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What Determines the Duration of Protest Events? Evidence from Africa

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Abstract

What determines why some protest events last only a single day while others can stretch over multiple days? This study presents the first cross-national quantitative analysis of the factors that shape protest event duration. This study argues that protest event duration is the function of factors that increase momentum (e.g. protest size, location and participants) while also examining whether repression attenuates such momentum. Using the Armed Conflict Location Event Data, this study employs two multilevel statistical methods to examine the factors that matter. First, the study examines the day-by-day factors that shape whether a protest will continue the next day. Second, the study examines the overall duration of events. The analyses find strong support that protests in capitals and urban areas, as well as protests featuring students, labour unions and professional organizations, last longer, while repression does truncate events.

Keywords: duration; protest; Africa; momentum; social movement

On 1 January 2012, Nigeria's president, Goodluck Jonathan, removed critical fuel subsidies that had long depressed the per-litre cost of petroleum. In response, thousands of Nigerians filled the streets of Lagos to demand a reinstatement of the subsidies (Busari 2012). Unlike protests that had filled the streets of the former capital in recent months, these protesters did not demobilize at the end of the day. Rather, they remained mobilized, filling the streets day after day in a week-long event that came to be known as 'Occupy Nigeria'. The event spread, gaining momentum and filling the streets of Abuja and moving to the western city of Oyo as well as northwards to Borno and Kano (Campbell 2012). As more and more participants joined, Nigeria was rocked by a campaign of fuel subsidy protests, all of which emanated from the initial week-long 'Occupy Nigeria' protest.

In 2010, Ronald Francisco (2010) opined, 'Almost all protest events are short – measured in hours rather than days, months, or years. This is a major fact in protest that must be explained.' It is precisely this question of protest duration that we

examine in this study. Francisco is correct that most protests are puzzlingly short. We ourselves note that within the dataset used for this study of 30,690 observations across 43 countries, 24,556 lasted one day, with only 225 lasting four days or over. We note, however, that the inverse question is also an important one; indeed, labour strikes are centred on the importance of time and duration. A review of the literature makes it clear that we know surprisingly little about the correlates of individual protest duration, including both why most protests are short while some are very long. This presents an interesting empirical puzzle: What makes some protests last longer than others? We turn, then, to our core question: What factors determine the duration of an individual protest event?

Surprisingly little research has examined why some individual events end within a few hours while others persist over multiple days and even weeks. This study investigates how intra-event dynamics truncate or extend protest event duration. Drawing from the Armed Conflict Location Event Dataset (Raleigh et al. 2010), we examine the factors that shape the day-by-day determinants of the likelihood of observing *another day* of contention as well as the *overall duration* of contentious events. We argue that factors such as increased participation, geographic location, social embeddedness and low opportunity costs increase the duration of individual protests, while repression is likely to truncate such events. While intuitive, these proposed relationships are not as obvious as they might initially seem. For example, large protests often require high levels of internal structure or organization, and organized protests may be more likely to follow a rigid, pre-planned structure that terminates after a single day. Similarly, while repression is hypothesized to truncate events, there is a large body of research that examines the potential ‘backlash’ effect of government intervention (Davenport et al. 2005; Francisco 2004; Moss 2014).

This research contributes to a growing body of scholarship that has emphasized the importance of understanding the micro-dynamics of contentious events. Given the potential of individual events to motivate, reinforce or derail social movements and influence national narratives, understanding these dynamics matters. Examining the duration of individual events sheds additional light on difficult-to-measure endogenous and micro-level dynamics that advance our understanding of conflict at multiple levels. Long protests – even those disconnected from larger movements and campaigns – can reshape societal narratives, generate bystander support, and push political issues to the forefront of discussion. Without a stronger understanding how, when and why individual events sometimes last beyond a day, it is difficult to investigate these questions. Thus, just as it is important to understand the correlates of event size and issue type, we argue that it is important to understand the correlates of duration. While this study treats duration as the dependent variable, we do expect that future research will treat it as an independent variable. If so, understanding why some events last longer than others will be of significant theoretical importance to explain long, complex causal processes associated with whatever phenomenon is being explained by duration.

Second, to the authors’ best knowledge, this research provides one of the first day-by-day quantitative analyses of the internal dynamics of protests using daily event data. The analysis presented here only begins to scratch the surface of what can be done, given the fecundity of such datasets. This is particularly

important for scholars interested in well-documented phenomena such as repression, protest framing and the onset of campaigns and conflict. By accounting for individual protest duration characteristics through original coding within our models, a descriptive timeline can be established that provides fertile avenues for future research in contentious politics.

Third, this research continues to build linkages between the traditionally Western-centric contentious politics literature and a growing recognition that protests, riots, social movements and civil resistance events and campaigns have left an indelible and critical impact on African politics since the beginning of what Adam Branch and Zachariah Mampilly (2015) described as Africa's 'third wave' of protest. There are several advantages to focusing on Africa. First, many African countries emerged from colonial rule within a decade of one another and have often shared similar developmental and political trajectories that are distinct from even other postcolonial regions of the world. While there is substantial and important variation between African countries, the historical similarities minimize the types of concerns that would be introduced by examining the entire globe.

African politics remain vastly under-examined in studies of contemporary contentious politics. Africa is a fast-growing, quickly urbanizing continent with 54 countries experiencing growth and contraction in democracy. Understanding contentious politics across the continent is thus critically important to understanding trajectories of democracy, politics and conflict in the 21st century. Finally, protests in Africa are often viewed as responses to failures in governance, such as service provision or economic management, thus mobilization can be seen as a call for accountable governance, as opposed to a response to the breakdown of a Westernized concept of a social contract. Adam Harris and Erin Hern (2019) ask, 'Why, in so many African countries, are people taking to the streets more often to protest issues that are neither particularly contentious nor revolutionary?' This suggests that protests may reflect demands for accountable governance in contexts without avenues for traditional forms of political engagement, rather than necessarily indicating revolutionary discontent. Other scholars have theorized about African protest in lieu of traditional political engagement as well (Booyens 2007; Lewis 2021c; Runciman 2016), and thus studying African protest adds theoretically to our understanding of the interplay between democracy and contention.

What shapes event duration?

Why might a protest extend beyond a few hours or even a day? The temporal element of individual protests has received relatively little scholarly attention despite the existence of event-level data for the past decade. In his work examining time and space in contentious politics, Ruud Koopmans (2007) argues that protests cannot be properly understood as standalone events, but rather should be seen as interconnected interactions that occur within temporal configurations – an approach that is strengthened by a broad body of work focusing on varying temporal registers, horizons and contexts (McAdam and Sewell 2001; Schwedler 2016, 2022). Francisco's (2010) work represents perhaps the most diligent and methodical approach to understanding how and why the duration of protest events might matter. Building on the highly influential, rational choice Collective Action Research

Program (CARP) (Lichbach 1995, 1996), Francisco argues that the reason that most protests are short is due to the inherent rationality of protesters: they are strategic in selecting where and when to demonstrate. Other factors also enter into Francisco's calculus: government repression matters, of course, as do quotidian factors that might draw otherwise committed activists away from an event.

Work by Lars Frers and Lars Meier (2017) focuses on the factors that play an important role in reifying participant commitment to remaining mobilized and engaged. This may take the form of actual growth (i.e. motivating new participants to join or the spread of a protest to new geographic areas) as well as a less tangible reaffirmation of the commitment to the end goals of the protest. These two factors likely travel together, particularly when free media can disseminate information about the protests in such a way as to build the perception of social legitimacy and popular support. The focus on momentum is also adopted by Robert Emerton (2017), who develops a conceptual argument about the importance of agency in a contentious event. Within his argument, Emerton focuses on the importance of geographic growth and encouraging broad participation, both of which suggest that there are intra-event mechanisms that signal that a protest has momentum. Chunyun Li and Mingwei Liu (2018) argue that leadership within an event helps shape the duration of an event. According to Li and Liu, the presence of leadership – and the attendant socialization processes – within an event can deploy effective strategies to elongate event duration.

Critically, the work that has incorporated duration has revealed further theoretical and empirical reasons to care about how long individual – and linked – events last. Dina Bishara (2021) argues that protests themselves function to reshape the contentious political landscape endogenously. In addition to the core, antecedent reasons for the onset of a protest, she argues that two aspects of protest events – time and space – interact to produce different generative effects. Extended duration events are likely to build strong bonding trust within movements, making them more resilient. The present study seeks to build on Bishara's argument by examining different variables that may be associated with such bonding.¹ Jacob Lewis and Brandon Ives (2023) examine whether protests following government repression are longer in duration than pre-repression events, finding that they are.²

Events or campaigns?

Before directly addressing questions of duration, it is important to delineate between individual events and social movements. This distinction is complex, both for conceptual reasons as well as for rhetorical ones. For this study, the definition of an event is constrained both temporally and spatially. Temporally, this study theorizes about protests that persist unbroken; either participants are camping out in a city square or are returning, day after day, to rejoin the event. The exact makeup of participants may change from day to day, but the assumption embedded in this article is that a substantial number of participants remain consistent from day to day. In this sense, the event remains 'unbroken' over time. Spatially, this study also defines an individual event as being bounded geographically, meaning that singular events are rooted in a specific location. While many events may be contagious, inspiring additional events in neighbouring towns, cities and regions, these are considered separate

events (though they may be considered part of a larger campaign). Campaigns, on the other hand, may break these rules. An active campaign may produce one or two protests per week or month and be considered to be very active. Moreover, campaigns may make use of the space across a country; individual events within a campaign can occur in different regions from day to day while remaining part of a cohesive campaign. Thus, while the individual events that we test in this study may fall within larger campaigns, the unit of analysis remains the event, defined by the spatiotemporal limitations mentioned above.

Correlates of duration

The size of the protest likely matters because greater participation signals popular support and potentially indicates high levels of resolve. Recent work by Nicolás Somma and Rodrigo Medel (2019) shows that the size of a demonstration is shaped in large part by appealing to universal claims.³ Large protests speaking to such universal claims are likely to be perceived both internally and externally as having substantial momentum and efficacy. When individuals believe that the efficacy of protest participation increases, they are more likely to mobilize (van Stekelenburg and Klandermans 2013). This, in turn, is likely to draw support and participation from a broad swath of groups and organizations who seek to contribute to and benefit from the momentum and perceived efficacy of the protest. At the same time, protest size does not always operate intuitively. Charles Butcher and Jonathan Pinckney (2022) find that in the context of mass mobilization and civil resistance, larger protests are inversely correlated with the likelihood of government concessions. As such, it is important to test the correlation between size and duration.

Large events likely increase the salience of individual events. Research has shown that protest events with many participants are more likely to draw media attention and shape the social narrative (Biggs 2018). High levels of participation may help solve logistical issues associated with extended duration. The more participants present at a rally or demonstration, the more able the group is to procure the necessary resources for remaining present or returning the next day. These resources may be material (e.g. food, water, shelter) or social (e.g. mobilizing additional participants). Notably, such resource requirements are intrinsically tied to other contextual factors such as logistical structures, climate and protest location, with existing findings suggesting that protesters predominantly mobilize from nearby areas due to issues travelling, a change in perceived costs and benefits of mobilization, and increased social networks within local communities (Traag et al. 2017). Furthermore, capital cities and symbolic spaces are significantly related to large protest movements (Butcher 2017). More people, however, can provide a richer social experience to maintain interest and passion for the event (Traag et al. 2017). And larger numbers reduce the individual risk of experiencing repression by each participant.

Scholars in civil resistance present the importance of size in relation to outcomes, with the leverage of mass numbers and participation advantage of non-violent action providing insulation from certain forms of repressive tactics – such as firing or replacements in the context of labour strikes (Chenoweth and Stephan 2011; Nepstad 2011; Schock 2013). Furthermore, this increase in size of movement brings with it crucial actor diversity, which in turn breeds more

sympathetic reactions from the state. Such diversity, therefore, drives movement momentum, which is likely to drive continued mobilization and movement duration.

Recent work on political protest has emphasized the importance of identifiable organizations in African protests (Mueller 2018). The makeup of protest groups is significant, with formal organizations providing a source of ties between individuals and groups. Such ties are important predictors of protest participation and mobilization strategies (Butcher et al. 2018; Schussman and Soule 2005). Formal organizations also provide notable civic skills important for both participation and resource mobilization (Schussman and Soule 2005), and these can be reinforced by potential alliances between organizations, leading to more coordinated resistance efforts (Butcher et al. 2022).

Hypothesis 1a: *Events with more participants will last longer than events with fewer participants.*

Hypothesis 1b: *Events with more identifiable groups will last longer than events with fewer identifiable groups.*

There are likely spatial factors that contribute to the momentum of an event. Sean Fox and Andrew Bell (2016) find that the size of urban populations positively correlates with protest incidence, suggesting that large urban populations can support large numbers of demonstrations. Taru Salmenkari's (2009) work focuses on how certain spaces, such as city squares and political buildings, can imbue events with special meaning, such as the symbolic importance of Tahrir Square in Cairo during the Arab Spring. Darin Christensen (2018) argues that densely populated urban areas are not only more likely to produce high levels of participation but should facilitate the dissemination of information about protest events, and might improve the ability of protesters to frame and communicate their grievances to not only draw more participants but also encourage extended resolve. Sarah Anne Rennick (2013) demonstrates that the framing of grievances helped facilitate the mass protests during the Arab Spring. Anthony Lemieux and Victor Asal (2010) show that experimental exposure to high-stakes grievances increases self-reported willingness to take contentious action. This is concordant with work on the informal development of protest cascades (Lohmann 1994).

This interacts with our first independent variable of size – densely populated urban areas can simply supply higher numbers of participants to join and sustain protest events. Urban environments often have high numbers of unemployed young people, are generally the hosts of academic universities wherein students can mobilize, and simply boast the physical infrastructure (e.g. roads, mass transit, electricity, etc.) that makes sustained protest events more possible and more likely. Together, this body of scholarship suggests that events that occur in either the capital city or an urban centre should carry more momentum than rural events.⁴ Because events that occur in these areas are more likely to be accidentally discovered by passersby and featured in the news, they should be able to attract additional participants and also shape the social narrative to build additional momentum. We

thus expect that events that occur in either the capital or in urban areas should last longer than events in rural areas.

Hypothesis 2: *Events occurring in urban areas and the capital will last longer than events occurring in rural areas.*

We also expect that the type of actor that participates in a protest should matter for generating momentum. We expect this to be the case for two specific reasons. First, some actors are better able to develop and maintain social networks of protest that can motivate members to keep showing up day after day. Second, we expect that the opportunity costs of long, multi-day events are quite different between different groups of actors. We address each of these below.

Protests are by their nature a social event, and dense social networks can increase the likelihood of mobilization (Corrigan-Brown 2011; Gould 1991, 1993; Viterna 2006). Actors with extensive and/or effective socialization structures should be more capable of not only mobilizing participants but also maintaining their commitment to an event day after day. Social processes can be hierarchical or leaderless; they simply require some form of interpersonal exchange through which grievances can be shared, plans can be disseminated and social pressure can be applied. We expect that these social processes will be particularly strong in student activist groups, organizations comprised of professional-class citizens (e.g. lawyers, professors, judges, etc.) and labour unions that can call upon their existing social networks to maintain resolve.

We also expect that actors will differ in the opportunity cost associated with extended participation in multi-day events. Scholars of conflict have long emphasized that lowered opportunity costs, often due to high levels of poverty and unemployment, may lead citizens to rise against their governments (Collier and Hoeffler 2004). These lowered opportunity costs may be most visible in one particularly radical body of protesters: students. The role of youths in mass movements has been well documented (Nordas and Davenport 2013) and recent work has focused on Africa's many student-led protests. Once again, student activists are an excellent illustrative example of this dynamic. Sirianne Dahlum and Tore Wig (2020) show that proximity to universities is positively correlated with protests. This corresponds with recent student protests across Africa (Duncan 2016; Lyster 2016). Students that engage in a protest day after day may be less likely to bear the immediate economic costs than others, who might lose a paycheque or be fired from a job. Moreover, student groups may provide particularly radicalizing social forces; younger people may not only perceive the costs of participation to be lower than older age cohorts but may also believe that the costs of *not participating* are high, as they may lose social status with their peers. Cost-benefit analyses often overlook the costs of not participating, but recent work has argued that it helps to explain why individuals are willing to pay the costs of contentious mobilization as well as to vote (Aytac and Stoke 2019). It is important to note that student protests themselves are not merely limited to the student body – in many African cases a significant proportion of youth protesters are not students – rather, we can think of these movements as being led by student organizations, but not simply limited to students (Philipps 2016). While this attribution can stem from

methodological issues such as a desire of journalists, observers and analysts to assign a label or formal entity with responsibility for the movement, understanding the role of student-organized protest movements is vital to analysing young and unemployed students and youth who hold real grievances about the status of the economy. Their anger over issues of corruption may make them more willing to brave overnight campouts or to return, day after day, to a protest to keep an issue alive. Furthermore, student and youth protests, especially those encompassing unemployed youth, play into the concept of biographical availability, as these groups often fall into the category of those more readily available to mobilize due to having fewer personal constraints (Beyerlein and Hipp 2006).

In addition to students, we expect that labour unions and groups perceive relatively low opportunity costs to remaining engaged in multi-day protest events.⁵ Because labour unions often mobilize over economic and labour-related issues, failing to retain resolve may be costly to them. While members of labour unions are likely to risk losing a paycheck or a job by remaining engaged in protest, they may perceive large future payoffs to remaining engaged day after day, particularly if they expect that such action can produce a bigger paycheck in the near future. This effect may be enhanced with trade unions that are well integrated into the economy such that the government is at least partly dependent on their economic output. Work on civil resistance campaigns has covered this dynamic thoroughly, though not through the lens of individual event duration. When such unions have the ability to significantly affect a national economy, participants may remain mobilized with the confidence that they are not easily replaced by the government and can thus press their advantage by remaining mobilized longer. Finally, we recognize that labour unions are more able to coordinate and plan the extent or duration of their demonstrations, and often have a clear set of goals to accomplish (e.g. increased pay etc.) that trigger the end of an event.

Hypothesis 3: *Events featuring student organizations, professional organizations or labour organizations should last longer than other events.*

In addition to factors that contribute to prolonging an event, there may also be counterforces that attenuate an event's duration. Perhaps the most documented is government repression.⁶ Concerns about repression may weigh heavily on the willingness of participants to remain mobilized; if a government engages in coercive force to quell an uprising, it not only halts the immediate progress of an event (by physically hindering it) but suggests that the government may be unreceptive to the very issues being raised in the protest. Repression's record in attenuating protests is mixed, and a substantial body of research has focused on the potential that repression can backfire, producing increased mobilization against the government (De Jaegher and Hoyer 2019; Francisco 2004; Martin 2015). In recent protests in Sudan (Rashwan 2019) and Burkina Faso (Wienkoop and Bertrand 2018), repression helped build momentum by inflaming grievances and signalling regime weakness. And Karen Rasler (1996) argues in the case of Iran that repression can reduce protests in the short term while generating a long-term rise in opposition behaviour.

Despite evidence of backfiring, the immediate efficacy of repression merits scholastic attention. Work on the potential backfiring of repression focuses largely on

the mobilization of protesters after an event has concluded, but that does not mean that repression did not accomplish its goals of terminating a given event. In the examples provided thus far in this study, the evidence is that repression does lead to the early termination of events. The anti-SARS protests in Nigeria lost momentum following the massacre at the Lekki Toll Bridge, and in South Africa the extremely violent repression of the Marikana miners led to the end of a multi-day event. The question addressed in this study is thus not whether repression produces a backlash, but rather whether repression can truncate the duration of ongoing events. Because of the competing dynamics, we present two competing hypotheses:

Hypothesis 4a: *Repression will reduce the duration of events.*

Hypothesis 4b: *Repression will increase the duration of events.*

By testing these competing theories, we aim to clarify the underlying assumptions, leading to a more comprehensive understanding of the complex mechanics of protest duration. With our additional analysis, we hope to shed some light on explanations for this deviation that might otherwise remain overlooked. Finally, we turn to the claims made by protesters. Scholarship on contentious politics and civil resistance in Africa has received substantial attention as a highly motivating factor in African protest and social movements (Alexander 2010; Booysen 2016; Branch and Mampilly 2015; Dahlum and Wig 2020; Hewlett et al. 2016; Lewis 2021a; Mampilly 2014; Mueller 2018).

In particular, we believe five core claims are particularly relevant based on the literature. First, we expect that economically oriented protests are likely to last a long time, as they attract participants with low opportunity costs and high incentives to remain mobilized. Often, pro-democracy protests emerge from economic protests, as was the case in Tunisia, Sudan and Algeria in recent years (*Africa Research Bulletin* 2019a, 2019b, 2019c, 2021; Hussein 2019). Secondly, protests about education – particularly regarding fees – are regular features of the African protest landscape (Burchardt 2023; Strong and Ataman 2023), and scholars have long pointed to the role that education plays in producing politically active citizens.⁷ The failure of many African governments to adequately provide public goods and services – often tied to complaints about government corruption and graft – has also produced impactful and long-lasting protest movements across the continent. Each of these core issues motivates the mobilization of large groups of citizens across social milieus and cleavages. In particular, these protests are likely to feature many of the mechanisms that we have theorized about: they are likely to attract broad swathes of the public, mobilizing meaningful cross-sections of the population and producing large protests. Third, we also expect that they will attract student protesters as well as substantial support from labour unions; unions in particular have played significant roles in protracted civil resistance movements across Africa in the past (Larmer 2009; Lewis 2021b; von Holdt 2002). Fourth, we expect that these mechanisms operate similarly at the individual protest level in addition to the broader movement and campaign level. Finally, we also expect, however, that high-profile protests featuring these issues are likely to be repressed by the

government. Despite this, it is our expectation that these central issues motivate longer-lasting protest events.

Hypothesis 5: *Protests that centre on issues of democracy, the economy, education, service delivery and/or corruption will last longer than those that do not.*

In sum, we propose five hypotheses that offer theoretically grounded, testable claims that explain the core mechanisms that we expect to be underlying the variation in protest duration.

Data and method

We test our hypotheses using two different statistical approaches. First, we employ a hierarchical logistic regression to test the *likelihood that a protest will stretch to the next day*. For each daily event, we code a binary variable measuring whether that event stretches into the next day. This allows us to test the day-by-day factors that increase the chances that protesters will turn out again the next day to keep up the fight. This approach is advantageous because it peers into the intra-event dynamics of protest events at a micro-scale. In particular, this approach provides us with the ability to test the impact of repression on a day-to-day basis, which is not possible when measuring the overall duration of events.⁸ Second, we use a hierarchical negative binomial count model to count the predicted duration of protests. This approach complements the first testing strategy by examining how intra-event factors shape the expected total count of days in a given protest event. As we demonstrate below, we can incorporate interesting information about the timing of certain factors within the event.

Data

Our primary data are sourced from the Armed Conflict Location and Event Dataset (ACLED) (Raleigh et al. 2010), which records individual incidents of violent, non-violent and strategic events daily. ACLED collects data from a variety of sources, including local news, NGOs, social media and local partners. Geographic and temporal accuracy is controlled for through the coding of events to specific coordinates or cities and towns where possible, alongside dates recorded to the day. If such details are not available, broader regional or time approximations are carefully noted. Crucially for this study the data contain systematically categorized events by type, location and actors. The data are updated daily, and the dataset used for this research covers all of Sub-Saharan Africa from 1 January 1997 to 12 March 2021. We subset the data to include only protests, producing an overall dataset of 30,690 observations across 43 countries.⁹ Because the ACLED data are structured at the level of each event per day, we begin by determining whether contentious events are linked together. We select the ACLED data as our primary data source because the dataset includes day-to-day observations of all types of protests, regardless of whether they are linked to established civil resistance or social movement campaigns. Doing so allows us to examine a broader swath of data and avoid the potential endogeneity that might link established campaigns with extended duration.¹⁰ Civil resistance scholarship has emphasized the importance of non-violent

discipline in campaign duration (Pinckney 2016; Sutton et al. 2014). Moreover, we expect that many of the hypotheses that we have outlined here regarding endogenous social mechanisms, as well as responses to repression, likely change when the nature of a contentious event is violent. We thus focus on non-violent protests in our primary models.¹¹

Dependent variable 1: Measuring whether an event continues to the next day

The first dependent variable of interest is a dichotomous measure of whether the contentious event stretches into the next day. Single-day events as well as the last day of a multi-day event receive a value of '0', indicating that there is no 'next day'. The first day and middle days of multi-day events receive a '1'. This dependent variable is advantageous because it permits a 'participants' view' of the factors that extend or truncate events from within each event.

Dependent variable 2: Measuring the overall duration of events

For the second dependent variable, we generate a variable that measures the overall duration of events by bringing together the day-by-day events. The inclusion criteria for such linkages are strict. Events must occur within 24 hours of one another in the same location to qualify for such a linkage.¹² This means that if events occur on a Monday and a Wednesday, they are not counted as linked, and instead count as two events. By 'location', we refer to the most granular spatial measure available in the ACLED data, which is smaller than the third subnational administrative district. In total, 24,556 events are single-day events and 6,134 events are multi-day events. Most multi-day events are two-day events (3,712), but a substantial number (1,284) last three days. The maximum duration is 15 days.

Covariates

We use two different measurements to proxy for participation size. Unfortunately, even the most granular datasets are not yet able to reliably report accurate estimates of the number of participants daily. This is in part due to challenges inherent in producing such a number (e.g. at what point during the event is this number coded? Who is reporting this number?) and in part because event-level databases are themselves limited by the quality of reporting of the news sources from which they source their data. We employ three approaches to approximate the size of protests. First, drawing from Christensen's (2018) approach, our first measurement is a natural log of the population of the region in which the event occurred, sourced from the Natural Earth Data.¹³ As theorized, protest events in highly populated regions should be better able to mobilize larger numbers of protesters. Information about these protests should also be more likely to spread easily in densely populated regions. As a second measurement of participation, we examine the number of identifiable actors present at a contentious event.¹⁴ While the number of identifiable groups is not a direct predictor of size, as one can imagine several small groups attending an event, it does suggest that the event was able to draw enough attention to mobilize multiple types of actors. Since all events record at least one identifiable actor, we include an independent variable that records whether more than one identifiable actor was present at each given event.

Finally, we hand-coded the approximate size of each protest per day using information from the ACLED data's notes on each protest. Only a small number (just over 5,100) of observations were codable with high confidence.¹⁵

We include a series of variables to measure the three different types of actors featured in the theory section. To test the presence of student activists, we coded a dichotomous variable from ACLED's associated actor descriptive column. This variable takes the value of 0 when students are not listed in the associated actor column and 1 when they are. A similar method was used to measure the presence of a professional organization, though it captures judges, professors and lawyers. Finally, labour unions and worker groups were captured into the final actor variable.

Several variables were captured using geospatial means. To measure whether contentious events occurring in capital areas last longer than those occurring in rural areas, we developed a spatial variable that results from the joining of the ACLED data (which have latitude and longitude) and the Natural Earth Data (Patterson and Kelso 2018; Schneider et al. 2003, 2009). The Natural Earth data list many different populated places, including regional and national capitals. One drawback of the Natural Earth Data is that they provide single points to demarcate an entire city. To address this, we drew a 100 km (62-mile) buffer around the centre of each populated place. Events that occurred within the 100 km buffer of the geographic centre of the city are marked as having occurred in the capital. The Natural Earth Data also provide a secondary spatial variable – urban – to measure whether an event simply occurred in an urban region. For this variable, the Natural Earth Data provide detailed shapefiles tracing the contours of urban areas around the world. Protests that overlapped with one of these urban areas were coded as having occurred in an urban region.

To measure whether repression occurred on a given day, we turned to ACLED's event subtype variable, which records whether protests were entirely peaceful or were met with force by the government. ACLED provides two categories of events that we count as repression. The first, 'protest with intervention', records when there were attempts to 'disperse or suppress the protest without serious/lethal injuries'. The second, 'excessive force against protesters', records when protests were 'targeted with violence by an actor leading to ... serious/lethal injuries'. When events are coded with either of these by ACLED, we count them as having experienced repression.

We include two covariates sourced from the Varieties of Democracy (V-Dem) project (Coppedge et al. 2021). First, we include a variable that measures the overall freedom of association within each country, which is measured at the country-year level. Because the duration of protests is dependent in part on the ability of a free press to disseminate information about the protest itself, it is important to include information about the general freedom of the media system in each country. Second, we include a variable that measures the freedom of association within each country. Because protest movements rely in part on the government to permit their association, this variable is an important covariate to include.

Finally, we include a series of dichotomous variables that indicate the core issue raised at each protest event. To do so, we searched the text of each ACLED event and coded events that directly addressed: (a) economic issues, (b) human rights and democracy, (c) education, (d) service delivery issues, and (e) issues of corruption. We include these in the models below.

For our duration models, we include a temporally sensitive measurement of the rolling ‘momentum’ of events in the local area before the beginning of each given protest event. This measures what Erica Chenoweth and Margherita Belgioiso (2019) called the ‘velocity’ of protests, and counts the total number of protest events (single-day and multi-day) that occurred in the second administrative district before the onset of a given protest event. We also include a lag of the duration of the most recent protest to account for autocorrelation.

Initial analysis

Before moving to our statistical models, we present below a descriptive table of four values of the dependent variable as well as the attendant statistics associated with our correlates of duration. The vast majority of events are single-day events. Table 1 shows several important ‘jumps’ in variables, including the number of actors present, rates of participation by different groups and location.

We observe that the main ‘cut point’ does seem to be between single-day events and multi-day events. While the observed approximate size does not seem to vary much while moving across categories, we do observe that the number of observable actors jumps from 1.1 to 1.25 when moving from single-day events to multi-day events, rising slowly monotonically thereafter. A similar observation can be made about the overall presence of each of the types of participants that we track, as well as their presence in urban and capital regions.

Model selection

The first approach uses a multilevel logistic regression model. The model includes random intercepts structured at three levels of analysis: the country level, the first

Table 1. Descriptive Statistics by Duration

Duration	1 day	2 days	3 days	4+ days
Obs.	24,556	1,856	428	225
Size				
Approx. size	2.94	3.15	2.92	3.11
Actors	1.10	1.25	1.26	1.29
Participants (%)				
Student	10.05	20.47	28.27	26.67
Professional	4.40	7.81	6.78	7.56
Labour	13.60	24.25	27.57	28.44
Location (%)				
Urban	59.10	74.89	80.37	74.67
Capital	44.74	60.72	66.82	66.22
Repressed (%)	16.48	23.49	28.27	29.33
Population (log)	13.33	13.83	14.01	13.82

Note: Size of protest calculated on an ordinal scale ranging from 1 (‘Very small’) to 7 (‘Huge’). More information on this coding can be found in our Appendix in the Supplementary Material.

administrative level and the second administrative level. Multilevel models are particularly useful in measuring highly granular subnational event data because they incorporate information about the imbalance of the number of observations found in each of these three levels of analysis. The negative binomial model is similar to a Poisson count model but integrates an alpha parameter to address potential overdispersion in the data. We favour a count model over a survival model for two reasons. First, the distribution of the dependent variable resembles a Poisson distribution, with the vast majority of protests lasting only a single day. A Poisson-derived model is thus statistically appropriate and efficient for the data on hand. Second, survival models include a parameter measuring whether a given observation remains ‘alive’. Because of the structure of our data, all of the protests in our dataset have concluded.

Results

The results of the first approach can be found in [Table 2](#). We do not find convincing evidence in support of H1. While the number of observable organizations is positive and significant in the duration model, the other measurements of size do not attain statistical significance. While this finding runs counter to our intuitions, we expect that our measurement is hindered by the relatively low quality of data on size. We suspect this in part because our second hypothesis concerning the location of the protest finds strong support across all models. As depicted below in [Figure 1](#), events occurring in the capital city are significantly more likely to continue into the next day (left of the plot) *and* are predicted to last longer in total duration (right of the plot). Our model predicts that an event that occurs in a capital is 38% more likely than an event not occurring within a capital to stretch into the next day.

Similarly, our third hypothesis concerning the presence of student actors and labour unions finds robust support across most of our models. As we depict below in [Figure 2](#) – and as is reported in [Table 2](#) – the presence of students predicts a 7% increase in the likelihood of a protest event stretching into the next day and increases the predicted duration of an event from 1.09 days to 1.27 days. Labour unions are also associated with longer events (1.17 days). The presence of professional organizations is mixed; none of the logistic models provides support for H3, but all of the count models do, predicting an event duration of 1.21 days.

Our fourth hypothesis regarding repression finds mixed support. When an event is repressed, the likelihood of it stretching into the next day drops by 22%. The expected duration of an overall event drops from 1.13 to 1.09 days when it is repressed on the first day. However, the models suggest that this truncating effect is specific to repression on the first day of an event. We do acknowledge that protests in the face of repression may pause temporarily in the immediate aftermath, while reconvening in the subsequent days. Within our protest duration operationalization we measure for these protests as two distinct events; to best account for this potential limitation we relaxed these constraints and re-ran our models, finding consistent results.

We find relatively strong support for H5, which focuses on the issues raised by protest movements. While we do not observe significant protest issue effects in our

Table 2. Results of Primary Analysis

	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	−3.50*** (0.48)	−2.82*** (0.25)	−3.03*** (0.47)	−0.087 (0.060)	−0.08* (0.03)	−0.12 (0.08)
Log of local population	0.06 (0.04)			0.002 (0.005)		
Number of actors		0.01 (0.04)			0.03* (0.01)	
Protest size			−0.08 (0.07)			0.02 (0.02)
Actors: students	0.29*** (0.07)	0.27*** (0.07)	0.33+ (0.19)	0.119*** (0.02)	0.11*** (0.021)	0.04 (0.07)
Actors: professionals	0.08 (0.09)	0.08 (0.09)	−0.28 (0.27)	0.06* (0.03)	0.05+ (0.03)	0.03 (0.08)
Actors: labour union	0.15** (0.05)	0.16** (0.06)	0.19 (0.14)	0.09*** (0.02)	0.08*** (0.02)	0.01 (0.04)
Capital	0.41** (0.13)	0.55*** (0.10)	0.66*** (0.18)	0.05** (0.02)	0.05*** (0.01)	−0.00 (0.03)
Repression/Day 1 repression	−0.19*** (0.06)	−0.19*** (0.06)	0.21 (0.16)	−0.02 (0.02)	−0.02 (0.02)	0.01 (0.05)
V-Dem free expression	−0.74 (0.46)	−0.74 (0.46)	−0.84 (1.02)	−0.04 (0.06)	−0.03 (0.06)	−0.04 (0.10)

(Continued)

Table 2. (Continued.)

	(1)	(2)	(3)	(4)	(5)	(6)
V-Dem free association	0.05 (0.50)	0.02 (0.50)	0.40 (1.04)	0.05 (0.07)	0.03 (0.06)	0.06 (0.10)
Issue: economy	0.17* (0.07)	0.17* (0.07)	0.34* (0.17)	0.09*** (0.02)	0.08*** (0.02)	0.05 (0.06)
Issue: human rights/democracy	-0.08 (0.07)	-0.08 (0.07)	0.30+ (0.17)	0.06** (0.02)	0.06** (0.02)	0.03 (0.05)
Issue: education	0.22** (0.08)	0.22** (0.08)	0.18 (0.21)	0.07** (0.03)	0.06* (0.03)	0.03 (0.08)
Issue: service delivery	-0.09 (0.09)	-0.10 (0.09)	-0.36 (0.24)	0.07** (0.03)	0.07** (0.03)	-0.01 (0.07)
Issue: corruption	0.05 (0.14)	0.05 (0.14)	0.24 (0.29)	0.09* (0.04)	0.09* (0.04)	0.01 (0.10)
Pre-event momentum				0.01*** (0.00)	0.01*** (0.00)	0.01 (0.01)
Lag of duration				0.06*** (0.01)	0.06*** (0.01)	0.05+ (0.03)
Num. obs.	29,308	29,888	4,991	23,862	24,277	3,977
AIC	19,681.4	20,039.9	2,979.1	52,773.2	53,732.0	8,233.2
BIC	19,822.2	20,181.1	3,089.8	52,926.8	53,885.8	8,352.6

Notes: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Number of actors was calculated by recording the number of named and observable groups associated with each protest. Protest size was calculated by hand, which resulted in a lower number of observations due to missing information. AIC = Akaike information criterion; BIC = Bayesian information criterion.

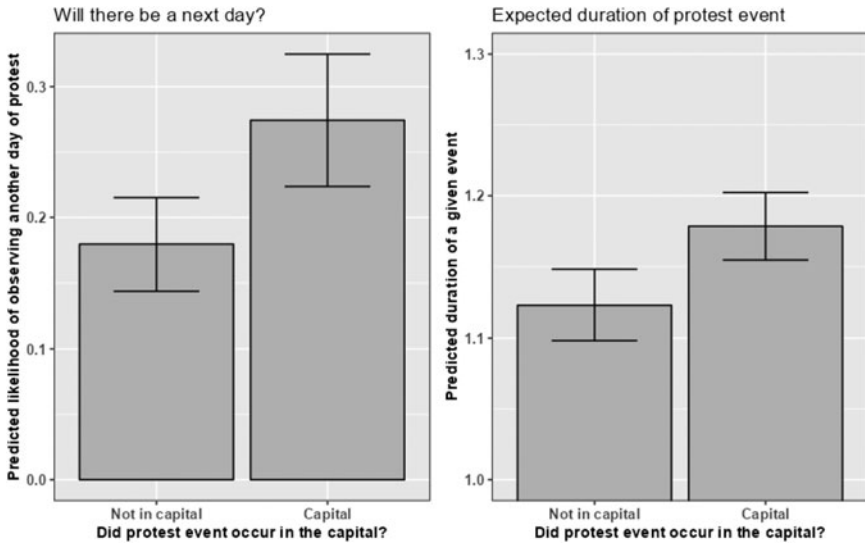


Figure 1. Predictions Based on Location.

‘next day’ models, we do find that protests featuring economic, democratic, education, service delivery and corruption claims all correlate positively with increased protest durations. Each issue produces statistically significant coefficients in the negative binomial models in which we use either the local population estimate or the number of actors present. These results indicate the role played by issue-based

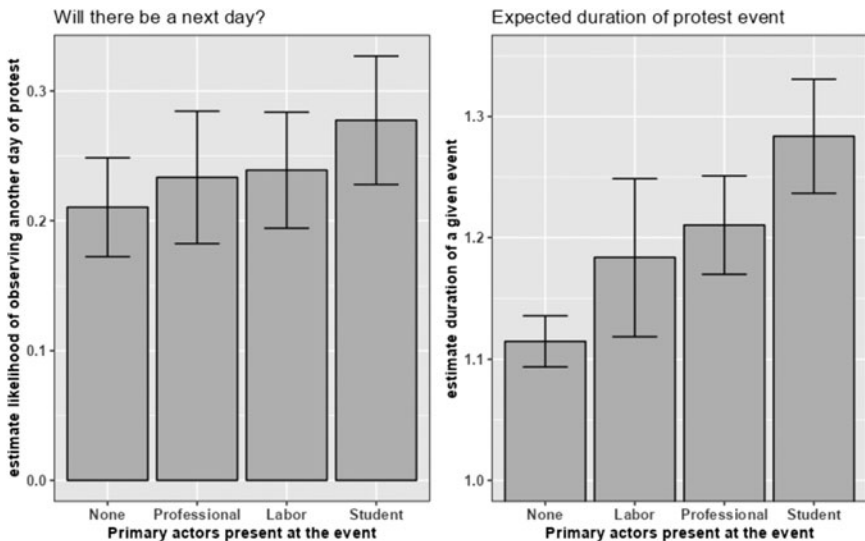


Figure 2. Predictions Based on the Actor Present.

demands on protest duration. We recognize alongside authors such as Jillian Schwedler (2022) that the nature of such demands leads to variation in duration as seen in these results. Demands such as those driven by economic incentives such as labour issues directly affect everyday livelihoods, as a result increasing the likelihood of prolonged mobilization, whereas foreign policy, for example, might lead to shorter, symbolic, issue-raising protests. We note here that additional analysis should be undertaken to better link these issues to the typology presented by Harris and Hern (2019) (Table 3).

Testing robustness with alternative data

One potential challenge to the results reported here is that perhaps they emerge because of the particularities of the ACLED data or the specific method through which we linked events. To address that potential concern, we turn to several similar datasets. First, we use the Social Conflict Analysis Data (SCAD) (Salehyan and Hendrix 2012). SCAD is an incident-level dataset that has been widely used in conflict analysis over the past decade. It differs from ACLED in that it codes single events rather than day-by-day events. As such, it is well suited to test the overall duration of protest events but cannot test the daily determinants of whether a protest will experience another day. Next, we turn to two prominent datasets that are used in the study of civil resistance campaigns: the NAVCO 3 dataset (Chenoweth et al. 2019) and the Mass Mobilization Dataset (MMD) (Clark and Regan 2016). We do this to evaluate whether our results remain consistent within the context of established civil resistance campaigns. We find consistency across each of the three additional datasets that we measure (Table 4).

Addressing concerns of endogeneity

All social phenomena are subject to endogenous processes, and protest data are particularly vulnerable. Two core sources of endogeneity are of specific interest to this study. First, it may be that we have reversed causality with several of our independent variables. For example, protest size might be a function of its duration, or students may be more likely to join long-running protests than short protests. Second, there are always concerns about omitted variables that might drive the variation in both independent and dependent variables. We address these concerns via multiple methods. The results for these tests can be found in the Appendix in the Supplementary Material.

Table 3. Protest Duration (Neg. Binomial) and Issues

Issue	Base duration (days)	Issue duration (days)	Relative difference (%)
Democracy	1.14	1.20	+5.3
Economy	1.14	1.24	+8.8
Education	1.14	1.21	+6.1
Service delivery	1.14	1.22	+7.0
Corruption	1.14	1.25	+9.6

Table 4. Testing Additional Datasets

	NAVCO 3				MMD	SCAD
	Next day	Duration	Duration	Duration	Duration	Duration
Intercept	−0.19 (0.35)	0.54*** (0.14)	0.62*** (0.13)	0.62*** (0.13)	−2.14*** (0.26)	0.31** (0.10)
Student	0.34** (0.12)	0.20* (0.10)	0.23* (0.10)	0.24* (0.10)	−0.07 (0.26)	0.72*** (0.08)
Professional	0.88*** (0.15)	0.82*** (0.14)	0.79*** (0.14)	0.77*** (0.14)	1.03+ (0.54)	0.41** (0.13)
Labour	1.18*** (0.12)	0.87*** (0.11)	0.84*** (0.11)	0.82*** (0.11)	0.32 (0.35)	−0.05 (0.11)
Lag of duration	− (0.01)	0.04*** (0.01)	0.04*** (0.01)	0.04*** (0.01)	0.09 (0.19)	0.01+ (0.00)
Repressed	−2.29*** (0.13)	−0.10 (0.07)	− (0.077)	− (0.08)	0.79*** (0.20)	0.28*** (0.04)
Repressed day 1	− (0.077)	− (0.077)	−0.479*** (0.077)	−0.50*** (0.08)	− (0.08)	− (0.08)
Repressed day 2	− (0.31)	− (0.31)	− (0.31)	1.07*** (0.31)	− (0.31)	− (0.31)
Protest size	− (0.07)	− (0.07)	− (0.07)	− (0.07)	0.21** (0.07)	0.04* (0.02)

(Continued)

Table 4. (Continued.)

	NAVCO 3			MMD	SCAD	
	Next day	Duration	Duration	Duration	Duration	
Num. obs.	4,378	1,356	1,356	1,356	3,169	3,082
AIC	4,683.6	5,197.0	5,160.4	5,148.9	3,549.1	12,466.7
BIC	4,721.9	5,238.7	5,202.1	5,195.9	3,603.7	12,527.0

Selection models

First, we run a series of two-stage selection models that incorporate latent selection processes into the final negative binomial regression. First, we develop a logistic selection model that regresses whether an event is repressed and then run a negative binomial model that includes our main factors (event size, participants, location). We find that the results are concordant with our primary results. The presence of students and labour unions remain positively and significantly correlated with extended event duration. Protesting in the capital also correlates with extended duration. Interestingly, the number of actors correlates inversely with overall duration. The propensity score, which draws the likelihood of treatment from the first stage, is not correlated with extended duration in the second stage model. It is likely that repression does not attain significance because the selection model already accounts for whether an event is or is not repressed.

Next, we develop a logistic selection model that regresses whether students are present on covariates that we believe are important, including a lag of repression, lag of duration, pre-event momentum, whether an event occurs in an urban area, and several key issues (economy, selections, human rights). We find that, when incorporating the selection factors that lead students to participate in protests, the number of actors attains a large, positive coefficient that is statistically significant. Students are significantly more likely to protest in urban settings, but once this propensity is accounted for, urban settings themselves correlate negatively with overall duration. Unsurprisingly, students are more likely to protest when a previous event has been repressed. Quite surprisingly, students are less likely to protest when major issues with the economy, elections or human rights/democracy are at play. When accounting for the factors that lead students to protest, labour unions no longer correlate with longer-duration events.

Third, we examine the factors that lead labour unions to engage in protest. Unsurprisingly, economic issues correlate strongly and significantly with the likelihood that a labour union will participate in a protest. We find that when selecting for labour participation, protests in the capital are positively and significantly correlated with longer durations. The number of actors is also positively and significantly correlated with extended duration. This makes sense, as labour unions may be more likely to band together to achieve shared goals.

Matching

Having examined several potential selection issues, we now turn to the use of a statistical matching process. To do so, we generate pseudo ‘control’ and ‘treatment’ groups by matching similar protest events along our core parameters as well as additional parameters that create a set of ‘matched’ events. In addition to matching along our core covariates, we also ensure that events are matched to the country, first-administrative and second-administrative levels. We also ensure that protests occur in the same year and are about similar issues (economics, elections, human rights and democracy). Doing this allows us to run bivariate regression with our ‘treatment’ variable and to estimate its quasi-causal effect on the dependent variable. We develop binary ‘treatment’ variables from our main hypothesized factors – actors (more than one identifiable group present), the presence of

students or labour unions, location in the capital and repression. In each case, we find strong support for our findings in the main results table (Table 2).

Conclusion

What determines the length of an individual protest event? In this article, we have argued that the duration of individual protest events is an important and understudied aspect of contentious politics. This study has sought to build a theoretical foundation to understand why some protests last only a single day while others extend over multiple days. Using the ACLED dataset, we tested the day-by-day factors that correlate with an increased likelihood of a protest stretching into the following day. We then tested the intra-event factors that correlate with longer protest event duration. The results indicate that in some cases, larger events are more likely to extend beyond a single day into a multi-day event. Events occurring in either the nation's capital or in urban areas were found to last longer than those in rural areas. Actors with a high capacity for internal socialization and low opportunity costs were found to associate with longer-duration events. Finally, government repression was found to sometimes truncate events, though the results indicate that the timing of repression within a multi-day event is significant.

As with all studies, there are limitations to the scope and reach of this one. For example, it uses proxy variables (student, professional and labour organizations) to measure the impact of internal social processes that may keep participants motivated and engaged over multiple days. Better, more direct observation of these processes via qualitative field methods would yield important insight into how and why some socialization processes produce multi-day events while others do not. Furthermore, the scope of the article did not allow for an in-depth analysis of the role of repression. Yet, questions of the relationship between repression and duration are important. Why does repression on the first day of an event seem to cut the event short, but repression on the second day seems to prolong it? Future research should investigate the mechanisms in closer detail.

Supplementary material. The supplementary material for this article can be found at <https://doi.org/10.1017/gov.2024.37>.

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Notes

1 We address the auto-generative possibility of protest (see Table 31, Table 32, and Figure 3 in the Appendix in the Supplementary Material).

2 Lewis and Ives (2023) specifically find that events that emerge *after repression* last longer than those that emerge outside of the wake of government action.

3 Thurber (2018) finds that non-violent campaigns employ universal claims more often than narrow, ethnic claims, which may shape why marginalized ethnic groups are less prevalent in such campaigns. We can think here of ethnic claims as referring to claims rooted specifically in the unique identity, needs, or rights of a given ethnic group. Ethnic claims could be anything from highlighting issues like self-determination, cultural autonomy or rights specific to a group's historical or cultural context. A prime example would be a claim for specific representation in an institution, e.g. government, or restitution/reparations for historical injustices specific to that group. With regards to non-discrimination, this would be framed as an ethnic group invoking a *universal claim*. Non-discrimination applies universally, regardless of ethnicity. This

would be distinct from a specific ethnic claim, which would focus more closely on particularities specific to the group itself, as opposed to a right held by all.

4 Alternatively, Christensen (2018) finds that protest events that occur in urban areas are more likely to spur government repression because they are highly visible and can directly threaten state interests. Thus, rural events might last longer simply because they are less likely to be repressed by the government. Christensen's logic is as follows: governments must decide whether the benefits of harshly repressing (and thus stopping) protests outweigh the costs of a potential public backlash. One of the key findings is that African governments are less likely to use harsh repression in cities, but more likely to use it in rural regions where the likelihood of backlash (and news coverage) is reduced.

5 The argument about opportunity costs likely extends to other segments of society. Other scholars have examined the interplay between low opportunity costs and high barriers to resource mobilization with homeless populations (Cress and Snow 1996; Snow et al. 2005) as well as the quotidian variation in availability that shapes participation in protest movements (Corrigall-Brown 2011) as well as civil war (Viterna 2013).

6 Work by Davenport is particularly enlightening, inquiring into why regimes apply repression (1995), the role of repression with democracies (2007), and examining how it can terminate and demobilize opposition movements (2015).

7 Two recent examples include Campante and Chor (2012) as well as Dahlum and Wig (2019).

8 We are able to code whether repression happens on the first day, second day etc. of a protest; however, including variables that measure something that happens on the second or third day of a protest limits the sample to events that last longer than a single day.

9 We note that while the ACLED data are widely considered to be high quality, they are coded through secondary sources that likely favour events that occur in urban or well-documented regions. Several important critiques and evaluations of event data (including ACLED) have been released in recent years (Demarest and Langer 2018; Eck 2012).

10 We test our hypotheses against three additional datasets: SCAD, MMD and NAVCO, and find very similar results.

11 In the statistical appendix in the Supplementary Material, we have also run our primary models using data that include both the protests and the riots found in the ACLED dataset. The results can be found in Tables 29 and 30 of the statistical appendix and are largely consistent with our findings presented below.

12 In our appendix, we relax these constraints and re-run our models. Our results remain consistent with those produced below.

13 Made with Natural Earth. Free vector and raster map data, <https://www.naturalearthdata.com/>.

14 To minimize concerns about endogeneity between protest size and location variables, we run models in the appendix that measure the coefficients of both protest participants and the number of observable groups in rural and urban regions. We find that the results are remarkably consistent with those presented below.

15 We also find that our hand-coded protest size does not correlate substantially with whether a protest occurs in a capital ($r = 0.02$) or urban region ($r = 0.03^*$), nor with the log of the local population ($r = 0.03^*$).

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