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Essays on Criminal Organizations, Violence, and Order

A dissertation presented

by

Bradley Elliot Holland

to

The Department of Government
in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy
in the subject of
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Harvard University
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Essays on Criminal Organizations, Violence, and Order

Abstract

The essays in this dissertation examine the patterns through which illicit markets, and the criminal organizations that profit from them, impact local violence and order. The first essay draws on "stationary bandit" theories to argue that criminal gangs that maintain uncontested control of territory are more likely to promote broader social order. Using spatial data on gang territory and crime in Chicago, the paper shows that lower levels of gang competition are associated with lower levels of predatory violence like robbery. However, such groups may also use their capacities for violence to distort local markets by selectively preying on residents. Drawing on fine-grained qualitative and quantitative data from Los Angeles, the second essay argues that ethnic attacks on non-gang "civilians" are driven by attempts of gang leaders to ensure that coethnics, from whom they can extract rents, dominate profitable illicit drug markets. The third essay examines violence against the press in Mexico, showing that criminal organizations are more likely to resort to fatal attacks on journalists when they compete for territory, because such competition inhibits their ability to peacefully govern the information that reaches the public.

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For my parents.

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Chapter 0

Introduction

In many areas of the world, illicit markets are pervasive. The people who profit from such markets are often capable of engaging in organized violence, allowing them to informally wield authority in the areas in which they operate. However, the dearth of research examining the factors that systematically drive members of criminal organizations to prey on and/or protect local residents limits our understanding of the relationship between illicit markets, violence, and order. Each of the three essays presented in this dissertation addresses this gap in knowledge by examining the ways in which criminal organizations and markets impact local patterns of predatory violence. Additionally, when taken together, the essays represent first efforts at applying lessons from the behavior of criminal organizations toward a broader theory on state-building, order, and development.

The first paper, "Stationary Bandits in the Streets: a Theory of Gangs and Urban Order with Evidence from Chicago," examines links between armed street gangs and urban social order. In many cases, street gangs engage in extremely predatory patterns of violence against local residents, while in other cases they attempt to promote social order by policing and punishing predatory behavior. Drawing on "stationary bandit" theories from political economy, the paper argues that levels of territorial competition between gangs impact broader patterns of order within cities. When gangs maintain consolidated territorial control, they

are likely to have longer time horizons, leading them to promote social order as a way of increasing the profitability of local illicit markets. However, in contrast to firms operating in legal markets, when gangs compete, residents are more likely to be subject to predatory behavior like robbery, as gangs seek resources to fund violent competition. This theory is tested using fine-grained data on territorial competition and robbery from Chicago. The findings support the theory: holding other factors equal, areas with higher levels of competition between gangs are likely to experience higher rates of predatory crime like robbery.

The second paper, "Gangs, Drugs, and the Political Economy of Ethnic Violence in Southern California," examines patterns of selective ethnic violence by gangs in the Los Angeles area, focusing on the violent targeting of "civilians" who are unaffiliated with gangs. While political scientists typically examine highly aggregated (e.g. country-level) patterns of ethnic violence, actions "on the ground" are often the result of more localized conflict processes. Drawing on instrumentalist theories of ethnic violence, the paper argues that armed groups target civilians with ethnic violence when the ability of leaders to profit is impacted by the ethnic makeup of markets, and particularly in areas where such violence can help them to extract rents from larger portions of profitable markets. In the case of gangs in Southern California, the paper presents fine-grained qualitative and quantitative evidence showing that because institutions in prisons only allow gang leaders to "tax" coethnics operating in illicit drug markets in the street, their ability to profit is dependent on the illicit market share of such coethnics. In this context, gang leaders use ethnic violence in efforts to push immediate threats from non-coethnic gangs, as well as latent threats from civilians who may attract such gangs, away from markets. Civilians are thus more likely to be both deliberately and inadvertently subject to ethnic violence in areas near strong illicit drug markets, where leaders see the potential to increase their long-term profits by taking rents from larger portions of markets.

The third paper, "Informally Governing Information: How Criminal Rivalry Leads to Violence Against the Press in Mexico" (co-authored with Viridiana Rios), focuses on crim-

inal organizations in Mexico, examining their use of violence against the press. A well-functioning press is crucial for sustaining a healthy democracy. While attacks on journalists occur regularly in many developing countries, previous work has largely ignored where and why journalists are attacked. The paper offers the first systematic, micro-level analysis of the conditions under which journalists are more likely to be violently targeted. Contrary to popular belief, the evidence reveals that the presence of large, profitable criminal organizations does not necessarily lead to fatal attacks against the press. Rather, the likelihood of journalists being killed only increases when rival criminal groups inhabit territories. Rivalry inhibits the ability of criminal organizations to control information leaks to the press, instead creating incentives for such leaks to be used as weapons to intensify official enforcement operations against rivals. Without the capacity to informally govern press content, rival criminals affected by such press coverage are more likely to target journalists.

In addition to the contributions of each individual paper to our understanding of the impact of criminal organizations and markets on patterns of violence and order, when taken together, the essays represent my first efforts at building evidence toward a broader theory on order and development. Olson's (1993) seminal work links monopolies of violence with economic development and the protection of people and property. In such contexts, "stationary bandits" promote broader order, because it helps to increase the size of the pool from which they systematically extract taxes. Despite its ubiquitous use in political economic studies on order and state building, empirical work on the micro-foundations of this theory is limited. Armed criminal organizations, which attempt to control and extract rents from territories, provide a microcosm for studying such processes. In this sense, the evidence from Chicago supports portions of the theory linking monopolies of violence with broader order. However, the evidence from Los Angeles and Mexico suggest a more complex relationship between such monopolies, property rights, and development. Because many monopolists in violence hold preexisting assets and investments, they are not simply concerned with promoting a healthy tax base, but also ensuring that the actual shape of development favors

their own interests. In Los Angeles, the "order" promoted by such actors is thus coupled with attempts to distort the ethnic makeup of markets, while in Mexico it is coupled with attempts to distort markets of public information. Such market distortions may have crucial impacts on subsequent development and inequality. Thus, in order to understand the links between violence, order, and development, it is necessary to not only examine the development of monopolies of violence, but also how the particular interests of the suppliers of such monopolies may support or inhibit important social, economic, and political characteristics of development.

Chapter 1

Stationary Bandits in the Streets: a Theory with Evidence from Chicago

1.1 Introduction

Social order has been a longstanding concern in political economy. While the city often stands as an apex of development in modern societies, violence, property crime, and general insecurity remain prominent in large pockets of urban environments in even the most developed countries. This failure to control violence and maintain social order in cities may stymie economic development by forcing individuals to divert scarce resources away from productive activities and by inhibiting general investment in communities.[1] Likewise, crime and disorder may impact political development by increasing the risks associated with political participation.[2] Additionally, because insecurity is typically distributed unevenly both within and between urban environments, it has the potential to perpetuate structures of economic

[1]Bates (2001) provides a theoretical argument connecting insecurity with the diversion of potentially productive resources toward private protection, while Caldeira (2001) and Caldeira and Holston (1999) provide an empirical example of this phenomenon in the case of Brazil. For a theoretical discussion on the impact of insecurity on investment, see Olson (1993).

[2]While Bateson (2013) shows that actually being victim of a crime may increase the likelihood of political participation, Brooks (2014) shows that the broader insecurity associated with risk of victimization inhibits democratic participation.

and political inequality. Thus, while the state is thought to have developed in large part to provide order and security (Hobbes 1947 [1651]), its failure to do so across urban areas has major implications in terms of development and inequality.

In contexts in which the state fails to provide social order, private individuals and groups have been known to fill the void (Ellickson 1991). In this vein, a recent wave of scholarship in political science has highlighted the ways in which the organizational dynamics of armed non-state actors, typically in the context of civil war, impact patterns of social order and civilian predation (Kalyvas 2006, Weinstein 2006, Humphreys and Weinstein 2006, Kalyvas and Kocher 2009, Metelits 2010, Balcells 2010, de la Sierra 2014, Arjona forthcoming). This paper builds on this emerging literature by examining the varying impact of armed criminal gangs on patterns of predatory behavior within urban areas. Criminals often organize into armed groups to help secure illicit profits (Reuter 1983). While the paper focuses on the form of gang predominant in cities throughout the Americas, criminal groups can range in sophistication and organization—from formal mafias to more loosely knit street gangs—and often maintain a pervasive presence in cities. From the Cosa Nostra in Sicily (Gambetta 1993), to triads in Hong Kong (Phillips 2014), drug gangs in the favelas of Rio de Janeiro (Barnes 2015), *maras* in El Salvador (Cruz 2010), and street gangs in Chicago (Nickeas 2014), criminal organizations often have profound impacts on patterns of urban security and violence. How do the organizational dynamics of criminal gangs impact patterns of urban social order?

At first blush, the relationship between criminal gangs and social order seems straight forward: the existence of armed groups that engage in criminal behavior serves as an impediment to state-designed laws intended to provide peace and order. However, if we consider social order more broadly to simply entail the control and maintenance of violence, the impact of gangs is more complex. In many cases, gangs indeed inhibit social order, seemingly robbing and assaulting residents at will. However, scholars have also shown gangs to engage in various forms of order-enhancing protection, shielding both members and non-members

from physical attack and property crimes, and punishing residents who engage in such transgressions (Sanchez-Jankowski 1991, Venkatesh 2006, Sobel and Osoba 2009). In this sense, criminal gangs, which by definition are an affront to legalistic conceptions of order, may in some cases promote social order by limiting and controlling violence within communities. However, their duel role as predators and protectors muddles the broader relationship between gangs and urban social order. The goal of this paper is to more systematically understand this relationship by developing and testing a theory of the varying impact of criminal gangs on patterns of social order within cities.

To analyze the relationship between criminal gangs and social order, the paper bridges theory from the political economy of violence and state building with methods from ecological criminology. While these fields rarely come into contact, for many questions they are complementary. In the last decade, scholars studying the political economy of violence have increasingly called for research examining the microfoundations of conflict using fine-grained subnational data (Kalyvas 2007). This need for detailed empirical analysis is even more pronounced when addressing issues of violence and order in urban areas, given that such outcomes can vary substantially between very small units. In this vein, scholars in the field of criminology have leveraged tools to analyze micro-level patterns of predatory crime within cities. However, prominent criminologists have also pointed to the need for theoretically motivated work with a stronger focus on causal mechanisms (Sampson 2013). By combining an analytical strategy from criminology with a theoretical logic that builds upon political economic work on higher-level violent actors, we can better understand the systematic patterns through which urban criminal gangs impact social order and security.

The central theoretical finding of the paper is that levels of territorial competition between gangs are key to explaining the varying impact of gangs on patterns of urban social order. In contrast to firms operating in legal markets, gang competition is likely to have harmful impacts on local order and prosperity. As is the case with nascent state builders (Olson 1993), armed groups in civil war (Arjona forthcoming, Metelits 2010), and armed groups in

failed states (de la Sierra 2014), urban street gangs that dominate a given area are more likely to possess the long time horizons of a "stationary bandit," investing in social order and protection in order to promote a healthy and lucrative environment in which illicit markets can thrive. Maintaining secure control over local territory, either through a monopoly or a pact between cooperative gangs, allows gangs to invest in policing and punishing predatory behavior, while also incurring the opportunity costs associated with abstaining from local theft and robbery. Ironically, this means that in such contexts, gangs invest in social order for the sake of profiting through violations of the state's legal order. In contrast, in areas that are marred by competition, gangs are less likely to invest in protection, instead increasing local extraction through theft and robbery in order to fund violent battles for territorial control. Quantitative evidence from Chicago supports this theory. Using fine-grained spatial data on gang territories and crime, the analysis shows that levels of local gang competition are positive and statistically significant predictors of local rates of robbery. When gangs have more secure control over territory, social order is more likely to emerge.

In developing and defending this argument, the paper contributes to broader work on the political economy of order and violence. First, although Olson's (1993) "stationary bandit" theory, in which self-interested armed actors monopolize violence and promote order in a given territory, is the dominant political economic perspective on the historical development of the state, a lack of data on pre-state conditions has generally inhibited empirical testing of the theory (de la Sierra 2014). However, like nascent state-builders, urban gangs attempt to informally monopolize violence and extract rents from territories. Examining the behavior of such gangs thus provides a unique opportunity to understand the micro-foundations of state-building, with the findings presented in this paper adding to the small but growing literature that empirically tests the mechanisms of the theories that dominate the literature (also see Arjona (forthcoming), de la Sierra (2014)).

Second, although political scientists have begun to examine the relationship between non-state violent actors and social order, they have typically done so in the context of the

extreme upheaval that characterizes civil war or failed states, neglecting armed organizations operating in consolidated democracies. Despite differences, the paper shows that employing our understanding of dynamics of violence from higher-level conflict can provide leverage in understanding patterns of urban violence by armed gangs in consolidated democracies. Additionally, although existing studies typically examine differences between relatively large units of analysis (i.e. countries or large subnational units), the findings presented in this paper suggest that armed organizations can have very different impacts on social order even within localities. In this sense, incorporating local patterns of conflict can provide a better understanding of the patterns through which armed groups contribute to violence and order.

Finally, in addition to these scholarly contributions, the findings present difficult implications in terms of policies and strategies for combating crime and/or promoting urban order. Although prominent policing strategies aim to disrupt locally powerful criminal gangs, they may also lead to higher levels of competition, as gangs seek to fill power vacuums. For example, in the last two decades in Chicago, police have been able to successfully arrest high-ranking members of prominent gangs, leading these groups to break into smaller groups that compete for local dominance. Such a strategy may be effective in disrupting illegal markets while also leading to higher levels of broader disorder and robbery as gangs look to fund these new forms of competition. Thus, although the "order" that locally dominant gangs promote may certainly be attached to various forms of undesirable behavior, the findings presented in the paper suggest that we must carefully weigh the negative societal impacts of locally monopolistic gangs with the negative impacts that a fractured landscape of gangs has on broader social order.

1.2 Social Order, Cities, and Gangs

Social order is dynamic concept that takes on a myriad of forms throughout the social sciences. The conception of order adopted in this paper revolves around the control of

violence. This conception stems from Hobbes (1947 [1651]), whose chief concern was the establishment of a society in which force and fraud are not routinely used in satisfying wants (Ellis 1971). While violence and coercion are normal components of human societies (Bates, Greif and Singh 2002), humans seek to order and control such violence when building communities (Radcliffe-Brown 1940). Thus, social order here refers to the extent to which violence and coercion are organized, contained, and managed (North, Wallis and Weingast 2009).

Securing social order across urban areas is a persistent challenge. Despite the fact that most of the world's population now resides in urban areas (UN 2014), and that urbanization stands as a pillar of processes of modernization and development (Lipset 1960), crime and violence often run rampant in cities. In fact, a long line of scholarly work from a variety of disciplines provides both theoretical arguments (Durkheim 1933) and empirical evidence (Lodhi and Tilly 1973) explicitly connecting processes of urbanization with crime, violence, and disorder.

Although there is a link between levels of urbanization and disorder, order is typically not evenly distributed across the area of a given city. Even in severely underdeveloped cities, there are typically areas that have successfully secured order and security, while order is often absent in large portions of even the most developed cities. Understanding the factors that drive such spatial variation within cities is important not only in terms of our broader understanding of the processes that impact peace and order, but also for promoting urban development and equality. Scholarly work examining variation in social order within cities is mostly comprised of criminological studies that seek to identify "risk factors" for crime and violence, without exploring the mechanisms linking such variables to disorder (Sampson and Wikström 2008). A notable exception to the atheoretical tendencies of this literature is work in the tradition of social disorganization theory stemming from Shaw and McKay (1942). Here, social order is less likely to emerge in some areas of cities because economic, housing, or demographic factors make local residents less likely to work together to prevent

criminal behavior (Sampson and Groves 1989).

In the context of such neighborhood "disorganization" and inability to hamper deviant behavior, illicit markets and predatory violence often become prominent. However, the prominence of such criminal markets may lead to higher levels of organization in terms of the coordination of criminal behavior. First, when both the state and local residents fail to prevent predatory violence, youths often organize into gangs for the purpose of self defense (Sobel and Osoba 2009). As such gangs develop, they obtain the ability to profit by engaging in their own predatory behavior, leading to the proliferation of additional "protective" organizations (Bates 2001). Additionally, as illicit markets begin to flourish in such areas, some transactions are more profitable to organize within firms rather than the market (Williamson 1975), further leading to the development of gangs in order to structure illicit business (Reuter 1983). Thus, social disorganization may in many ways facilitate criminal organization.

In many cases, such criminal gangs have extremely negative impacts on local order, utilizing their capacity for violence to systematically prey on local residents. Gang members are more likely to engage in predatory crime than non-gang members (Esbensen and Huizinga 1993, Thornberry et al. 2003), and in some cases, gangs have even methodically violated persons and property to the extent that residents flee the area (Arana 2005). Thus, to the extent that armed gangs use their capacity for violence to rob, assault, or otherwise prey on local residents, they serve to exacerbate urban disorder.

Despite the fact that gangs often arise as a result of the inability of the state or local communities to secure order, and that they often engage in high levels of violence, in other cases they engage behavior that seems to promote local order. In a diverse array of ethnographic accounts, gangs have been shown to use their capacity for violence to limit and manage broader violent behavior in urban communities. For example, in US cities such as Chicago, Los Angeles, New York, and Boston, there is evidence of gangs providing protective services in the communities in which they operate, shielding residents from property crimes

and physical attack by policing and punishing predators when the state does not (Sanchez-Jankowski 1991, Pattillo 1998, Venkatesh 2006). Likewise, in neighborhoods in Kingston, Jamaica, gangs act as a de facto authority over local behavior (Sives 2002, Manwaring 2011), working to, "...'sort out' those who 'dis the order' whether they are residents or outsiders" (Jaffe 2012, p. 190). Similar protective and order-enhancing behavior is also evident in the *favelas* of Rio de Janeiro, Brazil (Barnes 2015) and in Nairobi, Kenya, where "...people have resorted to gangs to provide security and other social services in the slums" (Mutahi 2014, p. 12).

In contrast to the vast quantity of qualitative work showing gangs to either inhibit or promote social order, quantitative work on the subject is more limited. Additionally, given their contradictory behavior, in which gangs in some contexts seem to inhibit social order while in other cases they promote it, it is perhaps unsurprising that the sparse quantitative work has produced mixed results. For example, when controlling for potential confounding factors, Tita and Ridgeway (2007) find that the while the emergence of gang activity in a given space may increase drug-related activity or shots fired, it does not have a significant impact on the commission of predatory crimes that are associated with broader social disorder. In contrast, Taniguchi, Ratcliffe and Taylor (2011) find a generally negative relationship between gangs and social order, in which corners where gangs maintain open-air drug markets have higher rates of violent crime and property crime against residents, especially when multiple gangs operate in an area. Thus, just as qualitative evidence produces a mixed account of the relationship between gangs and local order, quantitative evidence is also inconclusive and limited.

That the relationship between gangs and local urban order is complex and varied should come as no surprise if we consider the behavior of armed groups in other arenas. For example, it has also been difficult to come to an *a priori* understanding of how the presence of armed groups in the context of civil war and/or failed states impact local social order. Rather, such groups often exhibit patterns of behavior similar to that of urban gangs, at

times pillaging the civilian population while at other times installing order-enhancing protective institutions. However, in the last decade, political scientists have made considerable progress in systematically understanding the impact of such groups on local social order by examining local-level variation in dynamics within and between organizations. For example, combatants in civil war have been shown to have a positive or negative impact on local social order depending on their economic resource base (Weinstein 2006) or their ability to solve principal-agent problems (Arjona forthcoming, Wood 2009, Humphreys and Weinstein 2006). Likewise, armed groups have been shown to inhibit social order in contexts in which they face contestation for local control, while they are likely to promote social order when they maintain more monopolistic control (Arjona forthcoming, de la Sierra 2014, Metelits 2010). By analyzing patterns of such organizational dynamics, this work has made major strides in understanding the relationship between such armed organizations and local social order.

This paper seeks to extend these findings on armed groups in civil war and failed states to the analysis of urban gangs. Of the three main political economic explanations for varying patterns of behavior by armed groups toward civilians—differences in resource bases, principle-agent problems, and territorial competition—the first two are the least likely to readily contribute to a testable theory on the impact of gangs on social order. For example, although street gangs in the 1960s and 1970s in some cases promoted strong political and ideological agendas, the vast majority have undergone processes of "corporatization," turning to material resource bases (Venkatesh and Levitt 2000). This means that while Weinstein's (2006) differentiation between armed organizations with "ideological" and "material" resource endowments might hypothetically be applicable to gangs, it is not likely to provide leverage in understanding variation in the behavior and impact of contemporary gangs. In contrast, explanations focusing on principle-agent problems, in which weak internal organizational structures allow members of armed groups to engage in more opportunistic behavior, are more applicable to contemporary gangs. However, such variables are difficult to measure

systematically and are less helpful for understanding the varying incentives that gangs face. In other words, although gangs that are able to overcome principle-agent problems are more likely to have the ability to push members to engage in order-promoting behavior, such dynamics are difficult to measure and tell us little about where gangs are more or less likely to actually do so. Thus although principal-agent issues are incorporated into the following section's theory as a necessary precondition for gangs to successfully promote order, they are less useful in the actual testing of variation within urban environments.

In contrast, like armed organizations engaging in higher-level conflict, territorial contestation can plausibly explain varying incentives of gangs to promote or inhibit social order, and is also more readily identifiable and measurable. The next section thus draws on political economic theories of violence and the state to argue that levels of territorial competition between gangs impact the likelihood that gangs promote or inhibit local social order.

1.3 Theory: Gangs as Stationary Bandits

A key premise underlying the theory presented in this section is that the failure of the state to provide order does not necessarily translate into disorder. Even in the context of the severe breakdown of state authority that characterizes civil war, research on war economies shows that alternative forms of social order may emerge to fill the void (Bakonyi and Stuvøy 2005). Conceptually, rather than viewing the state as a source of order based on its monopoly over means of violence (Weber 1958), it can be helpful to view the state as a facilitator of an equilibrium in which people choose not to routinely use violence to satisfy their wants (Bates, Greif and Singh 2002). Thus, even in contexts in which the state does not ensure this equilibrium, civilians may still desire institutions that inhibit predatory violence. This section argues that depending on particular local circumstances, gangs may either help provide these order-promoting institutions or exacerbate local disorder.

To highlight the potential role of criminal gangs in promoting social order, it is helpful

to first examine some key aspects of state's provision of order. Like many public goods, order and security may be subject to collective action problems, in which these collectively desirable outcomes are thwarted by individual incentives to prey on fellow citizens. While the "new institutionalism" literature from economics highlights the role of institutions in helping to overcome such collective action problems (North and Thomas 1973), Ostrom (1990) and Bates (1988) argue that we must still account for collective action problems associated with the supply of such institutions. One way to do so is to examine additional incentives to particular suppliers of order-promoting institutions.[3] In this sense, for Tilly (1985) and Olson (1993), state builders did not simply supply order-promoting institutions out of benevolence or a spirit of community. Rather, these "stationary bandits" had incentive to invest in order and security so they could extract more resources from a particular territory over time.

The stationary bandit theory posits that early state-builders provided order-promoting institutions because they had long time horizons: while in the short run they may have been able to extract more through pillage and plunder, by instead promoting order, they were able to strengthen the long term viability of the markets from which they systematically extracted. In comparing these early stationary bandits to contemporary urban gangs, two key corollaries emerge. First, like the stationary bandit, criminal gangs have developed into local "specialists in violence." Because gangs operate in illicit markets, they cannot rely on state institutions to adjudicate disputes, which leads them to provide their own forms of violent protection (Reuter 1983). These skills in violence not only give gangs the ability to prey on local residents, but also to promote order by informally punishing and policing local

[3]There may be contexts in which communities themselves can overcome such collective action problems and self-supply such institutions without additional individual incentives. Following Olson (1965), small and relatively homogenous communities might be able to supply their own institutions without added incentive. For example, many small indigenous communities in the Guatemalan Highlands have established norms of lynch justice. Also, communities with some strong ideological or political unification may also be able supply such institutions. For example, in black townships in South Africa, the anti-apartheid movement was connected to non-state community courts that punished local predators. However, in many cases, the supplier of such institutions will need over-riding private incentive to supply such protecting institutions (Bates 1987).

predators.

The second key corollary between the stationary bandit and urban street gangs pertains to extraction from local markets. Like the stationary bandit, urban street gangs in many cases can secure greater long-term profits (over the course of months and even years) by foregoing predatory violence against local residents and instead promoting social order. Most gangs generate income by participating in and regulating illicit markets (Skarbek 2014). While they may be able to increase their short-term income through theft and robbery, abstaining from such behavior and instead promoting local order can both increase the profitability of local illicit markets as well as the ability of the gang to extract from these markets over the long run. Order increases the profitability of local illicit markets by both creating an atmosphere that attracts customers and illicit commerce, and also by deflecting police attention to local illicit activity. For example, in his work on gangs and the underground economy in Chicago, Venkatesh (2006, p. 173) writes, "... robbers, stickup artists, and pickpockets make money in public areas, but their actions disrupt the practices of the [illicit] trader and the regulator... if customers are afraid to park their cars or walk around, the trader loses customers and the regulator misses on derivative income." Likewise, promoting local order and security can assist in providing gangs with at least tacit acceptance in their communities, without which Skaperdas and Syropoulos (1995) argue gangs are not likely to survive. As Sanchez-Jankowski (1991) shows, cultivating amicable relations with the community by promoting local order not only facilitates the recruitment of new members, but also makes residents less inclined to make grievances or provide information to state authorities. Thus, by foregoing short-term profits through theft and robbery, and instead investing in the promotion of local social order, gangs may increase their long-term income and viability.

Despite the long-term benefits of promoting local order, in many cases gangs not only fail to invest in policing and punishing local predators, but also exacerbate disorder by preying on local residents. This variation is consistent with the behavior of "stationary bandits" in other settings. In such cases, examining differences in levels of contestation

between perspective stationary bandits has often provided leverage in understanding varying behavior. In contrast to legal markets, in which increased competition is thought to be societally beneficial, because illegal markets are regulated by violence, competition is often harmful to local residents. In areas with high levels of contestation, armed groups are likely to direct fewer resources toward market-enhancing social order and more resources toward violent efforts to solidify local dominance (Skaperdas 2002, Bates 2001). In such contexts, the local population is often viewed as a loot-able resource used to fund competition between groups (Kurrild-Klitgaard and Svendsen 2003). In contrast, maintaining secure control of local territory, either through an exclusive monopoly or an inclusive cooperative pact, is likely to allow such groups to invest in market-enhancing order.[4] Given these mechanisms, armed actors in very different contexts have been shown promote or inhibit social order depending on levels of territorial competition. For example, authorities in Somalia are more likely to support piracy when they face competition for control (Shortland and Varese 2014), armed groups in the Eastern Congo are more likely to pillage and less likely to promote order in villages where their control is contested (de la Sierra 2014), and civil war combatants from Colombia to South Asia are more likely to victimize civilians when they compete for local dominance (Arjona forthcoming, Staniland 2012, Metelits 2010).

As is the case with other armed organizations, competition between street gangs decreases profits (Levitt and Venkatesh 2000) and threatens the livelihood of a gang, which may lead them to resort to local theft and robbery of residents to secure funds (For an example of this process, see Venkatesh (2006, p. 280)). Although the domination of a single criminal organization over the illicit markets of an entire city could prevent such costs, various economic barriers typically prevent large-scale monopolies from forming (Reuter 1983). This means

[4]Such local domination may entail the presence either a monopolistic organization that excludes competitors or multiple organizations that peacefully cooperate for shared profits. Although the presence of a local monopoly or coordinated oligopoly may increase investments in order, this relationship is likely to be strongest in the context of a single dominant organization. As Buchanan (1973) argues, when multiple gangs operate in a single area, costs associated with disorder are shared between multiple organizations, whereas such costs are more recognizable under a single coherent organization. Broadly, however, we should expect the existence of local cooperation, either under a single organization or multiple organizations, to increase the likelihood that gangs invest in order.

that multiple gangs tend to inhabit a given urban area, facing varying levels of competition for smaller territories. Given the analysis above, the main hypothesis of the paper is that:

Hypothesis 1 *Areas where gangs face higher levels of competition will exhibit lower levels of social order.*

Before testing this hypothesis, it is necessary to discuss a caveat regarding the historical background of particular gangs. Although this theoretical analysis focuses on where gangs have incentive to promote order, such provision of order requires a given gang to be able to solve principal-agent problems and prevent rank-and-file members from engaging in predatory violence. Although it is difficult to measure the varying ability of particular gangs to overcome such problems, it is possible that older gangs that have developed organizational structures over decades are more likely to have the ability to do so. Additionally, having operated for longer periods of time may also facilitate gangs in developing long time horizons. For this reason, the theory on competition is more likely to hold in places where gangs have longer [i.e. years and even decades-long] historical backgrounds. This does mean that older gangs will necessarily invest in social order: well-established gangs that do not engage in illicit street markets, where social order is beneficial to business, have less incentive to do so. However, once gangs have developed the ability to overcome principal-agent problems and the capacity to hold long time horizons, we should expect them to promote social order in places and times in which they face low levels of competition, and can thus allocate resources to strengthen the viability of local illicit markets.

1.4 Research Design

Most existing empirical work on violence and order in political science examines the patterns and processes driving differences between countries. While in many cases this work has illuminated the macro-level variables that drive outcomes such as social violence, civil war, or state failure, it tends to overlook the role of individual and group interactions that may

in some cases encourage violent disorder, and in other cases order (Verwimp, Justino and Brück 2009). A recent wave of scholarship examining such "microfoundations" has made major strides in understanding how group and organizational dynamics impact patterns of order and violence by analyzing subnational variation in such dynamics between villages, cities, municipalities, etc. (Weinstein 2006, Arjona forthcoming, de la Sierra 2014). However, when considering problems of *urban* order and violence, city-level analysis is likely to obscure important patterns within cities, where armed gangs with the capacity for violence attempt to maintain relatively small territories, and where order often varies substantially between neighborhoods. Although work in criminology points us to variables that are correlated with differences in violence and order within cities, it typically ignores the role of the organizational dynamics of potentially violent groups. In doing so, this criminological work faces similar limitations to those of macro-level work in political science: it may successfully identify "risk factors" associated with disorder while overlooking causal processes tied to local individual and group interactions (Sampson 2013). The goal of this paper's empirical research design is to address this gap by analyzing the impact of the organizational dynamics of local violent groups (i.e. gangs) on patterns of violent disorder within urban areas.

The theory presented in the previous section focuses on the role of territorial competition between gangs. Although gang competition may intuitively be tied to inter-gang violence, if the theory holds, we should see a positive relationship between gang competition and broader patterns of disorder and predatory behavior against residents. In contrast to alternative political economic explanations, the focus of the "stationary bandit" theory on contestation not only outlines potential incentives of contemporary gangs to prey on or protect residents, but also yields observable implications that are more readily testable. Testing this theory requires fine-grained data on both the distribution of predatory crime within cities as well as structures of competition between gangs. The rest of this section discusses the case selection, data, and operationalization of key variables used employed to test the theory.

1.4.1 Case selection and background

The analysis uses data from Chicago to test the relationship between gang competition and social order. The selection of Chicago was driven primarily by two factors: the city's pervasive gang presence and data availability. A main challenge to testing the stationary bandit theory of gangs and order is that it first requires a research site in which gangs are relatively widespread and entrenched, so that we can meaningfully compare outcomes across space depending on levels of gang competition. While it is clear that street gangs maintain a pervasive presence in many urban areas throughout the world, fine-grained data on gang organization and predatory crime is typically not readily available in such cases. By utilizing a data-rich environment in which gang activity is widespread but varied, examining patterns in Chicago enhances our knowledge of the relationship between gangs and social order more generally, as well the dynamics of violence and order in a city where gang activity has become a prominent social and political issue.

In recent years, numerous areas in Chicago have earned the moniker "Chiraq" due to high levels of gang activity and violence. Street gangs in the city can be traced back to the 1920s, with early incarnations of many of Chicago's current gang organizations forming between the 1940s and early 1960s (Howell and Moore 2010). Although general crime and violence in the city have declined in recent decades, such behavior has increasingly fallen within the purview of organized street gangs (Papachristos 2013*a*). There are over 70 active gangs in the metropolitan area, with membership numbers estimated to be between 70,000 and 150,000 (CCC 2010). Many of the most prominent gangs, such as the Gangster Disciples, Latin Kings, Black P Stones, Vice Lords, Four Corner Hustlers, and Maniac Latin Disciples, maintain multiple territories in different parts of the city and are heavily involved in large-scale drug trafficking and other illicit markets (Papachristos 2013*b*, CCC 2010, Venkatesh 2006). The majority of the city's gangs coalesced into two broad alliances—People and Folks—in the mid-1970s, but while gangs continue to use these identifiers in graffiti, in recent decades these "alliances" have had little significance in structuring rivalries and alliances in

the streets (CCC 2010). Especially in many of the city's most under-served areas, gangs are a key part of the local social fabric, coordinating the underground economy and playing an important role in structuring interactions between residents (Venkatesh 2006).

While Chicago is an ideal case to analyze in terms of its pervasive gang presence and data availability, in terms of broader generalizability, two key points on case selection must be considered. First, some argue that we must exercise caution when drawing broader conclusions on the relationship between gangs and social order in a city like Chicago, where gangs have a long and rich history (for example, see Tita and Ridgeway (2007)). The majority of the most prominent gangs in Chicago, be they predominately African American or Latino, have had decades to become embedded in local communities, and it is possible that the relationship between gangs and social order is different in "emergent gang" cities that lack such history. This is an especially salient point because the theory developed in the previous section assumes that gangs have the ability to overcome principal-agent problems and are capable of maintaining long time horizons, both of which are probably enhanced by having decades-long histories of operation. For this reason, the scope of the findings is most likely to pertain to contexts in which gang activity has persisted for long periods of time.[5]

The second point on case selection and generalizability pertains to the issue of state strength. Gangs in Chicago operate in a relatively developed city in terms of the potential threat of state intervention in illicit activity. Although the state may maintain a low or ineffective presence in many of the areas in which gangs are pervasive in Chicago, it is likely to have the resources to engage in massive and successful crackdowns on illegal behavior if it chooses to do so. Given that this threat of state intervention was one of the theoretical mechanisms driving gangs to promote order, the findings may more readily travel to other contexts in which gangs operate with at least the latent threat of successful state crackdowns. However, given that recent work (discussed above) finds that armed groups display similar

[5]As mentioned in the previous section, this does not mean that older gangs are necessarily more likely to provide order, since incentives to do so will depend on their engagement and control of illicit markets in the streets.

patterns in the context of failed states, where the threat of state intervention is severely muted, while state strength may facilitate the relationship under examination, it is not likely to be a necessary condition.

1.4.2 Data and Operationalizing Variables

The analysis employs data at the census tract level from the city of Chicago. The census bureau splits Chicago, which has a total population of roughly 2.7 million and an area of 234 square miles, into 801 census tracts.[6] The average tract has a population of 3365 and an area of 0.3 square miles. The study period for the analysis is 2011, the most recent year for which all data on criminal organizational structures were available.[7]

I operationalize the dependent variable, social order, in terms of rates of robbery in a given tract. As discussed in Section 1.2, this paper works from a conception of social order based on the control of violence and coercion. In this sense, operationalizing disorder in terms of rates of robbery captures the extent to which predatory violence is used to satisfy needs and wants. This operationalization strategy contrasts with the conception of disorder put forward in sociological "broken windows" theories, where "disorder" in the form of smaller incivilities such as graffiti or public intoxication leads to higher levels of more serious predatory violence like robbery (Wilson and Kelling 1982). Instead, this operationalization strategy follows other scholars who view, "disorder as part and parcel of [predatory] crime itself" (Sampson and Raudenbush 1999). Doing so allows us to better understand how illegal activity that might otherwise be viewed a sign of disorder (i.e. profiting from illicit drug markets) may in some cases promote security and the control of violence.

The choice of robbery as the specific form of violence used to capture levels of social order, rather than other forms of violence such as assault or homicide, was driven primarily by concerns tied to the specific theory being tested. Because the theory connecting levels of gang competition to social order pointed to causal processes in which gangs in some

[6]Based on 2010 census tract boundaries.

[7]However, population and socioeconomic controls come from the most recent decennial census in 2010.

cases develop social institutions to informally police, punish, and limit predatory violence, it was necessary to avoid employing measures of violence that would likely be more directly impacted by levels of gang competition. In other words, it is possible that levels of assault or homicide would increase in the context of gang competition without gangs necessarily promoting broader social order or security for local residents. For example, Papachristos (2009) finds that gang murder in Chicago is more likely in areas where gang turfs overlap or intersect, and others find that gang violence is more likely in areas where gang boundaries meet (Brantingham et al. 2012, Tita and Radil 2011). In contrast, there is less *a priori* reason to suspect levels of robbery to increase in the context of gang competition: robbery is not a typical form of competition between gangs, and cases in which gangs rob each other are unlikely to be included in reported crime data. Thus, if levels of robbery are shown to be lower in areas where gangs are in less competition, we can be more confident that it is due to the mechanisms discussed in the theory section.

The analysis uses measurements of robbery at the census tract level using crime incident reports from the Chicago Police Department's (CPD) Citizen Law Enforcement Analysis and Reporting system. While the use of official police data has the potential to introduce some bias regarding decisions by the police to file a crime report,[8] this is the only source of fine-grained data able to show differences at the census tract level. For this reason, such police reports are widely used in criminological studies. The CPD data provides the addresses of robbery incidents, which I geocoded using ArcGIS. I then used this geocoded data to create census tract-level counts of robbery incidents during the study period.

To operationalize the study's key independent variable, gang competition, I first digitized maps of gang territories distributed by the Chicago Crime Commission. These territorial boundaries were originally drawn by street gang officers in CPD and are presented in Figure 1.1. Gang conflict often revolves around competition for territory (Block and Block 1993),

[8]For example, police may be more or less likely to write an official report depending on the legal seriousness of the complaint, the complainant's observable preference for police action, the relational distance between the complainant and the suspect, the complainant's degree of deference toward the police, and the complainant's social-class status (Black 1970).

so understanding the spatial distribution of territory can provide insight into how gang competition is structured spatially.

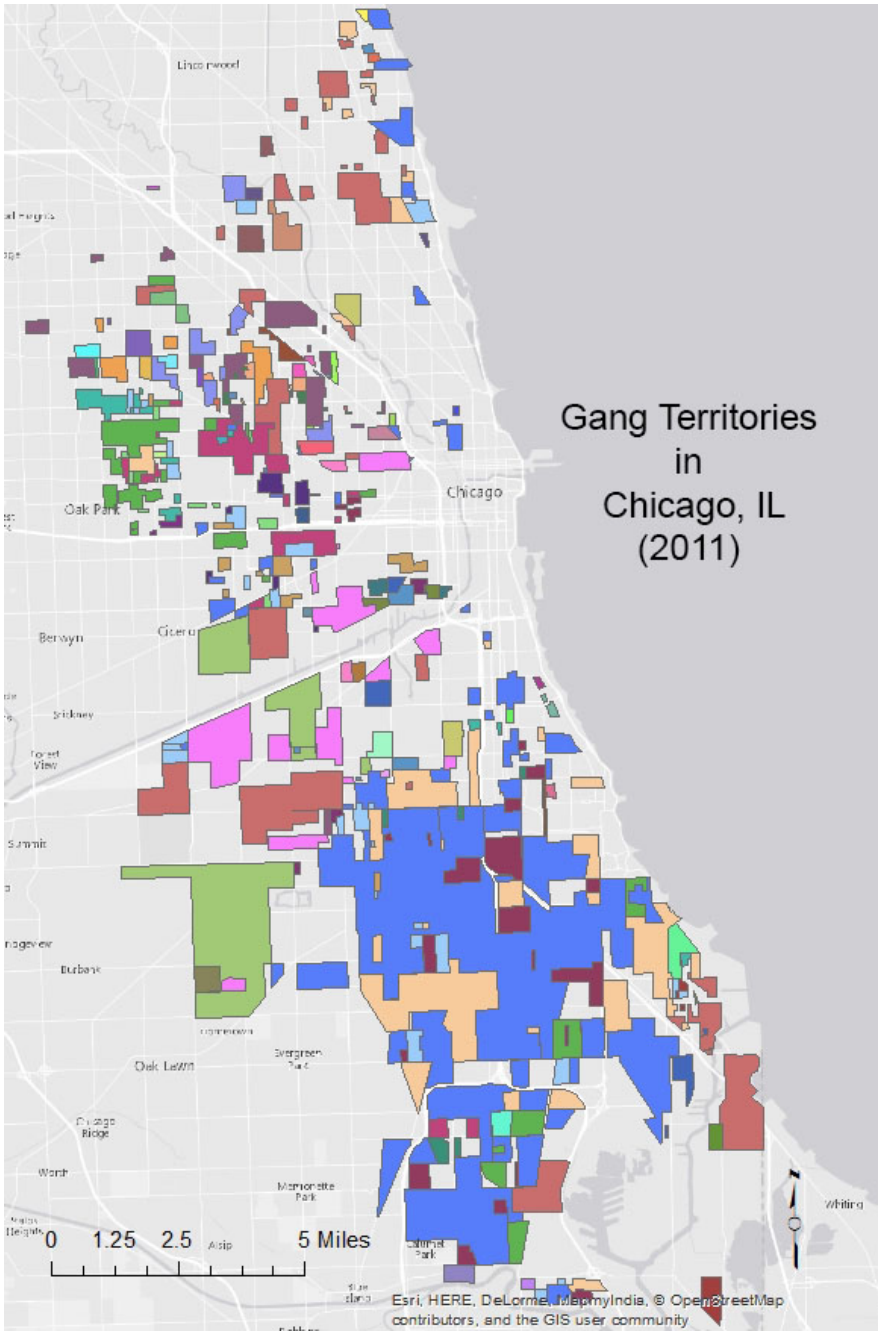


Figure 1.1: Map of Chicago, Colors Marking Gang Territories

To use this map of gang territories to generate measurements of levels of gang competition, it was first necessary to select a formula that could translate local distributions of gang

territory into a meaningful index of competition. Borrowing from the field of industrial organization, I used a Herfindahl index to measure the overall level of gang competition in an area given the local distribution of gang territory. This index is widely used in antitrust law to measure levels of competition within industries, and is calculated as:

$$H = 1 - \sum_{i=1}^{N} s_i^2$$

where s_i is the market share of firm i in the market. Higher measurements of this index indicate higher levels of competition for local territorial markets. One weakness of this measurement is that it does not capture structures of local alliances. Given the theory, in addition to places where gangs maintain monopolistic control, we would expect places in which gangs have cooperative pacts to also display higher levels of order. However, the Herfindahl index is still the best way to operationalize levels of competition for three reasons. First, systematically capturing local alliance structures is nearly impossible, since the broad "alliance" groups to which gangs in Chicago belong have very little impact on actual structures of competition on the streets (CCC 2010). Second, there are theoretical reasons to expect monopolistic control to have an even more acute impact on social order: because the costs of disorder are not split between multiple cooperating gangs, they are more readily apparent to a monopolistic gang (Buchanan 1973). And finally, because there is no reason to suspect that any measurement errors (i.e. places with high measures of competition where gangs are actually allied through pacts) will introduce systematic bias into the analysis, using this index still provides a useful measure of relative levels of competition between units.

One additional challenge to operationalizing the independent variable of interest is that discrete units like census tracts do not map well onto the social reality of gang competition. Census tracts are relatively small, and while this characteristic may be useful for mapping fine-grained patterns in predatory violence, meaningful competition between gangs is typically not bound within census tracts. For example, in many cases, although a specific gang's territory might encompass an entire tract, it still engages in high levels of local competition with neighboring gangs. The stationary bandit theory would posit a negative impact of such

competition on social order. However, if we simply calculate the competition index based on the distribution of gang territory within a tract, we would get a measure of no competition in such a case. To better capture the level of competition a gang in a given tract faces, the measurement employs the "individual social environment" (ISE) strategy outlined in Hipp and Boessen (2013) and used in recent public health studies (Brownson et al. 2009). In this approach, the goal is understand how the characteristics of the surrounding environment impact the outcome of interest in a given unit. More specifically, the strategy was to use the Herfindahl index to calculate the level gang competition within a one-mile radius of each census tract, which better captures the level of territorial competition a gang in a given tract actually faces.[9] This measurement was then used to analyze how levels of surrounding gang competition impacts levels of robbery within tracts.

A limitation to using gang territorial maps in analyzing the relationship between gangs and social order is that while gang territory can provide a measure of the extent of competition between gangs, it is less helpful in measuring where gangs are actually active. Here, it is important to differentiate between gang territory and gang "set space." Although gang competition is typically structured around the control of "territory" which groups claim as their own and use graffiti to mark as such, gangs are typically only active is smaller pockets of this territory called "set space" (Tita, Cohen and Engberg 2005). This means that while measuring distributions of territorial control can be useful for analyzing the role of surrounding gang competition on social order, we cannot simply use territory as a proxy to measure the impact of active gang presence on social order. For this reason, the paper's analysis focuses specifically on the impact of broader environments of gang competition, rather than the specific impact of the presence of an active gang in a given tract.

The analysis includes controls for confounding variables that might impact both levels of gang competition and patterns of robbery. A measure of tract *population density* (in square

[9]The size of this buffer was somewhat arbitrary, but was meant to provide a rough sketch of the area in which gangs are more likely to compete. Analysis with smaller and larger distance bands provided similar substantive results to those presented here. A total of 42 tracts were dropped from the full sample analysis because no gang territory fell within one mile, thus precluding analysis of the impact of gang competition.

miles) from the US Census Bureau was included because studies have found a relationship between this variable and patterns of crime, and areas with higher population density may be more likely to experience higher levels of gang competition. A measure of the *percent African American* was included since studies have found that areas with larger African American populations may experience higher crime rates, and dynamics of gang formation (and thus competition) may vary between racial or ethnic groups. A measure of *percent age 15-29* (or "at risk") was included because studies have found areas with higher percentages of this demographic to have higher crime rates, and such areas may be more likely to experience gang competition. A measurement of racial *diversity* from census data was included because various studies link diversity to higher crime rates, lower provisions of public goods, and lower levels of social capital, while higher levels of diversity may also be associated with higher levels of gang competition, since gangs often organize along ethnic or racial lines. A measure of the *percent vacant units* was included, since such "social disorganization" has been shown to be tied to levels of crime and the areas in which gang members congregate (Tita, Cohen and Engberg 2005). Additionally, models include controls for *poverty* and an *underclass index*[10] to control for socioeconomic status. Finally, all of the models also include measurements of the total *surrounding gang area* as well as specifically *tract gang area* in order to isolate the impact of gang competition, rather than simply the presence of gang territory, on social order.

Descriptive statistics of all of the variables included in the analysis are presented in Table 1. The table includes statistics for the two samples used in the analysis, one of which includes all census tracts with populations above 200 (labeled "Full Sample") and a stratified sample that includes only census tracts in which a sizable portion of the tract's area (at least one quarter) was claimed as gang territory.

[10]This index is calculated using the same strategy as Tita, Cohen and Engberg (2005) by conducting factor analysis of tract the unemployment rate, percentage of female headed households, percentage on public assistance, and percentage of adults without high school degrees in order to control for these factors while including a separate measure of poverty.

Table 1.1: Descriptive Statistics of Chicago Census Tracts

	Full Sample (n=793)				Stratified Sample (n=429)			
Variable	Med.	Min	Max	SD	Med.	Min	Max	SD
Robberies	12.00	0.00	103.00	16.87	17.00	0.00	103.00	18.19
Population	3092	237	16735	1743	3085	237	7498	1576
Pop. Density	15242	314	508712	20927	15389	1520	69737	9936
% Black	11.10	0.00	99.24	41.00	61.02	0.00	99.24	42.52
% Age 15-29	24.00	9.53	85.22	8.40	24.36	13.82	57.23	4.51
Diversity	0.34	0.02	0.76	0.21	0.21	0.02	0.76	0.23
% Poverty	20.01	0.00	85.80	14.29	25.76	0.00	84.80	13.87
Underclass	-0.10	-1.72	2.82	0.89	0.35	-1.55	2.82	0.80
% Vacant	10.46	1.37	77.44	8.19	12.80	1.37	77.44	8.42
Gang Area (mi^2)	0.06	0.00	1.25	0.13	0.13	0.02	1.25	0.14
Gang Area lag	0.87	0.00	3.48	0.77	1.33	0.00	3.48	0.73
Gang Comp.	0.58	0.00	0.89	0.25	0.61	0.00	0.89	0.21

1.5 Results

To analyze the relationship between levels of gang competition and social order (operationalized as rates of robbery), the paper employs two different modeling strategies. First, because the original form of the dependent variable is a count of incidents of robbery that occurred in each tract during 2011, the models in Table 2 use a negative binomial regression strategy to account for the count nature of the data. Negative binomial models are preferable to Poisson regression models in this case because they are able to account for overdispersion in the data. By including the logged population variable in the equation, these models are effectively measuring the rate of robbery.

Given the stationary bandit theory posited in Section 1.3, we expect the surrounding environment, and particularly the level of gang competition in surrounding areas, to impact the likelihood that gangs promote or inhibit social order in a given tract. Model 1 thus presents the key analysis of the stationary bandit theory by measuring the impact of gang competition within a one-mile radius of each tract on tract rates of robbery while controlling for potentially confounding variables. The results support the theory. When controlling for confounding factors, the level of gang competition, as measured by a Herfindahl Index, has

Table 1.2: Negative Binomial Regression Results

	Dependent variable:	
	Robbery (Count)	
	(1)	(2)
Logged Population	0.91*** (0.05)	1.04*** (0.07)
Population Density	−0.00* (0.00)	−0.00** (0.00)
% Black	1.35*** (0.09)	1.39*** (0.10)
% Age 15-29	2.83*** (0.31)	3.57*** (0.66)
Diversity	−0.01 (0.14)	−0.25 (0.17)
% Poverty	0.37 (0.24)	0.39 (0.25)
Underclass	−0.03 (0.05)	−0.10 (0.06)
% Vacant	1.50*** (0.35)	1.10** (0.38)
Tract Gang Area	0.23 (0.21)	−0.01 (0.27)
Surrounding Gang Area	0.12** (0.04)	0.11** (0.04)
Gang Competition	**0.48*** (0.09)**	**0.54*** (0.13)**
Constant	−6.47*** (0.42)	−7.40*** (0.56)
Observations	793	429
Note:	*p<0.1; **p<0.05; ***p<0.01	

a positive and statistically significant relationship with the rate of robbery in a given census tract. Model 2 conducts the same analysis using a stratified sample that only includes tracts in which at least of quarter of the total area is claimed as gang territory. One potential concern with using the full sample is that these results may be driven by tracts that, despite experiencing their respective levels of gang competition in the surrounding area, have little or no discernible gang activity or influence. By testing the relationship within the stratified sample, we can be more certain that gang competition is influencing patterns of order, rather than some unobserved variable. The results in model 2 are consistent with those of model 1: tracts with lower levels of surrounding gang competition are likely to experience lower rates of robbery, even when holding constant the amount of gang territory in the tract and the surrounding area.

One potential concern with the negative binomial regression strategy employed in models 1 and 2 is that the it does not account for the spatial nature of the data. Because the

measures of key independent variables were constructed by measuring gang territory in spatially proximate tracts, it is likely that the errors cluster spatially, which could lead to bias in the parameter estimates. Models 3 and 4 thus provide a robustness check of the findings by employing a spatial error modeling strategy that accounts for spatially correlated residuals. Spatial error models must assume a normal distribution of the outcome,[11] but if the robbery counts are not too small, the coefficients should approximate those of the count models. To facilitate the computation of the parameters and standard errors, the exogenous variables in the spatial error models were standardized to a mean zero and standard error of one. When this transformation of measures is taken into consideration, the substantive results from the spatial model largely mirror those of the negative binomial models, with the level of gang competition remaining a positive and statistically significant (at the .95 p-level) predictor of robbery rates within census tracts.

Table 1.3: Spatial Error Model Results

	Dependent variable:	
	Robbery (Rate)	
	(3)	(4)
Population Density	-0.0004^{*} (0.0002)	-0.0011^{***} (0.0003)
% Black	0.0032^{***} (0.0002)	0.0032^{***} (0.0005)
% Age 15-29	0.0006^{***} (0.0002)	0.0009^{***} (0.0003)
Diversity	0.0000 (0.002)	-0.0004 (0.0004)
% Poverty	-0.0001 (0.0002)	0.0002 (0.0003)
Underclass	-0.0002 (0.0003)	-0.0004 (0.0004)
% Vacant	0.0012^{***} (0.0002)	0.0008^{**} (0.0003)
Tract Gang Area	0.0002 (0.0002)	0.0003 (0.0003)
Surrounding Gang Area	0.0004 (0.0003)	0.0003 (0.0003)
Gang Competition	**0.0004^{*} (0.0002)**	**0.0007^{*} (0.0003)**
Constant	0.0060^{***} (0.0003)	0.0076^{***} (0.0003)
Observations	793	429
Note:		*p<0.1; **p<0.05; ***p<0.01

On the whole, these findings provide strong support for the stationary bandit theory of

[11] For this reason, the DV is measured explicitly in this model as the rate of robbery, as compared to model 1, where it was measured as a count with the population measure included in the predictor variable.

gangs and social order. Substantively, in the year 2011, when holding potentially confounding factors at their means, we expect around 19 robberies in a tract where the surrounding gang competition is at the highest recorded level, compared to around 12 robberies in a tract where gang competition is at its lowest recorded level. These findings are particularly noteworthy given to the fact that reported robbery is not a natural component of competition between gangs. While we may view crimes like homicide and assault as natural offspring of competition between gangs, the positive relationship between gang competition and robbery is more surprising, and point to an additional mechanism through which gang competition impacts local patterns of crime and order: when gangs compete locally, they are less likely to invest in institutions protecting local residents from predatory crime like robbery, and more likely to engage in such predatory behavior.

1.6 Conclusion

Social order is of critical importance for urban social, political, and economic development. When residents are subject to high rates of predatory crime like robbery, their well-being is threatened and they are less likely to invest in potentially productive political and economic activities. Despite the fact that armed gangs maintain a pervasive presence in many of the world's major cities, our understanding of the ways in which such groups inhibit or promote order is limited. By only examining the impact of the presence of gangs on urban order, the limited existing work on the issue produces mixed results and may overlook important factors that mediate the relationship between gangs and order.

Borrowing from theory and findings on larger-scale violent groups, this paper presents a theory connecting structures of gang competition to local patterns of social order. While gang competition may intuitively lead to higher levels of violence between gangs, the theory suggests that it has broader impacts on social order in terms of patterns of robbery. In the context of lower levels of competition, gangs are able to maintain longer time horizons, and

are thus more likely to abstain from predatory behavior against residents and even invest in order-enhancing protective institutions. In contrast, higher levels of competition are likely to lead to higher rates of predation, as gangs with shorter time horizons are less likely to make such investments. The paper's quantitative findings support this theory: even when controlling for demographic factors, socioeconomic factors, and the extent of the presence of gang territory, areas where gangs are in less competition are likely to display lower rates of robbery.

These findings contribute to both scholarly work on urban crime and broader political economic work on order and violence. Given the dearth of theoretically-motivated studies in criminology (Sampson 2013), the paper builds on broader political economic theories and findings to highlight the mechanisms driving the varying behavior of gangs toward local residents, showing how levels of gang competition impact patterns of social order and predatory crime. In doing so, the paper also contributes to broader work violence and order. Although most political economic studies of violence examine differences between countries or relatively large sub-national units, the findings show that, especially in urban areas, the impact of armed organizations may systematically vary between relatively small areas. Finally, given the general absence of data on early conditions of state-building, examining criminal gangs, which also attempt to monopolize violence and extract rents from territories, provides a rare opportunity to test the micro-foundations of prominent theories of state building. In this case, the findings support key processes developed in the "stationary bandit" theory, in which self-interested armed organizations that monopolize local violence promote social order.

From a policy perspective, these findings present difficult implications in terms of strategies for promoting urban order and development. In the US, gang enforcement strategy has typically entailed attempts to disrupt organizations either by targeting leaders or, more recently, entire organizations through the RICO act (Quinones 2014*a*). Success with either strategy may lead to greater levels of criminal competition, as gangs attempt to fill power

vacuums. Given the findings presented here, we might expect such competition to be associated with lower levels of social order. However, this does not necessarily mean that the social order that gangs promote is normatively preferable to disorder. Just as authoritarian regimes may simultaneously promote social order while engaging in gross violations of human rights, gangs that dominate areas in many cases engage in selective violence and/or other undesirable behavior (for example, see Holland and Rios (2015), Holland (2015)). However, by highlighting the potential tradeoffs between the fracturing of criminal organizations and broader social order, the theory and findings presented here allow for better-informed debates on how to promote peaceful and prosperous urban communities.

Chapter 2

Gangs, Drugs, and the Political Economy of Ethnic Violence in Southern California

2.1 Introduction

On an evening in August 1992, the homes of two African American families in the Ramona Gardens housing projects, just east of downtown Los Angeles, were firebombed. While the families were not affiliated with a street gang, they were widely believed to be targeted by Big Hazard, a Mexican-American gang that had maintained high levels of informal authority in the neighborhood since the 1940s. For nearly two decades following the incidents, the African American population in this predominately Latino neighborhood evaporated to virtually zero. However, by 2010, with improvements in crime prevention and a weakening of Big Hazard's power in the area, black families had begun moving back into the neighborhood. By 2013, a profile in the *Los Angeles Times* highlighted improvements in inter-ethnic relations in Ramona Gardens. Despite this progress, in May 2014, in events eerily similar to those of 1992, four apartments were firebombed, three of which housed African American families.

The attacks came as a blow to the many residents who had toiled to ease local racial hostility. While police may suspect gang and racial motivations in the crimes, and DNA evidence points to at least one suspect who is a member of Big Hazard, even a $100,000 reward has thus far failed to break the culture of silence enforced by the local gang.[1]

In the early 1990s, street gangs in Southern California increasingly began to violently target "civilians," i.e. residents with no gang affiliations,[2] based on their ethnicity. In contrast to intra- and inter-gang conflict, such violence has entailed attacks on neighborhood residents due simply to their membership in a different ethnic group, rather than their affiliation with a rival gang. Counting conservatively, over 250 cases of such gang-motivated ethnic violence occurred in Los Angeles County between 2007-2011.[3] The goal of this paper is to explain such violence. In doing so, the paper also addresses key challenges to understanding ethnic violence more broadly.

The development of gang-motivated ethnic violence against civilians (GEVC) is empirically puzzling. First, while criminal gangs have been prevalent in Southern California since World War II, the violent targeting of civilians based explicitly on ethnicity is a relatively new phenomenon, with no evidence of such behavior prior to the 1990s.[4] Additionally, many of the predominately Latino and African American gangs that engage GEVC have historically been rivals with coethnic gangs while peacefully coexisting with non-coethnic gangs. For example, a member of a Latino gang that targeted African American residents claims that prior to this period, "my gang was getting along with blacks real good," while another

[1]For details on the 1992 attack, see Becklund (1992). Becerra (2013) highlights improvements in the area beginning in the late 2000s. For discussion of the 2014 attack, see Becerra and Winton (2014).

[2]Although "civilian" typically refers to a person who is not a member of more traditional armed forces, I use the term more liberally to denote lack of membership in a criminal gang.

[3]This count only includes cases in which the perpetrator explicitly stated his gang affiliation during the incident, and where authorities determined that the victim was chosen based on ethnicity.

[4]There is no journalistic or legal evidence of such behavior prior to the early 1990s, and the relative novelty of this behavior was corroborated in interviews conducted by the author in Los Angeles in 2012 with gang intervention specialists. This does not mean that gangs did not prey on members of other ethnic groups prior to this period. For example, both black and Latino gangs have been known to target new undocumented immigrants with robbery. However, police sources claim that such targeting motivated primarily by opportunity, rather than ethnicity per se, as these immigrants' had higher propensity to carry cash and their legal status and lack of English left them with little means for legal recourse (Katz 1993).

echoes this sentiment, stating that, "I grew up with nothing but blacks... we used to sell dope together. We used to get high together," (Quinones 2014*b*, p. 277, 282). Furthermore, from a strategic standpoint, attacks on civilians often attract considerable attention from media and law enforcement. When dealing with other issues that attract police attention, gang leaders typically prohibit and/or punish such behavior in order to avoid potential cuts in profits (for example, see Blatchford (2008)). In contrast, in cases of GEVC, these same leaders often tolerate and encourage this attention-attracting violence. Why?

By developing an explanation for ethnic violence by gangs, the paper also provides insight into broader processes of organized violence. Street gangs may lack the formal political ambitions of many armed organizations, but they are similar in that they maintain the capacity for violence, have territorial ambitions, and attempt to extract rents from those territories. Additionally, in contrast to groups operating in civil wars or failed states, the local organizational structures, incentives, and behavior of gangs are in many cases more accessible to researchers, allowing for a deeper probing of two theoretical puzzles facing studies of larger-scale violence. First, ethnic violence is often pervasive in civil wars. Social scientific theories on the root causes of ethnic violence typically employ either expressive or instrumental approaches, with the former pointing to the social-psychological desire to express group worth, and the latter pointing to rational material self interests. The findings presented here show that instrumental motivations can best account for the patterns underlying ethnic violence by gangs in Southern California, while also pointing to corollaries between such processes and those taking place in larger-scale conflicts. In doing so, the paper also contributes to a second theoretical puzzle. Although political economic theories of violence tend to focus on higher-level (i.e. country-level) cleavages and variables, scholars also recognize that violence "on the ground" in civil wars or failed states may be driven by locally specific conflicts (Kalyvas 2003). By closely examining instrumental incentives stemming from the structure of local organizations and markets, the findings help illuminate when, where, and why members of armed organizations are likely to use ethnic violence for the sake of localized disputes.

The central theoretical claim focuses on instrumental processes driven by three factors: 1) local structures of authority within armed organizations, 2) links between local rents and the ethnic makeup of markets, and 3) perceived threats to local markets. More specifically, when the ability of local leaders of armed organizations to extract rents is tied to market shares of particular ethnic groups, ethnic violence against civilians may be used as a tool to settle local disputes such that the ethnic distribution of market participants favors this rent extraction. In such contexts, ethnic violence against civilians is tied to efforts to ensure that members of particular ethnic groups dominate current and/or future markets, and such attacks are most likely to occur in areas where leaders perceive threats to profitable markets.

The explanation for GEVC in Southern California builds upon this theoretical framework. In the early 1990s, incarcerated leaders of prison gangs began using their power behind bars to exert authority over gangs in the streets of Southern California.[5] These leaders profit by extracting rents from, or "taxing," illicit market activity in the streets. However, because formal and informal prison institutions allow them to more effectively exert authority over coethnic gang members, the ability of these leaders to profit is directly tied to the illicit market share of coethnics. In this context, ethnic attacks on civilians are systematically driven by local conflicts over illicit drug markets through two mechanisms. First, because leaders perceive the main threat to extracting local rents to be non-coethnic gangs that they cannot tax, they foment violence against non-coethnic gangs that represent immediate threats to market domination, creating environments in which ethnicity is used as a shortcut for identifying rivals and thus increasing the likelihood that civilians are attacked based on their ethnicity. Second, because they fear that the presence of certain non-coethnic civilians will attract future competitors, leaders in some cases directly promote attacks on civilians in efforts to push these "latent" threats away from markets. However, because such violence

[5]The timing of the onset of this violence in the early 1990s is due to the fact that the institutions used by leaders of prison gangs to exert authority have their origins in this period, in which a new generation of leaders gained power in the most prominent prison gang in the state (Blatchford 2008). However, because the lack in historical data precludes extensive analysis on changes over time, the paper focuses on the spatial implications of the institutions that have been in place since that period.

is costly to short-term profits, it is most likely to occur in areas where illicit drug markets are more profitable, and the long-run benefits are thought to outweigh these costs.

To develop and defend this argument, the paper relies on detailed qualitative and quantitative data. Focusing on local organizational authority, rent extraction, and competition, the first stage of the research uses legal records, interviews with gang intervention workers and former gang members, journalistic accounts, and secondary sources to closely examine links between gang organizational structures and ethnicity, as well as potential market incentives for GEVC. This qualitative work yields the hypothesis that ethnic violence against civilians in Southern California is more likely to occur in areas near profitable illicit drug markets, where imprisoned gang leaders, through their attempts to ensure that current and future markets are dominated by coethnics, are more likely to promote environments in which civilians are both inadvertently and deliberately attacked based on ethnicity. The second stage of the research then uses fine-grained spatial data on violence and local drug markets to quantitatively test the spatial implications of the theory. As expected, an autologistic model shows that proximity to profitable illicit drug markets is a major driver of gang-motivated ethnic violence against civilians, even when controlling for potentially confounding variables.

The paper proceeds as follows. The second section briefly presents the theoretical framework that informs the following analysis. The third section then outlines the empirical strategy used in the paper. The fourth section then presents background on relevant issues of gang violence and ethnicity in Southern California. The fifth section presents the qualitative work on the links between local organizations, markets, and ethnic violence against civilians by gangs. The sixth section then presents the quantitative testing of this theory, and the final section concludes by considering the broader lessons of the findings.

2.2 Theoretical Framework: Organizational Authority, Markets, and Ethnicity

Ethnic violence against civilians entails the threat or use of violence by members of an armed organization, in which the victim, who is not a member of an armed organization, is selected based on her real or perceived ethnicity. Scholarly debate on the drivers of ethnic violence is split between expressive and instrumental approaches. Expressive theories, while typically rejecting primordialist assumptions of "ancient hatreds," view violence as the result of emotional and cognitive processes, with individuals using ethnic violence to assert their membership in a group worthy of esteem (Horowitz 1985, Petersen 2002, Lieberman and Singh 2012, Sambanis and Shayo 2013). In contrast, instrumentalist theories view ethnic violence as mainly a tool used to obtain material and/or political goals, often those of elites (Sklar 1967, Bates 1983, Gagnon 1997, Brass 1997).[6]

In the case of ethnic violence against civilians, this paper argues that the instrumentalist approach can more adequately account for local patterns of violence. More specifically, scholars recognize the proclivity of armed combatants to use organized violence to settle local and private disputes (Kalyvas 2003). Although political scientists have made considerable advances in explaining patterns violence against civilians in the context of civil war (for example, see Kalyvas (2006), Weinstein (2006), Humphreys and Weinstein (2006), Kalyvas and Kocher (2009), Metelits (2010), Balcells (2010)), this work has been slow to account for the role of locally specific disputes. When considering such violence along ethnic lines, by focusing on instrumental processes stemming from structures of local organizational authority, links between ethnicity and rents, and market competition, we can build and test explanations on the role of localized disputes in systematically driving violence.

Because the focus is on violence committed by members of armed organizations, the first

[6]Because violence is complex, it is likely that in many cases elements of both perspectives may impact the propensity of individuals to engage in violent behavior. A limited number of studies have thus systematically incorporated elements of both approaches into their theories (for example, see Lieberman and Singh (2012).

key component of the theoretical framework is the structure of local organizational authority. Although violence "on the ground" may be driven by local and private conflicts, examining the level and structure of local authority within armed organizations can help to understand *which* local disputes are most likely to be addressed with such violence. For example, when discussing general violence in civil war, Kalyvas (2003, p. 476) notes that "actors seeking power at the center use resources and symbols to ally with peripheral actors fighting local conflicts," who then use violence in attempts to settle local disputes. However, this does not mean that *all* local actors are able to use organized conflict to gain leverage in local disputes. Rather, when actors are embedded in organizations, those with the authority to dictate the use of violence within organizations will be better able use such violence in the disputes that are of their own direct concern. Furthermore, in addition to clarifying which local and private conflicts are most likely to be addressed using organized violence, understanding the level of organizational authority also helps to clarify questions raised by Fearon and Laitin (2000) on why rank and file members engage in violence that serves the individual interests of local elites. A frequent criticism of instrumentalist approaches to ethnic violence is that they rely on the assumption of a "false consciousness," in which individuals are easily manipulated by self-interested elites (Horowitz 1985, Sambanis and Shayo 2013). By examining local structures of authority, we can identify organizational incentives for rank and file members of armed groups to participate in ethnic violence.

After examining local structures of authority, the next key is to understand how and why ethnic considerations may impact the ability of those with authority to profit from a given territory. Local disputes often revolve around scarce resources, and whether leaders extract rents or directly participate in markets, there are many mechanisms through which their ability to profit may be impacted by the ethnic makeup of local markets. For organizational leaders who profit by taking rents from local producers, geographic patterns of segregation and/or formal political institutions in many cases result in leaders establishing patron-client linkages within coethnic communities (Bates 1983). In such cases, the ability of a leader to

profit from a given territory is directly tied to the market share of coethnics. For example, in his classic study of a Hausa ethnic community in Nigeria, Cohen (1969) shows that because long distance trade was facilitated by connections within ethnic groups, the ability of local chiefs and landlords to take payments from traders was directly tied to the extent to which coethnics controlled markets. Likewise, in Northern Ireland, because paramilitary groups were able to extort from business conducted in coethnic communities, a larger coethnic market share translated into greater profits (Anderson 1994). Additionally, even for those local leaders who profit by directly participating in markets, there may be mechanisms through which ethnic considerations impact their profit margins. For example, in the US in the 1920s, members of the Ku Klux Klan used cultural identity and attacks in attempts to increase the demand for their agricultural and industrial products, all while keeping prices high by ensuring that suppliers were fellow middle-class Protestant whites (McVeigh 1999). Furthermore, Robinson (2013) shows that because interpersonal trust facilitates trade, markets are often segmented by ethnicity. In this context, larger market shares for coethnics may provide more opportunities for the leaders of armed organizations to profit from local market transactions. Additionally, even religious institutions may link the individual profits of leaders to the ethnic makeup of local markets: in Iraq and Syria, for example, the Islamic State's supposed reliance on particular interpretations of Islamic doctrine is used to justify taxing members of certain ethno-religious groups and also to engage in human trafficking of members of particular groups (Noble 2014).

Examining these local structures of authority and links between leaders' profits and the ethnic makeup of markets makes the task of building systematic explanations of the role of local conflict more manageable by narrowing the scope of private disputes that are likely to be addressed with organized ethnic violence. With this in place, the final step of the theoretical framework is to build hypotheses for when and where ethnic violence against civilians is most likely to help leaders profit from a given territory. Doing so requires an understanding of local contexts, and specifically how ethnic violence against civilians may facilitate or undermine

the ability of leaders to profit. Broadly, however, the argument posited in this paper is that ethnic attacks on civilians can be used as a tool to push potential non-coethnic competitors away from markets, thus ensuring that organizational leaders can extract rents from larger portions of these markets. Such violence is thus more likely to occur in areas where the profits of organizational elites are impacted by the ethnic makeup of local markets, and particularly in areas where leaders perceive threats to profitable markets.

Although the framework presented above uses instrumentalist logic to develop a broader argument on a systematic link between local conflict and ethnic violence against civilians, developing testable hypotheses first requires an understanding of structures of authority within organizations, links between rent extraction and the ethnic composition of markets, as well as patterns of market competition within a given case. Toward this end, the next section briefly outlines the specific empirical strategy used to analyze the role of local market conflict in driving ethnic violence against civilians by gangs in Southern California.

2.3 Research Design

A key challenge to studying the role of localized conflict in driving violence by armed organizations is the difficulty in incorporating such dynamics into systematic analysis and broader theories. To avoid this issue, analysts typically forego studying the role of local or private conflict, and instead examine differences in violence between relatively large units such as states or highly aggregated subnational units. However, Kalyvas (2003, p. 476) emphasizes the "pitfalls of overlooking important evidence just because it is not easily systematized," and argues that the disaggregation necessary to incorporate local conflict is, "impossible without the use of typically unsystematized fine-grained data." To examine the systematic impact of local conflict in driving ethnic violence against civilians, the research design in this paper includes two stages. The first stage examines fine-grained qualitative data on locally specific organizations and markets, paying specific attention to structures of organizational

authority, the relationship between rent extraction and ethnicity, and the contexts in which ethnic violence may increase profits for leaders. This qualitative work yields observable implications on the systematic impact of local conflict in driving violence, which are tested in the quantitative second stage of the research design. These results illuminate the systematic relationship between local conflict and violence within Southern California, while also supporting the broader theoretical argument presented in the previous section.

The study examines gang violence in Southern California, focusing specifically on violence committed for the sake of a criminal gang, in which the victim was selected explicitly based on ethnicity. The victims of such violence are not gang members, but were rather targeted by gang members because of their real or perceived ethnicity. Although such violence has become increasingly prevalent in Southern California beginning in the 1990s, it has not been the subject of rigorous empirical analysis.

Analyzing violence committed by criminal organizations like gangs has both drawbacks and advantages in terms of our broader understanding of violence committed by armed organizations. A key drawback is that while criminal organizations in many cases participate in violence that is comparable to that other armed groups, they typically do not seek formal political authority, thus leaving little opportunity to study how efforts to gain political legitimacy or authority may impact the propensity of groups to engage in violence against civilians. However, even larger-scale organizations in civil wars often hold negligible political ambitions, and although such groups may in some cases behave differently than those that are driven by political ideologies and ambitions (Weinstein 2006), they also share many similarities. Specifically, "armed organizations" can include any group with the capacity for violence that seeks to maintain formal or informal control over territory from which it extract rents. It is likely that such rent seeking leads to similar patterns of behavior between groups that are seemingly very different. In this sense, focusing on criminal gangs allows us to build potential bridges between work on violence in consolidated democracies with the more typical focus on civil wars and failed states. Furthermore, because the theoretical framework closely

considers locally specific organizations and markets, any case selection will be limited in the sense that broader generalizations can only be suggestive. However, by providing a wealth of fine-grained data on local organizational structures, markets, and violence that is often very difficult to come by in the context of civil war or failed states, findings on criminal gangs can illuminate key processes and help streamline important decisions for scholars conducting work in environments where data collection is particularly costly.

The goal of the first stage of the research is to qualitatively examine the three key factors of the theoretical framework presented in the previous section. By examining the gang organizational structures that have been in place since the early 1990s, the qualitative analysis identifies varying incentives to engage in ethnic attacks on civilians across space. To do so, this stage relies on a variety of qualitative sources. Legal documents based on law enforcement investigations and testimony by gang members, such as criminal indictments, trial transcripts, and criminal complaints are supplemented with journalistic accounts, secondary sources, and roughly 50 interviews with gang intervention workers and former gang members to form the basis of this qualitative stage. By closely probing the key local organizational structures and markets involved, this section provides an explanation for where and why local market conflicts are likely to lead gangs to attack civilians based on ethnicity.

The main observable implication of the qualitative work is that if instrumental incentives stemming from local organizational authority, profits, and market conflict are in fact driving ethnic violence against civilians, such violence is most likely to occur near profitable drug markets, where the benefits of such violence, in terms of long-term rent extraction, outweigh the costs. The goal of the second stage of the research is to quantitatively test the hypothesis in Los Angeles County. To do so, it uses data on the location of ethnic hate crimes committed by gangs collected from the governmental organization charged with tracking inter-ethnic violence in the county. Additionally, it uses data from the two main law enforcement agencies in Los Angeles County in order to measure the spatial distribution of illicit drug markets. With this in place, a spatial autologistic model analyzes the systematic relationship between

localized conflict over markets and gang-motivated ethnic violence against civilians.

The rest of the paper presents this two-part analysis. First, however, the next section outlines the relevant background of gangs, ethnicity, and violence in Southern California.

2.4 Ethnicity and the Evolution of Gangs in Los Angeles County

While the key organizations involved in gang-motivated ethnic violence in Los Angeles, African American and Latino street and prison gangs, have developed into relatively ethnically homogenous groups, this progression can largely be attributed to two historical contextual variables: segregation and weak state protective institutions. Considering these variables in conjunction with theories on the political economy of order and violence helps to clarify this connection. Both classical work (see Hobbes (1947 [1651])) and contemporary work (see Bates (2001) and Bates, Greif and Singh (2002)) studying the development of violence and order in the context of weak or nonexistent states argue that without the protection of a state, people are likely to invest in the private capacity for violence in order to both defend against and engage in predation. Likewise, scholars argue that a similar principle holds for the development of criminal organizations (Skaperdas and Syropoulos 1995, Bandiera 2003, Sobel and Osoba 2009). In much the same way, the origins of many of the most prominent street gangs in Los Angeles can be traced to efforts to defend against predation while also preying on those without protection.

From its settlement in 1781, Los Angeles has been home to a diverse community, housing substantial populations from multiple ethnic groups. During the World War II era, Latino and African American populations in the area were largely segregated into underdeveloped areas through the use of restrictive real estate covenants (Jones-Correa 2000-2001, Simpson 2009). Relations between the residents of such communities and local police were notoriously antagonistic, leaving residents with little confidence that the state would protect them from

the predatory behavior. This context, in conjunction with the increasing violence they faced from members of other communities,[7] led to the creation of African American and Latino youth social clubs, which sought to protect members from intra- and inter-ethnic violence (Alonso 2004, Howell and Moore 2010). However, as such groups developed, they also preyed on unprotected youth, leading to a proliferation in membership as young residents sought protection. This process can account for the development and spread of the Crips and Bloods gang organizations, to which most contemporary black gangs in Los Angeles are aligned (Peralta 2008). Likewise, many of the key Latino gangs in the area share similar origins. For example, in the Pico-Union area, the gang Clanton 14 emerged as an early *pachuco* social club. However, in the 1960s, because the gang refused to accept non-Mexican-Americans under its protective umbrella, a group splintered off to create the 18th Street gang, which in the following decades would become Los Angeles' largest gang by many standards. By the 1980s, with gangs like 18th Street firmly established in Pico-Union, the children of a new wave of immigrants fleeing civil war in El Salvador initially made easy targets of violence. To protect themselves from these more established organizations, a group of these immigrants formed *Mara Salvatrucha*, now known as MS-13, which in the following decades would grow to become an infamous transnational criminal organization. In a similar manner, other major Latino gangs in the area, from Florencia 13 to the Avenues, trace their beginnings to efforts to organize for protection from violence.

In a similar manner to street gangs in Los Angeles, prison gangs in California, which the qualitative analysis demonstrates to be crucial to understanding gang-motivated ethnic violence, also have their origins in efforts at self-protection. For example, the Mexican Mafia, now considered one of the most powerful criminal organizations in the US, was founded in a prison in California by Mexican-American prisoners, most of whom were also members of Los Angeles street gangs, to protect themselves and their property from other inmates. As the Mexican Mafia grew in power and influence, prisoners left on the outside of its protec-

[7]For example, groups like the *Spook Hunters* preyed on black youth, while events like the Zoot Suit Riots pitted youth Mexican-American youth against sailors waiting to be shipped war.

tive umbrella were forced to create their own protective gangs; through this process, Latino prisoners from Northern California, black prisoners, and white prisoners created La Nuestra Familia, Black Guerrilla Family, and the Aryan Brotherhood prison gangs, respectively (Skarbek 2014). As gang violence in California prisons began to fall along ethnic lines, prison authorities implemented policies of racial segregation in an effort to prevent violence, thus institutionalizing ethnic categories behind bars (Taylor 2003).

It should be clear from this discussion that while many of the key criminal organizations operating in Southern California may have their origins in efforts at self-protection, the groups typically evolved to engage in predatory behavior of their own. From a theoretical standpoint, this should not be surprising, given what we know about the development of private violence and states more generally. As groups increased their capacity for violence in order to protect themselves, they also gained the capacity to use this violence to enrich themselves and increase their own power (Bates 2001). Such predatory behavior often spawned new protective organizations, which would then go through a similar process. Additionally, given this capacity for violence, street gangs were in a unique position to take advantage of the rapid expansion of American illicit drug markets in the 1970s and 1980s. While demand for drugs like cocaine and heroin exploded during these decades, because the trade was illegal, suppliers of these products could not benefit from traditional institutions governing markets and dispute resolution. Under these circumstances, violence and the threat of violence became the key mechanism in governing markets, allowing gangs to dominate urban drug markets and providing them with a key source of income (Skarbek 2014).

Despite the fact that historical circumstances lead gangs in Los Angeles to be largely ethnically homogenous, and that conflict within prisons in California is oftentimes drawn sharply along ethnic lines, most gang crime and violence in Los Angeles nonetheless occurs within, rather than across, ethnic groups. Members of each major ethnic group are more likely to be victimized by and perpetrate violence against members of their own ethnic group.[8]

[8]For detailed analysis comparing intra- and inter-ethnic violence in Los Angeles, see Hipp, Tita and Boggess (2009).

Additionally, while the predecessors to many of Los Angeles' major contemporary gangs may have been born out of attempts to protect youth from being preyed on by members of other ethnic groups (as well as by coethnics), explicit targeting of residents based on ethnicity was largely absent from gang behavior for most of the second half of the 20th Century. Although opportunistic gang members would occasionally choose non-coethnic victims who would have little legal or informal recourse, such behavior did not differ substantially from the opportunistic crimes that gangs would commit against coethnics (Katz 1993).

However, while intra-ethnic crime has remained the most prominent form of gang violence, beginning in the 1990s, some gangs also began engaging in a form of ethnic violence that was largely absent in the preceding decades. Such behavior, which I've label gang-motivated ethnic violence against civilians (GEVC), entails any predatory crime committed for the sake of a gang, in which a "civilian" (i.e. not affiliated with a gang) victim is specifically selected based on her real or perceived ethnicity. The necessary components in this definition are the presence of both gang motivations and a victim who was selected based on ethnicity rather than her gang affiliation or chance. Thus, cases in which a gang member commits a ethnic hate crime would not be classified as an incident of GEVC unless there were clear indicators that he committed the act for the sake of or in the name of a particular gang. Likewise, cases in which gang members attack non-coethnics would not be included in this definition unless there were clear evidence that the victim was selected based on her ethnicity.[9]

Acts of GEVC can be explicitly violent in the form of assault, homicide, arson, or robbery, or can imply the threat of violence through means such as intimidation or graffiti. In 2012, for example, upon seeing an African American couple walking with their young child in the Glassell Park neighborhood of northeastern Los Angeles, a member of the Avenues, a predominately Latino gang, yelled racial epithets from his balcony and proceeded to chase the family while wielding a shotgun, demanding that they leave the neighborhood (Lopez 2012).

[9]Classifying cases based on underlying motives can be messy and difficult. As discussed further in the Section 2.6, the data employed in this article employs a strict coding scheme in which a both gang motivation and a specific reference to ethnicity must be explicitly stated during the incident in order for it to be categorized gang ethnic targeting.

Such behavior is not isolated. In Compton in South Los Angeles, members of the Compton 155 gang have been known to target black families moving into neighborhoods, using racial slurs and sometimes violence while demanding that they move out of the neighborhood. Such incidents have also been known to result in violent assaults and homicides, with murders occurring in a wide range of areas throughout greater Los Angeles, from San Pedro on the coast, to the San Fernando Valley north of the city, and Riverside to the east of Los Angeles county. Additionally, although African Americans are often the victims of GEVC, members of black street gangs have targeted Latino civilians in areas such as the city of Pasadena and the Florence-Firestone neighborhood of South Los Angeles. There were 258 recorded incidents of GEVC in Los Angeles County between 2007-2011.[10] The victims in 199 of the cases, or 77%, were African American, while they were Latino in 38 cases, or 15%. The suspects in 188, or 73%, of the cases of GEVC were Latino, while they were African American in 40, or 16%.

GEVC has garnered considerable attention in media and law enforcement communities in recent years, with most existing explanations pointing to expressive processes of group identity and/or culturally-embedded racism, without providing evidence or closely examining the organizations and actors involved (for example, see Hernandez (2007)). In contrast, a small number of observers have argued that material incentives are the key drivers of GEVC.[11] However, neither the expressive nor instrumental arguments have been subject to rigorous empirical testing. The following sections thus work from the theoretical framework presented in Section 2.2 to build and test an argument explaining the ways in which localized conflict over illicit drug markets systematically drives this ethnic violence against civilians.

[10]These are the only years for which data is available at the time of writing. A further description of the data and data source is presented in the quantitative analysis section.

[11]The journalist who has done the most extensive work on these organizations is *Los Angeles Times* reporter Sam Quinones, who points to GEVC resulting from economic interests of gang leaders. The qualitative section that follows makes use of portions of this in-depth journalism to better understand the relationship between local conflicts and violence.

2.5 Qualitative Analysis

The qualitative analysis focuses primarily on the organizational structures and markets of Latino street gangs in Southern California, which are responsible for the majority of cases of ethnic violence against civilians. Building on the instrumentalist theory presented in Section 2.2, it shows that incarcerated members of prison gangs have gained authority over street gangs, and use this authority to extract rents from local illicit drug markets. However, because this authority only extends to coethnic gangs, their ability to profit is tied to the illicit market share of these coethnics. This dynamic has resulted in organizational elites favoring coethnics in local market disputes, leading to complex links between ethnic violence between gangs and ethnic violence against civilians. In some cases, ethnic violence against civilians is driven by attempts by leaders to foment ethnic violence between gangs, with attacks on civilians taking the form of collateral damage from leaders' efforts to push out immediate threats to markets. In other cases, ethnic violence against civilians is deliberately promoted by these leaders, and is used as a tool to mitigate future threats to markets by attempting to deter civilians who might attract competitors from residing near markets. Given both mechanisms, civilians are most likely to be victims of ethnic attacks in areas with particularly profitable drug markets, where the benefits of such violence are thought to outweigh the costs.

This explanation can be contrasted with arguments that highlight the role of expressive processes of group affinity and animosity, in which gang members engage in ethnic violence in order to elevate the value of their own ethnic group relative to the targeted group. However, by outlining the observable implications of the instrumentalist explanation developed in this section, this qualitative analysis also allows for subsequent testing of the relative explanatory power of the argument against alternative arguments.

2.5.1 Local Authority and Rent Extraction

Focusing on the Latino street gangs that have been responsible for the majority of cases of GEVC, members of the Mexican Mafia prison gang, or *La Eme*,[12] have become elite actors with high levels of influence on the behavior of street gangs. The institutionalization of local authority in the hands these incarcerated elites began in the early 1990s, when a new generation of leadership rose to prominence in the prison gang. In the context of historically high levels of gang violence in Los Angeles, these leaders organized a series of meetings at parks across Southern California, some of which were attended by upwards of 1000 gang members, setting up a new system of gang authority under the umbrella of *La Eme* (Blatchford 2008, Rafael 2007). While the idea that incarcerated members of *La Eme*, or *emeros*, whose ability to move and communicate is severely limited, can exercise power over gang members in the street may seem counterintuitive, Skarbek (2011) outlines the mechanisms through which this power has been achieved. The organization utilizes its coercive power behind bars to either protect or prey on inmates, thus putting immense pressure on members of street gangs, who anticipate future incarceration and/or have close associates who are incarcerated, to abide by the directives of the prison gang both inside and outside of prison. Individual *emeros* thus maintain de facto control over individual parcels of gang territory in the street, which they label *cars*, appointing a *key holder* to act as their representative while they are incarcerated.

However, because non-Latino and non-Southern Californian prisoners fall under the coercive umbrella of different prison gangs behind bars, the authority of *emeros* is typically limited to coethnics from Southern California (Skarbek 2011).[13] Prison gangs in California are sharply segregated along ethnic lines, to the point in which prison authorities often seg-

[12]The letter "M" pronounced in Spanish.

[13]Although early members of the prison gang were primarily Mexican American (with a few notable exceptions), the Mexican Mafia has grown to assert authority more broadly over gangs with a diverse array of Latino backgrounds. For example, *Mara Salvatrucha*, a large predominately Salvadorian gang, uses signifiers in its name and graffiti to denote allegiance to the Mexican Mafia. Thus, "coethnic" here refers broadly to gang members of Latin American origin.

regate and even punish prisoners along ethnic lines in attempts to avoid inter-gang conflict.[14] This means that when Latino street gang members from Southern California enter jails and prisons, they fall under the protective and predatory authority of the Mexican Mafia, while non-coethnics fall under the authority of alternative gangs (Taylor 2003, Skarbek 2011).[15] In this way, the vast majority of Latino gangs in Southern California have fallen under the authority of the *emeros*; such gangs are labeled *sureño*[16] and often include the number 13 after their name, signifying "M," the 13th letter of the alphabet, to denote this allegiance.

In turn, the *emeros* use this authority to generate a substantial stream of income by "taxing" the drug trade in the territories under the control of *sureño* gangs. This form of rent extraction is similar to more familiar taxation regimes, and consists of individual *emeros* taking a portion of the illicit profits that gang members make dealing drugs and/or extorting local drug dealers. For example, in Costa Mesa, Forming Kaos, a local street gang, extorts a set fee from all drug traffickers in its territory. It then pays two-thirds of this "tax" to the representative of an *emero* (often a wife), who puts some of the funds in his prison account while holding on to the rest for him (*United States v. Munguia et al* 2011).[17]

The extent and limitations of *emero* authority over local *sureño* gangs is illustrated by one of the key strategies for increasing the profitability of the illicit drug markets from which *emeros* extract rents. As Levitt and Venkatesh (2000) demonstrate, conflict over drug markets can severely decrease profits. To increase profits, *emeros* thus discourage and attempt to curb conflict between *sureño* gangs (Skarbek 2011). To this end, in many cases, individual *emeros* have successfully been able to coordinate peaceful relations between

[14] In 2005, the US Supreme Court ruled that official use of racial classifications in prisons must be "narrowly tailored to serve a compelling state interest"(*Johnson v. California* 2005). Despite this, use of racial and ethnic group categories by prison authorities has remained prevalent, and groups have in recent years filed a lawsuit (see *Mitchell v. Cate* (2011)) in order to stop California prison authorities from punishing prisoners based on ethnic group membership.

[15] Latino gang members from Northern California fall under the authority of a different gang, *Nuestra Familia*, resulting in them also falling under different authority.

[16] Translated as "southerner," as opposed to the Northern California Latino *norteño* gangs that fall under the authority of the Nuestra Familia prison gang.

[17] The amount of this tax varies between territories, and is in some cases a set monthly fee and in other cases a specific portion of profits.

sureño gangs within the territory, or "car," under their control. For example, upon taking control of the Florence-Firestone neighborhood of South Los Angeles in 2005, an *emero* was able to coordinate *sureño* gangs by sending a letter mandating that four smaller gangs join under the larger Florencia 13 gang or else face a "green light." This "green light" is a tool that is commonly used by *emeros* to exert authority, and gives all *sureño* gang members in prison and the streets license to attack the recipients of the green light. The *emero* in Florence-Firestone also ordered members who were actively engaged in drug trafficking to help other *sureños* enter the market (*United States v. Vasquez et al* 2007). Similarly, in Ventura, an *emero* uses threats of violence to force formerly rival *sureño* gangs to cooperate in business (*California v. Madrigal et al* 2012, Chawkins 2012), while in Boyle Heights, an *emero* controlling multiple gangs allows members of particular gangs to deal drugs in the territories of the others (*United States v. Jackson et al* 2014). Likewise, in Orange County, an *emero* controls conflict between gangs by handing out violent and/or monetary punishments to gangs that participate in unsanctioned violence (*United States v. Ojeda et al* 2011).

However, despite the fact that nearly all Latino gangs in Southern California are under the authority of an *emero*, and that *emeros* have strong incentives to maintain peace between these gangs, violence between *sureño* gangs remains relatively common. This discrepancy can be attributed to the structure of the Mexican Mafia. The organization has no formal hierarchy, and individual *emeros* profit by controlling the illicit tax revenue within specific geographic areas ("cars"), often the area from which they originated. As we might expect given both a decentralized organizational structure and problems with communication inherent in illicit business between prisoners and criminals on the street, there is often conflict and uncertainty over who has the right to collect taxes in particular swaths of territory. For example, at various times in El Monte (*United States v. Gutierrez et al* 2014), Pico-Union (*United States v. Pantoja et al* 2007), Florence-Firestone (*United States v. Vasquez et al* 2007), Azusa (*United States v. Rios et al* 2011), and Orange County (*United States v. Ojeda et al* 2011) multiple *emeros* have clashed over rights to tax, leading to conflict

between street gangs supporting different elites. Such problems are exacerbated by rivalries between *emeros* housed in federal prisons and those housed in state prisons.[18] Thus, although individual *emeros* tend to have very high levels of authority over gangs operating in their respective "cars", and set rules governing gang behavior in a given area, they often have difficulties coordinating this authority across territories.

2.5.2 Ethnicity, Rent Extraction, and Violence

Given the structure of gang authority, along with the way in which *emeros* with authority extract local rents, the ability of these *emeros* to profit is directly tied to the market share of *sureño* gangs, with larger market shares yielding larger potential profits. For this reason, *emeros* attempt to ensure that these "taxable" gangs dominate local markets. In some areas, this strategy has entailed pushing for a monopoly under one specific gang from which an *emero* extracts taxes. For example, the *emero*-directed Harpys gang in Los Angeles prohibits the sale of narcotics by non-members in its territory, as well as the presence of members of other street gangs (*United States v. Roman et al* 2012). Such a strategy is further illustrated in a "business plan" drawn up by the representative of an *emero* for the Azusa 13 gang, in which he wrote that the goal was to, "reserve the exclusive rights to controll [sic] the underground drug market in Azusa," and that members were to, "imagine the 'varrio' [neighborhood] as a company, [and] imagine the homeboys as employees of this company... [and that the] company provides security services, protection and exclusive sales rights within the Azusa City Limits" (*United States v. Rios et al* 2011). In other areas, such a "monopoly" can be more accurately described as an oligopoly, in which multiple *sureño* gangs, all of which pay taxes to an *emero*, dominate local drug markets. For example, in Escondido, a federal indictment claimed that an *emero* collected payments from three gangs, which would communicate between each other regarding which traffickers had or had not paid taxes (*United States v. Espudo et al* 2011).

[18] In interviews with the author in Los Angeles during 2013, multiple gang intervention experts highlighted such conflicts between groups of *emeros*.

However, because formal and informal institutions behind bars only allow the authority of *emeros* to extend to Latino street gang members, their ability to profit from street drug markets is impacted by the ethnic distribution of market participants. The greater the extent to which coethnics dominate local drug markets, the more money *emeros* can make. This dynamic leads *emeros* to use ethnic violence as a tool for securing maximum profits, which increases the likelihood that non-gang civilians are targeted with ethnic attacks through two mechanisms, one attempting to combat immediate threats to markets and the other combating perceived latent threats.

The first mechanism connecting *emero* efforts to maximize their own profits to a greater likelihood of GEVC is that these leaders encourage local gang conflict along ethnic lines, increasing the likelihood that civilians are subject to ethnic attacks via collateral damage. Because African American street gangs are the main competitor for the distribution of illicit drugs in Southern California, attempts to ensure *sureño* domination of local markets often comes at the expense of entrenched African American dealers and gangs. As a gang intervention specialist stated on public radio in 1994, "It's pretty common knowledge on the street that [*La*] *Eme* has said they want to take over the drug trade in any community where they have people, and to move the black gangs out" (Umemoto 2006). As a result, *emeros* and their associates have promoted conflict between Latino gangs and black gangs in their respective territories. For example, a letter confiscated from a gang member in 1993 advised, "It's about making money these days, not shooting up your own Raza [race]. If you guys wanna shoot somebody go shoot those niggers from Westside 357 or Ghost Town [African American gangs]. You don't need to blast up your own kind no more. That shit is dead," (Blatchford 2008, p. 151).

Such attempts at "ethnic entrepreneurship" by *emeros* and their associates have in many cases succeeded in shifting structures of local alliances and rivalries to follow ethnic lines. For example, in 1990, upon learning that the Tiny Dukes, a predominately Latino gang in Riverside, had been working with the 1200 Blocc Crips, an African American gang, in a feud

with mutual cross-town rivals, an *emero* placed a green light on the Tiny Dukes, resulting in numerous members being beaten and stabbed. To remove the green light, the Tiny Dukes were forced to rid their area of the Crips, leading gang conflict in the area to fall along ethnic lines for much of the next two decades (Ogul 1994, Quinones 2014*b*). In Mar Vista, where Latino and black gangs had for years peacefully divvied up drug turf, gang conflict along ethnic lines erupted after the release of several *emeros* and members of the Black Guerrilla Family prison gang to the area; a Housing Authority Police memo claimed that the cause of the conflict was, "not racial or territorial, but financial," while anti-gang officers concluded that in general, "the Mexican Mafia was trying to organize the gangs to dominate narcotics trafficking..." (Katz 1993). In Florence-Firestone, an *emero* wrote a letter ordering the various factions of the Florencia 13 gang in the area to, "help each other when they engaged in battles with rival African-American street gangs," (*United States v. Vasquez et al* 2007); the neighborhood, where gang conflict had largely been intra-ethnic, has since experienced periods of intense conflict along ethnic lines.

By shifting gang rivalries within territories to fall along ethnic lines, the first mechanism increases the likelihood of ethnic violence against non-gang civilians as a form of collateral damage. In such cases, ethnicity becomes a cue or shortcut for identifying potential rivals, and civilians who are not affiliated with gangs are more likely to be mistakenly targeted with gang violence based on their ethnicity. For example, in the context of gang conflict along ethnic lines in the 1990s in Venice, a neighborhood in Los Angeles, dozens of African American and Latino civilians, typically young men, were victimized. In this case, there is no evidence that *emeros* ordered gangs to target civilians. Rather, the incidents were largely the result of gangs targeting residents who they thought might be associated with rival gangs (Katz 1993). Thus, in their attempts to use violence to gain leverage in localized disputes over drug markets, *emeros* increase the likelihood that civilians are attacked along ethnic lines.

The second mechanism connecting *emero* profit strategies with an increased likelihood

of GEVC is that because they perceive certain non-coethnic civilians to be latent threats to illicit markets, in some cases *emeros* directly promote ethnic attacks on civilians. In such cases, these leaders and their representatives view even the presence of certain civilians to hold the potential to attract future competition for market domination by taxable *sureño* gangs. This dynamic is clear in the way in which both *emeros* and members of street gangs frame and perceive the threat of African American civilians to market control. One former gang member from Azusa claimed that, "we're brainwashed to think that if we let a black family in, then their [gang] cousins are going to come from Compton," (Quinones and Winton 2011). Likewise, the most common theory for the firebombing of homes of African American civilians in Ramona Gardens was that, "one of the many 'sets' within the Big Hazard gang feared that African-American residents would attract competing gang members from outside the project, leading the homeboys into a demeaning fight over their own turf," (Becklund 1992). When African-Americans began moving back into the neighborhood in the late-2000s, even a former gang member who at the time served as a gang intervention worker attempting ease ethnic tensions admitted that, "I was a little worried that they would come in and take over..." (Becerra 2013).

Given such perceptions of latent threats to markets, in some cases *emeros* explicitly promote violence in attempts to push residents of particular ethnic groups away from profitable territories. In Escondido, for example, a gang detective testified that cases of GEVC spiked after an *emero* issued an order focusing on, "getting the blacks out of Escondido," (Lowrey 2012). In Harbor Gateway, a police sergeant claims that, "There was no doubt that there were directives from the Mexican Mafia" to engage in ethnic violence against civilians, while a gang member claimed that participating in acts like arson of African American homes gave the gang credibility in the eyes of the *emeros* (Quinones 2007*b*). In Azusa, incidents of GEVC spiked after associates of *emeros* were released from prison, with a former gang member testifying in court that following their release, members of the gang would go "hunting" for African American residents to attack (Quinones 2008*a*). In such cases, violence against

civilians is used in attempts to dissuade non-coethnic (typically African American) civilians from living near the profitable markets that *emeros* tax. Such violence need not target every non-coethnic in a given area: as a gang intervention worker in Los Angeles claimed, "a little violence can create a lot of fear in the community."[19] Toward this end, overt attacks are often supplemented with intimidating vandalism meant to instill fear in members of particular ethnic groups, with gangs often adding "NK" ("nigger killer") or "no blacks" to the end of their names in graffiti.[20] In this sense, deliberate attacks on civilians are used to create an environment of fear that supports *emero* profits by attempting to decrease the presence civilians who might attract competitors from whom *emeros* cannot extract rents.

Before moving on to the observable implications of this explanation of GEVC, it is important to discuss why rank and file gang members engage in ethnic violence that serves the individual interests of gang elites. While the preceding discussion centered on the incentives of *emeros*, there are reasons to believe that gang members in the street might resist this push toward ethnic violence. First, shifting local gang alliances and rivalries to follow ethnic lines often conflicts with previous experiences of *sureño* gang members, who in many cases have historically been rivals with other *sureño* gangs while peacefully coexisting with African American gangs. As a member of Florencia 13 exclaimed, the *emeros*, "didn't understand how it worked... I hate 38th Street [a Latino gang]. I didn't have no problem with the guys from East Coast [an African American gang] because I grew up with them. It's kind of hard to say, 'Now I'm going to... kill this black guy just because he's black.' But that's how they wanted it." (Quinones 2007*a*). A gang member from the San Fernando Valley echoes this sentiment, claiming, "There were a lot of blacks we grew up with. Once that green light [to attack African Americans] came out, it was like, forget that we grew up playing with Big Wheels together... I would tell [the local *emero*], 'We got cousins that are Crips—half black, half Mexicans.' " (Quinones 2014*b*). Additionally, in cases of violence against civilians,

[19]Quoted from interview with author on October 15, 2012 in Los Angeles.

[20]For example, Big Hazard in Ramona Gardens tags buildings with "Vario BHR no blacks," with "Varrio" used as slang term for neighborhood, and in this cases, BHR used as an acronym for the Big Hazard Rifa gang (*United States v. Jackson et al* 2014).

there are also economic costs for rank and file members. Such violence often increases police attention to gang activity, thus increasing the likelihood that rank and file members are arrested, after which they are no longer able to profit from the local drug trade.[21] Given the potential economic and experiential barriers to ethnic violence for rank and file gang members, why do they nonetheless follow in *emeros*' self-serving interests of ethnic conflict?

The behavior of gang members points to two processes explaining this behavior by typical gang members. First, in some cases, rank and file gang members may truly internalize the racist ideals promoted by elites. As retired LAPD Sgt. Richard Valdemar argues, "[*emeros*] can play the race card to motivate their soldiers on the street..." (Lowrey 2012). A former gang member claims that, "like the family teaches you to pray before a meal, [the *emeros*] are teaching us to be racial." (Quinones 2014*b*). In such cases, the material interests of *emeros* may in fact lead them to cultivate environments in which rank and file members are more likely to engage in expressive forms of ethnic violence. However, a second reason rank and file members may follow in *emero*-benefiting ethnic violence is that they also have individual incentives to do so. It is clear that failing to follow such directives can have negative repercussions in terms of violence in prison. For example, even an *emero* who had gained considerable power was eventually marked for death when his past associations with an African American gang came to light (*United States v. Ojeda et al* 2011). Additionally, engaging in ethnic violence can help rank and file gang members move up the gang hierarchy. As Levitt and Venkatesh (2000) demonstrate, while work in illicit markets can be lucrative, this is typically only the case as one moves up the chain of command. In this sense, engaging in ethnic violence is often framed as a way of "putting in work" to moving up in rank, and thus income.

This means that even if rank and file gang members do not internalize ethnic hatred promoted by elites, they are presented with organizational rules that punish non-compliance

[21]Upon incarceration, gang members can only profit from street drug markets if they are able to be promoted to elite status through official membership in the Mexican Mafia. The likelihood of this is very low, given the small ratio of *emeros* to general incarcerated members of *sureño* gangs.

and reward compliance. In fact, it is clear that many gang members follow directives toward ethnic violence while not necessarily internalizing its ideology. For example, even during the height of ethnic violence and tension in Florence-Firestone, evidence from trial testimony shows that Florencia 13 gang members continued distributing drugs to an African American dealer, with the understanding that the dealer would sell the drugs outside of their territory. Additionally, even in the context of extreme ethnic divisions in California prisons, anecdotal evidence shows that gang members have been known to secretly communicate their good will toward non-coethnics with whom they have personal relationships. "They can't communicate openly," a gang intervention worker claims, "so maybe they'll walk into the other's site line and drop a cigarette or a candy bar that he can pick up later, just to show that they're still cool [with each other]."[22]

2.5.3 Observable Implications

The previous discussion highlights instrumental processes stemming from the local structures of gang authority and profits as key drivers of GEVC. Its focus on organizations and markets can be contrasted with popular claims that such ethnic violence is mainly the result of expressive processes of group identity. To outline the observable implications of the argument, it is necessary to not only understand *emeros*' incentives to propagate such violence, but also the costs of doing so.

Ethnic violence against civilians, whether as a result of collateral damage or more explicit elite directives, is in many ways costly to short-term drug profits, and thus the ability of *emeros* to take rents from these profits. The targeted residents are not actively vying for control of illicit drug markets, and such violence often draws unwanted attention of the authorities to broader gang activity, thus decreasing their ability to conduct illegal business. For example, in the wake of an ethnic attack on a civilian in Harbor Gateway, the mayor of Los Angeles held a press conference in the neighborhood vowing to crack down

[22]Quoted from interview with author on June 18, 2013 in Los Angeles.

on local gangs, while in Monrovia, such attacks led the city to call in extra officers and gang investigators from surrounding cities, resulting in gang sweep in the area (Quinones 2008*b*; 2014*b*). Additionally, it is clear that *emeros* typically take measures to prevent civilian casualties that increase police attention, outlawing drive-by shootings, which have a high likelihood of injuring innocent bystanders, and severely punishing members who mistakenly harm children (*United States v. Pantoja et al* 2007, Blatchford 2008). Such efforts often stem from concerns over short-term drug market profits. For example, in Ramona Gardens, after not being able to conduct a drug transaction due to a heightened police presence, a gang leader disciplined young members of the Big Hazard gang for engaging in behavior that "draws heat" (i.e. attracts police attention) (*United States v. Jackson et al* 2014).

These short-term costs in terms of "drawing heat" can be contrasted with potential long-term benefits to ethnic violence for *emeros*. Lifetime membership in the Mexican Mafia entitles *emeros* to tax illicit income in a given area regardless of whether they are in prison or released, meaning their chief concern can be long-term profits. The role of time horizons in this context can in some ways be contrasted with literature that points to short time horizons of criminals (Lee and McCrary 2009). In this case, the ability to profit by taxing drug markets over the long run can provide leaders with incentives to selectively promote ethnic violence in order to ensure that they can take these rents from larger portions of markets. *Emeros* are thus most likely to tolerate and/or encourage such behavior in places where the potential for such long-term benefits to violence outweigh the short-term costs.

In this sense, examining varying levels of drug market strength and profitability can provide an important lens into the varying incentives for GEVC. More specifically, if such violence were being driven by *emero* efforts to increase their own long-term profits by favoring coethnics in local market conflicts, it would be more likely to occur in areas where drug markets are more profitable. In areas with particularly profitable drug markets, even if violence against civilians decreases short-term profits by increasing police attention, if it is also associated with decreases in immediate and latent threats to profitable markets, then

the long-term benefits, in terms of the ability of *emeros* to extract rents from entire markets, can outweigh these costs. In contrast, in areas with less profitable markets, we would expect the likelihood of ethnic violence against civilians to be lower, as such violence may still lead to increased policing of gang activity in the surrounding area, but the long-term increases to *emero* profits would be negligible. This relationship should hold even when controlling for where gangs are likely to be active and/or where Latinos and African Americans are more likely to come into contact. Thus, the key hypothesis is that:

Hypothesis 2 *Gang-motivated ethnic violence against civilians is more likely to occur in areas with strong illicit drug markets, even when holding constant the likelihood of gang activity and other confounding variables.*

In contrast to this argument, which links local disputes to ethnic violence against civilians through mechanisms related to local structures of authority and rent extraction, evidence of the null hypothesis would suggest either that these instrumental processes are less important than underlying expressive psychological tendencies, or that local conflict and disputes, while important, are not systematically driving violence through the organizational and market mechanisms outlined above. To assess the strength of the argument, the next section thus quantitatively tests the hypothesis linking GEVC to drug market profitability.

2.6 Quantitative Analysis

This section uses spatial data at the census tract level from Los Angeles, CA to test the relationship between illicit drug markets and gang-motivated ethnic violence against civilians while controlling for potentially confounding variables. Los Angeles County is an ideal setting for quantitative testing because its large area, population, and number of cases of GEVC allow for fine-toothed analysis of spatial patterns of violence. Using census tracts as the unit of analysis is common in micro-level studies of criminal behavior because it allows for the inclusion of control data from the US Census Bureau. In 2010, the average census tract

in Los Angeles County had a population of 4097. Due to data restrictions, the analysis is limited to census tracts policed by either the Los Angeles Police Department (LAPD) or the Los Angeles Sheriff's Department (LASD). Depending on the location within the county, one of three different types of law enforcement agency is responsible for local policing. LAPD polices within the City of Los Angeles, serving a population of roughly 3.7 million and covering an area of roughly 500 square miles. Outside of the city limits, policing is handled by either the LASD or the independent police agency of a particular city. The LASD polices an area comprised of unincorporated LA County and cities within the county that have contracted LASD rather than maintain independent police departments; it serves roughly 3 million residents covering an area of roughly 3000 square miles. Figure 1 presents a map of the total area of study, comprised of census tracts that were policed entirely by either LAPD or LASD.

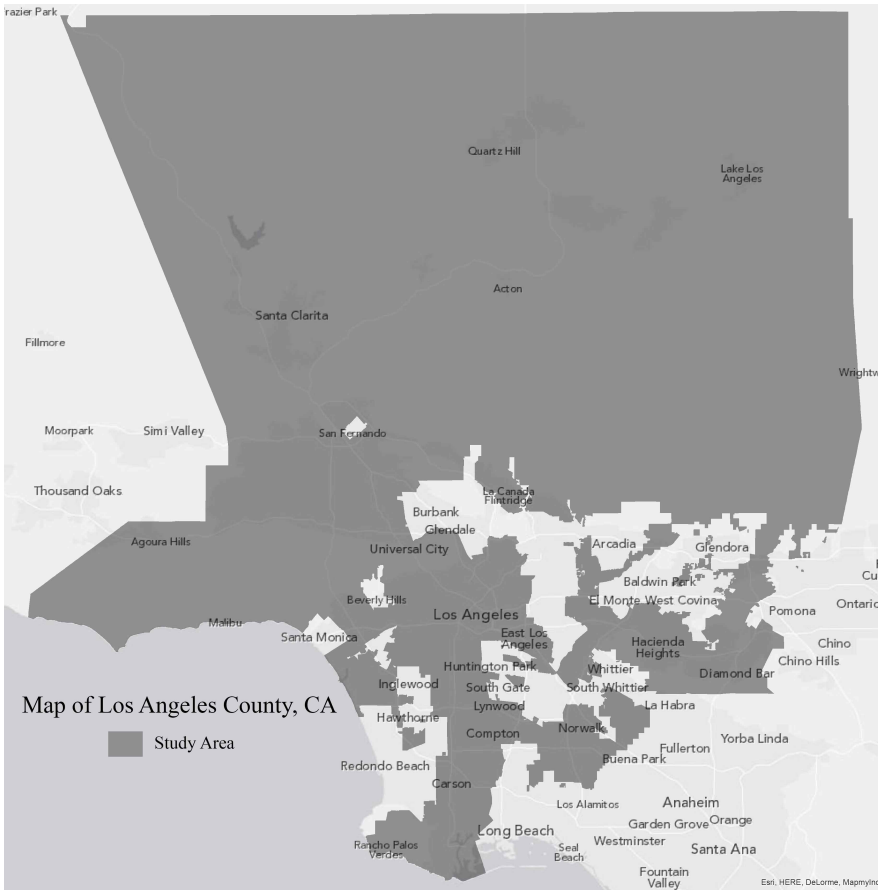


Figure 2.1: Los Angeles Study Area: Tracts Policed by LAPD or LASD

The key dependent variable in the analysis is gang-motivated ethnic violence against civilians (GEVC). More specifically, because the qualitative analysis focuses on dynamics between Latino suspects and African American victims, the most common victim-suspect dyad, I specifically analyze incidents of Latino-on-black ethnic targeting. The necessary components of GEVC are that the victim was targeted specifically because of her ethnicity and that the motivation was specifically gang-related. To identify the location of incidents of GEVC, I obtained data from the LA County Commission on Human Rights (LACCHR), a governmental agency created in the wake of the 1943 Zoot Suit Riots to improve intergroup relations. An incident was labeled as a hate crime if law enforcement officials determined that the victim was targeted because of her perceived membership in an ethnic group. LACCHR's coding scheme for gang motivation is very restrictive. An incident was only labeled as gang-related if the perpetrator(s) explicitly said (or wrote, in the case of vandalism) his gang affiliation during the incident. This coding scheme, along with patterns of underreporting that are typical with crimes committed by criminal organizations, means that the data are likely to undercount actual incidents of gang ethnic targeting. They do, however, provide a general picture of where ethnic targeting by gangs has occurred. The LACCHR provided addresses of such incidents between 2007-2011,[23] which I geocoded using ArcGIS. From there, I coded GEVC dichotomously at the census-tract level, with tracts that experienced an event coded as one and tracts not experiencing an event of targeting coded as zero.[24] Table 2.1 presents counts of all incidents of GEVC during the study period by year and type of crime.[25]

I constructed measurements for the strength of drug markets in a given tract using incidence-level data of drug-related crimes obtained from the LAPD and LASD.[26] First, I

[23]These were the only years for which data were available on the gang motivation of hate crimes. The addresses were either an intersection or an address rounded to the nearest 10 to protect victim identities.

[24]Because data for the explanatory variables was not available at small enough time intervals, it was not possible to analyze patterns in panel data.

[25]Counts of "Intimidation" in the table include cases of physical intimidation as well as vandalism. "Atmpt. Murder" include cases of both homicide and attempted homicide.

[26]Because the LASD publicly provides incident-level geocoded data on all crime occurring within its jurisdiction since 2007, this measurement is computed by geocoding data from the entire period of study

Table 2.1: GEVC Counts in LA County by Year and Type

Year	Total	Assault	Intimidation	Robbery	Atmpt. Murder	Other
2007	78	38	25	7	2	6
2008	69	33	29	4	1	2
2009	51	25	20	4	0	2
2010	26	15	7	2	1	1
2011	34	12	20	1	1	0
2007-2011	258	123	101	18	5	11

used ArcGIS to produce a count of drug crimes occurring in each census tract, which was then standardized to a mean of zero and a standard deviation of one. To operationalize the strength of local drug markets using this drug crime data, it was necessary to consider the theoretical mechanism connecting this variable to GEVC, while also considering how to capture the spatial dynamics of the illicit drug markets at the level of individual census tracts. The argument posits that drug markets provide incentives for elite *emeros* to tolerate and/or encourage ethnic violence in order to help ensure that coethnics monopolize drug profits. While it is tempting to simply operationalize the strength of local drug markets as the amount of drug-related crime occurring within a given tract, this ignores the fact that because census tracts are relatively small, in many instances the people operating in illicit markets in a given tract tend to live in neighboring tracts. For example, in the Venice neighborhood, much of the local drug trafficking is concentrated on the beachfront, while most of the gang members involved in this trafficking reside inland in neighboring tracts. Given the theory, if incentives from drug markets were to lead to GEVC, this violence would likely occur in the neighboring tracts, since this is the area supplying competitors. However, a simple measurement of drug crimes within the inland tracts would not account for this

for tracts within LASD jurisdiction. However, the LAPD does make this data public. I thus filed a request under the California Public Records Act for data on all crime incidents in the City of Los Angeles between 2007-2011. However, LAPD was only able to provide data for a six-month period between 2013 and 2014. While using data from outside the study period to measure crime rates during the study period is not ideal, crime rates tend to remain fairly stable in tracts across time, and the data from the LASD demonstrate that such data do a fairly good job in estimating crime during the study period. I thus used data from both sources to create a measure of tract drug crimes standardized at mean zero and a standard deviation of one.

dynamic. To do so, I measure the strength of neighborhood drug markets in a given tract as the weighted average amount of drug crimes within all tracts within a one mile radius.[27]

The goal of the analysis is thus to analyze relationship between this measure of neighborhood drug market profitability and the likelihood of GEVC. One challenge to this analysis is the fact that both of these key variables are likely to be highly correlated with presence of gangs, meaning that results from a simple bivariate logistic model would likely be spurious. In ideal circumstances, a precise measurement of the presence of gangs in a tract would be used to control for this confounding variable. However, because such data is not available, the model includes controls for variables that are known to be highly predictive of gang presence: poverty, general crime rates, and percentage of single parent, female-headed households. Including the measure of general crime rates also controls against the strong possibility that GEVC increases general policing, which might then independently increase the amount of drug arrests. Additionally, it is possible that African Americans and Latinos are more likely to come into contact in areas where drug markets are stronger, and that this dynamic actually drives any relationship between drug markets and gang ethnic targeting; to control for this, the model also includes a measure of the likelihood that an interaction between two random individuals in a tract occurs between a Latino and an African American.[28]

While traditional regression models rely on the assumption that observations are independent, this assumption is difficult to justify in the context of GEVC at the census tract level. Not only does the strength of local drug markets depend on drug-related activity in neighboring tracts, but there is also the strong possibility of spatial contagion in GEVC. In other words, an episode of GEVC in one tract may trigger episodes in neighboring tracts if gang members in neighboring tracts attempt to mimic the behavior in order to increase

[27]The cutoff of one mile is somewhat arbitrary, but can be viewed as an attempt to include neighboring tracts that are most likely share such dynamics while not factoring in tracts that are too far to do so. Running the analysis with half mile or two mile radiuses (using the less computationally burdensome MPLE estimation strategy outlined below) did not change the substantive results.

[28]Given that an interaction in a tract has occurred, the probability that it occurred between a Latino and an African American is calculated as $i_{ab} = [(N_a)(N_b)]/[(N)(N-1)]$, where N is the tract's total population, N_a is tract's Latino population, and N_b is the tract's African American population. For a similar strategy, see Hipp, Tita and Boggess (2009).

their status within the gang. Additionally, evidence indicates that in many cases the same perpetrator(s) commit multiple acts of ethnic violence in different locations; there is thus an increased likelihood that a tract will exhibit GEVC if close neighbors do, meaning that the observations are not independent. To solve this general problem, Besag (1974) developed the autologistic model, which uses a lattice-based framework for a Markov Random Field, modeling the discrete outcome at one location conditional on the observed outcomes at neighboring locations. The structure of this dependence between proximate observations is represented through a connectivity matrix, where entries acquire non-zero values if observations are considered proximate "neighbors." This strategy has been successfully applied in a variety of scientific and social scientific fields; in political science, it has been mainly used in international relations work to model the likelihood of inter- and intra-state war given circumstances in neighboring states (see, Ward and Gleditsch (2002), Gleditsch (2007), Weidmann and Ward (2010)).

Because observations in the autologistic model are conditionally dependent upon each other, the likelihood function is mathematically intractable. Two main strategies have been employed to overcome this obstacle in order to produce accurate measures of the model parameters. Markov Chain Monte Carlo (MCMC) simulation is the most reliable approximation strategy, utilizing advances in computing power to approximate the full likelihood function (Geyer and Thompson 1992, Ward and Gleditsch 2002). While this strategy can produce reliable estimates of both the parameters and standard errors, it also tends to be very computationally burdensome.[29] In contrast, the most commonly employed solution has been maximum pseudolikelihood estimation (MPLE), which considers only a limited set of dependencies between observations but is less computationally burdensome (Besag 1974). In order to facilitate replication, recent publications have only reported MPLE results when they did not differ substantively from MCMC (see Gleditsch (2007)). A potential problem with MPLE is that while it has been shown to be reliable in estimating parameters, the

[29]Completing a MCMC simulation with a simplified connectivity matrix took roughly two weeks to run in Harvard University's Research Computing Environment

conventional derivation of its standard errors may in some cases be inefficient. However, Desmarais and Cranmer (2010) demonstrate that using bootstrap methods can correct for such issues. Table 2.2 thus presents the results of an autologistic model,[30] using MPLE estimates as the principle results.

Table 2.2: Factors Associated with the Occurrence of GEVC (MPLE results)

Covariate	Coefficient Estimate (SE)	95% Confidence Interval
GEVC spatial lag	3.029 (0.034)	(1.766, 4.457)
Neighborhood drug markets	**0.399 (0.008)**	**(0.093, 0.733)**
Poverty	0.024 (0.000)	(0.009, 0.037)
Crime	0.123 (0.004)	(-0.033, 0.281)
Female HH percent	0.005 (0.000)	(-0.006, 0.017)
Black-Latino contact	-0.001 (0.000)	(-0.002, 0.001)

Note: Spatial autologistic model with standard errors calculated from 500 bootstrap samples. N=1451 includes tracts for which data were available for spatial analysis, of which 103 tracts experienced Latino-on-black GEVC during the study period.

Neither the parameters nor the standard errors differ substantially in a robustness check using Markov Chain Monte Carlo (MCMC) methods, the results of which are presented in Table 2.3.

Table 2.3: Factors Associated with the Occurrence of GEVC (MCMC results)

Covariate	Coefficient Estimate (SE)	95% Confidence Interval
Targeting spatial lag	2.668 (0.013)	(1.642, 3.727)
Neighborhood drug markets	**0.380 (0.003)**	**(0.080, 0.666)**
Poverty	0.027 (0.000)	(0.013, 0.040)
Crime	0.102 (0.002)	(-0.025, 0.243)
Female HH percent	0.001 (0.000)	(-0.008, 0.011)
Black-Latino contact	-0.001 (0.00)	(-0.001, 0.000)

Note: To ease the computational burden, the MCMC model used a more sparse adjacency matrix that includes the six nearest neighbors of each tract. It uses a training run length of 5000 and a minimum length of the subsequent inferential run of 10,000.

The results point to a positive relationship between the strength of illicit drug markets and the likelihood that gangs target civilians with ethnic violence. As expected, geographic

[30]To address potential issues with spatial confoundedness addressed in Caragea and Kaiser (2009), I implement a centered autologistic model using the ngspatial package in R (Hughes forthcoming). MPLE results were obtained using one mile distance based connectivity matrix, with confidence intervals computed using parametric bootstrap methods.

proximity to other incidents of GEVC, captured in the GEVC spatial lag coefficient, was significant predictor of incidents of gang ethnic targeting. Additionally, neighborhood drug markets and poverty are also positively related to targeting and statistically significant, while tracts in which African Americans and Latinos are more likely to come into contact are no more likely to experience GEVC. The key finding here is that areas with proximity to stronger illicit drug markets, captured in the neighborhood drug markets coefficient, are more likely to exhibit ethnic targeting by gangs. Because the model includes controls for levels of poverty, crime, and female headed households, variables that are associated with the general presence of gangs, this relationship is not likely to be driven by the fact that gangs are more likely to congregate in areas where drug markets are strong. Likewise, because it includes the control for general crime rates, this relationship cannot be simply attributed to police concentrating crime prevention efforts in areas where gangs attack civilians.

On the whole, these findings support the explanation developed in the qualitative section, as well as the broader theoretical argument. Areas with stronger drug markets present incentives, in terms of long-term rent extraction, for gang organizational leaders to propagate ethnic violence both between gangs and explicitly directed at civilians. In contrast to areas with weaker and less profitable drug markets, where short-term costs in terms of increased policing are likely to be prohibitively large, the prospect of extracting larger rents from profitable illicit drug markets leads gang leaders to promote behavior that increases the likelihood of civilians being attacked based on their ethnicity.

2.7 Conclusion

Armed organizations in many contexts engage in horrific violence against the civilian population, and such violence is often organized along ethnic lines. Building on instrumentalist theories of ethnic violence, this paper argues that links between local rents and the ethnic makeup of markets can provide leaders of armed organizations with incentives to use such vi-

olence to settle local disputes in ways that favor their own profits. In such contexts, violence is particularly likely in areas where leaders perceive threats to their ability to extract rents from profitable markets. These instrumental processes can best account for gang-motivated ethnic violence against civilians in Southern California. In this case, formal and informal prison institutions allow leaders to more effectively tax illicit business conducted by coethnics. They thus use ethnic violence to favor these coethnics in current and future disputes over local markets, and civilians are more likely to be deliberately and inadvertently subject to ethnic violence in areas where drug markets are particularly profitable, and the potential long-run benefits for gang leaders are particularly high.

This analysis has implications in terms of both urban gang violence and the broader study of violence by armed organizations. First, commentators have recently noted significant drops in general gang violence in Los Angeles over the past decade, pointing to a variety of contributing factors (Quinones 2014*a*). Political economists building on Olson (1993) might point to the increasingly dominant role of the Mexican Mafia prison gang in acting as a "stationary bandit," coordinating peace between formal rivals for the sake of increased profit (Skarbek 2011). The findings presented in this paper suggest that selective violence may be another side of the same coin, both in the context of prison gangs in Southern California as well as for stationary bandits more broadly. Because the ability to profit from rents is often endogenous to local structures of market production, "stationary bandits" in some cases may promote broader peace and order while using selective violence to distort markets in their own favor, with organizations like the Mexican Mafia simultaneously promoting broader gang order and discriminatory violence.

Second, the analysis is also relevant when contrasting trends in gang violence in Los Angeles with cities like Chicago, where general gang violence has been notoriously high in recent years. Although street gangs in Chicago also tend to be ethnically homogenous[31] and tied to members of prison gangs, there is no evidence of similar patterns of ethnic violence

[31] Albeit, much less so than in Southern California.

against civilians. The theory presented in this paper suggests that this may be explained by the fact that the "Folk" and "People" prison gangs of Illinois are ethnically integrated, with both Latino and African American gangs in the street pledging their allegiance to either respective organization (CCC 2010). The ability of incarcerated leaders to profit under such circumstances is thus less likely to be tied to the ethnic makeup of markets, since their authority is not constricted to a specific ethnic group. In contrast, because incarcerated leaders of prison gangs in California only maintain authority over coethnics, they are presented with incentives to promote environments in which civilians are more likely to be attacked based on ethnicity.

Finally, while the specific organizational structures and markets analyzed in the paper may be particular to Southern California, the focus of the theoretical framework on local organizational authority, links between ethnicity and rent extraction, and conflicts over local markets can travel to other contexts to help illuminate the ways in which local conflicts and disputes may systematically drive patterns of ethnic violence against noncombatants. There are a variety of markets from which leaders of armed organizations may extract rents, and a variety of mechanisms that may link such profits to the ethnic makeup of markets. While analyzing these dynamics may require knowledge of locally specific organizational structures and markets, such work can still yield testable hypotheses and be used to support broader arguments on the ways in which local conflicts and disputes systematically drive patterns of violence.

Chapter 3

Informally Governing Information: How Criminal Rivalry Leads to Violence Against the Press in Mexico

3.1 Introduction

A free and vibrant press is crucial for sustaining a healthy democracy. In order for citizens to effectively participate in political life, they must have access to independent sources of information from which to better understand issues and form opinions (Dahl 1998). In this light, violence against journalists is particularly troubling: such violence not only threatens the lives of those who serve to inform the public, but can also inculcate an environment of fear that inhibits general freedom of expression. Over 1000 journalists have been killed as a result of their work since 1992 worldwide (CPJ 2014), and violence against the press is so pervasive in some developing countries that independent media is virtually nonexistent (Karlekar and Dunham 2013).

Despite the vital role of the press in maintaining a functioning democracy, as well as persistent violence against journalists in many developing and consolidated democracies,

we know very little about the patterns in violence against the press. While one recent study examines country-level differences in the use violence against the press by governments (see VonDoepp and Young (2013)), to our knowledge there have been no studies analyzing violence perpetrated by non-state organizations and no analysis of the local determinants of violence against the press. Given that nearly a quarter of all killings of journalists can be attributed to non-state actors, and that non-state actors make up the vast majority of culprits in many of the most dangerous countries to practice journalism, limiting analysis to cases of state violence leaves us with an incomplete understanding of violence against journalists.[1] Additionally, there have been no rigorous studies of differences or patterns in violence against journalist within countries across space. Even in the most dangerous countries to practice journalism, violence is typically not evenly distributed throughout the territory; overlooking micro-level variation within countries inhibits a complete understanding of the local processes driving violence against the press.

In this article, we address these gaps by developing and testing a theory of violence against the press in Mexico. We focus our analysis on Mexico because it is a consolidated democracy that since 2004 has been among the most dangerous countries in the world to practice journalism (CPJ 2010). Despite increasing media attention to violence against journalists in the country, the patterns of such violence have eluded systematic empirical study. By examining criminal organizations, the actors responsible for the majority of killings of members of the press in Mexico, as armed groups informally governing flows of information, we clarify not only the patterns through which Mexican criminal organizations employ violence against the press, but also their varying ability to create informal institutions to peacefully govern the information that reaches the public. In doing so, we advance our understanding of the impact of drug trafficking on the quality of democracy in Mexico as well

[1]In the case of Mexico, the line between the state and the "non-state" criminal organizations that we examine in this article is in many cases blurry, with members of the state complicit in criminal organizations and vice versa. While it is important not to overstate the distinction between "state" and "non-state" in this case, by examining organizations whose motivations are typically not overtly political, we can gain insight into the processes underlying these understudied forms of violence against the press.

as our general knowledge on the ways in which powerful armed actors use their authority to impact flows of information.

Our central theoretical claim focuses on the relative ability of criminal organizations to informally govern the information flowing to and from the press. Because journalists typically rely on insider informants when reporting on illicit activities, criminal organizations have the ability to control at least a portion of the information on their own illegal activities and the activities of their peers that reaches the press. They may thus have the capacity to peacefully govern the content of the press by deciding what information to leak to journalists or by bribing and/or threatening them to withhold certain information. However, this capacity to peacefully govern information is more likely to break down when rival organizations operate in a single environment. Rivalry turns information leaks into effective weapons by drawing the attention of authorities to the activities of enemies. In such contexts, because information leaks are an effective way to increase the probability of authorities cracking down on rivals, journalists are more likely to be provided with and report on information that triggers violent repercussion.

Empirically, we examine our foundational theory using micro-level data on the industrial organization of illegal business in Mexico, along with a data on events of violence against journalists obtained from files of journalist assassinations gathered, classified, and analyzed by the Committee to Protect Journalists (CPJ). The CPJ has gathered the most extensive and reliable data set tracking journalists who have been assassinated as a result of their journalistic activities, classifying each of these cases according to the type of actor that committed the crime. Our findings are consistent with the proposed theory: territories inhabited by criminal organizations that are in conflict have been significantly more likely to experience fatal violence against the press.

Overall, the evidence presented in this article challenges existing assumptions on the relationship between potentially violent criminal organizations and the press. Contrary to popular belief, which points to the increased strength of criminal organizations as the cause

of violence toward journalists, we show that violence against the press is actually more likely when rival COs cohabit a given area and compete to control public information. Powerful criminal organizations that dominate a locality have the ability to maintain secure control of information and thus are less likely to employ violence against journalists. In contrast, organizations that compete for local dominance are less able to establish such institutions of control and are thus more likely resort to violence against the press. In this context, it is troubling to note that journalists are in the most danger when they face competing criminal organizations that are more likely to provide a robust and less biased supply of information on which to report.

The rest of the article is structured as follows. First, we briefly review relevant literature on armed groups' attempts to control flows of information. Second, we provide background information on Mexico's criminal organizations, pointing to their increased ability to govern local behavior as well as their increased propensity for violence against the press. In the third section, we develop a theory to explain differences in the use of violence against the press by criminal organizations in Mexico, pointing to the relationship of mutual dependence that exists between criminals and journalists. The fourth section then outlines the data, methods, and results of our quantitative analysis. Finally, we briefly conclude by discussing the implications of our findings from academic and policy standpoints.

3.2 Governing Information and the Press

This article fits within a broader scholarly literature that addresses the ways in which armed organizations govern the dissemination of information. We define governance in terms of the exercise of authority. The authority of an armed organization is at least partially backed by the capacity for violence. We are specifically interested in the ways in which groups use such authority to influence the way in which information is spread, framed, or publicized through the press.

Given the critical role of the press in the provision of public information and the shaping of public opinion (Zaller 1992, Baum 2003), a number of studies have examined attempts by organizations, armed or otherwise, to influence press coverage. Many of these studies focus on efforts by actors operating under the world's preeminent armed organization—the state. For example, some scholars focus on the ability of state actors to put pressure on members of the press to influence coverage (Schudson 2003, Whitten-Woodring and James 2012). Other studies examine the ability of the government to influence information reported by the press through its ownership media outlets or providing incentives for certain types of coverage (Djankov et al. 2003). While work in this field has examined differences in the degree of hostility toward the press under different types of political regimes (Egorov, Guriev and Sonin 2009), as well as the type of public information that is likely to be censored (King, Pan and Roberts 2013), we know much less on what drives the different methods (violent or non-violent) that are employed to influence press reporting. One recent study investigates the country-level political variables that make governments more likely to attack members of the media (see VonDoepp and Young (2013)). While this work represents a push in a helpful direction in understanding dynamics of violence toward the media, ignoring within-country spatial variation in patterns of violence is likely to obscure important processes driving such attacks. Additionally, this literature focuses mainly on governance of public information by political actors in a dominant state apparatus, ignoring the impact of lower-level armed organizations.

Ignoring non-state armed organizations leaves a significant gap in our understanding of the ways in which actors outside the state influence flows of information through the press. Even within relatively well-functioning states, there oftentimes remain powerful groups that, without being officially part of the state, hold the capacity to systematically influence the spread of information in order to impact social behavior and government policy. For example, in the context of civil war, armed state and non-state groups have been shown to place great importance on the spread of information on their own activities to rivals and vice versa; in this

context, the ability of a combatant to govern the dissemination of information is crucial in determining the violence it employs against residents (Kalyvas 2006). Additionally, terrorist organizations attempt to govern information in a manner that facilitates communication between members while avoiding the flow of information to authorities (Enders and Su 2007). Similarly, armed criminal groups oftentimes have strong incentives to prevent the dissemination of information on their activities to police, using their capacity for violent retribution as a disincentive to potential informants (Reuter 1983). However, while this literature highlights the efforts of non-state organizations to informally govern the spread of information, it largely overlooks the ways in which such actors may use their capacity for violence to impact the spread of information through the press.

While in some cases state actors may be complicit in the operations of criminal organizations in Mexico, these organizations typically do not seek formal political authority. By examining the processes underlying their violence against the press, this article serves as a bridge between literature on influencing the press, which typically focuses on more formal political actors, and literature on the governance of information by armed non-state actors, which typically ignores the role of the press. In doing so, we provide what is, to our knowledge, the first micro-level systematic analysis of the varying methods through which armed organizations attempt to govern information disseminated through the press. This provides insight not only into general processes of control of information, but also contributes to a better understanding of the dynamics of violence against journalists in Mexico, a country in which practicing journalism has become increasingly dangerous.

3.3 Criminal Organizations, Violence, and Informal Governance in Mexico

Criminal organizations (COs) in Mexico have received increased attention in the international media in recent years due to massive increases in violent competition for territory and

the brutal methods they oftentimes employ against enemies. While Mexican COs coexisted relatively peacefully through the 1990s, between 2006 and 2011, homicides linked to COs have increased by an average of 80.47% (SNSP 2011). While substantial increases in violence began in the mid-2000s, the process through which COs became heavily armed can be traced to changes in Mexico's political institutions beginning in the 1990s, when COs increasingly gained incentives to arm and protect themselves rather than outsourcing protection to corrupt state institutions (Rios forthcoming, Snyder and Duran-Martinez 2009, Corchado 2013).[2] These incentives, combined with an increased profit-share from cocaine trafficking for Mexican COs at the expense of weakened Colombian organizations, led Mexican COs to develop high capacities for violence, oftentimes adding distinct armed wings to their organizational structures (Rios forthcoming).

While most academic and popular literature examining these increasingly well-armed Mexican COs focuses on the tendency for groups to violently confront one another, it is also clear that COs have used their increased capacity for violence to exert oftentimes massive levels of authority over behavior in the territories in which they operate. We label the use of such authority as informal governance. Such governance is typically backed by the explicit or implicit threat of violence, and is used to shape behavior by attaching a cost to particular actions (Kalyvas 2006).

The exercise of this informal governance can take many forms. In some cases, COs have been shown to act as informal police of their territories, defining behavior they deem socially acceptable, and dolling out punishment to those who violate these informal rules. For example, in Michoacán, COs have been shown to pursue and punish residents who rape, steal, engage in prostitution, or become addicted to drugs (Kostelnik and Skarbek 2013). Likewise, in Veracruz, a criminal group called "Mata-zetas" is well-known for torturing and beheading rapists, extortionists, and kidnapers, leaving messages next to their bodies. For example, a note left next to the body of a man killed in the state in 2010 warned, "this

[2]These incentives can be traced to decreased levels of coordination between different levels of Mexico's government following democratization.

happened to me because I raped a 4-year-old girl" (*Al Calor Politico* 2010).[3] Throughout many areas of the country, from northern states bordering the US border like Nuevo Laredo (*Soy Periodista* 2010), to southern states bordering Belize like Quintana Roo (*El Universal* 2007), COs often use extremely violent methods to informally govern local behavior.

Additionally, COs sometimes also use positive inducements to impact local behavior through the distribution of public goods and club goods to residents of the territories in which they operate (Diaz-Cayeros et al. 2011, Kostelnik and Skarbek 2013). The informal authority of drug traffickers is so strong in some areas that 40% of middle class survey respondents reported having turned to drug traffickers for help with an issue (Diaz-Cayeros et al. 2011).

The Mexican press is not immune to attempts by COs to informally govern local behavior. Such efforts have at times resulted in violence, with journalists in many areas facing increasingly hostile and fearsome environments. On the whole, Mexico has become the most dangerous country in the Western Hemisphere to practice journalism, with various sources reporting between 85 and 100 journalists having been killed or disappeared since 2000 (Edmonds-Poli 2013). In many years, journalists in Mexico have faced levels of danger comparable to countries in war like Iraq and Pakistan (CPJ 2010). In fact, in 2010 and 2011, more journalists were assassinated in Mexico than in any other country in the world, except Pakistan (CPJ 2010). While incidences of violence toward the press account for only a small fraction of the total drug-related violence in the country, the specific context of the killings and the resulting fear that they spread are particularly concerning for the prospects of democracy in Mexico, and thus warrant specific attention.

[3]It is important to note that the blurred line that exists between punishment of socially unacceptable behavior and the pursuit of enemies competing for territory. While COs do oftentimes punish deviant behavior, they also oftentimes rationalize the killing of enemies as punishment for such transgressions ex post.

3.4 The Political Economy of Violence against the Press in Mexico

While the high level of violence against press in Mexico is alarming, it is important to note that such violence is not uniformly distributed throughout the country. Even when limiting our attention to the areas of the country in which drug traffickers operate, it is clear that the likelihood of a journalist being fatally attacked is far greater in some areas of the country than others. Despite the increased strength of COs in nearly all areas of the country with high levels of drug trafficking, not a single journalist was killed in 61% of the municipalities in which the media regularly covered drug trafficking activity over the last 10 years. This means that in places like Nogales, Mazatlán, and Agua Prieta, where there is significant coverage of strong COs, COs refrained from fatally attacking members of the press. Even when just considering municipalities where COs are generally violent, some municipalities have not experienced violence toward journalists. For example, journalists have not been victims of homicide in municipalities like Santiago Amoltepec and San Jacinto Tlacotepec, despite homicide rates comparable to municipalities like Juarez and El Oro, where journalists have been more frequently victimized. To better understand this variation, in this section we develop a theory of CO informal governance of the press.

The press in Mexico plays a critical role in providing information about illegal activity in the country. For this reason, organized criminals have enormous incentives to attempt to informally govern the information disseminated through the press. Drug trafficking in Mexico is a multi-billion dollar-per-year industry that relies on high levels of secrecy to secure profits; these profits are thus permanently susceptible to destruction by information leaks. Individual traffickers have strong incentives to not be publically identified, as such identification increases the chances of pursuit and prosecution by the federal government. Additionally, press coverage that provides specific names, photos, and/or hints on operational details can be used by both governmental enforcement agents and rivals to disrupt the

business of a given CO. For example, COs oftentimes invest vast amounts of money to bribe local officials in order to prevent pursuit by local authorities and even provide information on and protection from potential rivals; press coverage on these corrupt ties has the potential to not only attract the attention of federal authorities, but also negates the investment of cultivating the reliable allies who are crucial to continued profits (Corchado 2013).

Even coverage that does not present specific identifying information has the potential to bring unwanted federal attention to local illicit drug markets. Traffickers refer to the increase in federal attention as "heating up the plaza [drug territory],"(Moore 2011). Agents at the federal level, who must strategically decide where to deploy resources to combat criminals, may receive increased pressure to use these resources to combat crime in the areas where the press thoroughly covers criminal activity. Press coverage of general illicit activities alerts citizens of crime in their community, which in turn puts pressure on the federal government to attempt to intervene; a "hot" territory thus creates additional obstacles to running a successful enterprise and has the potential to disrupt the flow of illicit profits (CPJ 2010).

Press coverage thus plays a critical role both in how COs are publicly perceived and what specific information on illegal activity becomes available to the public and law enforcement. Given these dynamics, it is perhaps not surprising that drug traffickers are responsible for the majority of killings of journalists in Mexico (Edmonds-Poli 2013). Violence is indeed a quite powerful mechanism to silence the press. It does so directly by assassinating the journalist who had access to the most information, and/or indirectly by reducing incentives for other journalists to gather information about the subject. A brief survey of cases from various areas throughout the country demonstrates the potential effectiveness of violence in influencing press coverage. For example, after the killing of a journalist in the state of Durango, local in-depth reporting on crime essentially stopped (CPJ 2010). Similarly, after the killing of one journalist, the disappearance of another, and a threat on the life of its director, in 2013 the editorial board of one of the most important newspapers in the state of Coahuila proclaimed that the paper would stop publishing information related to organized

crime (*El Pais* 2011). Such examples of self-censorship in the face of violence are far from uncommon. In Ciudad Juarez, a major city across the border from El Paso, Texas, violence against the press became so pervasive that the city's main newspaper published an editorial titled, "What do you want from us?" asking the various COs operating in the city what they expected out of a news outlet in order to avoid future violence (*El Diaro de Juarez* 2010).

However, while such informal governance of the press through violence and fear may be effective in impacting the content and/or amount of press coverage, it is also likely to have costs for traffickers. One potential cost to violence against the press is that it may lead to increased federal attention and enforcement on local illicit activity. In other words, while COs may have incentives to govern the information presented in the press in order to prevent the "heating up of the plaza," violence against the press itself can potentially lead to a "hotter" territory. While acts of violence against the press may make local press and residents fear pointing out the specific perpetrators, such events have the potential to receive high levels of national attention; indeed, cases of violence against journalists have often led to protests imploring the federal government to take action. However, to date, such costs have rarely materialized. NGOs and the press itself note the environment of near impunity for acts of violence against the press in Mexico, where over 90% of cases go unsolved and oftentimes uninvestigated (CPJ 2010).[4]

Rather than repercussions from the federal government for violence against journalists, the most acute cost to COs for violence against journalists have stemmed from opportunity costs. While killing a journalist permanently silences the particular journalist and is likely to lead her organization to self-censor and/or remain silent on issues pertaining to drug trafficking, the CO also forgoes a potentially valuable opportunity to build relationships with and use the press as a de facto mouthpiece. As further elaborated below, given the ever-

[4]However, as Corchado (2013) points out, traffickers are likely to clearly perceive costs related to increased enforcement in the event of violence against foreign and particularly American journalists. The case of Gilberto Ontiveros Lucero, aka *El Greñas* is well known in Mexico's criminal underworld. Lucero ruled over Juarez's drug trafficking for years in the 1980s with impunity, until he tortured and killed an American photojournalist, after which the federal government quickly apprehended the kingpin (*El Pais* 1986).

present threat of competitor encroachment, maintaining this resource can be very valuable in future territorial disputes. COs are thus likely to prefer to informally govern press coverage peacefully, rather than resorting to violence.

The potential for traffickers to peacefully govern press information is buoyed by the fact that in many ways the two worlds are codependent. While traffickers are strongly impacted by press coverage, journalists obtain a good share of the information on which they report through the use of informants who have access to prime knowledge through their direct or indirect involvement in the criminal world.[5] There are several types of such informants, from criminals inside an organization who decide to leak information as a form of revenge or sabotage, to contractors of criminal organizations who want to inhibit some operations in order to increase costs or create scarcity. Thus, journalists oftentimes navigate between the legal and illegal worlds. While in some circumstances this entails journalists wittingly taking bribes to report, not report, or slant their coverage of certain events, in other cases journalists are unaware that the information provided by informants is being dictated directly by CO leadership (Balderrama 2009, CPJ 2010). Whether or not they are aware that their informants are criminals may be ethically relevant, but is ultimately irrelevant for the outcomes that such relationships represent for the illegal businesses.

Given this dynamic of codependency, the ability of a CO to peacefully govern information disseminated through the press is dependent on its ability to control informants and dictate the content of potential leaks to journalists. In circumstances in which a CO is able to do so, it restricts the market for information supplied to the press, helping to ensure that press coverage does not harm its interests. In such circumstances, Mexican COs oftentimes even utilize public relations liaisons to more explicitly dictate press coverage.[6] For example, in the state of Tamaulipas, the Zetas organization uses an "official" spokeswoman who communicates to newspapers which stories about crime can run in the next morning's

[5]Corchado (2013) provides an excellent account of the use of criminal informants in providing information directly to the press about drug traffickers' strategies.

[6]For a firsthand account of one journalists interactions with a cartel press liaison, see Balderrama (2009).

newspapers (Corchado 2013). The Gulf Cartel even sponsors a website that relays which stories on crime it approves for press coverage (CPJ 2010). When a CO is able to control the insider information that reaches the press while clearly setting and enforcing the bounds for what it deems appropriate to report, it can forgo violence against the press, since coverage is unlikely to be detrimental to its profits or longevity.

In contrast, when a given CO is unable to control leaks to the press, the supply of information to journalists may no longer be restricted to content that is innocuous to its illicit business interests. Press coverage in this context is more likely to adversely affect illicit operations, making COs more likely to resort to violence. While they may prefer peaceful governance of information over violence ceteris paribus, if COs are unable to control information leaks and subsequent harmful press coverage, they are more likely to resort to violence against journalists to prevent and/or discourage such coverage in the future.

We thus expect the decision to informally govern the press peacefully or through violence to be a function of the ability of COs to control the information that reaches journalists through informants. COs are more likely to opt to peacefully govern the press when they are able to control information flowing to the press or by enforcing censorship, with a mixture of threats and bribery, and more likely to resort to violence when they are unable to do so.

Given this logic, our key hypothesis posits a relationship between the local industrial organization of illicit markets and the type (violent versus peaceful) of governance employed by COs to govern information disseminated through the press. More specifically, all else equal, we expect the ability of a CO to control press leaks to be a function of illicit market coordination. By illicit market coordination, we refer specifically to the extent to which the incentives of actors operating in illegal markets in a given locality are aligned such that they cooperate toward shared goals. Coordinated illicit markets are typically characterized by high levels of organization, oftentimes under a monopolistic CO. In contrast, uncoordinated markets are inhabited by dispersed and competing actors and organizations, and are oftentimes characterized by high levels of conflict.

We expect higher levels of market coordination to lead to an increased ability to control the supply of information to the press, and thus be less likely to result in violence against journalists. In environments in which illicit markets are coordinated under a monopolistic criminal organization, COs are better able to control informants and leaks through a mixture of loyalty and fear. In such contexts, criminals within a given CO are more likely to be loyal and less likely to leak detrimental information, given the dearth of other options for operating in criminal markets. Additionally, criminals, contractors, and even normal citizens who happen to observe illegal operations will be deterred from leaking detrimental information out of increased fear of repercussions; indeed, it is quite common for Mexican criminal organizations to assassinate information leakers publicly, leaving messages next to their tortured bodies directing others to keep sensitive information to themselves. For example, one such message in Michoacán was directed at, "those who are thinking on opening your mouths," while in the state of Colima in 2009, a message next to corpses exclaimed that, "this happened to us for being gossipers and calling 911 [066]" (*El Heraldo de Chihuahua* 2011). When traffickers operate in a coordinated market, they can devout fewer resources to fighting local territorial disputes, thus making their commitments to punish leakers more credible. Thus, in the context of illicit market coordination, a CO can maintain a firm grip on the information that reaches the press both from insiders and outsiders.

In contrast, in environments in which COs are in direct competition with rival organizations, they are likely to be less able to control the content that flows to the press through informants and leaks. When rival organizations operate in a local territory, disgruntled members of a given CO may leak detrimental information to the press and turn to rival COs for protection and/or employment. Additionally, rival organizations typically hold intelligence on the operations of local competitors, and can utilize the press to leverage this information as a weapon. Leaking information on the activities of a competitor through the press can trigger targeted enforcement operations against that competitor, thus debilitating it in battles to control the territory. Traffickers refer to this tactic as "burning" an enemy

in the press, and believe it plays an important role in advantaging or disadvantaging COs competing to control a given territory (Balderrama 2009). Such "burning" in the press has oftentimes involved leaking information on corrupt links between a rival CO and local governing officials, thus forcing the rival to invest in new corrupt links (CPJ 2010). Competing COs may also bribe and/or threaten members of the local press into serving as an unofficial mouthpiece for a given CO, pressuring members of the press to ignore the COs' own violence while focusing coverage on the violence perpetrated by competing COs (Balderrama 2009). In this context, the CO that is being debilitated by press coverage, unable to peacefully govern such information, has incentive to resort to violence against the press to discourage such coverage.

We thus expect violence against the press in Mexico to be driven by the local industrial organization of illicit markets, with violence more likely in areas where COs compete for market dominance. When traffickers cooperate under a cohesive and monopolistic organization, they have incentives to peacefully govern information disseminated by the press. However, when traffickers compete for local dominance, they are less likely to be able to peacefully govern the flow of information to and from the press; in this context, they are more likely to resort to violence to discourage unfavorable coverage.[7]

On the whole, our theory challenges popular belief on the causes of violence toward the press in Mexico, which typically points to the increased strength of drug traffickers. In contrast, we argue that it is when COs fail to maintain local market dominance that journalists are likely to be violently targeted. In contrast to competing theories, our theory can account for the puzzling time and geographical variation in cases of journalist assassinations in Mexico. While a small number of recent studies have posited potential explanations for

[7] An alternative mechanism linking pluralistic markets to violence might point to competitive COs engaging in general violence in order to intimidate rivals, which then increases the likelihood that journalists, as well as the broader population, are victims of violence. However, even in the context of rivalry, COs attempt to maintain working relations with certain members of the press in attempts to also garner favorable coverage and subsequent advantage in battles to control markets. It is thus likely that any attempts to more broadly use violence as a form of intimidation would be aimed at members of the press who publish information favoring rivals, and thus coupled with goals of controlling the information that is disseminated through the press.

such variation (for example, see Edmonds-Poli (2013)), these explanations have yet to be rigorously tested. In the next section, we discuss the data, methods, and results to our empirical analysis on the drivers of violence toward the press in Mexico, specifically focusing on whether violence against the press is linked to the general strength of criminal organizations, as most traditional narratives argue, or to the existence of illicit market competition. We find strong evidence supporting our theory: the likelihood of fatal violence against the press increases when rival criminal organizations compete locally.

3.5 Empirical Strategy and Results

To better understand the drivers of violence against the press in Mexico, we utilize municipality-year level data between 2007 and 2010. We use data collected by the Committee to Protect Journalists (CPJ) on homicides committed against journalists to measure our main dependent variable. While there are alternative sources that collect data on violence against the press, we work with CPJ data because it uses the strictest coding mechanism to identify press attacks and because it is the largest world-wide time-series of cases of journalists assassinations available. Some have argued that the CPJ's figures underestimate the number of cases of violence against the press because they only account for cases in which the victim was formally a journalist (not accounting for instances in which victims were working "as journalists" even if they were doing so in an informal way), and because they do not account for instances in which journalists were non-fatally victimized (i.e. injured, threatened, kidnapped, extorted, etc.). We consider CPJ to be the best source available for academic purposes precisely because by being so restrictive, it is less prone to coding errors, making its data more accurate and comparable over time and space. CPJ maintains and updates two separate lists: a list of confirmed cases where there is reasonable certainty that the journalist was murdered in direct reprisal for his or her work, and a list of cases in which this motive has not been confirmed, but is being investigated. While including cases from this

second list may introduce the possibility of some measurement error (i.e. including cases in which journalists were killed for motives not related to their work), we use both databases in order to expand the sample to allow for analysis.[8] Besides counting cases of fatal attacks on journalists, the data includes variables specific to each case of violence, such as the full name of the journalist, nationality, organization, the municipality where he was victimized, and the outcome of judicial investigations.

Table 3.1: Descriptive Statistics of Mexican Municipalities

	Median	Sd	Min	Max
Population	0.12	1.31	0	18.6
Poverty	-0.04	0.99	-2.37	4.5
Inequality	0.41	0.04	0	0.69
Homicide Rate (Per 100 000 people)				
Total Homicide	11.0	27.0	0	869
Rivalry Homicide	2.80	14.8	0	800
Non-rivalry Homicide	8.2	20.6	0	610

Note: 2457 municipalities data (2007-2010)

We use a dichotomous measure of homicides against journalists based on the CPJ data, with municipality-years that experienced a homicide of a journalist in a given year assigned one, and municipality-years in which no journalists were killed assigned a zero. Because of both the restrictive coding scheme employed in CPJ data collection and the general rarity of journalist homicides relative to general homicides, we are left with 30 municipality-years experiencing journalist homicides between 2007-2010. Despite its relative rarity, from a theoretical standpoint, this outcome is still worth examining for a number of reasons. First, homicides against journalists typically result in fear that specifically hinders future

[8]The CPJ classifies "confirmed" cases as those in which there is reasonable certainty that the killing was related to the victim's journalistic work. Cases are classified as "motive unconfirmed" if the motive for the killing is unclear, but there is reason to believe that it was related to the journalist's profession. Because the vast majority of cases of violence against the press in Mexico go unsolved and even uninvestigated by the authorities, it can be difficult to determine with certainty the motive of a given murder. However, because the subsequent analysis accounts for general homicide rates, there is little reason to believe that any error introduced by including "unconfirmed" cases of more typical homicides (i.e. cases in which the motive was in fact unrelated to the victim's work as a journalist) would systematically bias the results in favor of our theory. In contrast, limiting the analysis only to "confirmed" cases might introduce bias if the level of investigation (and thus likelihood of confirming a motive) were associated with local levels and/or structures of criminal rivalry.

freedom of expression; the killing of even one journalist in an area can have a widespread and long-lasting impact on the likelihood of others practicing journalism, thus having a disproportionately large impact on the quality of democracy. Second, while homicides against journalists represent the extreme end of violence against the press, they are also likely to be indicative of wider-spread patterns of violence against the press in a given locality. Homicides against journalists are typically preceded by threats and/or non-lethal violence, and can thus serve as a measurement of the general climate of violence toward journalists in a municipality.

Our primary models use this dichotomous measure of fatal violence because our theory focuses mainly on the factors that lead a CO to use violence to control information disseminated through the press (rather than the degree of such violence). Dichotomizing this variable does not lead to a substantial loss in information, as only 5 of the 30 municipalities (during our years of study) experienced more than one journalist assassination in the same year. However, we also conducted Poisson regressions using a count measure to check the robustness of these the primary findings.

While homicides against members of the press is an outcome worth analyzing from a theoretical standpoint, the rarity of the event presents challenges from a practical and analytical standpoint. As King and Zeng (2001) point out, typical logistic regression using data with far fewer ones than zeros oftentimes produces biased results underestimating the probability of the event. To correct for this potential bias in our data, we use the rare events logistic regression (relogit) strategy developed in King and Zeng (2001), combined with robust standard errors to control for the excess of zeros in our data.

Our theory points to the industrial organization of illicit markets as a key factor in explaining attacks against journalists, expecting lower levels of coordination between traffickers to increase the likelihood of homicide against a journalist. Measuring this explanatory variable can be difficult. Criminal operations are generally conducted with high levels of secrecy, without public records on who operates in a particular area. Even less is known about whether those criminals who operate in an area cooperate or compete for profits. As a result,

we typically only get to know about criminal rivalries when localized ethnographic studies have been conducted, or when rivalry is strong enough as to affect general rates of violence. Both cases are problematic. On one hand, local ethnographic studies are difficult to systematize and cannot be coded into a reliable data series for quantitative testing. On the other, even if we have access to murder statistics at the local level, we generally lack information on whether a victim was killed due to criminal rivalry or due to many other circumstances that may trigger retaliation or violence but are not specifically related to criminal organizations.

To overcome these challenges, we employ two measurement strategies for identifying competition between criminal organizations. First we exploit a particularity of Mexico's criminal statistics to specifically identify areas in which COs are competing locally. More specifically, we use data on violence specifically tied to criminal *rivalry*. Unlike most other countries, Mexico's Ministry of the Interior keeps a database (fed monthly by criminal investigations conducted at each of 32 state-level prosecutors' offices), of murders that were specifically caused by "criminal rivalry."[9] The data set is far from perfect and is only publicly available for December of 2006 to September of 2011. However, it was explicitly constructed and used by the Ministry of the Interior in order to locate areas where rival criminal organizations compete, and allows us to identify geographical areas where we can determine with a high degree of certainty that illicit markets are marred by competitive rivalry. We expect journalists to be more likely to be victims of homicide in municipalities with higher levels of violent competition between COs.

While data on the level of violence tied to criminal rivalry is a good place to start in capturing the varying industrial organization of criminal markets between municipalities, using this data presents two challenges in analyzing the theory. First, while measures of

[9]One of the co-authors was employed with the Ministry of Interior while the rivalry homicide data was collected. These cases were initially labeled by the government as murders thought to be caused by COs, but were in 2011 relabeled as murders thought to be caused by criminal rivalry. This name change did not reflect a change in criteria used to include cases, but was rather an attempt to more accurately describe the data being collected. The internally-used data include a line in each case indicating which criminal organizations were confronting each other, and while these specifics are not publicized, senior members of the Ministry claimed at the time of data collection that the data were capturing where COs confront one another.

homicides tied to criminal rivalry can show us were COs are in conflict, it cannot show us where traffickers cooperate rather than violently compete. Without data on where traffickers operate without conflict, we are unable to analyze if differences are driven by criminal rivalry or simply the presence of COs. We thus use a new data set compiled using methods first developed in Coscia and Rios (2012). The data collection strategy exploits reliable online sources such as newspapers and blogs, using unambiguous query terms to identify the different COs operating in a municipality in a given year.[10] With this data, we have measures not only for the municipalities in which drug traffickers operate, but also which and how many COs are operating in a specific municipality in a specific year.

Additionally, using this data on the COs operating in a municipality in a given year also allows us to address a second challenge to using the rivalry homicide data to operationalize locally competitive markets. Our theoretical framework points to the important role of criminal rivalry in driving violence toward the press. While criminal rivalry may be a necessary condition leading to violence between COs, it is possible that in the context of rivalry, unmeasured variables might determine whether or not this competition turns violent. To account for this possibility, we include robustness checks that use an alternative measure of rivalry that is agnostic to violence between COs. More specifically, we include models that operationalize the presence of criminal rivalry using dummy variables capturing whether a municipality was home to only one criminal organization, multiple COs that may or may not be rivals, or multiple COs that were likely to be rivals.[11] If our theory holds, we would

[10]For more details on this data collection process, labeled MOGO, or Making Order using Google as an Oracle, see Coscia and Rios (2012). Given our theory, one potential concern for using data based at least partially on newspaper reports is that the data will be biased, underestimating the COs operating peacefully in municipalities. If traffickers in coordinated markets are able to govern what the press reports on them, then they are less likely to be identified in local media. While this is a valid concern, we believe this data is still useful for two reasons. First, while local traffickers may be able to prevent coverage by local media, their ability to influence national media, which is also included in the data, is less apparent. Second, MOGO also utilizes blog posts in identifying where traffickers operate. While there is evidence that traffickers have begun attempting to punish people who spread information through blogs and social media, censorship of this forum is less effective to this point. Finally, while there may be potential for issues of data bias, this is the only measure we currently have for a complex and intentionally opaque phenomenon, and this data gives us a rough estimate off which to work.

[11]We use these measures as a robustness check, rather than the primary operationalization of rivalry because of the way they were built. Since the algorithm records the municipal presence of COs in the

expect the likelihood of fatal violence to be higher in places in which multiple COs inhabit a given territory, compared to places where one CO has monopolistic control. Additionally, we would expect this likelihood to be even higher in municipalities where there is greater certainty that these multiple COs are indeed rivals.

If our theory is correct, we would expect municipalities with higher levels of conflict between drug traffickers to be more likely to experience fatal violence against journalists. Table 3.2 presents the results of five relogit model specifications testing the factors that are correlated with a journalist being assassinated in a particular municipality in a particular year. Each model contains variables controlling for the population, poverty, and inequality in a given municipality, as well as fixed effects for the presence of each of Mexico's major COs. The logic for including a control for population is fairly self-evident—municipalities with more people are likely to have a more expanded press industry with a higher rate of journalist per population. It is also reasonable to suppose that bigger municipalities are likely to have more diverse news organizations competing that could make controlling information through bribery harder or more expensive for the COs. We include the poverty variable because it might effect the outcome in different ways: poorer municipalities may have fewer resources with which to protect journalists, but they may also have fewer resources that attract operators in illicit markets who may use violence toward journalists. We include a measure of inequality because more unequal municipalities are known to have stronger local demand for drugs (i.e. they contain a larger portion of the population with disposable income). Because the operations necessary for distributing drugs locally differ greatly from operations geared at export abroad, it is possible that illicit market operators in more unequal

national and local media, the identification is related to the size of the media in the municipality and the coverage of drug trafficking. Thus, a smaller municipalities may be measured as having only one COs using this measure, while actually have high amounts of violent conflict related to drug trafficking. We thus use the government's measure of drug competition (rivalry homicides) in our main specifications and use this alternative measure as evidence that the results are in fact being driven by rivalry itself, and not some factor that is specific to violent rivalry. In this robustness check, to determine which COs were likely to be rivals, we examined a novel set of *narco mensajes*. These are public messages written by drug traffickers, often after killing a victim. COs were labeled as rivals if they publicly stated their rivalry in a message in any location during the study period. While not a perfect indicator, the roughly 1000 messages nation-wide provide us with some indication of which COs were more likely to be in conflict with one another.

municipalities have to establish different types of connections with local populations, and might thus have a different relationship with the local press. We also control for each major CO in order to see whether the presence of specific COs is more likely to lead to violence against journalists, and dummy variables for key rivalries between COs to analyze whether certain rivalries are more likely to lead to violence against the press.

Model 1 simply tests the effect of the overall homicide rate on journalist assassinations, finding a statistically significant positive relationship. However, this model tells us less about the specific impact of rivalry between COs, since this coefficient could be driven either by homicides stemming from drug trafficking or general disorder. Model 2 thus disaggregates homicides into cases that are specifically tied to drug trafficking rivalry and cases that are not. If the relationship between homicide rates and violence against journalists is being driven by drug homicides, we would expect the rivalry variable to be positive and significant. We find rivalry between COs to be positively correlated with violence against journalists at the .01 p-level, while homicide related to general disorder is not statistically significant. Substantively, while the effect is relatively small, we can interpret this coefficient as telling us that the probability of a journalist being assassinated in a municipality with 500 rivalry-homicides in a given year (at the high end of the spectrum) is 0.23 higher than a municipality with only one rivalry-homicide. The significance of these results hold in Model 3, where we control for specific rivalries between COs.

Models 4 to 6 are presented as robustness tests using the same specifications but with an alternative measure of rivalry using dummy variables for municipalities with one dominant CO, multiple COs, and multiple COs that are likely to be rivals. The above results hold and are consistent with our theory. Municipalities with two or more rival COs are consistently statistically significant and more likely to experience violence against the press than municipalities with only CO. Likewise, the dummy variable capturing municipalities where multiple COs operate but there is less certainty on whether they are rivals is statistically significant and positive, but the positive relationship is not as strong; this is likely due to the

Table 3.2: Rare Events Logistic Regression Results

	Dependent variable:					
	Journalist Assassination (Dummy)					
	(1)	(2)	(3)	(4)	(5)	(6)
Total Homicide Rate	0.005*** (0.002)					
Rivalry Homicide Rate		0.006*** (0.002)	0.007*** (0.002)			
Non-Rivalry Homicide Rate		0.002 (0.005)	0.003 (0.004)			
Multiple Rival COs dummy				1.941*** (0.427)	2.031* (1.186)	2.573*** (0.928)
Multiple COs dummy					1.276 (1.049)	1.966** (0.904)
One CO dummy					0.646 (0.744)	0.249 (0.725)
Population	0.131** (0.060)	0.131** (0.060)	0.150*** (0.052)	0.160*** (0.046)	0.150** (0.060)	0.137*** (0.050)
Poverty	−0.399 (0.297)	−0.398 (0.296)	−0.664** (0.283)	−0.593** (0.272)	−0.268 (0.292)	−0.369 (0.276)
Inequality	14.083*** (5.061)	14.101*** (5.069)	15.802*** (4.482)	15.496*** (4.451)	13.300** (5.189)	15.073*** (4.886)
Sinaloa	0.669 (0.495)	0.648 (0.495)			0.209 (0.549)	
Sinaloa faction	1.764*** (0.491)	1.752*** (0.490)			1.744*** (0.496)	
Familia	0.896** (0.424)	0.879** (0.424)			0.415 (0.506)	
Beltran faction	0.475 (0.596)	0.501 (0.597)			0.429 (0.595)	
Beltran	−0.375 (0.543)	−0.413 (0.544)			−0.560 (0.561)	
Tijuana	−0.923 (0.839)	−0.947 (0.837)			−0.842 (0.821)	
Juarez	1.044* (0.589)	0.960 (0.598)			0.923 (0.604)	
Golfo	1.124** (0.449)	1.139** (0.449)			0.951** (0.470)	
Zetas	0.968** (0.464)	0.924** (0.468)			0.400 (0.529)	
Other CO	−0.148 (1.079)	−0.122 (1.079)			−0.280 (1.094)	
Golfo-Zetas			0.887** (0.445)			0.508 (0.455)
Familia-Zetas			1.748*** (0.466)			0.985* (0.544)
Sinaloa-Zetas			1.974*** (0.636)			1.393** (0.658)
Tijuana-Sinaloa			−0.131 (0.867)			0.116 (0.789)
Beltran-Sinaloa			−0.873 (0.909)			−0.680 (0.811)
Beltran-Beltran faction			1.754** (0.817)			1.183 (0.791)
Constant	−13.395*** (2.286)	−13.342*** (2.288)	−13.696*** (2.037)	−13.454*** (2.014)	−13.543*** (2.388)	−14.336*** (2.289)
Observations	9,806	9,806	9,806	9,806	9,806	9,806
Log Likelihood	-138.327	-138.337	-148.923	-156.077	-137.651	-145.391
Akaike Inf. Crit.	306.655	308.673	321.845	322.154	309.302	316.782

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

fact that this dummy variable includes municipalities in which multiple COs have peacefully coordinated their operations. Models 7 and 8 present in Table 3.3 then present a robustness check using Poisson Regression, finding no substantive differences when using a count measure of violence against journalists.

Table 3.3: Poisson Regression Results

	Dependent variable:	
	Journalist Assassination (Count)	
	(7)	(8)
Total Homicide Rate	0.004^{***} (0.002)	
Rivalry Homicide Rate		0.004^{***} (0.002)
Non-Rivalry Homicide Rate		0.004 (0.003)
Population	0.142^{***} (0.053)	0.143^{***} (0.053)
Poverty	-0.290 (0.252)	-0.290 (0.252)
Inequality	14.075^{***} (4.332)	14.071^{***} (4.337)
Sinaloa	0.709 (0.435)	0.709 (0.435)
Sinaloa faction	1.517^{***} (0.438)	1.517^{***} (0.438)
Familia	0.480 (0.393)	0.480 (0.393)
Beltran faction	0.441 (0.512)	0.441 (0.514)
Beltran	-0.342 (0.468)	-0.343 (0.470)
Tijuana	-1.286^{*} (0.765)	-1.286^{*} (0.768)
Juarez	0.792 (0.537)	0.792 (0.543)
Golfo	1.539^{***} (0.420)	1.539^{***} (0.420)
Zetas	0.607 (0.415)	0.607 (0.418)
Other CO	-0.670 (1.044)	-0.671 (1.045)
Constant	-13.162^{***} (1.955)	-13.160^{***} (1.956)
Observations	9,806	9,806
Log Likelihood	-172.622	-172.642
Akaike Inf. Crit.	375.245	377.284
Note:		*p<0.1; **p<0.05; ***p<0.01

The rates of both general homicide and homicides related to drug trafficking is skewed between municipalities, with most municipalities experiencing very low rates, and a relatively small amount of municipalities experiencing very high rates. Models 9 -11 use different strategies to test the robustness of the relationship between CO rivalry and the assassination of journalists. The results hold in Model 9, which removes outliers with rates of rivalry-

homicide higher than 1000. The results also hold in Model 10, in which we remove the same outliers and test the relationship only on municipalities that experienced at least one rivalry-homicide in a given year. In Model 11, we use the logged values of both rivalry and non-rivalry homicide rates; rivalry remains a significant indicator of journalist assassination at the 0.01 level, and while non-rivalry homicide also becomes significant, its impact is smaller.

Table 3.4: Rare Events Logistic Regression Results, Robust to Outliers

	Dependent variable:		
	Journalist Assassination (Dummy)		
	(9)	(10)	(11)
Rivalry Homicide Rate	0.006*** (0.002)	0.008** (0.004)	
Non-Rivalry Homicide Rate	0.005 (0.005)	−0.008 (0.009)	
Log Rivalry Homicide Rate			1.723*** (0.310)
Log Non-Rivalry Homicide Rate			0.940*** (0.351)
Population	0.130** (0.060)	0.177 (0.109)	0.193*** (0.065)
Poverty	−0.396 (0.297)	−0.015 (0.525)	−0.544* (0.305)
Inequality	13.886*** (5.071)	12.408 (10.663)	15.138*** (5.299)
Sinaloa	0.673 (0.496)	0.505 (0.915)	0.347 (0.495)
Sinaloa faction	1.757*** (0.491)	1.576* (0.874)	1.522*** (0.511)
Familia	0.894** (0.424)	0.619 (0.775)	0.685 (0.432)
Beltran faction	0.471 (0.598)	0.492 (1.085)	0.197 (0.626)
Beltran	−0.381 (0.545)	−0.336 (0.979)	−0.779 (0.584)
Tijuana	−0.927 (0.838)	−0.551 (1.477)	−1.888** (0.957)
Juarez	1.036* (0.601)	0.782 (1.076)	0.503 (0.607)
Golfo	1.128** (0.449)	1.093 (0.829)	1.283*** (0.449)
Zetas	0.958** (0.469)	0.393 (0.862)	0.621 (0.470)
Other CO	−0.146 (1.080)	1.039 (2.055)	−0.072 (1.083)
Constant	−13.280*** (2.288)	−12.156** (4.890)	−15.675*** (2.548)
Observations	9,806	2,597	9,809
Akaike Inf. Crit.	308.664	47.612	277.492
Note:			*p<0.1; **p<0.05; ***p<0.01

Finally, the models in Table 3.5 present a final robustness check using nonparametric nearest neighbor matching as a preprocessing tool to check for possible model dependence. The goal of this preprocessing technique is to adjust the data prior to analysis so that the relationship between the treatment (in this case whether a municipality exhibits CO rivalry) and other measurable factors that might impact the assassination of journalists is close to zero (see Ho et al. (2007)). In other words, we trim the data prior to analysis so that it is more balanced, thus allowing for the analysis to compare units that are alike on other variables but differ in their presence of criminal rivalry. Models 13 and 14 show that when

running the analysis with a matched data set, criminal rivalry remains a significant indicator of violence against journalists at the 0.1 p-level.

Table 3.5: Rare Events Logistic Regression Results, Matched Data Set

	Dependent variable:		
	Journalist Assassination (Dummy)		
	(12)	(13)	(14)
Total Homicide rate	0.004 (0.003)		
Rivalry Homicide Rate		0.005* (0.003)	0.006* (0.003)
Non-Rivalry Homicide Rate		−0.002 (0.004)	−0.001 (0.004)
Population	0.124 (0.077)	0.125 (0.077)	0.107 (0.069)
Poverty	0.096 (0.407)	0.165 (0.410)	0.102 (0.392)
Inequality	7.338 (7.449)	7.023 (7.461)	8.475 (6.899)
Sinaloa	0.342 (0.631)	0.251 (0.633)	
Sinaloa faction	1.461** (0.626)	1.431** (0.627)	
Familia	0.443 (0.564)	0.370 (0.565)	
Beltran faction	0.406 (0.762)	0.426 (0.761)	
Beltran	−0.509 (0.697)	−0.609 (0.699)	
Tijuana	−0.628 (1.019)	−0.631 (1.020)	
Juarez	0.848 (0.748)	0.641 (0.756)	
Golfo	0.818 (0.579)	0.802 (0.580)	
Zetas	0.469 (0.611)	0.340 (0.615)	
Other CO	0.185 (1.435)	0.231 (1.434)	
Golfo-Zetas			0.461 (0.564)
Familia-Zetas			1.013* (0.600)
Sinaloa-Juarez			1.138 (0.807)
Tiajuana-Sinaloa			0.254 (1.013)
Beltran-Sinaloa			−0.495 (1.048)
Beltran-Beltran faction			1.032 (1.011)
distance	3.241* (1.894)	3.648* (1.926)	4.205** (1.809)
Constant	−11.938*** (3.332)	−11.869*** (3.337)	−12.689*** (3.197)
Observations	5,264	5,264	5,264
Akaike Inf. Crit.	307.513	309.449	314.005
Note:			*p<0.1; **p<0.05; ***p<0.01

On the whole, the analysis presented here strongly supports our theory. In all of the models, criminal rivalry remains a significant predictor of fatal violence against the press.

3.6 Conclusion

This article argues that violence against journalists in Mexico reflects criminal organizational strategies to control public information. We find that municipalities that are marred by competition over drug markets are more likely to exhibit fatal violence against the press, even when compared to municipalities dominated by strong and monopolistic COs. In mu-

nicipalities where traffickers peacefully coordinate market competition, COs have a stronger capacity to peacefully govern the content of the press by deciding what information to leak to journalists and by bribing and/or threatening journalists. Violence against the press is therefore less necessary and carries opportunity costs. However, this capacity to peacefully govern information is more likely to break down in municipalities where rival organizations compete for local dominance. Rivalry creates incentives for information leaks to be used as weapons to intensify official enforcement operations against competitors, leading the press to publish stories that are damaging to COs, and leading these COs to respond with violence.

These findings have implications for our understanding of the microdynamics of violence against the press in Mexico. Contrary to popular belief, it is not the strength of criminal organizations that drives the killing of journalists, but rather their control (or lack of control) over territorial markets. While violent cartels like the *Zetas* have grown in strength in recent years and have been notorious for their violence against combatants and non-combatants alike, they are actually more likely to target the press when they have a less firm grip over a given territory and thus compete for local dominance. This leaves difficult questions in terms of strategies for combatting COs. For example, a key component of enforcement strategy against drug trafficking has been to target high-level members of powerful criminal organizations, attempting to disrupt drug markets by "cutting off the head" of trafficking organizations. On the one hand, pursuing the leaders of powerful local criminal monopolies may successfully disrupt illicit markets, leading, at least in the short run, to weaker criminal organizations in a given territory. But on the other hand, if such targeted enforcement leads to greater levels of competition between criminals attempting to fill the subsequent power vacuum, then it may also indirectly put journalists at risk.

Lastly, these findings also provide more general insight into the processes underlying attacks against the press by violent organizations. Scholars in recent years have increasingly focused on patters of violence against "civilians" by armed groups, often pointing to the important role of territorial competition in driving violent behavior (for example, see Kalyvas

(2006)). In contexts in which the strength or longevity of such groups can be impacted by local coverage by the press, our findings suggest that examining patterns of local rivalry and competition can also help to understand where and why violent organizations are likely to target members of the press. When armed groups like criminal organizations compete for local territory, journalists are more likely to be caught in precarious situations in which their coverage is detrimental to one side or another, increasing the likelihood that they are subject to violent attacks.

References

Al Calor Politico. 2010. "Violenta venganza: por violar a una menor lo castraron y le cosieron la boca." Accessed January 5, 2014, http://www.alcalorpolitico.com/informacion/violenta-venganza-por-violar-a-una-menor-lo-castraron-y-le-cosieron-la-boca-56023.html#.UzRyTRzco30.

Alonso, Alex A. 2004. "Racialized identities and the formation of black gangs in Los Angeles." *Urban Geography* 25(7):658–674.

Anderson, Scott. 1994. "Making a killing: The high cost of peace in Northern Ireland." Harpers. February.

Arana, Ana. 2005. "How the Street Gangs Took Central America." *Foreign Affairs* 84(3):98–110.

Arjona, Ana M. forthcoming. *Social order in civil war*. New York: Cambridge University Press.

Bakonyi, Jutta and Kirsti Stuvøy. 2005. "Violence & Social Order beyond the State: Somalia & Angola." *Review of African Political Economy* 32(104/105):359–382.

Balcells, Laia. 2010. "Rivalry and Revenge. Violence against Civilians in Conventional Civil Wars." *International Studies Quarterly* 54(2):291–313.

Balderrama, David Pinon. 2009. "Mi vida con el narco.". Accessed January 5, 2014, http://www.nexos.com.mx/?p=13407.

Bandiera, Oriana. 2003. "Land reform, the market for protection, and the origins of the Sicilian mafia: theory and evidence." *Journal of Law, Economics and Organizations* 19(1):218–244.

Barnes, Nicholas John. 2015. "Monopolies of Violence: Gang Governance in Rio de Janeiro." *Paper presented at the Midwest Political Science Association Annual Conference, Chicago, April 2015* .

Bates, Robert H. 1983. Modernization, Ethnic Competition, and the Rationality of Politics in Contemporary Africa. In *State Versus Ethnic Claims: African Policy Dilemmas*, ed. Donald Rothchild and Victor A. Ororulsola. Boulder, CO: Westview Press.

Bates, Robert H. 1987. *Essays on the political economy of rural Africa*. Berkeley: University of California Press.

Bates, Robert H. 1988. "Contra Contractarianism: Some Reflections on the New Institutionalism." *Politics and Society* 16(2-3):387–401.

Bates, Robert H. 2001. *Prosperity and Violence: The Political Economy of Development*. New York: W. W. Norton & Company.

Bates, Robert H., Avner Greif and Smita Singh. 2002. "Organizing Violence." *Journal of Conflict Resolution* 46(5):599.

Bateson, Regina. 2013. "Crime Victimization and Political Participation." *American Political Science Review* 106(3):570–587.

Baum, Matthew A. 2003. *Soft News Goes to War: Public Opinion and American Foreign Policy in the New Media Age*. Princeton, NJ: Princeton University Press.

Becerra, Hector. 2013. "In Ramona Gardens, an easing of long-simmering tensions." *Los Angeles Times* . Accessed January 5, 2014, http://www.latimes.com/local/la-me-ramona-gardens-20130411-dto-htmlstory.html.

Becerra, Hector and Richard Winton. 2014. "Ramona Gardens firebombing has some black residents fleeing the area." *Los Angeles Times* . Accessed January 5, 2014, http://www.latimes.com/local/la-me-0517-ramona-firebomb-20140517-story.html.

Becklund, Laurie. 1992. "Firebombings Destroy Project's Racial Harmony: Blacks are leaving mostly Latino Ramona Gardens after two attacks. Residents remain tight-lipped, hampering investigations." *Los Angeles Times* . Accessed January 5, 2014, http://articles.latimes.com/1992-09-15/local/me-787_1_ramona-gardens.

Besag, Julian. 1974. "Spatial interaction and the statistical analysis of lattice systems." *Journal of the Royal Statistical Society. Series B (Methodological)* 26(2):192–236.

Black, Donald J. 1970. "The Production of Crime Rates." *American Sociological Review* 35(4):733–748.

Blatchford, Chris. 2008. *The Black Hand: the Story of Rene 'Boxer' Enriquez and His Life in the Mexican Mafia*. New York: Harper Collins.

Block, Carolyn Rebecca and Richard Block. 1993. "Street Gang Crime in Chicago." *Research in Brief, National Institute of Justice, 144782.* .

Brantingham, Jeffrey P., George E. Tita, Martin B. Short and Shannon E. Reid. 2012. "The Ecology of Gang Territorial Boundaries." *Criminology* 50(3):851?85.

Brass, Paul. 1997. *Theft of an Idol:Text and Context in the Representation of Collective Violence*. Princeton, NJ: Princeton University Press.

Brooks, Sarah M. 2014. "Insecure Democracy: Risk and Political Participation in Brazil." *The Journal of Politics* 76(4):972–985.

Brownson, Ross C., Christine M. Hoehner, Kristen Day, Ann Forsyth and James F. Sallis. 2009. "Measuring the Built Environment for Physical Activity: State of the Science." *American Journal of Preventive Medicine* 36(4):S99–123.

Buchanan, James M. 1973. Gangs as primitive states. In *The Economics of Crime and Punishment*, ed. S. Rottemberg. American Enterprise Institute for Public Policy Research.

Caldeira, Teresa P. R. 2001. *City of Walls: Crime, Segregation, and Citizenship in São Paulo*. Berkeley: University of California Press.

Caldeira, Teresa P. R. and James Holston. 1999. "Democracy and Violence in Brazil." *Comparative Studies in Society and History* 41(4):691–729.

California v. Madrigal et al. 2012. Indictment. Superior Court, County of Ventura, November.

Caragea, Petruta C. and Mark S. Kaiser. 2009. "Autologistic models with interpretable parameters." *Journal of Agricultural, Biological, and Environmental Statistics* 14(3):281–300.

CCC. 2010. "The Gang Book.". Report published by the Chicago Crime Commission.

Chawkins, Steve. 2012. "27 indicted in Mexican Mafia drug case in Ventura County." *The Los Angeles Times* . Accessed January 5, 2014, http://articles.latimes.com/2012/nov/28/local/la-me-mexican-mafia-indict-20121128.

Cohen, Abner. 1969. *Custom and Politics in Urban Africa*. Berkeley and Los Angeles: University of California Press.

Corchado, Alfredo. 2013. *Midnight in Mexico: A Reporter's Journey Through a Country's Descent into Darkness*. New York: Penguin.

Coscia, Michele and Viridiana Rios. 2012. "Knowing where and how criminal organizations operate using web content.". Conference on Information and Knowledge Management.

CPJ. 2010. "Silence or Death in Mexico's Press.". Special report of the Committee to Protect Journalists.

CPJ. 2014. "Committee to Protect Journalists: Journalists Killed since 1992.". Accessed May 20, 2014, https://www.cpj.org/killed/.

Cruz, Josè Miguel. 2010. "Central American maras: from youth street gangs to transnational protection rackets." *Global Crime* 11(4):379–398.

Dahl, Robert. 1998. *On democracy*. New Haven, CT: Yale University Press.

de la Sierra, Raul Sanchez. 2014. "Defining the state: Armed groups' monopolies of violence and emergence of state-like behavior in Eastern Congo." *Working paper: Harvard University* .

Desmarais, Bruce A. and Skyler J. Cranmer. 2010. "Consistent Confidence Intervals for Maximum Pseudolikelihood Estimators." *Neural Information Processing Systems 2010 Workshop on Computational Social Science and the Wisdom of Crowds* .

Diaz-Cayeros, Alberto, Beatriz Magaloni, Aila Matanockand and Vidal Romero. 2011. "Living in fear: social penetration of criminal organizations in Mexico.". Paper presented at Violence, Drugs and Governance: Mexican Security in Comparative Perspective Conference.

Djankov, Simeon, Caralee McLiesh, Tatiana Nenova and Andrei Shleifer. 2003. "Who owns the media." *Journal of Law and Economics* 46(2):341–382.

Durkheim, Emile. 1933. *The Division of Labor in Modern Societies*. New York: The Free Press.

Edmonds-Poli, Emily. 2013. "The Effects of Drug-War Related Violence on Mexicos Press and Democracy.". Working Paper Series on Civic Engagement and Public Security in Mexico, Woodrow Wilson International Center.

Egorov, Georgy, Sergei Guriev and Konstantin Sonin. 2009. "Why Resource-poor Dictators Allow Freer Media: A Theory and Evidence from Panel Data." *American Political Science Review* 103(4):645–668.

El Diaro de Juarez. 2010. "Que quieren de nosotros." September 18, 2010.

El Heraldo de Chihuahua. 2011. Accessed January 5, 2014, "Sicario pone a vctima agonizante en cajuela y choca contra un árbol." http://www.oem.com.mx/elheraldodechihuahua/notas/n1179999.htm.

Ellickson, Robert. 1991. *Order without law: How neighbors settle disputes*. Cambridge: Harvard University Press.

Ellis, Desmond P. 1971. "The Hobbesian Problem of Order: A Critical Appraisal of the Normative Solution." *American Sociological Review* 36(4):692–703.

El Pais. 1986. "Detenido el "zar del narcotrfico" del norte de Mxico." Accessed January 5, 2014, http://elpais.com/diario/1986/04/30/internacional/515196027_850215.html.

El Pais. 2011. "Nueva victoria del narco contra el libre ejercicio del periodismo en Mxico." Accessed January 5, 2014, http://internacional.elpais.com/internacional/2013/03/11/mexico/1363020884_828926.html.

El Universal. 2007. "Aparecen narcomensajes en Cancún y Mexicali." Accessed January 5, 2014, http://www.eluniversal.com.mx/estados/64185.html.

Enders, Walter and Xuejuan Su. 2007. "Rational Terrorists and Optimal Network Structures." *Journal of Conflict Resolution* 51(1):33–57.

Esbensen, Finn-Aage and David Huizinga. 1993. "Gangs, Drugs, and Delinquency in a Survey Of Urban Youth." *Criminology* 31(4):565–589.

Fearon, James D. and David D. Laitin. 2000. "Violence and the Social Construction of Ethnic Identity." *International Organization* 54(4):845–877.

Gagnon, V.P. 1997. Ethnic Nationalism and International Conflict: The Case of Serbia. In *Nationalism and Ethnic Conflict*, ed. Michael E. Brown, Owen R. Cote Jr., Sean M. Lynn-Jones and Steven E. Miller. Cambridge, MA: The MIT Press.

Gambetta, Diego. 1993. *The Sicilian mafia: the business of private protection*. Cambridge, MA: Harvard University Press.

Geyer, Charles J. and Elizabeth A. Thompson. 1992. "Constrained monte carlo maximum likelihood for dependent data." *Journal of the Royal Statistical Society. Series B (Methodological)* 54(3):657?699.

Gleditsch, Kristian Skrede. 2007. "Transnational Dimensions of Civil War." *Journal of Peace Research* 44(3):293–309.

Hernandez, Tanya A. 2007. "Roots of Latino/black Anger." *Los Angeles Times* . Accessed January 5, 2014, http://www.latimes.com/news/la-op-hernandez7jan07-story.html.

Hipp, John H., George E. Tita and Lyndsay N. Boggess. 2009. "Intergroup and Intragroup Violence: Is Violent Crime an Expression of Group Conflict or Social Disogranization?" *Criminology* 47(2):372–403.

Hipp, John R. and Adam Boessen. 2013. "Egohoods as Waves Washing across the City: a New Measure of "neighborhoods"." *Criminology* 51(2):287–227.

Ho, Daniel E., Kosuke Imai, Gary King and Elizabeth A. Stuart. 2007. "Matching as Nonparametric Preprocessing for Reducing Model Dependence in Parametric Causal Inference." *Political Analysis* 15(2):199–236.

Hobbes, Thomas. 1947 [1651]. *The Leviathan*. New York: Dutton.

Holland, Bradley E. 2015. "Gangs, Drugs, and the Political Economy of Ethnic Violence in Southern California.". Working Paper, Harvard University.

Holland, Bradley E. and Viridiana Rios. 2015. "Informally Governing Information: How Criminal Rivalry Leads to Violence Against the Press in Mexico.". Working Paper, Harvard University.

Horowitz, Donald L. 1985. *Ethnic Groups in Conflict*. Berkeley: University of California Press.

Howell, James C. and John P. Moore. 2010. "History of Street Gangs in the United States." *National Gang Center Bulletin* (4):1–25.

Hughes, John. forthcoming. "ngspatial: A package for fitting the centered autologistic and sparse spatial generalized linear mixed models for areal data." *The R Journal* . Accessed Online on June 1, 2014, http://www.biostat.umn.edu/ johnh/pdf/ngspatial.pdf.

Humphreys, Macartan and Jeremy M. Weinstein. 2006. "Handling and manhandling civilians in civil war." *The American Political Science Review* 100(3):429–447.

Jaffe, Rivke. 2012. "Criminal dons and extralegal security privatization in downtown Kingston, Jamaica." *Singapore Journal of Tropical Geography* 33:184–197.

Johnson v. California. 2005. US Supreme Court decision, February.

Jones-Correa, Michael. 2000-2001. "The Origins and Diffusion of Racial Restrictive Covenants." *Political Science Quarterly* 115(4):541–568.

Kalyvas, Stathis N. 2003. "The Ontology of 'Political Violence': Action and Identity in Civil Wars." *Perspectives on Politics* 1(3):475–494.

Kalyvas, Stathis N. 2006. *The logic of violence in civil war*. New York: Cambridge University Press.

Kalyvas, Stathis N. 2007. Civil Wars. In *The Oxford Handbook of Comparative Politics*, ed. Carlos Boix and Susan Stokes. Oxford: Oxford University Press.

Kalyvas, Stathis N. and Matthew Adam Kocher. 2009. "The dynamics of violence in Vietnam: an analysis of the Hamlet Evaluation System (HES)." *Journal of Peace Research* 46:335–255.

Karlekar, Karin Deutsch and Jennifer Dunham. 2013. "Press Freedom in 2013: Media Freedom Hits Decade Low." *Freedom House* .

Katz, Jesse. 1993. "Clashes Between Latino, Black Gangs Increase." *The Los Angeles Times* . Accessed January 5, 2014, http://articles.latimes.com/1993-12-26/news/mn-5770_1_latino-gang.

King, Gary, Jennifer Pan and Margaret Roberts. 2013. "How Censorship in China Allows Government Criticism but Silences Collective Expression." *American Political Science Review* 107(2):326–343.

King, Gary and Langche Zeng. 2001. "Logistic Regression in Rare Events Data." *Political Analysis* 9(2):137–163.

Kostelnik, James and David Skarbek. 2013. "The governance institutions of a drug trafficking organization." *Public Choice* 156(1-2):95–103.

Kurrild-Klitgaard, Peter and Gert Tinggaard Svendsen. 2003. "Rational Bandits: Plunder, Public Goods, and the Vikings." *Public Choice* 117(3/4):255–272.

Lee, David S. and Justin McCrary. 2009. "Internal Borders: Ethnic Diversity and Market Segmentation in Malawi.". CEPS Working Paper No. 189.

Levitt, Steven D. and Sudhir Alladi Venkatesh. 2000. "An economic analysis of a drug-selling gang's finances." *The Quarterly Journal of Economics* 115(3):755–789.

Lieberman, Evan S. and Prerna Singh. 2012. "The Institutional Origins of Ethnic Violence." *Comparative Politics* 45(1):1–24.

Lipset, Seymour Martin. 1960. *Political Man*. Garden City, New York: Doubleday.

Lodhi, Abdul Qaiyum and Charles Tilly. 1973. "Urbanization, Crime, and Collective Violence in 19th-Century France." *American Journal of Sociology* 79(2):296–318.

Lopez, Robert J. 2012. "Shotgun-wielding gang member charged with hate crime, LAPD says." *Los Angeles Times* . Accessed January 5, 2014, http://latimesblogs.latimes.com/lanow/2012/03/glassell-park-gang-shotgun-hate-crime-charge.html.

Lowrey, Brandon. 2012. "Mexican Mafia member ordered gangs to target blacks, police say." *U-T San Diego* . Accessed January 5, 2014, http://www.utsandiego.com/news/2012/Apr/14/exclusive-mexican-mafia-member-ordered-gangs-to/.

Manwaring, Max. 2011. "Security, Stability, and Sovereignty Challenges of Politicized Gangs and Insurgents in the Americas." *Small Wars and Insurgencies* 22(5):860–889.

McVeigh, Rory. 1999. "Structural Incentives for Conservative Mobilization: Power Devaluation and the Rise of the Ku Klux Klan, 1915-1925." *Social Forces* 77(4):1461–1496.

Metelits, Claire. 2010. *Inside insurgency: violence, civilians, and revolutionary group behavior*. New York: New York University Press.

Mitchell v. Cate. 2011. Federal class-action lawsuit: Eastern District of California, May.

Moore, Gary. 2011. "Heating up the plaza: how Mexico's gangs use scorched earth tactics.". http://www.insightcrime.org/news-analysis/heating-up-the-plaza-how-mexicos-gangs-use-scorched-earth-tactics; accessed January 5, 2014.

Mutahi, Patrick. 2014. "Between Illegality and Legality: (In)security, crime and gangs in Nairobi informal settlements." *South African Crime Quarterly* 37:11–18.

Nickeas, Peter. 2014. "Fourth of July weekend toll: 82 shot, 14 of them fatally, in Chicago." *Chicago Tribune* . Accessed February 11, 2015. http://articles.chicagotribune.com/2014-07-07/news/chi-fourth-of-july-toll-82-shot-14-of-them-fatally-in-chicago-20140707_1_south-chicago-east-garfield-park-west-englewood.

Noble, Andrea. 2014. "Let's count the ways: See how Islamic State fighters violate Muslim law." The Washington Times. Accessed January 15, 2015 at http://www.washingtontimes.com/news/2014/oct/15/islamic-state-struggles-to-reconcile-terrorist-tac/?page=all.

North, Douglass C., John Joseph Wallis and Barry R. Weingast. 2009. *Violence and Social Orders: a Conceptual Framework for Interpreting Recorded Human History*. New York: Cambridge University Press.

North, Douglass C. and Paul Robert Thomas. 1973. *The Rise of the Western World: a New Economic History*. New York: Cambridge University Press.

Ogul, David. 1994. "12th and Ottawa: Gangs' Ground Zero." *The Press Enterprise* . Riverside, CA.

Olson, Mancur. 1965. *The logic of collective action: public goods and the theory of groups*. Cambridge: Harvard University Press.

Olson, Mancur. 1993. "Dictatorship, democracy, and development." *The American Political Science Review* 87(3):567–576.

Ostrom, Elenor. 1990. *Governing the commons: the evolution of institutions for collective action*. New York: Cambridge University Press.

Papachristos, Andrew V. 2009. "Murder by Structure: Dominance Relations and the Social Structure of Gang Homicide." *American Journal of Sociology* 115(1):74–128.

Papachristos, Andrew V. 2013*a*. "48 Years of Crime in Chicago: A Descriptive Analysis of Serious Crime Trends from 1965 to 2013." *Yale Institution for Social and Policy Studies Working Paper* .

Papachristos, Andrew V. 2013*b*. "The Corner and the Crew: The Influence of Geography and Social Networks on Gang Violence." *American Sociological Review* 78(3):417–447.

Pattillo, Mary E. 1998. "Sweet Mothers and Gangbangers: Managing Crime in a Black Middle-Class Neighborhood." *Social Forces* 76(3):737–774.

Peralta, Stacy. 2008. *Bloods and Crips: Made in America*.

Petersen, Roger Dale. 2002. *Understanding Ethnic Violence: Fear, Hatred, and Resentment in Twentieth-Century Eastern Europe*. New York: Cambridge University Press.

Phillips, Tom. 2014. "'Triads' behind spike in Hong Kong protest violence, activists claim." *The Telegraph* . Accessed February 11, 2015. http://www.telegraph.co.uk/news/worldnews/asia/hongkong/11172484/Triads-behind-spike-in-Hong-Kong-protest-violence-activist-claims.html.

Quinones, Sam. 2007*a*. "Gang rivalry grows into race war." *The Los Angeles Times* . Accessed January 5, 2014, http://www.latimes.com/local/la-me-firestone18oct18-story.html.

Quinones, Sam. 2007*b*. "How a community imploded." *Los Angeles Times* . Accessed January 5, 2014, http://articles.latimes.com/2007/mar/04/local/me-harbor4.

Quinones, Sam. 2008*a*. "Execute Azusa Gangster, Jury Says." *The Los Angeles Times* . Accessed January 5, 2014, http://articles.latimes.com/2008/mar/26/local/me-azusa26.

Quinones, Sam. 2008*b*. "Monrovia deals with violent surge." *The Los Angeles Times* . Accessed January 5, 2014, http://articles.latimes.com/2008/feb/04/local/me-monrovia4.

Quinones, Sam. 2014*a*. "The End of Gangs." Pacific Standard. Accessed January 15, 2015 at http://www.psmag.com/politics-and-law/the-end-of-gangs-los-angeles-southern-california-epidemic-crime-95498.

Quinones, Sam. 2014*b*. Race, Real Estate, and the Mexican Mafia: A Report from the Black and Latino Killing Fields. In *Black and Brown in Los Angeles*, ed. Josh Kun and Laura Pulido. Berkeley: University of California Press.

Quinones, Sam and Richard Winton. 2011. "51 indicted in Azusa gang's 'terrorizing' of blacks." *The Los Angeles Times* . Accessed January 5, 2014, http://articles.latimes.com/2011/jun/08/local/la-me-0608-azusa-gang-20110608.

Radcliffe-Brown, A.R. 1940. Preface. In *African Political Systems*, ed. M. Fortes and E.E. Evans Prichard. Oxford University Press.

Rafael, Tony. 2007. *The Mexican Mafia*. New York: Encounter Books.

Reuter, Peter. 1983. *Disorganized Crime: The Economics of the Visible Hand*. Cambridge, MA: M.I.T. Press.

Rios, Viridiana. forthcoming. "The role of government coordination in crime deterrence and citizen security." *Journal of Conflict Resolution* .

Robinson, Amanda Lea. 2013. "Internal Borders: Ethnic Diversity and Market Segmentation in Malawi.". Working paper, Ohio State University.

Sambanis, Nicholas and Moses Shayo. 2013. "Social Identification and Ethnic Conflict." *American Political Science Review* 107(2):294–325.

Sampson, Robert J. 2013. "A Place of Context: a Theory and Strategy for Criminology's Hard Problems." *Criminology* 51(1):1–31.

Sampson, Robert J. and Per-Olof H. Wikström. 2008. The social order of violence in Chicago and Stockholm neighborhoods: a comparative inquiry. In *Order, Conflict, and Violence*, ed. Stathis N. Kalyvas, Ian Shapiro and Tarek Masoud. New York: Cambridge University Press.

Sampson, Robert J. and Stephen W. Raudenbush. 1999. "Systematic social observation of public spaces: A new look at disorder in urban neighborhoods." *American Journal of Sociology* 105(3):603–651.

Sampson, Robert J. and W. Byron Groves. 1989. "Community Structure and Crime: Testing Social-Disorganization Theory." *American Journal of Sociology* 94(4):774–802.

Sanchez-Jankowski, Martin. 1991. *Islands in the street: gangs and American urban society*. Berkeley: University of California Press.

Schudson, Michael. 2003. *The sociology of the news*. New York: Norton.

Shaw, Clifford and Henry McKay. 1942. *Juvinile Delinquency and Urban Areas*. Chicago: University of Chicago Press.

Shortland, Anja and Federico Varese. 2014. "The Protector's Choice: an Application of Protection Theory to Somali Piracy." *British Journal of Criminology* 54(5):741–764.

Simpson, Kelly. 2009. "A Southern California Dream Deferred: Racial Covenants in Los Angeles." KCET Departures Portraits. Accessed on January 15, 2015 at http://www.kcet.org/socal/departures/columns/portraits/a-southern-california-dream-deferred.html.

Sives, Amanda. 2002. "Changing Patrons, from Politician to Drug Don: Clientelism in Downtown Kingston, Jamaica." *Latin American Perspectives* 29(5):66–89.

Skaperdas, Stergios. 2002. "Warlord Competition." *Journal of Peace Research* 39(4):435–446.

Skaperdas, Stergios and Constantinos Syropoulos. 1995. Gangs as primitive states. In *The economics of organised crime*, ed. Gianluca Fiorentini and Sam Peltzman. Cambridge University Press.

Skarbek, David. 2014. *The Social Order of the Underworld: How Prison Gangs Govern the American Penal System*. Oxford: Oxford University Press.

Skarbek, David B. 2011. "Governance and prison gangs." *American Political Science Review* 105(4):702–716.

Sklar, Richard L. 1967. "Political Science and National Integration – A Radical Approach." *The Journal of Modern African Studies* 5(1):1–11.

SNSP. 2011. "Sistema Nacional de Seguridad Publica: Base de datos por fallecimientos por presunta rivalidad delincuencial, diciembre de 2006 a septiembre de 2011.".

Snyder, Richard and Angelica Duran-Martinez. 2009. "Does illegality breed violence? Drug trafficking and state-sponsored protection rackets." *Crime, Law, and Social Change* 52(3):253–273.

Sobel, Russell S. and Brian J. Osoba. 2009. "Youth Gangs as Pseudo-Governments: Implications for Violent Crime." *Southern Economic Journal* 75(4):996–1018.

Soy Periodista. 2010. "Ejecutan a 4 y dejan narco mensaje." Accessed January 5, 2014, http://www.soyperiodista.com/noticias/nota2334-ejecutan-a-4-y-dejan-narco-mensaje.

Staniland, Paul. 2012. "States, Insurgents, and Wartime Political Orders." *Perspectives on Politics* 10(2):243–264.

Taniguchi, Travis A., Jerry H. Ratcliffe and Ralph B. Taylor. 2011. "Gang Set Space, Drug Markets, and Crime around Drug Corners in Camden." *Journal of Research in Crime and Delinquency* 48(3):327–363.

Taylor, Julie. 2003. "Racial Segregation in California Prisons." *Loyola of Los Angeles Law Review* 37(1):139–152.

Thornberry, Terence P., Marvin D. Krohn, Alan J. Lizotte, Carolyn A. Smith and Kimberly Tobin. 2003. *Gangs and Delinquency in Developmental Perspective*. New York: Cambridge University Press.

Tilly, Charles. 1985. War making and state making as organized crime. In *Bringing the state back in*, ed. Peter Evens, Dietrich Rueschemeyer and Theda Skocpol. Cambridge University Press.

Tita, George E., Jacqueline Cohen and John Engberg. 2005. "An Ecological Study of the Location of Gang Set Space." *Social Problems* 52(2):272–299.

Tita, George E. and Steven M. Radil. 2011. "Spatializing the Social Networks of Gangs to Explore Patterns of Violence." *Journal of Quantitative Criminology* 27(4):521–545.

Tita, George and Greg Ridgeway. 2007. "The Impact of Gang Formation on Local Patterns of Crime." *Journal of Research on Crime and Delinquency* 44(2):208–237.

Umemoto, Karen. 2006. *The Truce: Lessons from an L.A. Gang War*. Ithica, NY: Cornell University Press.

UN. 2014. *World Urbanization Prospects: The 2014 Revision, Highlights*. United Nations Department of Economic and Social Affairs, Population Division.

United States v. Espudo et al. 2011. Indictment. Federal District Court, Southern District of California, June.

United States v. Gutierrez et al. 2014. Indictment. Federal District Court, Central District of California, January.

United States v. Jackson et al. 2014. Indictment. Federal District Court, Central District of California, January.

United States v. Munguia et al. 2011. Indictment. Federal District Court, Central District of California, September.

United States v. Ojeda et al. 2011. Indictment. Federal District Court, Central District of California, September.

United States v. Pantoja et al. 2007. Indictment. Federal District Court, Central District of California, June.

United States v. Rios et al. 2011. Indictment. Federal District Court, Central District of California, February.

United States v. Roman et al. 2012. Indictment. Federal District Court, Central District of California, February.

United States v. Vasquez et al. 2007. Indictment. Federal District Court, Central District of California, February.

Venkatesh, Sudhir. 2006. *Off the books: the underground economy of the urban poor.* Cambridge, MA: Harvard University Press.

Venkatesh, Sudhir Alladi and Steven Levitt. 2000. ""Are we a family or a business?" History and disjuncture in the urban American street gang." *Theory and Society* 29(4):427–462.

Verwimp, Philip, Patricia Justino and Tilman Brück. 2009. "The Analysis of Conflict: A Micro-Level Perspective." *Journal of Peace Research* 46(3):307–314.

VonDoepp, Peter and Daniel J. Young. 2013. "Assaults on the Fourth Estate: Explaining Media Harassment in Africa." *The Journal of Politics* 75(1):36–51.

Ward, Michael D. and Kristian Skrede Gleditsch. 2002. "Location, Location, Location: An MCMC Approach to Modeling the Spatial Context of War and Peace." *Political Analysis* 10(3):244–260.

Weber, Max. 1958. Politics as a Vocation. In *Essays in Sociology*, ed. H.H. Garth and C. Wright Mills. New York: Oxford University Press.

Weidmann, Nils B. and Michael D. Ward. 2010. "Predicting Conflict in Space and Time." *The Journal of Conflict Resolution* 54(6):883–901.

Weinstein, Jeremy M. 2006. *Inside rebellion: the politics of insurgent violence.* Cambridge: Cambridge University Press.

Whitten-Woodring, Jenifer and Patrick James. 2012. "Fourth Estate or Mouthpiece? A Formal Model of Media, Protest, and Government Repression." *Political Communication* 29(2):113–136.

Williamson, Oliver E. 1975. *Markets and Hierarchies.* New York: The Free Press.

Wilson, James Q. and George Kelling. 1982. "The Police and Neighborhood Safety: Broken Windows." *The Atlantic* 127:29–38.

Wood, Elisabeth Jean. 2009. "Armed groups and sexual violence: when is wartime rape rare?" *Politics and Society* 37(1):131–161.

Zaller, John R. 1992. *The Nature and Origin of Public Opinion.* New York: Cambridge University Press.