Black Lives Matter: Evidence of Grievance as a Predictor of Protest Activity

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Abstract: Since 2013, protests opposing police violence against black people have occurred across a number of American cities under the banner of “Black Lives Matter.” We develop a new dataset of these protests and explore the contexts in which they emerge. We ask whether Black Lives Matter protests are more likely to occur in localities where more black people have previously been killed by police. While scholars of social movements have been unable to find evidence of grievance theory in other cases, we find evidence that the specific grievance of police-caused deaths of black people predicts protest activity in this case. We link the features of police killings to factors that have previously been shown to facilitate the emergence of protest activity: strong in-group identity, blame assignment to an outside group, and perceptions of efficacy. We suggest that under particular conditions, grievances are likely to lead to protests, thereby refining the predictions of contemporary social movement theory.

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Introduction

While the movement is now closely associated with opposition to police brutality, the phrase "Black Lives Matter" originated in response to the July 2013 acquittal of a civilian, George Zimmerman, in the shooting death of the unarmed teenager, Trayvon Martin. Over the following months and years, Black Lives Matter activists played a central role in organizing protests that drew attention to deaths of black people at the hands of police as well as to the broader issue of police violence and over-policing. Groups associated with Black Lives Matter have advocated for a wide variety of important policy changes—including body cameras, independent special prosecutors, and general greater police transparency—and have proven to be a salient political force, drawing enormous political attention from both sides of the political spectrum at the local and national levels.

By drawing attention to police brutality in black neighborhoods, this new wave of activism has spurred scholars to highlight a broad failure in political science to explore the consequences of state repression. While recent studies have begun to take up this mission by exploring the political consequences of the American carceral state, at this early date, we have relatively little evidence on when and why these repressive conditions generate protest activity, such as that engaged in by Black Lives Matter (BLM) activists. Existing research on BLM has focused primarily on the online networks developed around the movement; deeper engagements with the history and genesis of the movement are forthcoming as of the time of this writing. This paper extends the small literature on BLM by assessing the contexts in which physical-world protests occurred.

We combine a novel dataset of BLM protests in the United States with political and demographic data to assess where these protests emerged. Our goals are twofold: first, we offer novel descriptive evidence on the geographic spread of these politically significant protests. Second, we evaluate whether prominent social movement theories correctly predict the occurrence of in-

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5 Throughout this work, we use the phrase “Black Lives Matter” to refer to the entire movement, not just the online activism associated with the #BLM hashtag or the specific organization, “Black Lives Matter.”

6 See, for instance, the solutions proposed by Campaign Zero: http://www.joincampaignzero.org/solutions/#solutionsoverview


person (i.e. not online) BLM protest activity. Specifically, we test the predictive power of resource mobilization, political opportunity structure, and grievance theories of protest.

In keeping with the social movement literature, we find strong support for an analysis of BLM based on resource mobilization and political opportunity structures. We find the highest protest activity in black communities with mid-range poverty rates and in locales with higher than average levels of education and with more college students – all consistent with resource mobilization theory. In addition, protests were more common in Democratic-leaning cities, in accordance with an opportunity structure analysis.

In contrast with prior scholarship, however, we also find evidence that is consistent with a grievance theory of protest. BLM protests were more frequent in localities where, in the years prior to the protests, more black people had been killed by police officers. This finding holds after accounting for relevant covariates.

We discuss the reasons that the grievance theory of protest, which has generally not been supported by empirical evidence, may apply in this case. We highlight, in particular, some unusual features of the BLM movement and the state repression against which it is organizing. Police-involved deaths are concrete events, increasingly visible due to the spread of mobile technology, and are clearly connected to a state actor. We argue that these features make police-related deaths distinct from larger, more diffuse problems like poverty, discrimination, lack of social mobility, or unemployment – and therefore more likely to spur grievance-related protests. Additionally, police-related deaths are amenable to specific, local policy proposals whose success or failure can be directly evaluated on a local level.

Our findings thus make two contributions: we describe the conditions under which BLM protests are likely to occur, and propose situations in which the grievance theory of protest may hold.

Theories of Protest Mobilization and the Black Lives Matter Movement

Political and social discontent only occasionally results in public protest, in part because mass protest faces a substantial collective action problem. There is a rich tradition of research in the social sciences that seeks to identify the contexts in which larger, more frequent, and more organized protests occur. We draw on that tradition here to develop hypotheses regarding the characteristics of locations where BLM protests are more likely to occur. As part of this endeavor, we draw on several theoretical approaches, including resource mobilization, opportunity structure, and grievance theory.

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We begin with the theory of resource mobilization, a key approach for explaining protest activity. Resource mobilization emphasizes that access to resources allows potential protestors to organize themselves. According to this approach, grievances matter relatively little; not because grievances do not exist, but because they are ubiquitous but rarely acted upon. In the words of Klandermans et al., “the question to be answered is not so much whether people who engage in protest are aggrieved, but whether aggrieved people engage in protest.”

In this approach, social movements are conceptualized as a group-level luxury good, pursued when there are sufficient group resources to do so. To give an example of evidence that is both consistent with a resource mobilization approach and potentially relevant to a study of BLM protests, McAdam has shown that social and economic autonomy were important for the emergence of active protests during the civil rights movement. But, while those groups with the fewest resources are hampered in their ability to engage in public contestation, those with the most resources may have less need to resort to such methods; for this reason, the impact of group resources on protest is sometimes described as curvilinear. It is for those in the middle that protest activity is most likely. This scholarship leads us to expect a curvilinear relationship between the resources available to the African American community and the intensity of protest; below, we use an indicator of Black poverty rates as a proxy for group resources.

Resources matter not only at the community level but also at the individual level. For example, Verba, Schlozman and Brady show that political participation is most common among individuals with higher incomes and higher education levels, i.e. among those with the resources to engage in this costly activity. Counter-intuitively, this insight appears to hold for some more extreme political expression also; in the context of the Watts riots in Los Angeles, Sears and McConahay find that among the residents of the protesting areas, those with more education were more likely to participate in the riots. Additionally, wealthier African Americans’ express high levels of linked fate relative to their less affluent counterparts, which may further contribute to their tendency to join in protests. The scholarship on the importance of resources on the

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15 McAdam (1999); in the example he discusses, a key variable predicting economic autonomy was the disappearance of the cotton economy.


individual level thus leads us to expect that higher percentages of middle-class African-Americans and college-educated populations will be associated with larger and/or more frequent protests.\footnote{Inferring the characteristics protesters from the characteristics of locations where the protests occurred would constitute ecological inference with all its attendant problems. Our argument here is not that we know who attends BLM protests (unfortunately we have no data on individual characteristics of protesters). However, we do argue that in locations with larger numbers of educated and middle class African Americans, the protest movement has a larger pool of potential protesters who are available for mobilization.}

Another key variable for the emergence of protest is the “political opportunity structure”: the existence of vulnerabilities within the political system that give leverage to those seeking political change. The exact relationship between openness of the political structure and probability of protest has been the subject of some debate. Tarrow suggests that open political structures that accommodate citizen demands facilitate citizen protest, while Kitschelt proposes that closed political systems, in which citizens demands cannot rise through the political system through more conventional channels, result in more protest activity.\footnote{Tarrow (1996) “Power in Movement”; Kitschelt 1989.} In the context of urban protest in the United States in the 1960’s, Eisinger finds evidence for a combination of both effects: a curvilinear relationship between protest activity and the openness of the political system on the city level. In addition to the overall accessibility of the political system, the likelihood of protest success is heavily influenced by the extent to which elected officials and state bureaucrats see themselves as aligned with the protest group’s mission.\footnote{Amenta, E., Halfmann, D., & Young, M. (1999). The strategies and contexts of social protest: political mediation and the impact of the Townsend Movement in California. \textit{Mobilization: An International Quarterly}, 4(1), 1-23.}

From the perspective of the political opportunity structure, we would expect protests to be more frequent in cities where local politicians are more concerned about police brutality, or about the concerns of the Black community more generally. In an ideal world, we would be able to glean the attitudes of local political elites and policing and police violence in American cities prior to the start of the Black Lives Matter movement. Unfortunately, to the best of our knowledge, this kind of elite survey does not exist. We are therefore left with imperfect proxies for attention to the concerns of African-Americans constituents.

rate of protest in Democratic cities and with Democratic mayors. While local partisan divisions are often not as sharp as those at the national level, the left-right divide that partitions national politics persists locally, suggesting that local political elite party affiliation should similarly correlate with political opportunity for BLM protestors.

Moreover, there is some evidence that BLM leaders deliberately targeted Democratic presidential candidates for protests because of their perceived friendliness to the movement’s aims. In an appearance on the news program Democracy Now, Danausia Yancey, a prominent organizer of Black Lives Matter Boston, offered this explanation for targeting Democratic candidates:

> It’s actually a practice called ‘power mapping’… where you actually map who’s closest to you on the issue and go to those folks first in order to force them to articulate their stance and then hold them accountable. So this movement is very strategic, and that’s what we’ve been doing.

To the extent Yancey describes a broader strategy within the Black Lives Matter movement, we would expect higher levels of protest in more strongly Democratic localities.

Another relevant aspect of the local political opportunity structure is the historical strength of local Black political institutions and community organizations. In places where African Americans have a history of political contestation, institutional and psychological factors may favor greater protest activity. These locations are more likely to have institutions and networks in place that can overcome collective action problems, as well as a local population more familiar with protest tactics and scripts. We expect communities with a history of civil rights activism to be more prone to Black Lives Matter protests.

Black Lives Matter and the Grievance Theory of Protest

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In political science, the resource mobilization and political opportunity structure approaches have largely replaced an earlier school of research into the origins of social movements, “grievance theory,” which focused on the extent to which protesting groups were suffering deprivation or the threat of material loss.\footnote{Gurr, T.. (1968). A Causal Model of Civil Strife: A Comparative Analysis Using New Indices. \textit{The American Political Science Review}, 62(4), 1104–1124. See also Smelser 1962.} According to a classic statement of grievance theory, protests are expected to occur when real-world outcomes fall short of subjective expectations, or when outcomes compare unfavorably to the outcomes of relevant comparison groups.\footnote{Gurr (1968).} In the broader grievance theory literature, grievances have been operationalized both by measuring subjective feelings of grievance, and by using objective indicators of wellbeing such as poverty rates.\footnote{Gurr (1968) uses objective indicators of well-being; in the context of the civil rights movement, Eisinger (1973) also includes economic measures. Dalton et al (2010) explore subjective dissatisfaction as a source of protest.} Overall, using either operationalization, researchers have failed to find any consistent association between the level of a group’s poverty or oppression and the level of their protest activity.\footnote{McCarthy, J. D., & Zald, M. N.. (1977). Resource Mobilization and Social Movements: A Partial Theory. \textit{American Journal of Sociology}, 82(6), 1212–1241. But c.g.f. Wilkes, R. (2004). First nation politics: deprivation, resources, and participation in collective action. \textit{Sociological Inquiry}, 74(4), 570-589.} For example, Dalton et al. conclude a cross-national study in which they compare several theoretical approaches to protest activity as follows:

\[ \text{We find little empirical support that economic conditions of the nation or personal feelings of dissatisfaction generally predict levels of protest activity [...] grievances alone are not sufficient to stimulate protest as a general mode of political action; other factors must be present.}\footnote{Dalton et al. 2010, p.71.}

Based on this evidence, we should \emph{not} expect to find a relationship between objective grievances (in this case, police brutality – or more concretely, black people killed by police) and the frequency of BLM protests in a city. Moreover, in addition to this ample body of research that fails to find empirical support for grievance theory, there is also a line of scholarship that explores the political effects of state repression and argues that police oppression is related to depressed political activity. In particular, Lerman and Weaver have found that interactions with the police\footnote{Lerman, A. and Weaver, V. (2014). “Staying Out of Sight? Concentrated Policing and Local Political Action.” \textit{The Annals of the American Academy of Political and Social Science} 651(1): 202-219.} and the carceral state\footnote{Weaver, V. and A. Lerman. (201). "Political Consequences of the Carceral State." \textit{American Political Science Review} 104(4): 817-833.} have lasting depressive effects on political participation. While these studies do not test the impact of repressive policies on protest activity in particular, applying their theoretical and empirical logic to the BLM movement suggests that we should not expect more protests in places that have experienced greater police brutality.

\footnotesize
\begin{itemize}
    \item \footnote{29}{Gurr (1968).}
    \item \footnote{30}{Gurr (1968) uses objective indicators of well-being; in the context of the civil rights movement, Eisinger (1973) also includes economic measures. Dalton et al (2010) explore subjective dissatisfaction as a source of protest.}
    \item \footnote{32}{Dalton et al. 2010, p.71.}
    \item \footnote{34}{Weaver, V. and A. Lerman. (201). "Political Consequences of the Carceral State." \textit{American Political Science Review} 104(4): 817-833.}
\end{itemize}
However, there are some features of police killings that may make these violations especially conducive to the formation of subjective grievances and the translation of these grievances into protest activity.\textsuperscript{35} In order to explore the possibility that police killings are particularly likely to lead to protest activity, we start by reframing the grievance question in terms of “problem recognition”,\textsuperscript{36} i.e. we focus on the conditions necessary for a situation to be recognized as a grievance worthy of protest and for protests to result from these perceived grievances. Prior social psychology research on protest activity suggests that three key psychological variables matter for whether a situation that could be interpreted as a grievance results in protest: social identity, blame attribution, and efficacy.\textsuperscript{37}

Below, we will argue that these three variables are all applicable in the case of police killings. The African-American community shares a historically strong sense of in-group identity,\textsuperscript{38} and BLM protests specifically address violations against this community. Additionally, police killings are concrete and observable events (which, with the spread of mobile technology, have become more observable than ever) carried out by a specific state actor. These factors may facilitate the process of blame attribution, setting police killings apart from more diffuse social problems (such as poverty, inequality, or lack of social mobility). Finally, the problem of police killings is amenable to concrete, local policy propositions whose success or failure can be directly evaluated; this may facilitate perceptions of (potential) efficacy among the protesting groups.

First, social identity is a key variable for the development of a protest movement. A sense that a disadvantage has befallen one’s in-group increases the motivation to protest – especially if the disadvantage is perceived as personally relevant.\textsuperscript{39} A strong sense of in-group identification can also increase reputational and expressive benefits to potential protest participation.\textsuperscript{40} While feelings of racial linked fate vary along gender and class lines, a wide body of social scientific


\textsuperscript{38} Dawson (1994).

\textsuperscript{39} Foster and Matheson (1999), Klandermans and Stekelenburg (2013)

evidence suggests that blacks evince particularly high levels of linked fate and that these perceptions are linked to a wide array of political attitudes and behaviors.\textsuperscript{41} Moreover, black people’s disproportionate interaction with the carceral state\textsuperscript{42} and victimization by the police\textsuperscript{43} are well documented, a phenomenon likely to strengthen a sense of personal relevance.

Second, for a potential grievance to stoke protest, responsibility for the situation must be assigned. According to Simon and Klandermans, “an external opponent or enemy, such as a specific out-group, an authority, or ‘the system,’ must be blamed for the group's predicament.”\textsuperscript{44} In the case of Black Lives Matter, police shootings are concrete events that are directly committed by agents of the state, offering an opportunity for much more direct blame assignment than in the case of more diffuse social phenomena, such as poverty. The ability to assign blame is likely further enhanced by the recently developed cell phone video functionalities that have allowed citizens to regularly record their interactions with police. These video recordings have facilitated contestation of police officers’ versions of events within the legal system, and have played an important role in the development of public narratives surrounding blame assignment.

Finally, a sense of efficacy, or the belief that the group as a collective is able to change the status quo, is key for perceptions of injustice to lead to protest.\textsuperscript{45} Efficacy increases the probability of protest, and prior scholarship suggests that personal or group-level beliefs in efficacy can overcome the collective action problem.\textsuperscript{46} Here, too, the presence of group identity can be important: group efficacy may be a better predictor of protest activity than an individual sense of efficacy.\textsuperscript{47} In the context of the civil rights movement in the United States, McAdam has also emphasized the importance of “the belief that conditions are subject to change.”\textsuperscript{48}

There are several reasons that the Black Lives Matter protest participants may have felt a particularly high sense of efficacy. First, criminal justice is administered locally in the United States. There are therefore concrete and local targets toward whom specific reform demands can be directed, and many of these targets (including mayors, sheriffs and district attorneys) are


\textsuperscript{44} Simon and Klandermans (2004), p.325.

\textsuperscript{45} Klandermans (1984)

\textsuperscript{46} Finkel et al. (1989)

\textsuperscript{47} Mummendey et al. (1999), Smith et al. (2012)

\textsuperscript{48} McAdam (1999), p.106
elected to office. These local offices may be particularly attractive to strategic advocacy groups shopping for venues in which they are politically advantaged.\textsuperscript{49} Moreover, representatives of the police are commonly present at protest events, allowing protestors to directly confront the relevant government agency. Finally, the above-mentioned video technology has made instances of police brutality observable to outside observers and media. This capacity to “socialize”\textsuperscript{50} conflicts with police may help offset the demobilizing effects of state repression.\textsuperscript{51}

**Predicting BLM Protest Activity**

In the remainder of the paper, we test the ability of these three theories of protest activity to predict the occurrence of BLM protests. The theories we include are, again, resource mobilization, political opportunity structure, and grievance theory. Rather than pitting these theories against each other, we expect that each can affect the probability of protest. Table 1 summarizes the three theories, gives an overview of the variables we use to operationalize their predictions, and specifies the expected direction of the relationship between the variables and protest activity. In the next section, we discuss our data and operationalization choices in more detail.

<table>
<thead>
<tr>
<th>Theory</th>
<th>Variable</th>
<th>Expected relationship to protest activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource mobilization</td>
<td>Black poverty rate</td>
<td>Curvilinear</td>
</tr>
<tr>
<td></td>
<td>Percent college educated</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Current college students</td>
<td>+</td>
</tr>
<tr>
<td>Opportunity structure</td>
<td>Mayoral race (Black)</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Mayoral party (Democratic)</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Democratic vote share in presidential election</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>History of NAACP activism</td>
<td>+</td>
</tr>
<tr>
<td>Grievance</td>
<td>Deaths caused by police (any race)</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Deaths caused by police (Black only)</td>
<td>+</td>
</tr>
</tbody>
</table>

*Table 1: Summary of predictions.*


\textsuperscript{51} Lerman, A. and Weaver, V. (2014).
Data

To examine the contexts in which Black Lives Matter protests occurred, we developed a novel dataset of protests, including their size and location. To perform the analyses below, we matched this dataset with demographic and political data.

Our dataset of Black Lives Matter protests captures 780 BLM protests in the year after the death of Michael Brown, an unarmed man killed by a police officer in Ferguson, Missouri, on August 9, 2014. Our data was developed from a dataset built by Alisa Robinson, graduate of the political science department at the University of Chicago, and made available by a Creative Commons license. We amended her data by adding additional protests, correcting some errors, and removing all protests that were not in-person public gatherings held in the United States. For each protest we have a date, geocoded location, and, wherever possible, an estimate of the number of protest participants. The dataset includes protests in 44 states and 223 localities, with nearly 250,000 participants.

Figure 1 reviews the frequency of protests during the protest year. The largest peaks are associated with the death of Michael Brown in Ferguson, MO (August 2014), the non-indictment of officer Darren Wilson in that case (November 2014), and the non-indictment of officer Daniel Pantaleo in the chokehold death of Eric Garner (December 2014).

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52 Among others, the dataset includes protests in response to the death of 12-year-old Tamir Rice, shot by police on a playground in Cleveland, OH; Walter Scott, shot in the back after being pulled over for a broken tail light in North Charleston, SC; and Freddie Gray, who died after suffering a spinal injury incurred while in the back of a police van in Baltimore, MD. It also includes protests that occurred when the police officers involved were not indicted in the death of Eric Garner, who died after being put in a choke hold by a police officer in New York City. In order to specifically focus on BLM protests, as distinct from other forms of protest relating to African American civil rights, we excluded protests that occurred in Selma, AL during the entire period of observation, and in Charleston, NC after June 17th, 2015.

53 These estimates of protest size come from reputable news reports and our own counts based on available photos and videos.
In the analysis that follows, we bring together our protest data with contextual data about the localities in which protests took place. Because in-person protest activity by definition requires large groups of people to congregate, we focus our analysis on the 1358 localities in the United States with a population over 30,000. Summary statistics for our key variables can be found in Table 2.

Our locality-level measures of population, population density, percentage Black, and Black poverty levels are drawn from the 2014 American Community Survey’s 5-year estimates. In keeping with the resource mobilization literature that predicts a quadratic relationship between economic wellbeing and protest, we include both the Black poverty rate and the square of the Black poverty rate.
We operationalize local education levels in two ways. First, we include a measure of the percentage of the population with at least a bachelor’s degree, based again on the American Community Survey’s 5-year estimate. Second, because college students themselves often play an important role in protests, we include an estimate of the number of college students attending schools in each locality, drawing on the estimates produced in the Integrated Postsecondary Education Data System maintained by the National Center for Education Statistics.

We include several measures intended to assess the political opportunity structure of the localities. First, we include variables for mayoral race and mayoral party (expecting Democratic and African American mayors to preside over more BLM protests). We also include a control for local Democratic vote share, using 2008 presidential election results aggregated at the level of locality.  

In addition, we develop a measure intended to capture, as best as we can, the history of black political organizing in an area. We use a dataset of NAACP chapters, 1912-1977, developed by the University of Washington’s Mapping American Social Movements Project. Our measure is the number of years a locality had a local NAACP branch during this early period of the organization’s activism. This variable is not intended to imply a leading role of the NAACP in the development of the Black Lives Matter, but rather to serve as (an imperfect) proxy for a tradition of black political activity that might be missed by measures of black population, mayoral race and the strength of the local Democratic Party.

To examine a grievance explanation of BLM protests, we look at deaths caused by police. There are no governmental databases of police-caused homicides; our data comes from the nonprofit databases, “Killed By Police” and “Fatal Encounters.” The two sites provide local news reports of each reported death. For further confirmation, we verified the two datasets against one another. We limit our data to the dates between January 1, 2013, the earliest date for which the data is available, and August 9, 2014, the date of death of Michael Brown and the beginning of our protest observation period. During that time, at least 1730 people were killed by the police; we remove from this dataset deaths that were caused by vehicle collisions, leaving a total of

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56 Indeed, the division between the NAACP and BLM activists has been well-documented and acknowledged by leaders of both groups/movements. One of the founders of the BLM movement, Patrisse Cullors, said of the divide: “Each generation has their own understanding of what’s most important….The hope is that groups like the NAACP will see that we have to bridge the generational divide and the political divide.” Vega, T. (2016) “In the age of Black Lives Matter, can the NAACP stay young?” CNN Money. http://money.cnn.com/2016/07/19/news/naacp-black-lives-matter/. Accessed on October 18, 2016.

57 45 deaths in the combined dataset could not be conclusively attributed to a Census location, and are therefore omitted from analysis.
1637 people killed by police, including 439 black people. A total of 235 victims were unarmed, including 80 unarmed black people.

<table>
<thead>
<tr>
<th></th>
<th>Median</th>
<th>Mean</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Black</td>
<td>6%</td>
<td>13%</td>
<td>93%</td>
</tr>
<tr>
<td>Black Poverty Rate</td>
<td>23%</td>
<td>24%</td>
<td>88%</td>
</tr>
<tr>
<td>Percent BA</td>
<td>29%</td>
<td>32%</td>
<td>82%</td>
</tr>
<tr>
<td>Local College Enrollment Per Capita</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Democratic Vote Share</td>
<td>58%</td>
<td>58%</td>
<td>98%</td>
</tr>
<tr>
<td>Police-Caused Deaths</td>
<td>0</td>
<td>0.23</td>
<td>16</td>
</tr>
<tr>
<td>Police-Caused Deaths per 10,000 People</td>
<td>0</td>
<td>0.07</td>
<td>1.42</td>
</tr>
<tr>
<td>Black Police-Caused Deaths</td>
<td>0</td>
<td>0.85</td>
<td>37</td>
</tr>
<tr>
<td>Black Police-Caused Deaths per 10,000 People</td>
<td>0</td>
<td>0.02</td>
<td>.66</td>
</tr>
<tr>
<td>BLM Protests</td>
<td>0</td>
<td>.496</td>
<td>50</td>
</tr>
</tbody>
</table>

Table 2: Summary Statistics of Key Variables, Localities with Populations over 30,000

Protests and Police-Caused Deaths

Tables 3 and 4 summarize the data on police-caused deaths and Black Lives Matter protests by locality. Table 3 shows the total number of localities in our analysis, and breaks these localities down by the presence/absence of at least one documented Black Lives Matter protest during the observation period. Overall, from August 2014 to August 2015, Black Lives Matter protests occurred in 14% of U.S. cities with population over 30,000.

The rows in Table 3 subset the analysis to cities with various forms of experience of police-related deaths. Black Lives Matter protests were significantly more common in cities that experienced at least one police-related death between January 1, 2013 and August 9, 2014: protests occurred in 9% of cities without a death, but in 24% of cities with at least one death. The pattern is even more pronounced when we restrict our attention to Black deaths (44% of cities with at least one Black death experienced at least one protest) or unarmed Black deaths (60% of cities with at least one unarmed Black death experienced at least one protest). Cities that experienced at least one unarmed death during the period of protest observation were also more likely to experience protests (40% of cities with at least one unarmed death during the period of observation experienced at least one protest).

The pattern holds up when we restrict our attention to cities without any police-caused deaths of unarmed individuals during the protest observation period; these cities can be thought of as holding “solidarity” protests (a distinction we return to below). These results are presented in Table 4 and mirror the patterns in Table 3.
Of course, cross-tabulations of raw data run the risk of spurious correlations; to give just one example, these data are not adjusted for population size or the percentage of residents who are African American. In the following section, we examine the relationship between police-caused deaths and Black Lives Matter protests more rigorously.

**Correlates of Protest Frequency**

Our main statistical results are presented in Table 5, which looks at protest activity in the 1358 U.S. localities with a population over 30,000. The outcome variable is number of protests held over the year from August 9, 2014 to August 9, 2015; 186 of these locations had at least one Black Lives Matter protest during this year. The outcome is modelled using a negative binomial distribution, as is appropriate for an event count. As a robustness check, we also test a logit model for whether any protests occurred and find similar results.

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58 The data violate the more restrictive assumptions of the Poisson model. We also tested whether the data call for a zero-inflated negative binomial, due to the relatively high number of cities with zero protests. Goodness-of-fit tests were inconclusive between the regular and the zero-inflated negative binomial models; by Occam’s razor we choose to present the negative binomial models here. The replication package includes alternative model specifications for comparison.

59 For concision, these similar results are not presented here but these models are included in the replication package.
<table>
<thead>
<tr>
<th>Total N of cities</th>
<th>N of cities with no protests</th>
<th>N of cities with at least one protest</th>
<th>% of cities with at least one protest</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cities with population &gt; 30k</td>
<td>1353</td>
<td>1172</td>
<td>186</td>
</tr>
<tr>
<td>No deaths</td>
<td>909</td>
<td>830</td>
<td>79</td>
</tr>
<tr>
<td>At least one death</td>
<td>449</td>
<td>342</td>
<td>107</td>
</tr>
<tr>
<td>No Black deaths</td>
<td>1200</td>
<td>1084</td>
<td>116</td>
</tr>
<tr>
<td>At least one Black death</td>
<td>158</td>
<td>88</td>
<td>70</td>
</tr>
<tr>
<td>At least one unarmed Black death</td>
<td>45</td>
<td>18</td>
<td>27</td>
</tr>
<tr>
<td>At least one unarmed death during observation year</td>
<td>101</td>
<td>60</td>
<td>41</td>
</tr>
</tbody>
</table>

**Table 3:** Cities tabulated by police-caused deaths (January 1st 2013 – August 9th 2014) and the occurrence of BLM protests (August 9th 2014 – August 9th 2015). Showing all cities with population over 30,000.

<table>
<thead>
<tr>
<th>Total N of cities</th>
<th>N of cities with no protests</th>
<th>N of cities with at least one protest</th>
<th>% of cities with at least one protest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cities with no unarmed deaths in observation year</td>
<td>1257</td>
<td>1112</td>
<td>145</td>
</tr>
<tr>
<td>No prior deaths</td>
<td>869</td>
<td>798</td>
<td>71</td>
</tr>
<tr>
<td>At least one prior death</td>
<td>384</td>
<td>313</td>
<td>79</td>
</tr>
<tr>
<td>No prior Black deaths</td>
<td>1132</td>
<td>1037</td>
<td>95</td>
</tr>
<tr>
<td>At least one prior Black death</td>
<td>121</td>
<td>74</td>
<td>47</td>
</tr>
</tbody>
</table>

**Table 4:** Cities tabulated by police-caused deaths (January 1st 2013 – August 9th 2014) and the occurrence of BLM protests (August 9th 2014 – August 9th 2015). This table excludes cities that experienced at least one unarmed police-caused death during the protest activity observation period.
<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate (SE)</td>
<td>Estimate (SE)</td>
<td>Estimate (SE)</td>
<td>Estimate (SE)</td>
</tr>
<tr>
<td>(Intercept)</td>
<td>-22.41 (1.16)</td>
<td>-21.88 (1.32)</td>
<td>-22.24 (1.14)</td>
<td>-22.32 (1.15)</td>
</tr>
<tr>
<td>Log total population</td>
<td>1.29 (0.07)</td>
<td>1.24 (0.08)</td>
<td>1.28 (0.07)</td>
<td>1.28 (0.07)</td>
</tr>
<tr>
<td>Log population density</td>
<td>-0.26 (0.14)</td>
<td>-0.21 (0.14)</td>
<td>-0.25 (0.13)</td>
<td>-0.25 (0.13)</td>
</tr>
<tr>
<td>% Black</td>
<td>0.02 (0.00)</td>
<td>0.02 (0.01)</td>
<td>0.02 (0.00)</td>
<td>0.02 (0.00)</td>
</tr>
<tr>
<td><strong>Resource Mobilization Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Poverty Rate</td>
<td>0.17 (0.04)</td>
<td>0.16 (0.04)</td>
<td>0.16 (0.04)</td>
<td>0.16 (0.04)</td>
</tr>
<tr>
<td>Black Poverty Rate (squared)</td>
<td>-0.002 (0.001)</td>
<td>-0.002 (0.001)</td>
<td>-0.002 (0.001)</td>
<td>-0.002 (0.001)</td>
</tr>
<tr>
<td>% Bachelor Degrees</td>
<td>0.04 (0.01)</td>
<td>0.04 (0.01)</td>
<td>0.04 (0.01)</td>
<td>0.05 (0.01)</td>
</tr>
<tr>
<td>College Enrolment Per Capita</td>
<td>1.11 (0.40)</td>
<td>1.07 (0.42)</td>
<td>1.05 (0.40)</td>
<td>1.09 (0.40)</td>
</tr>
<tr>
<td><strong>Opportunity Structure Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008 Democratic Vote Share</td>
<td>0.05 (0.01)</td>
<td>0.04 (0.01)</td>
<td>0.05 (0.01)</td>
<td>0.05 (0.01)</td>
</tr>
<tr>
<td>Republican Mayor</td>
<td>0.08 (0.21)</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Early NAACP activity</td>
<td>0.01 (0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Black mayor</td>
<td>-0.13 (0.20)</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td><strong>Grievance Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Police-Caused Deaths Per</td>
<td>2.12 (0.95)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capita</td>
<td>(0.86)</td>
<td>(0.64)</td>
<td>(0.64)</td>
<td>(0.64)</td>
</tr>
</tbody>
</table>

**Table 5: Correlates of Black Lives Matter Protest Frequency**

Negative Binomial regression, *: p < 0.05
All localities with population over 30,000 (n=1358)
<table>
<thead>
<tr>
<th>Model</th>
<th>Estimate (SE)</th>
<th>Estimate (SE)</th>
<th>Estimate (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>-24.25 * (1.44)</td>
<td>-23.95 * (1.39)</td>
<td>-24.05 * (1.41)</td>
</tr>
<tr>
<td>Log total population</td>
<td>1.44 * (0.10)</td>
<td>1.42 * (0.10)</td>
<td>1.41 * (0.10)</td>
</tr>
<tr>
<td>Log population density</td>
<td>-0.22 (0.15)</td>
<td>-0.22 (0.15)</td>
<td>-0.22 (0.15)</td>
</tr>
<tr>
<td>% Black</td>
<td>0.02 * (0.01)</td>
<td>0.02 * (0.01)</td>
<td>0.02 * (0.01)</td>
</tr>
</tbody>
</table>

**Resource Mobilization Variables**
- Black Poverty Rate: 0.15 * (0.04) 0.15 * (0.04) 0.15 * (0.04)
- Black Poverty Rate (squared): -0.002 * (0.001) -0.002 * (0.001) -0.002 * (0.001)
- % Bachelor Degrees: 0.05 * (0.01) 0.05 * (0.01) 0.05 * (0.01)
- College Enrolment Per Capita: 1.27 * (0.41) 1.17 * (0.40) 1.23 * (0.40)

**Opportunity Structure Variables**
- 2008 Democratic Vote Share: 0.04 * (0.01) 0.04 * (0.01) 0.04 * (0.01)

**Grievance Variables**
- Black Police-Caused Deaths Per Capita: 2.72 * (0.96)
- All Police-Caused Deaths Per Capita: 1.14 (0.69)

**Table 6: Correlates of Black Lives Matter Protest Frequency**
Negative Binomial regression, *: p < 0.05
All localities with population over 30,000 without an unarmed death during protest year. (n=1257)
All models in Table 5 include three background variables that we expect to correlate with protest activity: the size of the city, population density, and percentage Black residents. As described in the introduction, we anticipate that higher numbers and concentrations of residents, and in particular Black residents, increase the pool of potential protestors from which the movement can recruit participants. We find that population size and percentage Black are both positively linked to protest activity. Population density is not significantly related to protest activity, in part because it is correlated with other variables of interest, including Democratic vote share.

Models 1 and 2 in Table 5 include variables that operationalize the resource mobilization and opportunity structure theories of protest. As the resource mobilization theory would suggest, there is a quadratic relationship between protests and black poverty; protests are most frequent in the middle of the black poverty spectrum. Protests are also more frequent in localities with a larger college-educated population and with a large population of current college students, consistent with the observation that individuals with more resources may be more likely to protest.

Turning to the opportunity structure approach to protests, in Model 1 we find that when the four relevant variables (Democratic vote share in 2008 Presidential elections, mayoral partisanship, mayoral race, and early NAACP activity) are all entered into the regression, only Democratic vote share is a significant predictor of protest activity. In additional analyses available in the replication dataset, we show that early NAACP activity predicts protest activity when other opportunity structure variables are dropped from the regression, but that this relationship disappears once we account for the Democratic presidential vote share in 2008. The remaining two variables, mayoral partisanship and mayoral race, are not significantly related to protest activity even when other opportunity structure variables are dropped from analysis. In the case of Mayoral race, this may be due to scarce data; only 91 cities in our sample have a Black mayor. For the sake of parsimony, we choose to retain Democratic vote share in the 2008 presidential election as the main indicator of the political opportunity structure in Model 2. We conclude that there is some evidence in favor of the opportunity structure theory of protest, as protest activity is more likely to occur in more Democratic cities, even after accounting for other relevant variables.

In Models 3 and 4 in Table 5, we add two measures to represent the grievance theory of protest. Model 3 shows that adding a measure of Black police-caused deaths per capita to the regression does not change the point estimates or the significance of the other variables, and that Black deaths per capita is itself a significant predictor of protest. In a city of 100,000, holding all other variables at their means, going from no police-caused deaths of black people to one such death increased the likelihood of protest by about 24%. It is worth remembering however, that the likelihood of protest remained small -- our model predicts that about one in ten cities of that size and demographic makeup would hold a protest at all. Model 4 expands the variable of police-
caused deaths to deaths of victims of all races; here we find a smaller estimate and a positive but not significant relationship (p=0.17). This finding is consistent with the BLM movement’s explicit focus on police brutality against African Americans in particular.

So far, our results show a correlation between police-caused deaths and BLM protests that is in keeping with a grievance-based explanation of protest. However, as Figure 1 suggests, certain cities in this dataset are exceptional. The frequency of protests in some localities was not simply a result of long-running state repression; for example, in Baltimore and Cleveland, protests responded to prominent local deaths of unarmed black individuals that occurred during the year of protests.

We therefore perform additional analyses in which we exclude cities where an unarmed person was actually killed by police during the year in question (Table 6). By excluding these cities, we remove the possibility that our results are driven solely by protests that occurred in response to high-profile deaths, rather than systemic, over-time grievances. Protests that occurred in cities where no unarmed individuals were killed by police during the year in question, in contrast, can be thought of as “solidarity protests”. Table 6 asks whether such “solidarity protests” were more common in cities where, in the years leading up to the protest year, more people had been killed by police. As Models 1-3 in Table 6 demonstrate, the relationships that we saw in the full set of cities remain almost entirely unchanged for the resource mobilization and opportunity structure variables. The point estimate on the relationship between black police-caused deaths per capita in fact increases slightly, and remains statistically significant. Holding all other variables at their means, going from zero to one police-caused death of a black person in a city of 100,000 predicts a 31% increase in protest activity. The point estimate on all police-caused deaths per capita also increases, but this variable is statistically not significant. We conclude that the correlation between deaths of black people at the hands of police and the frequency of Black Lives Matter protests is not limited to the cities that experienced a surge of protest activity following an unarmed death during the protest year.

Discussion

In this paper, we have examined the correlates of in person Black Lives Matter protests in U.S. cities with a population over 30,000 in the time period August 9th 2014 (the day of the shooting death of Michael Brown) and August 9th 2015. We use existing social science theories regarding

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60 We also tested a variable for unarmed black police-caused deaths per capita; the estimate for this variable was larger and highly significant, but because the result was driven by a few data points (almost unavoidably, given the sparse data), we do not feel confident in the robustness of the result and so do not present it here. Additionally, re-introducing the previously dropped additional political opportunity structure variables into the regression with Black deaths per capita does not substantially change the point estimate of the coefficient on Black deaths, but does increase the standard errors so that the estimate becomes marginally significant.
the emergence of protest movements to develop predictions for where BLM protests are most likely to emerge, and test these predictions against an original dataset of BLM protests. We find support for each of the three approaches we consider: resource mobilization, political opportunity structure, and grievance theory.

We find support for a resource mobilization theory of protest in the form of a curvilinear relationship between protest frequency and poverty among African-Americans. This result fits with previous research suggesting that protest is most common not among the most or least resourced, but among those in the middle. Similarly, and also in line with resource mobilization theory, localities with a more educated population and a larger local college enrollment have more protests.

We also find some support for a political opportunity structure approach to explaining protest activity: BLM protests are more common in cities with a higher Democratic vote share in Presidential elections. We also tested other plausible measures of political opportunity structure, and found that a history of NAACP organization, mayoral partisanship, and mayoral race do not predict BLM protests.

Finally, we find evidence for the grievance theory of protest in the form of a relationship between local police-caused deaths of black people and the probability of protest. To explain this surprising result, we observe that police-caused deaths have properties that set them apart from more diffuse grievances: they are visible (in the age of mobile technology), directly connected to a state actor, and amenable to concrete policy propositions at the local level.

As we noted in our theory and literature sections, we believe that this last, surprising result may be a consequence of psychological factors that facilitate a) the classification of a circumstance as a grievance and b) acting on the grievance through protest activity. The factors particularly highlighted in the literature as important for this process are in-group identity, blame assignment, and feelings of efficacy, all of which are relevant in the current context. First, BLM protests emerge from the African American community with a documented strong sense of in-group identification. Second, the visibility of these grievances (which has recently increased through advances in technology), and their concrete connection to a state actor, facilitate the process of blame assignment. Third, the visibility of the grievances and the local nature of the potential reforms required may facilitate feelings of efficacy. Thus, we argue, the grievance theory of protest may apply in this case because of these specific features of police-caused killings. Our findings will hopefully contribute to refining the predictions of grievance theory, in addition to shedding light on the situations in which BLM protests occur.

There are important limitations to our data and results. While we have attempted to be comprehensive in our search for Black Lives Matter protests, there are surely protests we missed,
including what could be a substantial number of small protests that did not leave enough of a media footprint to appear in our dataset. Additionally, though the federal government has recently moved to create an official database of police-caused deaths, we remain reliant on non-profit sources for the years of interest to our study, and those sources may also be incomplete.

In addition, the interpretation of the correlations we identify here requires careful consideration. Though a local history of police-caused deaths of black people predicts BLM protest activity, we do not know that the variable we are measuring is precisely that which spurred protest. It is easy to imagine that police-caused deaths correlate with a broader array of police behaviors, including patterns of over-policing and police brutality, and that these other factors are the grievances that inspired protest. Unfortunately, data on these more specific aspects of local policing are spotty at best. In part because of the Black Lives Matter movement, there is a resurgence of scholarly interest in patterns of policing coupled with greater propensity on the part of (at least some) police departments for transparency. These dual trends may, over time, allow for the testing of more specific hypotheses regarding the aspects of policing that provoke grievance and protest.

Finally, while we have alluded to some putative impacts of the BLM movement—notably a federal push for greater police department transparency—our new data set offers a potential opportunity to explore the efficacy of protest. Because the BLM movement has been so specifically targeted towards a clear local agent of state repression—the police—it is possible to investigate whether (and where) protest activity is impactful. For example, are locales with more active BLM movements more likely to see reforms to their police departments? Are such locales more likely to move towards greater data transparency? Or, is BLM most effective by bringing national attention to local police repression, forcing policy changes at higher levels of government? We hope that future research is able to build upon our novel data and theoretical framework to begin to explore not only when grievance leads to action, but when it leads to effective action.

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62 With this data, we also cannot say speak to the circumstances in which police brutality may be more likely to occur. For example, police-caused deaths or police brutality may correlate with other features of cities, such as residential segregation, poverty, or crime rates. In this paper, we do not address the issue of the origins of police brutality, and therefore have not sought to control for variables that may explain this key independent variable. It remains possible, therefore, that some features of urban life in America predict both police brutality and protest responses to such brutality. The focus of this paper is to establish the predictors of protest activity; our data does not allow us to establish causality and we do not claim to have done so.

These issues notwithstanding, while better understanding the emergence of the Black Lives Matter movement is in and of itself an important exercise given the movement’s political and social salience, our results also help point towards a broader understanding of when protest activity might emerge in the context of state repression. As we enter into a presidential administration that many policy observers—including participants in the BLM movement—fear may be characterized by increased state repression, we hope that our results will be useful not only to researchers but also to political actors who seek to contextualize and understand protest activity. The need for high quality scholarship on the political correlates and consequences of state repression in the United States remains great, and we hope to read other excellent work that goes beyond our movement case study to help us fully understand how the actions of state actors affect our democracy.