

Trauma & Turnout: The Political Consequences of Traumatic Events

WAYDE Z.C. MARSH *Washington University in St. Louis*

How do traumatic experiences shape individuals' political behavior? Political scientists have investigated the behavioral changes caused by natural disasters and terrorist attacks, but no work to date has investigated the political consequences of such events using the framework of psychological trauma. In this study, I develop a theory of post-traumatic political response that explains how traumatic events affect voter turnout. To test this theory, I identify the effects of three different types of traumatic events: Black Church arson attacks, mass shootings, and natural disasters. I find that a traumatic event decreases turnout in the next presidential election by 0.5-3.7 percentage points, but Black social identity conditions this effect—church arsons and Hurricane Katrina mobilize Black voters. Finally, I find that closer temporal proximity to an election increases the likelihood of a mobilizing effect.

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Postdoctoral Research Fellow, Weidenbaum Center on the Economy, Government, and Public Policy and the Department of Political Science, Washington University in St. Louis, marsh@wustl.edu. ORCID: <https://orcid.org/0000-0003-1079-867X>.

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In June 2015, the world watched in horror as news broke of a tragic mass shooting at Charleston's Mother Emanuel African Methodist Episcopal Church. Black parishioners welcomed a white man into their Wednesday night prayer service before he began shooting, ultimately killing nine members of Mother Emanuel's congregation. In response, party elites and social interest group leaders across the political spectrum condemned this as an act of terrorism against the Black community. Every major news network covered the event, sharing survivor accounts of the horrific attack and documenting the devastating loss of life as well as the reverberations of trauma the attack instilled in Black Americans across the country. But, would this mass tragedy intimidate the Black community from voting or would it mobilize them?

Mother Emanuel has, since its founding in 1817, been a symbol of Black hope and the struggle for Black equality for the Black community in and around Charleston. According to prior studies in psychology, it is likely that an attack on such a symbolic and meaningful institution would impact the psychological health and thus behavior of those with a geographical and/or social identity tie to the church (Nader et al. 1993; Pfefferbaum et al. 2001; Benight and Harper 2002; Dyb et al. 2014; Muldoon et al. 2017). This suggests that this event is likely to have traumatized many Black Charlestonians, perhaps impacting their political behavior. From 2012 to 2016, overall turnout in Charleston County increased about two percentage points from 45.4% to 47.1%, but is this change in turnout related to this traumatic event? Further, would the effect be different for White and Black Charlestonians?

In recent years, a number of high profile tragedies, such as terrorist attacks, school shootings, and natural disasters have both traumatized Americans and had profound political effects. Yet, the politics of trauma remain under-theorized and under-examined by scholars. Due to the massive growth in access to the internet, the 24-hour news cycle, and the plethora of social media platforms, as well as climatic and cultural changes, mass exposure to news about traumatic events is becoming increasingly common. As a result, what was once considered "extraordinary politics" is becoming the new "ordinary politics" as the public thinks of traumatizing events in increasingly political terms (Atkeson and Maestas 2012).

While previous research examines the effects of major terrorist attacks (Davis and Silver 2004; Huddy, Feldman, Taber, and Lahav 2005; Hersh 2013), mass shootings (Barnes, Hanson, Novilla, Meacham, McIntyre, and Erickson 2008; Hassell, Holbein, and Baldwin 2020), and natural disasters

(Healy and Malhotra 2009; Gasper and Reeves 2011; Atkeson and Maestas 2012; Fowler and Hall 2018), the plethora of psychological forces at play create a rich, but confusingly complex tapestry of explanations. In all of this work, the role of trauma in explaining political behavior is often omitted or deemphasized. Largely, this is because it is difficult to isolate the causal effects of trauma, which one cannot ethically manipulate randomly. But, in leveraging the exogenous nature of certain types of mass tragedies, it may be possible to begin identifying the effect of trauma on political behavior.

As exposure to traumatic events increases with the nationalization of many traumatic events, post-traumatic psychological responses among the mass public likely play an increasingly important role in American politics. In particular, traumatic events may create a democratic problem. If traumatic events induce a mass stress response, individuals affected by the event may not participate in politics. Studies confirm that poor health decreases participation in politics and that healthier people are better represented in the U.S. (Ojeda and Pacheco 2019; Pacheco and Ojeda 2020). This is, in and of itself, a major concern for American democracy. Even more troubling, however, is the fact that trauma is experienced more often by certain groups than by others. Black Americans, women, and lower socio-economic status individuals bear the greatest burden of trauma exposure and are more likely to develop more severe and long-lasting stress responses to this exposure (de Jong et al. 2001; Hatch and Dohrenwend 2007; Muldoon 2013; Dyb et al. 2014; Muldoon et al. 2017; Cowden Hindash et al. 2019; Muldoon et al. 2020). Identifying the effect of traumatic events on voter turnout, therefore, is crucial in measuring the health of American democracy—if traumatic events do decrease turnout, is this driven by those most likely experiencing stress reactions, who also already wield the least power in American politics?

In this article, I develop an individual-level theory of post-traumatic political response to mass tragedies. I then derive three empirical predictions from this theoretical framework about the effect of a traumatic event on voter turnout, conditioned by geographic proximity, temporal proximity, and shared salient social identity. Using county- and individual-level census and turnout data, along with records of Black Church arson, mass shooting, and natural disaster occurrence, I test these predictions in U.S. presidential elections from 1976-2016. These analyses support my theory of post-traumatic political response. I find that traumatic events decrease turnout in the next election by about 0.5 to

3.7 percentage points, a substantively significant effect. I also find that the closer a traumatic event occurs to an election, the more likely it is to increase turnout, but turnout reverts to the mean as events occur further in advance of an election. Finally, I find evidence that Black social identity increases the likelihood of turning out to vote in counties that have experienced a racialized traumatic event. I conclude that traumatic events have a demobilizing effect in American elections, through the mechanism of post-traumatic stress-demobilization responses, but that Black social identity provides important resiliency resources. This study combines a variety of data sources to investigate the effects of three mass tragedies on American political behavior, finding evidence that these traumatic events have important political consequences.

THE POLITICS OF TRAGEDY

Devastating hurricanes, tornadoes, wildfires, and the subsequent environmental displacement, terrorist attacks, mass shootings, sexual violence—these mass tragedies seem ever-present in contemporary American society. Such tragedies are not new challenges previously avoided by human society, though climate change, increasingly non-restrictive gun laws, and the expansion of terrorist organizations and terrorism as a foreign policy tactic all may increase the occurrence of such politically-relevant traumatic events. For example, according to the Federal Emergency Management Agency (FEMA), there were no more than 56 federally declared disasters in the U.S. in any given year from 1953 (when FEMA records begin) to 1995. Since 1995, however, that number has hovered around 100 disasters with a high of 241 in 2011. Although part of this increase may be the effects of political considerations in the declaration of disasters, this seems to suggest an increase in the number of mass tragedies over time.

Regardless of any absolute increase in the occurrence of events, there is unquestionably an increase in the coverage of such events and, relatedly, an increase in the political attention paid to them. Accordingly, two conceptually distinct, but related processes relevant to the politicization of traumatic events have occurred nearly simultaneously over the past several decades: 1) the nationalization of media that exposes a broader range of Americans to traumatic events more regularly and 2) changes in expectations of government responsibility.

The consistent shocks to the American political system from these occurrences are rooted in

the contemporary American public's increased and consistent exposure to them. The expansion of traditional media, the rapid growth in access to the internet and social media, the development of cable news networks, and the nationalization of politics have created a news environment in which Americans consistently face tragic news of traumatic events (Barnes et al. 2008; Metzl and MacLeish 2015). A prime example is Hurricane Season, which only affects one part of the country but is featured in prime-time programming on national news networks for several months. Even with this nationalization, however, those most closely tied to a region impacted by such tragedies are most likely to develop strong psychological responses. So in the case of hurricanes, while national audiences witness the destruction, it is those on the East Coast of the United States who are most likely to develop strong post-traumatic stress responses by the increased exposure to such events as they are most likely to be in danger themselves, be reminded of past experiences of hurricanes, and have stronger social identity ties to the places hit by hurricanes. Moreover, as I discuss below, the type of traumatic event matters for the trajectory of post-traumatic psychological responses.

Beyond this increase in news coverage and thus increased exposure, expectations of government to intervene in response to traumatic events have changed over time, and continue to change for different types of traumatic events. The norm that political leaders respond to these events in order to build solidarity in the wake of tragedy has increased in recent decades and expanded to events beyond foreign wars (Hawdon and Ryan 2011; Campbell 2000). In contemporary American politics, this norm expects political elites, especially presidents and governors, to respond to a wide variety of traumatic events. In past eras, however, this expectation centered largely around executives' immediate response to national security threats (Sturm 1949; Mueller 1973; Norrander and Wilcox 1993; Azari 2013), what Alexander Hamilton called "energy in the executive" in *Federalist 70*. With the Great Depression and Franklin D. Roosevelt's New Deal, this expectation of government responsibility for threats to national security expanded to economic crises. As Roosevelt spurred the federal government to take greater responsibility for economic crises (Sturm 1949; Brownlow 1949), public expectations about government responsibility expanded to a growing collection of traumatic events. This broadening of government involvement has made traumatic events increasingly political, and perhaps partisan.

Mass tragedies increasingly command the attention of political elites and of the mass public.

Intuitively, then, we may expect that these exogenous traumatic shocks to the American political system leave important changes in their wake. Political scientists have already begun identifying the negative and positive political outcomes of such events for the mass public. For example, previous research finds large increases in rates of post-traumatic stress responses in the wake of the 9/11 terrorist attacks (Schuster et al. 2001; Silver et al. 2002; Ford et al. 2003). Another study finds that the events of 9/11 caused greater political activism and advocacy among victims' family members (Hersh 2013). But, this research concerns only one type of mass tragedy. Further, what are the effects of traumatic events on a more consequential political outcome, voting?

Previous research investigates how some traumatic events affect vote choice, but the psychological processes of post-traumatic response point towards a more general question of how such events impact voter turnout. Some scholars go so far as to identify a “myopic rationality,” which leads voters to blame and thus electorally punish incumbent elected officials for any such event which impacts the voter, regardless of incumbents' ability to prevent or aid recovery from the event (Achen and Bartels 2016; Heersink et al. 2017)—though other work questions some of these findings (Fowler and Hall 2018; Healy and Malhotra 2009). Other research contends, for example, that voters reward governors who seek federal assistance and punish presidents who reject these requests (Gasper and Reeves 2011). In short, increased exposure to traumatic events along with changing expectations of government responsibility for responding to traumatic events may increase general exposure to trauma. But, these mechanisms of exposure also typically frame events so as to blame some group of elected officials for a failure to prevent or effectively respond to the event. Such blame processes can impact vote choice and attitudes, suggesting that it may also affect the decision to vote at all.

The present study asks a question about the most important political behavior, voting: Do traumatic events cause a decrease in turnout? While Hersh (2013) identifies an increase in political participation among family members of 9/11 victims, it is unclear whether this pattern applies to other traumatic events. Further, studies of single types of traumatic events' electoral effects may be susceptible to contamination from practical impediments. That is, after a natural disaster, for example, infrastructure challenges may make it physically difficult for voters to get to a polling place or they may be displaced and unable to vote absentee. I develop a theory of post-traumatic political response, therefore, which

identifies the conditions in which traumatic experiences encourage or discourage participation in elections. In identifying the effect of Black Church arson attacks, mass shootings, and natural disasters on voter turnout as well as the conditioning roles of temporal proximity and social identity to an election, this study empirically measures the heretofore unidentified role of trauma in electoral behavior.

A THEORY OF POST-TRAUMATIC POLITICAL RESPONSE

While previous work has identified some of the important political consequences of terrorist attacks, mass shootings, and natural disasters, this study brings all three together to identify the causal effect of traumatic events on American electoral behavior. Each of these events are major tragedies in American society, but it is trauma that links them all together as one type. To clarify this claim, I develop a theory of post-traumatic political response. To do so, I define trauma and traumatic events, examine post-traumatic psychological responses, and identify the specific post-traumatic political responses I expect for the types of events under investigation.

What is Trauma?

Trauma is a contested and perhaps overly-employed term in American news, scholarship, and ordinary language. The concept of psychological trauma was developed and is maintained by those treating survivors of trauma and represents a particular type of trauma. Even still, psychologists debate the definition of “trauma” and what its effects might be on human behavior (Weathers and Keane 2007; Wakefield 2016). Despite these ongoing debates, working backwards from the diagnostic criteria from clinical psychology provides a useful and workable definition for this study.

The *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition entry for diagnosing post-traumatic stress disorder¹ requires “actual or threatened death, serious injury, or sexual violence,” thereby excluding stressful events that are typically not an immediate threat to life or physical safety such as divorce, job loss, or other psychosocial stressor events (APA 2013). In this study, therefore,

¹In this study, I intentionally avoid using language of “disorder”—see section the Theoretical Elaboration section in the SI.

trauma is the experience of reasonably perceived threat of or actual death or serious violence. By extension, traumatic events are events in which there is a reasonably perceived threat of death or serious violence or actual experience of death or serious violence during the event or in its aftermath.

Post-Traumatic Responses

When an individual experiences a traumatic event, the cognitive schemata that individual uses to understand how the world works and is structured are broken. In the wake of a traumatic event, survivors must reconstruct these schemata and two psychological responses, stress and growth/resilience, are the primary means to begin this process.

Post-traumatic stress is the most commonly discussed psychological response to traumatic stimuli, but it is a relatively rare reaction. Post-traumatic stress reactions include many negative psychological responses, including: distressing memories and nightmares of the event, dissociative reactions (flashbacks), distress upon seeing symbols of the event, avoidance behaviors, memory lapses, increased distrust of others, self-blame, negative emotions (fear, anger, guilt, shame), decreased participation in social activities, and isolation and detachment (APA 2013). These are all indicators of poor health and poor health can decrease the likelihood of turning out to vote (Lyon 2021). Such negative psychological and physical symptoms characteristic of post-traumatic stress should then manifest politically as decreased trust in government, estrangement from social and political networks and activities, and increased reliance upon negative emotions in political decision-making. For the present study, the most important political consequence of post-traumatic stress political response is demobilization, whereby through increased interpersonal and governmental distrust and estrangement from social and political networks, individuals who have experienced a traumatic event are less likely to participate in politics, namely voting.

Post-traumatic growth/resilience is defined as “positive psychological changes experienced as a result of the struggle with traumatic or highly challenging life circumstances” (Tedeschi, Shakespeare-Finch, Taku, and Calhoun 2018). This is a process by which people create individualized versions of the basic cognitive categories that help them interpret experiences of trauma and to understand their self, future, and world in light of this experience (Tedeschi et al. 2018; Janoff-Bulman 1992).

Surviving trauma can build resilience and motivate action through hope, an appreciation for life, and a stronger ability to relate to others (Tedeschi et al. 2018), especially when a social identity is made salient through the traumatic experience (Muldoon et al. 2020). This response should manifest itself politically as an increased engagement in social and political activities, greater trust in others and in government, and reliance upon more positive emotions in political decision-making. Most important for this study is that a post-traumatic growth political response should mobilize voters, causing an increase in turnout. This should be especially likely when social identity is made salient so as to provide resources to allowing relation to others.

Who Experiences Trauma?

When a traumatic event occurs, an individual experiencing the event may (or may not) experience trauma and respond with stress or growth/resiliency responses, or some combination of both. The stress and growth/resilience responses to traumatic events not only impact the individual experiencing the event, but also family and friends of survivors, those witnessing the event, and even individuals who have a social connection either to the primary victim(s) or to the geographical or cultural location of the event. Social psychological studies of post-traumatic stress responses in the wake of various terrorist and warfare events around the world find that individuals who had lived in the geographical area experiencing the event, had family in the area, or some other close personal tie to the area, displayed post-traumatic stress symptoms (Nader et al. 1993; Pfefferbaum et al. 2000; Pfefferbaum 2001). Further studies find that even exposure to such traumatic events on television can cause post-traumatic stress responses when viewers have a psychological attachment to the geographical area impacted (Pfefferbaum et al. 2001; Schuster et al. 2001; Silver et al. 2002; Ahern et al. 2002; Schlenger et al. 2002).

Beyond the traumatizing impact on individuals directly experiencing the traumatic event, their close friends and family members, witnesses, and those with close personal ties to the victim group or area, traumatic events often trigger those who have previously experienced trauma in one of the above listed ways. Studies of veterans, refugees, and immigrants confirm that traumatic events of similar type, in the locations where their trauma was first activated, or with other similarities reactivate or

“trigger” those previous post-traumatic responses, even if there was no adverse stress response to the initial traumatic exposure (Long et al. 1994; Elliott 1997; Kinzie et al. 2002).

Further, research shows that even if one is not present during the actual traumatic event, strong connections to the location experiencing the event can cause a post-traumatic stress response or, if one has previously experienced such trauma, trigger that traumatic stress (Pfefferbaum et al. 2000; Pfefferbaum 2001), even if an individual witnesses the events or the aftermath on television (Pfefferbaum et al. 2001). Extensive social psychological research finds that trauma is not distributed equally across the population, but instead is structured by social identity. Racial-ethnic minorities, women, and lower socio-economic status individuals are more likely to experience traumatic events, and are more likely to develop stress responses to traumatic stimuli (Muldoon 2013; World Health Organization 2011). But, it is also the case that social identity can increase the likelihood of growth/resiliency responses to trauma.

Traumatic events have long-term and wide-reaching effects on an exponentially increasing number of people, especially in an age of social media and 24-hour news cycles. Advances in social media translate to increased opportunities for exposure to videos, pictures, and stories of trauma, which may expand the scope of viewers who may be traumatized or, more likely, have their trauma reactivated. And so, there are both mobilizing and demobilizing forces pressing on this increasingly growing subset of the American population, but the type of event also structures which post-traumatic responses they will express.

Identifying Politically-Relevant Traumatic Events

As stated above, a traumatic event is an event that causes a near-death experience, sexual violence, or serious harm and manifests as either post-traumatic stress or growth/resilience responses. Such a definition includes many different types of events, but not every type of traumatic event will be politically relevant. I therefore propose three criteria for a traumatic event to be politically-relevant and thus follow the patterns of post-traumatic political response. The criteria ensure that the traumatic events included in this study involve government action, which makes them inherently political, but also that they all involve debate and contention about how the government should act (Birkland 1998; Gerber 2007). Meeting any one of these criteria make a traumatic event politically-relevant, though

some may meet more than one.

First, a traumatic event must be an event that by law or historical precedent demands a governmental response of some measurable quantity in an effort to minimize damage and rebuild resiliency in affected communities (Birkland 1997; Col 2007; Comfort et al. 2010). This criteria would make major natural disasters, which are threats to public safety and economic stability and have a precedent of major governmental response, politically-relevant in that they involve government action.

Second, a traumatic event must be of a scale and severity so as to make a governmental response imperative (Gerber 2007). Major natural disasters fulfill this criterion because they inflict a massive toll both in the number of lives they claim and in the economic cost the communities hit by them incur in damages and in stalled economic activity. In this way, a traumatic event is politically-relevant because the massive scale enjoins multiple levels of government to take action to mitigate the negative effects to citizens' safety, well-being, and livelihoods.

These first two criteria provide the basis for identifying types of events that are politically-relevant in a very surface level way: they involve governmental action. But, the types of traumatic events most likely to produce the post-traumatic political responses I am interested in identifying involve a third criterion which moves beyond government action to debate and contention about that action. Efforts to help a community recover and rebuild from the events that by law or historical precedent (criterion one) and/or by scale and severity (criterion two) demand a governmental response are also opportunities for policy demanders to intervene in attempts to achieve particular policy goals (e.g., focusing events see Birkland (1997); Birkland and Lawrence (2009); Hassell et al. (2020)), leading to debate and contention about how and to what extent government is involved.

And so, a traumatic event may become politically-relevant if it is made so by policy demanders. This final criterion makes events such as mass shootings politically-relevant traumatic events. On their own, these events are tragic and traumatic, but not necessarily politically-relevant on face value as they often do not inflict a death or economic toll as prolonged and great as that of large natural disasters such as to warrant an executive response, nor do they generally fall under the purview of the government, aside from being isolated criminal justice concerns. Policy demanders reveal these events' political relevance, however, when they teach the mass public about the underlying, systemic

patterns that characterize such events across time and space. That is, when policy demanders such as Black Lives Matter draw connections between racism and policing practices or when #MeToo draws connections between misogynistic and abusive work, domestic, and legal norms and the incredibly high rates of sexual violence against women, these traumatic events become politically-relevant in that the events encourage debate over how the government should respond.

Cases

In this study, I restrict empirical analysis to three different types of persistent traumatic events in American society: Black Church arson attacks, mass shootings, and natural disasters. In the case of each, large numbers of survivors perceive the threat of death or serious violence, the events are public, under the legal or publicly-expected purview of government responsibility, or especially salient or wide-spread with policy demanders revealing political relevance. The population of traumatic events is much larger, but this initial study provides a foundation for empirical analysis of other types of events. I elaborate on these cases further in the Cases section of the supplementary information.

Black Church arson attacks are a particularly heinous event in American history and society. These attacks are politically-relevant traumatic events because they are crimes (i.e., threats to public safety); terrorist attacks, intended to traumatize Black Americans; and because policy demanders teach the American public of their political relevance. In this case, it is also important to note that these attacks are not simply done out of rage or hatred, but are very clear in their target (Black Americans) and in their explicitly political message (stop demanding political, social, and economic equality that threatens white dominance).

Gun violence is a growing problem in the U.S., a problem made especially evident in mass shootings. Mass shootings are less tied to a particular social identity than are Black Church arson attacks, but are likewise public and (relatively) rare. While gun violence is a common and persistent problem in the United States, mass shootings, which cause at least three deaths and occur in public places, are few in number, but large in traumatic reach. As with Black Church arson attacks, mass shootings are politically-relevant traumatic events because policy demanders have played a role in making these events politically-relevant and they are crimes that represent public safety concerns.

Finally, natural disasters are a persistent and, due to climate change, increasingly serious concern in American life. Such events affect massive numbers of Americans and cause loss of life, physical harm, destruction of property and infrastructure, and displacement. Further, such events cause millions and sometimes billions of dollars in economic damage and lost economic activity. As such, these events are politically-relevant traumatic events because of their clear trauma-inducing effects and their incredibly wide reach of lives threatened or lost.

Expectations

The type of traumatic event structures expectations about the post-traumatic psychological (and thus political) response. Post-traumatic stress (PTS) is most likely to occur and most likely to have more severe health and behavioral effects when a traumatic event is interpersonal and intentional, meaning that the event occurs between people (a car accident versus a tornado) and that the individual perpetrating the event is doing so on purpose (a mass shooting versus a car accident) (Matthieu and Ivanoff 2006; Van der Velden, Grievink, Kleber, Drogendijk, Roskam, Marcelissen, Olf, Meewisse, and Gersons 2006). While natural disasters are least likely to cause severe and increasing post-traumatic stress-demobilizing responses as they are not defined by human violence, intention, or negligence, they are still tragic and uncontrollable events that increase uncertainty.

Social psychologists consistently find post-traumatic stress responses among those in close geographical proximity to the event (Nader et al. 1993; Pfefferbaum et al. 2000; Pfefferbaum 2001; Pfefferbaum et al. 2001). While I expect the effects to be particularly pronounced for Black Church arson attacks and mass shootings, because of the above findings about interpersonal-intentional traumas, I expect to see similar (though dampened) effects after natural disasters as well. This is because in all three events, living in close geographical proximity to the site of the event increases threat and fear perceptions as it is more likely that an individual in that geographical area may live near the location, may be at or near that location regularly, could have reasonably been a victim of the event, or may personally know a victim. As such, my first hypothesis about *geographical proximity* is:

Traumatic events will decrease turnout in the next election among those within close geographical proximity of the event. (H1)

Temporal proximity is also an important component for understanding the effects of traumatic events on post-traumatic stress and growth/resiliency responses. Psychological and psychiatric studies find that there are multiple trajectories of post-traumatic stress symptoms such that overtime after traumatic exposure, individuals may experience no change, an increase, or a decrease in both post-traumatic stress and post-traumatic growth/resiliency responses (Dickstein et al. 2010; Self-Brown et al. 2013; Lowe et al. 2014; Osofsky et al. 2015). These trajectories and rates vary in likelihood by the type of traumatic event and the social mediators at play (Dickstein et al. 2010; Self-Brown et al. 2013; Lowe et al. 2014; Bryant et al. 2015; Osofsky et al. 2015). For example, natural disaster trauma survivors most often demonstrate a chronic, but consistent, PTS trajectory or a decreasing PTS trajectory (Osofsky et al. 2015). Other studies find that individuals who have suffered interpersonal-intentional traumatic events experience an increase in PTS symptoms over time after the event, while individuals who experience non-intentional traumatic events tend to experience a decrease in PTS symptoms over time after the event (Van der Velden et al. 2006).

In other words, when the event is intentional, as Black Church arson attacks and mass shootings are, post-traumatic stress-demobilizing responses should not only persist as time goes on, but increase, while unintentional traumatic events (i.e., natural disasters) should engender a decrease in post-traumatic stress-demobilizing responses over time. Important in decreasing PTS responses and increasing PTG/resiliency responses is the availability of social resources (e.g. social support) (Lowe et al. 2014). When an election is proximal to a traumatic event, it provides survivors with those social resources that may promote a PTG response and limit PTS responses. That is, when a traumatic event is shortly before an election, because of changing expectations of government, political elites are more likely to speak about the event and provide necessary social and economic resources to impacted communities, or at least promise to send resources. As such, an event that is closer to an election should make available the social resources necessary to increase the likelihood of a post-traumatic growth-mobilization political response. On the other hand, when a traumatic event occurs further in advance before an election, there is less incentive for political elites to respond as robustly and even if they do, there is time for the provision of social and economic resources to decline. This means that as the event is further in advance of an election, it is more likely that the declining access to social and economic resources

drives post-traumatic stress-demobilization.

I, therefore, have different expectations about the effects of temporal proximity based on the specific type of traumatic event. In the case of Black Church arson attacks and mass shootings, the post-traumatic political response should be one of demobilization, and notably demobilization that increases over time as PTS reactions increase in the time after the event. Natural disasters (because they are not interpersonal and intentional), however, should see a decrease in post-traumatic stress-demobilization because PTS decreases over time, leading to the second hypothesis about *temporal proximity*, broken into three parts:

The closer a Black Church arson attack or mass shooting event is to an election, the more likely it is to cause a mobilizing effect. (H2_a)

The further a traumatic event is from an election, the more likely it is to cause a demobilizing effect. (H2_b)

The demobilizing effects of natural disasters should decrease over time. (H2_c)

Post-traumatic growth-mobilization (PTG) responses, however, are likely to form when there is a strong social identity attachment for survivors to form with one another. Traumatic events can consolidate community or social identities (Hutchison 2010; Drury et al. 2009; Muldoon and Lowe 2012), but the simple fact of having a strong identity can contribute to personal strength, empathy, and appreciation for life, among other post-traumatic growth/resilience outcomes in the wake of a traumatic event, especially when one's group provides coping resources (Antonovsky 1979; Benight and Harper 2002; Benight 2004; Jetten et al. 2012; Muldoon et al. 2017). The resources for such connection, which leads to post-traumatic growth-mobilization should be most prevalent in the case of Black Church arson attacks.

The Black Church is a crucially important and unique social and religious institution that holds a particularly important place in understanding Black turnout, especially in the South (Vedlitz et al. 1980; Murphy 2000; McClerking and McDaniel 2005; McDaniel 2008, 2013; Gates Jr. 2021). Because of this, the Black Church is a main source of social support and of political mobilization for many Black communities. This support is important in the development of post-traumatic growth responses through resiliency (Brown 2008).

Previous studies of Latinx political behavior find evidence of “threat mobilization” in which introduction of anti-immigrant policies are associated with increased turnout among Latinos (Ramírez 2013; White 2016). Studies of Black political behavior during the Civil Rights Era find that solidarity with the Black community and increased perceptions of repression against Black Americans encourage voting (Beyerlein and Andrews 2008). More recently, studies find that exposure to officer-involved deaths of Black victims increases voter turnout among Black respondents (Burch 2021).

Based on these findings, the unique history of oppression of Black individuals in the U.S., and the explicitly racialized and political nature of Black Church arson attacks, I expect that Black social identity should have a strong conditioning effect in the form of a “boomerang effect” (Lodge and Taber 2013). That is, Black Church arson attacks are typically done to send a threatening message to Black Americans attempting to stop them from acquiring equal rights and yet, the shared social identity and the social support it provides increase the likelihood of a post-traumatic growth/resiliency-mobilization political response. This leads to my third hypothesis about *shared social identity*:

Traumatic events will increase turnout in the next election among those with shared social identity of the primary survivors of the event. (H3)

EMPIRICAL DESIGN

Data

To identify the political consequences of traumatic events, I utilize time-series cross-sectional data at the county-level from 1976 to 2016 and at the individual-level from 1992-2016. Previous social psychological work identifies a strong post-traumatic stress response among those in close geographic proximity to a traumatic event. The smallest geographical unit with consistently accurate turnout estimates is the county-level. I therefore focus the analysis testing the first and third hypotheses on county-level data.

I also use the U.S. Census Bureau’s Current Population Survey, Voter Supplement to identify individual-level trends to test my second hypothesis. While the CPS data are not representative at the county-level, they are representative at the state-level and provide a very large sample of respondents.

Due to this large sample, I am able to identify a large state-representative sample of respondents who are affected and not affected by traumatic events in each election year period.

To identify the occurrence of traumatic events (the treatment variable) and turnout at the aggregate-county and individual levels (the dependent variables of interest) I combine various county-level data sets. I acquire a database of county-level turnout from 1976 to 2016, by combining total vote data from David Leip's Presidential Election Atlas, Congressional Quarterly, and the U.S. Census Bureau with voting age population (VAP) from the U.S. Census Bureau. To identify individual-level turnout, I use the aforementioned CPS. I identify the occurrence of traumatic events at the county-level for both the county-level and individual-level analysis. That is, in the individual-level data, I consider an individual respondent treated if in that four-year election cycle, their county of residence experiences one of the three traumatic events.

To identify the occurrence of traumatic events, I utilize a variety of sources. First, my analysis of the impact of Black Church arson attacks uses events listed in the National Church Arson Task Force's final report in 2000, which identifies the location of all Black Church arson attacks committed between 1995 and 2000. I limit the analysis to this period due to the highly politicized nature of the attacks as well as the disproportionate number of attacks on Black Churches relative to other houses of worship. While such events have occurred before and after, my analysis is limited to the 1995 to 2000 time period, meaning I can identify the impact of these traumatic events on elections in 1996 and 2000. There are 268 Black Church arson incidents in this time range.

Next, I use the Mother Jones U.S. Mass Shootings database to identify mass shootings from 1982 to 2016. There are several mass shooting databases and Mother Jones uses perhaps the most stringent criteria for identifying mass shootings. This database defines mass shootings as single incidents that occur in a public place and result in four or more victims killed by the attacker from 1982 to 2012 and three or more victims killed from 2013 onwards (in keeping with a change in the federate mandate which changes the threshold for investigations into mass shooting events).²

²As a robustness check, I run the same analysis on the Stanford Mass Shootings in America (MSA) Database. The analysis estimates effects of similar magnitude and in the same direction, though the estimates are not statistically significant. In the Explanations of the Data section in the supplementary information, I explain the differences between the databases and in the Robustness Checks section, I provide results of analysis using the MSA data.

Finally, I use the Federal Emergency Management Agency (FEMA)'s disaster declarations database to identify natural disasters. The data spans back to 1953 with FEMA's first disaster declaration, but county-level data is not available before 1964. To parallel the other data in the analysis, the dataset includes all disaster declarations (major disaster declarations, fire management, and emergency declarations) from 1976 to 2016. Further, this represents a conservative test as some counties affected by natural disasters, but who did not apply for and/or receive FEMA aid, will not be included in these data. This is likely to be a small amount of cases as these data include both individual and region-wide disaster declarations and the scope of cases included is quite wide.

Methods

In this study, I employ multiple analyses to identify the effect of Black Church arson attacks, mass shootings, and natural disasters on electoral outcomes at the county-level. Due to the bracketing relationship between generalized two-way fixed effects (TWFE) and lagged dependent variable (LDV) models (Angrist and Pischke 2009; Ding and Li 2019), I use both as upper and lower boundaries of the true expected effect of the treatment. TWFE estimates the effect of within-county changes in traumatic event exposure to isolate the independent influence of treatment on turnout. In so doing, this method removes time-invariant confounding characteristics of counties that are correlated with treatment status. Further, TWFE compares the change in a county experiencing a traumatic event (treated) to the same change in a county that did not experience a traumatic event (untreated), controlling for the possibility of secular temporal trends in the outcomes. While panel analysis provides leverage to make causal inferences by tracing how a change in turnout between t and $t + 1$ responds to treatment at t , such analyses do not provide a definitive basis for causal claims. Panel data do, however, yield suggestive evidence about causal direction. As such, I include three additional tests to model this relationship using different assumptions in the SI (see pp. 10-21).³

³Various studies identify that TWFE with staggered treatment data changes the estimand to a variance-weighted average treatment effect on the treated, requiring an assumption of constant treatment effects across units and time periods (Goodman-Bacon 2018; Imai and Kim 2019; de Chaisemartin and D'Haultfoeuille 2019). I follow other papers and continue using TWFE with an acknowledgement of this issue (Harden and Kirkland 2021), but I

The generalized TWFE model takes the following form:

$$V_{ct} = \beta_0 + \beta_1 T_{ct} + \beta_x Controls + \theta_c + \lambda_t + \epsilon_{ct}$$

In this formula, $T_{ct} = 1$ when treatment (Black Church arson attack, mass shooting, or natural disaster) occurs in county c in year t and $T_{ct} = 0$ otherwise, which allows for treatment to start in different counties at different time points. θ_c represents county fixed effects; λ_t represents the year fixed effects; and $\beta_x Controls$ represents the the covariates included in the model as controls: percent of the county population that is Black, the total population of the county, median household income of the county, and in the mass shootings model, total fatalities and total individuals injured. The estimated effect of the treatment is β_1 (the coefficient estimate on the treatment variable), because this estimates the effect of treatment when indexing by county and year and controlling for various other relevant covariates. This approach allows me to account for unobserved or difficult-to-observe time-invariant confounders that are constant within a county within election cycles.

As I note above, I pair the TWFE model with a lagged dependent variable model in order to leverage the bracketing relationship between the two modeling approaches. TWFE models rely upon the parallel trends assumption, but unobserved confounders sometimes have time-varying effects on outcomes, making such an assumption more tenuous. LDV modeling solves this issue, presenting an alternative modeling approach, but involves an assumption of ignorability that is conditional on past outcomes as well as observed covariates. If one assumes parallel trends when the ignorability assumption is correct, the researcher will overestimate the effect for a true positive effect, but if the parallel trends assumption is correct, a mistaken ignorability assumption underestimates the effect (Ding and Li 2019; Angrist and Pischke 2009). The opposite of this is true if there is a true negative effect. In practice, one rarely knows which of the two assumptions hold true, but analyzing the data using both modeling strategies allows me to treat the estimates from each as the upper and lower bounds of the true effect. The LDV model takes the following form:

also include three additional sets of analysis in the supplementary information, using weighted fixed effects (Imai and Kim 2019), time-series cross-sectional panel matching (Imai et al. 2020), and TWFE with unit-specific time-trends (Hassell et al. 2020) in order to relax some of the assumptions TWFE relies upon to estimate effects. These methods all confirm my findings from TWFE and LDV, and in fact find even larger effects.

$$V_t = \alpha_1 V_{t-1} + \beta_0 T_t + \beta_1 T_{cumulative} + \beta_x Controls + \epsilon_t$$

In this model, the estimated effect is β_0 , the coefficient on the treatment indicator variable, while controlling for the lagged turnout (V_{t-1}) and controls (fatalities and injuries for the mass shooting model). I do not include other variables because the lagged turnout variable should capture and account for the effects of any confounders. I also include a cumulative treatment variable, $\beta_1 T_{cumulative}$ (Blackwell and Glynn 2018). This variable is a count of the number of each traumatic event type. The inclusion of the cumulative treatment variables controls for dosage (the number of traumatic events a county experiences within a four-year election cycle) in the LDV model, for additional robustness.

These TWFE and LDV models represent my main analysis of the effect of traumatic events on turnout (to test the geographical and temporal proximity hypotheses— $H1$ and $H2_a$ – $H2_c$). County-level turnout is the dependent variable in these models and the treatment variable for $H1$, testing the effect of geographic proximity, is whether or not a traumatic event occurred in the county in the four-year presidential election cycle. For all three parts of $H2$, testing the effect of temporal proximity, I run the same models with the same dependent variable but with four different treatment indicators: when the traumatic event occurs within three months, within six months, within the election year, and within two years of the presidential election. To account for important within-state differences not captured by the fixed effects, I include the percentage of the county population that is Black, total population, and median household income. See the Explanation of the Data section in the SI for a more thorough discussion of these controls.

Finally, in order to test $H3$, regarding the effect of shared Black social identity, I utilize a TWFE model with an interaction between Black social identity and treatment exposure—this is the coefficient estimate of interest. The dependent variable is whether or not the respondent voted. I use linear regression because this does not drop groups where the dependent variable is all zeros or all ones and thus estimates the effect on the whole sample rather than the effect on a subset of the sample, avoiding unnecessary introduction of bias (Beck 2020).⁴ The model controls for variables known to influence turnout: gender, education, and income and includes two-way county-year fixed effects.

⁴See the Data section of the SI for further explanation of the use of linear regression in this case.

RESULTS

Geographic Proximity

Table 1 provides the results of the TWFE models. I find that the estimated effect of experiencing an arson attack on turnout is statistically and substantively significant at -0.013. This estimate reflects a 1.3 percentage point decrease in turnout for counties that experienced an arson attack on a Black Church. This effect size is enough to potentially impact the results of an election, as previous research finds such a shift is important, especially in close elections (Hansford and Gomez 2010). I also find a substantively significant demobilizing effect of mass shootings at -0.018, reflecting a 1.8 percentage point decrease in turnout for counties that experienced a mass shooting. This estimate is not statistically significant at the $p < 0.05$ level, but is at the $p < 0.10$ level.⁵ While the estimate for the effect of natural disasters on turnout is not statistically significant, it is in the right direction with a coefficient of -0.001. These results consistently demonstrate that traumatic events have a demobilizing effect in that turnout decreases in the next election for counties that experienced one of these traumatic events. Further, I hypothesize that arson and mass shootings, which are interpersonal and intentional will cause especially strong post-traumatic stress-demobilizing political responses compared to natural disasters, for which I find evidence in these results.⁶

Table 2 provides the results from the LDV models for the effect of arson attacks, mass shootings, and natural disasters on presidential election turnout. In these models, I find a statistically and substantively significant estimate for the effect of arson attacks on turnout with a coefficient of -0.037, translating to a 3.7 percentage point decrease in turnout for counties experiencing an arson attack. Counties experiencing a mass shooting experience a 0.6 percentage point decrease in turnout, though the estimate is not statistically distinguishable from zero. Finally, the model estimates a statistically significant 0.5 percentage point decrease in turnout for counties that experienced a natural disaster. Though, as

⁵Tables G.1 and G.2 in the full SI in the Dataverse provide the standardized coefficient and standard error estimates for the TWFE and LDV models.

⁶I find even stronger demobilizing effects of all three traumatic events in weighted fixed effects models (see page 5 of the SI). While the effect sizes from the TWFE and LDV models are not strikingly large, they are substantively important and are similar in magnitude to the effect of lynchings on Black turnout (Jones et al. 2016).

TABLE 1. Effect of Traumatic Event on Turnout, Generalized Two-Way Fixed Effects (county-year) Estimator

	Arson	Mass Shooting	Natural Disaster
Experience Traumatic Event	-0.013* (0.003)	-0.018 (0.010)	-0.001 (0.001)
% of County Pop. Black	-0.109 (0.062)	-0.110 (0.062)	-0.111 (0.062)
Total Population	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)
Med. Household Income	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)
Fatalities		0.002* (0.001)	
Injured		0.000 (0.000)	
Year Fixed Effects	Yes	Yes	Yes
County Fixed Effects	Yes	Yes	Yes
Observations	23,952	23,953	23,952
R^2	0.015	0.015	0.015
Adj. R^2	-0.120	-0.121	-0.121
F-statistic	81.91* (df = 4; 21,051)	53.70* (df = 6; 21050)	79.53* (df = 4; 21051)
County-clustered standard errors in parentheses.			
* $p < 0.05$			

indicated above, this is counties that experience a natural disaster and received FEMA aid afterwards, which should have minimized post-traumatic stress reactions and thus is a conservative estimate of the effect of natural disasters on turnout.

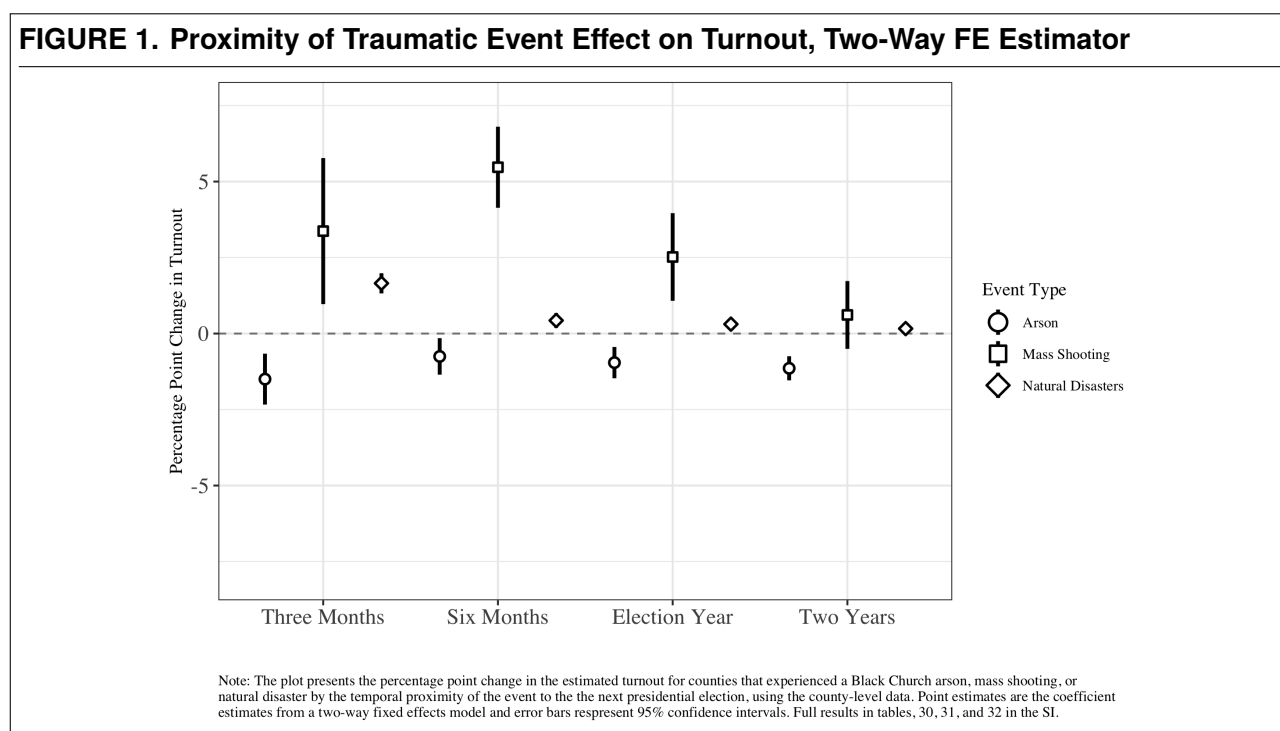
TABLE 2. Effect of Traumatic Event on Turnout, Lagged Dependent Variable Estimator

	Arson	Mass Shooting	Natural Disaster
Experience Traumatic Event	-0.037* (0.006)	-0.006 (0.009)	-0.005* (0.001)
Lagged Turnout	0.794* (0.006)	0.796* (0.006)	0.796* (0.006)
Cumulative Event Treatment	-0.007 (0.004)		-0.000 (0.000)
Fatalities		0.002 (0.001)	
Injured		-0.000 (0.000)	
Intercept	0.121* (0.003)	0.119* (0.003)	0.121* (0.003)
Observations	24,179	24,179	24,179
R^2	0.639	0.638	0.638
Adj. R^2	0.639	0.638	0.638
F-statistic	14270* (df = 3; 24,175)	10630* (df = 4; 24,174)	14210* (df = 3; 24,175)
There are no counties that experience more than one mass shooting, so there is no cumulative event treatment included for this model.			
* $p < 0.05$			

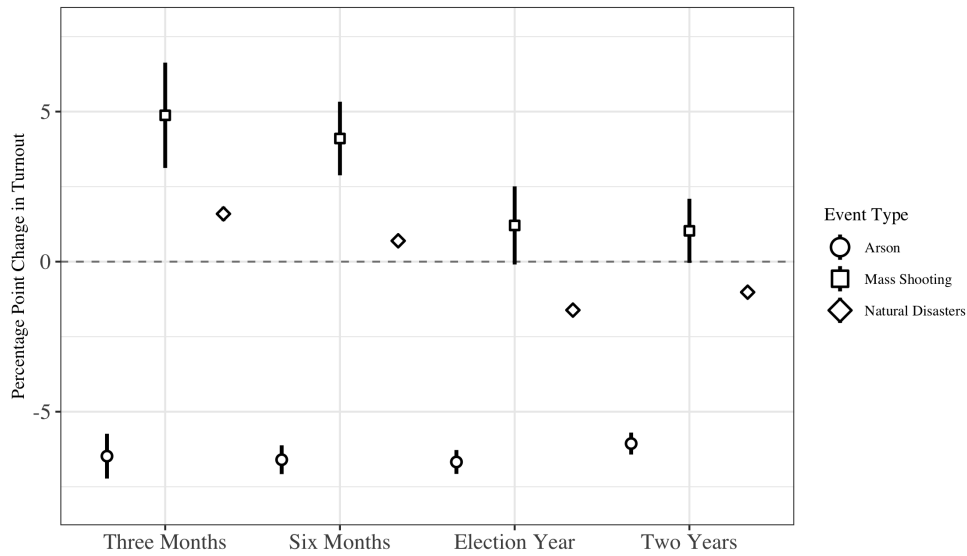
Altogether, these results provide consistent evidence that arson attacks cause a decrease in turnout of between 1.3 and 3.7 percentage points. I find less consistent, yet still convincing evidence that mass shootings and natural disasters decrease turnout by 0.6 to 1.8 percentage points and 0.1 to 0.5 percentage points, respectively, for counties experiencing such events. Notably, I never find a

statistically significant post-traumatic growth-mobilization effect. Instead, I find consistent evidence confirming my hypothesis about the demobilizing effects of traumatic events and this mechanism's potential for creating a serious democratic problem. In an era of close elections, any small decrease in turnout matters for the outcome of the election. Several notable cases in the last twenty years come to mind in which single digit changes in turnout in some states or counties decided the winner of the electoral college. Further, these changes in turnout are quite large when compared to other variables in the model that have an effect on turnout, such as the median household income of a county, which has a comparatively smaller impact on turnout than traumatic events in these models.

Temporal Proximity

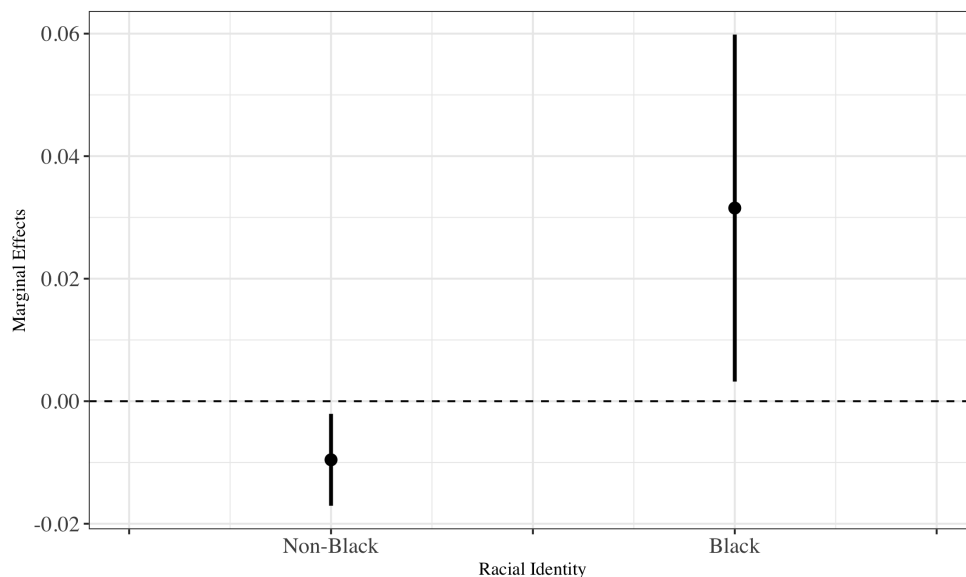


Figures 1 and 2 plot the coefficient estimates and 95% confidence intervals of the TWFE and LDV models testing the effect of temporal proximity of a traumatic event to a presidential election on turnout. To test the effects of temporal proximity, I run the same TWFE and LDV models where the treatment is if the traumatic event occurs within three months, six months, within the election year, or within two years of an election.

FIGURE 2. Proximity of Traumatic Event Effect on Turnout, Lagged DV Estimator

Note: The plot presents the percentage point change in the estimated turnout for counties that experienced a Black Church arson, mass shooting, or natural disaster by the temporal proximity of the event to the next presidential election, using the county-level data. Point estimates are the coefficient estimates from a lagged dependent variable model and error bars represent 95% confidence intervals. Full results in tables 33, 34, and 35 in the SI.

Social psychological research tells us that we should expect that post-traumatic stress reactions get worse over time and these figures demonstrate just such a pattern, providing partial support for $H2_a$, partial support for $H2_b$, and unconvincing evidence for $H2_c$. The results demonstrate a consistent demobilizing effect of Black Church arson attacks, regardless of the event's proximity to a presidential election. But, a general pattern confirming $H2_a$ and $H2_b$ appears for both mass shootings and natural disasters: events that occur close to an election have a mobilizing effect, but this decreases overtime, eventually reverting to the mean and, in the case of natural disasters, becoming demobilizing events. While mass shootings follow this general trend, the small number of cases that fall in these time cuts warrant caution in deriving clear and decisive evidence of these patterns. Instead, I find that natural disasters fit this pattern, Black Church arson attacks exhibit consistent post-traumatic stress-demobilizing effects over time, and that more data are needed to confirm the findings for mass shootings, though these initial findings fit with prior social psychological work.

FIGURE 3. Black Social Identity Conditions the Effect of Black Church Arson Attacks on Voting

Note: The plot presents the marginal effect of Black racial identity on the effect of experiencing a Black Church arson within the county of residence for respondents to the Current Population Survey (CPS) 1992-2016. Point estimates are the coefficient estimates from a two-way fixed effects model and error bars represent 95% confidence intervals. Full results in table 9 in the SI.

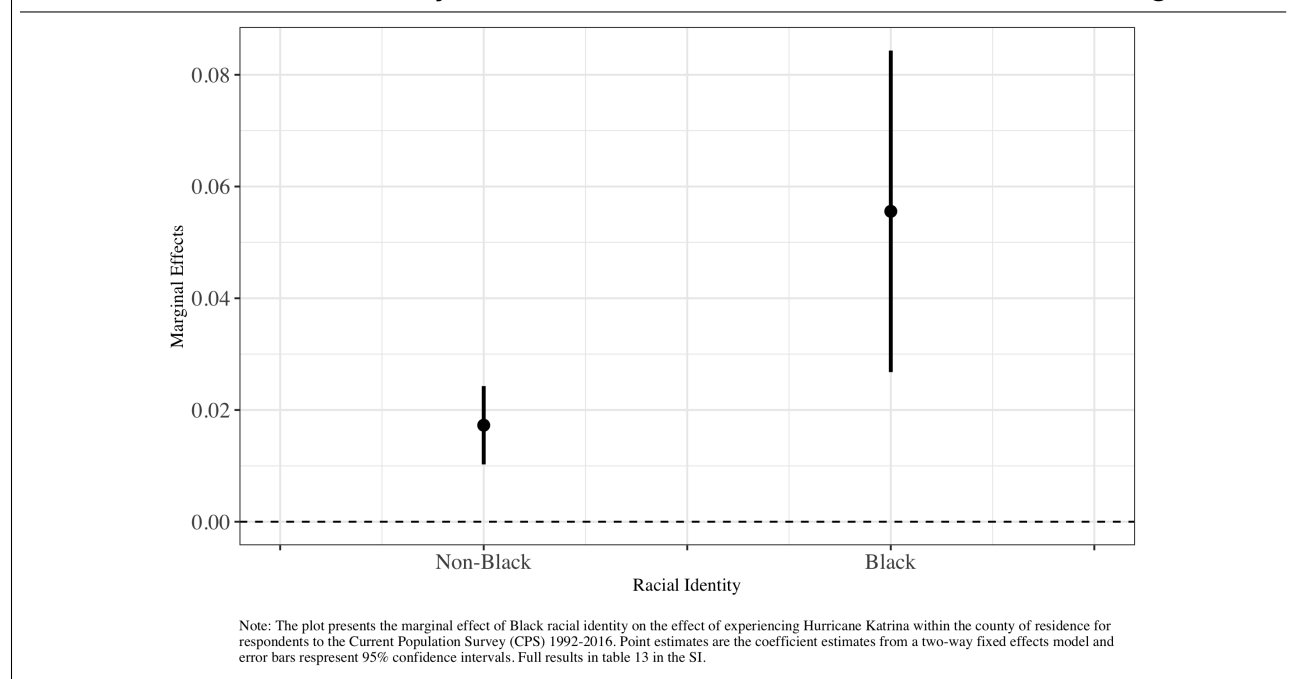
Shared Social Identity

While data limitations before 2008 restrict my ability to measure turnout for Black voters at the county level, individual-level analysis allows me to identify the post-traumatic political response of Black Americans in the wake of Black Church arson attacks. Black voters are more likely to be disproportionately impacted by all traumatic events, but Black Church arson attacks are a special case that allow me to identify how social identity conditions post-traumatic political response. Because Black Americans are the primary targets of this traumatic event and it is interpersonal and intentional, they could exhibit higher post-traumatic stress-demobilizing responses. But, because of the central role of Black social identity in these horrific events, the Black community within each county provides survivors with the resources to demonstrate post-traumatic growth/resilience political responses. I theorize that the social and political support provided by Black identity should cause a post-traumatic growth/resilience political response, when the event makes Black identity salient. In short, I should find an increase in turnout among Black Americans living in counties that experienced a Black Church arson attack.

I find support for *H3* in figure 3, which plots the marginal effects of a Black Church arson attack on voting with 95% confidence intervals, varied by racial identity. The figure shows that while arson

attacks demobilize non-Black voters, I find a post-traumatic growth/resiliency-mobilization political response among Black voters.

FIGURE 4. Black Social Identity Conditions the Effect of Hurricane Katrina on Voting



Survivors of traumatic events internalize trauma differently, especially when social identities are made salient. Hurricane Katrina is an example of such an event. Katrina brought racial inequality to the forefront of Americans' attention (Sweeney 2006). The trauma of Hurricane Katrina was deeply tied to the context of Black New Orleanians' lives, which was characterized by unequal access to resources and economic and political opportunities. This made Black identity a key conditioning factor in how Americans sympathized with victims and blamed elected officials (Sweeney 2006; Huddy and Feldman 2006).

The dynamics of framing Katrina's effects had important implications for how Black New Orleanians internalized trauma. With mainstream media referring to survivors as "refugees" instead of "evacuees," Black New Orleanians were further alienated. Not only were Black New Orleanians not receiving adequate aid from FEMA quickly enough, but this framing insinuated Black Americans were un-American and unimportant (Cole 2008). I therefore test Black identity's conditioning effect on the effect of Hurricane Katrina (as a traumatic event that primed Black identity) on turnout.

I find further support for *H3* in figure 4, which plots the marginal effects of living in a county

that was impacted by Hurricane Katrina on voting with 95% confidence intervals, varied by racial identity. The figure provides further evidence of a strong post-traumatic growth/resiliency-mobilization political response among Black voters in response to a traumatic event that is not inherently racial, but was racialized in its impact and political coverage. While there is a slight mobilizing effect among non-Black voters impacted by Hurricane Katrina, the effect is substantively and statistically significantly larger among Black voters at almost the exact proportion for Black Church arsons.⁷

These results provide support for *H3* that when a traumatic event makes a social identity salient, post-traumatic growth/resiliency-mobilization responses are more likely among the group that shares this salient social identity with the primary targets/survivors. These results confirm the well-established resiliency of Black Americans (Brown 2008), but they also identify the political consequence of Black resiliency in the face of direct threats to Black civil and religious rights and personal safety: when certain Whites threaten the Black community with traumatic events, Black voters are mobilized to vote.

CONCLUSION

Traumatic events decrease voter turnout in American presidential elections. In particular, this study finds that geographic proximity, temporal proximity, and shared salient social identity condition aggregate and individual responses to traumatic events. In the wake of Black Church arson attacks, mass shootings, and natural disasters, affected individuals' voting behavior is characterized by post-traumatic stress-demobilization responses, whereby voters in affected counties turnout to vote at significantly lower rates. Further, the closer to an election a traumatic event occurs, the more likely it is to drive a mobilization response, while the further in advance of an election it is, the more likely it is to revert to the mean or drive a demobilization response. Finally, Black social identity provides important resources that encourage post-traumatic growth/resilience-mobilization responses among Black Americans when traumatic events make race salient.

My theory of post-traumatic political response helps to theoretically disentangle the effect of trauma on political behavior and my empirical tests confirm a net negative effect, with exceptions for the

⁷Please see tables E.1 to E.6 in the SI for full results tables and section F of the full SI on the Dataverse for a test of *H2* and *H3* by interacting racial identity with the time points.

conditioning effect of social identity and time. Importantly, the effects of traumatic events are enduring and substantial. Further, because of prior research on the unequal burden of trauma and post-traumatic stress responses, these findings also insinuate that the demobilizing force of trauma in American politics is likely to create further barriers to political equality for Black Americans, women, and lower socioeconomic individuals, unless social resources are made salient or available. That is, in the wake of a traumatic event, policy demanders who make social identities salient provide resources that drive a post-traumatic growth/resilience response and may counteract a post-traumatic stress response that would depress and demobilize those most likely to be cut out of the democratic process. Likewise, government can increase aid to communities to help bolster social resources through social identity formation and solidification in the framing of events and through provision of physical and economic resources for recovery. As traumatic events have always been a feature of human life, it is unlikely that these demobilizing trends will resolve themselves. And so, it is incumbent upon social interest groups and political elites to provide more resources to increase post-traumatic growth-mobilizing responses and decrease post-traumatic stress-demobilizing responses.

Future research should identify the role that policy demanders and party elites play in promoting post-traumatic growth/resilience political responses in the wake of traumatic events that would otherwise demobilize voters. Police violence is one case beyond the scope of this study that would exemplify such dynamics. The police killings of Amadou Diallo, George Floyd, Breonna Taylor, and others led to increased political engagement (Williamson et al. 2018) and decreased contact with government (Cohen et al. 2019). Because Black Americans experience a disproportionate share of interactions with the carceral state, this is an important type of traumatic experience in need of further examination. The present study has examined the general trends of how traumatic events influence voter turnout, especially when the event primes Black identity. The findings of this research help provide clues as to how future studies on other racialized traumatic events, such as police violence, should proceed. With data collection related to ongoing movements related to the repeated and internalized trauma of police violence, future work should build on this study to examine how trauma connects to participation beyond voting, such as protesting (Williamson et al. 2018).

Future research into police violence through the lens of trauma is a promising avenue for identifying

the internal dynamics of mobilization and demobilization, as it may be the case that certain events drive a decrease in voting, but an increase in other forms of social and political engagement. Finally, future research should investigate the role of trust and social group attachment in the wake of traumatic events and how these mediate post-traumatic political responses.

In 1996, then-Assistant Attorney General for Civil Rights Deval Patrick called the rising number of attacks on Black Churches an “epidemic of terror.” At the time, it was unclear whether such attacks were a part of a larger white supremacist conspiracy or a disorganized, but no less concerning, racist copy-cat effect. At the heart of the subsequent Department of Justice investigations into the attacks was whether or not these attacks constituted a threat not only to religious liberty, but to fundamental civil rights, a concern voiced by the NAACP (Fletcher 1996). This study finds that not only are Black Church arson attacks a civil rights violation and a threat to religious liberty, they are more fundamentally a threat to political rights and equality. Further, the study finds that other traumatic events that make social identity salient, such as Hurricane Katrina, mobilize Black voters in the next election. While shared social identity drives this post-traumatic growth/resiliency-mobilizing effect, the long-term implications of such repeated traumas is unclear. American democracy has relied for too long on the resiliency of Black Americans. If American democracy is to survive, therefore, party elites and policy demanders must utilize the mechanisms available to them to provide the necessary social, political, and economic resources for those who carry the heaviest burden of trauma to ensure that such events do not demobilize voters.

DATA AVAILABILITY STATEMENT

Research documentation and/or data that support the findings of this study are openly available in the APSR Dataverse at <https://doi.org/10.7910/DVN/MXKMSE>.

CONFLICT OF INTEREST

The author declares no ethical issues or conflicts of interest in this research.

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CASES

Below, I elaborate on the three specific cases I choose to analyze in this study: Black Church arson attacks, mass shootings, and natural disasters.

Black Church arson attacks are a particularly heinous event in American history and society. There have been at least three major waves of arson attacks on Black Churches: the 1950s-1960s, the 1990s, and 2008 to present day. The attacks rarely cause fatalities or even injuries as most attacks are symbolic and economic attacks, meaning that they occur when the churches are empty. But, the attacks are terrorist attacks, intended to traumatize members of the church as well as Black Americans more generally. These events are also political in that they are not simply done out of rage or hatred, but are very clear in their target (Black Americans) and in their political message (stop demanding political, social, and economic equality that threatens white dominance).

A traumatic experience is an exposure to a certain type of social experience that often arises in the context of groups or in which an individual's membership in particular groups is salient, for example war, natural disasters, or terrorism (Muldoon, Lowe, Jetten, Cruwys, and Haslam 2020). The role of social groups, therefore, is important not only in identifying the distribution of trauma, but also in understanding responses to traumatic events. In this regard, Black Church arson attacks are an important case because they are clear traumatic events, whose impact extends beyond the parishioners of that church and to other Black Americans in the community who do not attend that church or who may not be Christian at all. These attacks are politically-relevant because of their political purpose explained above, but also because they are crimes, which the government has a legal and publicly-expected responsibility to investigate. Finally, they are politically-relevant because policy demanders (The National Association for the Advancement of Colored People and the Southern Christian Leadership Council) taught the American public of their political relevance as threats to public safety, religious liberty, and civil rights.

Gun violence is a growing problem in the U.S., a problem made especially evident in mass shootings. While the number is disputed, mass shootings are increasingly occurring in the United States and each event causes a chain reaction of traumatic exposure. Mass shootings are less tied to a particular social identity than are Black Church arson attacks, but are likewise public and (relatively) rare. While gun

violence is a common and persistent problem in the United States, mass shootings, which cause at least three deaths and occur in public places, are few in number, but large in traumatic reach. Policy demanders (The March for Our Lives and Everytown for Gun Safety) draw connections for the public, and they represent public safety concerns (and are crimes), meaning they fall under the purview of governmental response.

Finally, natural disasters are a persistent and, due to climate change, increasingly serious concern in American life. Such events affect massive numbers of Americans and cause loss of life, physical harm, destruction of property and infrastructure, and displacement. Further, such events cause millions and sometimes billions of dollars in economic damage and lost economic activity. As such, these events are politically-relevant traumatic events because of their clear trauma-inducing effects and their incredibly wide reach of lives threatened or lost.

THEORETICAL ELABORATION

Much of the literature and common conversations in the media and everyday life regarding trauma are in connection with Post-Traumatic Stress Disorder. But, there are several issues with the terminology of “disorder” in the context of this study. First, the study focuses on identifying the aggregate trends of response to traumatic events, rather than with the designation of a psychological disorder. Second, and more importantly, the study seeks to avoid passing any normative judgment on individuals’ reactions to traumatic stimuli, instead taking the approach common in psychology and psychiatry of seeing reactions on a scale of post-traumatic stress (PTS) (Summerfield 2001; Muldoon et al. 2020). In so doing, the study avoids classifying any reaction to a traumatic event as “disordered.” Finally, there is a growing literature focused on identifying the positive reactions to traumatic events beyond resilience known as post-traumatic growth (Tedeschi and Calhoun 1996; Shakespeare-Finch and Barrington 2012). This provides the other half of the PTS scale and illustrates that there are a wide variety of non-mutually exclusive responses to a traumatic event, but outside a clinical diagnostic setting, it is inappropriate to categorize any as disordered. And so, in this study, I stick to language of post-traumatic stress (PTS) and post-traumatic growth (PTG)/resilience, avoiding language of disorder altogether.

EXPLANATION OF THE DATA

Mass Shootings Data

The Mother Jones U.S. Mass Shootings database only includes events with three or more independent sources that confirm the incident and it does not include what are considered “more conventional crimes,” by which they mean shootings related to armed robbery or gang violence, and do not include domestic violence incidents. This definition is much stricter than many other commonly used databases, such as Stanford University’s Mass Shootings in America Database, which includes shootings with no deaths.

Scholars and journalists debate the definition of mass shootings and thus which cases to include in databases tracking the patterns of such events, resulting in wildly different counts for the total number of mass shooting events (Hassell et al. 2020). And yet, I opt for the Mother Jones database, which sticks most closely with the Congressional Research Service and the Federal Bureau of Investigation’s definition. These events are also likely to have the most potent traumatic effect, meaning it allows me to more precisely isolate the effect of a deadly mass shooting as a traumatic event on turnout. Further, for this study, the feasibility that those in the surrounding community are impacted matters. That is, a post-traumatic response is more likely among a larger group of individuals when the event could have reasonably involved or impacted more people. Gang-related or domestic mass shootings are, therefore, less likely to have as large a reach.

Natural Disasters Data

Because the FEMA database includes a wide range of disasters, I limit the analysis in this study to natural (non-anthropogenic, at least not directly anthropogenic) disasters: coastal storms, droughts, earthquakes, wild fires, toxic algae blooms in coastal waters, flooding, hurricanes, mudslides, snow storms, tornadoes, tsunamis, typhoons, and volcano eruptions. There are other means by which to identify counties affected by natural disasters, yet FEMA provides the most accurate and comprehensive data on this question.

Additional information on Control Variables

In the generalized two-way fixed effects models, I include controls for the percentage of the county population that is Black, the total population, and median household income. I do this because these variables ensure I account for important within-state differences between counties not captured by the fixed effects. In particular, these three variables account for important factors that could possibly influence turnout, especially as it relates to traumatic events. As Black Americans disproportionately experience trauma and experience more severe post-traumatic stress reactions from any given traumatic experience (Muldoon et al. 2020), including the percentage of the county population that is Black accounts for the changes to turnout as a result of Black population. Counties with larger populations and with higher median household income are likely to have more resources to prepare for traumatic events before they happen and receive greater attention and more resources in the wake of traumatic events, meaning that we might expect these variables to influence the effect on turnout. In the fixed effects model for mass shootings I also include controls for the number of fatalities and the number of individuals injured (neither include the shooter) as these are likely to influence the traumatic response and thus turnout.

Justification of Linear Regression for Dichotomous DV

Interpretation of linear regression specifications requires weaker assumptions of functional form and while logistic specifications are also appropriate for binary outcome models (Angrist and Pischke 2009), linear specifications produce unbiased and reliable estimates of a variable's average effect (Hellevik 2009; Hoffman et al. 2016; Allison 1999; Greene 2002; Mood 2010; Baetschmann et al. 2015). As such, I utilize the straight-forward, reliable and unbiased estimates of the variable's average effect, calculated by using a linear regression estimator or the ATT.

ROBUSTNESS CHECKS

Weighted Fixed Effects Modeling

In the main text, I use a two-way fixed effects estimation method, common in political science. The data I use in this study are not the canonical two-group/two-period difference-in-difference case, however, as treatment (traumatic event exposure) turns “on” and “off” over time with multiple units and multiple time periods. A number of studies have identified the short-comings of the two-way FE approach with such data, primarily that the multiple groups and time periods causes variation in the weight of each two group/two-period combination in the data (with some weights even being negative) (Goodman-Bacon 2018; Imai and Kim 2019; de Chaisemartin and D’Haultfoeuille 2019; Harden and Kirkland 2021). The variation of this weighting can bias the coefficient on the treatment variable, unless researchers can assume a constant treatment effect across multiple groups and time periods. In the tables below, I provide the results of Imai and Kim (2019)’s weighted fixed effects estimation approach, which relaxes this assumption and are robust to heterogeneous effects. While such a method reduces statistical power, the estimates from the models provide further evidence of the robustness of my findings. In fact, the weighted fixed effects models estimate stronger and consistently statistically significant. The weighted fixed effects models estimate a 6.5 percentage point decrease in turnout in the case of Black Church arsons, a 3.2 percentage point decrease in the case of mass shootings, and a 0.4 percentage point decrease in the case of natural disasters. All estimates are substantively and statistically significant.

TABLE D.1. Effect of Traumatic Event on Turnout, Weighted Fixed Effects (county-year) Estimator

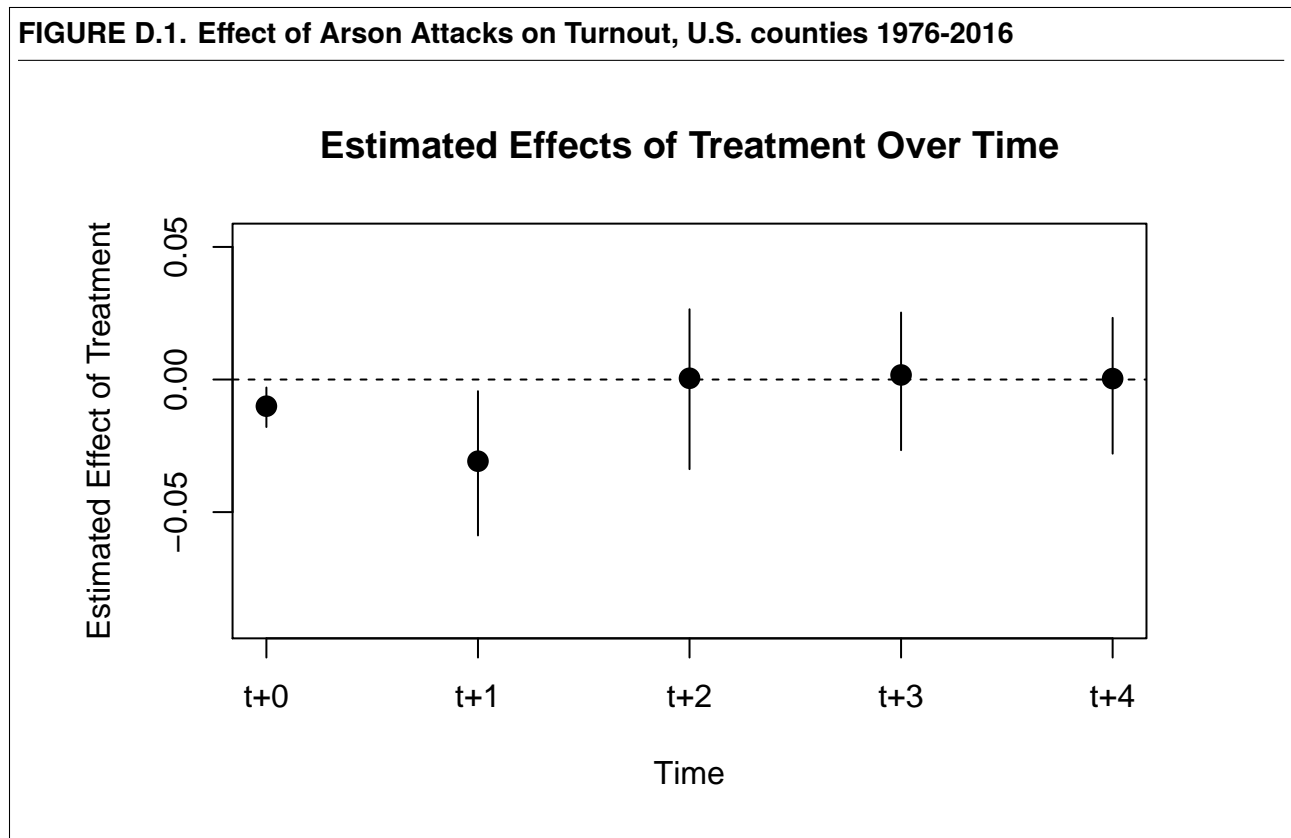
	Arson	Mass Shooting	Natural Disaster
Experience Traumatic Event	-0.065* (0.000)	-0.032* (0.000)	-0.004* (0.000)
% of County Pop. Black	-0.097* (0.000)	0.369* (0.000)	-0.130* (0.000)
Total Population	0.000* (0.000)	0.000 (0.000)	0.000* (0.000)
Med. Household Income	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)
Fatalities		0.003* (0.000)	
Injured		0.000* (0.000)	
Year Fixed Effects	Yes	Yes	Yes
County Fixed Effects	Yes	Yes	Yes
Unique Units	2,889	2,889	2,889

Robust standard errors in parentheses.

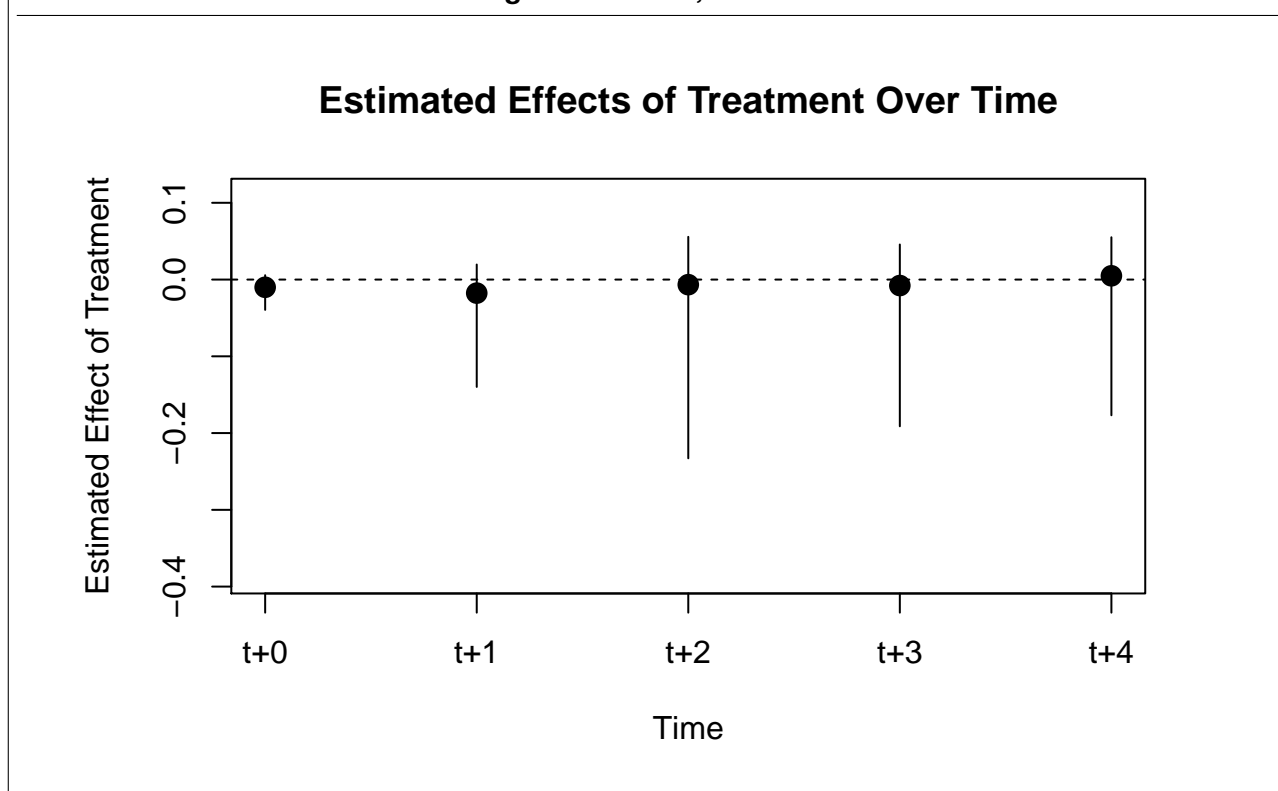
* $p < 0.05$

Time-Series Cross-Sectional Matching

To further test the robustness of my results, my secondary analysis for the geographic proximity hypothesis utilizes a new time-series cross-sectional matching technique proposed by Imai et al. (2020), which provides a more reliable process of matching with time-series cross-sectional data (McQueen 2021). Building off of synthetic control (Abadie et al. 2011) and generalized synthetic control methods (Xu 2017), this method relaxes the parallel trends assumption and requires fewer pre-treatment periods than synthetic control methods by using within-county-over-year and within-year-across-county variation (Imai et al. 2020; McQueen 2021). In this approach, the process creates a matched set for each treated observation, refines it through a weighting method, and then computes the difference-in-differences estimator, which is the average treatment effect on the the treated (ATT), with model-based standard errors.

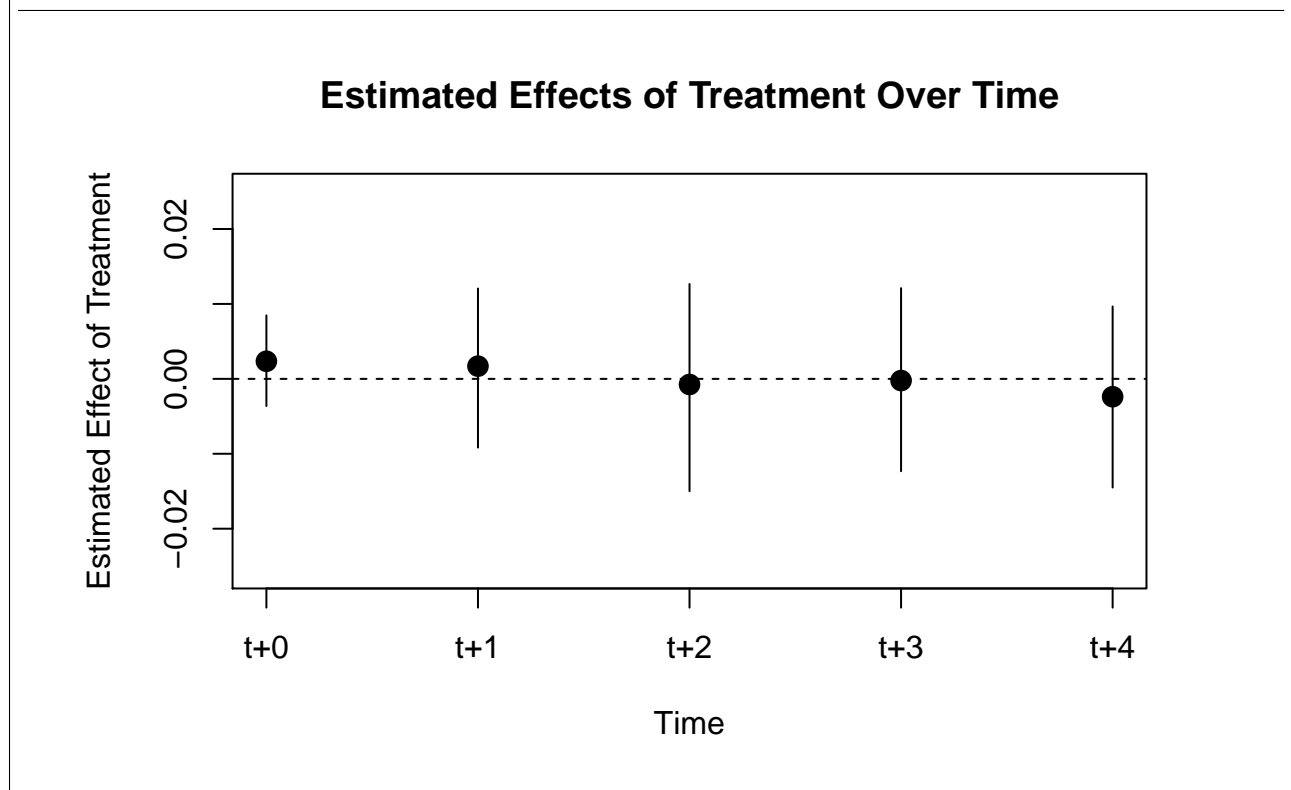


To further test the robustness of these findings and identify long-term effects of traumatic events on voter turnout, I implement a time-series cross-sectional matching process. I plot the estimated effects of experiencing an arson attack, mass shooting, and natural disaster for the four election years after

FIGURE D.2. Effect of Mass Shootings on Turnout, U.S. counties 1976-2016

the event occurs in figures D.1–D.3. In the case of arson attacks in figure D.1, the results confirm a statistically significant estimate, consistent with the magnitude and direction of the effect estimated in the the two-way FEs difference-in-differences and the lagged DV models. In the first election after the event, the model estimates a decrease in turnout of about 3 percentage points and the estimate is statistically different from zero. Interestingly, after an initial decrease, the model estimates increases in turnout in elections after the next election after the event. While none of these estimates are statistically different from zero, the direction implies that after an initial post-traumatic stress-demobilization response, targeted counties experience a post-traumatic growth-mobilization response or a return to the mean, lagged by one electoral cycle.

In figures D.2 and D.3, I do not find statistically significant results, but the estimate for the effect of mass shootings is in the right direction. There is no clear pattern in the results from the time-series cross sectional matching for the effects of these two events, but combined, the results tell a fairly consistent story. In four of the six models, I find statistically significant results that confirm my hypothesis about traumatic demobilization as a result of arson attacks, mass shootings, and natural disasters. In the

FIGURE D.3. Effect of Natural Disasters on Turnout, U.S. counties 1976-2016

matching analysis to test the robustness of these results, I find further confirmation for the effect of arson attacks, though the results are less clear for the effects of mass shootings and natural disasters. Full results of the TSCS matching models are in table D.2.

TABLE D.2. Effect of Traumatic Events on Turnout, TSCS Matching Analysis

	Black Church Arsons	Mass Shootings	Natural Disasters
$t + 0$	-0.009* (0.004)	-0.005 (0.011)	0.002 (0.003)
$t + 1$	-0.031* (0.014)	-0.025 (0.051)	0.002 (0.006)
$t + 2$	-0.000 (0.009)	-0.010 (0.085)	-0.001 (0.007)
$t + 3$	-0.000 (0.013)	-0.020 (0.081)	-0.000 (0.006)
$t + 4$	-0.002 (0.013)	-0.007 (0.071)	-0.002 (0.006)

* $p < 0.05$

Note: Estimates are weighted difference-in-differences estimates using Mahalanobis Distance Matches and calculated using county-level turnout data. Bootstrapped standard errors in parentheses (1000 weighted bootstrapped samples).

Adding Unit-Specific Time Trends

Recent studies and proofs testing the two-way generalized fixed effects approach argue that the estimation method may not capture that causal effects of interest (Goodman-Bacon 2018; Wing et al. 2018; Imai and Kim 2019; de Chaisemartin and D’Haultfoeuille 2019; Kropko and Kubinec 2020; Hassell et al. 2020; Harden and Kirkland 2021). One way to address these concerns is as I have done in the above two SI sections using weighted fixed effects (Imai and Kim 2019) and the time series cross section matching approach for panel data (Imai et al. 2020). As a further test of the robustness of my findings, I run the same models from my primary analysis, adding an additional county-specific linear time trends (Hassell et al. 2020) with the following model form:

$$V_{ct} = \beta_0 + \beta_1 T_{ct} + \beta_2 Controls + \theta_c + \lambda_t + \theta_{ct} + \epsilon_{ct}$$

The results in table D.3 confirm the findings in the main analysis using generalized two-way fixed effects difference-in-difference and lagged dependent variable estimation as well as those found in the time series cross sectional matching analysis above. I find consistent evidence that Black Church arson attacks have a demobilizing effect on counties that experience them, with coefficient estimates on the effect of mass shootings and natural disasters in the correct direction (negative), but of slightly smaller magnitude, and less consistently statistically significant.

Testing the Effect of Racial Social Identity

In the main text of the paper, I contend that the effects of social identity will be best detected in the case of Black Church arson attacks. This is because the traumatic event makes racial social identity salient in a way that mass shootings and natural disasters do not. I find and present statistically and substantively significant results in the main text, indicating that Black individuals who are in close geographic proximity to the traumatic event are more likely to turnout to vote in the wake of Black Church arson attacks and Hurricane Katrina relative to non-Black voters. One way to test if my theory is correct is to test the same model with mass shootings and natural disasters. If I detect a similar effect, it is not something about the way that a traumatic event primes social identity (as I contend), but rather something about Black voters in general.

TABLE D.3. Effect of Traumatic Event on Turnout, Generalized Two-Way FE Model with county, year, and unit-specific time trends Estimates

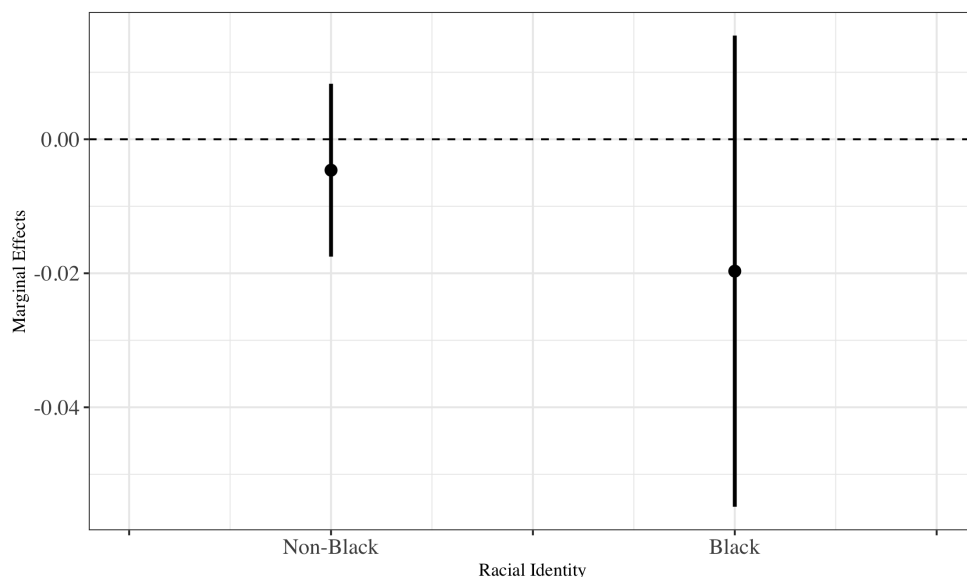
	Arson	Mass Shooting	Natural Disaster
Traumatic Event	-0.014* (0.003)	-0.008 (0.009)	0.000 (0.001)
% of County Pop.Black	-0.139* (0.045)	-0.144* (0.045)	-0.143* (0.045)
Total Population	-0.000* (0.000)	0.000* (0.000)	0.000* (0.000)
Med. Household Income	-0.000* (0.000)	0.000* (0.000)	0.000* (0.000)
Fatalities		-0.000 (0.001)	
Injured		0.001 (0.001)	
Intercept	0.625* (0.026)	0.262* (0.026)	
Year Fixed Effects	Yes	Yes	Yes
County Fixed Effects	Yes	Yes	Yes
Unit-Specific Time Trends	Yes	Yes	Yes
Observations	23,952	23,952	23,952
R^2	0.887	0.887	0.015
Adj. R^2	0.851	0.851	-0.121
F-statistic	24.7* (df = 5788; 18,163)	24.670* (df = 5790; 18,161)	79.53* (df = 4; 21051)
Standard errors in parentheses.			
* $p < 0.05$			

In figures D.4 and D.5, I present marginal effects plots of the same fixed-effects model presented in figures 3 and 4 in the main text, but with the treatment being mass shootings and all natural disasters, respectively. These results confirm that the effect of Black social identity conditions the effect of traumatic events on turnout only in the case of Black Church arson attacks with the interactive coefficient being nowhere near statistical significance.

Tables D.4 through D.8 contain the full results for the marginal effects presented in figures 3 and 4 in the main text and figures D.4 and D.5 above in the SI.

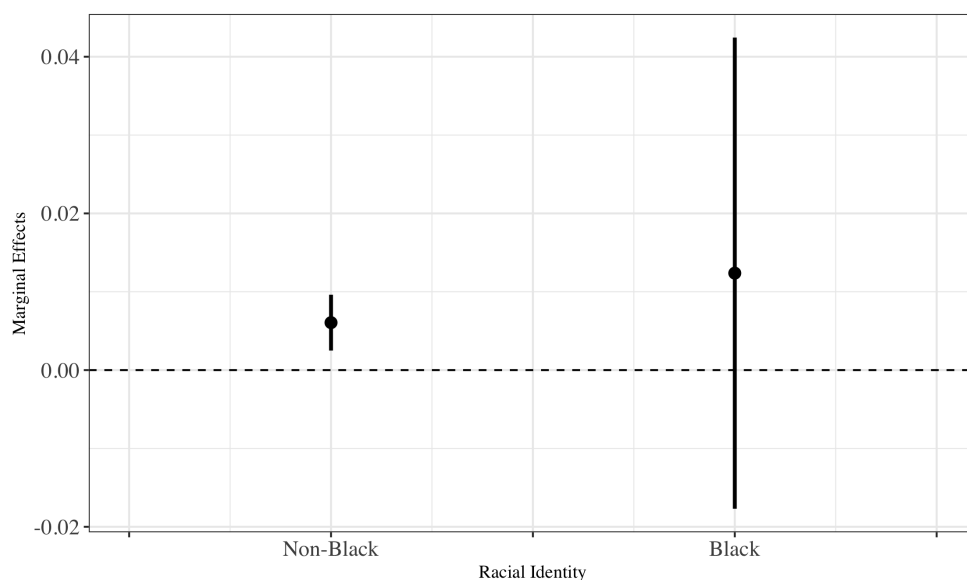
Given research that more than one lag should be included in lagged dependent variable models (Wilkins 2017), I have included an additional model with two lags included. The results are robust to the inclusion of multiple lags.

FIGURE D.4. Conditioning Effect of Black Social Identity on the Effect of Mass Shootings on Turnout

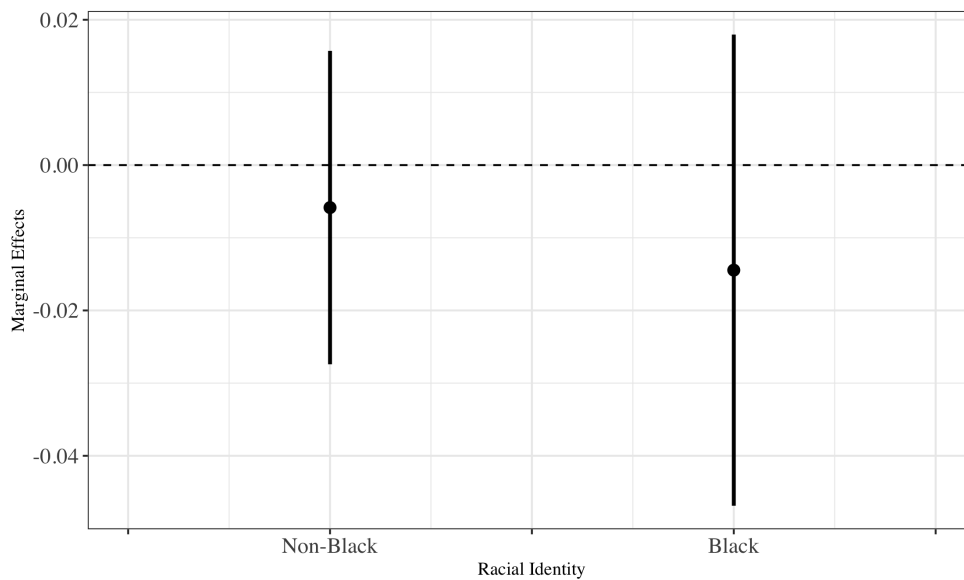


Note: The plot presents the marginal effect of Black racial identity on the effect of experiencing a mass shooting within the county of residence for respondents to the Current Population Survey (CPS) 1992-2016. Point estimates are the coefficient estimates from a two-way fixed effects model and error bars represent 95% confidence intervals. Full results in table 10 in the SI.

FIGURE D.5. Conditioning Effect of Black Social Identity on the Effect of Natural Disasters on Turnout



Note: The plot presents the marginal effect of Black racial identity on the effect of experiencing a natural disaster within the county of residence for respondents to the Current Population Survey (CPS) 1992-2016. Point estimates are the coefficient estimates from a two-way fixed effects model and error bars represent 95% confidence intervals. Full results in table 12 in the SI.

FIGURE D.6. Conditioning Effect of Black Social Identity on the Effect of Racialized Mass Shootings on Turnout

Note: The plot presents the marginal effect of Black racial identity on the effect of experiencing racialized mass shootings within the county of residence for respondents to the Current Population Survey (CPS) 1992-2016. Point estimates are the coefficient estimates from a two-way fixed effects model and error bars represent 95% confidence intervals. Full results in table 11 in the SI.

TABLE D.4. Conditioning Effect of Black Social Identity on the Effect of Arson Attacks on Voting

	Vote (TWFE)	Vote (One-Lag DV)	Vote (Two-Lag DV)
Lagged Vote (1)		0.278* (0.001)	0.248* (0.002)
Lagged Vote (2)			0.005* (0.001)
Arson Attack	-0.010* (0.004)	-0.025* (0.003)	-0.022* (0.003)
Black	0.070* (0.013)	0.053* (0.002)	0.056* (0.002)
Gender	0.042* (0.002)	0.043* (0.001)	0.045* (0.001)
Education	0.630* (0.007)	0.575* (0.003)	0.611* (0.004)
Income	0.237* (0.007)	0.177* (0.003)	0.168* (0.003)
Arson Attack×Black	0.041* (0.015)	0.036* (0.007)	0.028* (0.008)
Intercept		-0.040* (0.003)	-0.041* (0.003)
Observations	841,165	621,143	443,184
R^2	0.109	0.640	0.1543
Adj. R^2	0.109	0.640	0.1543
F-statistic	129.1* (df = 799; 840,365)	18,030* (df = 7; 621,135)	10,110* (df = 8; 443,175)

* $p < 0.05$

Note: Estimates calculated using data from individual respondents to the Current Population Survey (CPS) 1992-2016. Robust Standard Errors in parentheses.

TABLE D.5. Conditioning Effect of Black Social Identity on the Effect of Mass Shootings on Voting

	Vote (TWFE)	Vote (LDV)
Lagged Vote		0.277* (0.001)
Mass Shooting	-0.005 (0.007)	-0.003 (0.006)
Black	0.072* (0.013)	0.054* (0.002)
Gender	0.042* (0.002)	0.043* (0.001)
Education	0.630* (0.007)	0.575* (0.003)
Income	0.237* (0.007)	0.176* (0.003)
Mass Shooting×Black	-0.015 (0.026)	0.011 (0.019)
Intercept		-0.041* (0.003)
Observations	841,165	621,143
R^2	0.109	0.169
Adj. R^2	0.108	0.169
F-statistic	129* (df = 799; 840,365)	18,020* (df = 7; 621,135)

* $p < 0.05$

Note: Estimates calculated using data from individual respondents to the Current Population Survey (CPS) 1992-2016. Robust Standard Errors in parentheses.

TABLE D.6. Conditioning Effect of Black Social Identity on the Effect of Racialized Mass Shootings on Voting

	Vote (TWFE)	Vote (LDV)
Lagged Vote		0.278* (0.001)
Racialized Mass Shooting	-0.006 (0.011)	-0.036* (0.013)
Black	0.072* (0.013)	0.054* (0.002)
Gender	0.042* (0.002)	0.043* (0.001)
Education	0.630* (0.007)	0.575* (0.003)
Income	0.237* (0.007)	0.176* (0.003)
Racialized Mass Shooting×Black	-0.009 (0.012)	0.030 (0.031)
Intercept		-0.047* (0.003)
Observations	841,165	621,143
R^2	0.109	0.169
Adj. R^2	0.108	0.169
F-statistic	129* (df = 707; 840,365)	18,020* (df = 7; 621,135)

* $p < 0.05$

Note: Estimates calculated using data from individual respondents to the Current Population Survey (CPS) 1992-2016. Robust Standard Errors in parentheses.

TABLE D.7. Conditioning Effect of Black Social Identity on the Effect of Natural Disasters on Voting

	Vote (TWFE)	Vote (LDV)
Lagged Vote		0.277* (0.001)
Disasters	0.006* (0.002)	-0.016* (0.001)
Black	0.070* (0.015)	0.053* (0.002)
Gender	0.042* (0.002)	0.043* (0.001)
Education	0.630* (0.007)	0.575* (0.003)
Income	0.237* (0.007)	0.177* (0.003)
Disasters×Black	0.006 (0.010)	0.005 (0.003)
Intercept		-0.036* (0.003)
Observations	841,165	621,143
R^2	0.109	0.169
Adj. R^2	0.109	0.169
F-statistic	129.1* (df = 799; 840,365)	18,050* (df = 7; 621,135)

* $p < 0.05$
Note: Estimates calculated using data from individual respondents to the Current Population Survey (CPS) 1992-2016. Robust Standard Errors in parentheses.

TABLE D.8. Conditioning Effect of Black Social Identity on the Effect of Hurricane Katrina on Turnout

	Vote (TWFE)	Vote (One-Lag DV)	Vote (Two-Lag DV)
Lagged Vote (1)		0.278* (0.001)	0.249* (0.002)
Lagged Vote (2)			0.003 (0.002)
Hurricane Katrina	0.019* (0.004)	0.046* (0.007)	0.044* (0.008)
Black	0.070* (0.014)	0.050* (0.002)	0.052* (0.002)
Gender	0.041* (0.002)	0.042* (0.001)	0.044* (0.001)
Education	0.636* (0.009)	0.581* (0.004)	0.616* (0.004)
Income	0.241* (0.006)	0.178* (0.003)	0.170* (0.003)
Katrina×Black	0.042* (0.016)	0.040* (0.018)	0.042* (0.022)
Intercept		-0.046* (0.003)	-0.046* (0.003)
Observations	697,182	517,228	370,427
R^2	0.111	0.170	0.155
Adj. R^2	0.110	0.170	0.155
F-statistic	123* (df = 707; 696,474)	15150* (df = 7; 517,220)	8500* (df = 8; 370,418)

* $p < 0.05$
Note: Estimates calculated using data from individual respondents to the Current Population Survey (CPS) 1992-2016. Robust Standard Errors in parentheses.

Full Results of Lagged Dependent Variable Models

In tables D.9 through D.11 below, I include the full results of alternate model specifications of the county-level Lagged Dependent Variable models including adding additional time varying controls (model 1 in each table), adding a second lag (model 2), and estimating the effect of the cumulative treatment effect with out the treatment identifier also in the model (model 3). This final model specification is more in line with the method recommended in Blackwell and Glynn (2018), though my approach of including the treatment variable *and* the cumulative treatment variable in the same model in the main text demonstrates the robustness of my findings.

TABLE D.9. Effect of Black Church Arsons on Turnout, Lagged DV Analysis

	(1)	(2)	(3)
Lagged Vote (1)	0.783* (0.007)	0.629* (0.007)	0.630* (0.014)
Lagged Vote (2)		0.195* (0.007)	0.195* (0.012)
Arson Attack	-0.039* (0.003)	-0.038* (0.004)	
Cumulative Arsons			-0.023* (0.002)
% of County Pop. Black	-0.018* (0.003)	-0.004 (0.003)	-0.005 (0.003)
Total Population	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Med. Household Income	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)
Intercept	0.105* (0.004)	0.068* (0.003)	0.067* (0.003)
Observations	21,116	18,281	18,281
R^2	0.679	0.690	0.689
Adj. R^2	0.679	0.690	0.689
F-statistic	8918* (df = 5; 21,110)	6766* (df = 6; 18,274)	6760* (df = 6; 18,274)

* $p < 0.05$

Note: Estimates calculated using county-level turnout data. Robust standard errors in parentheses.

TABLE D.10. Effect of Mass Shootings on Turnout, Lagged DV Analysis

	(1)	(2)	(3)
Lagged Vote (1)	0.784* (0.007)	0.632* (0.014)	0.632* (0.014)
Lagged Vote (2)		0.193* (0.012)	0.193* (0.012)
Mass Shooting	-0.011 (0.009)	-0.011 (0.010)	
Cumulative Shootings			-0.011 (0.010)
% of County Pop. Black	-0.021* (0.003)	-0.007* (0.003)	-0.007* (0.003)
Total Population	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Med. Household Income	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)
Fatalities	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)
Injured	-0.000 (0.000)	0.000 (0.001)	-0.000 (0.001)
Intercept	0.105* (0.004)	0.067* (0.003)	0.067* (0.003)
Observations	21,116	18,281	18,281
R^2	0.678	0.688	0.688
Adj. R^2	0.678	0.688	0.688
F-statistic	6335* (df = 7; 21,108)	5044* (df = 8; 18,272)	5044* (df = 8; 18,272)

* $p < 0.05$
Note: Estimates calculated using county-level turnout data. Robust standard errors in parentheses.

TABLE D.11. Effect of Natural Disasters on Turnout, Lagged DV Analysis

	(1)	(2)	(3)
Lagged Vote (1)	0.783* (0.004)	0.633* (0.007)	0.632* (0.003)
Lagged Vote (2)		0.191* (0.007)	0.191* (0.014)
Disaster	-0.007* (0.001)	-0.002 (0.001)	
Cumulative Disasters			-0.001* (0.000)
% of County Pop. Black	-0.019* (0.003)	-0.007* (0.003)	-0.007* (0.003)
Total Population	-0.000 (0.000)	-0.000* (0.000)	0.000 (0.000)
Med. Household Income	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)
Intercept	0.106* (0.003)	0.068* (0.003)	0.068* (0.003)
Observations	21,116	18,281	18,281
R^2	0.678	0.688	0.688
Adj. R^2	0.678	0.688	0.688
F-statistic	8904* (df = 5; 21,110)	6727* (df = 6; 18,274)	6727* (df = 6; 18,274)

* $p < 0.05$
Note: Estimates calculated using county-level turnout data. Robust standard errors in parentheses.

Replicating Results with Alternative Data

In table D.12, I test the same two-way fixed effects difference-in-difference and lagged dependent variable models that I run on the Mother Jones data on the Stanford MSA data. The MSA data has a much larger N of 441 cases (that I was able to match with county-level turnout data). I find that the models predict strikingly similar effect sizes and both indicate a demobilizing effect with negative coefficient estimates. Neither estimate is statistically significant, but the size and direction are consistent with my findings using the Mother Jones data.

TABLE D.12. Effect of Mass Shooting on Turnout using the Stanford MSA Database

	Turnout (TWFE)	Turnout (Lagged DV)
Lagged Turnout		0.380* (0.185)
Experience Mass Shooting	-0.037 (0.046)	-0.038 (0.036)
% of County Pop. Black	-0.215 (0.175)	
Total Population	0.000 (0.000)	
Med. Household Income	0.000* (0.000)	
Fatalities	0.001 (0.000)	
Victims	0.001 (0.004)	
Intercept		0.370* (0.005)
Observations	23,992	24,203
R^2	0.013	0.130
Adj. R^2	-0.123	0.130
F-statistic	44.682* (df = 6; 21,089)	1806* (df = 2; 24,200)

* $p < 0.05$
 Note: Estimates calculated using data from individual respondents to the Current Population Survey (CPS) 1992-2016. Robust Standard Errors in parentheses.

FULL RESULTS OF TEMPORAL PROXIMITY

In tables E.1 through E.6, I provide the full results for the data represented graphically in the main text of the analysis in figures 1 and 2.

TABLE E.1. Effect of Temporal Proximity of Black Church Arson Attacks to Election on Voting (Two Way FE Estimator)

	Three Months	Six Months	Election Year	Two Years
Temporal Proximity	-0.015 (0.008)	-0.008 (0.006)	-0.010 (0.005)	-0.012* (0.004)
% County Pop. Black	-0.110 (0.062)	-0.110 (0.062)	-0.110 (0.062)	-0.110 (0.063)
Population	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)
Med. HH Income	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)
Observations	23,952	23,952	23,952	23,952
R^2	0.015	0.015		0.015
0.015				
Adj. R^2	-0.121	-0.121	-0.121	-0.121
F-statistic	79.85* (df = 4; 21,051)	79.62* (df = 4; 21,051)	79.91* (df = 4; 21,051)	80.69* (df = 4; 21,051)

* $p < 0.05$

Note: Estimates calculated using county-level data. County-clustered standard errors in parentheses.

TABLE E.2. Effect of Temporal Proximity of Mass Shootings to Election on Voting (Two Way FE Estimator)

	Three Months	Six Months	Election Year	Two Years
Temporal Proximity	0.034 (0.024)	0.055* (0.013)	0.025 (0.014)	0.006 (0.011)
% County Pop. Black	-0.112 (0.063)	-0.112 (0.063)	-0.112 (0.063)	-0.112 (0.063)
Population	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)
Med. HH Income	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)
Fatalities	0.000 (0.001)	-0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
Injured	0.001 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Observations	23,952	23,952	23,952	23,952
R ²	0.015	0.015		0.015
Adj. R ²	-0.121	-0.121	-0.121	-0.121
F-statistic	53.59* (df = 6; 21,049)	54.88* (df = 6; 21,049)	53.92* (df = 6; 21,049)	53.43* (df = 6; 21,049)

*p < 0.05

Note: Estimates calculated using county-level data. County-clustered standard errors in parentheses.

TABLE E.3. Effect of Temporal Proximity of Natural Disasters to Election on Voting (Two Way FE Estimator)

	Three Months	Six Months	Election Year	Two Years
Temporal Proximity	0.017* (0.003)	0.004 (0.002)	0.003 (0.002)	0.002 (0.001)
% County Pop. Black	-0.108 (0.062)	-0.109 (0.062)	-0.110 (0.062)	-0.110 (0.062)
Population	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)
Med. HH Income	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)
Observations	23,952	23,952	23,952	23,952
R^2	0.016	0.015		0.015
0.015				
Adj. R^2	-0.119	-0.121	-0.121	-0.121
F-statistic	86.45* (df = 4; 21,051)	80.23* (df = 4; 21,051)	80.23* (df = 4; 21,051)	79.91* (df = 4; 21,051)

* $p < 0.05$

Note: Estimates calculated using county-level data. County-clustered standard errors in parentheses.

TABLE E.4. Effect of Temporal Proximity of Black Church Arson Attacks to Election on Voting (Lagged DV Estimator)

	Three Months	Six Months	Election Year	Two Years
Temporal Proximity	-0.065* (0.007)	-0.066* (0.005)	-0.067* (0.004)	-0.061* (0.004)
Lagged Turnout	0.796* (0.006)	0.796* (0.006)	0.796* (0.006)	0.795* (0.006)
Intercept	0.120* (0.002)	0.120* (0.003)	0.120* (0.003)	0.120* (0.003)
Observations	24,178	24,178	24,178	24,178
R^2	0.638	0.638	0.639	0.639
Adj. R^2	0.638	0.638	0.639	0.639
F-statistic	21,300* (df = 2; 24,175)	21,340* (df = 2; 24,175)	21,370* (df = 2; 24,175)	21,410* (df = 2; 24,175)

* $p < 0.05$

Note: Estimates calculated using county-level data. Robust standard errors in parentheses.

TABLE E.5. Effect of Temporal Proximity of Mass Shootings to Election on Voting (Lagged DV Estimator)

	Three Months	Six Months	Election Year	Two Years
Temporal Proximity	0.050* (0.018)	0.041* (0.012)	0.012 (0.013)	0.010 (0.011)
Lagged Turnout	0.796* (0.006)	0.796* (0.006)	0.796* (0.006)	0.795* (0.006)
Fatalities	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Injured	-0.000 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.000 (0.001)
Intercept	0.119* (0.003)	0.119* (0.003)	0.119* (0.003)	0.119* (0.003)
Observations	24,178	24,178	24,178	24,178
R^2	0.638	0.638	0.639	0.639
Adj. R^2	0.638	0.638	0.639	0.639
F-statistic	10,630* (df = 4; 24, 173)	10,640* (df = 4; 24, 173)	10,630* (df = 4; 24, 173)	10,630* (df = 4; 24, 173)

* $p < 0.05$

Note: Estimates calculated using county-level data. Robust standard errors in parentheses.

TABLE E.6. Effect of Temporal Proximity of Natural Disasters to Election on Voting (Lagged DV Estimator)

	Three Months	Six Months	Election Year	Two Years
Temporal Proximity	0.016* (0.002)	0.007* (0.002)	-0.016* (0.002)	-0.010* (0.001)
Lagged Turnout	0.797* (0.006)	0.796* (0.006)	0.795* (0.006)	0.794* (0.006)
Intercept	0.118* (0.002)	0.119* (0.003)	0.121* (0.003)	0.122* (0.003)
Observations	24,178	24,178	24,178	24,178
R^2	0.638	0.638	0.639	0.639
Adj. R^2	0.638	0.638	0.639	0.639
F-statistic	21,300* (df = 2; 24,175)	21,280* (df = 2; 24,175)	21,370* (df = 2; 24,175)	21,350* (df = 2; 24,175)

* $p < 0.05$

Note: Estimates calculated using county-level data. Robust standard errors in parentheses.

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