

Votes and Violence: Experimental Evidence from a Nigerian Election^{*}

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Abstract:

Following the wave of democratization during the 1990s, elections are now common in low-income societies. However, frequently elections are not peaceful. We investigate the Nigerian presidential election of 2007, which is to date the largest election held in Africa and one seriously marred by violence. Through a large randomized experiment we establish that voter intimidation is effective in reducing voter turnout, and that the violence was systematically associated with the weakest party. Whereas the incumbent party may have an absolute advantage in violence, we suggest that it has a comparative advantage in two other techniques, vote buying and ballot fraud. Voter intimidation may be a strategy of the weak analogous to terrorism.

JEL Codes: D72, D74, O55, P16.

Keywords: Violence, Conflict, Electoral Politics, Political Economy, Randomized Experiment, Field Experiment, Nigeria, West Africa

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"This election is a do-or-die affair."
- President Olusegun Obasanjo, February 10th 2007

1 Introduction

The slow growth of Africa over the period since Independence is now understood as being partly attributable to poor governance. Until the 1990s the predominant African political system was autocracy. As Besley and Kudamatsu (2007) show, while in some contexts autocracy has produced good economic performance, in Africa it has consistently been dysfunctional. During the 1990s many African autocracies were replaced by democracy, most dramatically in the region's largest society, Nigeria. Given the dismal record of autocracy, there was a reasonable expectation that democracy would achieve both accountability and legitimacy, and thereby both improve economic performance and reduce proneness to political violence. However, the record of elections in Africa and other recent low-income democracies is not encouraging. Kudamatsu (2006) measures government performance by infant mortality and shows that, in Africa, elections produce no improvement except in the rare instances in which the incumbent is defeated. Collier and Rohner (2008) find that below per capita income of \$2,750 democracy significantly increases proneness to civil war and various other manifestations of violence.

A likely reason for the failure of most elections to discipline governments into improved performance is that the participants rely upon illegitimate strategies to victory. For example, the Kenyan elections of December 2007 aroused widespread international accusations that the parties had resorted to miscounting of votes, bribery, and intimidation. Although these strategies may have profound consequences for the failure of democracy to improve government performance, they are difficult to investigate beyond the level of the anecdotal. To date the clearest evidence concerns vote miscounting, since sufficiently large miscounting will show up as a discrepancy between opinion polls and outcomes. Evidence on vote buying has recently been analyzed through randomized experiments by Vicente (2007a). While we provide evidence on both these strategies, the contribution of this paper is to apply the same approach to the use of violence to intimidate voters. To our knowledge this is the first paper formally to analyze this apparently widespread strategy. The context for our analysis is the Nigerian Presidential election of 2007. This election was undoubtedly violent: over 300 people were killed in the course of it. However, the important issue is whether this was simply random inter-communal violence, or whether it was a systematic electoral strategy with systematic consequences for votes. The key contribution

of the paper is to demonstrate by means of large scale randomized interventions to counter violence that violence was indeed systematic and effective. It was a strategy predominantly associated with the political opposition, and its effect was to reduce voter turnout by at least 9%. We also show why turnout is likely to be the best measure of the effectiveness of this particular strategy.

In Section 2 we set out a theoretical framework in which illegitimate election strategies are adopted by political parties to the extent that they are cost-effective. Section 3 describes the Nigerian election. Section 4 discusses the design of the experiment, a fuller description together with displays of campaign materials being given in Appendices 1 and 2. Section 5 gives an overview of the results, using descriptive statistics. Section 6 presents our core econometric results. Section 7 concludes with some implications for policy.

2. How to Win an Election: A Model of Electoral Violence, Vote Buying, and Fraud

Although voters can be expected to use their vote or even lobby (Becker, 1983) to further their interests, their decision problem is often not straightforward. Besley (2006) reviews the consequences if voters have poor information about government performance (analyzed in-depth by Grossman and Helpman, 1996), or if the allegiance of many voters is predetermined by loyalties determined by identity. As information deteriorates and allegiance is frozen, a point is reached beyond which those politicians who are ill-motivated are not disciplined by the fear of losing votes, and in consequence the quality of candidates for office deteriorates. However, in elections analyzed by mainstream political economy the strategies open to candidates remain confined to those prevailing in the mature, high-income democracies. In many of the newly democratic low-income countries the only aspect of democracy that has been introduced is elections. There are neither ‘checks and balances’ upon the use of power, nor effective rules for the conduct of the election.

In Nigeria, the introduction of elections was preceded by 15 continuous years of military rule (military rule accounted for approximately 30 of the 48 years of the postcolonial era, which was marked by numerous coups and internal conflicts), and so no such rules were in place. The absence of checks and balances implies that the winner takes all. The consequent importance of winning is enhanced where the state receives substantial revenues from natural resource exports. In this view, we believe the analysis of the Nigerian case also contributes to a better

understanding of political incentives in resource-rich countries – and therefore of the ‘natural resource curse’ (Sachs and Warner, 1995; Mehlum et al , 2006; Robinson et al, 2006; Vicente, 2006, 2007b; Collier and Goderis, 2007).

Where it is feasible, vote miscounting is evidently a cost-effective election strategy. To the extent that it is feasible, it is likely to advantage the incumbent, since the incumbent is more likely to control the vote-counting process (e.g. the electoral commission). Vote buying suffers from the obvious limitation that if the ballot is secret it is difficult for the politician to enforce the bargain. It may nevertheless become cost-effective either if the secrecy of the election is doubted, or if the voter attaches moral value to keeping her word. If we take vote buying as encompassing clientelism, then the enforcement problem is solved, given the fact that ‘payments’ (e.g. public-sector jobs) will be conditional on being elected. These strategies are also likely to advantage the incumbent, who is likely to have more money, may be suspected of being in a position to subvert the secrecy of the ballot, and definitely may be more convincing in proposing to ‘clients’ (sometimes by using resources from office holding).

The use of violence to intimidate voters is a very different technology with two advantages. If targeted on discouraging known opponents (e.g. as when allegiance is determined by identity) from voting, the pertinent voter behavior is highly observable (i.e. the polling station merely needs to be observed). Further, it is likely to be widely available: one hired gang can constitute a credible risk of violence to many voters. If vote-miscounting and bribery are more cost-effective than intimidation, where they are feasible, we would expect to observe all three strategies. The incumbent would use vote buying ex-ante supplemented by vote-miscounting ex-post, whereas the opposition would rely predominantly on intimidation.

We now present a formal electoral game where an incumbent I , a challenger C , and a continuum of voters of mass 1 interact to allocate political power. The main prize determined by the election is power. However, the game is stacked heavily in favor of the incumbent – we will find that the Incumbent always wins a majority. The incumbent can deploy vote buying prior to the election and ballot fraud after the election sufficient to achieve victory. Both these strategies are costly (though modest relative to the gains from victory) and so the objective of the incumbent is to minimize the cost of securing a majority of the vote. Despite the fact that the Incumbent always wins a majority, his opponent nevertheless participates in the election. The objective of the opponent is to maximize vote share since this strengthens post-election bargaining. The

incumbent lacks the finance for vote buying and the power for ballot fraud. He can rely upon a conventional political campaign, or resort to voter intimidation. These game assumptions, on the variety of actions available to each candidate will be tested in the empirical part of the paper.

The timeline of the sequential complete information game is illustrated in Figure 1. It is in the spirit of Groseclose and Snyder (1996) who explain vote-buying behavior in the context of a sequential game. The Incumbent moves first by setting vote buying. Then the Challenger reacts by choosing intimidation. Then voters decide whether to vote and for whom. Finally, the Incumbent may decide to use fraud to win elections (overriding the popular vote).

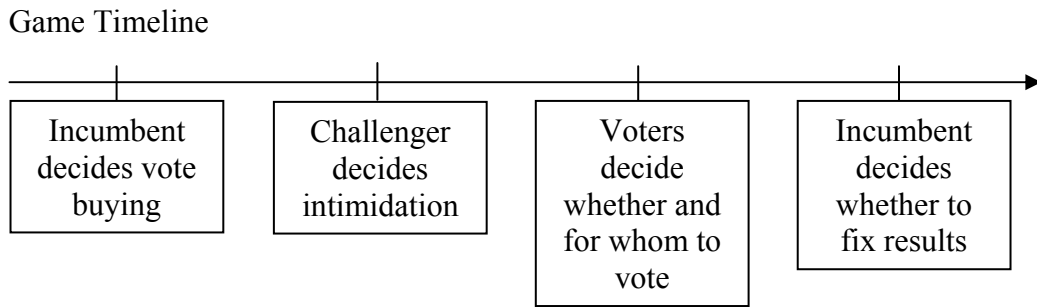


Figure 1: The Sequence of the Game

Voters are defined on a continuum, with voter $i \in [0,1]$. For simplicity we assume that each candidate has a base vote of share b_j ($j = I, C$). We postulate that these votes cannot be bought or intimidated. The remaining voters are drawn to the polls for private benefits or losses that are enforceable. Voter i will vote for the Incumbent if:

$$VB_i > I_i,$$

with abstention chosen if:

$$VB_i < I_i.$$

Although intimidation helps the Challenger by reducing the turnout of supporters of Incumbent, we assume that it may come at a cost. As the Challenger becomes identified with violence his less committed supporters may decide to abstain, whether because of distaste for the violence or

through fear. We model this by assuming that if the Challenger resorts to intimidation his support base is reduced to an extremist base, α , with the remaining base voters opting for abstention. Consequentially, we assume that if $b_C \leq \alpha$, so that the support base of the Challenger is sufficiently small as to be entirely extremist, indifference as between abstention and voting for the Incumbent by swing voters is broken in favor of the Incumbent. Conversely, if the support base of the Challenger includes non-extremists, we break indifference in favor of abstention. This simplifying assumption has the effect of reinforcing the difference between a Challenger who has the potential for broad support and one that is reliant entirely upon a small extremist base.

We now turn to the payoffs of the candidates. The Incumbent faces the payoff

$$a_I W - C_I,$$

where $W = 1$ if the Incumbent wins the election or $W = 0$ otherwise. We assume that winning the election confers large benefits relative to costs, so that a_I is sufficiently large relative to the costs, C :

$$C_I \equiv \int_0^1 V B_i di + F.$$

Here, the first term is the total cost of vote buying, and the second term, F , representing the cost of fraud, takes the value of unity if the Incumbent uses fraud or $F = 0$ otherwise. We assume that the Incumbent has sufficient resources for ballot fraud always to be feasible, so that the following constraint has to be verified at the end of the game:

$$C_I \leq 1,$$

where 1 stands for the resources available to the Incumbent.

Whereas the pay-off to the Incumbent is approximated by a constant in case of winning (which always happens in equilibrium), the pay-off to the Challenger (who always loses) is assumed to depend upon his share of the vote. This may be because the loser is able to extract rents

proportionately to his electoral performance, which are negligible to the Incumbent. We then assume that the Challenger's payoff is:

$$a_C S_C - C_C,$$

where S_C is the share of votes for the Challenger. Should the Challenger resort to intimidation it incurs costs, C :

$$C_C \equiv \int_0^1 I_i di.$$

In addition, the following constraint has to be verified for the Challenger at the end of the game:

$$C_C \leq M_C,$$

where M_C stands for the resources available to the Challenger. Since a_C is assumed to be sufficiently large, intimidation is cost-effective.

We now solve the game for different parameter sets (i.e. values of b_C, b_I, α, M_C).

We begin by considering the case $b_I \geq b_C$ and $\alpha \geq b_C$, where the Challenger has a very small base (basically his extremists), and the Incumbent has larger support than the extremist proportion α . There we see that the Challenger will want to break the voting-abstention indifference in favor of abstention (while keeping his base). That is to maximize his share of votes (at negligible cost). In the face of these intentions, the Incumbent will want to spend nothing on vote buying since he is already guaranteed to win the election ($b_I \geq b_C$ - the indifference is per assumption). In this case, we therefore observe intimidation but no vote buying or fraud.

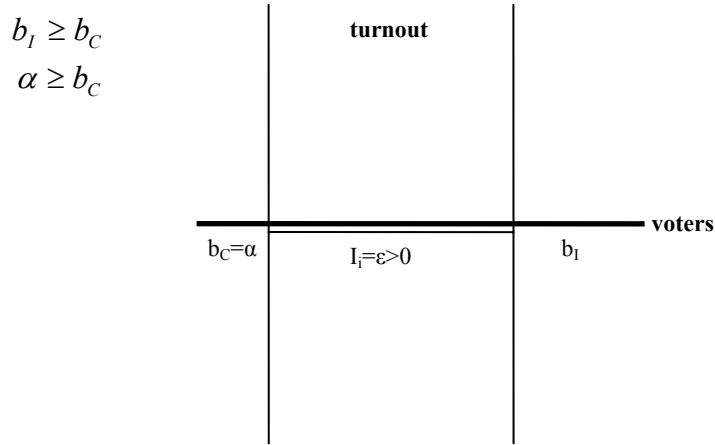


Figure 2: Pure Intimidation

Now consider the situation in which $b_I \geq b_C$ and $\alpha < b_C$. In this case were the Challenger to resort to intimidation he would lose part of his base to abstention and so he decides not to do it. Provided the Incumbent is guaranteed winning the election, he does not buy votes. This is the case of conventional politics: none of the illegitimate strategies - intimidation, vote buying and fraud - occur.

We now turn to cases where the Challenger's base is sufficiently large to pose a threat to the Incumbent's objective of winning the election ($b_I < b_C$).

We begin by considering $b_I \geq \alpha$. Then the Challenger would lose part of his base were he to resort to intimidation and so will fight a clean campaign. However, were the Incumbent to fight a clean campaign he would lose and so he resorts to vote-buying, purchasing just enough votes to take a majority (50%, given our indifference assumption) – that will be cost effective given negligible spending. In this setting, we therefore see vote buying but no intimidation or fraud.

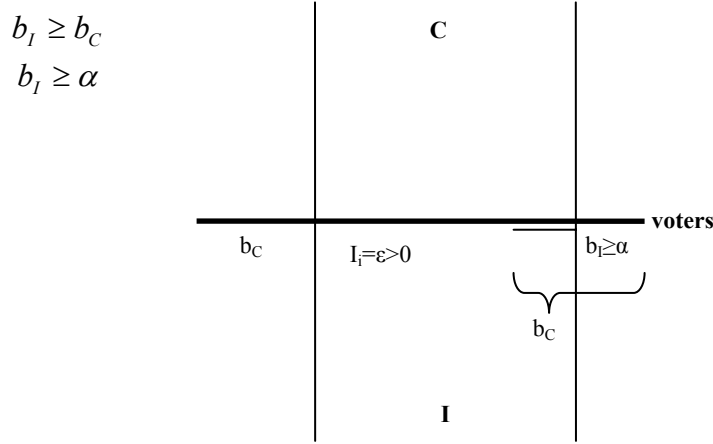


Figure 3: Pure Vote-Buying

If $\alpha > b_I$, we may have two outcomes depending upon the budget of the Challenger (which determines the cost-effectiveness of vote buying relative to fraud).

First suppose that vote buying is cost-saving for the Incumbent in comparison to fraud. In other words, suppose that vote buying is potentially effective in making a difference (getting a majority) because enough-to-win bribes cannot be neutralized by the maximum intimidation that the Challenger can afford, (i.e. $\int_0^1 VB_i^* di > M_C$ with $\int_0^1 VB_i^* di \leq 1$). Note that any vote buying by the Incumbent $(VB_i^*)_{i=0}^1$ will be equally distributed across swing voters since this maximizes the cost of intimidation to the Challenger. In this case vote buying is the winning strategy, with 'unintimidated bribed voters' being just enough to win the 50% vote. In this parameter set we therefore see both intimidation and vote buying emerging in equilibrium, but without resort to ballot fraud.

implied by this failure to harness oil revenues for growth, the quality of governance has been low: in Transparency International's Corruption Perception Index it ranks 147 in 179 countries (2007)⁵. In Chinua Achebe's (1983) words, 'the trouble with Nigeria is simply and squarely a failure of leadership'.

From 1999, with the passing of a new federal constitution, Nigeria moved to civilian rule⁶, under democratic elections: these happened in 1999, 2003, and 2007. However, all of these elections were damaged by widespread electoral malfeasance. By many accounts these elections were far from being 'free and fair'.

The election of 2007, which is the focus of our study, covered four distinct contests: presidential; federal house of representatives and senate; gubernatorial; and state assembly. Under Nigeria's federal constitution power is particularly concentrated in the president and the state governors. The 2007 election was not contested by the incumbent president, Obasanjo, due to his term limit. The key contestants were Yar'Adua, Muhammadu Buhari, and Atiku Abubakar. Yar'Adua was Obasanjo's chosen successor in the ruling PDP (People's Democracy Party). However, he was little known since until June 2006 Obasanjo had been hoping to change the constitution to permit a third term. Buhari had already been the main challenger in the 2003 election, and was standing for the ANPP (All Nigeria Peoples Party). A previous military ruler, his regime had been noted for a public campaign against corruption. Abubakar, although the incumbent Vice-President, was in serious conflict with President Obasanjo, and had been forced to switch party to the AC (Action Congress). Previously a customs officer with controversial sources of wealth, he had been indicted by the federal anti-corruption commission EFCC on multiple charges related with campaign fund embezzlement and bribery. At the core of the election campaign was the manifest determination of President Obasanjo to prevent Vice-President Abubakar from becoming the next president. In a phrase that became famous, Obasanjo described the election as 'a do or die affair'. Hence, the full resources of the incumbent were used to promote a PDP victory.

The ruling PDP duly won the election with 70% of votes, as did 28 of its candidates in the 36 gubernatorial elections. However, the election was deeply flawed through violence, bribery and

⁴ World Development Indicators.

⁵ See Smith (2007), for a thorough account of the phenomenon of corruption in Nigeria.

⁶ See Maier (2000) for a description of this transfer of power and recent political history of Nigeria.

ballot fraud. As evidence we present the assessments of three well-informed independent organizations:

'Rigging, violence and intimidation were so pervasive and on such naked display that they made a mockery of the electoral process. [...] Where voting did take place, many voters stayed away from the polls. They were frightened off by a pre-election period that saw more than 100 people killed in election-related clashes. By the time voting ended, the body count had surpassed 300.' – Human Rights Watch.

'The irregularities were so numerous and so far-reaching that the election was a charade and did not meet the standards required for democratic elections.' Transition Monitoring Group (an NGO with 50,000 Nigerian observers).

'Nigeria's elections were not credible and fell far short of basic international standards. [...] Elections for president, state governors and legislators were marred by violence, poor organisation, lack of transparency, significant evidence of fraud, voter disenfranchisement and bias.' European Union Electoral Observation Mission.

These unfortunate features make the election well-suited for a study of political violence. In particular, violence may not have been simply a random spill-over from heightened antagonisms: it might have been used systematically as an electoral strategy.

4. The Design of the Experiment

To identify effects of violence on voting we need exogenous variation. Since the distribution of violence cannot be assumed to be random, our research design was to introduce a randomly distributed *reduction* in the perceived threat of violence and measure the consequences of this reduction. While to our knowledge this is the first application of experimental methods to the study of electoral violence, the method has already been demonstrated to be effective in other electoral contexts. Wantchekon (2003) pioneered the application to African elections, evaluating randomized political campaigns in Benin. He showed that for the incumbent a message of patronage to favored groups was more effective than one of national public goods. Vicente (2007a) comes closest to the current paper, analyzing an information campaign against vote

buying practices⁷. Experimental methods have also been applied to more conventional election techniques (in American elections) such as canvassing, phone calls, and direct mail (Gerber and Green, 2000; Gerber, 2004).

Evidently, the most difficult part of our research design was to achieve a significant reduction in the perceived threat of violence in selected locations. As we will show, our intervention to reduce the perceived threat of violence was successful. However, necessarily our intervention could not *eliminate* the perceived threat: hence, our results provide merely a lower bound estimate of the full effects of voter intimidation on voter behavior. Since even this lower-bound estimate is large, it is reasonable to presume that voter intimidation during the election had major effects, as indeed implied by the assessment of Human Rights Watch quoted above.

We allied with a large and effective NGO, ActionAid International Nigeria, which regarded the prospect of political violence as a grave challenge to democracy and wished to counter it. ActionAid designed a powerful campaign against political violence drawing on its specialist expertise in community participatory development and its experienced field infrastructure. Its campaign included town meetings, street theatre, and the distribution of campaign materials all highly concentrated in particular locations. We provide details of the campaign in an Appendix.

The campaign was designed to oppose voter intimidation through two distinct routes. The first was to neutralize intimidation by lowering the perceived threat to individual voters. The analytic foundation for this aspect of the campaign is the model of political protest of Kuran (1989, 1991). As exemplified by McMillan and Zoido (2004), a public call to a common protest action lowers its costs and so makes it easier to resist intimidation⁸. More specifically, if politician A threatens the known supporters of B, then the more B supporters who turn up to vote the lower is the risk to each of them. At the worst, A's capacity for violence is spread over a larger group of potential victims, and most likely beyond some point the perpetrators of violence are themselves intimidated into inaction. The turnout of support for B will thus depend upon the expectation of each B supporter as to whether other supporters will ignore the threat. The opposition to intimidation is thus a classic coordination problem. The key test of whether this first route was effective is thus whether it neutralized the turnout-reducing effect of intimidation among

⁷ In related empirical work, though non-experimental, Brusco et al (2004) use survey methods to analyze vote buying in Argentina.

⁸ This idea also relates with theory of informational cascades by Bikhchandani et al (1992, 1998) and Lohmann (1994, 2000), which was proposed to explain the behavior of the masses.

supporters of non-violent candidates. The second route by which the campaign aimed to oppose intimidation was to emphasize its lack of legitimacy. This was intended to make people who had intended to vote for those politicians who resorted to violence question whether their support was appropriate. In fact a key component of the slogan of the campaign was ‘Vote against violent politicians’. We shall then see whether the campaign could persuade these supporters to switch their vote from violent candidates.

Action Aid agreed to implement the campaign in randomized locations. To determine whether the reduction in perceived violence affected voter behavior we conducted a panel survey of 1149 respondents in 24 enumeration areas, with rounds prior to and after the election. The survey was nationally representative, being conducted in two states from each of the three large Nigerian regions. The campaign against violence was conducted in half of the enumeration areas, leaving the others as controls. Respondents were asked about violence, about their intended voting behavior, and about their actual voting behavior. Evidently, the design of the experiment depended upon two stages: that the campaign would reduce the perceived threat of violence, and that this would in turn affect voting. Hence, the surveys were designed to elicit evidence on each stage.

The baseline survey was conducted just before the campaign, The households in the survey were then targeted by the campaign in its wide range of door-to-door –initiated activities. The post-intervention survey was carried out after the elections, when results were known and post-election stability was achieved.

The questions on violence were asked both prior to the campaign, focusing on a reference period (‘the last year’), and after the campaign/elections, focusing on what had happened just before and during the elections (i.e. ‘from January’, when the baseline survey was in the field). The questions on voting were based on intentions (before) and self-reported actual decisions (after) regarding all the elections at stake in April 2007. In the figure below, we show the sequence of the experiment.

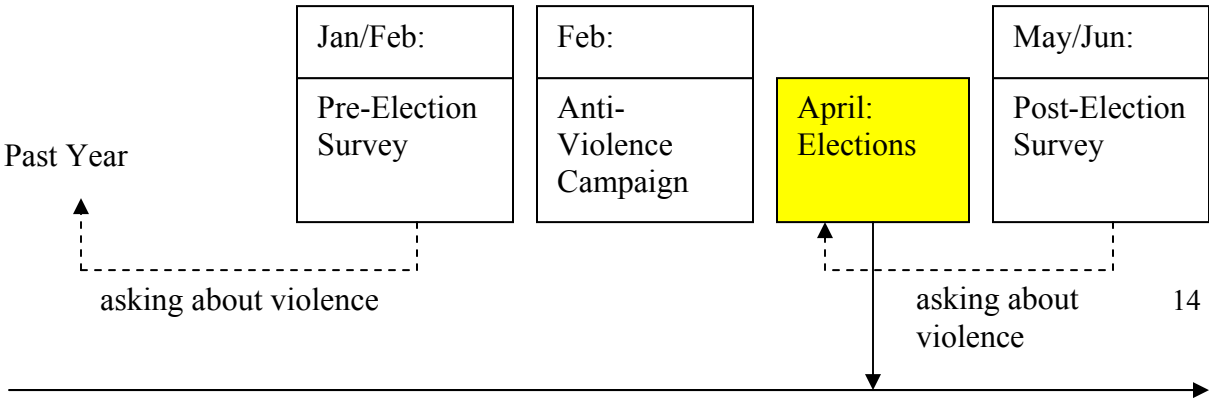


Figure 5: The Time Frame of the Experiment

Given the fact that our measurement is based on self-reports⁹, there is a danger of ‘conformity bias’: subjects may adapt their responses to as to ‘conform’ to ‘expected’ effects. To an extent we are defended from conformity bias because the survey and the campaign were independent, with distinct teams and branding. Nevertheless, we attempt to verify the extent of this problem by comparing panel respondents, all of whom had been directly approached by the campaign, with an oversample of 300 respondents in those enumeration areas in which the campaign was mounted, directed at citizens not approached directly by the campaign. We are thus able to compare those respondents who were subject to the full range of interactions with the experiment (baseline interview, direct individualized campaign, post-intervention interview) with those who only face a post-intervention interview. If conformity bias is serious it should therefore be manifest in a difference between the responses of these two groups. A full description of the fieldwork is provided in Appendix 1.

This design allows the use of a classic difference-in-differences econometric approach. We are mostly interested in the effects of the treatment over time on violence outcomes and on voting behavior. The first can be elicited in the context of the specification:

$$VC_{ilt} = a + bX_{it} + cY_l + dt + eT_l + ft * T_l + \varepsilon_{ilt},$$

where VC is a violence or crime-related outcome, i , l , t are identifiers for individuals, locations, and time (before/after), T is a binary variable with value 1 for treated locations, X is a vector of controls (demographic, attitudinal), potentially time-varying, Y is a geographical fixed effect. The second main effect of interest comes from the following regression equation:

⁹ We have to date been unable to gather full disaggregated official electoral results and it seems unlikely that they exist. Results were announced in terms of the overall totals in a process which appears to have bypassed the need to aggregate actual votes.

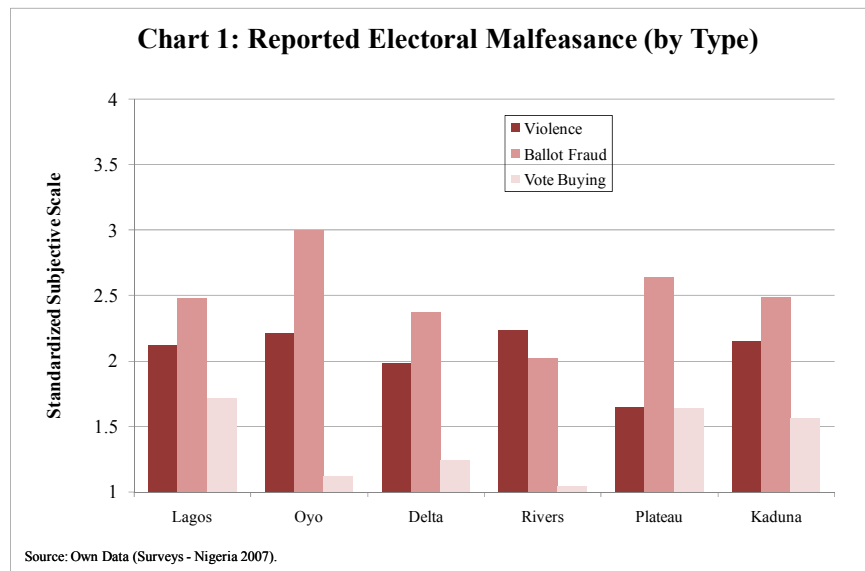
$$V_{ilt} = a + bX_{it} + cY_l + dt + eT_l + ft * T_l + \varepsilon_{ilt},$$

where V denotes a voting behavior measure (intended-before and actual reported-after).

We use a rich set of individual control variables, including: differences in information about candidates before and after the elections, campaign activism, and policy platforms perceived for the candidates and supported by respondents.

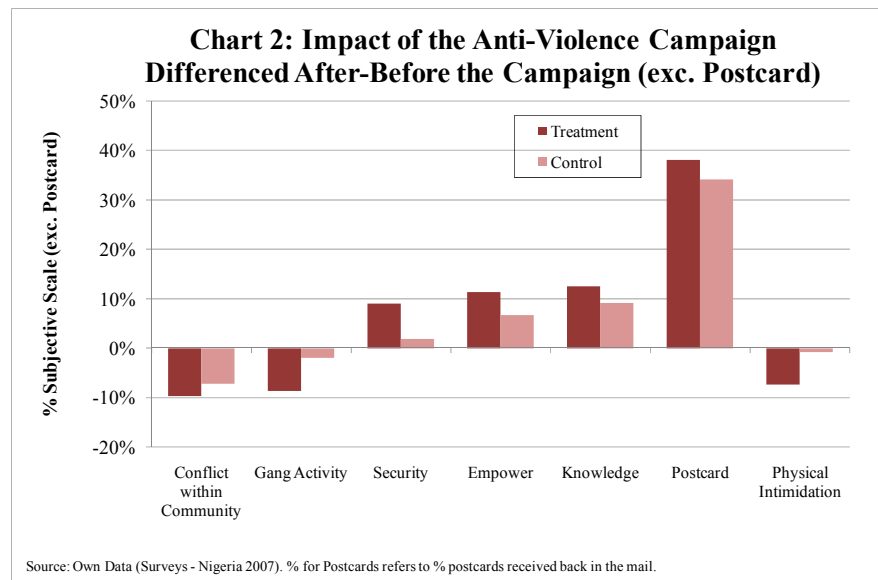
5. Descriptive Statistics

We begin with an overview of how respondents perceived problems with the electoral process in each of the six states (Chart 1). We use a standardized subjective rating system, scaled 1-4 with higher scores indicating a more severe problem. All three of the illegitimate forms of voter influence were of concern to voters. In most states ballot fraud was perceived as the most serious problem, with the question being posed as ‘How free and fair are the elections in terms of the ‘counting of votes?’. Voter intimidation was usually the intermediate problem, the question being posed specifically as a concern about ‘security against violence originated by politicians’. Vote buying was rated as the least severe problem, although still prevalent, the question being posed in terms of ‘someone from a political party offering something, like food or a gift, in return for votes’.



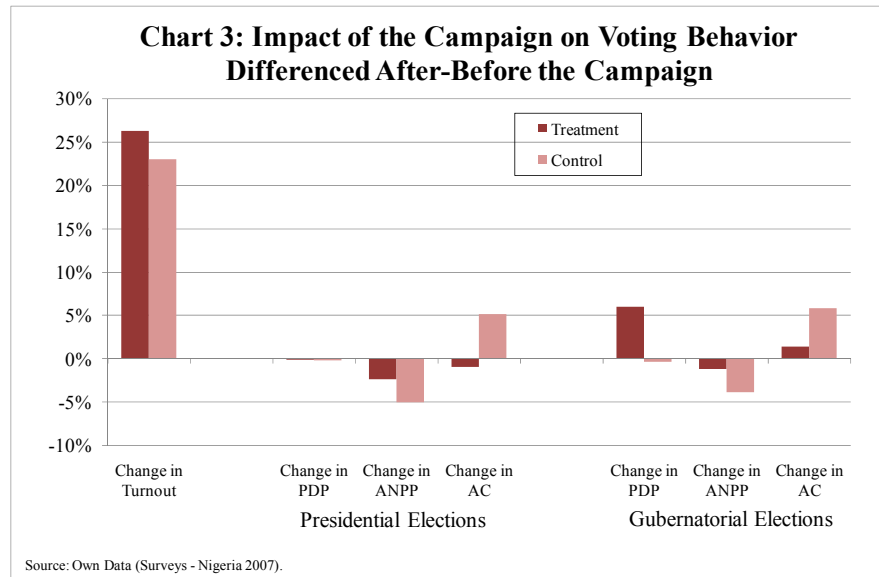
Evidently our approach depends upon the effectiveness of the anti-violence campaign. While we investigate this more formally in the next section, here we provide an overview. Respondents in the panel were asked the same questions twice, once prior to the campaign and then again after it. Respondents in both the treatment and control areas might change their answers due to experiences during the intervening period, but only in the treated areas would respondents have encountered the campaign. We therefore focus on whether the *change* in responses differs as between treatment and control areas. First, consider three measures of perceived threats: general violence within the community, gang violence, and (as a pure crime measure) physical intimidation. For all three measures the treatment areas have a larger reduction in perceived threat than the control areas. Further, the two types of perceived violence most pertinent for voter intimidation, gangs and physical intimidation, show large falls in the treatment areas but are virtually unchanged in the control areas. Next, consider the obverse of perceived threats: three measures of self-confidence in being able to vote. Respondents were asked about security, empowerment, and knowledge of how to resist violence. All three measures show larger improvements for the treatment areas than the controls, and again the most pertinent measure, security, shows a large improvement for the treatment areas but virtually no change for the controls.

Since talk is cheap, we supplemented the survey with a direct measure of an incentive-compatible action. All respondents were given a postcard which they could choose whether to post. On the card was a message demanding that more attention be paid to countering voter intimidation. Since in order to post the card the respondent had to go to a post-office, this was a costly action. The respondent was more likely to incur this cost the stronger was her sense that intimidation should be countered. Thus, differences in the response rate between treated and control areas are a useful measure of whether the campaign was effective. As shown in Chart 2, in both areas response rates were remarkably high: around a third of respondents returned the card, this being consistent with a high degree of concern about the problem. But response rates were even higher in treated areas than in the controls.



Since there is some basis for regarding the campaign as effective, the consequential question arises as to whether the perceived reduction in the threat of violence in the treated areas actually changed voting behavior. Again, the two-round structure of the survey is helpful in that it enables us to focus directly on the change between stated intentions during the first round and actual voting behavior as reported during the second round. First, consider voter turnout. Unsurprisingly, in both treated and control areas the election campaign succeeded in mobilizing people to vote: many people who in the first round of the survey had stated that they did not intend to vote ended up voting (Chart 3). In the treatment areas this effect was considerably larger. The difference is consistent with the hypothesis that citizens who had been intimidated into deciding not to vote found the courage to do so as a result of a perceived reduction in threat generated by the campaign. However, we are particularly concerned to see whether voter intimidation was used strategically by politicians according to how it compared with their other illicit strategies. Hence, we are interested in the effect of intimidation on the supporters of each party individually. There is a clear pattern. The incumbent party, PDP, and the Buhari-led ANPP, both gained as a result of the campaign. In each case, supporters who had intended not to vote appear to have been empowered by the campaign to turn out and vote. However, the campaign had an objective beyond its core intent to empower people to resist being intimidated into not voting. The appeal to ‘vote against violent politicians’ aimed to weaken support for candidates who supported violence. Respondents initially intending to vote for a politician perceived as violent may have decided either to abstain or even to switch to other candidates. Whereas both

the PDP and ANPP appear to have increased their vote as a result of the campaign, the AC lost support. This is consistent with violence being a strategy of political desperation: Abubakar, the leader of the AC, had neither the advantages of the incumbent PDP, nor of the ANPP as the established opposition party.



Indeed, for the presidential election, we find evidence consistent with both objectives of the campaign. PDP supporters were three times more likely to switch from an intention not to vote to actually voting in treatment areas. In contrast, AC supporters who had initially intended to vote were 2.6 more times more likely to abstain in treatment areas, and this abstention effect was reinforced by vote switching: AC supporters were 5.5 more times more likely to switch to the PDP in treatment locations).

6. Econometric Results

We begin by exploring whether the three illegitimate electoral methods, violence, vote buying, and ballot fraud, are allocated systematically. These results do not use the anti-violence experimental design; they target location-wide determinants of the perceived importance of these methods in the late stages of the 2007 election campaign. The results are presented in Table 1. We begin with a simple specification in which the explanatory variables are the expected tightness of the election, and whether the ruling PDP is incumbent in the state. Tightness is proxied by the absolute difference between incumbent and opposition scores at the location level

in the previous gubernatorial¹⁰ elections in 2003. We also control for whether the enumeration area is urban although in the event this is not significant. The OLS results find that the tighter is the election the greater are the perceived problems of ballot fraud and vote buying, the two strategies that we have suggested are best-suited to the incumbent. In contrast, violence is significantly reduced if the race is tight. The effects are large: treating the four-point scale of responses as linear, in tight races vote buying is perceived as being 41% greater¹¹ and electoral fraud 53% more frequent. In contrast, violence is perceived as being far less of a problem in tight races, with a reduction of 35%. All these effects are statistically significant at the 1% level while clustering standard errors at the enumeration area level. This is evidence consistent with the idea that political expenditures on fraud and vote buying are used strategically as necessary to win the election. In contrast, violence may be an instrument used for making a stand by weaker, minority parties, analogous to terrorism. We continue exploring this hypothesis in the remaining of the results.

Controlling for the tightness of the race, PDP incumbency at the state level increases the perceived problem of ballot fraud (by 15%), consistent with the hypothesis that for this strategy a combination of national and local incumbency is needed.

We next focus more closely upon the chosen strategies by the PDP. While PDP as the national incumbent evidently had the advantage in terms of ballot fraud, for the other two strategies respondents were asked which party they regarded as the main perpetrator. To investigate the strategic use by the PDP of these other methods we create a variable which measures for each method the prominence of the PDP relative to other parties in these reports. We then weight the incidence of each method by this ratio. With this new dependent variable we find that in locations where the PDP is the incumbent it is less likely to resort to violence but more likely to resort to vote buying and ballot fraud. Thus, the PDP itself seems to be using violence as a protest, concentrating it on locations in which the party is weak. All effects are statistically significant at the 1% level whether we control only for state dummy variables, or include basic infrastructural characteristics of the sites¹² and individual demographic and attitudinal controls¹³.

¹⁰ The use of gubernatorial election scores reinforces the local nature of political competition we want to capture.

¹¹ The same result appears in Vicente (2007a), consistently with classical swing voter theory (e.g. Dixit and Londregan, 1996), regarding vote buying in Sao Tome and Principe.

¹² These were chosen from a list of variables concerning the enumeration areas: existence of post office, school, police station, electricity grid, piped water, sewage system, health clinic, recreational facilities, places of worship, town halls or community buildings, market stalls.

The core of our analysis is on the effects of political violence on voting, and for this we need to rely upon the anti-violence campaign. This requires two preliminary steps: the demonstration that the treatment is indeed randomized, and the demonstration that the campaign was effective in changing the perceived threat of political violence.

In Appendix, Table A3, we compare the characteristics of the treated and control groups: their demographic profiles, baseline violence outcomes, and baseline self-reported electoral preferences. Since these variables are unaffected by the intervention, any differences between treatment and control are a product of luck. We generally find no statistically different differences (at standard levels) between treatment and control groups. The exceptions are that the control groups have slightly more agricultural occupations (+4%), and a stronger perception that ‘party competition leads to violence’ (+ 4%). Note that in the simple regressions we display in Table A3 we do not allow for error correlation within locations – this tends to bias towards finding statistically significant differences between treatment and control groups and so is a conservative approach.

Table 2 reports our regressions of whether the campaign was effective. We use a wide range of perception and experience variables. The first set concern general political freedoms: on ‘thinking’, on ‘voting freely’, on ‘joining a party’, on ‘being free from insecurity’, and on the perceived fairness of elections as related to violence. We then focus on conflict, electoral violence, and intimidation at the local level. The perceptions concern ‘threatening negative consequences in order to induce voting in a certain way’, ‘general violence related to politics’ ‘conflict within the local community’ (contrasted with ‘conflict within family’), politicians ‘openly advocating violence’, ‘violent gangs being active’, ‘support for do-or-die affair’, ‘security from violence originated by politicians’, and ‘influence of political assassinations on instilling a climate of fear’ (common in the 2006 primaries). Our next perception measures concern resistance to violence: ‘local population’s standing against violence originated by politicians’, ‘empowerment’ and ‘knowledge of ways to resist violence’. Our final measures concern sympathy for unlawfulness, ‘importance of obeying the government’, and of local crime: ‘thefts

¹³ Demographic controls are chosen from a wide range of variables: gender, age, household head and size, marital status, ethnic group, religion (faith, intensity), schooling, job status, occupation, property, household expenditure, health status. Attitudinal controls include: consistency measures, interest in public affairs, media exposure, campaign activism, knowledge about candidacies, policy (perceptions about candidates, own preferences).

in public places’, ‘purposely-made damages to property (vandalism)’, ‘physical threats/intimidation’, and ‘problems with the police’.

We use specifications with classical difference-in-differences (regressions on the levels). Where level-measurement is not available, namely for questions asked only in the post-election survey, we rely upon time differences (gathered from the post-election survey) regressed on treatment. The first specification for each outcome variable is run with dummy variables for each state to control for fixed effects, while the second adds controls for individual demographic and attitudinal characteristics. We use OLS regressions for all outcomes¹⁴ except for the postcard variable, where we use Probit. We cluster standard errors at the level of the enumeration area.

Overall we found clear effects of the campaign in all violence-related measures, the results being robust both in terms of magnitude and statistical significance to the inclusion of individual controls. The campaign changed responses on political freedoms by 9-12%, and those on free and fair elections by 18-21%. On conflict within the local community there was a 12% effect. In contrast, there was no significant effect on perceived conflict within families, which was, of course, not an objective of the campaign. General effects on perceptions of local politically-related violence and local empowerment to counteract that violence ranged from a 5% change in respect of intimidation directly conditional on voting, a 6% change in the influence of assassinations, an 8% change in sympathy for unlawfulness, to a 12% change in support for ‘do-or-die’.

Recall that in addition to perceptions and self-reported experience the research design included an incentive-compatible action: whether the respondent went to the post office to send an anti-violence postcard. We thus also analyze effects of the campaign on the postcard variable. Treated respondents were found to send the postcard 14% more frequently than their control counterparts, although the effect is significant only at the 10% level.

We also have an objective measure of crime in the locality. The campaign was designed to primarily increase people’s willingness to withstand intimidation, rather than actually to reduce intimidation and related forms of criminality. In principle, the induced reduction in the

¹⁴ Although these outcomes are based on subjective scales, provided the way these scales were handled during the fieldwork (described above), we are secure that assuming linear distances between the different levels is appropriate. As a robustness test, we did run Ordered Probit regressions - these generally showed no relevant difference to OLS estimates.

effectiveness of intimidation could lead to either a reduction or an increase in the actual level of intimidation as politicians adjusted their strategies. They might reduce intimidation because of its reduced efficiency, switching resources to other campaigning strategies, thereby reinforcing the effect of the campaign, or they might escalate it to compensate for the reduced effectiveness, thereby partially offsetting the campaign. In the event, we find that the campaign generally did not have significant effects on actual crime (experience)¹⁵. From these results we can conclude that the campaign was effective in changing the minds of respondents on violence, by offering ways to defend against it.

We now turn to the effects of our randomized campaign on the electoral behavior of our panel of respondents. Table 3 shows the regressions of electoral behavior on the treatment (all difference-in-differences on the levels). Where dependent variables are binary, we use Probit estimations. As before, for each outcome variable, we begin by showing the simple difference-in-differences regression with state fixed effects; then we add controls for individual demographic and attitudinal characteristics. All regressions allow for correlation of errors at the enumeration area level. We focus on voter turnout and voting patterns in the presidential and gubernatorial elections, these being the elections where the stakes were highest. As in Chart 3 we compare intended behavior with reported actual behavior.

One of our key results concerns the effect of violence on turnout. Recall that we measure the change from stated intentions to vote to actual behavior as reported after the election and that overall around a quarter of those who voted had done so despite a prior intention not to vote. The main purpose of the campaign was to persuade people who had decided not to vote because of intimidation to vote after all. Since we can reasonably conclude that the campaign achieved its intended effect, we can interpret this effect of the campaign on turnout as being qualitatively the opposite of effects of political violence itself. However, the campaign also had a secondary purpose: to turn violence into a vote-loser for those politicians who espoused it. While the former effect would raise the turnout of those who had been intimidated, the latter effect would reduce the turnout of those who had planned to support candidates who espoused violence. Hence, the change in overall turnout is the net result of these two offsetting effects.

¹⁵ We did however find a clear 5% decrease on perceptions of problems with the police as a result of the campaign. This finding reassures us that the campaign does not seem to have been understood by respondents as biased in favor of the incumbent (who controls the police), as one would expect from the independent nature of the campaign sponsor (international NGO ActionAid).

We find that the primary purpose of the campaign succeeded: the proportion of people who changed their mind and voted was 9% larger in the treated group, an effect that is significant at 10%. Since the campaign merely reduced rather than eliminated the threat of violence it is a lower bound estimate of the effect of violence. This suggests that electoral violence was an effective strategy in keeping those likely to vote for opponents away from the polls.

We now turn to the effects on each party. We find that in the presidential election the campaign reduced the vote for the AC by 4%, an effect significant at 5%. Recall that the AC was the weakest of the three parties and its candidate appears to have espoused instability. The reduced vote for the AC is clear evidence that the secondary objective of the campaign also worked: people who had initially planned to support the AC decided to punish it whether by abstention or switching their vote to other parties. The other two main presidential candidates' scores are not significantly changed by the campaign. At the gubernatorial elections the campaign increased the vote of the PDP by 13%, an effect significant at 5%. However, we might expect violence in the gubernatorial elections to vary state-by-state. Even if violence is a strategy of the weak, not all weak gubernatorial candidates might resort to it. We certainly find substantial variation: the overall effects are due to only three of the six states. In Rivers the PDP gained as a result of the campaign by an astonishing 25%, significant at 1%. In Oyo and Plateau the PDP gained almost as much, by 21% and 19% respectively. In all three states the PDP was the incumbent.

We now undertake two robustness tests: the first regards testing for 'conformity biases'; the second asks whether there is a specific demographic profile that was particularly affected by the campaign both in respect of its attitudes to violence and its voting behavior.

On conformity, we are concerned that effects on violence outcomes may be the product of the tendency of respondents to adapt to the perceived opinion of the surveyor. We therefore compare, within treatment areas (only), panel respondents, who faced the whole experimental machinery, namely two rounds of the survey and direct contact with campaigners, with the post-election over-sample, who were approached only for the second round of the survey and had no direct contact with campaigners, although they may still have seen the street theatre and been generally aware of the campaign. We assume that oversample respondents are less constrained to conform than panel subjects.

Table A4 in Appendix 3 reports results of difference-in-differences regressions for the questions asked both in to the core respondents and to the oversample. For most measures there are no statistically significant effects of being approached directly. Of course, even were there to be differences these might be due to the effectiveness of direct contact rather than to higher conformity by the panel respondents. However, since overall the differences are negligible we can reasonably conclude that conformity biases were not severe.

We next check whether there is a particular demographic profile that was particularly affected by the campaign: both attitudes and voting behavior changing (Table A5 in Appendix 3). For this we focus on those dependent variables where we have already found a clear effect and introduce demographic variables as interactions with the explanatory variables deployed previously. Note that for changes in voting the dependent variable is defined on the range 1, 0, or -1, corresponding to a change towards party X, no change, and a change from party X, respectively, and we therefore use Ordered Probit. We found that the characteristics most associated with both a change in attitudes and in voting in response to the campaign were respondents in smaller households, working outside the home, owning land, and of Hausa origin. Obviously, the characteristics in themselves are of no importance for our study, but the fact that our results rest upon an identifiable group of people who were particularly susceptible to the campaign strengthens confidence in our interpretation of the mechanism: a change in attitudes leading to a change in behavior.

Table 1: Strategic Determinants of Violence, Electoral Fraud, and Vote Buying in the 2007 Elections

	Dependent Variable ----->		Electoral Violence				Electoral Fraud		Vote Buying			
			violence		violence*[pdp/opp (doing violence)]		fraud		vb		vb*[pdp/opp (doing vb)]	
			OLS									
	urban	coef	0.2	0.13	0.39	0.27	0.45	0.04	0.43	0.09	2.27	0.93
		std err	0.14	0.1	0.31	0.3	0.26	0.21	0.28	0.21	2.03	1.98
	abs(pdp-opp) in 2003	coef	1.11	1.06	2.34	1.87	-0.39	-1.58	-0.41	-1.23	-5.42	-9.42
		std err	0.34***	0.20***	0.89**	0.59***	0.52	0.39***	0.57	0.34***	2.61**	3.01***
	pdp incumbent	coef	-0.03	0.17	-2.18	-1.82	0.19	0.46	0.21	0.48	14.16	14.99
		std err	0.31	0.14	0.69***	0.51***	0.36	0.24*	0.37	0.33	2.28***	1.89***
	Constant	coef	1.76	1.72	4.29	3.73	2.08	2.64	2.09	2.2	2	3.63
		std err	0.30***	0.18***	0.71***	0.68***	0.29***	0.38***	0.32***	0.32***	2.05	1.72**
Regional Dummies			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Infrastructure/Demographic Controls			No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Number of Observations			1441	1247	1441	1238	1384	1192	1366	1181	1366	1181
Adjusted R-squared (OLS)			0.09	0.16	0.66	0.68	0.08	0.15	0.09	0.17	0.67	0.7

Note: Standard errors reported; these are corrected by clustering at the location (census area) level. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 2: Regressions of Violence Outcomes (on Treatment)

	Dependent Variable ----->		General												
			Change of Freedom to Think		Change of Freedom to Join a Party		Change of Freedom to Vote Freely		Change of Freedom from Crime and Insecurity		Free & Fair 2007 Elections - General		Free & Fair 2007 Elections - Violence		
			OLS												
Main Explanatory Variables	time	coef										-0.8	-0.92	-0.58	-0.7
		std err										0.23***	0.19***	0.24**	0.20***
	treat	coef	0.37	0.42	0.33	0.37	0.36	0.41	0.43	0.47	-0.25	-0.24	-0.11	-0.08	
		std err	0.11***	0.10***	0.10***	0.09***	0.14**	0.12***	0.15***	0.13***	0.17	0.15	0.16	0.15	
	time*treat	coef									0.49	0.63	0.46	0.55	
		std err									0.26*	0.22***	0.26*	0.22**	
	Constant	coef	3.49	3.9	3.72	3.79	3.6	4.11	2.77	3.38	3.24	3.31	2.83	2.83	
		std err	0.14***	0.21***	0.12***	0.17***	0.17***	0.30***	0.19***	0.26***	0.14***	0.32***	0.18***	0.34***	
Regional Fixed Effects/Dummies			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Demographic Controls			No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	
Number of Observations			1135	960	1132	960	1132	962	1133	960	2065	1710	2081	1728	
Adjusted R-squared (OLS)			0.09	0.13	0.13	0.16	0.12	0.16	0.11	0.16	0.08	0.14	0.07	0.13	
Note: Standard errors reported; these are corrected by clustering at the location (census area) level. * significant at 10%; ** significant at 5%; *** significant at 1%.															
	Dependent Variable ----->		Conflict/Electoral Violence/Intimidation I												
			Conflict within Family		Conflict within Local Community		Politicians Advocating Violence		Gang/Youth's Violent Activities		Support for 'Do or Die Affair'		Security		
			OLS												
Main Explanatory Variables	time	coef	-0.43	-0.41	-0.44	-0.34	-0.04	0.03	-0.12	-0.08	-0.02	-0.01	0.12	0.07	
		std err	0.05***	0.05***	0.15***	0.14**	0.13	0.13	0.17	0.17	0.17	0.18	0.12	0.14	
	treat	coef	-0.01	-0.04	0.11	0.1	0.39	0.57	-0.26	-0.18	0.12	0.22	0.03	0.01	
		std err	0.06	0.06	0.11	0.13	0.20*	0.17***	0.28	0.24	0.28	0.25	0.24	0.21	
	time*treat	coef	-0.06	-0.07	-0.42	-0.48	-0.36	-0.48	-0.44	-0.5	-0.65	-0.73	0.46	0.57	
		std err	0.07	0.07	0.22*	0.21**	0.16**	0.19**	0.21*	0.23**	0.22***	0.24***	0.18**	0.20***	
	Constant	coef	0.61	0.82	1.47	1.55	2.8	2.01	3.72	1.92	3.01	2.84	4.4	5.12	
		std err	0.05***	0.12***	0.18***	0.27***	0.42***	0.56***	0.57***	0.55***	0.34***	0.46***	0.33***	0.39***	
Regional Fixed Effects/Dummies			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Demographic Controls			No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	
Number of Observations			2332	1922	2314	1906	2257	1907	2280	1919	2271	1922	2287	1926	
Adjusted R-squared (OLS)			0.12	0.12	0.16	0.16	0.1	0.14	0.2	0.25	0.08	0.12	0.06	0.1	

Table 2 (continued): Regressions of Violence Outcomes (on Treatment)

	Dependent Variable ----->		Conflict/Electoral Violence/Electoral Intimidation II											
			Influence of Assassinations		Standing against Violence		Empowerment against Violence		Knowledge of Ways to Counteract Violence		Intimidation		Change of Political Violence	
			OLS											
Main Explanatory Variables	time	coef	0.01	0.03	0.5	0.45	0.4	0.38	0.55	0.5	0.17	0.19		
		std err	0.13	0.14	0.10***	0.10***	0.12***	0.11***	0.12***	0.12***	0.06***	0.06***		
	treat	coef	-0.29	-0.29	0.13	0.02	0.55	0.55	-0.14	-0.12	0.01	0	-0.51	-0.57
		std err	0.16*	0.14**	0.22	0.21	0.23**	0.20**	0.15	0.16	0.03	0.03	0.29*	0.29*
	time*treat	coef	-0.34	-0.38	0.27	0.43	0.3	0.41	0.29	0.47	-0.16	-0.15		
		std err	0.20*	0.22*	0.16*	0.15***	0.15*	0.14***	0.16*	0.16***	0.07**	0.07**		
	Constant	coef	3.88	2.89	4.89	5.04	4.44	4.38	5.17	5.32	0.07	-0.1	3.4	2.07
		std err	0.20***	0.36***	0.15***	0.36***	0.15***	0.50***	0.11***	0.36***	0.04*	0.07	0.55***	0.63***
Regional Fixed Effects/Dummies			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demographic Controls			No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Number of Observations			2252	1946	2272	1917	2233	1882	2267	1913	2168	1827	1064	881
Adjusted R-squared (OLS)			0.13	0.15	0.09	0.13	0.17	0.2	0.21	0.22	0.03	0.05	0.12	0.16

Note: Standard errors reported; these are corrected by clustering at the location (census area) level. * significant at 10%; ** significant at 5%; *** significant at 1%.

	Dependent Variable ----->		Empowerment(Postcard)/Sympathy for Unlawfulness					
			Postcard (Vote for Dissemination)				Obey Government	
				Probit			OLS	
				ME		ME		
Main Explanatory Variables	time	coef					-0.38	-0.38
		std err					0.13***	0.14**
	treat	coef	0.17	0.06	0.38	0.14	-0.31	-0.29
		std err	0.21		0.23*		0.11**	0.11**
	time*treat	coef					0.31	0.33
		std err					0.17*	0.17*
	Constant	coef	-0.23		-0.72		1.83	2.38
		std err	0.17		0.27***		0.08***	0.17***
Regional Fixed Effects/Dummies			Yes		Yes		Yes	Yes
Demographic Controls			No		Yes		No	Yes
Number of Observations			1149		973		2343	1927
Lik Ratio Chi2 (P) Adjusted R-squared (OLS)			3.93		488.68		0.04	0.07

Note: Standard errors reported; these are corrected by clustering at the location (census area) level. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 2 (continued): Regressions of Violence Outcomes (on Treatment)

		Dependent Variable ----->	Crime (Perceptions and Experience)													
			Thefts Public Place (Perception)		Thefts Public Place (Experience)		Vandalism (Perception)		Vandalism (Experience)		Pysical Intimidation (Perception)		Pysical Intimidation (Experience)		Problems with Police	
			OLS													
Main Explanatory Variables	time	coef	-0.19	-0.19	0.04	0.07	-0.06	-0.06	-0.03	-0.02	-0.05	-0.05	-0.04	-0.04	-0.2	-0.19
		std err	0.10*	0.10*	0.07	0.09	0.1	0.12	0.01***	0.01*	0.12	0.12	0.05	0.05	0.10*	0.11
	treat	coef	-0.3	-0.28	0.09	0.12	-0.23	-0.17	-0.04	-0.05	-0.04	-0.02	-0.05	-0.05	-0.2	-0.07
		std err	0.31	0.27	0.05*	0.06**	0.3	0.27	0.03	0.03*	0.27	0.24	0.03	0.03	0.26	0.22
	time*treat	coef	-0.33	-0.33	-0.21	-0.26	-0.25	-0.29	0	0	-0.45	-0.45	0.04	0.04	-0.23	-0.28
		std err	0.16**	0.16**	0.09**	0.10**	0.13*	0.16*	0.02	0.02	0.15***	0.16***	0.05	0.05	0.13*	0.16*
	Constant	coef	3.63	2.12	1.26	1.27	3.06	2.23	1.15	1.17	2.47	1.96	1.12	1.13	3.2	2.17
		std err	0.56***	0.59***	0.04***	0.13***	0.65***	0.34***	0.08***	0.08***	0.54***	0.40***	0.03***	0.05***	0.45***	0.46***
Regional Fixed Effects/Dummies			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demographic Controls			No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Number of Observations			2285	2257	2339	1925	2258	1897	2279	1920	2290	2284	2341	2313	2241	1891
Adjusted R-squared (OLS)			0.12	0.16	0.04	0.04	0.1	0.14	0.01	0.02	0.11	0.15	0.01	0.01	0.09	0.14

Note: Standard errors reported; these are corrected by clustering at the location (census area) level. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 3: Regressions of Voting Behavior (on Treatment)

		Dependent Variable ----->		Turnout in 2007 Round of Elections			
				Probit		Probit	
				ME		ME	
Main Explanatory Variables	time	coef	0.44	0.14	0.31	0.09	
		std err	0.14***		0.13**		
	treat	coef	-0.16	-0.05	-0.21	-0.06	
		std err	0.13		0.14		
	time*treat	coef	0.11	0.04	0.33	0.09	
		std err	0.19		0.20*		
	Constant	coef	0.3		-0.46		
		std err	0.15**		0.28		
Regional Fixed Effects/Dummies				Yes		Yes	
Demographic/Political Controls				No		Yes	
Number of Observations				2321		1927	
Lik Ratio Chi2 (P) Adjusted R-squared (OLS)				0.05		0.09	

Note: Standard errors reported; these are corrected by clustering at the location (census area) level.

* significant at 10%; ** significant at 5%; *** significant at 1%.

			Voting in Presidential Elections 2007											
	Dependent Variable ----->		PDP (Incumbent)				ANPP				AC			
			Probit		Probit		Probit		Probit		Probit		Probit	
				ME		ME		ME		ME		ME		ME
Main Explanatory Variables	time	coef	0.01	0	-0.05	-0.02	-0.24	-0.03	-0.23	-0.03	0.31	0.05	0.32	0.04
		std err	0.08		0.09		0.10**		0.14		0.14**		0.13**	
	treat	coef	-0.23	-0.09	-0.23	-0.09	-0.52	-0.07	-0.49	-0.07	0.44	0.07	0.42	0.06
		std err	0.19		0.14		0.27*		0.13***		0.19**		0.17**	
	time*treat	coef	0.07	0.03	0.18	0.07	0.1	0.02	0.09	0.01	-0.39	-0.05	-0.38	-0.04
		std err	0.14		0.15		0.13		0.16		0.18**		0.15**	
	Constant	coef	-0.12		-1.2		-0.81		-1.88		-1.43		-1.36	
		std err	0.19		0.35***		0.28***		0.47***		0.20***		0.29***	
Regional Fixed Effects/Dummies			Yes		Yes		Yes		Yes		Yes		Yes	
Demographic/Political Controls			No		Yes		No		Yes		No		Yes	
Number of Observations			2349		1930		2349		1950		2349		2214	
Lik Ratio Chi2 (P) Adjusted R-squared (OLS)			0		0.14		0.02		0.37		0.01		0.21	

Note: Standard errors reported; these are corrected by clustering at the location (census area) level. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 3 (Continued): Regressions of Voting Behavior (on Treatment)

			Voting in Gubernatorial Elections 2007											
	Dependent Variable ----->		PDP (Incumbent)				ANPP				AC			
			Probit		Probit		Probit		Probit		Probit		Probit	
				ME		ME		ME		ME		ME		ME
Main Explanatory Variables	time	coef	0	0	-0.06	-0.02	-0.19	-0.03	-0.19	-0.03	0.36	0.05	0.35	0.05
		std err	0.09		0.11		0.15		0.18		0.18*		0.15**	
	treat	coef	-0.3	-0.12	-0.29	-0.11	-0.54	-0.08	-0.48	-0.07	0.46	0.07	0.46	0.06
		std err	0.18*		0.15*		0.25**		0.15***		0.22**		0.20**	
	time*treat	coef	0.25	0.1	0.34	0.13	0.07	0.01	0.13	0.02	-0.26	-0.04	-0.21	-0.03
		std err	0.12**		0.13**		0.17		0.21		0.26		0.22	
	Constant	coef	-0.96		-1		-2.57		-2.7		-0.66		-1.32	
		std err	0.10***		0.26***		0.26***		0.38***		0.17***		0.30***	
Regional Fixed Effects/Dummies			Yes		Yes		Yes		Yes		Yes		Yes	
Demographic Controls			No		Yes		No		Yes		No		Yes	
Number of Observations			2349		1971		1961		1724		2349		2214	
Lik Ratio Chi2 (P) Adjusted R-squared (OLS)			0.1		0.14		0.24		0.31		0.2		0.24	

Note: Standard errors reported; these are corrected by clustering at the location (census area) level. * significant at 10%; ** significant at 5%; *** significant at 1%.

			Voting in Gubernatorial Elections 2007											
	Dependent Variable ----->		PDP											
			Lagos		Oyo		Delta		Rivers		Plateau		Kaduna	
			Probit		Probit		Probit		Probit		Probit		Probit	
				ME		ME		ME		ME		ME		ME
Main Explanatory Variables	time	coef	-0.03	-0.01	-0.43	-0.16	0.33	0.11	-0.06	-0.02	-0.08	-0.03	0.31	0.11
		std err	0.09		0.11***		0.15**		0.19		0.11		0.2	
	treat	coef	-0.14	-0.03	-1.24	-0.44	-0.02	-0.01	-0.95	-0.36	0.52	0.21	-0.1	-0.04
		std err	0.1		0.53**		0.35		0.36***		0.18***		0.27	
	time*treat	coef	-0.21	-0.05	0.55	0.21	-0.19	-0.07	0.65	0.25	0.49	0.19	0.04	0.02
		std err	0.33		0.22**		0.16		0.26**		0.18***		0.21	
	Constant	coef	-1.16		0.06		0.45		-0.46		-0.25		-0.06	
		std err	0.33***		0.71		0.24*		0.42		0.09***		0.43	
Demographic Controls			Yes		Yes		Yes		Yes		Yes		Yes	
Number of Observations			393		392		386		393		393		388	
Lik Ratio Chi2 (P) Adjusted R-squared (OLS)			0.02		0.12		0.01		0.09		0.07		0.02	

Note: Standard errors reported; these are corrected by clustering at the location (census area) level. * significant at 10%; ** significant at 5%; *** significant at 1%.

7. Conclusion

Since the fall of the Soviet Union there has been a proliferation of elections in societies with weak governance. In many of these societies electoral competition has produced serious levels of violence. Our study is the first to have investigated the effects of political violence on voting using experimental methods. While political violence by its nature poses substantial difficulties for the application of these methods, it yields the potential advantage of clear, scientific results. The context for our experiment, the Nigerian presidential elections of 2007, was the largest African election to date; it was fought over the highest stakes in Africa: political control of Nigerian oil revenues; and it was indeed violent. We have shown that this violence systematically reduced voter turnout. More surprisingly, it was systematically associated with the weakest of the three political parties and was linked to situations in which the party had no realistic prospects of winning. The two other important illegitimate strategies of gaining votes, ballot fraud and vote buying, were both rife alongside violence, but these were used quite differently. They were used predominantly by the incumbent party and were deployed most vigorously where the electoral contest was expected to be particularly tight. This pattern is consistent with the incumbent party having an absolute and comparative advantage in ballot fraud, due to control of the count, and in vote buying, due to the scope for embezzlement of public resources. All three illegitimate methods were used strategically. Ballot fraud and vote buying were election-winning strategies whereas political violence appears to have been a strategy of desperation by the weak and thus somewhat analogous to terrorism.

Finally, the success of the campaign suggests that violence can be countered. This is of direct importance: in both the Nigerian and the Kenyan elections of 2007 several hundred lives were lost. If violence is used by candidates who cannot win, what is its rationale? Presumably it is to strengthen the candidate's post-election position. However, electoral violence is unlike terrorism in one important respect. With terrorism the violence *is* the signal of power, whereas with electoral violence the election result is the signal: violence is used instrumentally to improve the result. Voter intimidation works by lowering the turnout for other candidates, thereby increasing the share of the violent candidate. We have demonstrated that the primary component of our campaign succeeded in countering the reduction in turnout. It did this by emboldening people not to be intimidated by threats. However, a campaign aimed only at emboldening people cannot hope to *eliminate* the power of threats to intimidate. Thus, this objective of the campaign can merely make voter intimidation less effective. The induced response of those politicians using

violence may be to divert effort to other strategies, but it could instead be to increase threats so as to counter the reduced efficiency. This is the significance of the other component of the campaign: to reduce the vote of violent candidates. This also succeeded. Unlike the anti-intimidation message, the message not to vote for violent candidates has the potential to make violence counter-productive. We have demonstrated that a dual-purpose campaign can successfully deliver both messages. An implication is that political violence can be effectively countered by a rather straightforward measure.

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Appendix 1: Fieldwork

Sampling

Our field experiment included 24 locations/enumeration areas. These were chosen within Afrobarometer's (<http://www.afrobarometer.org/>) representative sample of all 36 states of Nigeria that served in their 2007 pre-election survey (contemporaneous to ours). Their sample was based in census data (weighted by the distribution of households) and corresponding enumeration areas (all averaging approximately 500 households). It included 275 enumeration areas.

Our sampling has a non-random component as we chose 2 states in each of the three main regions of the country (Southwestern, Southeastern, and Northern), by looking at the recent history of politically-motivated violence. Namely we used reports by Human Rights Watch¹⁶, ActionAid International, and other independent sources. This process led to choosing Lagos and Oyo (Southwestern), Delta and Rivers (Southeastern), and Kaduna and Plateau (Northern). This option revealed our emphasis on studying violence over studying the 'country' (which would be achieved under a representative choice of states), while keeping the basic, traditional diversity of the country - very much borrowed from the conventional ethnic predominance of Yoruba in the southwest, Igbo in the south, and Fulani/Hausa in the north.

The remaining stage of the sampling process was purely random. We began by randomly choosing 2 'treated' enumeration areas in each of the 6 states from Afrobarometer's list. Then we chose 'control' areas by picking up closest locations from each of the 'treated' that were in Afrobarometer's list and were of the same type in terms of the classification 'large urban', 'small urban', and 'rural' (stemming from the census). This process led to choosing the areas shown in Map A1, Appendix 2.

The fieldwork was performed jointly with Afrobarometer and their long-standing Nigerian partner Practical Sampling International (PSI) for the baseline survey. At that time, households within a census area were chosen randomly using Afrobarometer's standard techniques (e.g. by choosing the n^{th} house). Then the conditions for sampling within a household were: 18 years of

¹⁶ See for instance, 'Testing Democracy: Political Violence in Nigeria', Human Rights Watch 15(9-A), April 2003.

age or higher, residence in the corresponding enumeration area. In the baseline we interviewed 1200 respondents (50 per enumeration area) in the period January 20th to February 3rd, 2007.

In the post-election survey, we were on the field through PSI, though not involving Afrobarometer's explicit collaboration. At that time we sought to visit the same respondents that were included in the sample for the baseline – we could re-survey 1149 (96%) of those subjects in the period May 22nd to June 5th, 2007. During the same time frame, we gathered a fresh sample of 300 respondents in treated enumeration areas (25 per enumeration area), what we will refer to as the treatment post-election over-sample. The only additional requirement for this group's sampling procedure (apart from the referred standard rules) was that they were 'not directly approached' by the campaign team. This way we made sure that this group could serve as a control group within treatment areas for direct campaigning.

The authors supervised the whole survey-fieldwork activities, and were in-field during training and piloting of the surveys.

Survey Design and the Postcard Variable

On questionnaire design, while the baseline was jointly designed with Afrobarometer, therefore including some modules that are not related with our field experiment (e.g. public opinion questions), the post-election instruments (panel and over-sample) were fully targeting this experiment.¹⁷ This setting implied that in the post-election surveys we could include a larger number of questions related to our measurements of interest, namely on changes before-after the period of the campaign in February. The basic structure of questionnaires was however untouched across different instruments, including by order, demographics, the different measures of violence, information about elections, and self-reported electoral preferences/behavior.

Note that most prominently on violence, the majority of the questions featured a subjective scale. These scales mostly had an odd number of options, were approached verbally using qualifiers (not numbers), and were read in a stepwise manner. For instance, the question 'How secure against violence originated by politicians has been your neighborhood or village?' embedded 7 possible answers ranging from 'Extremely insecure' to 'Extremely secure', with middle answers 'neither insecure nor secure', and 'somewhat', 'very' insecure/secure. These options were

¹⁷ All questionnaires are available upon request to the authors.

approached first by referring to a 3-point scale: ‘insecure’, ‘neither insecure nor secure’, and ‘secure’. Then, depending on the answer, the enumerator could deepen one of the sides. This careful and balanced way of reading scales gives us some assurance that original question-scales were perceived linearly by respondents.

One of the measurements that only took place during the post-election period was the one relating to our ‘postcard variable’. During the interview in the post-election surveys (panel and over-sample), we provided the respondents with a pre-stamped (ready-to-mail) postcard – the main side of the postcard is shown in Appendix 2, Figure 1 (it was addressed to PSI in Lagos on the other side and did not require the sender to identify him/herself). Enumerators explained to respondents that sending the card would contribute to highlighting concern for the problem of political violence. Each postcard was numbered and we could therefore identify the sender. We interpret the sending of this postcard as an incentive-compatible measure of empowerment to counteract violence, as it embedded an individual cost of taking the postcard to a post office¹⁸.

Treatment Design

The campaign reached 12 enumeration areas (neighborhoods or villages). As described above this was a random choice within the chosen 6 states of Nigeria. The randomization was conducted by the authors. It was implemented by ActionAid International Nigeria (AAIN - <http://www.actionaid-nigeria.org/>) during the two-week period, February 13th to 27th, 2007, i.e. just after the baseline survey.

AAIN is Nigeria’s chapter of global ActionAid, headquartered in South Africa, with total budget USD 133m in 2005, and specializing on Community Improvement and Capacity Building – it was ranked 20th in terms of ‘performance’ in a recent list compiled by Financial Times/Dalberg of global organizations devoted to philanthropy (above Transparency International, UNDP, or Amnesty International)¹⁹.

For this campaign, AAIN worked with local state-level partner NGOs, who actually conducted the campaign activities in the field. The authors supervised operations in the field in 4 out of the 6

¹⁸ We nevertheless control for obvious determinants of postcard sending like income and distance to post office.

¹⁹ See the Financial Times, July 5th, 2007, Report on ‘Corporate Citizenship and Philanthropy’.

states involved in this campaign. Since each state was allocated a different team of campaign fieldworkers, campaign activities were fully contemporaneous in all states.

The campaign consisted of a clear message against political violence, embedded in the main slogan ('No to political violence! Vote against violent politicians.'). The main guidelines of the campaign were discussed with the authors, the central AAIN officers, and the local partnering NGO representatives. Actual material and activity design was undertaken with the help of a specialized firm in Abuja.

The slogan of the campaign was written in a wide range and large quantity of distributed campaign materials: t-shirts (3,000, i.e. 1 for every 2 households in treated locations on average), caps (3,000), hijabs for Muslim women (1,000), leaflets (5,000), posters (3,000), and stickers (3,000) – images for the leaflets/posters and stickers are displayed in Appendix 2, Figure A2. Note that these means of campaigning are the ones primarily chosen by politicians in Nigeria to licitly spread awareness about their candidacies. The campaign also included road shows. These were used to help widening the coverage of the main message and the distribution of materials (particularly important in urban locations), and included jingles in Yoruba, Hausa, and Pidgin English.

The campaign was however designed to work mainly through the holding of town meetings and popular theatres. The town meetings were designed to provide an opportunity for grassroots to meet with local representatives for finding ways of counteracting politically-motivated violence – theoretically they were built to minimize the collective action problem that is associated to finding effective ways of diminishing conflict at the local level. Popular theatres were based on the same script for all states (featuring one good and one bad politician, with the bad one instilling violent intimidation), and were designed to target youths (usually the ones providing labor for violent activities) and other audiences (e.g. women) not as easy to recruit for town meetings²⁰. The campaigners were instructed to primarily target panel respondents (i.e. baseline subjects²¹), not only in terms of distribution of materials, but also in terms of invitations to attending the town meetings and the popular theatres.

²⁰ A report of the campaign, including systematic photos and films for each state's campaign activities is available from <http://users.ox.ac.uk/~econ0192/nigeria.htm>. These include a thorough depiction of the all campaign materials and activities.

²¹ At least one campaign representative accompanied the survey team during the pre-election survey, primarily for site identification, and respondent addresses were shared with the campaigners at that stage.

The campaign broadly happened in orderly terms, without substantial obstacles, in a timely manner. Some examples of the worst problems confronted are given in the following passages of state-level reports:

Any campaign in Warri cannot be carried out without police involvement. As such the Divisional Police Officer was contacted; five police officers were allotted for the campaign at Ogiame Primary School. [...] The campaign went on smoothly. – Delta state.

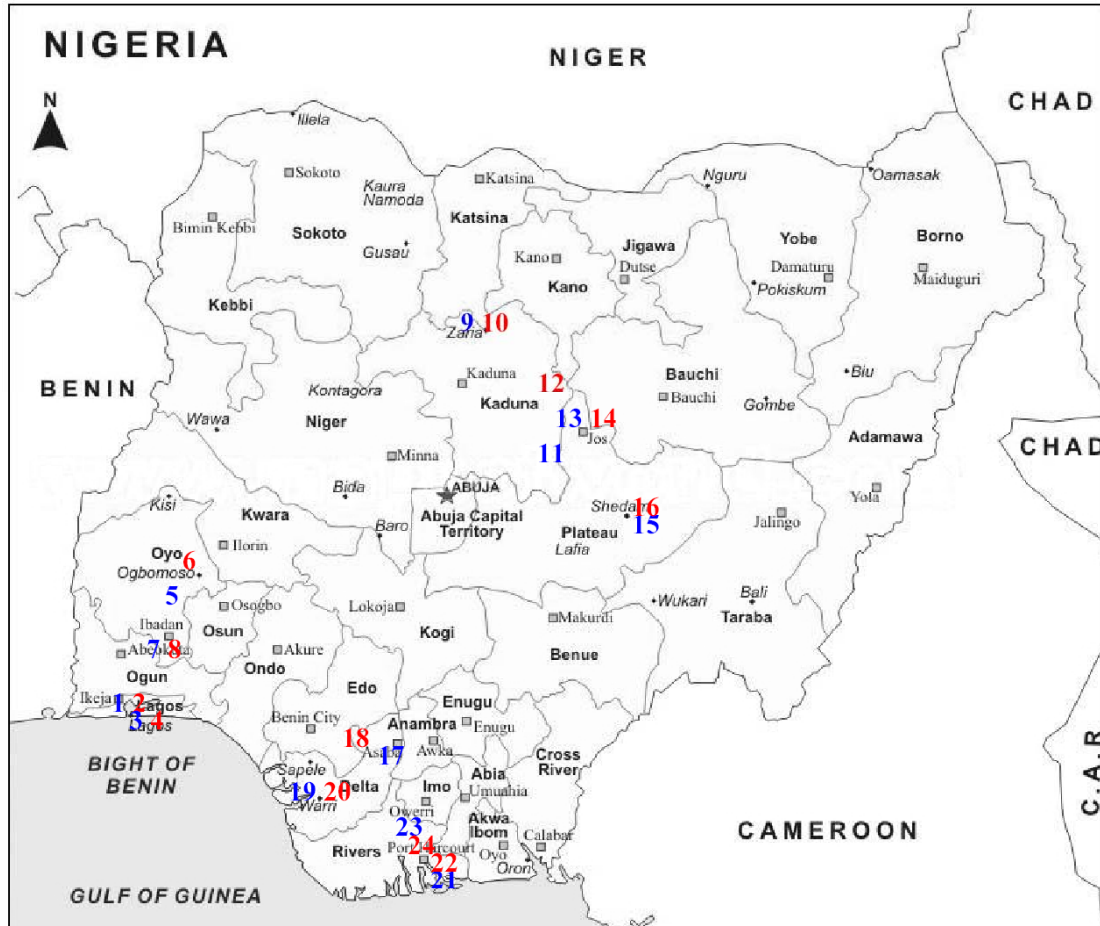
'The last day of the campaign in Rukpakwolusi witnessed the storming of the community by militants of the Niger Delta People Volunteers Force shooting sporadically into the air in a convoy of vehicles at the exact location where the community had gathered to witness the campaign drama. When the militants alighted from their vehicles, some of them recognized the presence of Commonwealth of Niger Delta Youths leadership at the venue and actually did not harass anybody, but requested that campaign materials should be distributed to them. That was complied on the directive of the state project coordinator.' Rivers state.

'The thug nature of Kasuwan-nama community [part of North Jos treatment enumeration area] members disturbed the fluid process the campaign anticipated. The most scary part was the sharing of campaign materials which resulted into a rowdy situation until we were forced to exit the scene.' – Plateau state.

Appendix 2: Sample and Field Materials

Map A1: Sampled Enumeration Areas

Nigeria - Sampled Enumeration Areas



Legend: **Treatment Area**, **Control Area**; LU: Large Urban; SU: Small Urban; R: Rural

SOUTHWEST REGION	NORTH REGION	SOUTHEAST REGION
Oyo: 5. Atiba – Ajagba SU 6. Ogbomosho North – Jagun Oke. SU 7. Ibadan Southwest – Jericho LU 8. Ibadan Southwest – Ring Road LU	Kaduna: 9. Zaria – Zaria (150) LU 10. Zaria – Zaria (151) LU 11. Kaura – Amawa Tudun Wada R 12. Lere – Abadawa Laga Akwai R	Delta: 17. Oshimili North – Oko Anala R 18. Ika South – Obi Anyima R 19. Warri South – Warri (290) LU 20. Warri South – Warri (289) LU
Lagos: 1. Alimosho – Akwonjo LU 2. Alimosho – Ikotun LU 3. Lagos Mainland – Ebute Met. LU 4. Lagos Island – Lagos Island LU	Plateau: 13. Jos North – Jos (78) LU 14. Jos North – Jos (77) LU 15. Quan-Pan – Piya R 16. Quan-Pan – Pandam R	Rivers: 21. Andoni – Agama R 22. Eleme – Sime-Tai R 23. Obio/Akpor – Rukpakwolusi R 24. Gokana – Nugbe-Yeghe R

Figure A1: Postcard

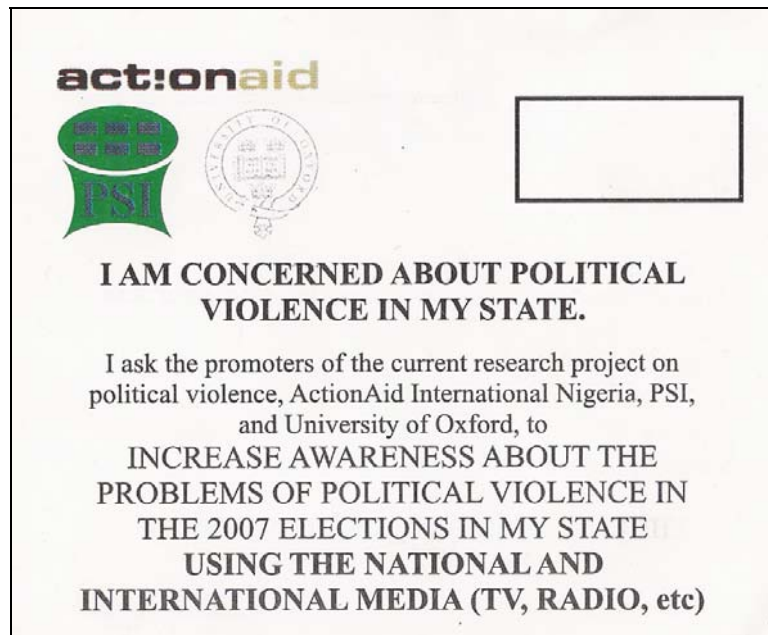
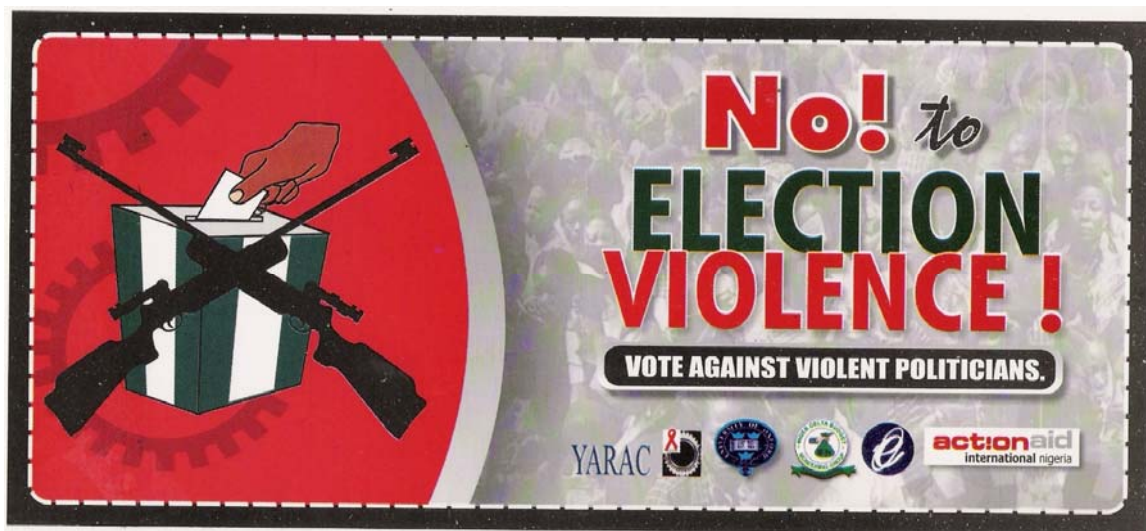


Figure A2: Leaflet/Poster (above) and Sticker (below)



Appendix 3: Supplementary Tables

Table A1: Demographic Characteristics of the Sample I - Descriptive Statistics

		average	stdev	min	max
Age		33.0	13.3	18	102
Household Size		6.4	4.0	1	24
Health	Physical	0.6	0.8	0	3
	Mental	0.8	0.9	0	3

Source: Own Data (Pre-Election Survey, Nigeria 2007).

Table A2: Demographic Characteristics of the Sample II - Descriptive Statistics

			%
Gender		Female	50%
		Male	50%
% HH Head			32%
Main Ethnic Groups		Yoruba	30%
		Hausa	13%
		Igbo	12%
		Ogoni	8%
		Bassa	4%
		Urhobo	2%
		Edo	1%
		Fulani	1%
		Ikwerre	1%
		Other	27%
Attendance to Religious Services		Never attends	6%
		Attends once a week or less	46%
		Attends more than once a week	48%
Religion (% stating a religion)		Catholic	12%
		Protestant	34%
		General Christian	23%
		Muslim Shiite	3%
		Muslim Sunni	8%
		General Muslim	18%
		Other	1%
Schooling		No formal schooling	7%
		Informal schooling only	2%
		Some primary schooling	4%
		Primary school completed	12%
		Some secondary school	19%
		Secondary school completed	28%
		Post-secondary qualifications, not university	15%
		Some university	5%
		University completed	5%
		Post-graduate	2%
Property		Book	86%
		Radio	91%
		Television	69%
		Bicycle	33%
		Motorcycle	26%
		Motor Vehicle or Car	29%
		House	61%
		Land	55%
		Cattles/Animals	33%
		Oven	13%
		Fridge	33%
		Washing machine	5%
		Computer	8%
		Land Telephone	11%
		Cell phone	56%
Job Stability		No job, not looking	31%
		Unemployed (looking)	27%
		Part-time job	15%
		Full-time job	27%
Occupation	Agriculture		12%
	Fishing/Mining		2%
	Public Administration	Government	4%
		Education	2%
		Security	1%
		Unskilled	18%
	Industry / Services	Artisan	7%
		Skilled	11%
		Other	Never Had Occupation
	Student		21%
	House Work		10%
	Other		6%

Source: Own Data (Pre-Election Survey, Nigeria 2007).

Table A3: Differences across Treatment and Control Areas

		Control	Treatment	Difference	Number of Observations
Demographics	gender	0.5	0.5	0	1200
				0.03	
	age	32.95	33.02	0.07	1198
				0.77	
	household size	6.43	6.33	-0.1	1200
				0.23	
	yoruba	0.32	0.29	-0.03	1183
				0.03	
	property - house	0.61	0.61	0	1199
				0.03	
Violence	occup - agriculture	0.14	0.1	-0.04	1200
				0.02**	
	occup - ind/services - unskilled	0.18	0.18	0	1200
				0.02	
	occup - student	0.22	0.2	-0.02	1200
				0.02	
	social capital	3.53	3.5	-0.03	1198
				0.16	
	party competition leading to violence	2.04	1.91	-0.13	1146
				0.05**	
Electoral Behavior	threatened neigh./village 2003	0.05	0.05	0	1089
				0.01	
	threatened respondent 2003	0.03	0.02	-0.01	1172
				0.01	
	sympathy for unlawfulness: lawful vs. Immediate solutions	2.03	2.1	0.07	1194
				0.07	
	sympathy for unlawfulness: turn to police vs. other	1.99	2.05	0.06	1189
				0.07	
	sympathy for unlawfulness: violence not justified vs. sometimes necessary	2.08	2.05	-0.03	1181
				0.07	
	how safe at home at night	4.1	4.17	0.07	1189
				0.07	
	police effective with crime	2.97	2.9	-0.07	1175
				0.07	
	turnout 2003	0.7	0.7	0	1174
				0.03	
	turnout intended 2007	0.79	0.75	-0.04	996
				0.03	
	pdp	3.51	3.53	0.02	1101
				0.07	
	other parties	3.04	3.09	0.05	1084
				0.05	

Note: Standard errors reported. * significant at 10%; ** significant at 5%; *** significant at 1%. These results come from OLS regressions.

Table A4: Regressions of Violence Outcomes (on Direct Treatment, within Treated Areas)

Table 11.11: Regressions of Violence Outcomes (on Direct Treatment) within Treated Areas						
	Dependent Variable ----->		General			
			Change of Freedom to Think	Change of Freedom to Join a Party	Change of Freedom to Vote Freely	Change of Freedom from Crime and Insecurity
			OLS			
Main Explanatory Variables	time	coef				
		std err				
	treat	coef	-0.03	0.05	-0.1	0.06
		std err	0.09	0.06	0.07	0.07
	time*treat	coef				
		std err				
	Constant	coef	3.93	4.12	4.22	3.43
		std err	0.10***	0.10***	0.10***	0.12***
Regional Fixed Effects/Dummies			Yes	Yes	Yes	Yes
Number of Observations			864	862	858	864
Adjusted R-squared (OLS)			0.09	0.18	0.19	0.07

Note: Standard errors reported; these are corrected by clustering at the location (census area) level.

* significant at 10%; ** significant at 5%; *** significant at 1%.

	Dependent Variable ----->		Conflict/Electoral Violence/Intimidation								
			Politicians Advocating Violence	Gang/Youth's Violent Activities	Support for 'Do or Die Affair'	Security	Influence of Assassinations	Standing against Violence	Empowerme nt against Violence	Knowledge of Ways to Counteract Violence	Change of Political Violence
			OLS								
Main Explanatory Variables	time	coef	-0.3	-0.46	-0.67	0.47	-0.17	0.56	0.63	0.59	
		std err	0.12**	0.17**	0.18***	0.14***	0.14	0.17***	0.16***	0.20**	
	treat	coef	0.58	0.32	0.34	-0.42	0.4	-0.2	-0.09	-0.08	0.05
		std err	0.11***	0.14**	0.13**	0.18**	0.17**	0.12	0.1	0.09	0.12
	time*treat	coef	-0.1	-0.09	0	0.11	-0.16	0.21	0.08	0.25	
		std err	0.08	0.11	0.1	0.11	0.12	0.11*	0.12	0.12*	
	Constant	coef	2.33	2.68	2.52	5.31	2.82	5.34	5.27	5.22	2.48
		std err	0.09***	0.33***	0.26***	0.15***	0.15***	0.15***	0.11***	0.14***	0.38***
Regional Fixed Effects/Dummies			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Number of Observations			1714	1720	1725	1727	1686	1714	1695	1711	830
Adjusted R-squared (OLS)			0.2	0.32	0.24	0.2	0.16	0.24	0.27	0.25	0.1

Note: Standard errors reported; these are corrected by clustering at the location (census area) level. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table A4 (Continued): Regressions of Violence Outcomes (on Direct Treatment, within Treated Areas)

	Dependent Variable ----->		Empowerment(Postcard)		Crime (Perceptions and Experience)				
			Postcard (Vote for Dissemination)	Thefts Public Place (Perception)	Vandalism (Perception)	Vandalism (Experience)	Psysical Intimidation (Perception)	Problems with Police	
			Probit		OLS				
				ME					
Main Explanatory Variables	time	coef			-0.48	-0.27	-0.06	-0.32	-0.41
		std err			0.16**	0.11**	0.03*	0.14**	0.16**
	treat	coef	0.18	0.07	0	0.14	-0.04	0.24	-0.01
		std err	0.17		0.08	0.08	0.04	0.11**	0.17
	time*treat	coef			-0.05	-0.05	0.03	-0.18	-0.02
		std err			0.09	0.06	0.03	0.09*	0.11
	Constant	coef	-0.58		2.9	2.18	1.06	1.86	3
		std err	0.16***		0.29***	0.15***	0.03***	0.17***	0.33***
Regional Fixed Effects/Dummies			Yes		Yes	Yes	Yes	Yes	Yes
Number of Observations			869		1727	1697	1727	1729	1704
Lik Ratio Chi2 (P) Adjusted R-squared (OLS)			9.09		0.21	0.24	0.01	0.32	0.22

Note: Standard errors reported; these are corrected by clustering at the location (census area) level. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table A5: Treatment Interacted with Demographics: are respondents that are affected by the campaign the same across the design?

			Household Size(*)					Occupation: Working at Home(*)				
	Dependent Variable ----->		Change in Violence	Change in Vote (AC - Presidential)		Change in Vote (PDP - Gubernatorial)		Change in Violence	Change in Vote (AC - Presidential)		Change in Vote (PDP - Gubernatorial)	
			OLS	Ordered Probit		Ordered Probit		OLS	Ordered Probit		Ordered Probit	
					ME		ME			ME		ME
Main Explanatory Variables	treatment	coef	0.88	-0.71	-0.13	0.4	0.14	0.6	-0.35	-0.07	0.25	0.09
		std err	0.23***	0.15***		0.20**		0.16***	0.08***		0.11**	
	treatment*demo(*)	coef	-0.05	0.06	0.01	-0.02	-0.01	-0.51	0.04	0.01	-0.04	-0.01
		std err	0.02***	0.02***		0.02		0.25*	0.26		0.33	
	demo(*)	coef	0.02	-0.04	-0.01	0.03	0.01	0.2	-0.25	-0.05	-0.02	-0.01
		std err	0.02	0.01***		0.02**		0.17	0.21		0.11	
	Constant	coef	0.04					0.1				
		std err	0.33					0.33				
Regional Dummies & Demographic/Political Controls			Yes	Yes		Yes		Yes	Yes		Yes	
Number of Observations			965	1107		988		965	1107		988	
Adjusted R-squared (OLS) Lik Ratio Chi2 (OP)			0.08	1415.85		161.92		0.08	794.67		161.57	

			Property: Land(*)					Ethnic Group: Hausa(*)				
	Dependent Variable ----->		Change in Violence	Change in Vote (AC - Presidential)		Change in Vote (PDP - Gubernatorial)		Change in Violence	Change in Vote (AC - Presidential)		Change in Vote (PDP - Gubernatorial)	
			OLS	Ordered Probit		Ordered Probit		OLS	Ordered Probit		Ordered Probit	
					ME		ME			ME		ME
Main Explanatory Variables	treatment	coef	0.79	-0.5	-0.09	0.26	0.1	0.62	-0.38	-0.07	0.33	0.12
		std err	0.21***	0.14***		0.14*		0.18***	0.09***		0.13***	
	treatment*demo(*)	coef	-0.46	0.29	0.05	-0.03	-0.01	-0.56	0.27	0.05	-0.58	-0.21
		std err	0.18**	0.14**		0.17		0.31*	0.15*		0.17***	
	demo(*)	coef	0.26	-0.23	-0.04	-0.09	-0.03	0.41	-0.39	-0.07	0.26	0.09
		std err	0.15*	0.08***		0.12		0.29	0.20*		0.11**	
	Constant	coef	0.01					0.19				
		std err	0.33					0.34				
Regional Dummies & Demographic/Political Controls			Yes	Yes		Yes		Yes	Yes		Yes	
Number of Observations			965	1107		988		965	1107		988	
Adjusted R-squared (OLS) Lik Ratio Chi2 (OP)			0.08	6802.7		160.01		0.08	1018.17		525.23	

Note: Standard errors reported; these are corrected by clustering at the location (census area) level.

* significant at 10%; ** significant at 5%; *** significant at 1%.