

# Who Riots? Explaining Individual Participation in Ethnic Violence\*

Alexandra Scacco  
Ph.D. Candidate, Columbia University  
als2110@columbia.edu

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## Abstract

Why do ordinary people participate in ethnic violence, given the potentially high risks and costs of such behavior? To answer this question, this project draws on an original survey of 800 individuals who chose to (or chose not to) participate in two large-scale Christian-Muslim riots in Nigeria, one in the city of Kaduna in 2000, and one in Jos in 2001. The survey was conducted in 2007 and 2008 and contains direct questions about past participation in violent events, makes use of new methods to protect respondent anonymity, and relies on an innovative sampling strategy in order to locate rioters and elicit honest responses from them. This paper presents an original argument about the sources of riot participation, and tests it against competing explanations in the violence literature. Three results emerge consistently from the survey. First, economic grievances by themselves are generally weak predictors of riot participation. Second, membership in certain types of neighborhood-level social networks makes rioting more likely, and third, the *interaction* between grievances and network membership dramatically increases the likelihood of riot participation.

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# 1 Introduction

On September 7, 2001, in the central Nigerian city of Jos, a fight erupted between a Christian woman on her way home and a Muslim security guard outside a prominent mosque in a commercial area. Accounts of what exactly happened between them vary, but eyewitness observers agree that, at some point during the course of their conversation, the woman began shouting at the guard. Friday prayers were underway, and hundreds of mosque attendees lined the road. At that time, city rules dictated that traffic could be stopped on such occasions, and it was customary for Christians, particularly women, to take alternative routes on Friday afternoons.

After repeated attempts to persuade the woman to change her route, the fight became physical. The woman fled the scene and rumors that a Christian woman had been “slapped” by a Muslim man spread like wildfire throughout the immediate neighborhood. Within minutes, a street fight erupted on the main road in front of the mosque, involving dozens of Christian and Muslim men from the area. By midnight, the neighborhood surrounding the mosque was engulfed in its first Christian-Muslim riot. As surprising as this was to many Jos residents, they were utterly unprepared for what would follow—three days of full-scale rioting, a death-toll of over a thousand people, and the burning of dozens of churches and mosques across town.<sup>1</sup>

Around six o’clock that same Friday evening, a young Christian man, whom I will call Saidu, living in the religiously mixed neighborhood of *Ali Kazure*, heard screaming outside the front door of his house. Running outside, he met a close friend who was well known as a member of a youth organization in the neighborhood. At that time, Saidu was 23 years old. He was working part-time in his uncle’s stationery shop, trying to finish secondary school. Saidu’s friend had been running, and spoke between gasps for air about some “trouble in town” near a mosque up the hillside in the Muslim neighborhood of *Ungwan Rogo*. “They are killing Christians up there and we have to do something about it!” After a few minutes of discussion, Saidu decided to see for himself what was going on. That night, Saidu explained, he helped the youth leaders in his area organize people to “protect” their neighborhood. “We Christians were a minority next to the people in *Ungwan Rogo*, and I knew I could help get the youths out.” Throughout the course of the evening and the following

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<sup>1</sup>This story was repeated to me, with minor variations, in interviews with four eyewitnesses to the outbreak of the Jos crisis. (Interviews 1229, 1723, 1528 and 1566, Jos, July 2008.) Nearly 40 anonymous field interviews were conducted in 2008. Each was assigned a random number after completion. All names used in this paper have been changed to protect respondent anonymity.

day, Saidu fought alongside friends and neighbors in and around *Ungwan Rogo* and *Ali Kazure*.<sup>2</sup>

Jonathan is another Christian from *Ali Kazure*. At the time of the riots he was 20 years old and was working in a local barbershop. He had recently completed secondary school and, although he had hopes of further study, he needed to work to earn money first. Like Saidu, Jonathan had lived in *Ali Kazure* for most of his life, and was neither especially rich, nor especially poor. Unlike Saidu, however, he did not hear about the riots until the early hours of Saturday morning, when fighting began in earnest on the outskirts of his neighborhood. Jonathan woke up around 6 a.m., when his father came into his room with the news that there was fighting going on in *Ungwan Rogo*. He ran outside almost immediately and saw a mosque on fire down the street. “I knew that the crisis would be terrible from that Saturday morning,” he explained. But he did not fight that day, or on any of the following days.<sup>3</sup>

These short narratives illustrate the central puzzle of this study. Saidu and Jonathan are similar in many respects—in their religion, age, gender, and neighborhood of residence, to name a few. They both had Muslim friends prior to the riots, and neither had a history of violent or criminal behavior. But Saidu participated in the riots and Jonathan did not. This project centers around two basic questions about ethnic violence inherent in this puzzle: *Who* are the people who take to the streets and commit acts of violence and destroy property during the chaotic and frightening chains of events we know as ethnic riots, and *why* do they ultimately decide to riot?<sup>4</sup> Are there systematic differences between the group of people we can call “rioters” and those who chose not to participate in the violence? My dissertation argues that the best way to answer these questions is by sampling comparable groups of former rioters and non-rioters and asking them to explain their choices and behavior prior to concrete riot episodes.

The stories above suggest another important point. In both cases, the decision to riot was voluntary. Saidu *chose* to participate (and Jonathan not to), even though this choice was made under stressful conditions. Like them, the vast majority of

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<sup>2</sup>Interview 1602, Jos, July 18, 2008.

<sup>3</sup>Interview 1507, Jos, July 17, 2008.

<sup>4</sup>Following Horowitz (1985, 2001), I use the term “ethnic” to refer to groups in which membership is based on actual or perceived descent, and I thus classify violent events in which Christian and Muslim groups are the main actors as ethnic violence. Chandra (2004) and Wilkinson (2004) use this logic in defining Hindus and Muslims in India as ethnic groups.

rioters interviewed for this project were not directly coerced or intimidated into participating, suggesting an important degree of individual agency at work during the riots.<sup>5</sup>

This paper explores these decisions from close range, using systematic micro-level survey data I collected from two post-riot towns in Nigeria. In the following sections, I make the argument that it is the *interaction* between individual grievances and membership in certain types of local social networks that makes riot participation most likely. Next I explain strategies I used in the field to overcome two distinct challenges: how to locate a representative sample of rioters (and non-rioters) and how to obtain reliable information from them about their participation in violence. Subsequent sections describe the survey dataset in greater detail, present empirical results and evaluate alternative explanations. The research presented here is the first systematic large-scale survey of riot participants (to my knowledge) and, as such, offers new insights into the dynamics of mass participation in violence.

## 2 Contributions to Understanding Ethnic Violence

The question: “why join a riot?” touches in a dramatic way on fundamental puzzles about collective action. The risks and potential costs of riot participation are high in nearly all contexts where riots occur, while the benefits are uncertain. Across a range of contexts, riots tend to occur in localities with relatively balanced ethnic populations.<sup>6</sup> As a result, it is often unclear which side will win in battles on the street, and the risk of death to participants is very real. Equally threatening is the prospect of being caught by the police or even the military, if they are called in to intervene to quell the violence.<sup>7</sup> On the benefits side, the potential gains of rioting are often unclear. Field interviews and survey responses from Nigeria suggest that selective incentives associated with rioting (such as payment for participation) are rare or are obtained at great personal risk (for example, goods from looting).

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<sup>5</sup>This stands in contrast to strategies of abduction used by rebel groups in civil wars in Uganda, Sierra Leone, Liberia, and other conflicts, or coercion exerted by the *Interahamwe* in the Rwanda genocide.

<sup>6</sup>Examples of ethnic riots in contexts of relatively balanced group size include riots in Zanzibar in 1936, Libreville, Gabon in 1981, and in Nouakchott, Mauritania in 1989. For evidence about riots and local demographics drawn from nation-wide Nigerian survey data, see Scacco (2007), which is available at <http://www.columbia.edu/~als2110>.

<sup>7</sup>Horowitz (2001) describes an impressive range of cases in which central government military forces were called in to stop fighting during ethnic riots because the local police were unable to restore order on their own.

Despite these puzzles, the literature on ethnic conflict tends to presuppose rather than explain mass participation in violence (for example, Horowitz 1991, Gagnon 1995, de Figueiredo and Weingast 1999, Snyder 2000, Wilkinson 2004). This branch of research has been invaluable in pinpointing a range of elite motivations to “instigate” or “foment” violence in contexts as diverse as 1930s Germany and contemporary India. However, these studies often rely implicitly on the assumption that elites are highly strategic, if not implausibly cunning, while masses are non-strategic and easily manipulated. In doing so they ignore basic and important questions about why ordinary people participate in such risky collective action. Arguments that suggest citizens are tricked into believing the rhetoric of political elites, common in the popular literature (for example, Gourevitch 1998), are particularly hard to defend in contexts where violence erupts repeatedly. Why would ordinary people, particularly in places where politicians fail to deliver on their promises, not update their beliefs over time and ignore top-down ethnic entrepreneurship as empty noise?

Several recent studies point to a promising shift of attention to decision-making by ordinary individuals in contexts of full-blown warfare. Scholars in comparative politics have offered a wide range of individual-level explanations for acts of rebellion (Petersen 2001), participation in insurgent groups (Wood 2003, Humphreys and Weinstein 2006, 2007), genocide (Straus 2006), and non-battle violence during civil wars (Kalyvas 2006), bringing agency back to the people who choose to fight. In spite of the richness of these studies, the incentive structures and dynamics at work in civil and interstate wars are very different from those we observe in shorter, more localized but no less deadly episodes of ethnic rioting. This casts doubt on the relevance of some of the arguments from the civil wars literature in explaining other types of violence.<sup>8</sup>

In contrast with the breadth of data on recruitment for violence in civil wars, systematic evidence on the correlates of riot participation remains in short supply. This is partly because rioters are difficult to find. Rioting does not involve joining a formal organization or fighting unit, meaning that lists of rioters are not available and rendering data collection difficult.<sup>9</sup> Ethnographers have skirted these challenges

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<sup>8</sup>For example, arguments about rough terrain and rebellion (Fearon and Laitin 2003) make little sense when applied to riots, which occur largely in urban areas. Similarly, arguments focusing on the opportunity costs of fighting (Collier and Hoeffler 2004), strain against the fact that riot participation requires much less of a time commitment than joining a rebel group. Rioters can potentially return to work soon after the fighting ends, while rebels often travel far from home for months, or even years.

<sup>9</sup>In contrast, lists of ex-combatants can often be constructed in post-war settings. A recent study

by using contacts to find and interview small numbers of ethnic riot participants or eyewitnesses to riot events. Interview-based narratives have yielded some surprising findings about the prevalence of ordinary, and even well-educated, people observed among the violent crowds in riots in South and Central Asia (Brass 1997, Tambiah 1997, Tishkov 1995). These studies offer suggestive evidence against conventionally held views about riot participants, but the inferences we can draw from their findings are limited by the absence of people who decided *not* to riot in their samples.

This project attempts to fill in these gaps in our understanding of the micro-foundations of participation in ethnic riots. Beyond these academic concerns, the scale of the fatalities and destruction wrought by ethnic rioting makes them worthy of scholarly attention in their own right. In the Kaduna riots investigated in this study, Christian-Muslim clashes killed over a thousand people (Kaduna State Commission of Inquiry White Paper 2001). In addition to the death toll, dozens of churches and mosques were burned to the ground. Country experts estimate that more than 5,000 people have been killed in religious riots since 1999 alone.<sup>10</sup> The next section develops a theory of participation in these deadly events.

### 3 Explaining Riot Participation: Theoretical Framework and Argument

The story about Saidu above suggests a number of reasons why he might have rioted. He might have been frustrated about his relatively low wages as a stationer, or the difficulties in trying to finish school while working. Equally, the fact that someone of influence in his community asked him to join might have been decisive. The theory advanced here is that neither of these stories—one about individual grievances and the other about local social networks—gives a complete picture. Rather, it is the *interaction* between grievances and networks that dramatically increases the likelihood of riot participation, once a riot trigger has occurred. While grievances may increase a person's *willingness* to riot, it is centrality in certain types of neighborhood-level social networks that transforms potential rioters into actual rioters. Conversely, being asked to join, or even just being given information

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of rebel recruitment in Burundi's civil war makes use of lists of former rebels generated during a nation-wide demobilization and re-integration program (Mvukiyehe et al. 2008).

<sup>10</sup>Data on conflict onset in Nigeria between 1999 and 2005 can be found in Lewis and Albin-Lackey, 2006.

about events on the ground by someone who is well-informed and well-respected may motivate people to riot, but not everybody will choose to fight. Both components—grievance “push” and network “pull”—are crucial if we are to understand why people ultimately take on the risks and potential costs of rioting.

### 3.1 Background Condition

This section offers an answer to the question “who participates?” once riot onset has occurred. But the primary drivers of rioting may vary across contexts. Below, I develop a theory of riot participation that holds under one important background condition: the state must be sufficiently weak that there is little effective police presence on the ground during day-to-day neighborhood life. Weak police capacity is important because it produces security arrangements at the grassroots level that ultimately feed into mobilization for rioting. This scope condition is met in many developing countries, where police are often so poorly trained and understaffed that they are unable to respond to even routine crime. For example, a report by the U.S. State Department on human rights practices in Cameroon describes widespread public frustration among Douala residents with the inability of police to identify and arrest burglars.<sup>11</sup>

A similar problem exists in a context as different as Tajikistan. A briefing on crime and safety warns that low salaries and inadequate training are responsible for such weak law enforcement capacity that deterrence of crime is impossible.<sup>12</sup> And in Kyrgyzstan, ethnographers have described the local police not only in urban but in rural areas as “paralyzed” in the face of ordinary criminal activity (Tishkov, 1995).<sup>13</sup> In contexts like these, ordinary people cannot count on the police to protect their lives and property, even in times of peace.

This background condition limits the *scope* of the argument, but it is not sufficient to explain riot participation on its own. For example, the Nigerian police are notoriously ineffective across the country, but riot participation still remains extremely rare. Most ordinary people do not riot, even in the face of weak state ca-

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<sup>11</sup>Cameroon, Country Reports on Human Rights Practices, Bureau of Democracy, Human Rights, and Labor, 2007

<sup>12</sup>For further details, see 2008 Tajikistan Crime and Safety Report, U.S. Department of State, “Crime & Safety Report, South and Central Asia: Tajikistan,” 2008.

<sup>13</sup>Examples of inefficient or incompetent police in periods prior to the outbreak of ethnic riots abound in the case study literature: Senegal (which experienced riots in 1981) and Zanzibar (1932) are two examples.

capacity. A macro-level variable like state capacity alone cannot explain the significant variation in riot participation at the individual level.

### 3.2 The Pull of Local Networks

We can now outline the process of network “pull” in more detail. Starting from the condition of no effective day-to-day police, neighborhood leaders are forced to organize for security on their own during normal times. Given limited resources, time and access to intelligence about crime in their areas, they are unable to personally oversee neighborhood policing. These leaders are thus faced with a problem of delegation—they must rely on actors I will term *local security providers* (or LSPs) to patrol difficult parts of their neighborhoods and monitor the behavior of potential criminals. This is a common dilemma facing community leaders in urban Africa, and delegation to vigilante groups is a widespread security strategy at the grassroots level in cities in Ghana and Uganda, for example.<sup>14</sup>

What type of people will leaders in this situation choose to empower? Above all, they will appoint people with above-average levels of access to community intelligence—people who are well-connected and well-respected across their neighborhood. These local security providers are not thugs, but are people that neighborhood leaders can trust. Nor are they ethnic extremists—they are not especially hostile *a priori* to members of the religious out-group. An ideal candidate would be someone who is known and respected by a range of different types of people in the community, and who is not afraid to monitor rowdy youths living in the area. They are not necessarily more violent than other people in their community, although they may be. They cannot be *too* violent, however, as this would be a disadvantage from the point of view of neighborhood leaders with an interest in maintaining order in their communities. Importantly, however, they are people who are willing to use force if necessary, in their role as substitutes for the police.

After neighborhood leaders delegate policing, local security providers form vigilante security groups to patrol the streets at night, keep their ears to the ground for hints of crime in the area, and are active in apprehending criminals. During peacetime, this is an efficient way to combat crime in the absence of police. Once a riot

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<sup>14</sup>Interviews with dozens of neighborhood chiefs in Kampala, Uganda, in the summer of 2005 revealed purposeful delegation to vigilante groups, given tight budgets and unreliable or corrupt state police. See also “Ghana: Vigilante groups fill security vacuum, IRIN West Africa, Humanitarian News Analysis,” October 4, 2008.

trigger occurs, however, this delegation has important unintended consequences. By design, neighborhood leaders under constraints of resources and information have empowered people who are willing to use violence, giving them increased status and responsibilities in their communities. In the early chaos following the outbreak of a riot, ordinary people turn to LSPs for information and instructions.

In turn, LSPs are precisely the type of actors who take the lead in mobilizing others to fight once a riot starts. In the aftermath of a trigger, they become *de facto* “neighborhood defenders” within their communities. When the neighborhood at the top of the hill is set ablaze, LSPs use *already existing* network structures to pull people to the front lines. How does mobilization work, and who are the people LSPs attempt to recruit? In the chaotic environment after a riot has been triggered, information and time for deliberation are limited. Under these conditions, they contact people they already know, who then begin to mobilize their own contacts, and so forth, until a pool of rioters has been recruited from their neighborhood.

In the story above, rioting is a social rather than an atomistic activity, and people are much more likely to go out onto the streets to fight if asked to do so by somebody they already know. This point echoes work on the role of social ties for other forms of collective action, such as social movement participation (McCarthy and Zald, 1977), high-risk collective behavior (McAdam and Paulsen 1986), and anti-regime protest (Kuran 1996). Network ties are important for the explanation of riot participation advanced here, but they do not tell the whole story, for being asked to riot does not ensure riot participation. In fact, most people do not riot, regardless of their links to community organizers like local security providers.

### 3.3 Grievances and the Willingness to Riot

A battery of theories emerged in the 1960s and 1970s arguing that an individual’s dissatisfaction with his economic situation can be sufficiently intense to render acceptable the risks associated with violent collective action. The most well-known version of the grievance story links aggressive behavior to frustration that arises when individuals are blocked from achieving valued goals (Berkowitz 1962), or they perceive a gap between their expectations and the potential to fulfill them (Gurr 1970). Grievance theories have often been used to explain not only the motivation for, but the scale and the intensity of violence in ethnic riots.<sup>15</sup> These arguments face

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<sup>15</sup>For instance, a violent riot pitting ethnic Malays against Chinese in Penang in 1967 was cast as a reaction to a hastily taken currency-devaluation decision that left thousands of working class

the same problems as those focusing purely on network ties, however. Grievances are widespread but violence is rare. As rich historical studies of rebellion demonstrate, many more people harbor feelings of discontentment with their situation in life than ever take up arms (Skocpol 1979, Lichbach, 1995). However, given the right types of network ties, grievances can be translated into action.

In sum, grievances alone should not allow us to distinguish between rioters and non-rioters, though grievances should play a role in making people willing to fight. Similarly, network ties facilitate mobilization once riots begin, but not everyone who is approached decides to riot. Considered *jointly*, however, they make an explosive combination and should dramatically increase the likelihood of riot participation. Finally, our story about local security providers in the context of weak state capacity alerts us to the type of networks that draw ordinary people into deadly street battles once riot triggers have occurred.

### 3.4 Neighborhood Leaders and Violence

The theory is agnostic about whether neighborhood leaders oppose, favor, or simply “turn a blind eye” to the mobilizing role local security providers that they have previously empowered play once riots have begun. But, crucially, it assumes that they do not initially *appoint* them with the expectation that they will organize violence. This is because neighborhood leaders have an interest in maintaining order in the areas where they live during peacetime. The highly abnormal context of a riot episode thus has the unintended effect of transforming local security networks into riot networks.

In Kaduna and Jos, armed youths often joined the fighting against the express wishes of their community leaders. One Jos rioter, when asked whether his neighborhood chief had encouraged him to participate in the riots, disdainfully replied: “What? He is an old man. He did not want anyone to fight, but he could not stop us.” Similarly, rioters in one Kaduna neighborhood not only ignored their chief’s pleas not to “go to battle,” but seized his household gun for fighting: “He was the only man rich enough on our street to have one, so we took it.”<sup>16</sup> Elisabeth Wood (2008) cites evidence of similar “generational inversions” of authority within communities directly affected by the outbreak of conflicts in Darfur and Sierra Leone.

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people penniless overnight. See Snider (1968), “What Happened in Penang?” for a thorough description of the riots.

<sup>16</sup>Interviews 1483, Jos, July 16, 2008 and 1243, Kaduna, August 2, 2008.

This argument generates concrete hypotheses that can be tested empirically given appropriate micro-level data on riot behavior and pre-riot characteristics of comparable groups of rioters and non-rioters. The main empirical implication of the theory is that we should find a *joint* effect of individual grievances and centrality in networks linking people to grassroots leaders. Before taking a closer look at the data, the next section describes the sampling and survey design in greater detail.

## 4 Sampling Design: Finding Rioters

In order to uncover attributes and motivations of riot participants, it was necessary to find them and convince them to participate in our survey. For this reason, Kaduna and Jos were particularly attractive field sites because each city had experienced a large-scale Christian-Muslim riot since 2000, making it possible to locate former rioters and minimizing the demands on respondent recall. Crucially, however, neither city had experienced a religious riot *for more than ten years prior* to the 2000 and 2001 riots under study, minimizing inference problems in determining the arrow of causal direction between important explanatory variables and riot participation.<sup>17</sup> Further, because the subject of study is riot *participation* rather than riot *onset*, the dangers of selection bias should be minimal from sampling only from cities where riots have taken place. This project exploits the rich variation in participation in violence once riot triggers have occurred.

Because rioters are a small group and are vulnerable to retaliation if identified, they are difficult to find and retain as respondents. Traditionally, field researchers have used ethnographic techniques to gain the trust of a small group of the hidden target population and to build a snowball sample outwards from this initial set of contacts. This standard method is likely to produce an unrepresentative sample of rioters, however, because the sample will reflect characteristics of the small, non-random group of initial interviewees. Further, a sample of rioters of this type is unlikely to be comparable to a randomly drawn sample of non-rioters, as the snowball sample builds in an important “network” dimension. Rioters sampled in this way are likely to be hooked into networks that random sampling of non-rioters will not pick up.

To get around these challenges, I used both stratified random sampling and

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<sup>17</sup>The last riot prior to the 2000 riots in Kaduna occurred in 1987, and, in Jos, no Christian-Muslim riot had ever occurred before 2001 (Sani, 2007; Yakubu, 2005).

respondent-driven-sampling (RDS) to locate sufficient numbers of rioters for statistical analysis.<sup>18</sup> Random sampling was used to draw approximately 400 respondents, 200 of whom were assigned as “seeds,” who were then each asked to recruit one rioter and one non-rioter to participate in our study.<sup>19</sup> RDS was run for up to three successive “waves” from the initial seed. In addition to helping us locate rioters, the RDS design ensured that our samples of rioters and non-rioters were comparable in terms of their levels of network participation, since both groups of respondents were brought to us through social networks.

Drawing an initial representative random sample was a huge challenge in the absence of a sampling frame or appropriate neighborhood maps. As a result, we decided to create our own maps by hand. Starting from neighborhood outlines contained in city maps of Kaduna and Jos produced by the Office of the Surveyor General in both cities, my research team produced over 120 original “enumeration area” (EA) maps containing all paved and unpaved streets for our sample neighborhoods. These streets were used to create a measure of EA-level population density: the number of city “blocks” in each EA. Population density was then used to determine how many households to sample from each area. Respondents were randomly sampled from households using a random number table, conditional on gender and age—all subjects are male and were at least 14 years old at the time of the riots.

Within each city, I randomly sampled neighborhoods from within two strata: areas that experienced fighting during the riots, and areas that did not (“conflict” and “non-conflict” areas). I relied on focus groups and newspaper archives to distinguish conflict from non-conflict areas. Each neighborhood was then divided into a handful of EAs, roughly equal in size. I heavily over-sampled from conflict areas in order to increase the chances of finding rioters: 6 out of 10 neighborhoods sampled in Kaduna and 5 out of 8 in Jos experienced heavy fighting during the riots.

To identify potential selection problems from riot-related deaths and emigration from the research cities, we gave short absentee surveys each time we hit upon a respondent (randomly or through RDS) who was no longer alive, or had moved away from Kaduna or Jos. We administered 42 absentee surveys. Exactly half

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<sup>18</sup>For an introduction to respondent-driven sampling, see Heckathorn (1997), for a discussion of its benefits and costs (in terms of sampling bias), see Heckathorn and Salganick (2004).

<sup>19</sup>Response rates for the random recruits were very high—85% in Kaduna and 93% in Jos. This is because we continued to revisit houses whose respondents didn’t show up to our office to take the survey. The Kaduna rate is lower largely because the enumerators were more experienced in the Jos survey, which was conducted immediately after the Kaduna survey.

of these absentees were killed during the riots, and the remaining 21 either had died of unrelated illnesses, died of natural causes, or moved away from Kaduna or Jos. Preliminary analysis suggests that the absentees look very much like the normal pool of respondents, except that, unsurprisingly, a higher percentage of the absentees were rioters.

In analyzing the data, I used post-stratification weighting to ensure that the RDS sample matched the random sample on several key characteristics: age, religion, sociability, and rioter status. This was important because RDS respondents tended on average to be younger, more Muslim, more socially active (a common concern with chain-referral sampling), and more likely to have rioted than random respondents. Respondents participating in RDS were asked to recruit a rioter and a non-rioter, so by design RDS yielded a higher proportion of rioters, and an adjustment was necessary. Weighting was also used to adjust for stratification by city and neighborhood type.

## 5 Survey Design: Eliciting Truthful Responses

One of the main innovations of the project is the attention given to protecting respondent anonymity. In similar micro-level studies of mass participation in conflict, respondents are either not directly asked about violent behavior (Humphreys and Weinstein 2007) or are asked directly in face-to-face interviews (Straus 2006). There are good reasons to believe that people will not respond honestly in the latter context. For instance, it may be reasonable to question Straus's finding that most *genocidaires* he interviewed in Rwanda did not kill anyone, and many claimed they had no choice but to kill. These responses may be entirely true, but they may also reflect an unwillingness to reveal such sensitive information to strangers.

Other techniques, such as randomized response designs, such as those used by Daniel Gingerich (2007) as a means of asking bureaucrats about bribe-taking in Latin America, do allow respondents full anonymity while discussing sensitive topics, but because the data are deliberately contaminated with error, accuracy in estimation can be problematic. The strategy I used was to build trust with respondents by ensuring that even survey enumerators would not know at any point whether they were interviewing rioters or non-rioters at the end of each interview. To accomplish this, our survey used an innovative format.

Three documents were required for each interview: the main survey containing

background information on respondents, a document containing sensitive questions, and a separate answer sheet for the subject's responses to these sensitive questions. Each of the three survey documents was marked with a randomly assigned survey identification number. Upon completion of the survey, the documents were stored in separate boxes and could be matched only with the use of a file (left in New York) linking the identification codes of the various questionnaires. Enumerators were unable to tell whether they were interviewing a rioter because we asked respondents to fill out the sensitive part of the questionnaire by themselves behind a small screen while the questions were read aloud to them.

The sensitive answer sheet was designed to be easy to understand regardless of the level of respondent literacy. Subjects were never required to write letters or numbers. They were asked instead to make a tick-mark inside one of several circles or squares to indicate their answers to sensitive questions. Figure 1 gives two examples of questions used to construct measures of riot participation.

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(E4) Did you destroy or damage any private property during the riots?

If yes, mark the *first* circle;  
 If no, mark the *second* circle;  
 If you can't remember, mark the *third* circle;  
 If you don't want to answer this question, mark the *fourth* circle.

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(E5) If you said yes, did this happen before or after the military came in?

If you did not say yes, mark the *first* circle;  
 If it happened before, mark the *second* circle;  
 If it happened after, mark the *third* circle;  
 If it happened before and after, mark the *second* and the *third* circle;  
 If you can't remember, mark the *fourth* circle;  
 If you don't want to answer this question, mark the *fifth* circle.

Figure 1: Examples of riot behavior questions

Figure 2 shows the answer spaces to these questions that respondents were given.

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(E4) <sup>1</sup>○    <sup>2</sup>○    <sup>3</sup>○    <sup>4</sup>○

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(E5) <sup>1</sup>○    <sup>2</sup>○    <sup>3</sup>○    <sup>4</sup>○    <sup>5</sup>○

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Figure 2: Excerpt from answer sheet for sensitive questions

Given the literacy levels of many of our respondents, survey enumerators proceeded very slowly during this section of the questionnaire. Enumerators also read

the questionnaire in Hausa (the lingua franca of northern Nigeria) or English, depending on the respondent's preference. The survey enumeration team was comprised of both Christians and Muslims, and respondents were interviewed by a member of their own religious group, in an effort to facilitate communication about sensitive subjects. As additional measures to protect respondent anonymity and build trust, names and contact information were not collected at any point during the survey. Further, all respondents were asked an identical set of closed-ended questions. Questionnaires contained no skip patterns which would require enumerators to identify rioters during the survey or which would allow an outsider to guess a subject's responses based on the length of his interview.

While open-ended questions might produce more fine-tuned information about specific riot behaviors, they would not have preserved full anonymity for respondents, a condition that offered the best chance of producing honest responses. We designed the survey administration in such a way that severely minimized respondents' incentives to lie about past riot participation. We paid respondents exactly the same participation fee regardless of whether they were rioters. Further, for respondents recruited by people they already knew through respondent-driven sampling, our enumeration team made it clear that we did not know whether they were supposed to be rioters or non-rioters according to our records and that we cared only about honesty in responses to the survey questions. Enumerators assisted respondents by repeating each question several times, and reminded them that their payment for participation was not contingent on any particular response.

Did these methods make a difference in producing accurate responses to tough questions about riot participation? I argue in my dissertation that they did. During the final round of survey administration in July 2008, several riot behavior questions were "unmasked"—moved from the sensitive to the main questionnaire—but left otherwise unchanged. Instead of being asked to respondents while they were behind a screen, these questions were asked face-to-face during an earlier section of the survey. Because identical sampling and survey procedures, and even survey enumerators, were used across the two survey administration phases, this exercise can be viewed as a quasi-experimental test of the effect of my anonymity procedures. The results suggest that anonymity protection vis-à-vis the survey administrator allowed more people to admit to riot participation. The most sensitive of the unmasked questions was the following: "Did you ever try to persuade anyone to join the [Kaduna 2000/Jos 2001] riots?" Table 1 illustrates the difference in means between

Did <i>not</i> try to persuade anyone to join the riots	Round 1 (with screen)	Round 2 (without screen)	Difference
Proportion	.79	.88	.09**
(Standard Error)	(.03)	(.02)	(.04)
Number of observations	207	189	

Two-sample t test with unequal variances.  
\*\* Significant at the 95% level

Table 1: Comparison of survey procedures for sensitive questions

the 2007 (round 1) and 2008 (round 2 surveys).<sup>20</sup>

In 2007, when asked behind a screen, 79 percent ‘answered ‘no’ to this question. In 2008, 88 percent claimed they did not try to persuade someone else to riot. Both two-tailed and one-tailed tests confirm that this difference is statistically significant at the .05 level. Are there reasons other than the question-asking procedure that could account for this difference? One could argue that the seven months that elapsed between the 2007 and 2008 surveys matter. Perhaps people in the neighborhoods surveyed were more aware of the study the second time around. If anything, however, it seems that more familiarity with the survey would make respondents more comfortable talking to our research team, rather than less. Perhaps, also, the enumerators were more experienced this time around. Again, however, this would suggest that they would be more adept at making respondents feel comfortable, rather than less. If either of these differences did exist, the time delay between 2007 and 2008 would introduce a bias *against* finding a significant difference between survey administration rounds.

## 6 Measuring Riot Participation

To make the questions as concrete as possible, and to learn more about the types of riot behavior that occurred, the survey asked whether respondents had done any of the following things during the Kaduna 2000 or Jos 2001 riots: (1) destroyed others’ private property, (2) damaged or destroyed a church or mosque, (3) stolen property belonging to another person, or (4) physically harmed another person. These ques-

<sup>20</sup>Note that only randomly sampled respondents from the round 1 (2007) survey were included in the comparison with the 2008 survey, as only random sampling was used in the 2008 survey. This ensures maximum comparability between the two rounds. The same result obtains, however, if all respondents are included.

	Frequency in sample	Unweighted proportions	Weighted proportions
Participated in riot	215	27.6%	18.6%
Did not participate in riot	563	72.4%	81.4%
Total	778	100%	100%

Weights adjust for differential sampling rates across cities, and oversampling from conflict neighborhoods. The RDS sample was post-stratified on religion, sociability, age group, and rioter status and weighted accordingly.

Table 2: Rioters in survey sample

tions differ from a more general question on rioting (such as, “did you participate in the riots in 2000?”), which leaves the burden of defining riot participation on respondents, who may disagree on what it means to riot. Indeed, in-depth interviews conducted in both research sites confirmed the importance of asking direct behavioral questions, as several interview subjects who had witnessed violent events from afar initially described themselves as “participants” in the riots.<sup>21</sup> Undoubtedly, these people’s lives had been directly affected by the riots, and one man in particular had lost both of his younger brothers in the fighting. But that sort of involvement is different from direct acts of rioting, like fighting, burning property, or looting, that we are interested in here.

Following a strict definition, this study defines a rioter as a respondent who answered yes to any one of the four riot behavior questions described above. The survey also asked whether respondents had participated in a *previous* riot, allowing me to look at rioters more generally, outside of the specific context of the 2000 and 2001 riots, and it includes several questions asking respondents *why* they rioted. A more expansive definition of a rioter might be anyone who offered a justification for rioting, even if they denied actions (1)–(4) directly. In this analysis, I use only the cleaner, stricter definition. Table 2 shows the distribution of rioters in my sample.

Given that my initial estimate, based on a series of reports from three Nigerian newspapers, of the percentage of Kaduna and Jos residents who rioted was roughly 4%, it is clear that I heavily over-sampled rioters. In the weighted sample, the percentage of rioters shrinks from 25% to 18%. This reflects the percentage of the adult male population who rioted. Halving this percentage (bringing women back in), and halving it again (accounting for children), we move quite close to 4%, if

<sup>21</sup>Interviews 1776 (July 22, 2008, Jos) and 1321 (August 1, Kaduna).

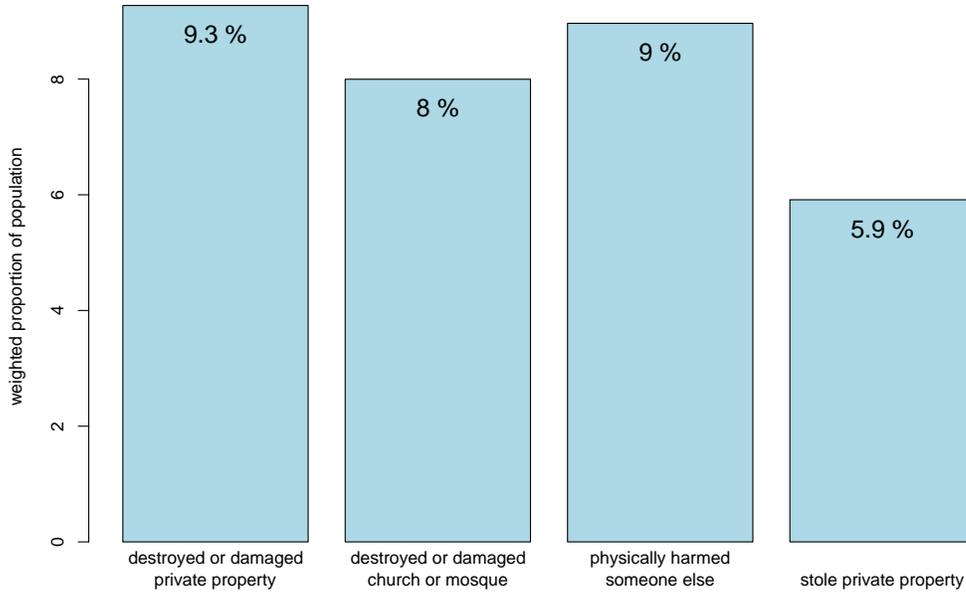


Figure 3: Types of riot behavior (weighted adult male population proportions)

we assume that women and children did not riot. This calculation is rough but reasonable, since the share of the Nigerian population under age 15 is 45%, and the life expectancy of men and women is almost identical (2007 World Data Sheet, Population Reference Bureau).

Broken down by the type of rioting, 114 survey respondents admitted to destroying or damaging private property during the riots, 86 to destroying or damaging a church or mosque, 109 to physically harming someone else, and 63 to stealing private property. Figure 3 shows the weighted population proportions of male residents of Kaduna and Jos who were above the age of 14 at the time of the riots who committed different types of riot behavior. Interestingly, the most common types of behavior during the riots seem to have been destroying property (private or religious) and physically harming others. In contrast, looting was the least common type of riot behavior in Kaduna in 2000 and Jos in 2001.

## 7 Empirical Results: Testing the Argument

The sections below compare profiles of rioters and non-rioters in order to test my argument against competing explanations in the violence literature. The dataset includes measures of individual- and community characteristics for 798 respondents and all neighborhoods in metropolitan Kaduna and Jos. All variables used are created from questions about pre-riot attributes.<sup>22</sup> In all regressions discussed below, standard errors are survey adjusted for clustering on neighborhood and stratification by city and neighborhood type. The dependent variable is a binary indicator of whether a respondent participated in the Kaduna or Jos riots.

Recall that if the argument described in Section 3 is correct, grievances and membership in neighborhood-level social networks should *jointly* increase a person's propensity to riot. Objective indicators of disadvantage and a subjective measure of relative poverty are used to measure grievances. Pre-riot participation in neighborhood-level community meetings is used to measure membership in networks relevant for riot organization.

The problem of reverse causation is minimized by two facts: (1) *no* religious riot had ever occurred in Jos before 2001, and (2) no religious riot had occurred for more than ten years when the riots broke out in Kaduna in 2000. This sequence of events suggests that, if statistical relationships are found, the main causal arrows run from networks and grievances to rioting rather than the other way around. Problems of spurious correlation between networks and riot participation are addressed using questions about why respondents joined community networks in the first place.

### 7.1 Grievances

As a first test, I use three indicators of pre-riot economic disadvantage—*income*, *education*, and *father's education*—to test the argument that economic deprivation drives individuals to riot. The results are mixed, as shown in Table 3. Counter to grievance theory predictions, pre-riot income levels (measured in Naira earned by the respondent per week) do not correlate with riot participation. Education levels do seem to matter, however, as lower levels of education (measured in years) increase respondent propensity to riot. These inconclusive results could indicate that objective measures of disadvantage are poor proxies of grievance, however.

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<sup>22</sup>All variables used are from the surveys conducted by the author during field research in Nigeria in 2007 and 2008. Questionnaires are available at <http://www.columbia.edu/~als2110>.

Participated in riot	Coeff. (S. e.)	Marg. eff. (S. e.)	Coeff. (S. e.)	Marg. eff. (S. e.)	Coeff. (S. e.)	Marg. eff. (S. e.)
Income (in 1000 Naira)	.019 (.016)	.005 (.004)				
Education (in years)	-.041** (.019)	-.010** (.005)	-.043** (.020)	-.011** (.005)		
Father's educ. (in years)					-.025** (.012)	-.006** (.003)
Observations	707		731		698	

Probit regression includes constant and age. All regressors are pre-riot.  
\*\* Significant at the 95% level

Table 3: Measures of grievance

*Perceived* economic conditions map more closely onto the concept of relative deprivation, with its emphasis on subjective comparisons between expectations and the status quo. Our measure of relative deprivation draws on a survey question asking respondents to rank their wealth relative to their neighbors. Results shown in Table 4 indicate that respondents who believed that their household was “poor” or of “below average” wealth (on a four-point scale that also includes “above average” and “rich,” where 1= poor and 4=rich) compared to other households in their neighborhood before the riots were somewhat more likely to be rioters than others, but this result misses statistical significance.

Participated in riot	Coefficient (Standard error)	Marginal effect (Standard error)
Perceived pre-riot wealth relative to neighbors	-.175 (.127)	-.046 (.034)
Pre-riot income (in 1000 Naira)	.018 (.015)	.005 (.004)
Number of observations	701	

Probit regression includes constant and age

Table 4: Economic Grievances

## 7.2 Neighborhood Networks

The weight of evidence suggests that the rioting in Kaduna and Jos was a social rather than an atomistic process. People fought alongside (and sometimes against) people they knew before the riots began. In fact, during a series of 37 qualitative interviews with former riot participants, only one rioter in the sample claimed to have rioted “alone”—in the sense of leaving home to join the fight alone, and fighting next to strangers. All others described hearing about the outbreak of the riots, traveling to the scene of battle and engaging in combat alongside friends or acquaintances. Survey results paint a similar picture. As can be seen from the summary statistics in Table 5, respondents who personally knew other rioters before the riots broke out were more likely to have rioted themselves. In other words, you were more likely to fight if people you already knew decided to fight.

How many people who participated in the riot did you know <i>prior</i> to the riot	Respondents who rioted	Respondents who did not riot	Difference
Mean	13.7	5.3	8.3***
(Standard Error)	(1.7)	(.6)	(1.8)
Number of observations	174	530	

Two-sample t test with unequal variances.  
 \*\*\* Significant at the 99% level

Table 5: Knowing people who decided to riot

Further, a question asking respondents to describe their relationship to the person they knew *best* among the rioters they knew prior to fighting indicates that most network links between rioters run through friendship networks rather than kinship networks or the workplace. Most people listed the rioter they knew best as a friend, not a nuclear or extended family member. In fact, relatively few respondents rioted along with family members, as can be seen in Figure 4. And, as suggested in qualitative interviews, few rioters did not know other people who fought.

Another set of findings speaks more directly to the type of network participation I argue is relevant for riot mobilization. As Saidu and Jonathan’s stories at the beginning of this paper suggest, people who are linked to active members of their communities are more likely to riot than others, holding constant neighborhood of residence and age. Respondents who attended *pre-riot community meetings* were

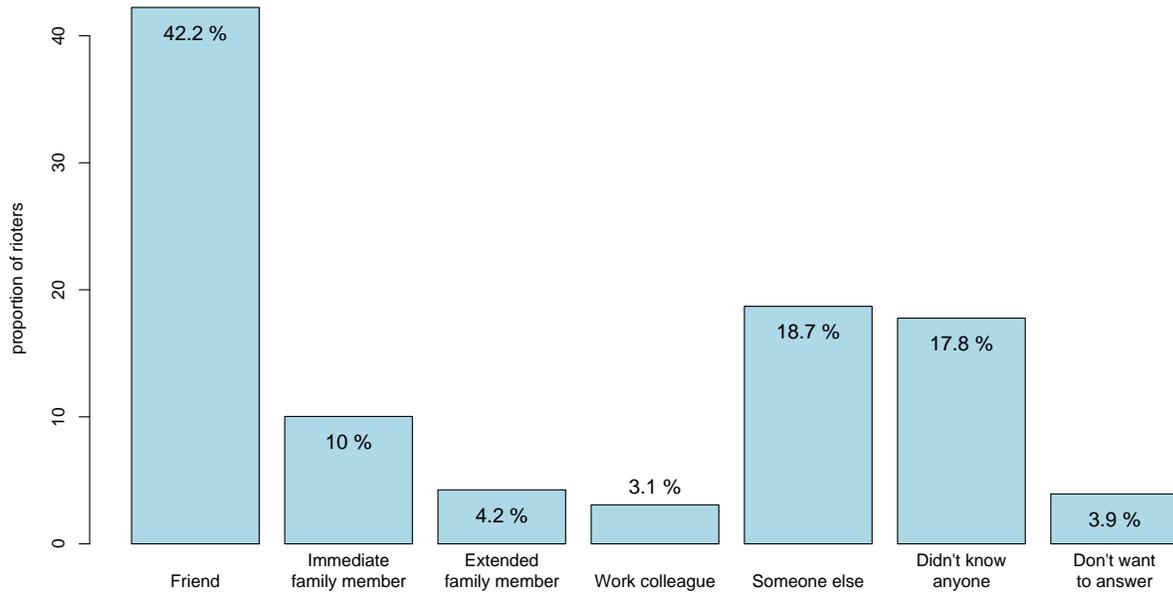


Figure 4: Person respondent knew best among other rioters

Participated in riot	Coefficient (Standard error)	Marginal effect (Standard error)
Attended community meetings before riot	.480*** (.162)	.120*** (.043)
Number of observations		735

Probit regression includes constant and age

\*\*\* Significant at the 99% level

Table 6: Social networks—community meetings

	Community meetings called by ...				All community meetings
	District head	Village head	Ward head	Someone else	
Percentage of attendees who rioted	19.4	18.1	42.4	18.6	32.3
Observations	76	53	102	91	322

Table 7: Rioting by attendees of community meetings

more likely to have rioted than others, as indicated in Table 6.

It is worth asking how “local” these community meetings are. Table 7 shows that it is attendance at grassroots meetings rather than meetings called by more senior officials that correlates with riot participation. Wards are the smallest territorial units in Nigeria, and correspond most closely with what Nigerians call neighborhoods. Districts, in contrast are large and socially heterogeneous (Kaduna has 6 districts and 44 neighborhoods). Table 7 shows that ward-level meeting-attendees were far more likely to have rioted than attendees of higher-level meetings.<sup>23</sup>

A few other details will help place these meetings in context. On average, about 70 people attend a community meeting (standard error 6.1), and they typically happen two or three times per month. Most people learn that a meeting is going to take place by word of mouth from family members or friends.

The data clearly show that participation in community networks of this type is linked to riot behavior. Attending grassroots meetings, or at least interacting in some way with other meeting attendees makes it more likely that a person will riot. However, it is possible that the relationship between meeting attendance and riot participation is spurious, and some unobserved characteristic of individuals makes them both more likely to attend meetings *and* to riot. To investigate this potential concern, in the 2008 survey, we asked respondents to choose from a set of closed-ended response categories to indicate why they decided to go to meetings in the first place. Figure 5 displays the distribution of motivations for attendance.

The answers given suggest that people decided to attend neighborhood meet-

<sup>23</sup>For example, the neighborhood *Ungwan Rogo*, described at the beginning of the paper, is a ward. Village and ward heads are characteristic of grassroots leaders in many African cities. They are not elected, their positions are unpaid, and they are not allowed to belong to any political party. According to a survey of the universe of village and ward heads we conducted in 2007, 77% of those serving in Kaduna and Jos at the time of the riots had inherited the position from an immediate family member.

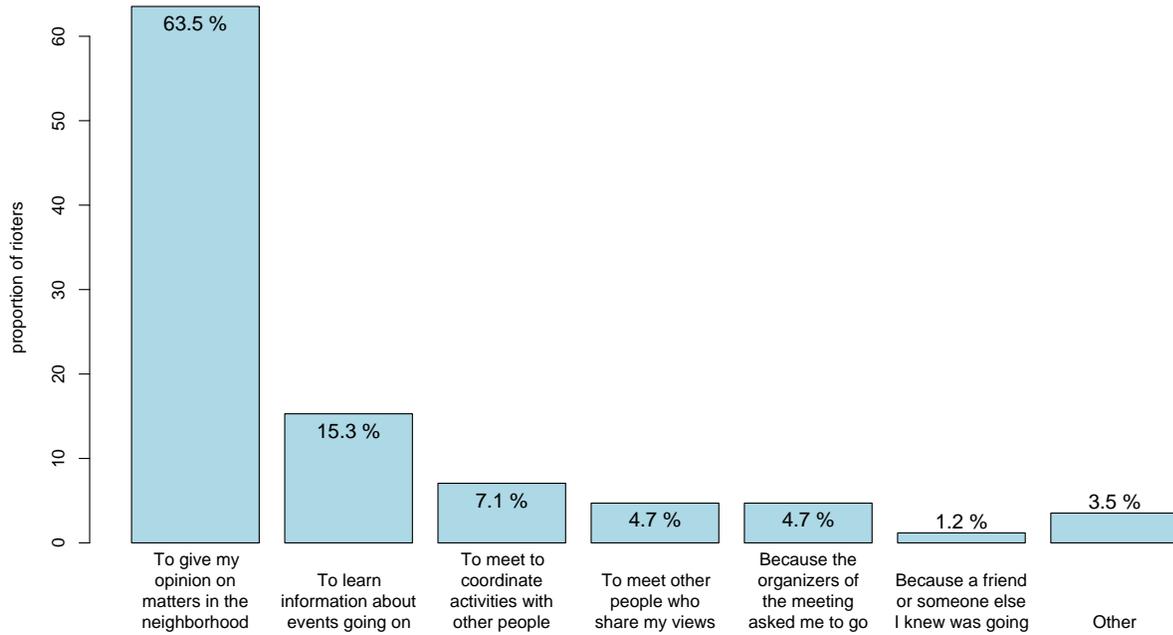


Figure 5: Most important reason for attending community meetings

Participated in riot	Coefficient (Standard error)	Marginal effect (Standard error)
Attend community meetings	.458*** (.165)	.114*** (.043)
How many social activities organized in past week	.082** (.041)	.020** (.010)
Number of observations		723

Probit regression includes constant and age  
 \*\* Significant at the 95% level, \*\*\* 99% level

Table 8: Community meetings and social activities

ings in order to share their opinions about matters of local concern with others, or to receive information, rather than because of deep-seated grievances, for example. Figure 5 suggests a potentially important confounder in the relationship between network membership and rioting, however. It is possible that people who are especially opinionated are *both* particularly likely to riot *and* likely to participate in community activities. As such, it is important that we control for this attribute in evaluating the relationship between networks and riot participation. The survey contains a reasonable proxy for the kind of strong, outgoing or “boisterous” personality that opinionated people may possess. As part of a series of questions on sociability, we asked how often respondents organized social activities with friends in a given week. (Answers to this open-ended question ranged from 0 to 12.) Organizing social activities should correlate with unobserved individual characteristics that drive someone to attend meetings in order to give their opinion to others. Controlling for “boisterousness,” we see in Table 8 above that the relationship between community meeting attendance and riot participation still holds.

### 7.3 Interaction between Grievances and Networks

While grievances and membership in certain types of social networks may each increase a person’s baseline propensity to riot, the interaction between the two should be particularly explosive. Grievances can be seen as a “push” factor, giving people the motivation to riot. However, as opportunity-based theories of violence suggest, localities at risk of violence are likely to contain vast numbers of aggrieved people. Actual violence, however, is extremely rare. Indeed, in Kaduna and Jos, not all aggrieved people actually took to the streets to fight. I argue in my dissertation that grievances themselves are insufficient to produce large numbers of rioters. What distinguishes the broader class of people with grievances from actual rioters is the “pull” factor of neighborhood-level social networks. People who are centrally embedded in local social networks are more likely to be pulled to the battlefield than people who are relatively marginalized in their communities.

As a first-cut test of the joint importance of grievances and networks, we can look at a basic cross-tabulation. For simplicity, I recoded the grievances measure, whether respondents feel relatively poor in comparison with their neighbors, from a 4-category to a dichotomous measure (coded “1” if they perceive themselves to be less wealthy and “0” if they think they are more wealthy). The network membership proxy remains the same—whether people attended local community meetings before

Proportion of respondents who rioted	Grievances – Yes	Grievances – No	Difference (Standard error)
Networks – Yes	.30 (N=180)	.17 (N=141)	.13* (.07)
Networks – No	.12 (N=221)	.15 (N=184)	-.03 (.05)
Difference (Standard error)	.18*** (.07)	.02 (.06)	.16* (.09)

\* Significant at the 90% level, \*\*\* 99% level

Table 9: Networks and grievances

the outbreak of the riots. The strength of the interaction effect can be seen in Table 9.

The top left-hand corner of this table is particularly striking, for as many as 30% of respondents who were both embedded in local social networks and felt they were relatively poor actually participated in the riots. This stands in clear contrast with the other three cells of the table—people who either did not attend community meetings or did not feel poor relative to their neighbors. The simple difference-in-differences estimate in the lower right-hand corner of Table 9 suggests that the effect of grievances on riot participation is 16% higher for those individuals who are linked into networks (or equivalently, the effect of being linked into networks is 16% higher for those individuals who are aggrieved). Regression results confirm the importance of this interaction between grievances and networks for riot participation. In Table 10, the interaction between grievances and network membership is significant, holding social activities constant, while the main effects become insignificant.

Are there other ways in which networks and grievances interact, which might complicate the interpretation of these findings? Perhaps membership in networks at the neighborhood-level *activates* grievances in some way prior to the outbreak of the riots, so that grievances are, in a sense, epiphenomenal to network membership. People who attend meetings might become “aware” of their own discontent, or even develop entirely new feelings of frustration after listening to the views of others. In the dissertation, I argue that this is not the case, drawing on evidence from interviews with community meeting attendees, as grievances were rarely the topic of discussion at neighborhood meetings.

Rather, meetings served primarily as sources of information about activities in

Participated in riot	Coefficient (Standard error)
Attend community meetings	.130 (.244)
Feel poor compared to neighbors	-.174 (.228)
Community meetings $\times$ Feel poor	.619* (.335)
How many social activities organized in past week	.085* (.045)
Number of observations	712

Probit regression includes constant and age  
\* Significant at the 90% level

Table 10: Interaction effect between networks and grievances

the neighborhood, such as the creation of night-watch patrols to reduce crime. Further evidence against the argument that network membership is simply a proxy for grievance is the fact that the two variables are uncorrelated. The correlation coefficient between the proxies for pre-riot grievances (perceived economic marginalization vis-à-vis one’s neighbors) and network membership is a mere .004 and is statistically insignificant. The fact that the variables are orthogonal suggests that meetings did not spark grievances, and, further, that particularly aggrieved people were no more likely to attend meetings than others.

## 8 Alternative Explanations

This section offers several “first cut” tests of two alternative explanations from the political science literature on violence that are also commonly made by Nigerian scholars and journalists: (1) people riot to gain access to selective incentives in the form of material benefits, and (2) people are manipulated by political elites into fighting.

### 8.1 Material Benefit and Elite Persuasion

Some suggest that people who expect to gain materially from participating in violence may be more likely to participate in risky collective action than those who do not (Lichbach 1995, Humphreys and Weinstein 2007). The prospect of looting may

Participated in riot	Coefficient (Standard error)	Marginal effect (Standard error)
Benefits from rioting	1.12*** (.204)	.363*** (.076)
Number of observations		718

Probit regression includes constant and age  
\*\*\* Significant at the 99% level

Table 11: Expected benefits

entice people who might otherwise prefer to stay on the sidelines. Similarly, the possibility of direct payoffs for participation (for example, from political elites or their operatives), might also be a powerful motivator to riot. Respondents were asked if they believed they could get any “benefits” if they joined the riots, to evaluate whether such expectations made rioting more likely. The question about benefits is captured by an indicator variable, coded “1” if respondents expected benefits and “0” if they did not. A first glance at Table 11 suggests that expectations of material benefits were, in fact, important to the decision to riot.

We then asked about the *type* of benefits respondents expected to gain. The results offer a much more complex picture than Table 11 indicates. It turns out that *economic* incentives did not feature as prominently among responses as other types of direct incentives. Of the 121 respondents who said they expected benefits, 73 expected to gain protection for themselves or their families if they joined the riots, 23 expected they would gain food or money, 17 said they thought joining would give them status or prestige, and the rest answered: “some other benefit,” “don’t know,” or they refused to answer.

“Food or money” could be gained in two principal ways: through looting or through direct payment for rioting, perhaps by manipulative elites or their operatives. As described in Figure 3, we know that looting was relatively rare in comparison with other types of riot behavior, although it did occur. With respect to direct payments to rioters, the 2008 survey contains a question about this type of selective incentive: “Did anyone offer you money or any payment in exchange for participating in the riots?” Of the 183 respondents who answered this question (out of a total of 207 to whom it was asked), a mere 5 of them said yes to this question.

This absence of direct payments for rioting already casts some doubt on the argument that ordinary people were manipulated or “tricked” into rioting by wealthy

or powerful local actors. But perhaps persuasion occurs without direct material incentives. To capture this sort of dynamic: we asked respondents: “Did anyone ask you, tell you, or try to persuade you to join the riots?” A full 81% of respondents answered no to this question while 11% said they had been recruited by a friend. Only one percent said they had been approached or persuaded by a local leader (tribal, religious or political), suggesting local leaders played little role in driving people to riot.

## 9 Conclusions

Drawing on an innovative field design, this project uses in-depth interviews and original survey data containing direct, reliable measures of riot participation to investigate why some people chose to participate in two recent and deadly ethnic riots in Nigeria. By recruiting and interviewing comparable samples of rioters and non-rioters, and asking them about their behavior prior to and during concrete riot episodes, we are able to systematically test the paper’s central argument and adjudicate among rival hypotheses in the violence literature.

Beyond this, the paper develops a new theory of riot participation that suggests that the interaction between grassroots networks and individual grievances drives rioting, unlike previous approaches in the violence literature that tend to highlight exclusively one facet or the other. The empirical tests in the paper demonstrate their joint importance.

Several patterns emerge from the empirical analysis. First, an initial test of popular alternative explanations for religious riots in Nigeria indicates that selective incentives in the form of direct payments and manipulation by local political elites played limited roles in prompting rioters to take to the streets and fight. Second, both objective and subjective measures of disadvantage do a relatively poor job of distinguishing rioters from non-rioters, with the exception of education levels. This casts doubt on arguments that individual grievances are the primary driver of riot participation. Third, people who were more actively involved in pre-riot community activities and those with greater (pre-riot) ties to other fighters were more likely to riot in Kaduna and Jos. This suggests that rioting was a social rather than an atomistic activity, and highlights an important neighborhood-level network dimension in the decision to fight.

Most importantly, however, the empirical analysis indicates that it is the inter-

action of grievances and networks rather than either of them alone that significantly predicts riot participation in the data, even when we control for potentially important confounders. Individuals are not blind followers once riots break out. Instead, the typical rioter is both aggrieved *and* embedded in local networks.

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