

State Violence, Party Formation, and Electoral Accountability: The Political Legacy of the Marikana Massacre

DANIEL DE KADT *London School of Economics, United Kingdom*

ADA JOHNSON-KANU *University of Kentucky, United States*

MELISSA L. SANDS *London School of Economics, United Kingdom*

Democratic governments sometimes use violence against their people, yet little is known about the electoral consequences of these events. Studying South Africa's Marikana massacre, we document how a new opposition party formed as a direct result of violence, quantify significant electoral losses for the incumbent, and show that those losses were driven by voters switching from the incumbent to the new party. Three lessons emerge. First, incumbents who preside over state violence may be held electorally accountable by voters. Second, such accountability seemingly depends on the existence of credible opposition parties that can serve as a vector for disaffected voters. Where such parties do not exist, violence may create political cleavages that facilitate the formalization of opposition movements. Third, immediate proximity to violence is correlated with holding incumbents accountable.

INTRODUCTION


Theories of democratic accountability propose that voters electorally punish or reward politicians based on retrospective assessments of their behavior in office (Ferejohn 1986). Does the logic of electoral accountability extend to cases in which democratically elected incumbents wield violence against ordinary people? Little empirical evidence has been brought to bear on this question, despite the prevalence of state-led violence worldwide, in both established and transitional democracies (Arriola 2013b; Davenport and Armstrong 2004). Whether incumbents are sanctioned for such violence has direct implications for the power and limits of electoral accountability as a force for incentivizing good governance.


We study the political legacy of the Marikana massacre, one of the most high-profile examples of transgressive state violence in a modern emerging democracy. In the late afternoon of August 16, 2012, members of the South African Police Service used automatic weapons to fire hundreds of live rounds into a group of striking mineworkers, killing 17 in the space of just 12 seconds (Alexander 2012). Fifteen minutes


later, in a secluded area nearby, another 17 mineworkers were murdered by police (Bruce 2018; Marinovich 2016). Across both sites, a further 78 were left wounded and hundreds arrested. The actions of the police, serving under the direct authority of the Minister of Police and the President, were reminiscent of the brutal violence perpetrated by the apartheid state at Sharpeville, 1960: violent repression of Black South African protesters. The massacre, which resulted in a lengthy independent televised investigation (Farlam, Hemraj, and Tokota 2015), has been described as a “turning point in South African history” (Alexander et al. 2013).

We first document how a new party, the Economic Freedom Fighters (EFF), emerged directly as a result of Marikana, and successfully created issue ownership of the massacre. Using narrative evidence and a comprehensive dataset of over two hundred thousand tweets by South African political elites that covers the period of 2009–20, we show that Marikana was a central motivating event in the formation of the EFF. The party mentions the massacre in public communications more frequently than other major parties, it occupies a higher proportion of its thematic content than for any other major party, and it remains an issue explicitly raised during election campaigns. The founders of the EFF—political entrepreneurs who had recently been ejected from the incumbent African National Congress (ANC)—accurately perceived that Marikana had created a geographically localized political cleavage.

We then quantify the degree to which the incumbent ANC was held electorally accountable. We find that the incumbent lost electoral support in a geographically concentrated fashion and that the newly formed EFF captured the lion's share of lost support, while existing opposition parties gained almost nothing. Using polling station electoral returns we estimate that, in those communities closest to the massacre, the incumbent

Daniel de Kadt , Assistant Professor, Department of Methodology, London School of Economics, United Kingdom, d.n.de-kadt@lse.ac.uk.

Ada Johnson-Kanu , Assistant Professor, Department of Political Science, University of Kentucky, United States, anjohanson-kanu@uky.edu.

Melissa L. Sands , Assistant Professor, Department of Government, London School of Economics, United Kingdom, m.sands@lse.ac.uk.

Received: January 12, 2021; revised: August 15, 2021; accepted: April 26, 2023. First published online: July 10, 2023.

party lost on average 9 percentage points more immediately following the massacre, relative to its performance in the rest of the country which showed a much smaller decline between 2009 and 2014. This average effect masks significant heterogeneity; in some communities, the party experienced as much as a 60 percentage point decline in support, whereas in other places their support was unaffected. We also find that while these effects were concentrated in the mining communities in and around Marikana, they were not strictly limited to those areas: throughout the country, incumbent losses are generally increasing in proximity to the site of the massacre.

Finally, to understand the individual-level voter dynamics that underpin these electoral shifts, we analyze almost a decade's worth of georeferenced survey data that include questions about both prospective and retrospective vote choice. We find that the incumbent's losses were driven almost entirely by supporters of the incumbent switching allegiance to the newly formed opposition party and not by electoral demobilization.

Together, our findings suggest three lessons about the promises and limits of electoral accountability in the context of state violence. First, incumbents who preside over transgressive state violence can indeed be electorally punished by the people. Second, that accountability may depend on the existence of credible opposition parties that can serve as a vector for disaffected voters. Where such parties do not exist, state violence may generate political cleavages that galvanize nascent opposition movements and provide opportunities for political entrepreneurs to develop a following, and ultimately allow for the formation of successful opposition parties. Third, when state violence occurs, immediate proximity to the violence is correlated with accountability. Electoral and political context thus play an important role in shaping the limits of electoral accountability.

THE PROMISE AND LIMITS OF ELECTORAL ACCOUNTABILITY

Electoral accountability is a key part of modern democratic theory (Barro 1973; Besley 2006; Ferejohn 1986). Intuitively, accountability rests on the assumption that citizens vote to punish or reward politicians at least in part on the basis of their performance in office (Svolik 2013). There is a large and growing body of evidence, in the context of South Africa and more generally, that suggests voters do indeed engage in retrospective voting (Fiorina 1981; Key 1966), in which they evaluate the incumbent's performance on a range of issues and apply rewards or punishments as appropriate (Berliner and Wehner 2019; Berry and Howell 2007; Carlson 2015; de Benedictis-Kessner and Warsaw 2020; Ferree 2006; Harding 2015; Healy, Persson, and Snowberg 2017; Hellwig and Samuels 2008; Mattes 2005; Weghorst and Lindberg 2013; Woon 2012).¹

¹ See Healy and Malhotra (2013) for a comprehensive review of this literature prior to 2013.

State violence likely signals to voters either a capricious government that uses excessive and unwarranted force, or a government that has lost control of its armed forces (Bhasin and Gandhi 2013). Voters who directly experience state violence, or perceive a chance that their lives may be affected by such violence, should have incentive to use their electoral influence to seek reforms from the incumbent, or displace the incumbent entirely. Whether incumbent electoral losses result in a change in government depends on political context and competitiveness. If state violence does indeed influence voter behavior, two micro-channels may be active: switching and demobilization (Bechtel and Hainmueller 2011; Stokes 2016). Switching refers to voters changing their choice at the ballot box—switching from the incumbent to an opposition party (or vice versa). Demobilization refers to voters exiting the formal political process and withholding their vote entirely so as to reprimand the government. Violence may also indicate state strength, discouraging anti-incumbent activists and supporters, leading to demobilization (Fein 1995; Gartner and Regan 1996; Regan and Henderson 2002; Shadmehr and Bernhardt 2011).

Yet there is also evidence that voters engage in both more biased and more sophisticated appraisals of politicians' past behavior (Adida et al. 2020; Boas, Hidalgo, and Toral 2021; Bursztyjn 2016; de Benedictis-Kessner 2018; de Kadt and Lieberman, 2019; Healy and Lenz 2014; Huber, Hill, and Lenz 2012; Weaver 2021). It is not *a priori* certain that all voters would choose to electorally sanction the incumbent in the wake of state violence. Myriad forces and factors shape voters' views of politicians' behavior and influence individual electoral decisions. Under certain circumstances, many incumbent-supporting voters may remain loyal in the wake of violence. This might be particularly likely if voters feel a strong partisan attachment due to sociocultural or historical factors, if they are otherwise happy with the incumbents' performance, if they are particularly dependent on the incumbents' largesse, or if no coherent or viable opposition platform exists (Bartels 2000; Bratton, Bhavnani, and Chen 2012; González 2020; Mattes and Piombo 2001). If voters do not switch or demobilize in the wake of violent transgressions by the state, incumbents may perceive little electoral risk to such behavior.

Crucially, as noted above, theories of electoral accountability—especially those that emphasize vote switching rather than demobilization—rely upon the existence of meaningful alternatives to the incumbent. While in established democracies this is often the case, in emerging democracies the presence of well-developed and institutionalized political alternatives cannot be taken for granted (Mattes and Piombo 2001). Where credible opposition parties do not exist violent events may in fact lead directly to party formation. Indeed, a body of work studying multiple different contexts argues that violent or mass-participatory political events can generate emergent political polarization where none existed before, leading to an issue or identity cleavage that may result in party formation (Kitschelt 1992; LeBas 2006; 2013; Lipset and Rokkan 1967). When meaningful cleavages emerge, such

mobilization often relies on “pockets” of support which can arise in geographically localized ways (Resnick 2012). Political accountability in the wake of state violence may thus include not only electoral shifts but also changes in party politics; in fact, electoral shifts may depend on the formation of new parties.

State violence may also play an important role by providing voters with information about the legitimacy of a democracy. Democracies are fundamentally intended as spaces for nonviolent contestation. While *legitimate* state violence is an implicit part of any democratic bargain, *illegitimate* state force is inconsistent with the notion of participatory democracy. This perhaps sets state violence apart from other failures by an incumbent regime, such as inadequate service delivery or economic mismanagement: violence is uniquely incongruous with electoral liberal democracy. This dynamic is particularly evident in South Africa, where the ANC’s history is intimately connected to nonviolence, democracy, and the support of the labor movement.²

These effects may also operate differently from other incumbent failures because violence is often, as in the case of Marikana, geographically defined. Physical space may thus shape the contours of accountability, with those most proximate to the violence most likely to respond electorally. At least three spatial mechanisms present themselves as potential candidates. First, all politics functions over space, and so pre-existing spatial dimensions of politics, such as where parties operate or where partisans tend to reside, may shape whether governments engaged in violent acts are held to account. Second, personal experiences of state violence may be particularly informationally “rich,” unmediated by the editorial lens of the media. Third, state violence may induce collective trauma in those communities most intimately exposed to such acts. A shared sense of fear, loss, or anger may shape political responses. Finally, it is worth noting that other forms of proximity—social, economic, racial, or class—may also play a role. In the section “Discussion and Conclusion,” we consider these mechanisms in the case of Marikana.

STUDY CONTEXT

There are numerous excellent histories of the events that preceded and occurred on August 16, 2012. We encourage readers to engage those texts closely. They provide detailed analyses of the socioeconomic and political context leading up to the massacre (Chinguno 2013; Sil and Samuelson 2018; Twala

2012) and careful examinations of the event itself (Alexander et al. 2013; Bruce 2018; Marinovich 2016), while also giving voice to the experiences and traumas of the miners and their families far better than we can in this article (Alexander 2012; Benya 2015). We would also encourage readers to learn about the lives of those killed at Marikana (e.g., at <https://www.sahistory.org.za/archive/marikana-casualties>), to ensure that they are remembered not only as victims but as people. We can provide here only a brief broad-strokes outline of the history of mining in South Africa and the events leading up to and occurring on August 16, 2012.

Mining has played a central role in the South Africa’s modern history since the discovery of diamonds in Kimberley and gold on the Witwatersrand in the mid-to-late nineteenth century. The mining industry has always depended on poorly paid migrant laborers—of every race, but mostly Black African—working in dangerous and unforgiving conditions. Those mineworkers have historically represented an important political entity, and played a major role in the anti-apartheid movement (Crush 1989; Gurney 2000). Their influence can be seen in the early twentieth century; strikes in 1913 and 1946, both of which ended in bloodshed at the hands of government, were crucial events in early South African politics.

Mineworkers also exert influence in the central organizing political force for South African labor, the Congress of South African Trade Unions (COSATU). COSATU is a trade union federation representing roughly 1.8-million laborers in multiple industries and sectors. COSATU was established in 1985 as a confederation of 33 separate unions. At that time, it was aligned politically with the United Democratic Front (UDF) as well as the broader political movement opposed to apartheid. In 1990 the ANC and the South African Communist Party (SACP) were unbanned and the three organizations entered into what is known as the “tripartite alliance.” Simply, COSATU guarantees votes in exchange for pro-union policies (Ferree 2011). Yet successive ANC governments have also pursued pro-business policies, causing increasing instability within the alliance (Buhlungu 2010; Evans and Sil 2020).

Since the end of legal apartheid in 1991 and the onset of multiparty democracy in 1994, mineworkers have remained an important political group. In the post-apartheid period, mineworkers have typically been represented by the National Union of Mineworkers (NUM), an affiliate of COSATU, and its (historically) much smaller competitor the Association of Mineworkers and Construction Union (AMCU).³ This arrangement has been the site of much political upheaval both within the unions and between political elites from different groups, often relating to divergent views on economic policy and issues of labor protection (Buhlungu 2005; Buhlungu and Bezuidenhout 2008;

² Since its founding in 1912, the ANC had been ideologically committed to nonviolent struggle, reflected by their typical strategies of nonviolent strikes, marches, boycotts, sit-ins, civil disobedience, and passive resistance. Despite this commitment, in 1961, in the wake of the Sharpeville massacre of 1960 and the seemingly unsuccessful nonviolent Defiance Campaign of the 1950s, the ANC launched an armed wing named uMkhonto we Sizwe (known as “MK,” and translated as “The Spear of the Nation”). MK formally ceased operations in 1990, at the dawn of the democratic transition.

³ We have repeatedly requested data from NUM and AMCU about their membership numbers and the distribution thereof, but have had no success.

Natgrass 1994). Unions have historically organized mineworkers to strike for increased pay and better working conditions and such events are common in South Africa, though the degree of militancy and division between laborers and elites has risen over time (Evans and Sil 2020).

Platinum is central to the mining industry. South Africa is the world's largest producer of platinum, with multiple multinational corporations operating shafts in an area known as the Bushveld Igneous Complex (BIC). The BIC is the largest known layered igneous intrusion on Earth, containing the world's largest known reserve of platinum-group materials. The Marikana Platinum Mine is located centrally in a part of the BIC known as its "Western Limb." In early August 2012, rock drillers employed by British multinational corporation Lonmin PLC embarked on a strike, coordinated from a nearby location called the Koppie (Afrikaans for "small hill"). This was a "wildcat" strike, unauthorized by the leadership of their union, NUM, and seemingly encouraged by the AMCU seeking to expand its membership base in the platinum sector. Such strikes, both authorized and unauthorized, are common in South Africa, and were widespread across the country's platinum mines in 2012 (Evans and Sil 2020; Sil and Samuelson 2018). By August 2012 the Marikana strikers' specific goal was a tripling of monthly salaries (from roughly R4,000 to R12,500 per month, or \$270 to \$850 per month). On August 11, two of the strikers were killed, allegedly by members of the local NUM leadership. Between the 12th and 15th of August, four miners, two police officers, and two private security guards employed by Lonmin were killed.

On August 16 the police attempted to corral protesting strikers who were moving as a group while singing songs and dancing. The police fired teargas, stun grenades, and rubber bullets. A single shot was fired from a handgun by a striker. A panic began immediately thereafter, and 17 miners died under a barrage of automatic rifle fire—at a minimum, 328 bullets were fired in the space of 12 seconds by the police (Farlam, Hemraj, and Tokota 2015). The police's containment strategy would eventually be described as both poorly planned and poorly implemented (Farlam, Hemraj, and Tokota 2015).

The killing continued nearby some 15 minutes later, seemingly in cold blood. Out of sight of the cameras that had captured the initial massacre, police from at least four different units murdered a further 17 miners. Forensic reports show that many were shot in the back, that many were shot while trapped between rocks with nowhere to run, and that the police planted weapons on some of the bodies (Bruce 2018; Marinovich 2016). In total, 34 people were killed and 78 wounded. The Marikana massacre remains as of writing the single most deadly use of force by South African police since the Sharpeville massacre of 1960, in which apartheid police killed 69 Black African protesters in cold blood, and the most deadly use of force since the beginning of South African democracy.

The top panel of Figure 1 shows the Western Limb of the BIC, bisected by Pilanesberg national game

reserve. We use the Western Limb to spatially define the communities most intimately connected to the massacre, and the surrounding area. This area describes, albeit imperfectly, the communities connected to the platinum mines located in this area, the workers and their families and friends who live in largely informal settlements in the vicinity of the mines (Bezuidenhout and Buhlungu 2015; Godfrey 2018; Manson 2013; Moodie 2015; Venter et al. 2012). The Western Limb of the BIC includes the Marikana–Lonmin mine and the communities most intimately connected to the Massacre in 2012, such as the towns of Wonderkop and Marikana itself. For context, the bottom panel of Figure 1 shows the Western Limb overlaid onto the entirety of South Africa.

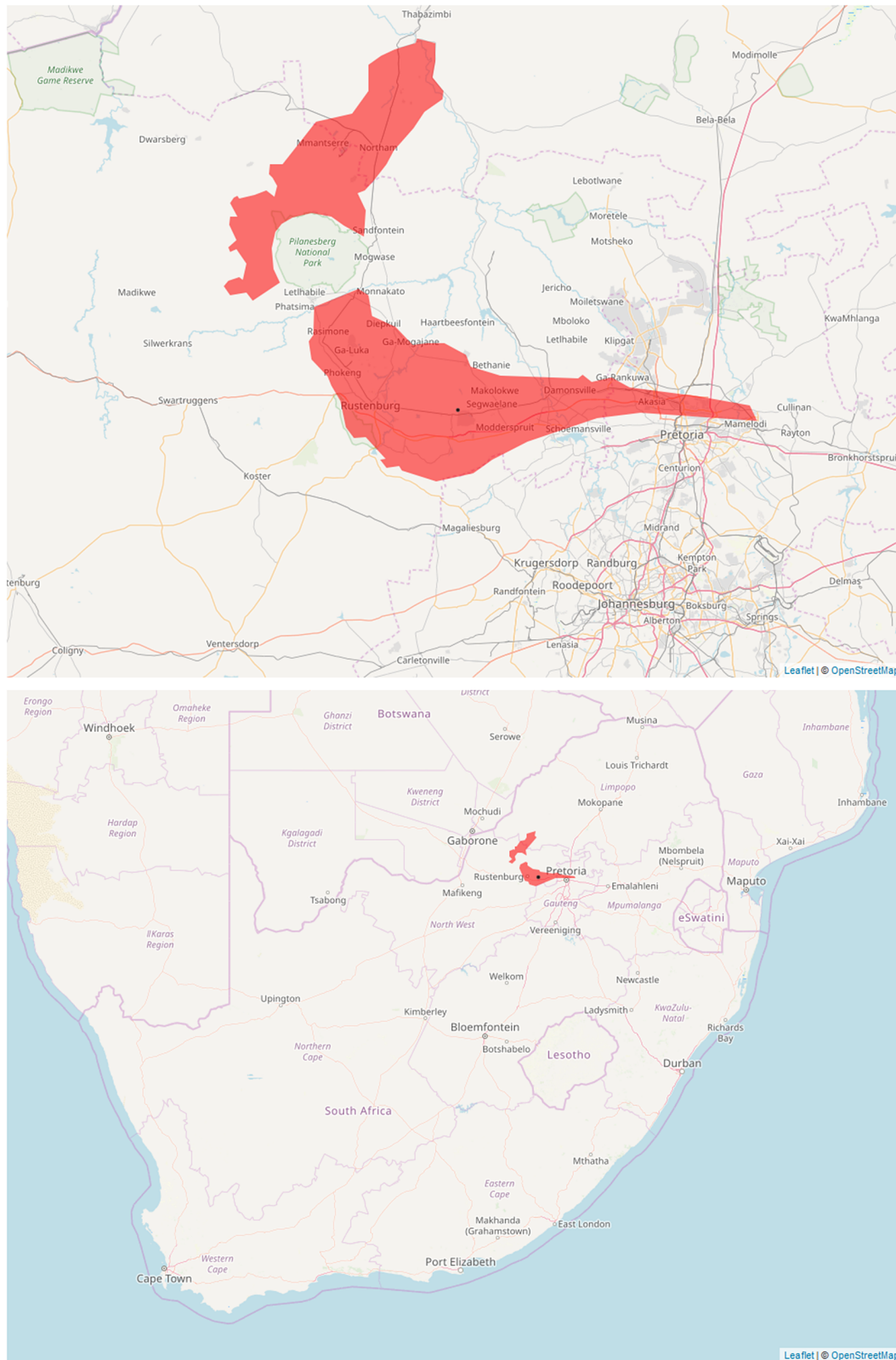
At time of writing, multiple police officials face charges related to the massacre. But the intimate connection between the ANC as a party, Lonmin, and the police ground leadership, have remained a point of focus in the years following the massacre (Alexander et al. 2013). To this point, Cyril Ramaphosa (who was then a senior member of the ANC National Executive Committee, and would shortly become the Deputy President of both the ANC and the country, later the President) was a sitting member of Lonmin's board at the time of the massacre, and played a well-documented role in efforts to encourage the government to take action against the strikers (Bruce 2015; Farlam, Hemraj, and Tokota 2015). As such, many South Africans continue to perceive the massacre not only as a failure by the police, but as evidence of the ANC's departure from its core mission to liberate and improve the lives of the Black South African poor.

Indeed, Marikana was the culmination of repressive police violence used in response to the regular wide-ranging protests that have been a feature of South African politics since the mid-2000s. One year prior to the massacre, 33-year-old Andries Tatane was killed by the police at a protest in Ficksburg. Following public outrage, then Minister of Police Nathi Mthethwa implied in public statements that "maximum force" had been viewed as an acceptable police response to demonstrations (CASAC 2013; Duncan 2013).

PARTY FORMATION IN RESPONSE TO VIOLENCE

Violent events are capable of generating emergent political polarization, issue or identity cleavages, and party formation (LeBas 2013). The immediate political responses to the events at Marikana are consistent with this argument. Two young politicians who had recently been frozen out of the ANC apparatus and were seeking opportunities to re-enter formal politics—Julius Malema and Floyd Shivambu—perceived the events in Marikana as a political opportunity for organization and mobilization (Botiveau 2014), ultimately launching the EFF to directly contest the ANC's political grip on South Africa.

The creation of the EFF was aided by South Africa's political system being relatively open with respect to

FIGURE 1. The Western Limb and the Koppie, the Site of the Marikana Massacre

Note: The upper panel shows the site of the Marikana Massacre (the black dot) and the extent of the Western Limb communities (red polygons) in the local geographic context. The lower panel shows the same but in a broader context. The Western Limb polygons were hand drawn by the authors in GIS, following Godfrey (2018) and Kinnaird (2005). The massacre occurred at two different scenes; the black dot shows the Koppie from which the strike was organized, which lies equidistant between them, 250m from either scene.

party entry and exit. This is largely attributable to two institutional features. First, technical barriers to entry are low: registering a new political party is a simple process that requires only five hundred signatures, minimal paperwork, and the payment of a small fee. Second, the country's electoral system—proportional representation at the national level and a mixed-member system at the local level—means that there exist greater electoral incentives for party formation (Cox 1997). Parties typically require just over 30,000 votes (out of an active electorate of roughly 18-million voters) to gain a seat in the national parliament, and the geographic spread of those votes is essentially irrelevant. At the local level, even small vote hauls can translate into seats. As a consequence, elections regularly feature between 20 and 50 parties on the national ballot, and dozens on the local level.

Yet, as Ferree (2018) notes, while there are many parties in South Africa, few of them are electorally significant at either the national or local level, and the country's effective number of parties hovers around two. This is reflected in the ANC's electoral dominance. Since 1994, the country's first inclusive democratic election, through time of writing, the ANC has won more than 50% of the national vote in every election, and governed the vast majority of local government structures. Ferree (2018) argues, in line with work in other contexts (Arriola 2013a), that both the ANC's dominance and the lack of diverse and effective opposition parties are due to four factors: the power of racial cleavages, the absence of alternative cleavages, secondary institutional features such as public financing of parties, and the ANC's control over public finances. Given South Africa's history of institutionalized racism, the racial cleavage between the majority Black African population and the wealthy white minority is an unsurprisingly dominant frame in politics, and has been effectively used by the ANC to sustain their electoral success (Ferree 2011). This dominant cleavage has typically subsumed alternative cleavages in South Africa (Ferree, Gibson, and Hoffman 2019). Ethno-linguistic differences within the Black African population have been deliberately relegated to secondary importance within the ANC's cross-ethnic pan-Africanist ideology, while economic differences are still heavily predicted by, and thus subsumed by, race. This absence of alternative cleavages is particularly instructive for thinking about the effect of Marikana; the massacre seemingly created a geographically localized issue cleavage within the ANC's support base, over which a substantial number of voters had intense preferences (Holmes 2012; Mbetse 2015; 2016).

The EFF's emergence was likely a direct consequence of this localized cleavage. Malema and Shivambu make this point themselves. In his retrospective on the party's short history, Shivambu refers to Marikana as a "turning point," the "culmination of [...our] involvement with the struggles of the people" (Shivambu 2014, 44). Likewise, Malema, in a radio interview, has attested that the striking mineworkers he met with in Marikana encouraged him to form a new party, arguing their voices would not be heard if "you're [Malema] not in this space

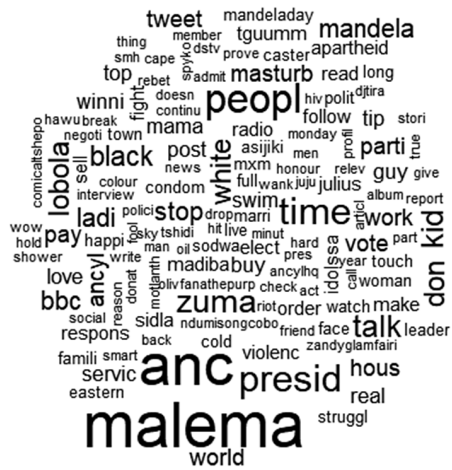
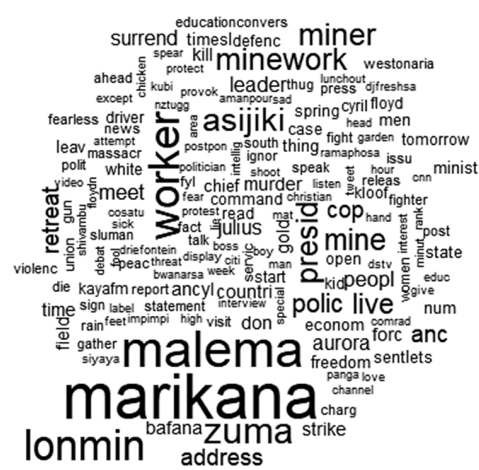
[politics]" (Nemakonde 2017). In that same interview, Malema noted that "when I was there [Marikana], those guys [the strikers] kept calling me, and they planted the seed [to form a new party]" (Nemakonde 2017).

Despite by their own admission having no particular presence in the Western Limb communities during the first half of August 2012, when the strike that preceded the massacre was ongoing, Shivambu and Malema were the first national politicians to arrive in the area after the massacre occurred (Alexander 2013; Shivambu 2014). On August 17, the day after the massacre occurred, Shivambu and other future-EFF activists were immediately on the ground, allying themselves with the striking mineworkers and bereaved families. The next day Malema arrived to convene a meeting with the still-protesting mineworkers, what would be the beginning of an extended presence in the area, and a sustained relationship with the local community (De Wet 2012; Nemakonde 2017; Shivambu 2014). In October 2013, just over a year after the massacre took place, Malema addressed a crowd gathered in Marikana to announce the formal launch of the EFF.

Why were Malema, Shivambu, and the (eventual) EFF uniquely able to capitalize on this political vacuum? Malema and Shivambu were, as a result of their prior positions within the ANC, well known in the area, and already carried political weight within mining communities—predominantly Black African and low income. As Alexander et al. (2013) note, and Shivambu (2014) claims, the future leaders of the EFF were almost "summoned" by the community around Marikana to serve as intermediaries between the community and the police, in the wake of the massacre. Malema was already a national figure at this point, well known for his Black nationalist and anticapitalist ideology, who had recently been ejected from the ANC. As a result, he was both ideologically well positioned to represent mine laborers and their families, and politically opposed to the ANC. By contrast, a party like the center-right Democratic Alliance (DA), which is largely seen as a pro-capitalist party with white sympathies, would have struggled to present a credible ideological fit, had they ever thought to try.

Issue Ownership

To buttress these narrative accounts we consider data on how Marikana was used in political communication by South African political elites. We demonstrate three things, consistent with the narratives presented by Malema and Shivambu and contemporaneous political analysis from social scientists (Alexander 2013). First, in the immediate wake of the massacre, the politicians who would go on to establish the EFF pivoted their public communications almost exclusively toward Marikana. This was not the case for the incumbent ANC or the pre-existing opposition party the DA. This suggests that the event was indeed a core catalyst, a central pillar, of party formation. Second, over the next two election cycles, Marikana was almost exclusively addressed by the EFF, suggesting that it successfully established issue ownership. Third, Marikana

FIGURE 2. Word Clouds of (Proto) EFF Handles, 1 Month before (Left) and after (Right) the Massacre**(Proto) EFF Tweets, Month Prior
(July 16 - August 15)****(Proto) EFF Tweets, Month After
(August 16 - September 15)**

Note: Words are only included if they meet the minimum frequency of three uses.

continues to feature in EFF communications around election time, despite the fact that the EFF has broadened its support nationwide, well beyond the directly affected communities. This suggests that the massacre remains a central part of the party's identity, that it still owns the issue, and that its leadership perceives it as resonant with a broad coalition of voters.

Studying issue ownership in emerging democracies like South Africa is difficult; much political communication occurs in informal, unrecorded, and nontranscribed settings. To circumvent this, we turn to social media posts on Twitter, assembling a dataset of over two hundred thousand tweets from official party handles and leading politicians' personal handles.⁴ In 2017, about 14% of the South African public used Twitter and the platform has become a powerful and cheap way for politicians and parties to communicate with voters (BusinessTech 2017). The earliest tweets in our data are from January 2009 and the most recent tweets come from December 2020, when we conducted data collection. We collected all available initial tweets (no replies or nonquoted retweets) from 20 handles. We focus on the two major parties that existed prior to the massacre, the ANC and the opposition DA, as well as the EFF handle and the handles of its core founding members.

All told, our data include 234,853 tweets, 63,396 by six ANC affiliated handles, 83,690 by eight EFF affiliated handles, and 87,767 by six DA affiliated handles.⁵

Details about the Twitter handles, party affiliations, and our strategy for selecting handles can be found in the Supplementary Material. For every handle selected, we retrieve the text content and the time tweets were posted, along with other metadata. We clean the text data as standard, removing stop words, punctuation, and emoticons, converting to lower case, and stemming words.

First, we visualize the behavior of (proto) EFF handles in the month just before and just after the massacre.⁶ Figure 2 presents two simple word clouds including all terms used at least three times: one for the month prior to the massacre and one for the month immediately after. The data show a profound shift in the thematic focus of the handles, away from an almost singular focus on Malema and his tenuous relationship with the ANC and President Jacob Zuma, and toward an almost exclusive focus on Marikana, Lonmin, and the plight of the mineworkers. The massacre became the singular focus of the political entrepreneurs who would eventually found the EFF. In the Supplementary Material, we show the same visualizations for the DA and the ANC and there is very little evidence of any thematic change in the immediate post-Marikana period, nor any major focus on these same words, most of which barely feature at all. The immediate pivot by

⁴ Data were retrieved from the Twitter Search Tweets: Full Archive API, accessed via the rtweet package in R (Kearney 2019)

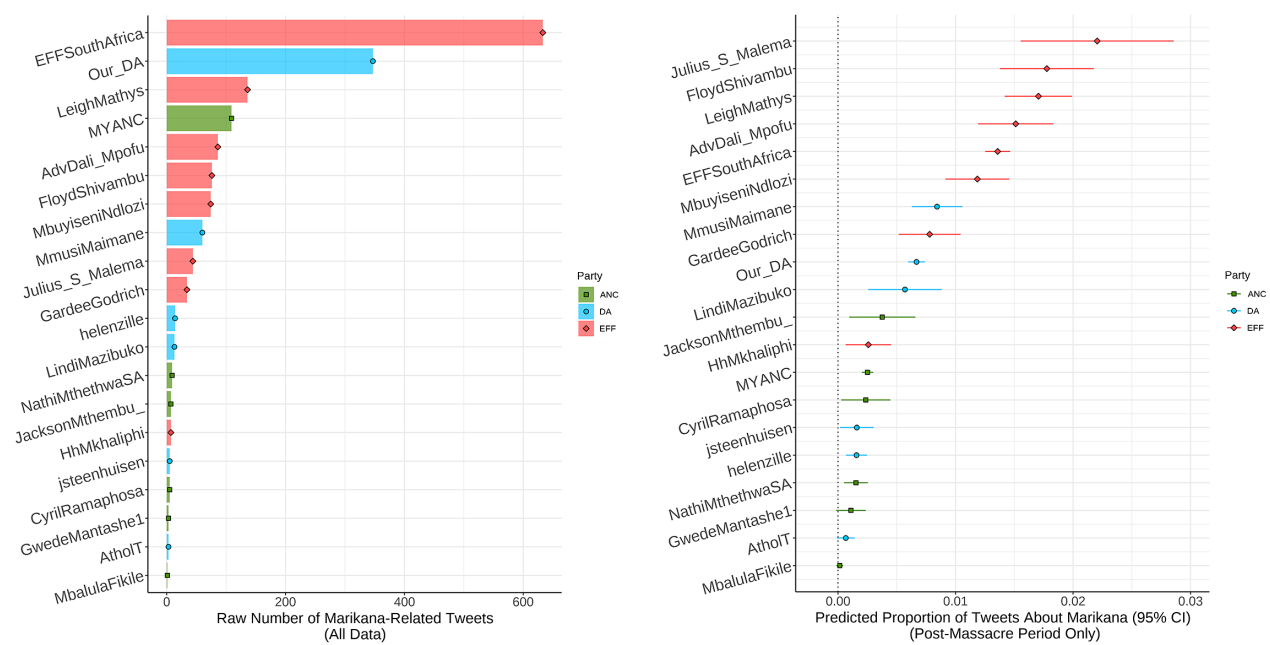
⁵ EFF handles: EFFSouthAfrica, Julius_S_Malema, LeighMathys, GardeeGodrich, HhMkhaliphi, AdvDali_Mpofu, MbuyiseniNdlozi, FloydShivambu.

ANC handles: MYANC, GwedeMantashe1, JacksonMthembu_

CyrilRamaphosa, NathiMthethwaSA, and MbalulaFikile.

DA handles: Our_DA, helenzille, MmusiMaimane, jsteenhuizen, LindiMazibuko, and AtholT.

⁶ We use the term "proto" here because the EFF had not been officially launched at the time of the massacre, and would not be for another year. Proto EFF tweets are those that belong to handles that would become EFF handles in the future.

FIGURE 3. Marikana-Related Tweets by Major Political Twitter Handles

Note: Coded as being Marikana-related if the tweet includes any of the following words: marikana, lonmin, amplats, wonderkop, koppie, massacre, and farlam. Tweets are collected for the period between 2009 and 2020. The left panel uses all data and the right panel uses only data from the post-massacre period (August 16, 2012 onward), though results are not sensitive to this choice. The predicted proportions in the right panel are from a model including dummy variables for each handle, full results of which are available in the replication materials.

soon-to-be EFF members to focus on the massacre, contrasted with the ANC's and DA's lack of a thematic pivot, is consistent with the narrative that Malema and Shivambu identified the potential for a new political cleavage in the wake of Marikana.

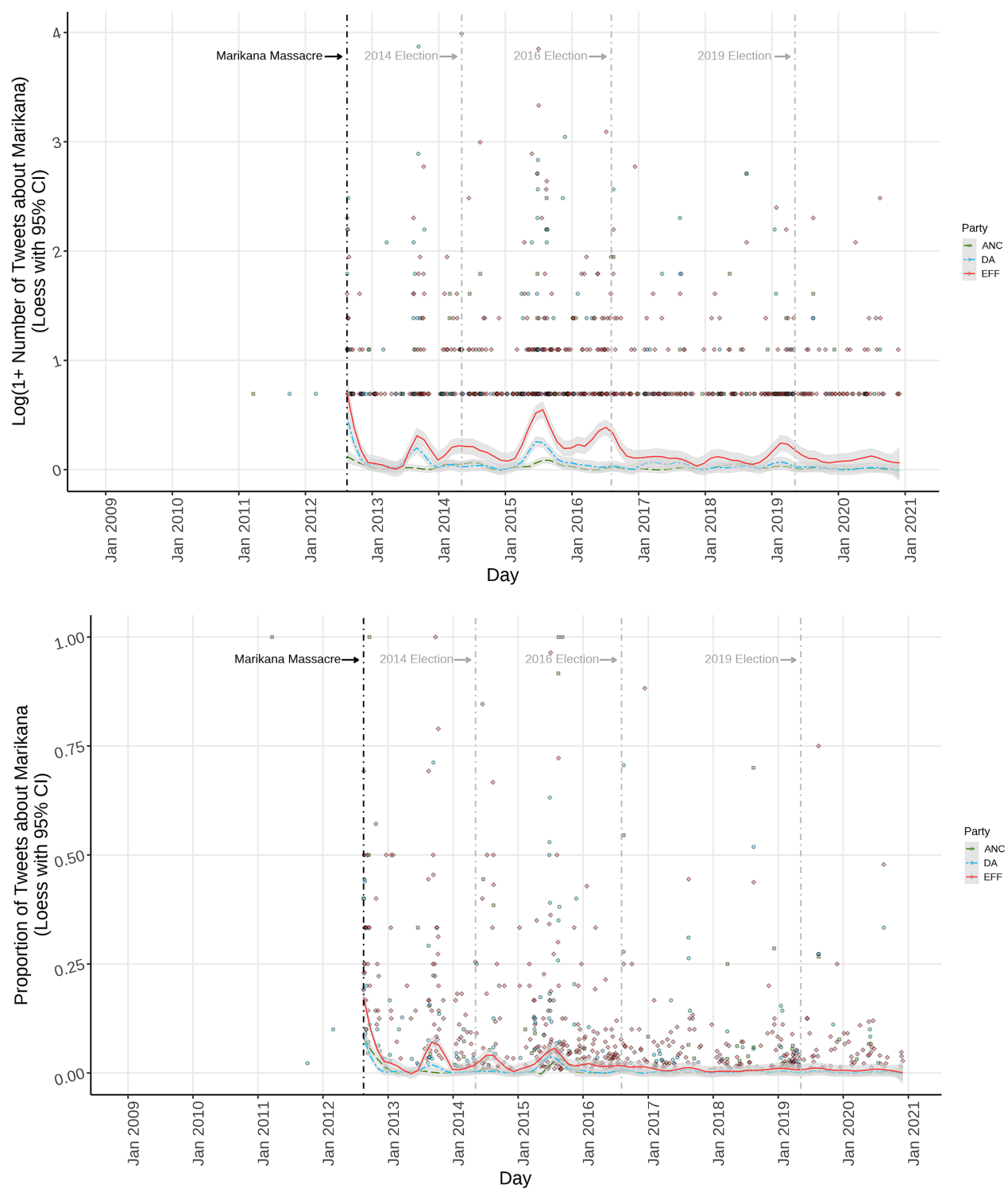
At the time, there was a lack of clear information about how events on the ground had unfolded, and active public debate about whether the police and the ANC or the mineworkers were “to blame” for the violence.⁷ Due to the extensive efforts of activists, journalists, and the Farlam commission, we now know much more (Alexander et al. 2013; Farlam, Hemraj, and Tokota 2015; Marinovich 2016), but as Holmes (2015) shows through a careful content analysis of news articles in different languages and outlets, the Marikana massacre was at the time covered very differently depending on the ethno-linguistic and racial features of the paper's readership. English and Afrikaans newspapers, those whose readerships reflect the demographics of the DA, were much more circumspect about the culpability of the state in the massacre. While the massacre has become uniformly recognized as a modern tragedy for which the ANC-led state is largely to blame, that narrative was not particularly clear in

the immediate aftermath, specifically among the main opposition party's core demographic groups. This, along with the racial and socioeconomic profile of the DA leadership and its support base, may help explain that party's strategic failure to address the massacre appropriately.

We next contrast references to the massacre in political communications across the three main parties, first cross-sectionally and then over time. Using a simple keyword search we determine whether a tweet is related to Marikana—any tweet that includes any of “marikana,” “lonmin,” “amplats,” “wonderkop,” “koppie,” “massacre,” or “farlam”—is coded as being Marikana-related. The nature of the event—discrete, with a specific and unique location and set of names attached—makes a keyword search a powerful and transparent tool for topic modeling. The left panel of Figure 3 shows the number of tweets relating to Marikana posted by each account. Raw counts can be misleading as different handles have existed for different durations and are not equally active, and so we also present, in the right panel, the estimated proportion of total tweets that relate to Marikana. Across both measures, we find a consistent pattern: EFF handles are systematically more likely to tweet about Marikana, both in absolute terms, and proportionally, than DA or ANC handles. In the left panel, the EFF handle, which was created a few months after the massacre, has tweeted nearly twice as many times about Marikana than the DA party handle which existed at the time of the massacre. Many individual EFF members have

⁷ We reject the idea that victims of violence should ever be blamed for the violent actions of others. We use this phrase only because it reflects the debate in the country at the time, and we use scare quotes to indicate our discomfort with the argument.

FIGURE 4. EFF, DA, and ANC Marikana-Related Tweets by Day



Note: Includes all handles, both party and individual, assigned to appropriate political party, ANC, DA, or EFF. The top panel shows the log of the raw count of Marikana-related tweets + 1, whereas the bottom panel shows the proportion of daily tweets that are Marikana-related. Loess fitted using ggplot2::geom_smooth() in R with a span choice of 0.1. Note that all days with zero Marikana tweets are not shown, for clarity.

Downloaded from https://www.cambridge.org/core. IP address: 3.15.219.214, on 07 Oct 2024 at 12:22:29, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/S0003055423000448

tweeted about Marikana almost as many times as the ANC's party handle, despite the fact that party handles typically tweet with much greater frequency than individuals. Proportionally, the top seven handles are all EFF accounts, with roughly 1%–2% of all their tweets in the post-massacre period being Marikana-related.

The top panel of Figure 4 visualizes the prevalence of Marikana-related tweets over time. Not only did the EFF mention the massacre in public communications more frequently than the other parties, and as a higher proportion of its thematic content, but it also used, and continues to use, the massacre as an explicit campaign issue. There are visible election spikes in Marikana-related communications for the EFF around the 2014, 2016, and 2019 elections. No such spikes occur for the other two parties, whose content typically only references Marikana on the anniversary of the event (yearly spikes on August 16). The bottom panel of Figure 4 presents the proportion of daily tweets about Marikana and demonstrates that while Marikana's absolute importance has remained, the issue's relative importance has declined over time. This is perhaps unsurprising, reflecting that by 2019 the EFF was a nationally competitive party with a broad-based political agenda. Though Marikana evidently remains important nearly a decade later, it is no longer a central focus of the party in campaigns.

INCUMBENT ELECTORAL PERFORMANCE IN THE WAKE OF STATE VIOLENCE

The EFF's emergence was seemingly a direct consequence of the Marikana massacre, but what electoral consequences were felt by the incumbent ANC? We use election returns to quantify these effects using the difference-in-differences design described in Table 1. The core quantity of interest is $\hat{\tau}_{DID} = [Treated_t - Treated_{t+1}] - [Control_t - Control_{t+1}]$, how incumbent vote share in Marikana and surrounding communities, defined by the Western Limb, changed after the massacre, net of changes in the rest of the country. As such, it captures the effect of the massacre on incumbent electoral performance in the directly affected communities of interest. As highlighted above, this relies on the assumption that, had the massacre not occurred where and when it did, trends in electoral, party-political, and attitudinal outcomes in communities close to the massacre would have continued to trend in parallel to those outcomes in communities further from the massacre.

This design is similar in nature to that used by two major recent studies of the electoral effects of violence: Getmansky and Zeitzoff (2014) in their study of the electoral effects of rockets fired from Gaza into Israel, and Enos, Kaufman, and Sands (2019) in their study of the effects of the Los Angeles Riots on electoral support for local public goods provision. In the sections "Plausibility of the Design" and "Electoral Effects" and the Supplementary Material, we provide contextual and empirical evidence that this assumption is plausible.

Importantly, we are not able to diagnose whether there were countrywide effects on electoral support for the ANC. Indeed, the ANC lost 3.75 percentage points between 2009 and 2014, and in areas outside of the Western Limb, 3.1 percentage points were lost in total. Some of that lost support may, or may not, be attributable to the massacre; we are not able to quantify that effect. Instead, we are able to study how changes in the ANC's vote share between 2009 and 2014 differ by proximity to, or membership of, the community most intimately connected to violence, net of those broader changes in the country.

Electoral Data

Our primary dataset is a panel of election returns for all of South Africa's elections from 1999 to 2019, combined with census data for 2011. The data are retrofit to the 4,392 electoral wards that were demarcated in 2016. The data include National Election data from 1999, 2004, 2009, 2014, and 2019, and Local Government Election data from 2000, 2006, 2011, and 2016.⁸ Once the panel was compiled, GIS was used to measure their intersection with the Western Limb of the BIC shown in Figure 1. In our main empirical specifications, we treat communities that intersect with the Western Limb as "treated" cases, those which were intimately connected to the massacre. While this remains our preferred way of approaching the issue, defining treatment in this way is potentially problematic in that it may incorrectly include or exclude communities, an issue we address in the section "Spillover."

Electoral Effects

We begin by visualizing the change in ANC vote share between 2009 and 2014 in two ways. The upper panel of Figure 5 shows the distribution of ward-level changes in incumbent support over the entire space of South Africa, with the Western Limb of the platinum belt overlaid in red. The spatial pattern is reasonably clear from casual inspection: the ANC's electoral losses were largely in the northern parts of the country, with a heavy concentration of major losses in the Western Limb communities.

The lower panel of Figure 5 emphasizes this pattern through a scatter plot of proximity to the Koppie, the epicentre of the strike, against ward-level change in ANC vote share. Countrywide, the closer a ward is to the Koppie as the crow flies, the heavier the electoral losses. The overlaid loess curve suggests that, once

⁸ To create a panel at the 2016 ward level, we spatially joined the respective polling stations (of which there are 13,500–22,000, depending on election year) from the 1999–2014 elections with the 2016 wards. The data from the 2016 and 2019 elections do not need to be retrofit, as the data already correspond to the 2016 wards. This is similar to the approach used in de Kadt and Lieberman (2019), de Kadt and Sands (2021), and de Kadt (2019), though using a different unit of aggregation.

TABLE 1. Difference-in-Differences Design

Western Limb	Time	
	Pre-2012 (t)	Post-2012 ($t + 1$)
Yes	$Treated_t$	$Treated_{t+1}$
No	$Control_t$	$Control_{t+1}$

Note: This difference-in-differences design leverages variation over two dimensions: whether communities are part of the Western Limb (treatment) and whether those communities are observed in the pre- or post-massacre period (time).

distance is logged, this association is effectively linear, though it strengthens in the immediate vicinity of the Western Limb communities, shown in red. It also appears that a disproportionately large share of the ANC's heaviest losses (between 25% and 50%) occurred in the affected communities.

The electoral effect of the massacre in the Western Limb communities visualized in Figure 5 can be numerically calculated simply by taking the average for each of the quantities in Table 1. This gives an estimated $\hat{\tau}_{DID} = [67.5 - 66.3] - [69.1 - 56.2]$, an 11.7 percentage point decline in the ANC's vote share in communities that are part of the Western Limb. While this preliminary inspection provides *prima facie* evidence that the incumbent ANC was punished at the polls in communities most affected by the Marikana massacre, we next implement a statistical analysis of the difference-in-differences which allows us to account for potential concerns relating to the comparability of our control and treated units and the plausibility of parallel trends. Our core statistical specification takes the following form:

$$\Delta Y_w = \alpha + \tau_{DID} WesternLimb_w + \delta \mathbf{X}_w + \gamma \mathbf{G}_w + \epsilon_m.$$

For ward w , we regress the change in our outcome variable Y between the pre- and post-massacre periods (2009 and 2014 for the National and Provincial Elections; 2011 and 2016 for the Local Government Elections), on an indicator of whether the ward intersects with the *WesternLimb*. \mathbf{X} are optional time-invariant census covariates measured in 2011 (unemployment rate; formal, informal, and traditional housing stock; racial population shares; and language group population shares). \mathbf{G} are optional spatial covariates (longitude + latitude + longitude \times latitude). Note that the estimation strategy is a deliberately simple statistical approach—we begin with minimal modeling assumptions for ease of interpretability and understanding, but in the section “Alternative Specifications,” we present a range of alternative, and typically more complex, analyses. Standard errors ϵ_m are clustered by municipality, the geographic unit above the ward, which helps to account for spatial autocorrelation in the treatment assignment. The results are virtually unchanged in terms of statistical significance when using robust unit-level standard errors, or the Conley (1999) adjustment for spatial and temporal autocorrelation (Fetzer 2014; Hsiang 2010).

The results from these specifications are presented in columns 1–3 in Panel A of Table 2 for the National and Provincial Elections and Panel B for the Local Government Elections. Column 1 is a regression estimate equivalent to the simple difference-in-differences calculated above. Column 2 adds spatial controls and column 3, which represents our preferred and most conservative specification, adds both covariates and spatial controls. Columns 4–6 replicate these specifications but for a placebo outcome, the change in ANC vote share from 2004 to 2009 for the National and Provincial Elections and 2006 to 2011 for the Local Government Elections, the respective electoral cycles prior to the massacre.

From the coefficients reported in column 3 of Table 2, we find that the Marikana massacre led to an approximately 9 percentage point decrease in support for the incumbent ANC in proximate communities of interest, contrasted with the rest of South Africa. Our results are consistent across election types, and statistically significant at $p < 0.001$ with both municipality clustered standard errors and Conley HAC standard errors. Comparing this to the pre-trends in columns 4–6, in which the estimate is essentially zero for the National and Provincial Elections, and close to zero for the Local Government Elections, lends credibility to the difference-in-differences identification strategy.

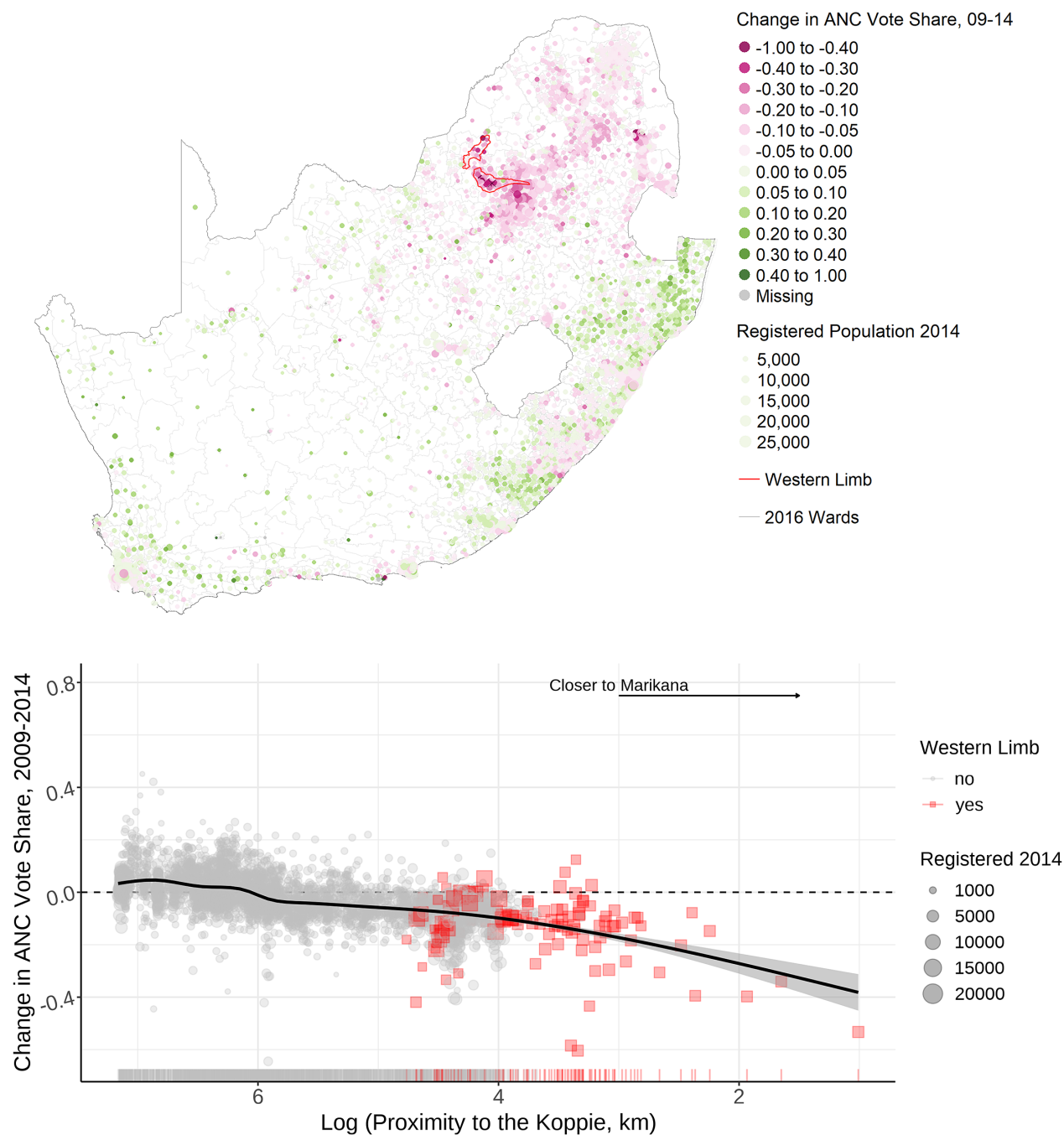
Table 3 presents a reanalysis of the polling station data that takes as the dependent variable the vote share for the newly emerged EFF and the change in vote share for the pre-existing largest opposition party, the center-right DA.⁹ As before, Panel A presents the estimates of the effect of the massacre on national election performance, whereas Panel B presents the effect on local election performance. The results suggest that the ANC's electoral losses resulted in gains by the EFF of roughly 7 percentage points in the 2014 National and Provincial Election, and roughly 8 percentage points in the 2016 Local Government Elections. Yet we find no shift in vote share to the DA; if anything, the DA appears to have lost a small amount of support in the 2016 Local Government Elections, perhaps as a result of the emergence of an alternative opposition option in the form of the EFF.

Spillover

As alluded to before, there is no perfect way to identify those who were most intimately connected to the massacre from those who were not. While the Western Limb coding presented in the section “Electoral Effects” is our preferred approach, it raises a number of concerns. Due to potential spillovers in treatment, the results could be too large, or too small. For example, it is likely that friends and relatives of mineworkers who were on strike live in Johannesburg, just outside of

⁹ Taking the change in EFF vote share would be equivalent to the vote share in 2014 or 2016 respectively, as the EFF did not exist prior to 2013 and so received zero votes in 2009 and 2011.

FIGURE 5. Visualizing the Electoral Effect of the Massacre



Note: Each ward in the country is represented by a point on both the upper panel (map) and the lower panel (graph). In the upper panel, each point is located at the ward's centroid. The outline of Western Limb is shown in red in the upper panel and those same "treated" wards are highlighted in red in the lower panel.

the Western Limb. It seems implausible to assume that these people were not intimately connected to these events. As a consequence, we may have misspecified the treatment and control groups, and in doing so violated the parallel trends assumption. To assuage these concerns, we replicate our analysis using a variety

of alternative specifications outlined below. Detailed results are presented in the Supplementary Material, but in general all of the following analyses produce results that are highly consistent with our core specification, in terms of sign, magnitude, and statistical significance.

TABLE 2. Difference-in-Differences Analysis of Electoral Effect of the Massacre

PANEL A: National and Provincial Elections						
	Main effect			Pre-trend test		
	DV = Δ ANC Vote Share 09-14			DV = Δ ANC Vote Share 04-09		
	(1)	(2)	(3)	(4)	(5)	(6)
Western Belt Community (Municipality clustered SEs) (Conley HAC SEs)	-0.117*** (0.023) (0.013)	-0.084*** (0.024) (0.014)	-0.090*** (0.023) (0.012)	-0.035*** (0.011) (0.021)	0.002 (0.011) (0.009)	-0.000 (0.011) (0.005)
Spatial controls		✓	✓		✓	✓
Covariates			✓			✓
No. of obs.	4,377	4,377	4,377	4,318	4,318	4,318
R ²	0.054	0.227	0.363	0.002	0.349	0.656

PANEL B: Local Government Elections						
	Main effect			Pre-trend test		
	DV = Δ ANC Vote Share 11-16			DV = Δ ANC Vote Share 06-11		
	(1)	(2)	(3)	(4)	(5)	(6)
Western Belt Community (Municipality clustered SEs) (Conley HAC SEs)	-0.144*** (0.030) (0.017)	-0.094** (0.029) (0.015)	-0.088*** (0.026) (0.014)	-0.021 (0.016) (0.012)	-0.011 (0.017) (0.007)	-0.019 (0.015) (0.005)
Spatial controls		✓	✓		✓	✓
Covariates			✓			✓
No. of obs.	4,386	4,386	4,386	4,363	4,363	4,363
R ²	0.040	0.169	0.341	0.001	0.094	0.289

Note: Standard errors estimated two ways in parentheses. Effective $n_{HAC} = n_{clustered} \times 2$. ⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, corresponding to municipality clustered errors.

TABLE 3. Difference-in-Differences Analysis of Opposition Party Performance

PANEL A: National and Provincial Elections						
	EFF			DA		
	DV = EFF Vote Share 2014			DV = Δ DA Vote Share 09-14		
	(1)	(2)	(3)	(4)	(5)	(6)
Western Belt Community (Municipality clustered SEs) (Conley HAC SEs)	0.107*** (0.021) (0.012)	0.067** (0.020) (0.010)	0.067*** (0.018) (0.008)	-0.002 (0.005) (0.004)	-0.006 (0.007) (0.004)	-0.000 (0.005) (0.003)
Spatial controls		✓	✓		✓	✓
Covariates			✓			✓
No. of obs.	4,388	4,388	4,388	4,377	4,377	4,377
R ²	0.105	0.422	0.679	0.000	0.118	0.360

PANEL B: Local government elections						
	EFF			DA		
	DV = EFF Vote Share 2016			DV = Δ DA Vote Share 11-16		
	(1)	(2)	(3)	(4)	(5)	(6)
Western Belt Community (Municipality clustered SEs) (Conley HAC SEs)	0.128*** (0.031) (0.018)	0.077** (0.029) (0.014)	0.085** (0.028) (0.012)	-0.026** (0.009) (0.004)	-0.016 ⁺ (0.009) (0.003)	-0.010 (0.010) (0.004)
Spatial controls		✓	✓		✓	✓
Covariates			✓			✓
No. of obs.	4,392	4,392	4,392	4,386	4,386	4,386
R ²	0.070	0.348	0.615	0.005	0.041	0.099

Note: Standard errors estimated two ways in parentheses. Effective $n_{HAC} = n_{clustered} \times 2$. ⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Spatial Donut

To account for the possibility that some units in the control group are actually partially treated, we re-estimate the same specifications, but with a spatial “donut” approach in which those areas that fall within 100 kilometers of the Koppie, but do not fall within the Western Limb are excluded from the analysis. This essentially drops from the analysis areas that are most likely to be subject to a spatial spillover, such as Johannesburg in the hypothetical case mentioned above. The results, presented in the Supplementary Material, show a slightly larger estimated effect in both election types—a 10 percentage point decline in ANC vote share in the affected communities, relative to the rest of the country ($p < 0.001$). We repeat this process with a 200-kilometer donut and the results are almost unchanged.

Proximity as Treatment

That the spatial donut approach increases the point estimate is *prima facie* evidence of some spatial spillover. To be more flexible in terms of treatment assignment and to parametrically model this spillover, we implement an analysis with a continuous treatment variable: proximity (negative log kilometers) to the Koppie. In our preferred specification, which controls for both covariates and latitude and longitude and their interaction, we find $\beta = -0.0533$ ($p < 0.001$). This suggests that the decline in ANC vote share when moving from pre-massacre to post-massacre is increasing with proximity to the Koppie; the reported coefficients imply that a 10% increase in proximity to the Koppie (e.g., moving from 500 kilometre away to 450 kilometer away from the Koppie) would lead to a 0.22 percentage point ($-0.0533 \times \log(1.1) \times 100$) larger decline in ANC support, whereas a 100% increase in proximity (e.g., moving from 500 kilometer away to 0 kilometer away) would result in a 1.6 percentage point ($-0.0533 \times \log(2) \times 100$) larger decline in ANC support. This provides further evidence that the change in ANC support is being driven in part by the Marikana massacre.

Alternative Specifications

While spatial spillovers are a primary threat to our research design, we also implement other approaches to demonstrate that the results are not simply an artifact of our empirical choices.

Alternative Control Groups

It is possible that the entirety of South Africa outside of the Western Limb is a poor control group. This choice of control group may violate the parallel trends assumption, notwithstanding our pre-trends tests, which can only ever be suggestive. We probe this possibility in four ways. First, we use Mahalanobis matching on a range of pre-treatment covariates (demographic, economy, and pre-massacre outcomes) to create two datasets of 242 (including geographic covariates) and 212 (excluding geographic covariates) one-to-one matched wards respectively, and then

re-estimate our main and placebo specifications on this dataset. We estimate that the ANC lost an additional 7.2–7.7 percentage points in the national election, and 4.9–5.8 percentage points in the local election, compared to the matched comparisons. Those losses were mirrored by gains by the EFF. Second, we implement the generalized synthetic control method (Xu 2017) using all elections, both national and local, from 1999 to 2019, combined into a single panel. This approach estimates counterfactual outcomes for each treated unit separately and yields an estimate of the average treatment effect on the treated (ATT), conditional on well-matching pre-trends, robust to both time-invariant and time-varying cross-unit confounders. Using this approach, we find an 8.9 percentage point effect for the national election and a 10.4 percentage point effect for the local election ($p < 0.001$); results are available in the Supplementary Material. Third, we re-estimate the main specifications, but limit the analysis to only those areas within 150 kilometer, and 300 kilometer, respectively, of the Koppie. We view this as a conservative approach in that it only uses as control cases wards that are close to the site of the massacre. The control group may thus in fact be partially treated, as shown in the section “Spillover.” Indeed, we still find statistically significant negative effects, though the point estimates are roughly half the magnitude of our core specification. Fourth, we estimate an approach more akin to a “geographic regression discontinuity design,” using a cubic expansion of latitude and longitude (Dell 2010; Dell and Olken 2017), while focusing on the 300-kilometer space around the site of the massacre. As before, the point estimate is roughly half that of the core specification, but remains statistically distinguishable from zero at conventional levels for the National and Provincial Elections, though not for the Local Government Elections.

Combining Election Types

South Africa’s 5-year election cycles imply reasonably long gaps between observations, which may raise concerns that trends in the treated and control units were diverging prior to the massacre but after the previous election, but that this cannot be seen given the time scale. We replicate the analysis by combining both the local and national election data to allow for a treatment effect test on incumbent vote share changes between 2011 and 2014 vote share changes while reserving the incumbent vote share change from 2009 to 2011 for the pre-trends test. The results from this test, available in the Supplementary Material, are similar to the core results above, with the preferred specification yielding a result of 9.5 percentage point decline in ANC vote share statistically significant at conventional levels, and a not statistically significant 0.4 percentage point deviation in the pre-trend.

Plausibility of the Design

Three features of the timing and location of the Marikana massacre suggest that the assumptions underpinning our research design are plausible. First, the

massacre was not pre-meditated in any long-term sense.¹⁰ The Farlam report outlines the series of immediate decisions taken by police, government officials, and union leaders, that, combined with chance, led to tragedy. Given the details described in the report, there is no *ex ante* reason that a similar event did not occur in 2007 when 240,000 miners participated in a planned strike, in 2016 when a similar wave of strikes occurred on South African mines, in 2015 when the #FeesMust-Fall protests rocked universities nationwide, or in any number of other labor disputes, service delivery protests, or strikes that occur regularly throughout the country.

Second, Marikana need not have been the location of the massacre. There are numerous other mining communities throughout the country at which similar strike events occur with regularity. In the Supplementary Material, we use police data to show that, while there have been tens of thousands of “crowd events” at which public order police were deployed throughout the country, there was not a particularly pronounced uptick in the number of such events in the region—nor anywhere in South Africa for that matter—in the run up to the massacre. One estimate suggests that there were as many as 8,700 service delivery protests in South Africa between 2005 and 2017 at which public order police were deployed, all occurring at varying scales and levels of intensity (Alexander et al. 2018), and this number does not even include labor-related protests and strikes like the wildcat strikes that preceded the massacre.

Third, the massacre occurred between two National and Provincial Elections—2009 and 2014—in which the ANC’s presidential candidate remained the same in Jacob Zuma, meaning that the principal forces within the ANC, and the ethno-linguistic identity (Zulu) of their presidential candidate, remained constant. The massacre was also bounded by two Local Government Elections—2011 and 2016—in which Zuma’s leadership again remained constant. Together, these contextual features suggest a difference-in-differences design as a plausible way to learn about the effect of the massacre on the incumbent ANC’s election performance in proximate communities.

MECHANISMS: VOTE SWITCHING BUT NOT DEMOBILIZATION

Following the Marikana massacre, the incumbent ANC suffered geographically concentrated electoral losses in both local and national elections. In the aggregate, the newly emerged EFF gained the lion’s share of those lost votes. But what individual-level voter dynamics account for the aggregate electoral effects we observe? Disentangling individual-level mechanisms like demobilization and vote-switching in aggregate data is difficult due to ecological inference problems. For example, it could be

that the EFF’s gains were not due to voters leaving the ANC, but instead due to ANC voter demobilization. To study these dynamics, we analyze data from the South African Social Attitudes Survey (SASAS) 2007–16, collected by the Human Sciences Research Council, South Africa’s statutory research agency for the social sciences and humanities (HSRC 2016). SASAS, part of the International Social Survey Programme, is an annual nationally representative cross-section of South Africans’ views on political, social, and economic topics.

SASAS asks individuals both their retrospective and prospective vote choices with regard to National and Provincial Elections.¹¹ The retrospective choice question asks respondents which party they voted for in the most recent National and Provincial Election. As such, the data from 2007 to 2016 include retrospective voting measures for the 2004 and 2009 (pre-massacre) elections and the 2014 (post-massacre) election. By contrast, the prospective choice question asks respondents which party they would vote for “if an election were held tomorrow.” These questions allow us to create four dynamic dependent variables that capture an individual’s self-reported change in behavior over time:

1. Exit the Electorate: Any voter who retrospectively recalls casting a ballot in the last election, but prospectively says they will not vote in a coming election.
2. Exit from ANC: Any voter who retrospectively recalls casting a ballot for the ANC in the last election but prospectively says they will not vote in a coming election.
3. Switch from ANC: Any voter who retrospectively recalls casting a ballot for the ANC in the last election but prospectively says they will vote for a different party.
4. Switch to ANC: Any voter who retrospectively recalls casting a ballot for anyone other than the ANC in the last election but prospectively says they will vote for the ANC.

By limiting our analyses to only those surveyed before 2014 (when the first post-massacre election took place), these variables are able capture changes in self-reported behavior from the pre-massacre period to the

¹¹ Results in the Supplementary Material show that, across both prospective and retrospective ANC votes, support for the ANC is lower the closer to the Koppie one lives in the post-massacre period compared with the pre-massacre period, consistent with the aggregate results estimated using official electoral returns. In the Supplementary Material, we also assess the validity of the individual-level design using placebo codings of the *Post* variable, assigning the variable to = 1 in 2010 and 2011, respectively, and re-estimating our regressions while excluding data from the post-massacre period. These analyses reveal coefficients for prospective ANC vote that are 5–15 times smaller than our effect estimates, and coefficients for retrospective ANC vote that are all essentially 0. None of the placebo difference-in-difference coefficients are statistically distinguishable from zero at any conventional levels. By way of an additional placebo test, we show that there is no effect on individuals’ satisfaction with the economy, which helps rule out that the electoral effects we find are themselves a function of the massacre causing localized economic effects. We are grateful to Leo Arriola for proposing this idea.

¹⁰ The massacre may have been pre-meditated in the very short run, within a couple days of August 16, 2012, but it was not planned far ahead of time by the police or the ANC government.

post-massacre period. Unfortunately, the spatial distribution of survey respondents changes over time due to sampling, and, as a consequence, we are not able to use the Western Limb as our treatment variable, and instead we use the proximity specifications that served as an alternative specification for the aggregate data:

$$Y_{i,t} = \alpha_t + \beta_1 Proximity_{ea} + \beta_2 Post_t + \tau Proximity_{ea} \times Post_t + \delta X_i + \gamma G_{ea} + \epsilon_{ea}.$$

For individual i in survey year $t \in \{2007, \dots, 2013\}$, we regress our outcome variable Y on the *Proximity* of their enumeration area ea to the Koppie, an indicator for whether the person was surveyed before August 16, 2012 and thus in the $Post = 0$ period, or after, in the $Post = 1$ period, and the interaction of these two variables. X are optional individual-level covariates (age, age squared, sex, a 15-item wealth index, and race group). W are optional spatial covariates (longitude + latitude + longitude \times latitude). We include α_t time fixed effects, and ϵ_m are standard errors clustered by enumeration area, the sampling unit of the survey. The coefficient on

the interaction term τ identifies the difference-in-differences: how the relationship between the proximity to the Koppie and Y varies between the pre- and post-periods.

The results in Table 4 suggest that vote switching, rather than electoral exit, is the primary individual-level mechanism driving the aggregate electoral losses suffered by the ANC. As shown in columns 1–6 of Panel A, we find no evidence of exit: voters, regardless of prior affiliation, did not choose to stay home on election day as a result of the massacre. This result is echoed in the aggregate data—in the Supplementary Material, we show no effects on turnout in 2014, and, if anything, slight increases in turnout in 2016 as a result of the massacre. Rather, voters closer to the Koppie were more likely to switch their votes away from the ANC post massacre, as shown in columns 1–3 in Panel B of Table 4. Columns 4–6 show no evidence that voters switched from an opposition party to the ANC. To understand the magnitude of the findings, recall that this quantity identifies how much stronger the association between proximity to Marikana and the outcome variable is in the post-massacre period, relative to the pre-massacre period. Consider the coefficient in column 3 in Panel B of Table 4, which implies that,

	PANEL A: Demobilization					
	DV = Exit the Electorate			DV = Exit from ANC		
	(1)	(2)	(3)	(4)	(5)	(6)
Proximity to Marikana (- log km)	0.007** (0.002)	0.011** (0.004)	0.011** (0.004)	0.008*** (0.002)	0.011** (0.004)	0.013** (0.004)
Post massacre	0.010 (0.056)	0.009 (0.055)	0.034 (0.055)	0.065 (0.066)	0.064 (0.066)	0.070 (0.065)
Proximity \times Post	0.002 (0.004)	0.002 (0.004)	0.004 (0.004)	0.005 (0.005)	0.005 (0.005)	0.005 (0.005)
Pre-2014 sample	✓	✓	✓	✓	✓	✓
Spatial controls		✓	✓		✓	✓
Covariates			✓			✓
No. of obs.	17,108	17,108	17,083	12,128	12,128	12,118
R^2	0.002	0.002	0.008	0.003	0.004	0.006
	PANEL B: Party switching					
	DV = Switch from ANC			DV = Switch to ANC		
	(1)	(2)	(3)	(4)	(5)	(6)
Proximity to Marikana (- log km)	-0.006 (0.004)	0.006 (0.007)	0.009 (0.007)	0.018*** (0.004)	-0.023** (0.009)	-0.010 (0.008)
Post massacre	0.361** (0.125)	0.358** (0.121)	0.374** (0.120)	-0.077 (0.081)	-0.063 (0.080)	-0.041 (0.074)
Proximity \times Post	0.027** (0.010)	0.026** (0.009)	0.028** (0.009)	-0.006 (0.006)	-0.005 (0.006)	-0.003 (0.006)
Pre-2014 sample	✓	✓	✓	✓	✓	✓
Spatial controls		✓	✓		✓	✓
Covariates			✓			✓
No. of obs.	12,128	12,128	12,118	7,395	7,395	7,374
R^2	0.002	0.009	0.016	0.006	0.022	0.072

Note: Estimated coefficient of interest highlighted in bold. Standard errors clustered by EA in parentheses. $^+p < 0.10$, $^*p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

moving to the post-massacre period relative to the pre-massacre period, a 10% increase in proximity to Marikana (e.g., moving from 500 kilometer away to 450 kilometer away from Marikana) would lead to a 0.26 percentage point ($0.028 \times \log(1.1) \times 100$) greater increase in the probability of switching from the ANC to another party. A 100% increase in proximity (e.g., moving from 500 kilometer away to 0 kilometer away) would result in a 1.94 percentage point ($0.028 \times \log(2) \times 100$) increase in the probability of switching from the ANC.

One possible explanation of these findings is that the EFF co-opted the ANC's local political structures and candidates. Local political elites play an important role in South African electoral politics, and in the Local Government Elections individual candidates campaign and are listed on the ballot. If the EFF managed to co-opt those local political elites, then the switching dynamic we document may simply be evidence of a personal vote and elite defection, rather than evidence of standard electoral accountability. To rule out this explanation, in the Supplementary Material, we show that the vast majority ($\approx 95\%$) of EFF election candidates in the 2016 elections were not defected ANC members but first-time politicians, and of the defected ANC members, none were candidates in the Marikana area.¹² It appears that the EFF did not simply subsume the ANC's local political structures in the wake of the massacre; local ANC elites were ejected and replaced by a new, younger, group of political elites. Voters switched party not because their preferred candidates did too, but as a rejection of one entire party in preference of another.

DISCUSSION AND CONCLUSION

Democratic governments sometimes use violence against their people, and this occurs worldwide: At Youngstown, Ohio, in 1937, on the campus of Kent State University in 1970, at Paris' Pont Saint-Michel in 1961, on Derry's Bloody Sunday in 1972, across Malawi in 2011, in Kharqamar, Pakistan in 2019, at Nigeria's Lekki toll gate in 2020, and beyond. Every one of these events represents a profound human tragedy, and a deep democratic failure. In the context of South Africa's Marikana massacre we have offered here a range of findings that begin to explain how the logic of democratic accountability may (or may not) function in the face of such transgressive state violence. First, narrative and historical evidence suggests that state violence can create geographically localized political cleavages that allow political entrepreneurs to launch new opposition parties. Second, aggregate-level evidence from election returns suggests that incumbents who perpetrate state violence suffer direct electoral losses as a result. Third, individual-level evidence shows that while many incumbent voters

may remain loyal to their party, others switch their support to the opposition.

Whether voters hold elected leaders to account is likely contingent on broader political context. Switching one's vote requires the existence of a suitable opposition. Where such alternatives are absent, new opposition parties may form, but this depends on institutional and contextual features that influence the ease of party formation. These conditions are not trivial; indeed, African democracies have highly varied party systems, and the existence of a credible opposition cannot be taken for granted (Brambor, Clark, and Golder 2007; Manning 2005; Mozaffar, Scarritt, and Galaich 2003; Riedl 2014). Barriers to party formation may thus amount to barriers to democratic accountability in emerging democracies where party systems are unstable.

The importance of parties helps to answer a crucial puzzle raised by our findings: why did geographic proximity to the massacre matter so much? One clear reason is that parties operate over space, and not in abstraction. It proved far easier for the EFF to electorally target the communities that were most directly affected, rather than trying to create a national campaign out of the massacre. Yet the importance of proximity is no doubt more complex; as raised earlier, other mechanisms might simultaneously connect violence to behavior by proximity. First, personal experiences of the event likely shaped beliefs about responsibility and the injustice of the massacre far more clearly and directly than media coverage. Second, and relatedly, some degree of collective trauma is concentrated around the location of Marikana, a central theme in the qualitative and historical work of Alexander et al. (2013) and others who highlight the shared sense of fear, devastation, and anger in the community after August 16, 2012. Finally, there may be broader connections between individuals and families with ties to the mining industry. We explore two of these social connections in the Supplementary Material. We consider first whether other parts of the country with platinum mines had a similar reaction and find that other platinum mining communities reacted negatively to the massacre, but with far less intensity (as measured by electoral change). Second, we explore whether the communities around the hometowns of the victims shifted against the ANC and find very little evidence of anti-ANC changes. While broader social connections may play some role, proximity seemingly matters far more, likely due to party operations, direct experiences, and collective trauma.

Our findings speak directly to a broad extant debate around the "domestic democratic peace" (Davenport 2007). This holds that electoral (among other) pressures induce democratic incumbents to weigh very carefully any use of coercive force, resulting in a tendency toward avoiding violence and protecting human rights in the domestic arena (Cingranelli and Filippov 2010). Yet others argue that the "domestic democratic peace" is not empirically supported when taking a more nuanced view of the meaning of "democracy," and that states falling below the very highest levels of

¹² We thank Andy Marshall for suggesting we consider candidate profiles.

“democraticness” are just as, or potentially even more, prone to state violence and coercion than authoritarian regimes (Davenport and Armstrong 2004; de Mesquita et al. 2005; Fein 1995; Regan and Henderson 2002). We help explain this empirical dissensus by highlighting the limits of electoral accountability in cases of state violence. First, if immediate electoral effects are geographically isolated to the communities most intimately connected to the traumas of violence and many voters may remain loyal to the incumbent, then violence may remain a feasible short-term strategy for some elites. Second, if the ability of voters to hold the incumbent accountable is contingent on the existence or emergence of a suitable opposition party, then in some contexts voters may be forced to remain loyal to the incumbent or simply exit the electorate. In the South African case, political entrepreneurs were able to quickly and effectively form a new opposition party in part because the country’s barriers to party formation are low. This may not always be the case, and so the logic of the domestic democratic peace may not always apply.

Likewise, immediate proximity to violence is seemingly correlated with voters exercising accountability. In this sense, our findings speak to empirical evidence emerging from three distinct literatures that explore the effects of violence on political behavior. The first body of literature considers how electoral violence affects political behavior (Birch 2011). Survey experimental evidence suggests that politicians who use electoral violence may be punished by voters (Gutiérrez-Romero and LeBas 2020; Rosenzweig 2021). Of course, the Marikana massacre is not an example of election violence itself, but both are forms of transgressive state violence perpetrated against denizens, and the results presented here are consistent with these prior experimental findings. A related body of literature argues that violence often serves to politically activate and engage victims (Bateson 2012; Bellows and Miguel 2009; Blattman 2009; Cramer 2006; Gilligan, Pasquale, and Samii 2014; Voors et al. 2012) and that particular psychological dispositions and processes shape these responses (Young 2020). So far, there is little evidence that speaks to the electoral aggregation of these micro-level effects in democratic settings. We begin to fill this gap, showing that when the state uses violence, voters do not appear to demobilize, but may in fact become active participants in defining their own political fortunes.

One potential limiting factor is that in societies with high rates of violent crime, the public may be relatively tolerant of police violence. González (2020) documents this phenomenon in multiple Latin American democracies, where the police reproduce the same “authoritarian coercive structures and practices” exhibited under dictatorship because of citizens’ demands. In the South African case, Altbeker (2008) describes high public support for “quasi-military style operations” conducted by police in high-crime urban areas in the late 1990s. This dynamic may help to explain why the effects we find are geographically concentrated: in the immediate wake of the massacre, many South Africans

may have assumed that the police’s actions were potentially justified, and media coverage at the time did little to disabuse that notion (Holmes 2015).

In recent years, police violence and accountability has received renewed attention in the United States (see Soss and Weaver 2017 for a review). Evidence suggests that police violence (Boudreau, MacKenzie, and Simmons 2019; Jefferson, Neuner, and Pasek 2021; Reny and Newman 2021) and protests against violence and state repression (Enos, Kaufman, and Sands 2019; Mazumder 2018; Wasow 2020)¹³ can durably affect attitudes, policy support, and voting, both among ordinary people geographically proximate to the protests and among elected officials (Gause 2020; Gillion 2012). Though it is difficult to parse the effects of police responses to protests from the effects of the protests themselves, this body of work suggests that these events can profoundly shape the political contours of a society. As occurred in the case of Marikana, the state’s violent response often becomes politically intertwined with the substantive demands of protesters.

While past scholarship on state violence has typically focused on authoritarian regimes, state violence against ordinary people is well documented in democracies. At the same time, studies of electoral accountability in democracies typically focus on economic or policy-related accountability, rather than cases of state violence. Bridging these two literatures, we show that while electoral accountability has important limitations, those affected by state violence in democracies can, and do, sanction the incumbent electorally. We anticipate that future work will probe the relationship between state-led violence, party formation, and incumbent loss cross-nationally. Violence is all too often wielded by democratic governments against their own people and recent years have seen improved data collection on such events around the world. We hope that researchers continue to study the relationship between state violence and political outcomes across contexts.

SUPPLEMENTARY MATERIAL

To view supplementary material for this article, please visit <https://doi.org/10.1017/S0003055423000448>.

DATA AVAILABILITY STATEMENT

Data, code, and documentation that support the findings of this study are openly available in the American Political Science Review Dataverse at <https://doi.org/10.7910/DVN/SA71U>. Limitations on the availability of original Twitter data and of the geolocations of SASAS respondents are discussed in the Supplementary Material.

¹³ Though see Biggs, Barrie, and Andrews (2020) for a reanalysis of Mazumder (2018) that questions the magnitude and statistical significance of those findings.

ACKNOWLEDGMENTS

We thank Courtenay Conrad, Alex Dyzenhaus, Guy Grossman, Daniel Kaliski, Evan Lieberman, Rudra Sil, Tariq Thachil, Lindsey Pruett, and Yiqing Xu for direct commentary and guidance. We also thank Ilan Godfrey for sharing his expertise on the Platinum Belt. Audiences at the 2020 UC Africanist Workshop, the 2020 California Regional Working Group on African Political Economy, APSA 2020, the University of Pennsylvania Comparative Politics Seminar Series, and the London School of Economics African Political Economy Group Seminar provided valuable feedback. We are grateful to the Editors of the APSR and three anonymous reviewers for their feedback, and for seeing value in this work. We thank the Independent Electoral Commission of South Africa for facilitating access to voting station shapefiles, and for their timely, high-quality releases of election data and candidate lists. We thank the Human Sciences Research Council for expert guidance regarding the South African Social Attitudes Survey, providing access to the georeferenced versions of the surveys, and for making the data available. We thank Statistics South Africa for assistance with census and spatial data. We thank the South African History Archive for access to the South African Police Service data. Detailed supporting materials are available online.

AUTHOR CONTRIBUTIONS

All authors contributed equally to this project. Name ordering is alphabetical by surname.

FUNDING STATEMENT

This research was funded by University of California Merced faculty research (“startup”) funds.

CONFLICT OF INTEREST

The authors declare no ethical issues or conflicts of interest in this research.

ETHICAL STANDARDS

The authors affirm this research did not involve human subjects.

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