are examples of the negative effects a municipality will experience as a result of being in strategic drug trafficking corridors characterized by close proximity to the US and the presence of significant infrastructure, such as built-up, established major highways (Figure 2.3). Both of these municipalities are impacted by being located on Mexico’s federal highway 2, but less apparent is the impact from being near the major city of Ciudad Juarez which may be an indicator for greater infrastructure not just limited to established highways and roads but may include other infrastructures, such as a robust network of cell sites (cell towers) that make communication easier for DTOs. In other words, these two municipalities represent the broader trend explicated in this essay: despite having higher economic standards of living, i.e., low marginalization levels, rural municipalities with low populations, particularly in Northern Mexico, strongly correlate with high homicide rates which may be strongly influenced by their presence on or close proximity to built-up infrastructure and close proximity to the US.

Map 2.3 borrowed from Sarah Schatz (2014) points to this trend while also emphasizing the role of targeted assassinations and attempted assassinations as important criminal insurgency tools for DTOs to ensure trafficking can happen and continue with little interference. DTOs use extra-legal violence such as death threats, harassment, and assassinations to gain territorial control over strategic municipalities in what Schatz calls a “hollowing out [of] the rule of law,”
(41). Praxedis and Guadalupe seen in the Northeast corner of the map with the black dots indicating that a municipal police chief or other high up commanders were either assassinated or victims of an attempted assassination. If one traces the federal highway 2 that extends through Juarez and continues west, the pattern of extra-legal violence from DTOs becomes readily apparent. The pattern is particularly interesting given that many of the municipalities that experienced this extra-legal violence are relatively rural and distanced from major urban cities.
Ultimately this may point to the earlier conclusion that the violence from the war on drugs is not solely an urban phenomenon, such as the case of Ciudad Juarez, but one that is affecting well off to moderately well off (low to moderate levels of marginalization) small, rural municipalities. To further document this relationship, mapping drug war homicides is essential. A highly insightful map may document municipal population density, municipal income or GDP, recorded homicide rates, and infrastructural points (roads, points of entry, cell sites, etc.) to further uncover the trend that DTOs concentrate in richer areas indicated by this study. Firstly, this approach may prove insightful by indicating trafficking routes and a potential correlation between homicides and levels of population density. Secondly, it may document the variegated ramifications brought to a municipality by the presence of being located on a drug trafficking route such as increased homicide rates, which is expected, and a more unexpected impact of a municipality having greater GDP levels due to the possible money that is being spent and passed through these municipalities. The GDP levels of municipalities on a drug trafficking route or municipalities where DTO’s operations are concentrated in may be higher as a result of spending from these organizations.

The logic of drug trafficking organizations may explain why the central hypothesis was proven incorrect. Despite the spectacular violence that characterizes drug trafficking, cartel organizations behave as rational actors; cartels behave like large, rational economic business organizations over their portrayal as flagrant, irrational violent actors. More specifically, drug smuggling is approached strategically, and routes are chosen in a way that maximizes profit, minimizes costs, and reduces risk (Medel 2014). Monica Medel presents a thorough analysis of how DTOs take advantage of pre-existing trafficking routes and transportation infrastructure in choosing specific trafficking routes. My findings of the inverse relationship between
marginalization and homicide rates seem to support Medel’s theory because in municipalities with higher levels of marginalization, there is greater chance of less established infrastructures (paved roads, airstrips, airports railroads, seaports, border crossings, etc.) that are crucial to the rational calculus done by DTOs and hence there will be less concentration of drug smuggling and by extension violence. It may be argued that poorer regions, that tend to be more rural, may lead to high concentration of DTOs given the potential benefit of secrecy, clandestine cover and ease in buying out local communities due to poverty, but the case seems to steer toward the influence of established infrastructures, like roads and ports of entry, that may outweigh the benefits of buying out local communities that highly marginalized areas provide. Ultimately, it seems that more marginalized regions have fewer homicides because they provide less strategic benefits versus those with lower marginalization indexes in the North, closer proximity to the US, and possibly more developed infrastructure.

The second explanation for the ongoing concentration of drug violence in the North of Mexico is the role of a location’s distance to the U.S. in explaining the concentration of homicides in the Northern region. Distance to the US and access to the largest ports of entry into the US market proves to be a very important factor in explaining and predicting drug war homicides. Despite quality road access, low population rates, or built-up infrastructure, a location’s proximity to the US will surely influence the concentration of DTO presence and activity, and subsequent violence. However, as often is the case, all of these factors intersect with each other to create even more favorable conditions for DTO to operate in.

The “frontera chica” of Tamaulipas is the name given to the five small, rural municipalities of Guerrero, Mier, Miguel Aleman, Camargo, and Gustavo Diaz Ordaz experiencing a significant concentration of drug trafficking activity and subsequent violence.
associated with trafficking. In February of 2010, 15 trucks marked with the Gulf Cartel’s symbol stormed the central plaza of Mier and disappeared six police officers in an ensuing cartel battle between the opposing Zetas cartel. All of the neighboring municipalities in the “frontera chica” fall along the same federal highway 2 and all experienced similar assaults on their residents and police departments resulting in hundreds of displaced peoples and numerous murders (Enrique Osorno 2011). This pattern of extra-legal violence falls in line with the hollowing out of the rule of law that Schatz (2014) points to. Similarly, these municipalities point to the trend experienced in Chihuahua where small, rural, municipalities with low levels of marginalization located on important infrastructural points, federal highway 2 in particular, experience disproportionate homicide rates. Not only are these municipalities located on an important infrastructural point, but similar to Praxedis and Guadalupe, the municipalities of the “frontera chica” are nestled in between two larger municipalities, specifically Nuevo Laredo (population: 391,649) and Reynosa (population: 621,245), suggesting that they too may benefit from the established infrastructures, outside of major roads, that these two large municipalities provide.

Another possible reason why the central hypothesis is not supported may be due to shortcomings in the marginalization index measure. While this measure does capture economic poverty and social marginalization, it does not capture inequality that exists in many of the municipalities and states in the data set. Particular regions in the North given their greater urban concentration, proximity to the U.S., and higher GDP values have specific characteristics (quality of life, higher per income capita, greater wealth inequality, etc.) that are not fully captured by a measure of poverty and social marginalization. Furthermore, these northern municipalities may have skewed marginalization indexes to the left (lower marginalization) because of the higher likelihood for greater concentrations of wealth (Frederic Lambert 6, 2019;
Greater concentrations of wealth may skew the marginalization index leftward and in effect shadow levels of wealth inequality and marginalization. Given that Northern regions have skewed indexes that only reflect economic poverty and marginalization and not inequality, this may suggest that measuring inequality as an independent variable influencing rates of violence may provide insight not reflected when measuring marginalization.

Lastly, there are critical considerations to take into account about the approach of this study. This analysis supports the fact that drug violence is a very concentrated phenomenon that seems to stray away from general patterns predicted in conflict studies and sociology that posit a positive relationship between poverty, inequality, or marginalization and violence or conflict. Part of the reason is the unique nature of drug trafficking organizations that often behave as rational actors but still have unpredictable nuances to their behavior given the way an illicit business functions and develops. It does not necessarily undermine the existing theories of conflict studies and sociology but rather emphasizes the need for new and revised understandings of relatively understudied, illicit groups that operate differently among different countries and even within a country’s regions. Given that drug violence seems to be a disproportionately concentrated phenomenon, there is a need to improve the measures used in future studies to assess the relationship between marginalization and drug war homicides possibly at the neighborhood, locality, or even city block level of analysis. The reason the unit of analysis is so important in any study of violence is due to the fact that a large unit of analysis may obscure a highly localized impact of homicides and drug war violence. For example, the municipality of Urique in western Chihuahua, is one of the municipalities that observes the trend of very high marginalization levels (1.87) and high homicide rates (190.3 per 100,000 people) presented in the principal hypothesis of this study. Urique would not be classified as a small municipality.
given its population of 21,019 in 2010 but analyzing homicide rates at the locality level (town, city, pueblo, villa, etc.) may bring to the fore unobserved trends between homicide rates, marginalization, and rurality given that many of the municipalities in Urique are relatively rural and surrounded by the Sierra Madre Occidental mountain range, such as the municipal seat of Urique, the villa of Urique, with a population of 1,102. Many of the localities in the municipality of Urique are rural but disaggregating the violence from the war on drugs proves difficult, as much of the reporting on this violence is often just indicated as happening in the broader municipality and is usually not specified by town or pueblo (Justice in Mexico 2021, Vizcarra Ruiz 2021). An important step in uncovering these potentially unobserved trends would be to create an original dataset that records homicides at the locality level which can then be modeled against marginalization at the locality level, which exists as a readily accessible dataset provided by Mexico’s National Council for the Evaluation of Social Development Policy (CONEVAL).

**Conclusion**

The seemingly incessant drug war in Mexico has had dramatic impacts on ordinary people, civil society, democracy, and the political capacity of Mexico. In addition to the ongoing impacts, the violence from the war on drugs continues to be one of the most pressing issues facing many Latin American governments, particularly Mexico. This essay picks up where many scholars have left off to assess how poverty and social marginalization may function as an explanatory mechanism in the dramatic violence and homicides that Mexico experiences as a result of the war on drugs. While my findings show that municipalities with higher marginalization rates do not necessarily equate to higher homicide rates, the findings lend support to other branches of literature that emphasize different explanations of drug war violence such as specific militarized state policies, the democratization of Mexico, and particularly
economic geography. Despite the initial hypothesis being incorrect, the principal findings of this study are numerous and insightful. Very few studies have paid attention to the concentration of drug violence in more well off, i.e., less marginalized, municipalities. Usually these municipalities are studied from the perspective of understanding the extent of violence, but not framed in the context of a municipalities levels of economic and social marginalization. This study uncovers that exact relationship by demonstrating how municipalities with lower degrees of economic poverty and social marginalization are the municipalities that face some of the greatest impacts of the drug war, specifically high homicide rates. This phenomenon can partly be explained by the role of infrastructure, specifically major, well established highways and roads, in providing an important cost-minimizing landscape for drug trafficking operations, whether it be trafficking itself or attempts at territorial control. Another very important factor in explaining this relationship is the role that proximity to the US plays in explaining drug trafficking and its associated violence. Drug trafficking organizations will inevitably concentrate in the North because of its closer proximity to their ultimate destination, the US in this case. Given this geographic concentration and the already existing higher GDP levels in Northern Mexico, the relationship between lower levels of marginalization and higher homicide rates makes sense. Furthermore, this study finds that the highest levels of drug war violence is not disproportionately experienced in the most marginalized municipalities but rather is experienced in municipalities with very low to moderate levels of social and economic marginalization.

This study should be understood as contributing to the theories that emphasize the way drug cartels operate as rational economic organizations. Poorer regions have less developed infrastructure, specifically roads, that are crucial for cost-maximizing smuggling operations and because of this, they may be spared of the full extent of violence that other municipalities with
more developed infrastructure, particularly in the North, may face. Additionally, even if municipalities with higher marginalization indexes do not face higher homicide rates this does not rule out the possibility that poor people in more well off municipalities are still disproportionately affected by the violence of the drug war. Further studies looking at the disproportionate impact of violence at the locality or even neighborhood level can still prove this to be true.

This study contributes to the growing literature that seeks to understand the multi-causal factors that contribute to increasing violence. It opens the door for studies that seek to use income and wealth inequality as an independent variable instead of solely poverty and social marginalization rates. Further research in this area can provide useful insights into the possible role of aggregate levels of inequality that may contribute to increased violence. New approaches can build on this study such as those seeking to use the individual or locality as the unit of analysis or cross-comparisons between other countries, like Colombia, that have experienced a growing concentration of violence alongside increasing poverty rates. If marginalization is not a sufficient explanatory mechanism then this study encourages others to analyze the plethora of variables that may be leading to variations in levels of violence whether it be age, ethnic-racial composition, government policies, or proximity to the US. Lastly, understanding the causal mechanisms of the drug war is imperative to a comprehensive understanding of how to mitigate this violence. The role of marginalization in explaining drug war homicides continues to be a central factor to study because, despite lacking some statistical explanatory power in explaining variations in drug war homicides, marginalization and poverty continue to have a pernicious effect on the people and institutions of Mexico. If the harmful, lasting impacts of Mexico’s drug war and its violence are to be alleviated, poverty and marginalization as they relate to the drug
war must continue to be studied as a way to understand the workings of these factors and ultimately mitigate the double effect that marginalization and violence from the war on drugs has on Mexico. It is my hope that the study of marginalization and violence in does not normalize or sensationalize the ongoing violence experienced in Mexico, but rather encourages others to contribute to the growing field that seeks to understand the dynamics of violence in order to inform policy and the general public. There is an urgency to understand these causal and explanatory mechanisms of drug war violence in a time when the Mexican state is caught in the grip of an ongoing low conflict war and its resulting violence.
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