

Manuscript version: Author's Accepted Manuscript

The version presented in WRAP is the author's accepted manuscript and may differ from the published version or Version of Record.

Persistent WRAP URL:

<http://wrap.warwick.ac.uk/111760>

How to cite:

Please refer to published version for the most recent bibliographic citation information. If a published version is known of, the repository item page linked to above, will contain details on accessing it.

Copyright and reuse:

The Warwick Research Archive Portal (WRAP) makes this work by researchers of the University of Warwick available open access under the following conditions.

Copyright © and all moral rights to the version of the paper presented here belong to the individual author(s) and/or other copyright owners. To the extent reasonable and practicable the material made available in WRAP has been checked for eligibility before being made available.

Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

Publisher's statement:

Please refer to the repository item page, publisher's statement section, for further information.

For more information, please contact the WRAP Team at: wrap@warwick.ac.uk.

**Fraud Is What People Make of It:
Election Fraud, Perceived Fraud, and Protesting in Nigeria¹**

Ursula Daxecker, University of Amsterdam

Jessica Di Salvatore, University of Warwick

Andrea Ruggeri, University of Oxford

Why do fraudulent elections encourage protesting? Scholars suggest that information about fraud shapes individuals' beliefs and propensity to protest. Yet these accounts neglect the complexity of opinion formation and have not been tested at the individual level. We distinguish between the mobilizing effects of *actual incidents* of election fraud and individuals' *subjective perceptions* of fraud. While rational updating models would imply that both measures similarly affect mobilization, we argue that subjective fraud perceptions are more consistent predictors of protesting, also being shaped by attitudes, information, and community networks. Our empirical analysis uses geo-referenced individual-level data on fraud events, fraud perception, and protesting from the 2007 Nigerian elections. Our analysis yields two main findings: proximity to reported fraud has no effect on protesting and citizens perceiving elections as fraudulent are consistently more likely to protest, and more so if embedded in community networks.

Word count: 10,603

Keywords: Election fraud, protest, fraud perceptions, election observers, Nigeria

¹ We thank Sarah Birch, Sarah Bush, and Thomas Flores for their helpful comments on earlier versions of the manuscript.

Contrary to expectations of major irregularities and mass violence voiced in the run-up to the 2015 general elections in Nigeria, the vote took place without centralized systematic fraud and proceeded largely peacefully (EU EOM 2015: 4, 6, 31). Opposition party candidate Muhammadu Buhari won the presidential election and results were quickly accepted by incumbent President Goodluck Jonathan, bringing about the first peaceful handover of power by an incumbent president in Nigerian history. In comparison, massive irregularities and violence in earlier elections in 2007 and 2011 had triggered widespread protests and rioting during and after the vote (EU EOM 2007: 1-3, 6, 27; EU EOM 2011: 3, 27). At face value, this evidence suggests a link between the incidence of election fraud and popular mobilization, where elections marred by irregularities are followed by contention, whereas the absence of large-scale manipulation produces more stable and peaceful outcomes. The political science literature largely confirms such a link between electoral manipulation, on the one hand, and nonviolent and violent collective protest, on the other, suggesting that election fraud induces grievances and reveals information to citizens that combine to facilitate various types of collective action (Tucker 2007; Kuntz and Thompson 2009). Yet, while theoretical arguments focus on individual-level motivations, systematic empirical assessments have evaluated them at more aggregate levels (Hyde and Marinov 2014; Daxecker 2012). An aggregate analysis, though useful for highlighting general patterns, is limited in evaluating whether those engaging in post-election collective action are motivated by objective (i.e. experience or information) or subjective (i.e. perception) evaluations of electoral problems. If citizens protest because they perceive elections as fraudulent, rather than because they have received information about fraud in their vicinity, the relationship between election fraud and protesting could be subject to a variety of confounding factors, such as partisan or other biases. While knowing whether fraud perceptions, actual events, or both motivate citizens' decision to protest thus seems crucial for scholarship and policy, these issues remain largely unexplored.

Figure 1 shows correlations in citizens' protest participation, perceived electoral fraud, and fraud reported by international observers in recent African elections. To create the figure, we aggregate data on fraud perceptions and protesting for all countries surveyed in Afrobarometer rounds 1 (1999–2001), 3 (2005), and 4 (2008), and combine them with information on fraud reported in most recent elections by monitoring organizations from the National Elections in Democracy and Authoritarianism (NELDA) data (Hyde and Marinov 2012) and the Quality of Elections (QED) data (Kelley and Kolev 2010).² The resulting dataset includes 50 country-year observations with information on whether organizations reported election fraud, the percentage of respondents perceiving elections as fraudulent, and the percentage participating in protests.

Figure 1. Perceived fraud, reported electoral fraud, and protest participation in African elections 1999–2010

²To create these variables, we first transform survey questions on election quality and participation in protest into dichotomous measures. For election quality, the variable is coded 1 if individuals perceive previous elections as having major fraud or as not being free and fair at all. For protesting, the variable is coded 1 if respondents participated in at least one protest in the previous year. For each round and country, we then calculate the average percentage of fraud perception and protesting. To add information on fraud reported by international monitors, we match the elections about which respondents were surveyed in Afrobarometer with data on reported fraud from NELDA and QED. We cannot include round 2 (2004) since Afrobarometer did not ask respondents about fraud perception.

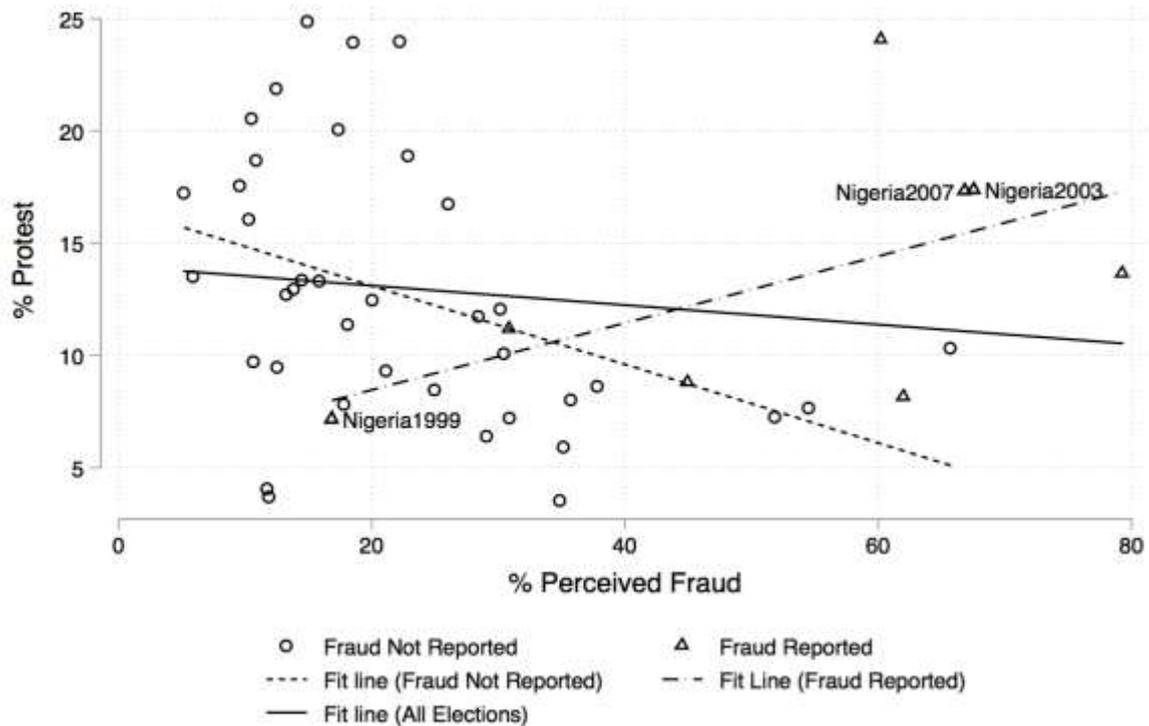


Figure 1 plots the association between fraud perception and protesting, distinguishing between elections with fraud reported by monitors (triangle markers) and those without (circle markers). The dashed fitted lines show linear predictions for cases with and without observed fraud, whereas the solid line shows linear predictions for all observations. The solid line indicates no clear association between fraud perception and protesting overall ($r=-.14$), and a weak negative correlation in cases where monitors did not detect fraud or did not observe elections ($r=-.41$). There is a moderate positive correlation between perception and protesting in observed elections ($r=.54$), which is consistent with research showing that actual fraud, in particular if reported by international monitors, increases post-election protest (Hyde and Marinov 2014). Interestingly, the Nigerian elections in 1999 reveal a third, albeit empirically rare scenario. In these elections, fraud was reported by international monitors, but elections were not perceived as fraudulent by a large percentage of the population. We note that low fraud perceptions were accompanied by low protesting in the 1999 elections, but hesitate to draw broader inferences, considering the lack of other cases in this category. Overall, Figure 1 suggests diverging

relationships for fraud perceptions, reported fraud, and protesting, supporting our call for disaggregated assessments.

Our paper makes four contributions. First, we introduce the distinction between reported incidents of electoral fraud, and hence more objective, and individual perception of electoral fraud, which is more subjective in comparison. The study of protest after electoral fraud has mostly assumed fraud to be an objective element of the rational calculus of mobilization, suggesting that individuals update their beliefs about fraud as a function of experiences with, or information about, actual fraud events. We argue that subjective perceptions are complex and are not simply reflections of factual information, suggesting a more consistent relationship between fraud perception and mobilization than between reported fraud and mobilization. We purposely select the Nigerian 2007 elections as a case that fits macro-level patterns on reported fraud and protesting (see Figure 1) because it allows us to establish more convincingly whether aggregate patterns reflect causal pathways at the micro level. In particular, we can trace and compare the effect of observational and perception-based measures of fraud on decisions to protest. Using disaggregated data on reported fraud by the European Union and domestic observers (among others), perceived fraud by citizens, and protesting from the 2007 Nigerian elections, our empirical findings support the importance of individual perceptions, confirming recent research linking individual fraud perceptions and protesting (Norris 2014). Yet we find no clear evidence that protest is directly motivated by reports of fraud incidents in citizens' proximity, which contradicts theoretical claims made in the existing literature. Validations of our fraud measure show that it has expected effects on other attitudinal indicators, including decreasing citizens' trust in the electoral commission. Moreover, we also show that our findings are not a result of measurement error or systematic

bias.³ In contrast, our study finds consistent effects of fraud perceptions on protesting, suggesting that people's beliefs about whether fraud occurred may be subject to partisan or other biases rather than information about factual events. Scholars of U.S. politics are increasingly exploring the causes and consequences of people's divergent beliefs about their political environment, including the integrity of elections, but these issues have rarely been examined in developing countries, despite the fact that information scarcity and politicization may figure even more prominently.

Second, we explore potential reasons for the disparate findings for reported fraud and citizens' fraud perception by examining a variety of confounding factors. We include support for losing candidates, citizens' information levels, and individuals' connections in the community to examine whether the effect of perceived fraud is conditional on these confounders. In contrast to other work (Robertson 2015), we do not find evidence consistent with a prominent alternative to the rational updating model of opinion formation, the motivated reasoning model. Political attitudes such as the winner–loser gap do not condition the effect of fraud perceptions on protesting. Similarly, we find no conditional effect for information levels, contradicting claims that fraud primarily mobilizes informed citizens (Norris 2014: 12). We find some evidence for a conditional effect of community networks. Individuals active in community organizations are more likely to mobilize if they perceived elections as fraudulent or were in the proximity of a reported fraud incidence (although the effect is weak for reported fraud). Hence, these findings support ample work on the importance of social embeddedness for mobilization (Granovetter 1985; Putnam 1994; Trejo 2012).

Third, our findings on reported fraud and fraud perceptions are important for policy. Our results call into question whether reporting on election fraud by international or domestic

³ See appendix A2.

election observers affects individuals' perceptions of election integrity – and in consequence their actions, such as willingness to protest - in ways these organizations seem to assume. Practitioners suggest that observer reports influence citizens' fraud perceptions (Merloe 2015), but we would then expect that fraud perceptions and information about fraud affect protesting similarly. Our findings are in line with recent work showing only limited effects of observers on perceptions of integrity (Bush and Prather 2017).

Fourth, our paper shows that the choice of observation-based versus perception-based measures is not trivial. Recent trends toward disaggregation in the study of protest and conflict reflect an interest in testing theoretical mechanisms at appropriate levels of analysis. Yet existing literature relies primarily on subnational observational data cataloguing contentious events, ignoring that citizens may hold widely divergent beliefs about these events (Silverman 2018). In our study, only perception-based fraud measures produce findings consistent with theoretical expectations about the mobilizing effect of election fraud, whereas observation-based measures with high subnational disaggregation do not show any significant results. Citizens' decision to protest in response to fraud hence seems shaped by their subjective perceptions of what is happening rather than neutral assessments of fraud events.

Elections and Collective Action

The literature on collective action has often noted the importance of elections as triggers of nonviolent and violent mobilization. Elections can function as *focal points* that help create an occasion for participation in collective action (Schedler 2009; Tucker 2007; Oliver 1989). While elections have provoked reactive electoral mobilization in democracies, research has mainly focused on non-democratic states holding elections because the disconnect between the principles and practice of participation appears crucial in motivating mobilization (McAdam and Tarrow 2010; Schedler 2009). Factors argued to contribute to electoral contention are elections in which intimidation and election fraud are widespread (Tucker 2007; Fjelde and

Höglund 2016; Hyde and Marinov 2014; Kuntz and Thompson 2009; Trejo 2014; Daxecker 2012), poor economic performance that induces voters to publicly express a desire for greater democracy (Brancati 2013), strong and effective opposition parties that help coordinate anti-regime action (Beaulieu 2014b; Bunce and Wolchik 2010), and anti-regime protests in neighboring states inspiring protests (Beissinger 2007).

While existing work thus suggests several plausible pathways linking elections to collective action, the mechanisms linking electoral processes to individuals' decisions to participate in potentially risky and costly nonviolent or violent mobilization are often under-theorized. We highlight two major understudied aspects. First, how individuals perceive the conduct of elections influences protest dynamics, but whether participation is affected primarily by subjective perception of fraud or instead proximity to actual reported fraud is ignored in the literature. Second, we assess how fraud (real or perceived) can affect mechanisms of mobilization. Since large-scale protests or violence cannot occur without the participation of many individuals, a focus on opposition parties, for example, relies on the implicit assumption that parties can mobilize voters at will and fails to consider whether, and how, individuals' responses to elite behavior vary. Work that more clearly considers individual incentives to participate, such as arguments on how fraud aggrieves voters, or how individuals' desire for democracy is shaped by economic conditions, is better able to theorize individual motivations. Yet systematic empirical analyses of individual-level explanations assess the incidence of collective action in the aggregate by examining the yearly number of protests during elections, or the level of violence per election (Brancati 2013; Hyde and Marinov 2014; von Borzyskowski 2013; Trejo 2014; Daxecker 2012). This "center-centered" focus of scholarship on electoral protest neglects significant subnational variation in the incidence of election fraud and protesting (Lankina 2015). Importantly, an analysis aggregated to the election country-year cannot tell us whether people turning out to protest are motivated by

fraud events, fraud perceptions, or both. Explicit theorizing on fraud as a motivation for protesting and systematic empirical tests at the individual level is thus missing in the literature on electoral mobilization.

From Election Fraud to Protesting: Explaining Individual Incentives

Why do elections, and particularly fraudulent elections, affect citizens' decisions to protest?⁴ Scholars have noted that the introduction of elections produces a desire for the expressive benefits of voting even in non-democratic regimes (Gandhi and Lust-Okar 2009). As Schedler puts it, electoral authoritarian regimes “institute the principle of popular consent, even as they subvert it in practice,” yet thereby endowing “citizens with normative as well as institutional resources” (2009: 388) that can be utilized to engage in collective protest. Fraudulent elections can thus function as focal points for collective action, facilitating coordination and allowing discontent with the system to crystallize into electoral mobilization (Schedler 2009; Tucker 2007).

Proximity to Fraud and Mobilization

Election fraud represents one moment in which the tension between the principle and practice of popular consent in electoral regimes should be most apparent to citizens. The gap between what is institutionally and practically possible is arguably greatest when voters' consent is violated blatantly, widely, and openly, as in elections where intimidation and fraud run rampant. It is thus intuitively plausible to expect that those in the immediate vicinity of election fraud would be more likely to express their discontent by protesting and participating in

⁴ Other work has examined the effect of fraud perceptions on turnout (Birch 2010).

collective action.⁵ Being close to actual fraud events may capture two dynamics: first, a higher risk of actual individual experience with election irregularities; and second, a higher probability of acquiring information about fraud through acquaintances or the local media. With regard to individual experience, voters who suffer from threats or acts of intimidation, who are prevented from voting, who are pressured to sell their vote, or who observe ballot stuffing should experience more grievances and thus be more likely to mobilize (Kuntz and Thompson 2009).⁶ With regard to information, those close to actual fraud should be more likely to find out about it, whether through acquaintances or the media. Increasingly certain beliefs about fraud subsequently alter individuals' cost-benefit calculation, increasing their confidence in the likelihood of a protest being successful (Tucker 2007; Little 2012).⁷ Moreover, information about fraud can spread to other communities once evidence on fraud is reported in the local media.⁸

⁵ The subnational incidence of fraud is likely strategic. Yet while theoretical work predicts that swing voters should be targeted with fraud; empirical evidence has not produced consistent findings, thus not providing clear guidance on the subnational determinants of fraud (Mares and Young 2016).

⁶ Our data from the EU EOM report includes more than 600 instances of election fraud, discussed in detail in the empirical section.

⁷ This informational mechanism on fraud and protesting draws on threshold models of protest by Kuran (1991; 1978).

⁸ Arguably, information about fraud can also spread to more distant locations through other channels such as cell phones, the national or international media, or opposition parties. For example, international election-monitoring organizations such as the EU publish post-election statements immediately after elections and more detailed reports just a few months later. Similarly, opposition parties could mobilize voters nationally in response to fraudulent elections. While we cannot rule out that mobilization also occurs through more aggregate channels, it seems implausible to expect no effect for local fraud incidence, especially for serious fraud events or those affecting large areas and lots of individuals. In empirical models (figure 4 & table 3), we also examine interactions between opposition support, citizen information levels, and fraud incidence. These models fail to show that only

Proximity to fraud events, then, should be linked to a greater propensity for protesting because it means citizens may have experienced fraud first-hand or because they receive information about its incidence. The first hypothesis thus posits that proximity to observed fraud leads to collective protest. Below, we also examine possible conditional effects.

H1: Individuals in the proximity of reported fraud are more likely to protest.

Fraud Perception and Mobilization

We proceed to discussing how citizens' subjective perception of election fraud affects mobilization. On the one hand, prominent models of opinion updating expect that new information affects individual perceptions in unbiased and efficient ways (Gerber and Green 1999). For election fraud, this model suggests that individuals rationally update their beliefs when information about irregularities – whether through personal experience or the media – becomes available. Existing arguments on fraud and mobilization indeed imply that individuals update their perception of elections in response to credible information about fraud (Tucker 2007; Hyde and Marinov 2014), but these effects have not been established at the individual level (Bush 2015).⁹ Practitioners similarly suggest that information about election fraud from journalists, citizen monitors, and domestic and international observers affects citizens' perceptions of elections, although recent experimental work establishes only modest individual-level effects (Bush and Prather 2017). Hence, according to

informed individuals or those supporting the opposition mobilize in the face of election fraud, which is inconsistent with claims on the predominance of aggregate effects.

⁹ Brancati (2014) examines the individual-level effects of international election monitoring on citizen perceptions of electoral integrity, but the experimental treatment provides information about observers' responsibilities rather than whether, or how much, fraud was detected in elections. Norris (2013) shows congruence between expert and citizen perceptions of electoral integrity, but aggregates individual perceptions.

the rational updating model, individuals' subjective perception of elections as fraudulent should primarily be a function of knowing about fraud and affect mobilization in ways similar to proximity of fraud discussed above: citizens mobilize when information about fraud incidents becomes available.¹⁰

On the other hand, subjective fraud perceptions may be more complex than simply being a function of actual fraud. They could be shaped by preexisting expectations of fraud, political attitudes on democracy more broadly, support for the losing party, among others. For example, the motivated reasoning model suggests that individuals systematically disregard information that is inconsistent with preexisting conceptions (Gaines et al. 2007; Lodge and Taber 2013), suggesting that only those supporting the opposition would form fraud perceptions and protest. Below, we develop some of these possible conditional effects, but we first examine whether fraud perceptions have a direct effect on protesting. Since we examine the effect of proximity to fraud separately in the hypothesis 1, empirical results for the hypotheses will help determine the relative importance of actual versus perceived fraud in mobilizing individuals.¹¹

H2: Individuals who perceive elections as fraudulent are more likely to protest.

Conditional Effects

¹⁰ Incumbents have an advantage in carrying out fraud, raising the possibility that areas with many irregularities are those where the state has greater coercive capacity, which could counter the mobilizing effect of fraud. To make sure that results on reported fraud are not influenced by state coercive capacity, our empirical models control for state presence.

We have outlined direct effects of proximity to fraud and fraud perceptions in hypothesis 1&2. However, a host of confounding relationships could also shape fraud perceptions or the effect of reported fraud on protesting, including the winner-loser gap, citizens' information levels, and individuals' connections in the community.

First, in contrast to rational updating, work on motivated reasoning finds that citizens' political orientation influences how information is acquired and processed, with the result that reports of election fraud increase fraud perception only for those already opposed to incumbents (Robertson 2015). Others have shown that those supporting losing candidates generally assess elections more critically (Birch 2008; Cantú and García-Ponce 2015; Beaulieu 2014a), suggesting that a winner-loser gap shapes fraud perceptions. This gap implies that fraud perceptions mobilize only those who supported losing candidates. Similarly, for proximity of fraud, those supporting the winning candidate may not mobilize in response to fraud.

Second, since citizens' have varying access to credible information about the incidence of fraud, the effect of fraud events but also fraud perceptions should be more pronounced in individuals with frequent media access or those most informed about politics (Kerr 2013: 828; Norris 2014: 14). The effect of fraud on protesting might thus be conditional on access to quality information about its incidence.

Finally, whether citizens' mobilize when experiencing or perceiving fraud may also depend on whether they are active in civil society organizations (Trejo 2012; Boulding 2014). Such networks can lower the risk of mobilization and facilitate coordination, which would suggest that fraud perceptions have a stronger mobilizing effect on individuals with close ties to community organizations

Hence, our third hypothesis examines conditional effects of proximity to fraud and fraud perceptions on mobilization.

H3a: The effect of proximity to fraud and fraud perceptions on protesting should be more pronounced for individuals who voted for the losing party.

H3b: The effect of proximity to fraud and fraud perceptions on protesting should be more pronounced for individuals informed about politics.

H3c: The effect of proximity to fraud and fraud perceptions on protesting should be more pronounced for individuals who are active local community members.

Research Design

Case Selection: Elections and Fraud in Nigeria

In Figure 1, we provided a first-cut analysis of reported fraud, fraud perception, and protesting at the election country-year level in Africa. While we argue that theoretical mechanisms need to be assessed at the micro-level, we aim to select a case that fits existing arguments and macro-level evidence. The 2007 elections in Nigeria are very close to the regression line in Figure 1 and thus represent the most likely scenario for findings on fraud and protesting in the existing literature (Hyde and Marinov 2014). Hence, if we are facing an inferential fallacy due to data overaggregation (Cederman and Gleditsch 2009), selecting a case on the regression line of the aggregate data allows us to test quantitatively the assumed theoretical mechanisms, distinguishing perceived and reported fraud at the individual level.

In addition, Nigeria is a useful test case because it is not a consolidated democracy: it frequently experiences electoral manipulation and contention over electoral outcomes. In 2007, Nigerian citizens voted for state assembly elections on April 14 and for general assembly and president on April 21. The two largest parties were the ruling People's Democratic Party (PDP)

and the opposition party All Nigeria Peoples Party (ANPP). The PDP won in most states and its presidential candidate Umaru Yar'Adua received 69.8% of votes compared to 18.7% for ANPP candidate Muhammadu Buhari. Election fraud was widespread in both elections and involved both parties, as described in the EU report (EU EOM 2007). Incidents ranged from problems with the voter registration process, violence and intimidation of voters during the campaign, the theft and stuffing of ballot boxes in many areas, the intimidation of voters on election day, and extensive vote-buying (Kerr 2013; Osumah and Aghemelo 2010; Rawlence and Albin-Lackey 2007).

Acts of intimidation and fraud were furthermore spread across different social strata, rural and urban areas, and gender (Bratton 2008). This widespread incidence of fraud ensures that we can empirically examine how individuals' exposure to fraud affected their propensity to engage in collective action.¹² Nigerians mobilized in significant numbers in response to the flawed electoral process. Protests and riots were reported in many villages and towns as result of the national elections' outcome,¹³ but also in large cities such as Lagos, Kano, Abuja, Port Harcourt, across entire states (Ekiti, Kano, Delta, Bayelsa, Rivers), or even regions, in particular the Southwest (Omotola 2010). Post-electoral mobilization involved a variety of actors, including regular citizens, civil society organizations such as women's and labor groups, and opposition parties (EU EOM 2007; Omotola 2010).

¹² While citizens were subject to extensive electoral manipulation, the vast majority did not accept these tactics as legitimate or simply part of the political process. In a study of the 2007 elections, Bratton (2008: 622–623) finds that only 7% of Nigerians considered vote-buying “not wrong at all”, and even fewer, 5%, strongly supported the use of violence for political goals. Further, voters quite often reject vote-buying offers (Bratton 2008). It thus seems reasonable to assume that Nigerians value voting for its expressive benefits and do not see it simply as a struggle over access to resources.

¹³ The EU EOM reports protests after the 21 April elections and BBC also reports protests in Lagos on the day the president sworn. <http://news.bbc.co.uk/2/hi/africa/6699337.stm>.

To show the generalizability of our findings beyond Nigeria, the appendix presents models of fraud perception and protesting for all African countries using data on respondents in Afrobarometer rounds 1, 3, and 4 (table A7). We show that the positive effect of fraud perception on individual mobilization holds for all countries surveyed in Afrobarometer.

Data and Variables

We create a dataset with all respondents from the fourth round of the Afrobarometer survey in Nigeria (Afrobarometer 2008). Using respondents as the unit of analysis makes it possible to empirically test the mechanisms linking fraudulent elections to protest at the individual level. The survey was conducted in May 2008, that is, just over a year after the elections took place in April 2007. The sample consists of 2,325 individuals. The survey includes information about the state, district, and town or village of each respondent. We used this information to assign geographical coordinates to respondents at the lowest level of aggregation, i.e., the town or village. Approximately half of the towns were correctly identified using automated geocoding, while others were manually geocoded using sources such as gazetteers, interactive maps, or online depositories of geographic coordinates.¹⁴ Town or village coordinates were retrieved for 2,225 respondents, but the remaining 100 respondents could not be coded and are thus not included in the analyses. These respondents are located in 230 of 775 local government areas (LGAs), the second-order administrative unit, in Nigeria.¹⁵

Data from the survey were used to create the dependent variable and several covariates. The dependent variable is a dummy measuring individuals' participation in protests and/or

¹⁴ We use the Stata package GEOCODE3 to automatically retrieve coordinates using the name of locations. Other sources used can be found at touchmap.com/latlong.html, postalcodedb.com/, <http://geopostcodes.com/>

¹⁵ Afrobarometer uses clustered sampling.

demonstrations over the past year.¹⁶ The variable is coded 1 if respondents attended one or more protests over the past year, 0 otherwise; 17.12% of respondents in our sample attended at least one protest. A limitation of this measure is that we cannot establish whether protests related to elections or other issues. Unfortunately, there are no alternative individual-level data on electoral protesting, which is why we validate the protest measure with observational data on electoral protests in the appendix (A1). Results establish a positive correlation between election-related protests from observational data and individual-level protesting. Further, the validation shows a positive correlation between fraud perception and electoral protests reported in the news, which is consistent with our individual-level findings. In the appendix (A6.5), we also present an extended baseline model with additional controls for education and income, which generally correlate with protesting. A second concern regarding our protesting variable (and survey data more generally) relates to social desirability, meaning that respondents might report protest participation and/or fraud perception to avoid interviewer disapproval. We do not think that our protesting measure should suffer from such bias since respondents were allowed to say that they did not participate, but would have liked to if they would have had the chance. Respondents are less likely to give socially desirable but incorrect answers when surveys offer face-saving alternatives (Persson and Solevid 2014). In additional analyses (available on request), we reran our analyses on male, younger and less-educated subsamples, i.e. respondents who have been shown to respond more truthfully (Preisendörfer and Wolter 2014). We do not find patterns consistent with social desirability bias.

¹⁶ We use question 23C, Afrobarometer Nigeria round 4, which asks: “Here is a list of actions that people sometimes take as citizens. For each of these, please tell me whether you, personally, have done any of these things during the past year. If not, would you do this if you had the chance: Attended a demonstration or protest march?” Answers are coded ordinally, and we code as 0 those not having attended and those indicating that they might if they had a chance. Only individuals having attended at least one protest are coded as 1.

We create two independent variables to test the hypotheses linking election fraud to protest. Our main explanatory variables for election fraud are (1) respondents' proximity to fraud incidents reported in the EU EOM 2007 election observation final report and (2) respondents' perceptions of election fraud. Hypothesis 1 expects that proximity to fraud incidents induces mobilization because individuals may have experienced fraud directly or obtained information about fraud occurring close to them. We provide several measures of reported fraud using information on election-day fraud from the detailed list of incidents reported in the European Union Election Observation Mission final report for the 2007 elections (EU EOM 2007). The EU mission monitored both the state elections (14 April) and presidential elections (21 April), hence the EU final report contains fraud incidents occurring in both elections. The report contains 651 fraud incidents that occurred on election day, providing the source, location, and type (procedural breaches, violence, and classic election fraud) for each incident. In terms of source, the report includes events directly observed by the EU (54% of all incidents), but for the remaining 46% relies on information from EU observer interviews with witnesses, informants whose identity was known to EU observers, election officials, journalists, and domestic observer organizations such as the Transition Monitoring Group or the Justice, Development, and Peace Commission. This variety in reporting from international and domestic monitoring organizations, but also journalists and eyewitnesses should help reduce the risk of selection bias and reporting bias. There is one exception: the EU EOM report indicates that for security reasons, observers could not be deployed in the states of Bayelsa, Delta and Rivers, and no incidents were reported for those states. We include a dummy variable coded 1 for these three states in all empirical models to account for this omission. In robustness tests (section A4), we further examine potential selection bias in the reporting of fraud incidents in more detail, but find no support for the most worrisome types of bias.

To identify the precise location of each incident, we geocode the incidents using codes referring to state, LGAs, wards and polling stations contained in the EU report, which we match with the same codes and coordinates of each polling station provided by Nigeria's Independent National Electoral Commission (INEC).¹⁷ Precise location information is not available for all incidents, for two reasons. First, 37 events do not include the code or name of the polling stations but only provide more aggregate location information, namely the LGA. To geocode

¹⁷ In an email conversation, EU EOM staff confirmed the use of INEC codes. The EU EOM also provided us with an Excel sheet with all 118,307 polling units and coordinates from INEC.

these incidents, we use the coordinate of the centroid of the LGA. Second, several incidents affect large areas, including entire LGAs or states, in which case we code a fraud incident for the closest polling station for each Afrobarometer respondent in those LGAs or states. Hence, events affecting larger areas result in reported fraud in the closest polling station for each respondent. This procedure results in 651 geocoded incidents, of which 215 are breaches of electoral procedures (type 1), 256 are violent events (type 2), and 180 are fraud events such as ballot stuffing (type 3).¹⁸ We use ArcGIS to calculate several measures of Afrobarometer respondents' proximity to fraud. Our main measure is a dummy coded 1 if a fraud incident was reported within 5km of a respondent in Afrobarometer, 0 otherwise. 22% of respondents are located within 5km of an incident (see table A8 for summary statistics). We selected the 5km threshold because it is proximate enough to plausibly expect that respondents received information about fraud. Furthermore, considering the distribution of polling stations in Nigeria, this threshold would on average encompass 50 polling stations per respondent.¹⁹ In the appendix (section A6.4), we examine heterogeneous effects across different types of fraud. More blatant or easily observable types of fraud, such as violence, may have stronger or more direct effects on protesting than other, less visible kinds, such as procedural breaches or ballot stuffing. In models distinguishing fraud type, however, we do not find evidence of meaningful differences.

¹⁸ This number is higher than the total (470) reported by the EU EOM because observers aggregate some incidents. For example, Incident Report No.A.15.06 aggregates fraud in 9 different LGAs as a single event.

¹⁹ While 50 polling stations might seem like a large number, Nigeria has almost 120,000 polling stations because INEC aims to provide a polling station for a maximum of 500 voters within a 1km (in urban areas) and 2km (in rural areas) radius of each voter. In our sample, respondents were on average 667 meters from a polling station. See appendix A3 for additional discussion; again our results are not sensitive to the 5km-threshold selected.

There are two concerns regarding our measure of proximity to fraud. First, it expects homogenous effects on mobilization, regardless of respondent's settlement type. Yet proximity to fraud events in sparsely populated rural areas could imply that information about fraud is shared more rapidly across a smaller group of people. A second concern is that we do not have precise location information for Afrobarometer respondents and instead rely on the centroids of respondents' villages, towns, or cities.²⁰ In large cities, this could be problematic because it might mean that respondents are further from fraud than our measure indicates. In robustness tests, we also experimented with shorter distance thresholds and interacted proximity measures and respondent settlement type (see Appendix A2.4). Our main findings on perceived fraud remain robust.

We create several additional operationalizations of proximity to reported fraud. We create additional dummies for fraud incidents within 10 and 20 km from a respondent. We also calculate three distance-based measures. First, we calculate individuals' average distance to the three incidents closest to them. Second, we do the same for the five closest fraud incidents. Third, we measure individuals' distance from fraud (in km). Distance varies from few meters to more than 190km, but more than 94% of respondents are within 100km of an incident.

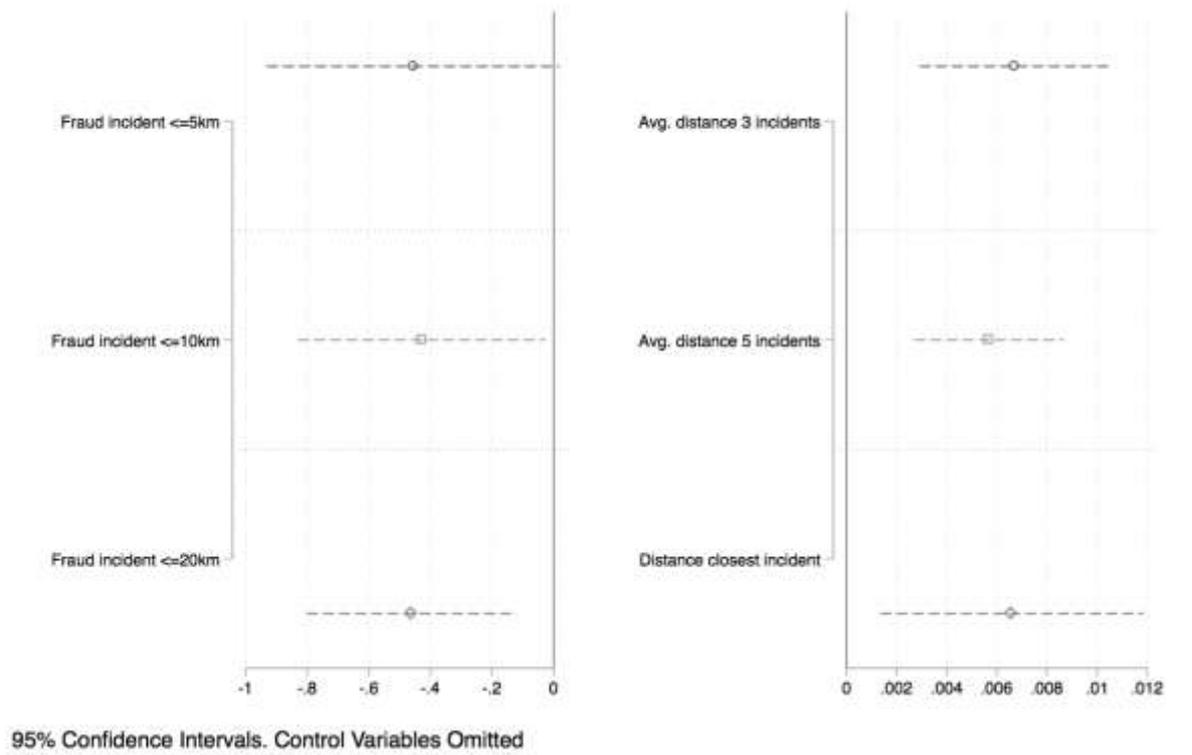
A crucial point is to show the validity of our operationalization based on proximity to fraud. Thanks to an unusual amount of detail from a single report, we validate our measure by establishing other observable implications before utilizing it in empirical models. If proximity to fraud indeed captures individuals' experience with, or knowledge of, events of election fraud, we would expect that those close to incidents have less trust in the Nigerian electoral commission (INEC), which was broadly condemned for its failure to provide a free and fair electoral process in 2007. Afrobarometer includes a question asking respondents about their

²⁰ Afrobarometer does not share exact coordinates for respondents to protect respondents' anonymity.

trust in INEC. We create a dummy coded 1 if a respondent trusts INEC “somewhat” or “a lot”, 0 otherwise.

We include the same controls as in models of protesting, except for the temporal and spatial lag of protesting. The coefficient plot below (figure 2, full results in table A2.1 in Appendix) reports the results and shows that individuals within 5, 10, or 20 km of reported fraud are less likely to trust INEC. Similarly, the positive coefficients of distance-based measures suggest that the further away respondents are from fraud incidents, the more likely they are to trust INEC. This evidence shows that proximity to fraud *does* affect perceptions, robustly and in ways we would expect. If proximity to fraud was capturing a variety of factors unrelated to fraud, we would not observe these meaningful reductions in trust for electoral institutions. Hence, this exercise strengthens the validity of our reported fraud measures by confirming their expected effects on respondents’ trust in electoral institutions as captured in the Afrobarometer survey. The appendix (section A2) provides additional validations of the proximity to fraud measure.

Figure 2. Coefficient Plot, Trust for INEC as Dependent Variable (Table A2.1)



We proceed to discussing fraud perceptions, the second main independent variable. Hypothesis 2 expects that protests are motivated by citizens’ perceptions of election fraud. We code citizens’ perception of fraudulent elections with a dummy using respondents’ answers to the following question (Q71): “On the whole, how would you rate the freeness and fairness of the last national election, held in 2007?” We code fraud perception as 1 if respondents say elections have been “not free and fair” or “free and fair, but with major problems”. More than 67% of the respondents in the sample evaluated the election as fraudulent, while 32% thought they were free and fair or had only minor problems (see table A8 with descriptive statistics in the appendix). In robustness tests, we control for additional grievances to ensure that fraud

perceptions do not simply reflect other economic, ethnic, or other political grievances (table A6.2).²¹

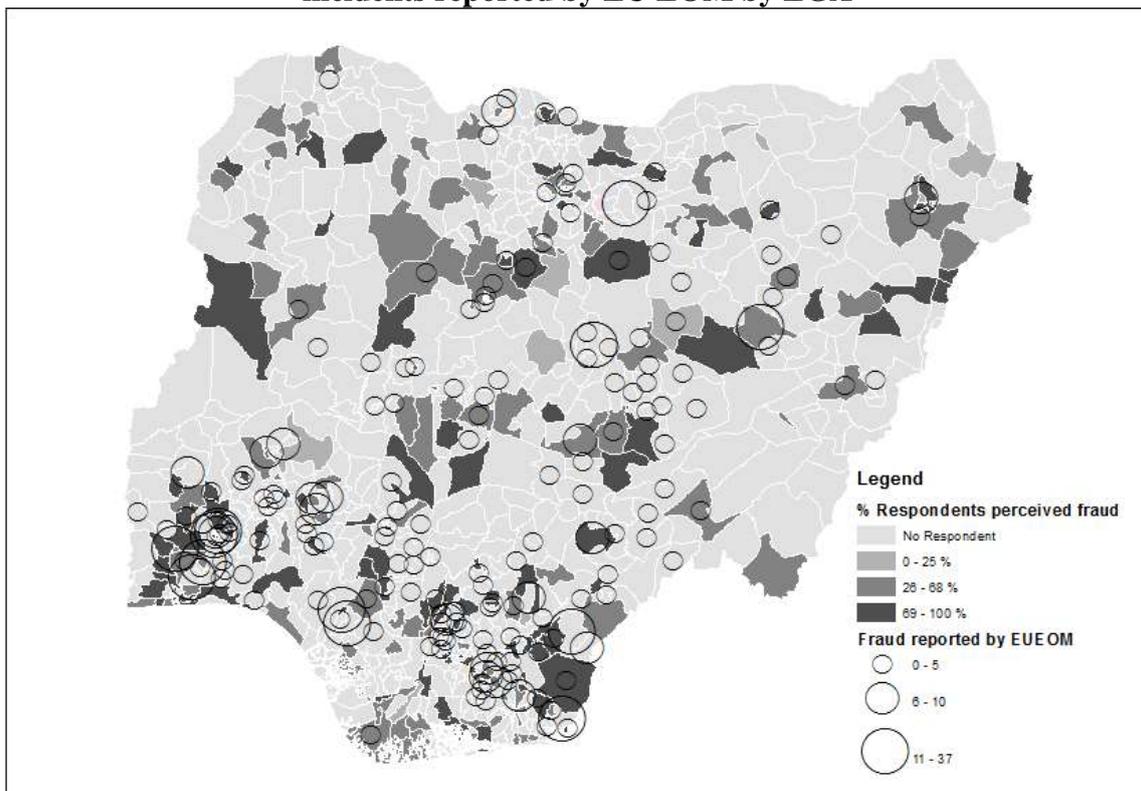
Figure 3 depicts the geographical distribution of fraud perception and fraud incidents across LGAs in Nigeria. For fraud perception, LGAs with darker shades represent a higher percentage of respondents perceiving fraud. For fraud incidents, we show the number of all types of fraud incidents for each LGA. Note that LGAs in the lightest shade of gray are those without respondents in round 4 of the Afrobarometer survey.

Our third hypothesis argued that the effect of fraud (real or perceived) could be conditional on other factors. Partisan biases, access to information, and community networks could affect whether perceive elections as fraudulent, and an effect of perception could thus be conditional on these attitudes. Similarly, people close to fraud events might mobilize only if they supported losers, are informed, or are active in their community. To examine whether these confounders affect the estimated effect of fraud, we code three additional variables from the Afrobarometer survey that we include as controls in all models, but also interact them with proximity to fraud and fraud perception (figure 4, table 3). First, we use information on vote choice to capture the “win-loss status” identified as influential in shaping fraud perceptions

²¹ Another concern with our fraud perception measure is that network effects from protesting could affect fraud perceptions, rather than the other way around. We control for community membership in all models to control for such network effects. As an alternative (results not shown), we also added a control variable for respondents who often discuss politics with friends and family. Our main results unchanged. Moreover, in additional specifications (not shown), we aggregated data to the LGA level to see if protests and fraud perception in the future (April 2008) predict expectations of fraudulent elections among respondents of an LGA in the past (Jan-Feb 2007). We find that LGAs with higher expectations of fraudulent elections before the polling had more respondents perceiving fraud after elections, but these LGAs were not more likely to experience protests. This suggests that anticipating fraud was not enough to mobilize individuals after elections, providing some evidence against a purely post-hoc rationalization of protesting and fraud perceptions.

(Robertson 2015).²² Unfortunately, Afrobarometer did not ask respondents about their vote choice in 2007, but asked which party they would vote for “if presidential elections were held tomorrow.” We use respondents’ answers to this question to code whether they did or did not vote for the incumbent, the People’s Democratic Party (PDP). Only 43% of the respondents declared they would vote for the PDP.²³

Figure 3. Relative frequency of respondents perceiving fraud and number of fraud incidents reported by EU EOM by LGA



The variable is coded 1 if respondents indicate that they would not vote for the PDP, since that implies they likely supported a losing party in 2007. Second, not all individuals have equal

²² It would be interesting to also examine the partisan orientation of localities because elites may strategically employ fraud in strongholds in order to reduce mobilization potential or the costs of fraud. Unfortunately, disaggregated data on electoral support are not available and could not easily be included in the analysis because respondents are not subnationally representative.

²³ Official results show the PDP’s Yar’Adua winning with 69,8% in 2007, but given the massive cheating, this figure should not be taken as actual PDP support.

access to information or interest in political processes, meaning the effect of fraud as a coordination device may be conditional on individuals' access to information. In the survey, 78% of respondents owned a radio, while only 58% has a television (55% has both). We thus create a dummy for individuals who listen to radio news every day (58.6%). Third, citizens with strong ties in the community may be more likely to act on fraud since these communities will mobilize them to contest the electoral outcome. A dichotomous variable is used to identify individuals who are active members of religious groups or other community-based associations. Active community members amount to 58% of the sample.

We control for several other factors that could affect mobilization, fraud perception, and/or proximity to fraud. Using round 4 of Afrobarometer, we begin with individual characteristics, controlling for the age of respondents, whether they are from urban areas, and whether they voted in the 2007 elections. We then control for an indicator at the census enumerator area (EA) level (the smallest administrative unit used by the national census), namely whether most houses in an EA have access to electricity. We also control for the (logged) number of polling stations within a respondent's LGA since the number of stations close by could affect both individuals' propensity to find out about fraud and the likelihood of mobilization. There were more than 118,000 polling stations in Nigeria for 2007 elections, with a mean of 232 per LGA. The map in the appendix shows the distribution and density of the polling booths (figure A3). We also include a dummy variable for the three states that were not visited by EU observers for security reasons (Bayelsa, Delta and Rivers).

Additional controls for government coercive capacity, living conditions, expectations of election fraud, previous protesting, spatial diffusion of protesting are created with historical measures from the Afrobarometer round 3.5 conducted in January–February 2007. A major challenge for creating these historical variables is that the sample of respondents changes in Afrobarometer with each round. We therefore aggregate information for respondents in round

3.5 to the LGA level and assign values to round 4 respondents for the same LGA for all LGAs surveyed in both rounds. Because Afrobarometer uses clustered sampling, an additional challenge is that the LGAs included in the two rounds are not identical. When a respondent's LGA in round 4 was not surveyed in round 3.5, we calculated the spatial lag of the above-mentioned variables, hence to have geographically similar values, from round 3.5 and used it to replace unmatched LGAs in 4. A detailed discussion of the construction of these variables is provided in section A4 in the appendix. From round 3.5, we thus include a dummy variable for LGAs experiencing protests, a dummy for police presence, two ordinal measures of past living conditions and individuals' expectations of fraud in the 2007 election, and the spatial lag of protesting to account for spatial interdependencies.²⁴ Table A8 in Appendix presents descriptive statistics for all variables. We use logistic regression with LGA clustered standard errors to estimate the effect of perceived and actual electoral fraud on the likelihood of protests. While not all of our variables are measured at the individual level, we cannot specify multilevel models because Afrobarometer only oversamples the South-South region of Nigeria and the number of respondents within LGAs is strongly unbalanced, varying from 1 (Karaye, in the North) to 46 (Port Harcourt, in the South). We include respondents' survey weights in the logistic regression to account for selection probabilities and oversampling.

Results

We proceed to testing hypotheses 1 and 2 and present results in table 1. We estimate three baseline models. In the first two models, we include perceived fraud and reported fraud separately; in Model 3, both are included in the specification. Table 1 shows that perceived fraud positively affects individuals' odds of mobilization (models 1 and 3), while reported fraud has a positive but insignificant effect (models 2 and 3).

²⁴ Living conditions range from very good (1) to very bad (4), while the electoral fraud expectation variable ranges from 1 (not fair, not free) to 4 (completely free).

Table 1 About Here

We next explore hypothesis 1 on reported fraud in more detail. In the baseline models, reported fraud is measured with a dummy coded 1 if a respondent was within 5 km of a fraud incident. To make sure this insignificant result is not a result of this particular operationalization, we estimate a set of models with other measures of reported fraud. Coefficients for Models 4–8 are shown in Table 2, and show that regardless of the operationalization – fraud incidents within 10 or 20km, average distance from three or five closest incidents, or km distance from closest fraud – we find no significant coefficients for reported fraud. Even when conducting additional robustness tests that distinguish event types (e.g. breaches of electoral procedures, violence and ballot stuffing), there is no significant effect of reported fraud (see Table A6.4 in Appendix). Since other work shows that violence, for example, is used primarily to deter turnout from opponents (Bratton 2008), is unlikely that fraud has an insignificant effect on protesting because it was used primarily in incumbent strongholds.²⁵ Only distance from closest fraud event reports a statistically significant, positive coefficient, counterintuitively suggesting that those further away from fraud become more mobilized, but this result is driven by outliers. Only 8% of respondents are more than 100 km away from a fraud incident; when these are removed from the estimation (results not shown), the coefficient for distance is insignificant. We thus find no empirical support for hypothesis 1, over different possible operationalizations, and the effect of proximity to fraud on individuals’ decision to protest. In contrast, fraud perception has a positive and significant effect across all models in Table 2. In substantive

²⁵ In the case of Nigeria, we find that most instances of fraud did not occur in states that strongly supported the incumbent party (PDP). Scatterplots (not included) show that state-level vote shares for the PDP do not correlate with the number of fraud incidents reported by the EU (corr=-0.08).

terms, models show that the odds of mobilization increase between 37% and 42% for respondents perceiving elections as fraudulent.

Table 2 About Here

The results in tables 1 and 2 show robust evidence for the mobilizing effect of perception, but no evidence that proximity to fraud affects protesting. We proceed to examining whether the omission of important conditional effects might explain these differing findings for fraud perception and reported fraud. As discussed, potential political grievances resulting from having voted for losing party, information available to respondents, or citizen links within local community could condition how fraud perceptions affect mobilization. Moreover, these confounders could also explain why reported fraud alone does not affect individuals' participation to protests.

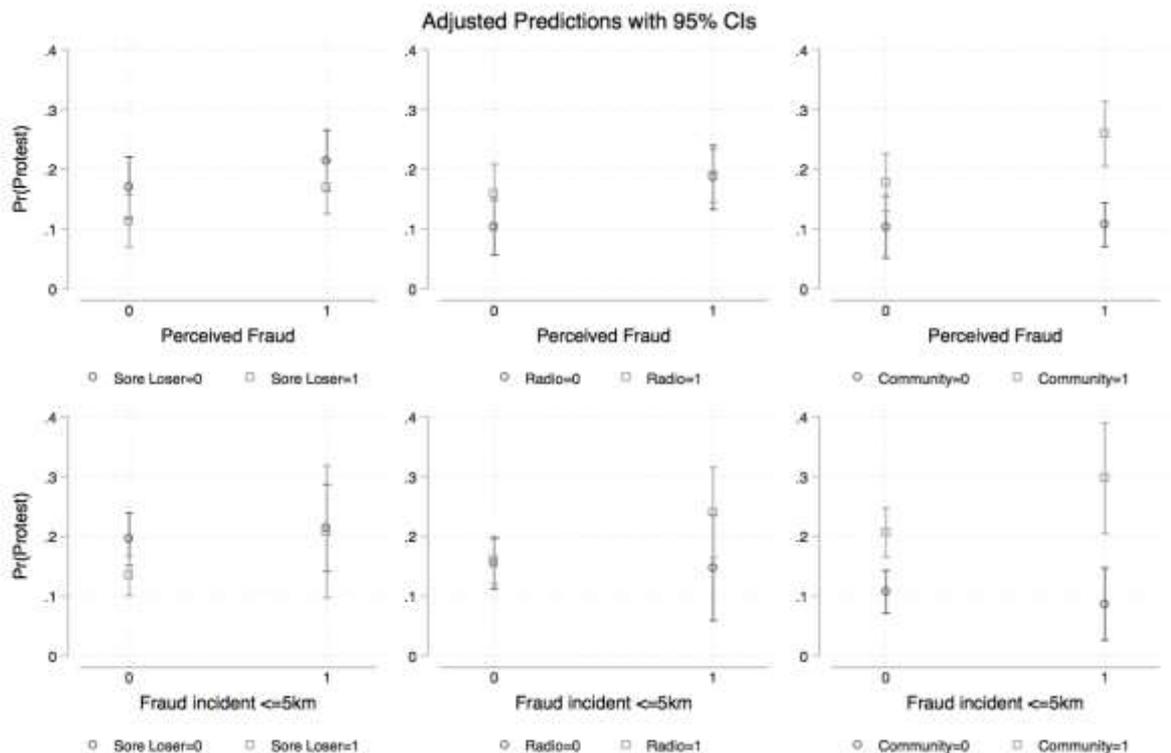
Table 3 About Here

Table 3 presents models where we interact variables for loser vote, information, and community links with both fraud perception and reported fraud measures, testing the third hypothesis. For ease of interpretation, figure 4 plots marginal effects for interactions between fraud perception, reported fraud, and confounders. For fraud perceptions (top panel), we find support only for the conditional effect of community networks (hypothesis 3c). As figure 4 shows, community membership does not increase protest propensities for individuals who do not perceive fraud. Yet for individuals perceiving elections as fraudulent, they are more likely to protest if they are also active within their local communities. There is no evidence of similar effects on fraud perceptions for win-loss status or informed individuals. We find similar results for reported fraud (figure 4, bottom panel). Having voted for electoral losers and paying attention to the media do not alter the effect of reported fraud on mobilization.²⁶ We find weak

²⁶ The effect of information on perceived and reported fraud remains the same when we operationalize information with a dummy for respondents' interest in political issues (results not shown).

evidence of a conditional effect for community membership. While the interaction term is not significant, figure 4 shows that respondents active in communities have higher odds of mobilization when fraud is reported in their proximity, weakly supporting hypothesis 3c. Reported fraud and community membership are mutually reinforcing and increase respondents' likelihood to protest. This interaction effect, however, seems to be driven by community membership more than proximity to fraud, since those active in communities mobilize more even in the absence of proximate fraud events. Findings from interactions also question claims prioritizing aggregate over local effects of fraud. If fraud perceptions or reported fraud are diffused nationally through media or opposition parties, we would expect support for these conditional effects.

Figure 4. Predicted Probabilities of Conditional Effects (Table 3)



Additional Robustness Tests

In additional robustness tests discussed in detail in the supporting materials, we validate our dependent variable with observational data on electoral protest (A1), present additional validations of reported fraud (section A2), show a map of polling station locations and densities (A3), discuss the possibility of selection bias in the reporting of fraud events in the EU report (A4), and outline the construction of lagged variables from Afrobarometer round 3.5 (A5). The appendix also presents additional models of protesting to examine interaction effects between observed and perceived fraud (A6, table A6.1), control for economic, ethnic, or political grievances (A6, table A6.2), show models at the LGA rather than the individual level (A6, table A6.3), explore different reported fraud types (A6, table A6.4), and present an extended baseline model that controls for individuals' education level and income (A6, table A6.5). Finally, to assess generalizability, we report the effect of perceptions and reported fraud using Afrobarometer surveys for all African countries (A7). These robustness tests confirm the findings presented in the manuscript, while addressing possible concerns with regard to our inferences.

Conclusion

The mobilizing potential of fraudulent elections is the subject of a growing literature. We depart from existing studies by examining the effects of election fraud on protest participation at the individual level. This emphasis on individuals addresses a mismatch between disaggregated theory and over-aggregated empirical evidence in previous work. While theories focus on how election fraud provides information crucial for citizen coordination, or produces grievances in voters that function as mobilizing shocks, empirical studies examine the effect of aggregate, election-level fraud assessments rather than individual assessments. For our individual-level analysis, we purposely select a case that fits aggregate patterns established in the literature. As Figure 1 at the beginning of the article shows, the 2007 Nigerian elections are close to the

regression line, having been assessed as fraudulent by international and domestic observers and experiencing substantial post-election mobilization. Choosing such a case allows us to quantitatively assess two distinct pathways linking election fraud to mobilization. We distinguish between the mobilizing effects of reported and observational (and perhaps relatively more objective) measures of election fraud, and individuals' perception (and hence relatively more subjective) measures of fraud. Our results from the 2007 elections in Nigeria show that only fraud perceptions have a positive and consistent effect on protesting, whereas proximity to fraud documented by observers does not affect mobilization. Fraud perception thus has strong and consistent effects on mobilization at the individual level in Nigeria, yet this pattern cannot be identified with aggregate data. Conversely, fraud reported by observers weakly correlates with protesting in the aggregate, yet we cannot identify individual-level effects.

We highlight three implications of our findings. First, we show that inferring citizens' perceptions of the electoral process from macro-level assessments is problematic. While scholars and organizations active in election monitoring have suggested that the documentation of electoral problems affects citizens' perceptions, our evidence shows that being close to documented fraud incidents has no effect on protesting. In contrast, we find strong and consistent effects of fraud perceptions on protesting at the individual level. These findings are potentially worrisome for policymakers but also normative reasons, since they could imply that people's fraud perceptions are shaped by a variety of biases or preexisting beliefs, rather than stemming from objective interpretations of events. Fraud documented by observers could still affect protesting through the behavior of elites, such as convincing opposition parties of international support when deciding whether to protest fraudulent elections, but these are alternative causal pathways. Second, the lack of congruence between aggregate and individual-level patterns supports the call for disaggregation and a better match between theory and

empirics in the literature on contention (Cederman and Gleditsch 2009). However, our results indicate that even highly disaggregated indicators from observational data can produce quite different results than perception-based measures of the same concept. Inferring citizens' beliefs from observational indicators alone could thus be quite problematic. Third, our findings fail to support the rational updating model of opinion formation but also its primary competitor, the motivated reasoning model. We find no evidence that information about fraud events leads to the updating of individuals' beliefs, nor do our results show that partisan attitudes condition individuals' fraud perceptions and mobilization. We thus need to develop models of opinion formation in unconsolidated democracies.

References

- Afrobarometer. 2007. "Afrobarometer Data Codebook for Round 3.5 Afrobarometer Survey in Nigeria."
- . 2008. "Afrobarometer Data Codebook for Round 4 Afrobarometer Survey in Nigeria."
- Beaulieu, Emily. 2014a. "From Voter ID to Party ID: How Political Parties Affect Perceptions of Election Fraud in the US." *Electoral Studies* 35: 24–32.
- . 2014b. *Electoral Protest and Democracy in the Developing World*. Cambridge University Press.
- Beissinger, Mark R. 2007. "Structure and Example in Modular Political Phenomena: The Diffusion of Bulldozer/rose/orange/tulip Revolutions." *Perspectives on Politics* 5 (2): 259–76.
- Birch, Sarah. 2008. "Electoral Institutions and Popular Confidence in Electoral Processes: A Cross-National Analysis." *Electoral Studies* 27 (2): 305–20.
- Birch, Sarah. 2010. "Perceptions of Electoral Fairness and Voter Turnout." *Comparative Political Studies* 43 (12): 1601–1622.
- Borzyskowski, Inken von. 2013. "Sore Losers? International Condemnation and Domestic Incentives for Post-Election Violence." *Working Paper*.
- Boulding, Carew. 2014. *NGOs, Political Protest, and Civil Society*. Cambridge University Press.
- Brancati, Dawn. 2013. "Pocketbook Protests Explaining the Emergence of Pro-Democracy Protests Worldwide." *Comparative Political Studies* 47(1): 1503-1530.
- . 2014. "Building Confidence in Elections: The Case of Electoral Monitors in Kosovo." *Journal of Experimental Political Science* 1 (01): 6–15.

- Bratton, Michael. 2008. "Vote Buying and Violence in Nigerian Election Campaigns." *Electoral Studies* 27 (4): 621–32.
- Bunce, Valerie J., and Sharon L. Wolchik. 2010. "Defeating Dictators: Electoral Change and Stability in Competitive Authoritarian Regimes." *World Politics* 62 (01): 43–86.
- Bush, Sarah Sunn. 2015. *The Taming of Democracy Assistance*. Cambridge University Press.
- Bush, Sarah Sunn, and Lauren Prather. 2017. The Promise and Pitfall of Election Observers in Building Election Credibility. *Journal of Politics* 79(03): 921-935.
- Cantú, Francisco, and Omar García-Ponce. 2015. "Partisan Losers' Effects: Perceptions of Electoral Integrity in Mexico." *Electoral Studies* 39 (September): 1–14.
- Cederman, Lars-Erik, and Kristian Skrede Gleditsch. 2009. "Introduction to Special Issue on 'Disaggregating Civil War.'" *Journal of Conflict Resolution* 53(4): 487-495.
- Daxecker, Ursula. 2012. "The Cost of Exposing Cheating: International Election Monitoring, Fraud, and Post-Election Violence in Africa." *Journal of Peace Research* 49 (4): 503–16.
- EU EOM. 2007. "EU EUOM 2007 Nigeria - Final Report - Gubernatorial and State Houses of Assembly Elections and Presidential and National Assembly Elections."
- . 2011. "Nigeria - Final Report - General Elections 2011 - EU EOM."
- . 2015. "Federal Republic of Nigeria - Final Report - General Elections 28 March 2015, 11 April 2015 - July 2015 - EUEOM."
- Fjelde, Hanne and Kristine Höglund. 2016. "Electoral Institutions and Electoral Violence in Sub-Saharan Africa." *British Journal of Political Science* 46(2): 297-320.
- Gaines, Brian J., James H. Kuklinski, Paul J. Quirk, Buddy Peyton, and Jay Verkuilen. 2007. "Same Facts, Different Interpretations: Partisan Motivation and Opinion on Iraq." *Journal of Politics* 69 (4): 957–74.

- Gandhi, Jennifer, and Ellen Lust-Okar. 2009. "Elections Under Authoritarianism." *Annual Review of Political Science* 12 (1): 403–22.
- Gerber, Alan, and Donald Green. 1999. "Misperceptions about Perceptual Bias." *Annual Review of Political Science* 2 (1): 189–210.
- Granovetter, Mark. 1985. "Economic Action and Social Structure: The Problem of Embeddedness." *American Journal of Sociology* 91 (3): 481–510.
- Hyde, Susan D., and Nikolay Marinov. 2012. "Which Elections Can Be Lost?" *Political Analysis* 20 (2): 191–210.
- . 2014. "Information and Self-Enforcing Democracy: The Role of International Election Observers." *International Organization* 68(2): 329–59.
- Kelley, Judith, and Kiril Kolev. 2010. "Election Quality and International Observation 1975–2004 : Two New Datasets."
- Kerr, Nicholas. 2013. "Popular Evaluations of Election Quality in Africa: Evidence from Nigeria." *Electoral Studies* 32 (4): 819–37.
- Kuntz, Philipp, and Mark R. Thompson. 2009. "More than Just the Final Straw: Stolen Elections as Revolutionary Triggers." *Comparative Politics*, 253–72.
- Kuran, Timur. 1991. "Now Out of Never: The Element of Surprise in the East European Revolution of 1989." *World Politics* 44 (1): 7–48.
- Lankina, Tomila. 2015. "The Dynamics of Regional and National Contentious Politics in Russia: Evidence from a New Dataset." *Problems of Post-Communism* 62 (1): 26–44.
- Little, Andrew T. 2012. "Elections, Fraud, and Election Monitoring in the Shadow of Revolution." *Quarterly Journal of Political Science* 7 (3): 249–83.
- Lodge, Milton, and Charles S. Taber. 2013. *The Rationalizing Voter*. Cambridge University Press.

- McAdam, Doug, and Sidney Tarrow. 2010. "Ballots and Barricades: On the Reciprocal Relationship between Elections and Social Movements." *Perspectives on Politics* 8 (02): 529–42.
- Norris, Pippa. 2013. "Does the World Agree About Standards of Electoral Integrity? Evidence for the Diffusion of Global Norms." *Electoral Studies* 32(4): 576-588.
- Norris, Pippa. 2014. *Why Electoral Integrity Matters*. Cambridge University Press.
- Oliver, Pamela E. 1989. "Bringing the Crowd Back in: The Nonorganizational Elements of Social Movements." *Research in Social Movements, Conflict and Change* 11 (1989): 1–30.
- Omotola, J. Shola. 2010. "Elections and Democratic Transition in Nigeria Under the Fourth Republic." *African Affairs*, 109(437): 535-553.
- Osumah, Oarhe, and Austin Aghemelo. 2010. "Elections in Nigeria Since the End of Military Rule" 4 (2).
- Persson, Mikael, and Maria Solevid. 2014. "Measuring Political Participation—Testing Social Desirability Bias in a Web-Survey Experiment." *International Journal of Public Opinion Research* 26 (1): 98–112.
- Preisendörfer, Peter, and Felix Wolter. 2014. "Who Is Telling the Truth? A Validation Study on Determinants of Response Behavior in Surveys." *Public Opinion Quarterly* 78 (1): 126–46.
- Putnam, Robert D. 1994. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton University Press.
- Rawlence, Ben, and Chris Albin-Lackey. 2007. "Briefing: Nigeria's 2007 General Elections: Democracy in Retreat." *African Affairs* 106 (424): 497–506.
- Robertson, Graeme. 2015. "Political Orientation, Information and Perceptions of Election Fraud: Evidence from Russia." *British Journal of Political Science*

- Schedler, Andreas. 2009. "Electoral Authoritarianism." *The SAGE Handbook of Comparative Politics*, 381.
- Silverman, Daniel. 2018. "What Shapes Civilian Beliefs about Violent Events? Experimental Evidence from Pakistan." *Journal of Conflict Resolution* online first.
- Trejo, Guillermo. 2012. *Popular Movements in Autocracies: Religion, Repression, and Indigenous Collective Action in Mexico*. Cambridge University Press.
- . 2014. "The Ballot and the Street: An Electoral Theory of Social Protest in Autocracies." *Perspectives on Politics* 12 (02): 332–52.
- Tucker, Joshua A. 2007. "Enough! Electoral Fraud, Collective Action Problems, and Post-Communist Colored Revolutions." *Perspectives on Politics* 5 (03): 535–51.

TABLES

Table 1. Baseline models

	Model 1	Model 2	Model 3
Perceived Fraud	0.377*		0.382*
	0.185		0.186
Fraud Incident <=5km		0.270	0.318
		0.243	0.242
Radio News	0.164	0.182	0.162
	0.184	0.183	0.184
Community Member	0.912*	0.935*	0.915*
	0.193	0.190	0.195
Loser Vote	-0.381*	-0.283+	-0.351*
	0.163	0.165	0.168
Not Observed	0.504*	0.559*	0.603*
	0.217	0.249	0.233
Age	0.007	0.007	0.006
	0.007	0.006	0.006
Urban Respondent	-0.085	-0.143	-0.116
	0.211	0.202	0.204
Access Electricity	0.493	0.537+	0.471
	0.310	0.311	0.317
Voted Elections	0.104	0.066	0.109
	0.193	0.191	0.193
Police Presence t-1	-0.150	-0.164	-0.145
	0.260	0.255	0.257
Protest t-1	0.306	0.257	0.278
	0.270	0.278	0.267
Expect Unfair Election t-1	0.223	0.255+	0.211
	0.149	0.145	0.147
Bad Living Condition t-1	0.036	0.029	0.040
	0.111	0.113	0.111
SpLag Protest	0.721	0.762	0.678
	0.504	0.490	0.500
Polling Stations (log)	-0.294+	-0.349*	-0.326*
	0.155	0.155	0.159
Constant	-1.970*	-1.602+	-1.826*
	0.873	0.820	0.897
Observations	1280	1330	1280
AIC	1198.626	1231.004	1197.697
BIC	1281.100	1314.091	1285.326

Standard errors clustered on LGA in parentheses

* p<0.05, + p<0.1

Table 2. Reported fraud operationalizations

	Model 4	Model 5	Model 6	Model 7	Model 8
Perceived Fraud	0.376*	0.377*	0.409*	0.427*	0.391*
	0.185	0.185	0.185	0.187	0.183
Fraud Incident <=5km					
Fraud Incident <=10km	-0.094 0.215				
Fraud Incident <=20km		0.003 0.191			
Avg. Distance 3 Incidents			0.003 0.002		
Avg. Distance 5 Incidents				0.003+ 0.002	
Distance Closest Incident					0.004+ 0.002
Radio News	0.162 0.183	0.164 0.183	0.156 0.184	0.155 0.183	0.151 0.183
Community Member	0.911* 0.192	0.912* 0.193	0.924* 0.190	0.937* 0.188	0.920* 0.190
Loser Vote	-0.389* 0.165	-0.381* 0.164	-0.406* 0.163	-0.406* 0.165	-0.411* 0.167
Not Observed	0.468* 0.228	0.505* 0.227	0.354 0.241	0.358 0.233	0.417+ 0.214
Age	0.007 0.007	0.007 0.007	0.007 0.007	0.008 0.007	0.007 0.007
Urban Respondent	-0.072 0.205	-0.085 0.202	-0.045 0.210	-0.037 0.211	-0.042 0.207
Access Electricity	0.506 0.311	0.493 0.312	0.532+ 0.302	0.525+ 0.299	0.550+ 0.292
Voted Elections	0.107 0.194	0.104 0.193	0.098 0.194	0.096 0.194	0.101 0.194
Police Presence _{t-1}	-0.147 0.260	-0.150 0.261	-0.142 0.262	-0.140 0.261	-0.152 0.264
Protest _{t-1}	0.315 0.278	0.306 0.280	0.362 0.278	0.401 0.282	0.357 0.283
Expect Unfair Election _{t-1}	0.222 0.150	0.223 0.149	0.235 0.151	0.232 0.152	0.235 0.150
Bad Living Condition _{t-1}	0.037 0.111	0.036 0.111	0.021 0.110	0.013 0.109	0.031 0.111
SpLag Protest	0.750 0.515	0.720 0.513	0.777 0.506	0.766 0.499	0.771 0.507
Polling Stations (log)	-0.285+ 0.156	-0.294+ 0.155	-0.278+ 0.151	-0.279+ 0.152	-0.260+ 0.151
Constant	-2.009* 0.874	-1.971* 0.873	-2.318* 0.857	-2.382* 0.861	-2.392* 0.837
Observations	1280	1280	1280	1280	1280
AIC	1200.328	1200.626	1198.502	1197.346	1196.822
BIC	1287.957	1288.254	1286.131	1284.975	1284.450

Standard errors clustered on LGA in parentheses

* p<0.05, + p<0.1

Table 3. Interactions with loser vote, information, and community

	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14
Perceived Fraud	0.308	0.374*	0.715*	0.377*	0.069	0.392*
	0.232	0.186	0.305	0.186	0.326	0.186
Fraud Incident <=5km	0.317	0.144	0.317	0.001	0.325	-0.150
	0.242	0.265	0.242	0.388	0.241	0.430
Loser Vote	-0.458+	-0.445*	-0.356*	-0.345*	-0.357*	-0.355*
	0.263	0.183	0.168	0.168	0.169	0.169
Perceived*Loser Vote	0.159					
	0.327					
Reported*Loser Vote		0.375				
		0.436				
Radio News	0.164	0.172	0.505+	0.043	0.171	0.155
	0.184	0.182	0.305	0.220	0.185	0.184
Perceived*Radio			-0.507			
			0.361			
Reported*Radio				0.492		
				0.398		
Community member	0.913*	0.913*	0.905*	0.911*	0.628+	0.771*
	0.195	0.195	0.194	0.194	0.325	0.223
Perceived*Community					0.413	
					0.401	
Reported*Community						0.626
						0.438
Not Observed	0.000	0.582*	0.598*	0.599*	0.000	0.615*
	.	0.231	0.230	0.230	.	0.233
Age	0.006	0.006	0.006	0.006	0.006	0.007
	0.006	0.006	0.006	0.006	0.006	0.006
Urban Respondent	-0.122	-0.127	-0.109	-0.117	-0.121	-0.121
	0.205	0.203	0.203	0.204	0.205	0.204
Access Electricity	0.466	0.468	0.473	0.484	0.475	0.477
	0.317	0.314	0.312	0.319	0.317	0.316
Voted Elections	0.103	0.099	0.114	0.094	0.100	0.122
	0.194	0.194	0.193	0.193	0.193	0.194
Police Presence _{t-1}	-0.143	-0.127	-0.157	-0.136	-0.144	-0.153
	0.257	0.260	0.257	0.256	0.257	0.257
Protest _{t-1}	0.281	0.279	0.282	0.267	0.285	0.266
	0.269	0.265	0.266	0.266	0.266	0.266
Expect Unfair Election _{t-1}	0.210	0.210	0.210	0.209	0.210	0.221
	0.146	0.146	0.149	0.148	0.148	0.147
Bad Living Condition _{t-1}	0.043	0.040	0.043	0.048	0.034	0.033
	0.112	0.111	0.111	0.111	0.111	0.111
SpLag Protest	0.681	0.707	0.666	0.699	0.687	0.689
	0.500	0.499	0.498	0.497	0.502	0.496
Polling Stations (log)	-0.325*	-0.323*	-0.324*	-0.328*	-0.327*	-0.326*
	0.159	0.158	0.159	0.160	0.160	0.160
Constant	-1.779*	-1.783*	-2.068*	-1.739+	-1.587+	-1.746+
	0.905	0.898	0.923	0.902	0.904	0.903
Observations	1280	1280	1280	1280	1280	1280
AIC	1199.454	1198.531	1197.356	1197.843	1198.417	1197.295
BIC	1292.237	1291.314	1290.139	1290.626	1291.200	1290.078

Standard errors clustered on LGA in parentheses

* p<0.05, + p<0.1

**Appendix for “Fraud is What People Make of It:
Election Fraud, Perceived Fraud, and Protesting in Nigeria”**

Table of Contents

A1 Validation of Protest Participation	42
<i>A1.1 Correlating Individual Protest Participation and Electoral Protest</i>	<i>42</i>
<i>A1.2 Correlating Individual Fraud Perception and Electoral Protest</i>	<i>43</i>
A2 Additional Validation of Reported Fraud	46
<i>A.2.1 Full Results for Trust in INEC (figure 2)</i>	<i>46</i>
<i>A2.2 Correlating Development Aid and Election-day Fraud</i>	<i>48</i>
<i>A2.3 Correlating Pre-Election Violence and Election-Day Reported Fraud</i>	<i>49</i>
<i>A2.4 Interacting Reported Fraud with Respondent Settlement Type</i>	<i>53</i>
A3 Distribution of polling stations in the 2007 Nigerian elections	55
A4 Selection Bias in Fraud Reporting	57
A5 Construction of Round 3.5 Control Variables	60
A6 Additional Models of Protesting	62
<i>A6.1 Interacting Perceived and Reported Fraud</i>	<i>62</i>
<i>A6.2 Controlling for Economic, Ethnic, and Political Grievances</i>	<i>64</i>
<i>A6.3 LGAs as units of analyses</i>	<i>66</i>
<i>A6.4 Distinguishing Types of Fraud</i>	<i>67</i>
<i>A6.5 Extended baseline model with more individual-level controls</i>	<i>70</i>
A7 Generalization	71
A8 Descriptive Statistics	74
References	75

A1 Validation of Protest Participation

The dependent variable in our manuscript codes whether Afrobarometer respondents participated in one or more protests in the past year, thus not establishing whether concerns about the electoral process mobilized respondents. Since we do not have individual-level data on election-related protesting, we instead present a validation using observational data from the Electoral Contention and Violence (ECAV) project (AUTHOR). The ECAV data include election-related contentious events before, during, and after elections in all unconsolidated regimes as reported in newswires. We identify and geolocate all protest-related events from election-day until three months after elections (ECAV covers a three-month period after elections). The data cover protests and riots in cities such as Lagos, Kano, Abuja, Port Harcourt, but also include events affecting entire states (Ekiti, Kano, Delta, Bayelsa, Rivers) or regions (especially in the South). Since some events affect larger areas, we aggregate them to the level of states (we exclude those affecting all of Nigeria). Our data consist of 235 state-level events.²⁷

We present two validations. First, we correlate individual protest participation and observed electoral protest. Second, we correlate individual fraud perceptions with observational data on election protest.

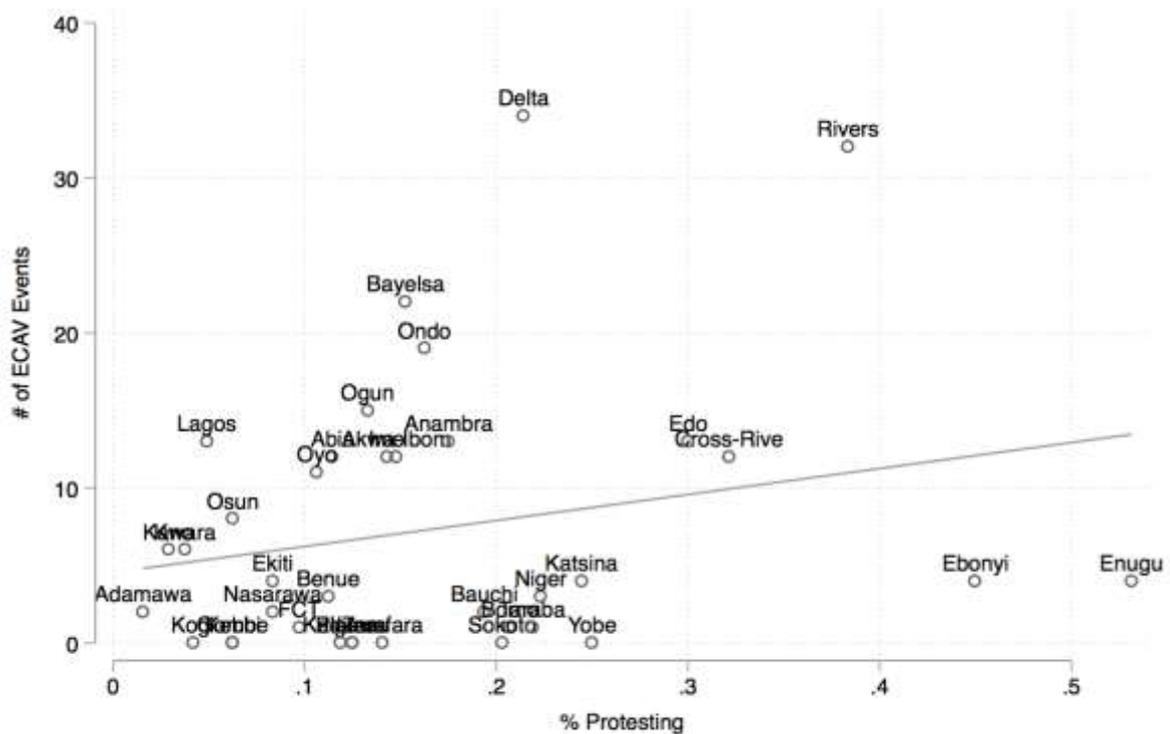
A1.1 Correlating Individual Protest Participation and Electoral Protest

Figure A1.1 shows the correlation between the state-level share of Afrobarometer respondents claiming they protested and the number of protests events after elections. The correlation is moderate and positive. Controlling for population density to account for potential bias in newswire reporting, inferential results show a statistically significant, positive relationship

²⁷ We identify 145 unique events, 12 of which affected either all or some Southern Nigerian states. We disaggregate these into a protest event for each affected state.

(Model A1.1, Table A1). Participation in protests reported in Afrobarometer thus correlates with election-related protest occurrence.

Figure A1.1: Scatterplot of Afrobarometer protesting and ECAV contention by state



A1.2 Correlating Individual Fraud Perception and Electoral Protest

Our main empirical findings show a positive association between fraud perceptions and protesting at the individual level. Consistent with these findings, the same positive correlation exists between the share of respondents perceiving fraud and observational data on electoral protest events. Figure A1.2 plots the correlation between fraud perception and protests, while model A1.2 presents inferential results. These results show that more electoral protesting occurred in states where a larger percentage of Afrobarometer respondents perceived irregularities.

Figure A1.2: Scatterplot of Afrobarometer fraud perception and ECAV contention by state

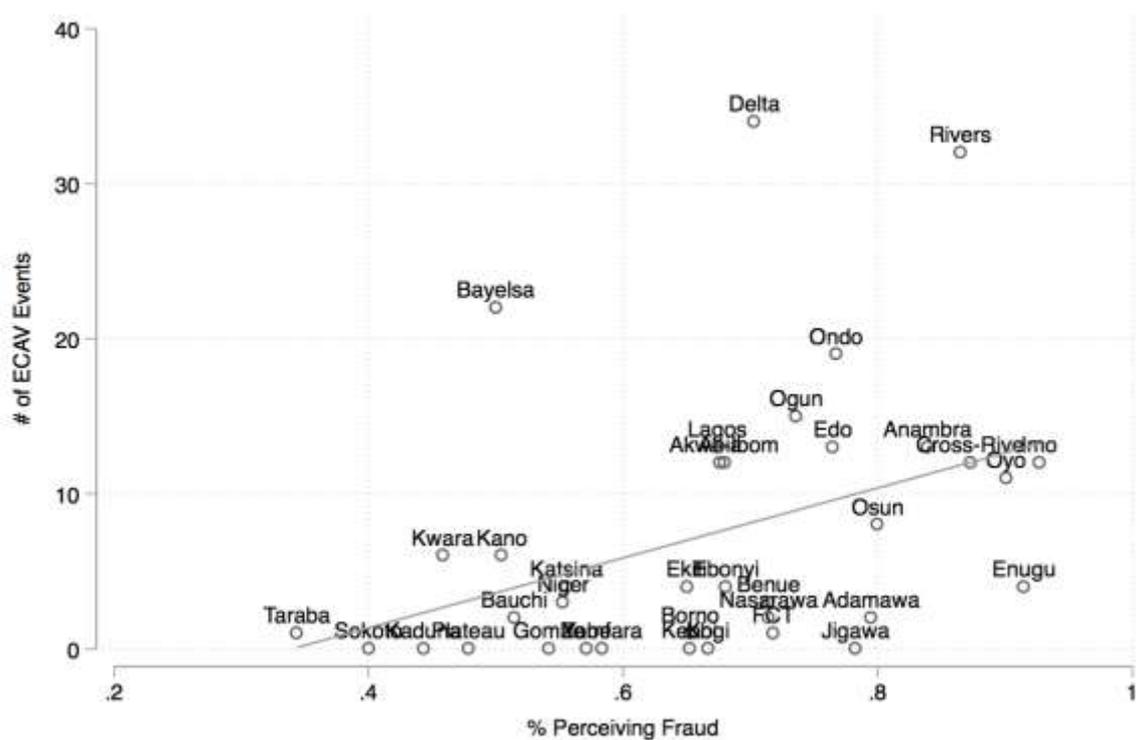


Table A1. Correlating protesting and perceived fraud to electoral protest events

	Model A1.1 DV: % of Protesting	Model A1.2 DV: % of Fraud Perception
ECAV Events	0.003+	0.006*
Population Density	0.002 -0.00004	0.003 0.00005
Constant	0.00003 0.151*	0.0001 0.605*
	0.024	0.031
Observations	37	37
AIC	-52.046	-37.167
BIC	-47.213	-32.334

Standard errors clustered on states in parentheses

* p<0.05, + p<0.1

A2 Additional Validation of Reported Fraud

A.2.1 Full Results for Trust in INEC (figure 2)

In Figure 2 of the manuscript, we presented the results of six models where we validate our measure of reported fraud by regressing reported fraud on citizen trust in the Nigerian Election Commission (INEC). Table A2.1 shows the estimated coefficients for all variables in the models shown in Figure 2.

One concern with this exercise is that respondents more distant from fraud incidents could have lower trust in institutions in general. In additional robustness tests not shown, we investigated whether trust for courts of law and local councils is lower for individuals closer to fraud incidents. If our validation exercise is correct, observed fraud will specifically decrease trust toward INEC rather than other institutions not involved in the election process. Results showed that observed fraud does not affect trust toward courts of law and local council, as we would expect (results not shown).

In two additional validation exercises presented below, we show that reported fraud also correlates with other expected outcomes based on observational data. First, we show that areas with reported election-day fraud are less likely to receive development aid in the year after (A.2.2). Second, we establish that areas with pre-election violence in the six months before elections are more likely to experience election-day reported fraud. (A2.3) Since both analyses correlate reported fraud with other observational data, we use more aggregate units of analysis (LGAs and states, respectively).

Finally, we examine whether findings for reported fraud are conditional on respondent settlement type (A2.4).

Table A2.1 Trust in INEC

	Model V1 DV: Trust INEC	Model V2 DV: Trust INEC	Model V3 DV: Trust INEC	Model V4 DV: Trust INEC	Model V5 DV: Trust INEC	Model V6 DV: Trust INEC
Perceived Fraud	-0.812*	-0.807*	-0.798*	-0.754*	-0.741*	-0.797*
	0.163	0.163	0.164	0.168	0.168	0.166
Fraud Incident <=5km	-0.448+					
	0.242					
Fraud Incident <=10km		-0.424*				
		0.204				
Fraud Incident <=20km			-0.459*			
			0.174			
Avg. Distance 3 Incidents				0.007*		
				0.002		
Avg. Distance 5 Incidents					0.006*	
					0.002	
Distance Closest Incident						0.007*
						0.003
Not Observed	-0.266	-0.289	-0.336	-0.500+	-0.401	-0.269
	0.243	0.248	0.246	0.281	0.267	0.237
Age	0.010+	0.009+	0.010+	0.010+	0.010+	0.009
	0.006	0.006	0.006	0.006	0.006	0.006
Urban Respondent	-0.110	-0.101	-0.064	-0.042	-0.046	-0.086
	0.170	0.170	0.173	0.169	0.168	0.170
Access Electricity	-0.073	-0.052	-0.066	-0.012	-0.044	-0.022
	0.251	0.249	0.241	0.242	0.245	0.255
Voted Elections	-0.158	-0.145	-0.163	-0.179	-0.177	-0.164
	0.149	0.148	0.148	0.151	0.150	0.150
Police Presence t-1	0.363+	0.399+	0.386+	0.429+	0.426+	0.392+
	0.218	0.224	0.218	0.223	0.227	0.224
Expect Unfair Election t-1	0.052	0.024	0.049	0.082	0.087	0.060
	0.116	0.119	0.116	0.122	0.124	0.120
Bad Living Condition t-1	-0.077	-0.062	-0.064	-0.101	-0.109	-0.070
	0.108	0.110	0.109	0.114	0.117	0.111
Loser Vote	-0.129	-0.128	-0.116	-0.151	-0.136	-0.135
	0.139	0.137	0.134	0.138	0.137	0.137
Community member	0.050	0.041	0.041	0.076	0.093	0.059
	0.149	0.150	0.150	0.152	0.152	0.150
Radio News	-0.156	-0.168	-0.163	-0.189	-0.183	-0.179
	0.153	0.151	0.152	0.153	0.154	0.151

Polling Stations (log)	-0.021	-0.012	-0.055	-0.003	-0.013	-0.002
	0.139	0.139	0.131	0.138	0.137	0.137
Constant	-0.051	-0.057	0.205	-0.763	-0.714	-0.514
	0.728	0.720	0.697	0.778	0.757	0.780
Observations	1280	1280	1280	1280	1280	1280
AIC	1606.309	1605.343	1601.704	1593.367	1593.908	1600.158
BIC	1683.628	1682.662	1679.023	1670.686	1671.227	1677.477

Standard errors clustered on LGA in parentheses

* $p < 0.05$, + $p < 0.1$

A2.2 Correlating Development Aid and Election-day Fraud

Existing research suggests that the incidence of election fraud could be sanctioned with lower provision of foreign aid. Portela (2007) finds that aid suspensions occur when the democratic process is disrupted, and Donno (2010) similarly shows that IGOs punish states guilty of electoral misconduct. To establish the correlation between reported fraud and aid, we use data on aid projects committed to Nigeria in 2008 from AidData (Tierney et al. 2011; Findley, Nielson, and Powell 2011). Since the data do not always provide location information at the LGA level, we aggregate the total amount of aid committed in 2008 to the level of Nigerian states, resulting in 37 observations. Figure A2.2 shows that states where fraud incidents were reported by the EU receive less aid in the year after elections. Table A2.2 also shows a simple count model at the state level where we control for how much aid was committed in 2007. We decide not to include variables from Afrobarometer data at the state level because aggregating more than 2,000 individual responses across 37 states would not be very meaningful. Consistent with our expectations, less development aid is committed to states that recorded substantial incidence of fraud, even while controlling for previous aid provision.

Figure A2.2 Scatterplot of fraud reported and aid commitments by state

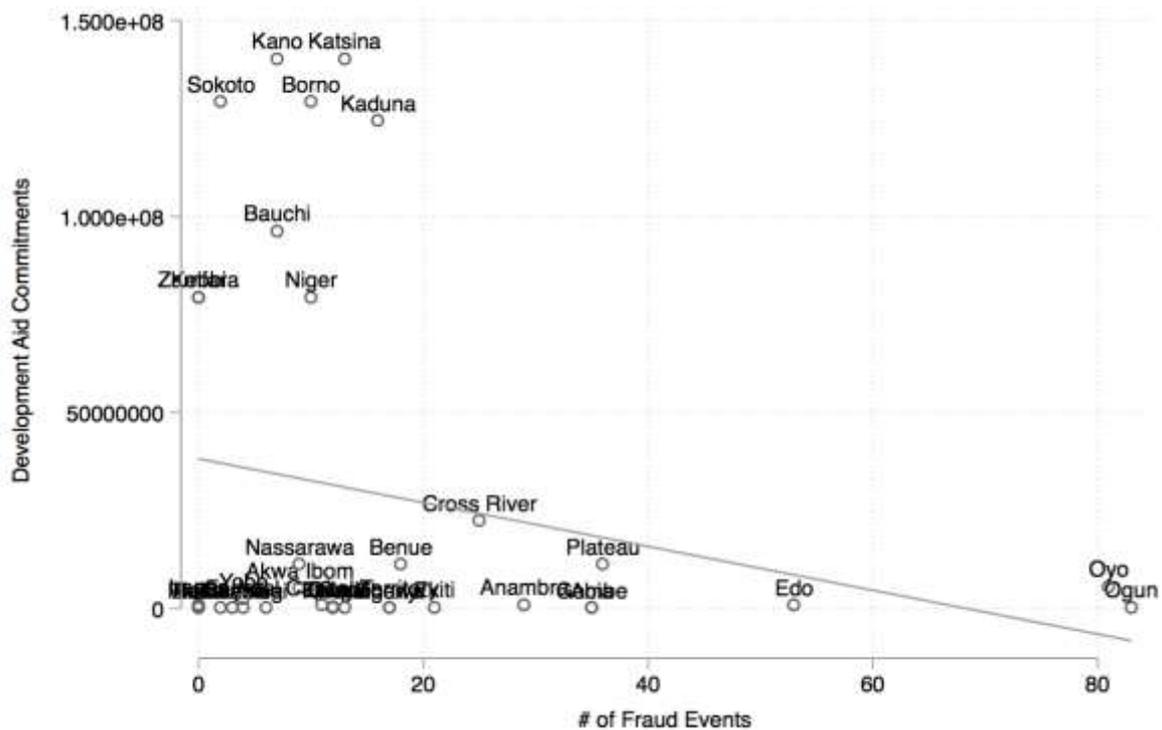


Table A2.2 Correlating development aid to reported fraud

	Model A1.1 DV: Count of Reported Fraud by State
Reported Fraud (count)	-0.039*
Aid Committed in 2007	0.011 0.144
Constant	0.091 17.449* 0.394 0.307
Observations	31
AIC	945.229
BIC	950.965

Standard errors clustered on states in parentheses

* p<0.05, + p<0.1

A2.3 Correlating Pre-Election Violence and Election-Day Reported Fraud

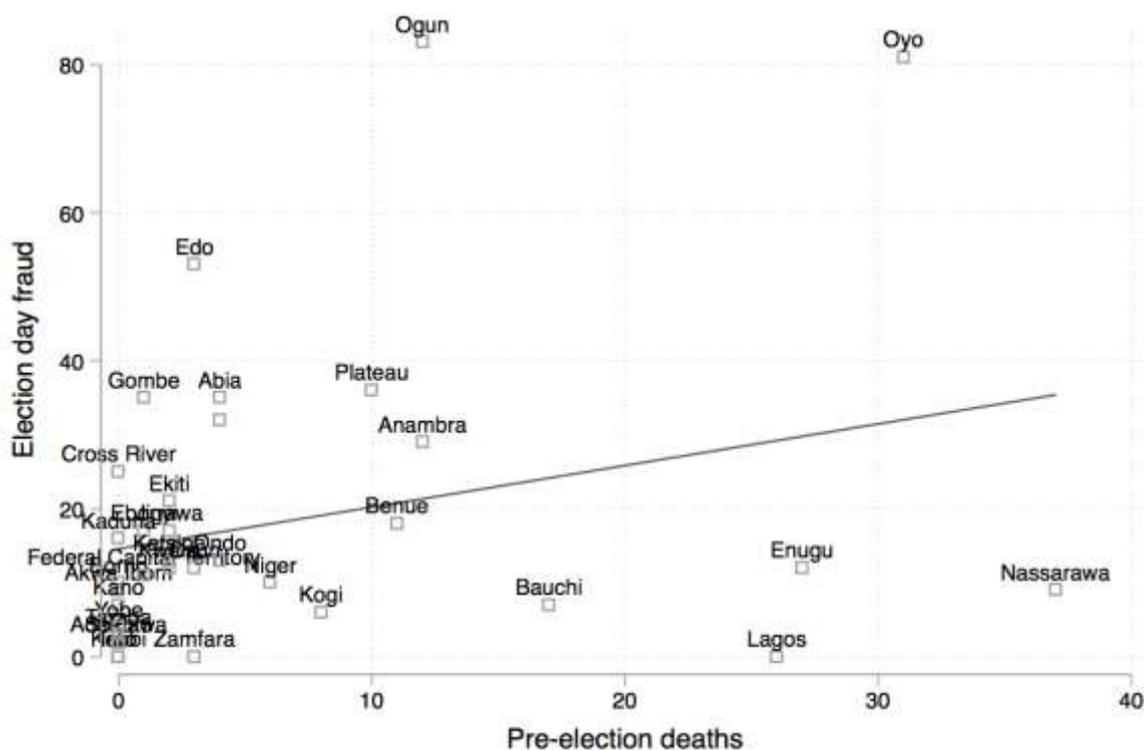
Our measure of reported fraud consists of incidents occurring on election-day in the 2007 Nigerian elections, and this measurement is more credible if we can establish that electoral

manipulation in the run-up to elections correlates with election-day fraud. We measure pre-election manipulation with data on pre-election violence collected from Nigeria Watch.²⁸ The use of violence is arguably one of the major forms of pre-electoral manipulation (Straus and Taylor 2009). Nigeria Watch collects data on deadly violent events from government authorities, NGOs, 10 national newspapers, and other sources. The data include date, location information, number of deaths, actors involved, and a description of each event. We manually coded all events relating to elections for the six months before the April 14, 2007 elections, which produced 102 events with 309 deaths.²⁹ The scatterplot below (figure A2.3) shows the expected positive correlation between pre-election violent deaths and election-day fraud at the state level, omitting the three states without fraud reporting from the EU.

²⁸ <http://www.nigeriawatch.org/index.php>

²⁹ To identify events, we selected events relating to political issues for the six months prior to elections and assessed each event on whether violence was related to elections. See for example this event in Oregon on April 2, 2007: “PDP thugs invaded AC rally, killing one and injured [sic] five others.” http://www.nigeriawatch.org/index.php?urlaction=evtView&id_evt=1520&rang=17

Figure A2.3: Scatterplot of pre-election deaths and election-day fraud by state



We also specify a count model with the count of election-day fraud events in each LGA as the dependent variable, the number of pre-election deaths in each LGA as the key independent variable, and some controls from Afrobarometer round 3.5. The unit of analysis are the 234 LGAs for which we had respondents in Afrobarometer round 3.5. Table A2.3 shows a positive and significant coefficient for pre-election violence, indicating that pre-election manipulation correlates strongly with election-day fraud. This result helps establish the validity of our reported fraud indicator.

The pre-election violence analyses help address two additional concerns with regard to our reported fraud measure. First, the positive correlation between pre-election violence and election-day fraud helps reduce concerns regarding the limitation of our measurement to election-day. As an additional test (available on request), we also re-specified our main models with the measure of pre-election violent events. Consistent with our main models, we found no empirical relationship between reported pre-election violence and protesting, while our finding

for fraud perceptions remains positive and significant. Second, while we examine possible selection bias in fraud reporting in more detail below, the positive relationship between pre-election deaths and election-day reported fraud shows that observers were more likely to report fraud in areas experience violence in the run-up to elections.

Table A2.3 Correlating pre-election deaths and election-day reported fraud

	Model A2.3 DV: Count of Reported Fraud
Pre-Election Deaths (count)	0.056* (0.018)
Electricity	0.568 (0.373)
Urban	0.864* (0.334)
Vote	0.921 (0.852)
Age	-0.009 (0.038)
Radio	1.354* (0.670)
Protest	0.537 (0.676)
Fraud Perception, 2003 elections	-0.148 (0.692)
State Not Observed	-1.819* (0.905)
Observations	234
AIC	603.161
BIC	641.170

Clustered standard errors
in parentheses

* p<0.05, + p<0.1

A 2.4 Interacting Reported Fraud with Respondent Settlement Type

A concern for our proximity to fraud measure is that the effect of proximity could be influenced by respondent's settlement type. Information about fraud may spread more rapidly in sparsely populated areas. We specify a model of protesting in which we interact urban respondents and different measure of proximity to observed fraud. Table A.2.4 shows that the two component terms (proximity to fraud and urban area) do not predict mobilization, but their interaction does. Counterintuitively, respondents in urban areas who are close to a fraud incident are more likely to join protests, and this result holds for some (5km and 20 km), but not all (the second model), alternative measures of fraud proximity. Importantly, the positive effect of perceived fraud still holds in this model. We suspect that the interaction effect for urban respondents might be the result of dynamics similar to our finding for community membership. Recall that we find a positive, weakly significant effect of proximity to fraud for individuals belonging to community associations. When we estimate a simple model of community membership (not shown), those in urban areas are more likely to be members, showing some support for this intuition.

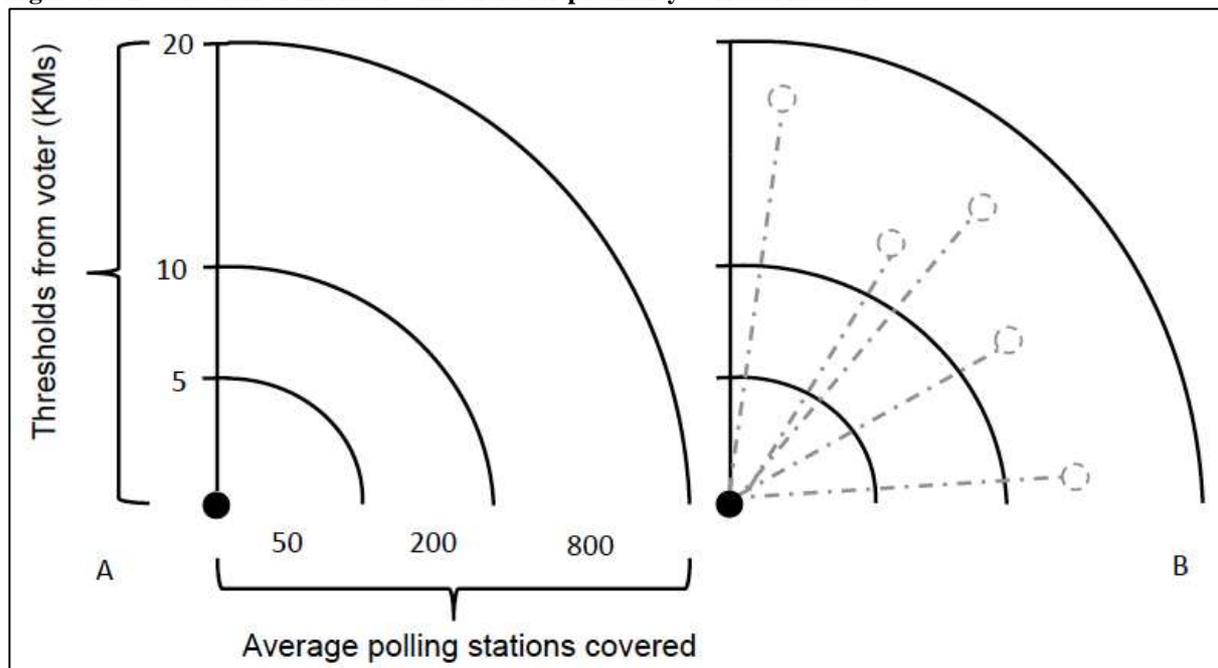
Table A2.4: Interaction Proximity to Fraud and Urban Respondents

Variables	Fraud incident 5km (2)	Fraud incident 10km (3)	Fraud incident 20km (4)
Perceived Fraud	0.360*	0.367*	0.359+
	0.183	0.184	0.184
Fraud incident	-0.315	-0.409	-0.370
	0.328	0.276	0.252
Fraud incident# Urban	1.088*	0.570	0.829*
	0.431	0.391	0.370
Urban Respondent=1	-0.391	-0.267	-0.492+
	0.241	0.250	0.275
Radio News	0.182	0.182	0.186
	0.184	0.184	0.184
Community member	0.928*	0.924*	0.919*
	0.194	0.191	0.189
Loser Vote	-0.366*	-0.389*	-0.383*
	0.168	0.166	0.167
Not observed	0.583*	0.460*	0.544*
	0.240	0.233	0.233
Age	0.005	0.006	0.006
	0.006	0.006	0.006
Access Electricity	0.472	0.523+	0.541+
	0.320	0.312	0.309
Voted Elections	0.107	0.107	0.110
	0.193	0.195	0.195
Police Presence t-1	-0.211	-0.178	-0.206
	0.254	0.257	0.256
Protest t-1	0.423	0.362	0.356
	0.260	0.272	0.276
Expect Unfair Election t-1	0.162	0.192	0.206
	0.150	0.151	0.148
Bad Living Condition t-1	0.051	0.044	0.043
	0.110	0.109	0.108
SpLag Protest	0.733	0.808	0.721
	0.484	0.516	0.508
Polling stations (log)	-0.335*	-0.282+	-0.298+
	0.158	0.156	0.157
Constant	-1.669+	-1.958*	-1.833*
	0.890	0.870	0.872
N	1279	1279	1279
AIC	1187.764	1195.892	1192.189
BIC	1280.533	1288.661	1284.958

A3 Distribution of polling stations in the 2007 Nigerian elections

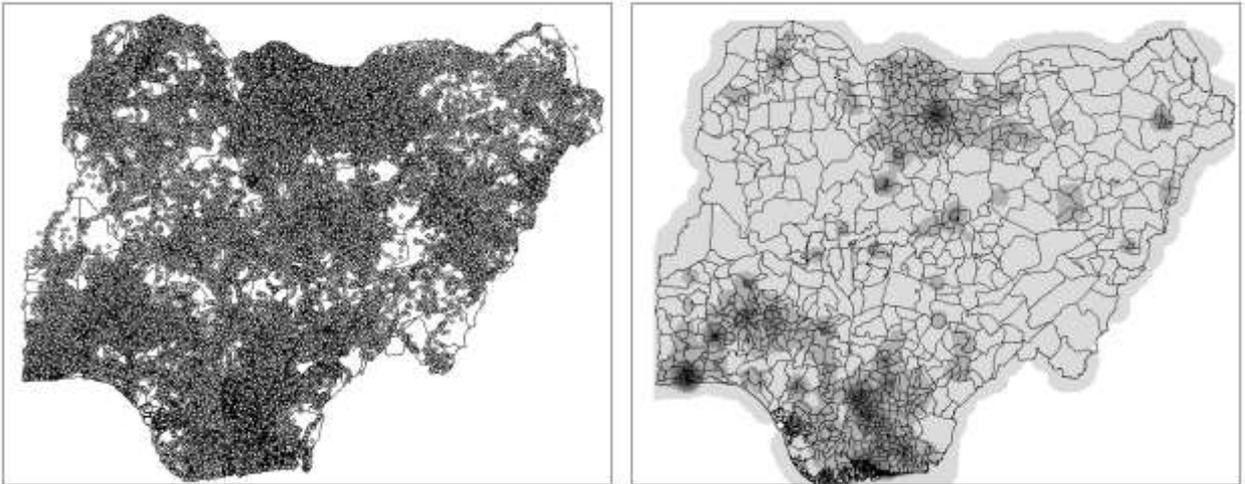
Our main indicator of reported fraud measures whether incidents occurred within 5km of a respondent. The manuscript discusses the selection of this threshold with regard to the number and distribution of polling stations in Nigeria. The manuscript also employs alternative thresholds (10 and 20km) and distance-based measures. Figure A3.1 illustrates proximity and distance-based measures of reported fraud. Diagram A (left panel) shows the number of polling stations for a 5, 10, and 20 km threshold. Diagram B (right panel) illustrates various distance-based measures.

Figure A3.1: Selection of kilometre threshold for proximity to fraud measure



In figure A3.2, we present maps of all polling stations (left panel), and the density of stations in the vicinity of survey respondents (right panel).

Figure A3.2 Location of polling station (left) and density of polling stations (right).



A4 Selection Bias in Fraud Reporting

We next explore possible selection bias in EU observers' reporting of fraud. The manuscript already mentions that the EU did not report fraud in three states where observers could not be deployed for security reasons. We include a dummy variable for these states in empirical models to account for non-observation of these areas. Yet it is possible that the EU also failed to survey conflictual areas in states where they did deploy some observers, thus excluding areas with fraud and this selection bias driving the lack of significant findings. We consider this bias somewhat unlikely because the EU report includes information on more than 600 events, including events reported by domestic organizations, journalists, and witness reports. Nevertheless, we examine this concern in more depth because research on the deployment of election observers suggests some evidence of selection bias (Bader and Schmeets 2014). In these models, we use LGAs as units since our independent and dependent variable are based observational data. We cannot directly model the deployment of election observers because we only have information on where they detected fraud rather than all areas visited. However, we estimate logistic regression models to at least examine whether fraud reporting seems influenced by violence. Our dependent variable is coded 1 if fraud was reported in an LGA, 0 otherwise. To measure the effect of conflict on reporting, we use data on conflict events for each LGA from ACLED for the year before the April 2007 elections (Raleigh et al. 2010). ACLED conflict events include battles, one-sided violence, and riots. We also include some control variables by averaging individual characteristics across LGAs. If selection bias is a concern, the coefficient for ACLED events should be negative and significant, suggesting a lower probability of reporting in such areas. In model A4.2, we aggregate all ACLED events, whereas A4.4-A4.6 distinguish among different types of ACLED events. Models in table A3 do not suggest selection bias because the ACLED coefficients remain insignificant in all specifications. Notice that in model A4.6, the riot variable is dropped because only two riot

events occurs in LGAs sampled by Afrobarometer and both reported observed fraud. Riots are thus excluded as they perfectly predict the dependent variable. Interestingly, and confirming other findings on deployment decisions (Bader and Schmeets 2014), we find that LGAs with more urban respondents are more likely to report fraud.

Table A4. Selection Bias: Logit models with Reported Fraud as DV

	Model A4.1 Baseline	Model A4.2 All ACLEDE events	Model A4.4 Battle- events	Model A4.5 One-sided violence	Model A4.6 Riots
ACLEDE Events		-0.016 0.053			
Battle-events			0.151 0.229		
One-sided Violence Events				-0.089 0.070	
Riots					0.000 .
Age (mean)	0.054+ 0.033	0.053 0.033	0.055+ 0.033	0.052 0.033	0.051 0.033
Urban (mean)	0.596+ 0.361	0.594 0.361	0.599+ 0.363	0.591 0.360	0.582 0.365
Access to Electricity (mean)	1.275+ 0.664	1.268+ 0.664	1.285+ 0.671	1.252+ 0.661	1.279+ 0.668
Police Presence (mean)	-0.550 0.500	-0.538 0.501	-0.600 0.509	-0.529 0.501	-0.700 0.512
Protests (mean)	0.104 0.492	0.121 0.501	0.045 0.499	0.148 0.503	-0.004 0.494
Expect Unfair Elections (mean)	0.227 0.265	0.227 0.265	0.234 0.266	0.232 0.264	0.283 0.262
Bad Living Conditions (mean)	0.131 0.234	0.123 0.239	0.152 0.234	0.109 0.240	0.156 0.235
Polling Stations (log)	0.661+ 0.362	0.673+ 0.374	0.629+ 0.365	0.697+ 0.376	0.589+ 0.358
Constant	-8.219* 2.299	-8.252* 2.328	-8.127* 2.292	-8.311* 2.353	-7.778* 2.268
Observations	231	231	231	231	229
AIC	238.186	240.131	239.718	239.586	234.003
BIC	269.168	274.555	274.142	274.010	264.907

Clustered standard errors in parentheses

* p<0.05, + p<0.10

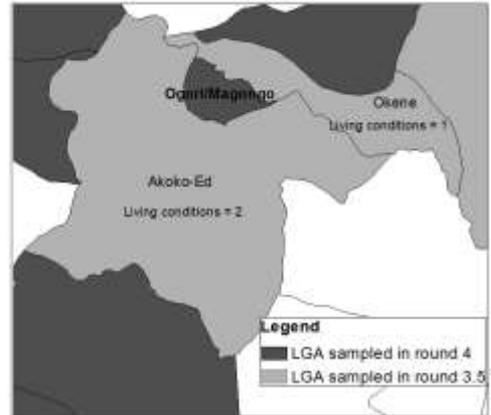
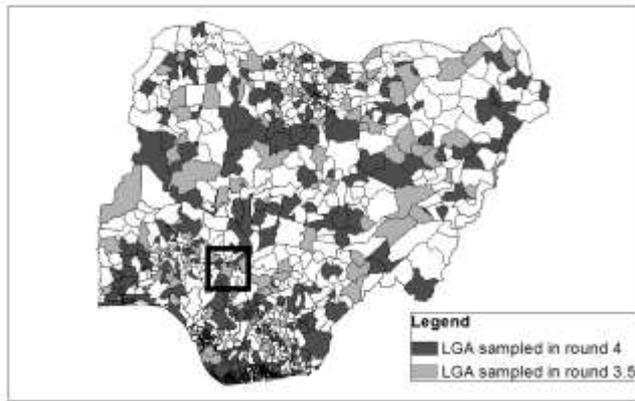
A5 Construction of Round 3.5 Control Variables

Afrobarometer does not survey the same individuals over time, which makes controlling for historical factors challenging. Yet when including e.g. police presence as an independent variable to explain protesting, concerns over simultaneity bias are substantial. One possible solution is to average survey responses across larger geographical units. Yet since the survey also does not select individuals from the same administrative units over time, even a more aggregate approach becomes challenging. In 2007, Afrobarometer sampled 2,410 respondents from 237 LGAs out of 775; in 2008, the sample included 2,325 respondents from 230 LGAs. On average, both rounds surveyed 10 individuals in each selected LGA. However, only 99 of the sampled LGAs in 2008 (round 4) were also included in the 2007 survey (round 3.5). We hence use the following, three-step procedure to control for historical variables at a more aggregate level:

1. Identify LGAs surveyed in both round 4 and round 3.5
2. For LGAs in both rounds, assign aggregated values of control variable x from round 3.5 to 4 (equivalent to a lagged variable at the LGA level)
3. For LGA in round 4 that are not surveyed in 3.5, calculate the spatial lag of LGAs in round 4 using neighbouring units that are sampled in 3.5 and then assign the spatially lagged control variable x to round 4.

The map in Figure A5 exemplifies the procedure. Suppose we want to assign previous living conditions at the LGA level from the 3.5 round. The LGA of Ogori/Magongo is sampled in round 4, but not in 3.5 meaning that we cannot add information about living conditions at the LGA level. We know, however, that two neighboring LGAs (Akoko-Ed and Okene) were sampled in round 3.5, thus calculate average living conditions in these LGAs and use these values to obtain the spatial lag of living conditions for Ogori/Magongo.

Figure A5. Map of LGAs sampled in round 4 and 3.5 of Afrobarometer



A6 Additional Models of Protesting

In this section we present three additional models of protesting as robustness tests. These tests account for interactions between perceived and observed fraud (table A6.1), control for non-electoral grievances (table A6.2), models at the LGA level (table A6.3), and models that distinguish reported fraud by type (table A6.4).

A6.1 Interacting Perceived and Reported Fraud

Table A6.1 presents results for possible conditional effects of perceived and observed fraud by adding interaction terms. We assess these interactions because proximity to fraud could amplify fraud perceptions (or vice versa). We interact fraud perception with all operationalizations of reported fraud shown in Figure 5 of the manuscript. In the five models below, the interaction term is never statistically significant at 0.05 level, thus not providing support for claims that proximity to fraud impacts perception indirectly (or vice versa). In model A6.1.4, the interaction is significant at the 90% confidence level but negative, thus not showing that perception and proximity to fraud reinforce each other. When plotting substantive effects for this model (not shown), furthermore, the interaction is not statistically significant since it is not possible to discern the effect of proximity to fraud conditional on perception.

Table A6.1 Models with interaction between perceived and reported fraud

	Model A6.1.1 Dummy 5km	Model A6.1.2 Dummy 10km	Model A6.1.3 Avg dist 3	Model A6.1.4 Avg dist 5	Model A6.1.5 Distance closest
Perceived Fraud	0.324+	0.361+	0.634*	0.707*	0.572*
	0.193	0.198	0.258	0.257	0.227
Reported Fraud	0.331	0.080	0.004	0.004*	0.008+
	0.267	0.259	0.003	0.002	0.004
Perceived*Reported	-0.114	-0.223	-0.005	-0.005+	-0.008
	0.312	0.314	0.003	0.003	0.006
Not Observed	0.635*	0.534*	0.532*	0.523*	0.551*
	0.199	0.198	0.220	0.205	0.189
Age	0.005	0.005	0.005	0.006	0.005
	0.005	0.005	0.005	0.005	0.005
Urban Respondent	-0.138	-0.091	-0.118	-0.111	-0.106
	0.177	0.177	0.182	0.183	0.179
Access Electricity	0.419	0.441+	0.443+	0.440+	0.490+
	0.271	0.268	0.264	0.262	0.257
Voted Elections	0.219	0.226	0.211	0.211	0.215
	0.151	0.151	0.151	0.151	0.151
Police Presence t-1	-0.073	-0.102	-0.057	-0.049	-0.093
	0.225	0.225	0.225	0.225	0.228
Protest t-1	0.448*	0.463*	0.469*	0.487*	0.486*
	0.219	0.226	0.225	0.227	0.230
Expect Unfair Election t-1	0.130	0.159	0.146	0.143	0.149
	0.114	0.114	0.114	0.113	0.115
Bad Living Condition t-1	-0.028	-0.031	-0.041	-0.046	-0.040
	0.092	0.093	0.093	0.093	0.094
SpLag Protest	0.728	0.780+	0.805+	0.809+	0.837+
	0.459	0.471	0.460	0.459	0.463
Polling Stations (log)	-0.318*	-0.306*	-0.299*	-0.300*	-0.281*
	0.114	0.111	0.110	0.110	0.109
Constant	-1.418*	-1.501*	-1.769*	-1.849*	-1.906*
	0.674	0.663	0.665	0.665	0.661
Observations	2092	2092	2092	2092	2092
AIC	1842.706	1844.809	1842.068	1840.493	1840.519
BIC	1927.394	1929.497	1926.756	1925.181	1925.207

Clustered standard errors in parentheses

* p<0.05, + p<0.10

A6.2 Controlling for Economic, Ethnic, and Political Grievances

Table A6.2 presents models of protesting while controlling for other grievances that could affect fraud perceptions. Instead of capturing citizens' perception of election fraud, fraud perceptions could reflect economic, ethnic, or political grievances that could contaminate our measurement. We create several variables from the Afrobarometer survey to measure these grievances and include them as controls in table A6.2 below. First, individuals who are unemployed may hold economic grievances that also predispose them to hold fraud perceptions. We create a dummy variable coded 1 for those without employment, 0 otherwise. Second, individuals belonging to excluded ethnic groups might have grievances against the government that could also make them amenable to perceive elections as fraudulent. We include a dummy variable coded 1 for individuals who belong to excluded ethnic groups as defined by the Ethnic Power Relations data (Wimmer, Cederman, and Min 2009), 0 otherwise. Third, general dissatisfaction with the status of democracy could influence fraud perceptions, and these more general grievances could thus be responsible for the effect of fraud perception on protesting. We create a dummy variable coded 1 for individuals dissatisfied with democracy in Nigeria, 0 otherwise. Results in the table show that fraud perception has a positive and significant effect on protesting while controlling for these grievances, which increases our confidence that our findings indeed capture the effect of fraud perception rather than other grievances. An alternative model specification included trust in government as measure of political grievances. In this model (not reported), results for fraud perception remained consistent with those reported in model A6.2.

Table A6.2 Model Controlling for Economic, Ethnic, and Political Grievances

	Model A6.2 Other Grievances
Perceived Fraud	0.511*
	0.253
Fraud Incident <=5km	0.210
	0.322
Unemployed	-0.247
	0.202
Discriminated or Powerless Ethnic Group	0.379
	0.454
Dissatisfied with Democracy	0.016
	0.240
Radio News	0.030
	0.243
Community Member	1.026*
	0.261
Loser Vote	-0.432+
	0.236
Not Observed	0.184
	0.458
Age	0.006
	0.008
Urban Respondent	-0.272
	0.285
Access Electricity	0.395
	0.531
Voted Elections	-0.181
	0.236
Police Presence t-1	-0.373
	0.339
Protest t-1	0.334
	0.395
Expect Unfair Election t-1	0.259
	0.211
Bad Living Condition t-1	0.120
	0.151
SpLag Protest	0.672
	0.670
Polling stations (log)	-0.236
	0.227
Constant	-1.982
	1.388
Observations	848
AIC	776.059
BIC	870.916

Clustered standard errors in parentheses

* p<0.05, + p<0.10

A6.3 LGAs as units of analyses

Table 6.3 reports a model estimated at the LGA level instead of individual respondents. We aggregate the variables at the LGA levels using the mean. For reported fraud, we both use the mean of the dummy for incidents occurring within 5 km and a dummy that equals 1 if at least one or more incidents occurred in the LGA. The former variable captures the proportion of respondents within that LGA that were very proximate to reported incidents, while the latter captures the presence or absence of fraud in each LGA. We include the margin of victory for each state for the winning party from the 2003 elections to control for the effect of electoral competition. For these models, we aggregate all Afrobarometer variables to the LGA level and replicate our baseline model (model 3 in the manuscript). Both models show positive and significant coefficients for perceived fraud but not reported fraud, which is again in line with the main models presented in the manuscript.

Table A6.3 Model with LGA as Unit of Analysis

	Model A6.3.1 LGA Baseline	Model A6.3.2 LGA Baseline with LGA dummy
Perceived Fraud	0.151*	0.149*
	0.051	0.051
Fraud Incident <=5km (mean)	0.018	
	0.026	
Dummy Reported LGA		0.021
		0.025
Not Observed	0.077*	0.079*
	0.036	0.036
Age (mean)	0.002	0.002
	0.003	0.003
Urban Respondent (mean)	-0.043	-0.045+
	0.026	0.026
Access Electricity (mean)	0.049	0.051
	0.039	0.039
Voted Elections (mean)	-0.043	-0.047
	0.058	0.058
Police Presence t-1 (mean)	-0.023	-0.023
	0.033	0.033
Protest t-1 (mean)	0.081*	0.080*
	0.031	0.031
Expect Unfair Election t-1 (mean)	-0.003	-0.004
	0.016	0.016
Bad Living Condition t-1 (mean)	0.003	0.003
	0.013	0.013
SpLag Protest (mean)	0.088	0.088
	0.073	0.073
Victory Margin	-0.010	-0.010
	0.013	0.013
Constant	0.027	0.027
	0.151	0.150
Observations	229	229
AIC	-135.285	-135.498
BIC	-87.213	-87.425

Clustered standard errors in parentheses

* $p < 0.05$, + $p < 0.10$

A6.4 Distinguishing Types of Fraud

Table A6.4 presents additional operationalizations of the reported fraud measure. In the three models, we replicate the baseline model of the manuscript but distinguish incidents reported by EU observers within each LGA by type. The three different types of incidents in the report

are procedural breaches (type 1), violence (type 2) and ballot stuffing (type 3). None of the types affect individuals' likelihood to protest, while perceived fraud consistently increases the odds of mobilization.

Table A6.4 Reported Fraud by Type.

	Model A6.4.1 Type 1 only	Model A6.4.2 Type 2 only	Model A6.4.3 Type 3 only
Perceived Fraud	0.409*	0.396*	0.396*
	0.183	0.183	0.183
Fraud Incident <= 5km	0.425+	0.216	-0.187
	0.241	0.265	0.378
Radio News	0.188	0.185	0.176
	0.183	0.184	0.184
Loser Vote	-0.394*	-0.402*	-0.413*
	0.162	0.164	0.161
Community Member	0.937*	0.938*	0.935*
	0.193	0.193	0.191
Age	0.006	0.006	0.006
	0.007	0.007	0.007
Urban Respondent	-0.108	-0.118	-0.079
	0.213	0.216	0.215
Access Electricity	0.519+	0.529+	0.541+
	0.308	0.307	0.306
Voted Elections	0.103	0.084	0.091
	0.193	0.193	0.193
Police Presence t-1	-0.163	-0.110	-0.124
	0.261	0.257	0.257
Protest t-1	0.348	0.389	0.368
	0.259	0.254	0.262
Expect Unfair Election t-1	0.260+	0.228	0.252+
	0.144	0.145	0.145
Bad Living Condition t-1	0.053	0.035	0.041
	0.117	0.115	0.115
SpLag Protest	0.898+	0.890+	0.867+
	0.483	0.474	0.483
Polling Stations (log)	-0.343*	-0.313*	-0.297+
	0.157	0.156	0.155
Constant	-1.830*	-1.941*	-2.029*
	0.880	0.876	0.869
Observations	1280	1280	1280
AIC	1200.395	1201.896	1202.393
BIC	1282.869	1284.369	1284.867

Clustered standard errors in parentheses

* p<0.05, + p<0.10

A6.5 Extended baseline model with more individual-level controls

Table A6.5 reports an extended version of the baseline model presented in the manuscript. In particular, we replicate Model 3 with the inclusion of additional control variables at the individual level. Individuals' general propensity to participate to protest can be a function of their income level and education, so we include these two variables in the specification. With regard to income, we would expect it to be related to mobilization in presence of perceived economic grievances and inequalities, which we control for in models presented in section A6.2 without noticing any significant change in our main results. Afrobarometer does not directly measure the level of income for respondents, but asks them whether they had run out of a cash income in the last year. The answer is on an ordinal scale from 0 (Never) to 4 (Always). Education is measured more precisely ranging from no formal schooling (0) to post-graduate education (9). Controlling for these factors does not affect the positive and significant coefficient for perceived fraud; as in other models, reported fraud does not reach statistical significance, while perception remains positive and significant.

Table A6.5. Extended Baseline model with Income and Education

Variables	Model A6.5 Extended Baseline
Perceived Fraud	0.385* 0.187

Fraud incident <=5km	0.301
	0.240
Income	-0.050
	0.064
Education	0.001
	0.012
Radio News	0.168
	0.187
Community member	0.938*
	0.194
Loser Vote	-0.350*
	0.168
Not observed	0.636*
	0.238
Age	0.005
	0.006
Urban Respondent	-0.134
	0.204
Access Electricity	0.452
	0.314
Voted Elections	0.107
	0.195
Police Presence t-1	-0.141
	0.257
Protest t-1	0.280
	0.267
Expect Unfair Election t-1	0.198
	0.145
Bad Living Condition t-1	0.045
	0.111
SpLag Protest	0.676
	0.501
Polling stations (log)	-0.330*
	0.160
Constant	-1.695+
	0.914
<hr/>	
Observations	1279
AIC	1197.468
BIC	1295.391
<hr/>	

Standard errors in parentheses

* $p < 0.05$, + $p < 0.10$

A7 Generalization

Our empirical results for the 2007 elections in Nigeria show that reported fraud has no effect on mobilization, while fraud perceptions strongly and consistently affect protesting. While the

manuscript and the above sections try to account for a number of threats to causal inference, in particular for our reported fraud measure, a remaining concern is whether these results hold outside of Nigeria and this particular election. We cannot conduct additional tests of our findings for reported fraud because subnationally disaggregated data of fraud are not available. However, it is straightforward to assess whether our findings for fraud perception and protesting are generalizable. Table A7 shows results for models of all respondents surveyed in Afrobarometer rounds 1, 3 and 4 (round 2 did not ask about fraud perceptions) together with some basic controls. The logit models for all countries show that perception of fraud consistently predicts higher odds of protesting for individuals across the entire sample, demonstrating the generalizability of our fraud perceptions findings. In the logit model, we do not cluster standard errors by country because of the small number of clusters. Yet results from the Generalized Linear Latent and Mixed model (A7.2), which allows the specification of clusters for observations (country-round), show that the effect of fraud perception remains consistent.

Table A7. Models with respondents from all Afrobarometer rounds

Variables	Model A7.1 Logit model	Model A7.2 GLLAMM models
Perceived Fraud	0.091* 0.029	0.050+ 0.027

Age	-0.003*	-0.002*
	0.001	0.000
Urban	0.064*	0.120*
	0.031	0.029
Electricity	0.361*	0.250*
	0.031	0.031
Voted	0.197*	0.238*
	0.034	0.031
Constant	-2.188*	-2.410*
	0.063	0.056
Observations	54957	54957
AIC	36414.867	44299.132
BIC	36468.353	44361.532

Standard errors in parentheses

* $p < 0.05$, + $p < 0.10$

A8 Descriptive Statistics

Table A8. Descriptive statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
Protest	2,225	.171	.376	0	1
Perceived Fraud	2,1	.673	.469	0	1
Fraud Incidents <=5km	2,225	.220	.414	0	1
Fraud Incidents <=10km	2,225	.310	.462	0	1
Fraud Incidents <=20km	2,225	.447	.497	0	1
Avg. Distance 3 Closest Fraud	2,225	62.773	47.287	.079	208.627
Avg. Distance 5 Closest Fraud	2,225	69.957	51.757	.274	235.342
Distance Closest Fraud	2,225	33.885	35.086	.013	197.702
Radio	2,225	.586	.492	0	1
Community	2,211	.586	.492	0	1
Loser Vote	1,345	.570	.495	0	1
Age	2,216	31.336	11.464	18	86
Urban	2,225	.503	.500	0	1
Access Electricity	2,225	.601	.489	0	1
Voted Elections	2,224	.902	.296	0	1
Police Presence	2,225	.315	.402	0	1
Expect Unfair Elections	2,225	1.039	.741	0	3
Bad Living Conditions	2,225	1.152	.859	0	3.5
SpLag Protest	2,225	.465	.424	0	1

References

- Bader, Max, and Hans Schmeets. 2014. "Is International Election Observation Credible? Evidence from Organization for Security and Co-Operation in Europe Missions." *Research & Politics* 1 (2): 2053168014541587. doi:10.1177/2053168014541587.
- Donno, Daniela. 2010. "Who Is Punished? Regional Intergovernmental Organizations and the Enforcement of Democratic Norms." *International Organization* 64 (04): 593–625. doi:10.1017/S0020818310000202.
- Findley, Michael, Daniel Nielson, and Joshua Powell. 2011. "The UCDP-AidData Codebook on Geo-Referencing Foreign Aid." *UCDP Paper No 4 Version 1*.
- Portela, Clara. 2007. "Aid Suspensions as Coercive Tools? The European Union's Experience in the African-Caribbean-Pacific (ACP) Context." *Review of European and Russian Affairs* 3 (2): 38.
- Raleigh, Clionadh, Andrew Linke, Havard Hegre, and Joakim Karlsen. 2010. "Introducing ALCED - Armed Conflict Location and Event Data." *Journal of Peace Research* 47 (5): 1–10.
- Straus, Scott, and Charlie Taylor. 2009. "Democratization and Electoral Violence in Sub-Saharan Africa, 1990-2007." In *APSA 2009 Toronto Meeting Paper*. http://papers.ssrn.com/Sol3/papers.cfm?abstract_id=1451561.
- Tierney, Michael J., Daniel L. Nielson, Darren G. Hawkins, J. Timmons Roberts, Michael G. Findley, Ryan M. Powers, Bradley Parks, et al. 2011. "More Dollars than Sense: Refining Our Knowledge of Development Finance Using AidData." *World Development* 39 (11). Elsevier: 1891–1906.
- Wimmer, Andreas, Lars-Erik Cederman, and Brian Min. 2009. "Ethnic Politics and Armed Conflict: A Configurational Analysis of a New Global Data Set." *American Sociological Review* 74 (2): 316–37. doi:10.1177/000312240907400208.

