Choosing from the ‘Menu of Manipulation’: Evidence from Ghana

Halfdan Lynge-Mangueira
Jesus College
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Abstract

This thesis explores the patterns of electoral manipulation in Ghana. Inspired by Andreas Schedler's essay, *The Menu of Manipulation*, in which he provides a "list of electoral sins" (Schedler 2002, 45), the thesis asks the following research question: how do African politicians choose from the menu of manipulation?

To answer this question, the thesis develops a theory about the costs and benefits of electoral manipulation. The theory is based on three arguments: first, that in addition to the direct benefits of electoral manipulation, meaning the increased chance of winning, there are important indirect benefits that drive some politicians to rig, even when victory is guaranteed or entirely beyond reach; second, that electoral manipulation is expensive and that the direct costs, meaning what politicians spend, discourage them as much as the indirect costs, i.e. the risk of getting caught; and, third, that different types of electoral manipulation have different cost-benefit profiles, allowing politicians to tailor their rigging strategies.

The thesis tests this theory against original data from Ghana. First, drawing on a dataset, containing information about every, regular, constituency-level parliamentary election over the 2008 and 2012 electoral cycles, it shows that different types of electoral manipulation have different patterns, caused by their different cost-benefit profiles; that not all types are driven by electoral uncertainty; and that there are trade-offs between the direct and indirect costs of rigging. Second, drawing on participant observations from two parliamentary constituencies in eastern Ghana, the

thesis shows that consider both their electoral prospects and clientelistic networks, when they choose between different types of electoral manipulation, and that they revert to riskier types only as a last resort: when there are no other options available on the menu of manipulation.

The thesis contributes to the academic literature in two ways. First, it adds to the growing body of work pointing to the direct costs and the indirect benefits of electoral manipulation. Second, it proposes a framework for approximating the properties of different types of electoral manipulation and making predictions about their patterns.

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1 Introduction

1.1 Overview

Today, nearly all countries in Africa hold elections.[1] However, the elections they hold are often marred by electoral manipulation:[2] inflated voter registers, stuffed ballot boxes, declaration forms that do not add up etc. The Database of Political Institutions (DPI) suggests one in three country-level parliamentary elections in Africa over the last two and a half decade were rigged (Beck et al. 2001).[3] My own estimates are lower: 5-10% of all recent constituency-level parliamentary elections in Ghana; still more than the margin of majority in two of the last four parliaments: the third parliament (2001-2005), where the New Patriotic Party (NPP) held a margin of majority of 7 seats, and the fifth parliament (2009-2013), where the National Democratic Congress (NDC) held a margin of majority of 9 seats. Electoral manipulation undermines the function of elections as a mechanism of representation

[1] Africa here refers to sub-Saharan Africa. The only countries in sub-Saharan Africa that do not hold elections are Eritrea and Somalia.

[2] I use the terms electoral 'manipulation', 'rigging', 'fraud' interchangeably. It is provisionally defined as *whatever is defined in the law as such* (Donsanto 2008, 21). I discuss my definition of electoral manipulation in Chapter 2.

[3] DPI also suggests that 33% of all country-level presidential elections in Africa since 1991 were rigged (Beck et al. 2001).

and accountability and erodes public trust in government institutions. However, our theoretical understanding of its causes is still limited and often cannot explain the patterns we observe.

The overall question driving this study is the following: how do African politicians choose from the menu of manipulation? A simple answer would be: they manipulate when they need a few extra votes to bring their vote total past the post. This perspective is "widely held in the scholarly literature and in policy circles" (Simpser 2013, 1). However, it leaves questions unanswered. First, why do some politicians rig, also when electoral victory is guaranteed? Second, why do they sometimes inflate the voter register, while other times they stuff the ballot boxes? Finally, why do some politicians opt out of electoral manipulation, even though few stolen votes could have changed the electoral outcome?

The dominant set of ideas about electoral manipulation—what I refer to as 'conventional wisdom'—holds that the aim of electoral manipulation is to win elections: that politicians rig elections when they fear electoral defeat. Conventional wisdom also holds that electoral manipulation is risky: that politicians opt out of rigging when they fear getting caught.

Though intuitive and widely embraced, conventional wisdom alone cannot explain the patterns of electoral manipulation we observe in Africa. In Ghana, certainly, not all types of electoral manipulation are associated with electoral uncertainty, suggesting that the fear of electoral defeat may not be the only driver. Similarly, not all types are contained by the risks, indicating that the fear of getting caught may only drive politicians towards safer types, as opposed to driving them out of electoral manipulation altogether.

To explain the heterogeneous patterns of electoral manipulation, we must expand our understanding of the costs and benefits of electoral manipulation. Building on existing theory, I argue, that in addition to the direct benefits of electoral manipulation, i.e. the increased chance of winning, there are important indirect benefits that drive some politicians to rig, even when victory is guaranteed or entirely beyond reach; that electoral manipulation is expensive and that the direct costs, meaning what the politicians spend, discourage them as much as the indirect costs, i.e. the risk of getting caught; and that different types of electoral manipulation have different cost-benefit profiles, allowing the politicians to tailor their rigging strategies. In other words, electoral manipulation in Africa is not only about winning elections; it is about resources, the willingness to take risks, and the ability to assess these risks and gauge electoral prospects.

I test my theory against original data from Ghana. First, drawing on a dataset, containing information about every, regular, constituency-level parliamentary election over the 2008 and 2012 electoral cycles, I show that different types of electoral manipulation have different patterns, caused by their different cost-benefit profiles; that not all types are driven by the fear of electoral defeat; and that there are trade-offs between the direct and the indirect costs of electoral manipulation. Second, drawing on participant observations from two parliamentary constituencies in eastern Ghana, I show that the parliamentary candidates consider both their electoral prospects and their clientelistic networks, when they rig elections, and that they revert to riskier types of electoral manipulation only as a last resort.

The study has policy implications. First, it suggests that electoral assistance—the legal, operational, and logistical support offered by the international community to improve electoral laws, procedures, and institutions—has little effect in terms of

containing electoral manipulation. It increases the costs of certain types of electoral manipulation but politicians respond simply by rigging the elections in other ways. Second, it implies that electoral assistance can sometimes undermine the democratic development of countries, when politicians are driven into types of electoral manipulation that cause damage beyond the electoral system. Stuffed ballot boxes are bad but a judiciary or a civil service padded with ruling party loyalists is worse.

1.2 The puzzle

To illustrate the puzzle animating the study, consider the 2008 elections in Asutifi South, Ellembele, and Evalue Ajomoro Gwira. In Asutifi South, in the Brong Ahafo region, the incumbent MP, Collins Dauda of the NDC was up against the NPP's Yiadom Boakye-Boateng. In 2004, Dauda won the election by a margin of 5% points, and expectations were that the 2008 election would be equally close (Boateng 2008a, 2008b, 2008c, 2008d). Election-day passed quietly, but in the morning after, the ballot boxes from two polling stations were missing. "For inexplicable reasons", as the High Court later put it, the ballot boxes had been sent to the collation centre in neighbouring Asutifi North, although other ballot boxes from the same polling stations had made it to the right collation centre in Asutifi South. When the Electoral Commission eventually managed to retrieve the ballot boxes, they had been opened. Meanwhile, carbon copies of the declaration forms from the concerned polling stations got missing, while in the custody of the District Election Officer, making it impossible to validate the results. On these grounds, Boakye-Boateng challenged the election in court. He claimed his opponent had bribed the District Election Officer to send the ballot boxes from the two polling stations to Asutifi North, where they had been opened and stuffed by NDC operatives. Following a legal battle that took the

challenge all the way to the Supreme Court, the petition was struck out on technical grounds. The votes from the two polling stations were added to the results and Dauda was declared the winner by a margin of 14 votes.

In Ellembele, in the Western region, another NDC candidate, Emmanuel Buah, was up against Freddie Blay, the incumbent MP and parliamentary candidate of the Convention People's Party (CPP). Ellembele is the birthplace of Ghana's first president, Kwame Nkrumah, and has been a stronghold of the party he founded, the CPP, ever since. In 2004, Blay was re-elected for a third term by a margin of 23% points, but in 2008, he was "fighting hard to maintain his popularity" (Samin 2008a). As in Asutifi South, election-day passed quietly, but when the results came in, they revealed a curious pattern: 5,590 ballots had been rejected; 16% of the total number of ballots cast. The returning officer must have noticed the pattern, but as the ballots had been rejected at polling station-level, and the declaration forms had been signed off by the polling agents, there was little he could do. Buah was declared the winner by a margin of 6% points. Blay never challenged the election in court but he publicly accused Buah and the Electoral Commission of rejecting ballots cast in his favour (Essel 2009).

Down the road from Ellembele, in Evalue Ajomoro Gwira, the NDC, candidate, Peter Arde-Kwodwo, was up against another CPP MP, Kojo Armah, with the NPP candidate, Catherine Abelema Afeku, as a third contender. Since 1992, the Evalue Ajomoro Gwira seat has shifted back and forth between the NDC and the CPP's predecessor party, the People's Convention Party (PNC). In 2004, Armah won the election by a margin of 20% points, but in 2008, his seat "was not safe" (Samin 2008c). What Arde-Kwodwo was up against in Evalue Ajomoro Gwira was therefore similar to what his party comrade faced in Ellembelle: a CPP MP under pressure and

an opportunity to reclaim the seat for the NDC. Conventional wisdom suggests the NDC candidates in both constituencies should have rigged the election. Yet, there is nothing suggesting Arde-Kwodwo did. 3% of the ballots cast were rejected; more than the national average but still within limits of what can reasonably be attributed to illiteracy, inexperience, and misinformation. No challenges were filed after the election, and no accusations were made against either candidate. Arde-Kwodwo accepted the results and publicly congratulated Afeku, the NPP candidate, on her 26% point surprise victory.

A comparison of the three cases raises some of the same questions that were asked in the opening paragraph of this chapter. Why did Dauda and Buah rig the elections, while Arde-Kwodwo did not? And why did Dauda bribe the District Election Officer and deploy his operatives to stuff the ballot boxes, while Buah co-opted election officers into rejecting ballots cast in favour of the CPP candidate? Conventional wisdom does not provide persuasive answers. If the fear of electoral defeat was the only factor driving electoral manipulation, and the fear of getting caught the only factor containing it, all of the NDC candidates should have rigged the elections. Certainly, Arde-Kwodwo's chances were as good Buah's, and the risks associated with rigging the election must have been approximately the same. Until 2007, Evalue Ajomoro Gwira and Ellembelle were part of the same administrative district and socio-economically the two constituencies are almost identical: both are dominated by Akans, two thirds of the constituency populations have primary education, around half are employed, and one fourth owns a mobile phone. In short, conventional wisdom has analytical purchase in some cases; in others, it does not. Asutifi South perhaps can be explained by reference to electoral uncertainty and risks; Ellembele and Evalue Ajomoro Gwira cannot.

1.3 Theoretical argument

In this study, I offer a theory to explain some of these variations. I do not challenge conventional wisdom and the argument that the primary aim of electoral manipulation is to win elections. Indeed, my study shows that, more than anything it is the fear of electoral defeat that drives parliamentary candidates in Ghana to rig. However, I argue that there are additional benefits. When the parliamentary candidates maximise victories and minimise defeats, they accrue political capital. When they secure votes for their party's presidential candidate, they become assets to their party's leadership. The parliamentary candidates use this to negotiate resources after the elections; government appointments for themselves; jobs and funds for their constituents. The additional benefits give the parliamentary candidates an incentive to rig, also when they are confident that they will win or expect to lose.

Similarly, I do not contest that electoral manipulation is risky. The study also demonstrates that the parliamentary candidates revert to riskier types of rigging only as a last resort. However, I argue that another important consideration is the direct costs. Electoral manipulation is expensive. It requires 'chop' money or jobs for operatives, patronage for branch executives, salaries for polling agents, bribes for election officers, food and drinks for everyone, money for cars and petrol etc. The direct costs discourage electoral manipulation as much as the risk of getting caught. Parliamentary candidates who wish to rig but do not have resources, revert to cheaper types. Eventually, they opt out of electoral manipulation altogether.

The costs and benefits of electoral manipulation are not constant and uniform but vary depending the type and context: some types are effective in terms of securing the decisive vote but risky; others are practically risk-free but come with a hefty price

tag. Understanding the costs-benefit profiles—what I call the 'properties'—of electoral manipulation is key to explaining and predicting rigging patterns.

In the study, I also offer a framework for approximating some of costs and benefits of electoral manipulation. The framework rests on two distinctions. The first is between *discretionary* and *non-discretionary* manipulation, where the former refers to types of electoral manipulation that affect only one election, while the latter refers to types that have spillover effects. This distinction is important because it shapes the benefits of electoral manipulation. When politicians secure votes for themselves, the benefits are limited to what they reap from winning their seat and winning it by a large margin. When they secure votes also for their party's presidential candidates, the benefits include the rewards they receive after the elections.

The second distinction is between *retail* and *wholesale* manipulation, where the former refers to manipulation types that affect only one vote at the time, while the latter refers to types that affect multiple votes. The second distinction is important because it shapes the costs and cost profiles of electoral manipulation. When politicians steal votes one at the time, they must run multiple, parallel operations to secure enough votes to change the electoral outcome. This makes retail rigging expensive but also relatively safe, as the risks are spread out and assumed by multiple polling agents and election officers in multiple polling stations. By contrast, when they steal votes in bulk, they run only a few targeted operations and the risks are concentrated and assumed by a few trusted operatives.

The different cost-benefit profiles allow politicians to tailor their rigging strategies and choose the blend of rigging techniques that best matches their needs and capabilities. Parliamentary candidates with well-established clientelistic networks may choose expensive retail types; for example, by distributing patronage and co-

opting election officers into selectively rejecting ballots during the counting. The returns are uncertain, as not all election officers reciprocate, but it is practically risk-free. Parliamentary candidates without such networks must concentrate their resources and steal votes in bulk; for example, by deploying their operatives to stuff the ballot boxes. The direct costs are lower but they also run considerable risks. Finally, parliamentary candidates who are confident that they will win the election may turn their attention to securing votes for their party's presidential candidate; for example, by inflating the voter register or disrupting the voting process in electoral areas dominated by opposition supporters. If their party's presidential candidate wins, the parliamentary candidates can negotiate resources after the elections.

The cost-benefit calculations behind electoral manipulation are made difficult by information scarcity. In industrialised democracies, politicians have detailed knowledge about voter behaviour and draw on public opinion polls when they gauge their electoral prospects. This is not the case in Africa where, until recently, polls were rare and unreliable, and research on voter behaviour is still in its infancy. In the absence of reliable information, African politicians rely on gut feeling and the pieces of information they gather through their party machines. This makes them insecure and causes them to miscalculate their electoral chances, and to rig, where it makes little sense from marginal victory-perspective.

The observed implication of this is that there are no general patterns of electoral manipulation; only type-specific patterns. Some patterns are consistent with conventional wisdom; others are not. Moreover, in Africa, the patterns are blurred by the information deficit faced by many African politicians, which prevents them from taking optimal decisions. The properties of electoral manipulation therefore explain

only part of the variation; the rest is explained by African politicians' (in)ability to accurately predict their electoral chances and deploy the 'right' amount of rigging.

In sum, African politicians rig elections when they fear electoral defeat or want to reap indirect benefits, and opt out of electoral manipulation when they fear getting caught or run out of money. Different types of rigging have different cost-benefit profiles, and African politicians tailor their manipulation strategies. When they fear electoral defeat, they choose types that secure votes for themselves. When they are confident that they will win, or expect to lose, they choose types that secure votes also for their party's presidential candidate. When they have well-established clientelistic networks, they choose expensive retail options. When they do not, they revert to cheaper wholesale types and accept the increased risks.

1.4 Data and empirical findings

In addition to the theoretical contribution, sketched out above, the study accomplishes two empirical goals. First, it examines the patterns of electoral manipulation in Ghana. A limitation of much of the existing comparative research is that it relies on 'softer', subjective measures. Certainly, in the context of Africa, nearly all research on electoral rigging draws on public opinion data, whether extracted from the Afrobarometer (Bratton 2008; Kerr 2013) or collected by the researchers themselves (Collier and Vicente 2014; Fafchamp and Vicente 2013; Vicente 2014; Wantchekon 2003).[4] While this body of work has contributed immensely to our understanding of

[4] Exceptions include Ichino and Schundeln (2012), Ichino, Bowers, and Fredrickson (2013), and Asunka et al. (2014). I review the academic literature in Chapters 2 and 3.

electoral manipulation, I believe public opinion-based measures are potentially problematic. First, there are no costs to claiming in a post-election survey that the elections were rigged, and public opinion-based measures therefore tend to over-represent the evidence of electoral manipulation. Second, public opinion about electoral manipulation is affected by electoral outcomes—voters are more likely to claim the elections were rigged when their candidate lost (Kerr 2013)—introducing a bias towards electoral manipulation by ruling parties in opposition strongholds.

In this study, I use 'harder', legal measures: petitions filed with the High Courts; registration challenges filed with the registration officers; and ballot rejections recorded by the Electoral Commission. Legal measures have been used to study electoral manipulation in North America (Alvarez and Boehmke 2008; Cox and Kousser 1981) and Latin America (Lehoucq and Molina 2002; Molina and Lehoucq 1999) but, to the best of my knowledge, not in Africa. Legal measures are by no means problem-free, for reasons I discuss in Chapter 5. However, they are more conservative, and the biases are more consistent, making legal data an important complement to research based on public opinion data. The data cover 505 constituency-level parliamentary elections over the 2008 and 2012 electoral cycles.

The quantitative analyses contribute to the overall argument of the study in three ways. First, they show that the patterns of electoral manipulation are discernable only if the different types of rigging are differentiated. This supports the argument that different types have different properties and are deployed for different reasons. Second, the analyses show that while most types are triggered by the parliamentary candidates' fear of electoral defeat, some types are deployed mainly when there is no uncertainty regarding the electoral outcome. This supports the argument that some types are driven by the indirect benefits that they yield. Finally, the analyses

demonstrate that parliamentary candidates without resources, or who need lots of votes to change the electoral outcome, choose cheaper but riskier types of electoral manipulation. This supports the argument that some types are expensive and that the direct costs discourage electoral manipulation as much as the risk of getting caught.

The second empirical goal that the study accomplishes is that it explores some of the underlying causal mechanisms. Another limitation of the existing research is that it has, often, been carried out in methodological silos. Until recently, researchers trained in quantitative methods rarely considered the qualitative evidence and vice versa. Comparativists, however, are increasingly coming to the conclusion that only by deploying to full range of research methods, and letting the different methods speak to one another, will we be able to uncover the dynamics of electoral manipulation (Norris 2013; Norris, Frank, and Martinez i Coma 2014). Quantitative methods are useful to examine the patterns of electoral manipulation, but to establish the causal mechanisms they must be complemented by qualitative approaches.

I use both quantitative and qualitative research methods. Over a three-month period before and after the 2012 elections, I was embedded in the election campaigns of the NDC candidates in Lower Manya Krobo (LMK) and Ada, where I was allowed to shadow the parliamentary candidates and their campaign managers, observe the goings-on in the campaign headquarters, and interview operatives, party executives, polling agents, and party supporters on the campaign trail. For both ontological and epistemological reasons, which I discuss in Chapter 4, participant observations are underrepresented in research on electoral manipulation, although, I believe, they can potentially shed light on some of the aspects of electoral manipulation we know least about.

The qualitative analyses contribute in two ways. First, they enable me to catalogue—and characterise the properties of—some of the most common types of electoral manipulation in Ghana: minors and foreigners who register, election officers who selectively reject ballots during; and operatives who stuff the ballot boxes. Second, the qualitative analyses illustrate some of the underlying causal mechanisms; for example, by documenting how the parliamentary candidates consider several factors, including the government's performance and the economy, when they gauge their electoral prospects; and by showing how electoral uncertainty and resources affect intra-party dynamics and the parliamentary candidates' capacity to rig elections without getting caught.

In sum, the study accomplishes two empirical goals: it examines the patterns of electoral manipulation in Ghana, using 'harder' legal measures of electoral manipulation, and explores some of the underlying causal mechanisms, drawing on participant observations from LMK and Ada.

1.5 Why Ghana

The study focuses on Ghana. There are four reasons for this. First, as the 2008 elections in Asutifi South, Ellembele, and Evalue Ajomoro Gwira illustrate, there is substantial subnational variation in Ghana when it comes to electoral manipulation. The subnational variations allow me to test the effect of some factors, while others are held constant.

The second reason why I focus on Ghana is that the combination of a presidential system and first-past-the-post (FPTP) parliamentary elections provides a useful setting for exploring how parliamentary candidates take decisions regarding electoral manipulation. In this setting, constituency-level parliamentary elections can

be treated as independent units of analysis, with little spillover effect from one to another, and country-level presidential elections can be treated as constants affecting all units equally.

A third, and related, reason is that the combination of a presidential system and FPTP parliamentary elections is the most common in Africa. While the study focuses on a single country, Ghana, it is comparative in nature. By choosing a country with a 'typical' (median) institutional setting, I increase the generalizability of my empirical findings.

Finally, there is a practical reason why I focus on Ghana. Ghana held elections in December 2012. The timing allowed me to study electoral manipulation on the ground before examining the patterns in my dataset.

1.6 Contribution to the academic literature

Having summarised my theoretical arguments and empirical findings, in this section, I situate them within the academic literature. I discuss the broader implications in Chapter 7.

The literature on elections in Africa has rightly noted that electoral manipulation is common (Bratton 1998; Lindberg 2006; Young 1993). As summarised by Adejumobi (2000), "[t]he precepts, structures and processes of elections are mostly characterized by reckless manipulations, the politics of brinkmanship and subversion" (ibid., 59). By and large, this body of research continues to stress the direct benefits of electoral rigging: its ability to change electoral outcomes. Bratton (2008), for example, argues that African "politicians resort to a variety of means—whether fair or foul—to attain public office" (ibid., 621), while Collier and Vicente (2011) state that in Africa "illicit strategies are

available to politicians (an incumbent and a challenger) to help gain political power in elections" (ibid., 118). The emphasis on the direct benefits of electoral manipulation reflects that of the broader literature on elections in autocratic and hybrid regimes (Diamond 2002; Levitsky and Way 2002, 2010, Magaloni 2006, 2010; Schedler 2002). In their book on competitive authoritarianism, Levitsky and Way (2010) write that "elections in competitive authoritarian regimes are often hard-fought contests" and that "winning them usually entails some mix of voter mobilisation and fraud" (ibid., 63). Discussing the role of political parties, they argue that they "provide an infrastructure for electoral mobilisation" and "help *steal* votes" (ibid., original emphasis). Similarly, Magaloni (2006), in her book on regime survival in Mexico, writes that "electoral fraud is […] a relevant factor for authoritarian survival only inasmuch as it can make a difference between the hegemonic party's losing and winning" (ibid., 21). She thus makes explicit what Levitsky and Way (2010) imply: that electoral rigging is a means to winning elections.[5]

My theory introduces a second dimension of benefits: the benefits that can be derived from maximising victories and minimising electoral defeats and from securing votes for other candidates. The argument is similar to that of Simpser (2013), who concludes that "electoral manipulation can potentially yield a lot more than simply winning elections" (ibid., 3). However, while he emphasises the indirect benefits of electoral manipulation mainly in terms of deterring intra-elite opposition to

[5] Other examples include Greene (2007), who argues that "fraud is typically unnecessary and is considered only when other pre-election mechanisms fail and elections are predicted to be close" (ibid., 14), and Birch (2011), who writes that "leaders popular enough to be relatively sure of getting re-elected on the basis of their track record alone will in most cases seek to do" (ibid., 57); i.e. only leaders who are unsure of their re-election will revert to electoral manipulation.

governments and ruling parties, I emphasise the indirect benefits in terms of accumulating political capital and climbing party hierarchies.[6] Our different emphasis partially reflects our different units of analysis: Simpser focuses on governments and country-level manipulation; I focus on parliamentary candidates and electoral rigging at constituency-level. While I broadly agree with Simpser, I believe he overestimates the ability of the centre to deploy electoral manipulation, and underestimates the incentives of the periphery to act independently. Country-level party leaders depend on constituency-level executives and party foot soldiers to implement most types of electoral manipulation, and they do not always control the periphery. This is particularly the case in Africa, where party structures are often weak and dependent on a constant flow of patronage. Similarly, the incentives of the periphery are not necessarily aligned with those of the centre. This is particularly the case in countries with FPTP parliamentary elections and constituency-level party primaries. The differences aside, both Simpser's and my theory contribute to explaining why electoral manipulation is not always closely associated with electoral uncertainty.

The literature on electoral administration and integrity (see Norris 2013 for an overview) has explored factors that contain electoral malpractice: a concept that encompasses electoral manipulation (Norris, Frank, and Martinez i Coma 2014). This

[6] Simpser (2013) lists "to enhance career prospects of politicians at subnational level" (ibid., 3) as one intended effects of electoral manipulation. However, he emphasises "to discourage opposition supporters from turning out to vote; to convince bureaucrats to remain loyal to the government; to persuade potential financial backers of parties and candidates to avoid supporting the manipulator's opponent (and/or to support the incumbent candidate); to deter political elites from opposing the ruling party or from even entering the political fray; to increase the manipulator's post-electoral bargaining power vis-à-vis other political or social groups, such as labour unions and other political parties; to reduce the need to share the rents and spoils of government with elites and organisations" (ibid.).

literature points to the independence of electoral management bodies (Elklit and Reynolds 2001),[7] the effectiveness of law enforcement agencies (Mozaffar 2002), and international election observation (Calingaert 2006).[8] In other words, politicians opt out of electoral manipulation when they fear getting caught; or, as summarised by Birch (2011), "factors that affect the legitimacy costs of electoral malpractice are central in determining whether leaders will, in any given context, run the risks associated with rigging elections" (ibid., 2). Long absent, the perspective has made it also into the African politics literature.[9] Gyimah-Boadi (2007), for example, notes that "incumbents have been keen to rig to the extent that they can get away with it" (ibid., 27), suggesting they cannot get away with everything. Similarly, Lindberg (2005) argues that "the stronger the incentives for cheating, the stronger the guardians of fairness and sanctions against fraud must be" (ibid., 44), implying that sanctions can deter electoral manipulation. A series of natural experiments has tested the

[7] Elklit and Reynolds (2001) argue that "the administration of elections has a dramatic impact upon democratic legitimacy in new democracies" and that "the establishment of independent electoral commissions can significantly affect the dynamics of the political process" (ibid., 9).

[8] Calingaert (2006) argues that "electoral manipulation is difficult to prevent" but that "election observation nonetheless has proven effective time and again in detecting and documenting deficiencies, manipulation, and fraud, thereby challenging the legitimacy of rulers who seek to stay in power through rigged elections" (ibid., 147). A growing body of research questions the ability of international election observers to detect and deter electoral manipulation (Bjornlund 2004; Carothers 1997; Hyde 2007a, 2007b; Kelley 2012; Simpser 2008). Yet, the assumed effect of international election observation is still common in the literature.

[9] Until recently, the consensus in the African politics literature appears to have been that African governments rig elections without repercussions. To cite some of the 'classics' on elections in Africa: Young (1993) notes that "much electoral activity in Africa is constrained by overt pressure and more or less overt rigging" (ibid., 303); Bratton (1998) that "civilian presidents have not hesitated to use executive power to rig the rules against their opponents", and that "the more dominant the elected ruling party and the more secure its legislative majority, the greater its latitude in this regard" (ibid., 65); and Adejumobi (2000) that "the dominant practice is that most rulers organize an electoral 'coup d'état' which ensures their 'selection' in the name of a popular electoral process" and that "the tactics employed include stifling opposition parties and reducing them to docility, covertly corrupting the electoral process or embarking on outright election rigging" (ibid., 66).

argument. Aker, Collier, and Vicente (2013) find that the distribution of free newspapers reduces campaign misconduct in Mozambique, as reported by domestic observers,[10] while Collier and Vicente (2014) report that empowering voters in Nigeria reduces electoral violence, both in the eyes of voters and as reported by journalists. Specifically in the context of Ghana, Ichino and Schundeln (2012) have found that domestic election observers deter and displace registration irregularities, while Asunka et al. (2017) report that they significantly reduce election-related violence and suspicious voter turnouts (although they also find that the political parties respond by shifting their illegal activities from observed to unobserved polling stations).

My study complements this body of research by introducing a second dimension of costs; i.e. the direct operational costs of electoral manipulation. To rig an election, politicians need an incentive and the ability; or, to use Tufte's (1978) murder analogy from the political economy literature: they need a motive, a weapon, and an opportunity. If winning elections and reaping indirect benefits is the motive and electoral manipulation is the weapon, then resources are what give them the opportunity. The argument is not new. Birch (2011) discusses the 'human resources costs' of electoral manipulation: "the participation of relatively large numbers of political actors" (ibid., 60) and the "considerable costs associated with inducing them

[10] Aker, Collier, and Vicente's (2013) measure of campaign misconduct covers mainly "the use of public resources for campaigning, vandalism and intimidation" (ibid., 15). They link their finding, that the distribution of free newspapers reduces campaign misconduct, to education, information, and demands for political accountability.

to behave in the manner required" (ibid.).[11] Similarly, both Simpser (2013) and Vicente and Collier (2011) include cost functions in their models of electoral manipulation, defined as "the capacity of a party to engage in electoral manipulation" (Simpser 2013, 125, original emphasis) and "the total resources available to each of the candidates" (Collier and Vicente 2011, 126). My understanding of direct costs is closest to that of Vicente and Collier (2011). Like them, I allow the price of rigging to vary, depending on the type and context, and recognise that some parliamentary candidates have better access to resources than others. The result is that some parliamentary candidates are forced to choose cheaper types of electoral manipulation, while others are forced to opt out. To the best of my knowledge, my study is the first to explore this effect empirically.

In sum, the theoretical arguments and empirical findings of my study contribute to the academic literature by introducing a second benefit dimension and a second cost dimension and by showing how the two dimensions shape patterns of electoral manipulation in Ghana.

[11] In addition, Birch (2011) discusses the 'external (international) costs' of rigging, arguing that "states that are heavily dependent on international trade, aid, and/or foreign direct investment (FDI) can ill afford to see the legitimacy of their regimes plunge precipitously in the international arena" (ibid., 58); and the 'domestic legitimacy costs', understood as "the proportion of the population that can be expected to acquiesce to having their contribution to public choice taken from them or distorted (as perceived by the leader in question)" (ibid., 59)

1.7 Chapter-by-chapter overview

The study is structured as follows. In Chapter 2, I define electoral manipulation and describe my data: an original dataset containing information about every, regular, constituency-level parliamentary election in Ghana over the 2008 and 2012 electoral cycles, and participant observations from LMK and Ada. In the chapter I also discuss bias and measurement error and describe what I did to address them; reflect on the relative absence of participant observations from research on electoral manipulation; and describe how LMK and Ada were selected using statistical matching. The chapter contributes to the overall argument of the study by providing a detailed description of the NDC campaigns in LMK and Ada, thereby preparing the ground for the discussion in Chapter 3 and the analyses in Chapters 4-6.

In Chapter 3, I develop my theory. I do so by reviewing the academic literature and demonstrating that it does not square with the empirical record in Ghana, and by fleshing out the four arguments underpinning my theory: that electoral manipulation has both direct and indirect benefits; that it is expensive; that different types of electoral manipulation have different cost-benefit profiles; and that the cost-benefit calculations behind electoral manipulation in Africa are made difficult by information scarcity. The four arguments provide a framework for approximating the costs and benefits of different types of electoral manipulation and make predictions about their patterns.

In Chapters 4-6, I put my theory to work. Each chapter focuses on a specific type of electoral manipulation and is structured as follows: first, I characterise the properties of the type and develop a model; then, I examine the patterns, using regression analysis; finally, I explore some of the underlying causal mechanisms, drawing mainly on participant observations from LMK and Ada.

The empirical findings support my theory. In Chapter 4, I find that voter inflation—minors and foreigners who register—is positively correlated with the win-margin in the last parliamentary election, suggesting that the parliamentary candidates steal votes for their party's presidential candidate, when they are confident that they will win the parliamentary election. This finding supports the first theoretical argument: that there are important indirect benefits to electoral manipulation that drive some politicians to rig, even when victory is guaranteed or entirely beyond reach. In the chapter I also explore some of the indirect benefits that the parliamentary candidates reap from rigging the voter register. I show that they attract government funds after the elections by securing votes for their party's presidential candidate, and that they increase their chance of being appointed to government.

In Chapter 5, I show that miscounting—election officers who selectively reject ballots during the counting—is positively correlated with the number of years the party of the incumbent MP has held the constituency seat but negatively correlated when I interact this variable with the win-margin in the last parliamentary election. This supports the second theoretical argument: that electoral manipulation is expensive and that the direct costs discourage it as much as risk of getting caught. Parliamentary candidates without well-established clientelistic networks do not have the capacity to co-opt election officers and rig elections in the grey zone, which means they must choose cheaper but riskier types or opt out. In the chapter, I also explore the linkages between electoral uncertainty and resources, drawing on participant observations from LMK and Ada. I show that electoral uncertainty has a dual effect on electoral manipulation: it increases the parliamentary candidates' incentive to rig and, by bringing constituency party leaders closer together, increases their capacity to do so without getting caught.

In Chapter 6, I find that ballot stuffing—operatives who stuff the ballot boxes—is negatively correlated with the number of years the party of the incumbent MP has held the constituency seat and with the win-margin in the last parliamentary election. When juxtaposed with the findings of Chapter 4-5, this supports the third theoretical argument: that different types of electoral manipulation have different cost-benefit profiles, allowing politicians to choose the blend of techniques that matches their needs and capabilities. In the chapter I further explore the cost-benefit calculations behind ballot stuffing, drawing on evidence from LMK. I describe how the parliamentary candidates take into consideration the performance of the government and the economy when they gauge their electoral prospects, and how intra-party dynamics affect their capacity to rig.

In Chapter 7, I draw conclusions. I do so by summarising the theoretical argument and empirical findings of my study, reviewing the puzzle that was introduced in this chapter, and discussing the broader implications. I argue that politicians opt out of electoral manipulation only when the combined costs of electoral manipulation exceed the combined benefits. This explains why electoral assistance often fails to contain electoral manipulation. It increases the costs of certain types of electoral manipulation but politicians respond by rigging the elections in other ways. It also explains why the relationship between democratisation and electoral manipulation is curvilinear. In autocracies and hybrid regimes, politicians shift between different types of electoral manipulation. In democracies, they opt out.

2 Studying electoral manipulation

2.1 Introduction

Having provided an overview of my study, its theoretical argument and empirical findings, in this chapter I present my data. First, I discuss different approaches to defining electoral manipulation. I argue that, for the purposes of this study, a legal approach is preferable: it produces definitions that clearly demarcate the boundary between electoral rigging and legitimate electioneering and it facilitates the measurement of electoral manipulation by means of legal data. Second, I present my quantitative data: a dataset containing information about every, regular constituency-level parliamentary election in Ghana over the 2008 and 2012 electoral cycles. In this study, I am interested in how African politicians choose from the menu of manipulation, specifically incumbents in parliamentary elections in Ghana. This places special demands on my measures of rigging, which have to contain subnational variation and must be fine-grained. The first criterion rules out most of the existing, off-the-shelf variables and datasets; the second criterion rules out the Afrobarometer. For these reasons, I created my own dataset. My measures are based on legal data: petitions, registration challenges, and ballot rejections. The data were collected from 15 different high courts, across all ten regions, and from the regional offices of the Electoral Commission. Third, I present my qualitative data: participant observations from Lower Manya Krobo (LMK) and Ada, two parliamentary constituencies in

eastern Ghana, where I was embedded in the campaigns of the NDC candidates over a three-month period leading up to the 2012 elections. I argue that participant observations can potentially shed light on some of the aspects of electoral manipulation we know least about, particularly when combined with more conventional comparative approaches. I also explain how LMK and Ada were selected, using statistical matching. The chapter contributes to the overall argument of the study by providing a detailed description of the NDC campaigns in LMK and Ada, thus preparing the ground for the empirical analyses in Chapters 4-6.

2.2 Defining electoral manipulation

Electoral manipulation is a recurrent theme at the centre of many literatures, including those on elections in authoritarian and hybrid regimes (Levitsky and Way 2002, 2010, Schedler 2002, 2006), clientelism (Brusco, Nazareno, and Stokes 2004; Gans-Morse, Mazzuca, and Nichter 2014; Nichter 2008; Schaffer 2007a; Stokes 2005; Weitz-Shapiro 2012), electoral administration and integrity (Birch 2011; Norris 2013; Norris, Frank, and Martinez i Coma 2014), and African politics (Bratton 1998, 2008; Collier and Vicente 2011; Lindberg 2006; Wantchekon 2003). Reflecting the fact that there is not one but many literatures on electoral manipulation, there is also not one but many definitions of what electoral manipulation is.

At least four different approaches can be identified. Broadly, they can be placed on a spectrum, ranging from inclusive to restrictive.[12] At the inclusive end, we find the democratic approach, which defines electoral manipulation in terms of violations of democratic norms and principles, usually derived from Dahl (1971).[13] According to this approach, electoral manipulation is "the manipulation of electoral processes and outcomes so as to substitute personal or partisan benefit for the public interest" (Birch 2011, 14); or electoral practices that delink the "chain of democratic choice" (Simpser 2013, 34). The democratic approach produces definitions that are constant across time and space, making it ideal for cross-national comparative purposes (Birch 2011; Simpser 2013; van Ham and Lindberg). The downside is that it is incentive to context. As Alvarez, Hyde, and Hall (2008) have pointed out, "understandings of the concept [electoral manipulation] are rooted in each country's cultural and political milieu" (ibid., 5).[14] This makes it difficult to study electoral manipulation in the 'grey zone', forcing researchers who adopt the democratic

[12] This section draws on Birch (2011), who identifies four approaches to defining electoral malpractice (a legal, a perceptual, a 'best practice' and, her own democratic approach); and on Vickery and Shein (2012), who distinguish between inclusive and restrictive approaches.

[13] Birch (2011), Simpser (2013), and Schedler (2002) all use Dahl (1971) as their starting point.

[14] Alvarez, Hyde, and Hall (2008) use the examples of Mexico and the US. In Mexico in 2006, "some charges centred on the use of door-to-door canvassing by one of the political parties and whether such campaigning constituted undue partisan influence" (ibid.); and on "the decision by President Vicente Fox to endorse one of the candidates running to replace him [which] was perceived within Mexico as illegitimate pressuring of voters and an unfair use of state funds" (ibid.). By contrast, in the US, "both of these activities have long been commonplace; parties and candidates are expected to go door-to-door attempting to persuade and mobilise voters, and endorsements by officeholders are a non-controversial part of the electoral process" (ibid., 5-6).

approach to limit themselves to the most extreme types: violence, ballot stuffing, politicians who falsify declaration forms and returns etc.[15]

Also at the inclusive end, we find the 'best practice' approach, which defines electoral manipulation against standards of electoral integrity, derived from international conventions and multilateral agreements: the *Universal Declaration of Human Rights* 1948, the *International Covenant on Civil and Political Rights* 1966, the *African Charter on Democracy, Elections and Governance* 2007 etc. (Boda 2005; Goodwin-Gill 2006). According to this approach, electoral manipulation is violations of "international conventions and global norms, applying universally to all countries worldwide throughout the electoral cycle, including during the pre-electoral period, the campaign, on polling day, and its aftermath" (Norris 2013, 564). What makes the 'best practice' approach attractive is that it underpins the activities of those involved in electoral administration, electoral assistance, and election observation. Also, it facilitates the measurement of electoral manipulation by means of election observation reports. However, international conventions and multilateral agreements are silent on many aspects of electoral conduct (Birch 2011), making it difficult to clearly demarcate the boundary between electoral manipulation and other types of electioneering.

In the middle of the spectrum, we find the perceptual approach, which defines rigging on the basis of public opinion. Electoral manipulation is whatever the public

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[16] Election offences are also mentioned in articles 24-25 of the *Public Elections (Registration of Voters) Regulations* (C. I. 72) 2012; articles 255-258 of the *Criminal Code (Amendment) Act* (Act 646) 2003; and article 13 of the *Electoral Commission Act* (Act 451) 1993. These subsequent laws have added detail but not changed the definition of electoral manipulation.

considers unacceptable electoral activity (Elklit and Reynolds 2005). The perceptual approach is intuitively appealing and allows researchers to measure electoral manipulation using public opinion data. However, as noted by Birch (2011, 12) and others, the approach is problematic as public opinion varies considerably; not only between countries but even within. What poorer voters consider unacceptable may not be what wealthier voters consider unacceptable; what is considered unacceptable by educated voters may not be what is considered unacceptable by less educated voters etc. The variations introduce biases that are inconsistent and therefore difficult to correct.

In the restrictive end of the spectrum, we find the legal approach, which defines electoral manipulation on the basis of electoral law. According to this approach, electoral manipulation is "efforts to use illegal means to alter election outcomes" (Alvarez and Katz 2008, 149) or, simply, "whatever is defined in the law as such" (Donsanto 2008, 21). For the purposes of this study, the legal approach it preferable. First, it produces definitions that clearly demarcate the boundary between electoral manipulation and legitimate electioneering: electoral manipulation is whatever is defined in the law as such; everything else is legitimate electioneering. This allows me to move away from the extremes and into the grey zone. One of the central arguments of this study is that grey zone rigging is more common than the more extreme types of electoral manipulation, such as ballot stuffing and voter intimidation. Excluding grey zone rigging would therefore paint an incomplete picture of electoral manipulation in Ghana. Second, the legal approach facilitates the measurement of election manipulation by means of petitions, registration challenges, and ballot rejections. Such legal data contain the subnational variation and the level of detail I need to test my theory.

In sum, at least four different approaches to defining electoral manipulation can be identified: a democratic approach, a 'best practice' approach, a perceptual approach, and a legal approach. For the purposes of this study, the legal approach is preferable: it produces definitions that clearly demarcate the boundary between rigging and legitimate electoral activity, and it facilitates the measurement of electoral manipulation using legal data.

Electoral manipulation in Ghanaian law

In Chapter 1, I provisionally defined electoral manipulation as whatever is defined in the law as such. What, then, does Ghanaian law define as electoral manipulation?

Electoral manipulation is defined primarily in Articles 27-40 of the *Representation of the People Law* (PNDCL 284) 1992.[16] Under 13 headings, the law lists 55 'election offences', ranging from (the more conventional) preventing or attempting to prevent a person from registering (ibid., 27(c)) and voting more than once in an election (ibid., 29(b)); to (the more colourful) providing meat, drinks, or entertainment in exchange for votes (ibid., 34(a)) or selling intoxicating liquor within five hundred meters of a polling station on election-day (ibid., 37(2)). In this study, when I refer to electoral manipulation, I refer to any of the 55 election offences. However, my empirical analyses focus on three: "[a] person who […] knowingly makes a false statement in or in connection with an application to have his name included in a register" (ibid., 27(a)), which I refer to as 'voter inflation'; "[a]n election

[16] Election offences are also mentioned in articles 24-25 of the *Public Elections (Registration of Voters) Regulations* (C. I. 72) 2012; articles 255-258 of the *Criminal Code (Amendment) Act* (Act 646) 2003; and article 13 of the *Electoral Commission Act* (Act 451) 1993. These subsequent laws have added detail but not changed the definition of electoral manipulation.

officer who […] wilfully counts a ballot paper as being cast for a candidate which he knows or has reasonable cause to believe was not validly cast for the candidate" (ibid., 30(e)), which I refer to as 'miscounting'; and "[a] person who […] knowingly and intentionally puts into a ballot box anything other than the ballot paper which he is authorised by law to put in" (ibid., 28(f), which I refer to as 'ballot stuffing'. Table 2.1 provides an overview of the three types and their definition.

Table 2.1: Types of electoral manipulation considered in the study

Type	*Representation of the People Law* (PNDCL 284) 1992		
	Heading	Offence	Article
Voter inflation	Registration offences	"A person who […] knowingly makes a false statement in or in connection with an application to have his name included in a register"	27(a)
Miscounting	Offences by election officers	"An election officer who […] wilfully counts a ballot paper as being cast for a candidate which he knows or has reasonable cause to believe was not validly cast for the candidate"	30(e)
Ballot stuffing	Offences relating to nomination papers and the ballot	"A person who […] knowingly and intentionally puts into a ballot box anything other than the ballot paper which he is authorised by law to put in"	28(f)

It is important to note that I do not claim these are the only types of electoral manipulation employed by parliamentary candidates in Ghana. I focus on them because they are distinctly different; i.e. the properties of voter inflation are distinctly different from those of miscounting, which in turn are distinctly different from those of ballot stuffing. This gives me the variation I need to test my theory.[17] That being

[17] This is not the case with all of the 55 election offences. For example, the properties of "[a] person who […] by the use of force or threats prevents or attempts to prevent a person from exercising his right to register as a voter" (*Representation of the People Law* (PNDCL 284) 1992, 27(c)) are not

said, my data suggest voter inflation, miscounting, and ballot stuffing are some of the most common types of electoral manipulation in Ghana, accounting for around one third of the allegations that were brought before the courts after the 2008 and 2012 elections.

Notably, I exclude 'vote-buying'[18] and 'intimidation'.[19] Ghanaian MPs have clientelistic networks (Lindberg 2003; Lindberg and Morrison 2008), and in both LMK and Ada I observed how the NDC candidates distributed patronage in the days and weeks leading up to the elections. Similarly, Ghanaian electoral history is abundant with stories of 'macho men' and 'no go areas' (Abdulai and Crawford 2010; Gyimah-Boadi 2001; Jockers, Kohnert, and Nugent 2010), and in LMK I witnessed campaign rallies escalate into confrontations between the supporters of different parliamentary candidates. However, allegations of vote-buying and intimidation are rarely brought before the courts. Of the 30 petitions I collected, only three contained allegations of vote-buying, broadly defined, while seven contained allegations of

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distinctly different from those of "[a] person who […] directly or indirectly or through another person acting on his behalf […] makes use of or threatens to make use of force, violence or restraint" (ibid., 35(a)(i)). Similarly, the properties of "[a] person who knowingly […] votes at an election at which he is not entitled to vote" (ibid., 29(a)) and "[a] person who knowingly […] votes more than once at an election" (ibid., 29(b)) are not distinctly different from those of "[a] person who […] votes as another person, whether that other person is living or dead or is a fictitious person" (ibid., 32(a)).

18 "A person who […] gives money or obtains an office for a voter in order to induce the voter to vote or refrain from voting" (ibid., 33(1)(a)(i)) or "before, during or after an election gives or provides or pays wholly or in part the expenses of giving or providing meat, drink, entertainment or provision to or for any person for the purpose of corruptly influencing that person or another person to vote or refrain from voting" (ibid., 34(a)(i)). Other sections cover what I broadly refer to as 'vote-buying'.

19 "A person who […] makes use of or threatens to make use of force, violence or restraint" (ibid., 35(a)(i)) or "inflicts or threatens to inflict on another person a temporal or spiritual injury, damage, harm or loss" (ibid., 35(a)(ii)), and "[a] person who […] compels, induces or attempts to compel or induce a candidate to withdraw his candidature" (ibid., 36(d)) or "in any manner whatsoever threatens any candidate or voter with injury or harm of any kind" (ibid. 36(e)). Other sections also cover what I broadly refer to as 'intimidation'.

intimidation. I discuss the discrepancies in later chapters. In short, I argue that vote-buying—the distribution of patronage before elections—are accepted and expected electoral practices, and are deployed in connection with other types of electoral manipulation, which explains why they are not brought before the courts; and that intimidation—whether of candidates or voters—is often triggered by factors that have little to do with elections themselves, such as chieftaincy disputes (Amankwaah 2013).

Ghanaian law in perspective

Before describing my quantitative data, in this section I briefly review two arguments against the legal approach: that legal definitions do not capture rigging when it is the electoral laws themselves that are rigged; and that electoral laws vary over space and time, making legal definitions unsuitable for comparative research (Birch 2011; Philp 1997; Simpser 2013).[20]

Several studies have found that one of the most common ways in which governments and ruling parties rig elections is by rigging the laws guiding them: by gerrymandering electoral boundaries, manipulating (voter and candidate) eligibility criteria, changing electoral thresholds, manipulating party finance regulations etc. (see

[20] Birch (2011) argues that "electoral laws vary considerably from country to country, thereby reducing the value of a definition purely in terms of domestic law (at least its value and meaning for political scientists)" and that "laws may themselves be said to be 'corrupt', in that they are in violation of the international legal obligations into which a state has entered, or of the country's own constitution" (ibid., 13). Simpser (2013) argues that "using legality as the defining principle may work well in countries that have reasonably fair legal and political institutions. But in many situations, the law itself is bent for partisan and electoral purposes" (ibid., 33). Finally, Philp (1997) argues that "the law […] may not cover cases which are widely perceived as corrupt […] [and] the law can itself originate in corrupt practices: that an act is legal does not always mean that it is not corrupt (ibid., 441).

Birch 2011).[21] There are examples of such legal manipulation also in Ghana. In 1992, for example, the government placed a cap on financial contributions from party members and banned contributions from Ghanaian and foreign companies (*Political Parties Law* (PNDCL 281) 1992); a provision that was "obviously intended in part to hamstring opposition parties" (Jeffries and Thomas 1993, 338).[22] Similarly, in 2000, the NDC filed a petition with the Supreme Court challenging the Electoral Commission's decision not to accept the old voter cards with thumbprint identification. The new voter cards with photo identification had been introduced "to help eliminate such 'ghost voters' from the register and deter impersonation" (Gyimah-Boadi 2001, 105) but the Supreme Court ruled in favour of the ruling party, "nearly provoking violence and an election boycott by the opposition" (ibid., 105).[23]

Although interesting, I do not consider such legal manipulation in this study. My focus is on how the incumbents in parliamentary elections choose from the menu of manipulation, and manipulating the electoral laws is not an option available to them; at least, not as individuals.

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[21] Birch (2011) finds that the manipulation of legal frameworks was the most common type of electoral manipulation in Latin America and the Caribbean, Central and Eastern Europe, the former Soviet Union, and sub-Saharan Africa over the period from 1995 and 2007.

[22] The *Political Parties Law* (PNDCL 281) 1992 was challenged in court but the challenge was rejected. However, the government responded by promulgating the *Political Parties (Amendment) Law* (PNDCL 283) 1992, which raised the cap on financial contributions from party members from GHS 200,000 (USD 400) to GHS one million (USD 2,000) and removed the cap on financial contributions from founding party members. The *Political Parties Law* (Act 574) 2000 removed the cap on financial contributions from party members and the ban on financial contributions from Ghanaian companies.

[23] The NDC believed that many of its rural voters possessed only the old thumbprint voter cards and Rawlings openly exhorted his supporters to defy the Electoral Commission. At the end, only 1% of the voters presented the old voter cards with thumbprint identification, thus vindicating the Electoral Commission (Gyimah-Boadi 2001, 105).

Many comparativists reject legal definitions, arguing that electoral laws vary over space and time, which means studies based on legal definitions risk comparing different definitions of electoral manipulation. Birch (2011), for example, argues that "electoral laws vary considerably from country to country, thereby reducing the value of a definition purely in terms of domestic law" (ibid., 13).

Although comparative in nature, this study focuses on a single country: Ghana. There is no legal variation over space, and the variations over time are limited. The electoral laws have been revised several times over the last 25 years: the *Public Elections (Registration of Voters) Regulation* (C. I. 12) 1995 introduced voter cards with photo identification and an exhibition period to review and validate the voter register; the *Public Elections Regulations* (C. I. 15) 1996 closed loopholes in the voting procedure; and the *Public Elections (Registration of Voters) Regulations* (C. I. 72) 2012 introduced biometric voter registration (BVR). However, the definition of electoral manipulation—the 55 election offences listed in the *Representation of the People Law* (PNDCL 284) 1992—has remained the same.

Besides, a cursory comparison of the electoral laws of Ghana, Cameroon, and Mozambique suggests that definitions of electoral manipulation may not vary as much as many comparativists assume; at least not in Africa.[24] In both Cameroon and Mozambique making a false statement in connection with a voter registration, not counting or counting a ballot in favour of another candidate, and putting anything into

[24] Ghana, Cameroon, and Mozambique were selected as 'diverse cases' (cases that maximise variation) (Seawright and Gerring 2008, 300): an Anglophone country in West Africa, a (predominantly) Francophone country in Central Africa, and a Lusophone country in Southern Africa.

the ballot boxes other than correctly issued ballots are violations of the electoral law – nor surprisingly. By and large, the electoral laws of the three countries cover the same types of electoral manipulation, although there is some variation in terms of how they are defined and clustered. Notably, they all include the types considered in existing cross-national studies of electoral manipulation (Birch 2011; Simpser 2013). Appendix A contains an overview of the electoral laws of Ghana, Cameroon, and Mozambique and how they define the three types of electoral manipulation considered here.

In sum, while I recognise that studies based on legal definitions risk comparing different definitions of electoral manipulation, I believe the risk is negligible in the context of this study, where there are no variations over space, and the variations over time are limited.

2.3 Measuring electoral manipulation

In what follows I describe my quantitative data. Before proceeding with this task, I briefly review other existing datasets and measures of electoral manipulation and explain why I chose to create my own.

Alternative datasets and measures

In this study, I am interested in how African politicians choose from the menu of manipulation; specifically, incumbents in parliamentary elections in Ghana. This places special demands on my measures of electoral manipulation, which have to contain subnational variation and must be fine-grained.

The first criterion—that my measures have to contain subnational variation—rules out most of the existing, off-the-shelf variables and datasets, including the 'FRAUD' variable of the Database of Political Institutions (DPI) (Beck et al. 2001);

the National Elections Across Democracy and Autocracy (NELDA) dataset (Hyde and Marinov 2011), the Index of Electoral Malpractice (Birch 2011); the Perceptions of Electoral Integrity dataset (Norris, Martinez i Coma, and Frank 2013); the Quality of Elections Data (QED) (Kelley 2010); and the Varieties of Democracy (V-Dem) dataset (Coppedge et al. 2017). All of these variables and datasets measure electoral manipulation at national level but have nothing to say about electoral manipulation at subnational level.

The second criterion—that my measures must be fine-grained—rules out the Afrobarometer. In Round 3 (Afrobarometer 2005), respondents were asked how often (if ever) a candidate or someone from a political party offered them something, like food or a gift, in return for their vote (Kirwin 2007, 26). The question was discontinued in Round 4 (Afrobarometer 2008), where respondents instead were asked how much they feared becoming victims of political intimidation and violence (Kerr 2009, 21), and how likely they thought it was that powerful people could find out how they vote (Kerr 2009, 21–22). In Round 5 (Afrobarometer 2012), respondents were asked all three questions (Carter 2012, 16, 26, 32). In other words, the Afrobarometer offers proxies of bribery and treating (*Representation of the People Law* (PNDCL 284) 1992, 33-34), undue influence (ibid., 35), and violations of the requirement of secrecy (ibid., 31). However, it does so inconsistently and it says nothing about other types of electoral manipulation. Moreover, the Afrobarometer indicates the district but not the constituency of the respondents, which means that observations cannot always be linked to specific parliamentary races. A study based on Afrobarometer data would therefore be limited to exploring the demographic correlates of electoral manipulation, resembling Bratton's (2008) study of vote buying and violence in Nigeria, or the body of research on clientelism in Latin America

(Brusco, Nazareno, and Stokes 2004; Gans-Morse, Mazzuca, and Nichter 2014; Nichter 2008).

To sum up, none of the existing, off-the-shelf variables and datasets are suitable for the purposes of this study: most measure electoral manipulation at national level, while I am interested in the patterns at subnational level; and the only one that measures electoral manipulation at subnational level—the Afrobarometer—is insufficiently fine-grained, and only some observations can be linked to specific constituencies and parliamentary elections.

A dataset on electoral manipulation

For the reasons sketched out above, I created my own dataset. My measures are based on legal data: 30 petitions, 16,244 registration challenges, and 317,103 ballot rejections. The fact that they are based on legal data distinguish my measures from those used in most other studies of electoral manipulation in Africa, which are based on public opinion data, either extracted from the Afrobarometer (Bratton 2008; Kerr 2013) or collected by the researchers themselves (Collier and Vicente 2014; Fafchamp and Vicente 2013; Vicente 2014; Wantchekon 2003).[25]

The petitions were collected from 15 different High Courts, across Ghana's ten regions.[26] They were coded using a coding framework derived from the electoral law (*Representation of the People Law* (PNDCL 284) 1992). The petitions typically

[25] To my knowledge, the only exceptions are Ichino and Schundeln (2012), who use voter registration figures, and Asunka et al. (2014), who use polling station election results.

[26] Kumasi High Court, Kumasi Human Rights Court, Sunyani High Court, Cape Coast High Court, Koforidua High Court, Accra Fast Track Court, Tema High Court, Tamale High Court, Bolgatanga High Court, Wa High Court, Denu High Court, Ho High Court, Hohoe High Court, Sekondi High Court, and Tarkwa High Court.

contain multiple allegations (3.9 on average). Each allegation was given a code, corresponding to the section of the electoral law that it violated. Allegations that violated multiple sections were given multiple codes. For example, after the 2008 election in Ablekuma South, the NPP candidate filed a petition claiming, among other things, that the Electoral Commission had permitted multiple voting. This allegation was coded both as a violation of section 29(b) ("[a] person who knowingly […] votes more than once at an election") and a violation of section 32(a) ("[a] person who […] votes as another person, whether that other person is living or dead or is a fictitious person") (ibid.). Similarly, after the 2012 election in Asawase, the NPP candidate filed a petition claiming that the NDC candidate had bribed the election officers in multiple polling stations into making false entries in the declaration forms. This allegation was coded as a violation of section 30(a) ("[a]n election officer who […] makes in any record, return or other document, which he is required to keep or make in pursuance of this Law or of regulations made under it, any entry which he knows or has reasonable cause to believe to be false, or does not believe to be true") and section 33(2)(b) ("[a] person who […] advances or pays money or causes money to be paid to or for the use of a person with the intent that the money or part of it shall be expended in bribery at an election, or knowingly pays money or causes money to be paid to a person in discharge or repayment of money wholly or in part expended in bribery at an election"). The petitions were identified using a survey questionnaire, administered to the High Court registrars in May 2012, asking about petitions filed since 2005; and

in follow-up interviews with the High Court registrars in December 2013, asking about petitions filed after the 2012 elections. The data are exhaustive insofar as the information provided by the High Court registrars is complete.[27] If not, the data should still be representative, assuming the registrars who failed to complete the survey questionnaire, or provided incomplete information, are randomly distributed.[28] Table 2.2 provides a list of the petitions and brief summaries of their content. Note that they are reasonably evenly distributed across the two election-years in my data: 14 were filed after the 2008 elections; 16 were filed after the elections in 2012.

[27] The survey response rate could not be obtained. The Monitoring and Evaluation Directorate of the Judicial Service did not have records of the number of survey questionnaires sent out and received.

[28] Notably, the High Court Registrars in all regional capitals completed the survey questionnaire.

Table 2.2: List of petitions filed after the 2008 and 2012 elections

Year	Constituency	Summary of content	Reference
2012	Ahafo Ano North	NPP candidate claimed there was over-voting and voting without biometric verification	HRC262NA13
2012	Asawase	NPP candidate claimed his agents at the collation centre were bribed by the NDC candidate to allow the NDC agents to falsify the returns; that results sheets were not signed by the presiding officers; that there was-over voting; that there was no biometric verification; and that voters were allowed to queue after the polling stations had closed	HRC272NA13
2008	Nhyiaeso	NPP regional executives claimed an independent candidate used the NPP presidential candidate on his campaign posters	C1222NA9
2008	Asutifi South	NPP candidate claimed the NDC candidate bribed the District Election officer to send the ballot boxes from two polling stations to Asutifi North and that the Electoral Commission failed to return the ballot boxes from two polling stations	C12132NANA9
2012	Hemang Lower Denkyira	NPP candidate claimed the Electoral Commission allowed voting without biometric verification and that there was over-voting	CRPE22NA13
2008	Mfantseman West	NPP candidate claimed the NDC agents intimidated the NPP agents at the collation centre and that the Electoral Commission never officially declared the results	E1213NA9A
2012	Mfantseman	NPP candidate claimed there was no biometric verification; that there was over-voting; and that the declaration forms were not signed by the presiding officers	CRPE213
2008	Asuogyaman	NPP candidate claimed the Electoral Commission counted ballots that were not stamped; tampered with carbon copies of the declaration forms and failed to provide carbon copies of the declaration forms to the NPP agents; and that NDC agents intimidated NPP agents and signed declaration forms on their behalf	E123NANA9
2008	Akwatia	NDC and two independent candidates claimed that NPP agents intimidated their agents, destroyed ballot boxes, and forged signatures on declaration forms, and that the Electoral Commission allowed people to vote as transferred voters although their names were not on the transferred voters list	E2192NANA9
2012	Ablekuma Central	NPP candidate claimed there was over-voting; that polling station identification numbers were duplicated; that there was no biometric verification; that declaration forms were not signed by the presiding officers; and that figures on the declaration forms did not tally	AE62NA13
2008	Ablekuma South	NPP candidate claimed the returning officer and the NDC candidate manipulated declarations form and returns; that the NDC agents stuffed the ballot boxes; and that the Electoral Commission allowed multiple voting and prevented NPP agents from observing the collation of results	AE92NANA9
2008	Ayawaso Central	NDC candidate claimed the Electoral Commission allowed voters to vote although their names were not in the voter register; counted presidential votes instead of parliamentary votes; allowed an additional unapproved transferred voters list that enabled ineligible voters to vote; replaced the results form from one polling station with a special voting form, completed by hand; and did not allow NDC agents to observe results collation	AE1NA2NANA9

Year	Constituency	Summary of content	Reference
2012	Bortianor Ngleshie Amanfro	NPP candidate claimed there was over-voting; that polling station identification numbers were duplicated; and that there was no biometric verification	AE72NA13
2012	Amasaman	NDC member claimed the NDC candidate was a resident in another constituency and therefore not qualified to run in the constituency	AE22NA13
2012	Madina	NPP candidate claimed there was over-voting; that there was no biometric verification; and that the declaration forms were amended	AE82NA13
2012	Krowor	NPP candidate claimed there was over-voting; that polling station identification numbers were duplicated; that there was no biometric verification; that declaration forms were not signed by the presiding officers; and that the figures on declaration forms did not tally	AE42NA13
2012	Korle Klottey	NPP candidate claimed there was over-voting; that polling station identification numbers were duplicated; that there was no biometric verification; that declaration forms were not signed by the presiding officers; and that figures on the declaration forms did not add up	AE52NA13
2012	Yapei Kusawgu	Voter claimed there was over-voting	RCPE213
2012	Gushegu	NPP candidate claimed there was no biometric verification in several polling stations	RCPE313
2012	Tamale North	NDC candidate claimed the independent candidate was a resident in another constituency and therefore not qualified to run	RCPE12NA13
2008	Bawku Central	Voter claimed the NPP candidate was not a Ghanaian citizen and therefore not qualified to run	AHR352NANA9
2012	Bawku Central	NPP candidate claimed there was over-voting and under-voting; that there was no biometric verification; and that NDC agents fired gunshots in the air to intimidate NPP supporters	CRPENA113
2008	Lawra Nandom	NDC constituency executives claimed that ballots were wrongly rejected because of marks from an ink pad; that the results from one polling station were not collated; that some serial numbers on ballots were altered or not recorded; and that the Electoral Commission revised the number of ballots issued to different polling stations thereby illegally introducing thousands of ballots	E1212NA9
2008	Sissala East	PNC candidate claimed there was over-voting in the constituency, and that there were discrepancies between the results declared and the results gazetted	E121NA2NANA8
2012	Sissala East	NPP candidate claimed there was no biometric verification; that there was over-voting in the constituency; and that some declaration forms were not signed by the presiding officers	CRPE412
2008	Wa East	NDC candidate claimed there was ballot-stuffing during special voting; that some election officers were relatives of the NPP candidate; that ballot-stuffing was detected but that the Electoral Commission refused to scrutinize other ballot boxes; that results sheets were not signed by the presiding officers; that there were discrepancies between the results declared and those collated by the NDC agents; that some NPP agents intimidated NDC agents; that NPP agents distributed money to voters; and that some NPP agents voted during special voting and on election-day	E1213NA9B

Year	Constituency	Summary of content	Reference
2012	Wa East	NPP candidate claimed there was no biometric verification; that there was over-voting in the constituency; and that some declaration forms were not signed by the presiding officers	CRPE312
2008	Nkwanta North	NDC candidate claimed the NPP candidate and NPP agents distributed money to voters; that the Electoral Commission allowed people to vote whose names were not in the voter register; that the NPP candidate campaigned near polling stations on election-day; that the NPP candidate brought people with falsified voter identification cards to the polling stations; that NDC seals were broken before the ballots boxes were brought to the collation centre; that one presiding officer swapped the votes cast for the NPP candidate with those cast for the NDC candidate and tampered with the declaration forms; that NPP agents erected a barrier to prevent NDC supporters from voting; that one presiding officer was chased away by NPP agents; and that minors were allowed to vote	E1252NANA9
2008	Bibiani Anhwiaso Bekwai	NDC candidate claimed the Electoral Commission, through the presiding officers, refused to allow NDC agents in most polling stations to affix their party seal to the ballot boxes	E1242NA9
2008	Sefwi Wiawso	NPP candidate claimed that seven presiding officers failed to return declaration forms to the returning officer within acceptable time; that some of the declaration forms were tampered with; that the District Election Officer chased away voters who had their votes transferred from other constituencies; that a ballot box and books of ballots were found in a bush; that the District Election Officer forced the returning officer to sign the returns and declare the NDC candidate the winner; and that the returning officer gave a statement after the elections confirming these allegations	E123NANA9

Data on registration challenges and ballot rejections were collected from the regional offices of the Electoral Commission.[29] The data are exhaustive, meaning that all existing data were collected. They required no further coding and were transferred directly to the dataset.

In addition, I collected data on other aspects of the elections, including the name and party affiliation of the incumbent MP, the number of years the party of the incumbent MP had held the constituency seat, whether the incumbent MP was a minister or deputy minister, the number of candidates contesting the seat, the size of the constituency, the number of voters registered, the election results, the name and party affiliation of the MP-elect, whether the constituency was urban or rural, education and literacy rates, employment rates and the rates of people employed by the government, mobile ownership rates, the rates of people belonging to different ethnic groups etc. The data were extracted from official election results (Electoral Commission of Ghana 2015) and the 2010 Population and Housing Census (Ghana Statistical Service 2010).

To construct the dataset, I had to make a number of adjustments. First, district-level data (from the 2010 Population and Housing Census) were applied to all constituencies within a district, meaning that the literacy rate for Asutifi district was applied to both Asutifi North and Asutifi South constituencies; the employment rate for Bunkpurugu Yunyoo district was applied to both Bunkpurugu and Yunyoo constituencies etc. Second, data from the 2010 Population and Housing Census were

[29] Kumasi, Sunyani, Cape Coast, Koforidua, Accra, Tamale, Bolgatanga, Wa, Ho, and Sekondi-Takoradi.

applied to both election-years, meaning that the literacy rate for Asutifi district was applied to Asutifi North and Asutifi South constituencies in both 2008 and 2012; the employment rate for Bunkpurugu Yunyoo district was applied as the employment rate in Bunkpurugu and Yunyoo constituencies in both 2008 and 2012 etc. Finally, data from 'parent' constituencies that were split before the 2012 elections were applied to all 'offspring' constituencies, meaning that the party of the winner in Manhyia in 2008 was applied as the party of the incumbent MP to both Manhyia North and Manhyia South in 2012; the win-margin in Ejisu Juaben in 2008 was transferred as the win-margin in the last election to both Ejisu and Juaben in 2012 etc. I recognise that the adjustments violate the assumed independence of observations (Kruskal 1988) and exclude the affected cases, when I test the robustness of my results. I capture the temporal dimension of my data by including election-year dummy variables in my models and by running the models separately for each of the two election-years, as an additional robustness test. Table 2.3 provides an overview of the main variables and summary measures.

Table 2.3: Variable overview and summary measures

Variable name	Variable description	Mean	SD	Min	Max	N
2012	Variable indicating whether the election-year was 2012	0.545	0.499	0	1	505
Ethnic fractionalisation*	Variable measuring the level of ethnic fractionalisation	0.423	0.217	0.024	0.852	503
Ethnic polarisation*	Variable measuring the level of ethnic polarisation	0.571	0.222	0.048	0.901	503
Population educated	Variable indicating the fraction of the constituency population with primary education	0.740	0.161	0.290	0.948	505
Population employed	Variable indicating the fraction of the constituency population that is economically active	0.522	0.060	0.333	0.711	505
Population employed by government	Variable indicating the fraction of the constituency population that is employed in the public or semi-public sector	0.060	0.036	0.009	0.259	505
Population with mobile	Variable indicating the fraction of the constituency population that owns a mobile phone	0.293	0.147	0.055	0.718	503
Constituency metropolitan	Variable indicating whether the election was in a sub-metro	0.121	0.326	0	1	505
Constituency metropolitan or municipal	Variable indicating whether the election was in a sub-metro or municipality	0.360	0.481	0	1	505
Constituency size km2	Variable indicating the size of the constituency	1,006	1,220	0,016	10,831	505
Voters registered$_{t-1}$	Count variable counting the number of voters registered for the last election	51,870	27,738	11,545	185,627	505
Voters registered	Variable counting the number of voters registered for the election	52,500	25,381	12,082	185,627	505
Registrations challenged	Variable counting the number of registrations challenged	70.377	117.185	0	1,449	231
Registrations disqualified	Variable counting the number of registrations disqualified	36.712	85.190	0	960	177
Parliamentary win-margin$_{t-1}$	Variable indicating the difference, in votes, between the winner and the runner-up in the last parliamentary election	9,842	9,951	13	55,506	505
Presidential vote margin$_{t-1}$	Variable indicating the difference, in votes, between the candidate with the most votes and the candidate with the second most votes in the last presidential election	11,420	10,621	12	60,360	505
MP party	Variable indicating the party of the incumbent MP (1=NDC; 2=NPP; 3=PNC; 4=CPP; 5=Independent)	1.600	0.653	1	5	505
MP party tenure	Variable counting the number of years the party of the incumbent MP had held the constituency seat	11.747	5.279	4	20	505
MP running	Variable indicating whether the incumbent MP ran for re-election	0.681	0.466	0	1	505
MP running independent	Variable indicating whether the incumbent MP ran for re-election as an independent candidate	0.018	0.132	0	1	505
Minister running	Variable indicating whether a minister or deputy minister contested the seat	0.150	0.358	0	1	505
Candidates	Variable counting the number of candidates running	4.707	1.291	2	9	505

Variable name	Variable description	Mean	SD	Min	Max	N
Parliamentary ballots cast	Variable counting the total number of ballots cast in parliamentary election	39,398	18,467	9,409	118,814	505
Parliamentary ballots rejected	Variable counting the number of ballots rejected in parliamentary election	628	395	0	5,590	505
Parliamentary votes NDC	Variable counting the number of votes for the NDC parliamentary candidate	17,574	10,537	0	77,837	505
Parliamentary votes NPP	Variable counting the number of votes for the NPP parliamentary candidate	18,379	12,535	0	65,978	505
Parliamentary votes other	Variable counting the number of votes for other parliamentary candidates	2.817	3.827	0	34.950	505
Parliamentary win-margin	Variable indicating the difference, in votes, between the winner and the runner-up	9.379	10.289	3	73.715	505
Winner party	Variable indicating the party of the winner (1=NDC; 2=NPP; 3=PNC; 4=CPP; 5=Independent)	1.531	0.663	1	5	505
NDC candidate appointed	Variable indicating whether a candidate was appointed as minister or deputy minister after the election	0.156	0.364	0	1	275
Winner appointed	Variable indicating whether the winner was appointed as minister or deputy minister after the election	0.180	0.385	0	1	505
Election challenged	Variable indicating whether the election was challenged	0.059	0.237	0	1	505
Petitioner	Variable indicating the party of the petitioner (1=NDC; 2=NPP; 3=PNC; 4=CPP; 5=Independent)	0.103	0.429	0	3	505
Respondent	Variable indicating the party of the respondent (1=NDC; 2=NPP; 3=PNC; 4=CPP; 5=Independent)	0.089	0.434	0	1	505

* Montalvo and Reynal-Querol (2005).

Bias and measurement error

Before turning to the description of my qualitative data, in this section I discuss bias and measurement error. When we measure electoral manipulation we essentially rely on proxies: what voters experience, what election observers record, what journalists report etc. No measure is ideal; all are liable to bias. Voters under-report electoral manipulation when asked about their own involvement (social desirability bias) and over-report when the candidate they voted for lost the election (partisan bias) (Gonzalez-Ocantos et al. 2012; Kerr 2013).[30] Journalists and election observers do not reach the most remote electoral areas (coverage bias) and under-report certain types of rigging (reporting bias) (Birch 2011; Kelley 2012). For the researcher studying electoral manipulation, the goal is therefore not to eliminate bias and measurement error. Rather, it is to understand it and to take it into consideration when specifying models and interpreting results.

My measures are no exception. Registration agents over-report when they believe the registrants are supporters of their opponents (reporting bias); ballot rejections capture both electoral manipulation and unintentional violations of the

[30] In Appendix A, I examine the biases in Afrobarometer data. The results support the argument. In Round 3 (Afrobarometer 2005), when respondents were asked about whether they received gift offers during the 2004 elections, the median answer was 'never' (the mean was 0.4 on a four-point scale). When asked about whether politicians offer gifts during elections in general, the median answer was 'often' (the mean was 2.0 on a four-point scale). Also, in Round 3, which was the first after the 2004 election, when John Kuffuor was re-elected for a second term, respondents who said they felt close to the NPP rated the last national election 18% freer and fairer (0.7 points on a four-point scale), than respondents who said they felt close to any other political party, controlling for sex, age, education, employment, and urbanisation. By contrast, in Round 5, which was the first after the 2008 election, when John Atta Mills won back the presidency for the NDC, respondents who said they felt close to the ruling party rated the last national election 10% freer and fairer (0.4 points on a four-point scale), than respondents who said they felt close to any other political party. The NPP was in power before both elections. The variations therefore do not reflect different governments rigging the elections in different regions.

electoral laws, caused by illiteracy, inexperience, and misinformation (reporting bias); and the parliamentary candidates are more likely to file a petition and challenge the election in court when they lose by a small margin (selection bias). My data confirm these correlations, although not the underlying causal mechanism. The number of ballots rejected, relative to the number of ballots cast, is negatively correlated with the fraction of the constituency population with primary education (-0.617) and the fraction of the constituency population that owns a mobile phone (-0.611). Similarly, the probability that an election is challenged in court is negatively correlated with the win-margin (-0.212). Elections lost by a 3% point margin are 52% more likely to be challenged in court than elections lost by a 6% margin; and one and a half times more likely to be challenged in court than elections lost by a 9% margin.

I address the biases in four ways. First, I use multiple variables to control for illiteracy and misinformation and statistical simulation to differentiate electoral manipulation from unintentional violations of the electoral laws. Second, I use dummy variables and Heckman sample selection models (Heckman 1976, 1979) to control for small win-margins. Third, I use alternative measures and proxies when I test the robustness of my results. Finally—and most importantly—I always consider alternative explanations and interpretations of the results.

2.4 Observing electoral manipulation

I now turn to the description of my qualitative data: participant observations from LMK and Ada. Before proceeding with this task, I discuss the relative absence of participant observations from the study of electoral manipulation. I argue that participant observations can potentially shed light on some of the aspects of electoral manipulation we know least about, including grey zone rigging. However, they also

present methodological challenges, particularly when combined with more conventional comparative approaches.

Anthropology and the study of electoral manipulation

Anthropology has a long and rich tradition of studying illegal and semi-legal practices. Research dating back to the 1960s has studied patronage and brokerage (Blok 1969, 1974; Boissevain 1974; Gellner 1977) and described bribery in terms of gift-giving practices (Moore 1973). Terms such as electoral manipulation, fraud, or rigging, however, are remarkably absent from this body of research. I believe, there are, at least, two reasons for this.

First, steeped in a strongly relativist tradition, anthropologists have historically been reluctant to adopt normative concepts. Electoral manipulation is meaningless without reference to a set of norms that are transgressed—whether democratic, international, public, or legal[31]—and anthropologists have been hesitant to accept the existence of such norms, fearing "they can become staple modes of domination and exploitation" (Terray 1987, 19). However, since the late 1980s, anthropologists have moved away from their relativist starting point and embraced other normative concepts, such as corruption (Anders and Nuijten 2007; Blundo 2001; Hasty 2005; D. Smith 2001, 2003, 2005). The shift has produced several studies on the state and state institutions (Blom-Hansen and Stepputat 2001; Das and Poole 2004; Fuller and Benei 2000) but, until now, few on election fraud.

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[31] The four sets of norms correspond to the four approaches to defining electoral manipulation, identified in the beginning of this chapter: the democratic, the 'best practice', the perceptual, and the legal approach.

The second reason, I believe, is that when electoral rigging was rediscovered as a research object, in the late 1990s and early 2000s, it was by political scientists. This reflects the historical division of labour between political science and anthropology, where the state and state institutions have been objects of the former, while culture and traditional practices have been objects of the latter. Political scientists tend to view case studies with circumspection and question their ability to produce generalizable knowledge (King, Keohane, and Verba 1994; Lieberson 1992). In other words, while anthropologists have not studied fraud for ontological reasons, political scientists have not used observational data in their work for epistemological reasons.

For these, and possibly other, reasons, there is very little anthropological work on electoral manipulation (Lehoucq 2003). An often-cited example, certainly among political scientists, is Schaffer's (1998) study of democratic practices in Senegal and the meaning of *demokaraasi*, the Wolof equivalent to 'democracy'. The study, however, only touches upon aspects of rigging and only in passing. Schaffer's later work focuses more specifically on electoral manipulation, or rather vote-buying (Schaffer 2007b, 2007d; Schaffer and Schedler 2007) and how well-intentioned electoral reforms, such as the introduction of secret voting or the digitalisation of voter registers, sometimes increase the incentive to rig elections (Schaffer 2002, 2008). However, as Schaffer moves closer to electoral manipulation as his research object, he also moves further away from ethnography as his research method, towards more conventional, comparative approaches (Schaffer 2008, xi). Other, less known, examples include Karlstrom's (1996) study of the meaning of democracy in Uganda; Apter's (1987) study of traditional Yoruba practices and how they reshape electoral

processes in Nigeria; and West's (1998) study of sorcery and democratic practices in rural Mozambique.

What this body of research has in common is that it is based on 'casual observations', as opposed to 'more systematic observations' (Blundo 2007, 36).[32] Casual observations are the observations that follow from a researcher's prolonged insertion in the field. A researcher who studies political cultures and practices in places, where the elections are routinely rigged, is likely to find evidence of rigging. Casual observations are therefore ideal to study day-to-day violations of the electoral law: vote-buying, certain types of intimidation etc. They are less likely to capture the rarer types; violations that are committed in a specific location or at specific point in time. Uncovering the rarer types requires more systematic observations, for example, of an election campaign, electoral administration, or a polling station, and even so, there are no guarantees that the observations will generate the expected data.[33]

The relative absence of anthropology from the study of electoral manipulation, I believe, explains some of the gaps in our knowledge about rigging. First, while

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[32] Blundo (2007) discusses the difference between 'causal observations' and 'more systematic observations' in the context of ethnographic work on corruption. He argues that "observations of corrupting practices often surface in the margins of participant observations centered on other themes" but that "these observations are not systematic; they take place through chance encounters and luck and are strongly oriented toward what the locals say about the phenomenon" (ibid., 37). He questions whether casual observations produce evidence that is representative of the phenomenon and suggests that "it is also possible to carry out more deliberate and systematic observations" (ibid., 37).

[33] For example, after observing police officers in a specific police station in Amsterdam for almost two years, Punch (1989) found no evidence of 'deviant behaviour'; i.e. police brutality or corruption. However, not long after he concluded his research, a story broke in the news about police corruption in the same police station that Punch had studied, leading him to conclude that the deviation "was going on around me, almost literally under my nose, but I did not see it" (ibid., 179). The fact that they are time-consuming, probably explains why there are so few studies of electoral manipulation that draw on systematic, detailed observations. In fact, to my knowledge, the only example is Wang and Kurzman's (2007) description of vote-buying in Taiwan, which stands out in the literature and, according to Schaffer (2007c) "begs for replication in other parts of the world" (ibid., 184).

several studies have explored the blunter types of fraud—vote-buying (Bratton 2008; Brusco, Nazareno, and Stokes 2004; Collier and Vicente 2011, 2014; Gonzalez-Ocantos et al. 2012; Nichter 2008; Schaffer 2007a; Stokes 2005; Vicente 2014; Wantchekon 2003), violence (Bratton 2008; Chaturvedi 2005; Collier and Vicente 2011; Fafchamp and Vicente 2013; Hafner-Burton, Hyde, and Jablonski 2014; L. Smith 2009), and ballot fraud (Mebane 2008; Myagkov, Ordeshook, and Shaikin 2008)—relatively little is known about the subtler types; what I refer to as electoral manipulation in the grey zone. This, I believe, has to do with the fact that research methods and data sources that are popular among political scientists are better at detecting the blunter types. Public opinion data will pick up if voters were offered money in exchange for their votes or felt threatened at the polls, and elite surveys and election observation reports will certainly mention if the electoral laws were skewed in favour of the incumbent and the ruling party. However, they are unlikely to mention if voter verification criteria were selectively applied or ballots were selectively rejected during the counting. Uncovering such subtler types requires multiple research methods and multiple data sources.

Second, the relative absence of anthropology also means we know far more about country-level manipulation than we know about electoral manipulation at constituency- or even polling station-level. Country-level manipulation—'stolen elections'—is easily converted into zeros and ones and analysed cross-nationally; electoral manipulation at constituency- or polling station-level is not. Besides, as already noted, most existing, off-the-shelf datasets include dummy variables that capture, for example, whether "vote fraud or candidate intimidation" was "serious enough to affect the outcome of the most recent elections" (the 'FRAUD' variable of the Database of Political Institutions) (Keefer 2012, 17); "whether the legal

framework governing the elections conforms to international standards" (the 'Legal framework' variable of the Index of Electoral Malpractice) (Birch 2011, 49); or whether there were "riots and protests after the election", involving "allegations of vote fraud" ('NELDA29' and 'NELDA30' of the NELDA dataset) (Hyde and Marinov 2015, 14–15). However, they say nothing about the number of polling stations, where ballots rejected exceeded the win-margin, or about the number of polling stations that opened late or ran out of electoral material. Uncovering electoral manipulation at constituency- and polling station-level requires both more detailed, quantitative data, and, again, qualitative data to uncover the causal mechanisms.[34]

Towards a mixed method approach

Participant observations can potentially fill some of the gaps in our knowledge about electoral manipulation. However, they also present methodological challenges; particularly, when combined with more conventional, comparative approaches. First, while defining electoral manipulation is always important, it becomes crucial when we want to observe the phenomenon ourselves and want our observations to inform other research. Anthropologists are "prone to get grounded in juicy stories and anecdotes" (Anders and Nuijten 2007, 6). And while juicy stories and anecdotes may be helpful as initial hints, they are interesting from a comparative perspective only if classified as instances of different things.

[34] The emphasis on country-level electoral manipulation is problematic, not only because it ignores some of the most common types of fraud, but also because it reinforces the 'free and fair'/'not free and fair' dichotomy of election observers that political scientists have criticised since the late 1990s (Carothers 1997; Elklit and Svensson 1997).

Second, even when electoral manipulation is clearly defined, it can be difficult to observe. Rigging is illegal—in this study by definition—and the perpetrators will, most likely, want to keep it a secret. A parallel could be drawn to studies of crime, black markets, corruption, sorcery, drugs, or prostitution. These are all phenomena that are "not easily accessible and closed to the uninitiated" and "require the mobilisation of appropriate methods" (Blundo 2007, 29). In other words, it is not enough that we want to use observations; we also need to think carefully about our approach: whether we attach ourselves to a specific entity, hoping that the trust we build will give us access to the rarer types of electoral manipulation (systematic observations), or whether we roam in the margins of an election, which may give us a better understanding of the day-to-day violations of the electoral laws (casual observations).

I address these challenges in three ways. First, my legal definition of electoral manipulation gives me a constant reference point across all analyses. What the electoral law defines as electoral manipulation is what I describe as such and what I measure using legal data. Second, I combine casual observations of the elections in LMK and Ada with more systematic observations of the NDC campaigns. This approach follows Blundo's (2007) recommendation, "to use everything, multiplying the sites of observation and combining lucky and casual observations with more systematic and programmed observations" (Blundo 2007, 39). Third, I use participant observations mainly to understand the context and the causal mechanisms: the organisation of the campaigns, the flow of patronage, how the parliamentary candidates gauged their electoral prospects etc. I do not extrapolate from violations of the electoral laws that I observed to general patterns.

To sum up, participant observations has been relatively absent from the study of electoral manipulation, although they can potentially shed light on some of the aspects of electoral manipulation we know least about: the subtler types of electoral manipulation and the underlying causal mechanisms. Using participant observations, however, presents methodological challenges; particularly when combined with more conventional, comparative approaches. I address the challenges in three ways: by adopting a legal definition of electoral manipulation, which gives me a constant reference point across all analyses; and by combining participant observations of the elections in LMK and Ada with more systematic observations of the NDC campaigns; and by using participant observations mainly to understand the context and the causal mechanisms.

Participant observations from LMK and Ada

Based on the approach outlined above, I collected data in LMK and Ada. Over a three-month period before and after the 2012 elections, I was embedded in the election campaign of the NDC candidates in LMK and Ada, where I was allowed to shadow the parliamentary candidates and their campaign managers, observe the goings-on in the campaign headquarters, and interview operatives, party executives, polling agents, and party supporters on the campaign trail. The observations opened a window into the nuts and bolts of campaigning in Ghana and helped me understand some of the variations in my dataset.

In concrete terms, the data consists of around 450 pages of field notes. The notes were produced in sequence, starting with jotted notes, taken while still in the field, followed by detailed descriptions, produced on a daily basis after exiting the field. This approach follows Bailey (2006). I focused on three types of observations: verbal exchanges, which include interviews, conversations, and overheard

conversations, instructions to individuals or groups of individuals, arguments, discussions, or complaints; practices, which include the way individuals or groups of individuals say or do things; and connections, which include implied, inferred, or interpreted connections and associations between observed actions, interactions, or behaviours. This focus follows Goodall (2000). No interviews were recorded and the quotes provided are based on jotted notes. Appendix A contains a list of interviews.

It is important to note that my data collection in LMK and Ada does not qualify as anthropology. First, three months is too little time to gain access to the rarer types of electoral manipulation. The parliamentary candidates, campaign managers, and operatives spoke openly about gift-giving but, with few exceptions, they vehemently denied having ever engaged in ballot stuffing. Second, language proved a barrier. While I was able to interview operatives and branch executives in English, I was unable to follow conversations, when in Dangme. The campaign managers would often translate but, in most cases, I was unable to validate the translations. This means, for example, that arguments between the campaign managers and the operatives and between the operatives and the branch executives were captured primarily from the point of view of the former. While not ideal, it is important to keep in mind that my perspective in this thesis is that of the parliamentary candidates. Their perception of the campaign, through their campaign managers, was therefore more important than the perception of the operatives and the branch executives.

Case selection

LMK and Ada were chosen as 'most similar' cases (Gerring 2007; Seawright and Gerring 2008), based on theoretical expectations and logistical considerations, and using statistical matching. The most similar method is genealogically related to Mill's

(1872) 'method of difference', and is described by Przeworski and Teune (1970) as the method of 'most similar systems' and by Lijphart (1971) as the 'comparative method'.

Statistical matching has been a topic in quantitative research over the last three decades; first in statistics (Rosenbaum 2004; Rosenbaum and Rubin 1983) and economics (Hahn 1998; Hirano, Imbens, and Ridder 2003), and later in political science (Ho et al. 2007; Imai 2005). It extends the logic of a randomised experiment. In a randomised experiment, elaborate statistical models are unnecessary as the cases in the treatment group are likely to be very similar to the cases in the control group. Consequently, simple statistical techniques, such as difference of means tests, are sufficient to demonstrate causal effect. This is not the case in observational studies, where the cases in the treatment group differ in many ways from the cases in the control group, confounding the estimations.

The standard solution to this problem is to introduce control variables. Statistical matching offers an alternative. It begins by identifying a set of background variables on which cases should be matched. Then, for each of the cases in the treatment group, it identifies a corresponding case in the control group, using a matching algorithm. Finally, it compares the dependent variable of the cases in the treatment group with the dependent variable of the matched cases in the control group. If the set of matching variables is broad enough to include all potential confounders, the average difference should provide a good estimate of the causal effect.

Qualitative researchers have approached statistical matching as an analogy of the 'most similar' method and suggested it can be used for case selection purposes (Gerring 2007; Seawright and Gerring 2008; Tarrow 2010). According to Nielsen

(2014), only one qualitative study has done so: Madrigal, Alpizar, and Schluter's (2011) study of the performance of community-based drinking water organisations in Costa Rica. This is surprising, as the advantages seem obvious: it is transparent and replicable, and it ensures that cases are, in fact, similar. Two things may explain why qualitative researchers have not adopted statistical matching: their scepticism of the 'statistical worldview' (Mahoney and Goertz 2006; McKeown 1999), and the fact that most statistical packages and matching algorithms have been developed with the needs of quantitative researchers in mind.

In selecting my cases, I proceeded as follows. First, I excluded constituencies in the six metropolitan districts (Kumasi, Cape Coast, Accra, Tema, Tamale, and Sekondi Takoradi), which brought down the number of potential cases from 275 to 241. This decision was based on theoretical expectations about the effect of urbanisation on political behaviour (Bawumia 1998; Lindberg 2010; Lindberg and Morrison 2005; Nugent 1999),[35] and the fact that 88% of all constituencies in Ghana are located outside the metropolitan districts. Although I do not claim representativeness, I still wanted the constituencies to be somewhat 'typical'.

[35] Bawumia (1998) and Nugent (1999) both note an urban rural-divide in the voting patterns in the 1992 and 1996 elections. Lindberg and Morrison (2005) note the same pattern in the 1996 and 2000 elections, and conclude that the 'urban-rural divide' "seem to be a decisive factor in explaining the two-party arrangement in Ghana" (ibid., 579). Lindberg (2010) finds that MPs in urban constituencies are more likely to reject requests of their constituents than MPs in rural constituencies and argues that "MPs in urban areas know that urban residents instrumentally seek personal benefits from all candidates, but that such gifts do not influence their choices at the polls, which makes it easier for MPs to reject many of these requests" (ibid., 127). Also, he argues, "Chiefs exert considerable powers over MPs from rural constituencies, because they still have significant leverage over rural voting behaviour", whereas "MPs in urban areas tend to perceive chiefs as relatively powerless in terms of influencing voting behaviour, and are therefore less responsive to their pressures" (ibid., 128).

Second, I reviewed the 241 potential constituencies from a logistical point of view. In parallel with collecting qualitative data, I travelled extensively throughout Ghana, collecting petitions and other data for my quantitative analyses. Location and accessibility were therefore necessary considerations. On this basis, I chose LMK: a constituency in the Eastern region, on the banks of the Volta River, around two hours from Accra and less than four hours from three other regional capitals.

Third, I used statistical matching, as proposed by Nielsen (2014, 2015), to match cases with LMK. The matching was done so as to maximise variation on my measure of electoral uncertainty, while minimising variation on seven background variables: the number of voters registered, the party of the incumbent MP, the size of the constituency, the fraction of the constituency population with primary education, the fraction of the constituency population that is employed or economically active, the fraction of the constituency that owns a mobile phone, and the fraction of the constituency population that is Ga-Dangme (the dominant ethnic group in LMK). The matching was based on theoretical expectations about the effect of electoral uncertainty on electoral manipulation (Birch 2011; Lehoucq 2003; Simpser 2013),[36] and the possible effects of socio-economic factors. The seven background variables include the main control variables used in the analyses in Chapters 4-6, excluding those that were not available when the cases were selected, such as the number of candidates contesting the seat, whether the incumbent MP ran for re-election, whether one of the candidates was a minister or deputy minister etc.

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[36] There is broad consensus in the literature that electoral competitiveness and uncertainty stimulates electoral manipulation. I review the literature on electoral manipulation in Chapter 3.

The matching was done using Mahalanobis matching. Mahalanobis matching is a family of algorithms that identifies similar cases by minimising their pairwise Mahalanobis distance, which is a measure of distance between two points, in a multidimensional space, using standard deviations. It is zero when the points match and increases with each standard deviation they deviate from one another, in any dimension. Reviewing different matching methods, Nielsen (2014) argues that "exact matching and Mahalanobis matching are most likely to be helpful for case selection" (Nielsen 2014, 9).

Table 2.4 reports the results. It shows that Ada, a constituency in the Greater Accra region, where the Volta River runs into the Gulf of Guinea, is the constituency most similar to LMK; followed by North, South and Central Tongu, which border Ada to the east and north, across the Volta River. Changing the background variables does not affect the results. For example, including a background variable to capture whether the constituency was located in one of the six metropolitan districts, instead of a priori excluding metropolitan constituencies, still returns Ada as the constituency that is most similar to LMK. Excluding the fraction of the constituency population that owns a mobile phone, based on the argument that it captures the same effect as whether the constituency was metropolitan, also does not affect the results. Finally, introducing the variables that were not available when cases were selected—the number of candidates, whether the incumbent MP ran for re-election, and whether one of the candidates was a minister or deputy minister—still returns Ada. All results are provided in Appendix A.

Table 2.4: Statistical matching

No.	Matched cases		Distance*	Treatment variance
1	LMK	Ada	3.024	0.092
2	LMK	North Tongu	26.433	0.108
3	LMK	South Tongu	26.681	0.179
4	LMK	Central Tongu	26.872	0.067
5	LMK	Anlo	27.519	0.241
6	LMK	Ahafo Ano South West	27.794	0.142
7	LMK	Keta	27.963	0.210
8	LMK	Odotobri	28.180	0.084
9	LMK	Nsuta Kwamang	28.420	0.090
10	LMK	Bosomtwe	28.603	0.120

Notes: matched on the following background variables: *Voters registered*, *MP ruling party*, *Constituency size km2*, *Population educated*, *Population employed*, *Population with mobile phone*, and *Population Ga-Dangme*.
* Squared Mahalanobis distance

'Closed matching' (matching with LMK as the matching case) limits the number of case combinations to 273 (all constituencies, excluding LMK and Kpone Katamanso, for which data were not available). By contrast, 'open matching' (matching between all cases) permits thousands of combinations; 37,401 to be specific (all pairs, excluding pairs involving Kpone Katamanso). I could not use open matching for the reasons described above. However, it is worth noting that the combination of LMK and Ada is still ranked 1,285 on the full list of combinations (results not reported). In other words, LMK and Ada are among the 5% most similar constituencies in my dataset, measured on eight background variables (the original nine plus whether the constituency was metropolitan).

Case descriptions

In what follows I provide brief background descriptions of the two cases. The descriptions serve as an introduction to the theoretical discussion in Chapter 3 and the empirical analyses in Chapters 4-6, and as additional analysis of the similarities between LMK and Ada. The descriptions are based on data from the 2010 Population

and Housing Census (Ghana Statistical Service 2010), official election results (Electoral Commission of Ghana 2015), and my own observations.

The population in LMK is around 90,000. About three quarters are Ga-Dangmes (74%): the dominant ethnic group in the Greater Accra region and the eastern parts of the Eastern region. In addition, there are Ewes (19%), Akans (4%), and pockets of Northerners[37] (2%) and immigrants (2%) from Mali, Niger, and Nigeria. Most are Christians (93%): Pentecostals (40%) and Protestants (26%). Northerners and immigrants are predominantly Muslim (4%). About half the constituency population is employed or economically active (49%); mostly in the informal sector (84%): agriculture, fishery, manufacturing, sales, and trade (Ghana Statistical Service 2014b).

Since 1992, the constituency seat has been held by the NDC. In 2008, the incumbent MP, Michael Teye Nyaunu, was re-elected for a third term by a margin of 13% points. Nyaunu contested the primaries in 2011 but was defeated by Ebenezer Okletey Terlarbi, the Deputy Eastern Regional Minister and a former NDC candidate in Oforikrom, in the Ashanti Region. Terlarbi was backed by a coalition of marginalised non-Krobos (Ewes and Northerners) and Rawlings-era party leaders, who had been excluded from party leadership positions during the incumbency of Nyaunu. The constituency party leadership remained loyal to Nyaunu, causing a party split, when Nyaunu decided to run as an independent candidate. It also left the 2012

[37] The term 'Northerners' here includes Guans, Gurmas, Mole-Dagbons, Grusis, and Mandes.

election open and gave the NPP candidate, Difie Dedo Agyarko-Kusi, hope that she could win the seat.

Ada is slightly smaller, with a population around 65,000. The ethnic composition is similar to that of LMK: Ga-Dangmes (85%), Ewes (8%), Akans (4%), Northerners (2%), and immigrants (2%) from other West African countries. The higher percentage of Ga-Dangmes gives Ada a slightly lower ethnic fractionalisation index score. As in LMK, most are Pentecostals (56%) and Protestants (18%), while the Northerners and immigrants are predominantly Muslim (5%). The employed or economically active population (51%) also works mainly in the informal sector (89%): agriculture, fishery, sales, and trade. In addition, there is a small tourism industry, concentrated on the coast and in the Volta River delta (Ghana Statistical Service 2014a).

Ada is considered an electoral stronghold of the NDC. In 2008, the incumbent MP and NDC candidate, Alex Narh Tettey-Enyo, was re-elected for a second term by a margin of 61% points. He contested the parliamentary primary in 2011 but was defeated by Comfort Doyoe Cudjoe-Ghansah, a member of the Accra Metropolitan Assembly, who was backed by the MP for Ablekuma South and later Minister of Information, Fritz Baffour, and two aspiring party leaders. Tettey-Enyo withdrew from the election but silently threw his support behind an independent candidate, Emmanuel Tetteh Kabu, a local entrepreneur and NDC benefactor.

I have already shown that LMK and Ada are among the most similar cases in my dataset. The descriptions in this section have revealed additional similarities. First,

besides being dominated by the same ethnic group, Ga-Dangmes,[38] the two constituencies have similar ethnic distributions. The potential effect of ethnicity is therefore substantially reduced. Second, both constituencies have been held uninterruptedly by the NDC since 1992. The degree of party penetration of the district administration is therefore presumably similar. Finally, in both constituencies, the incumbent MP lost the primaries to an aspirant, who was backed by influential party leaders from outside the constituency and party heavyweights and aspiring party leaders from within. The clientelistic networks of the ruling party were therefore subject to similar shocks before the 2012 elections. I further discuss this in Chapters 5 and 6.

Table 2.5 compares LMK and Ada across variables of interest. It also reports the national means. Recall that LMK and Ada were chosen, not because of their representativeness but because they are similar and allow me to explore the effect of electoral uncertainty. That being said, LMK and Ada appear to be relatively 'typical' rural constituencies: they are smaller than most other constituencies but otherwise very close to the national means. Certainly, they do not appear to be outliers.

[38] In fact, the Ga-Dangmes in LMK and Ada are both Dangme (Krobo and Ada are two of the six dialects of the Dangme language; the others are Ningo, Prampram, Shai, and Osudoku). Dangme is a language with its own ISO 639-3 code; closely related to Ga with which it forms the Ga-Dangme language branch within the Kwa language family.

Table 2.5: Comparison of LMK and Ada across variables of interest

Variable	LMK	Ada	Mean
Parliamentary win-margin$_{t-1}$	13.1	61.1	23.5
Voters registered	60,674	34,391	51,024
MP party tenure	20	20	11.747
MP tenure	16	8	7.113
MP running	1	0	0.622
Minister running	1	0	0.124
Candidates	7	5	4.807
Constituency size km2	337	223	862
Population educated %	83.5	72.7	74.2
Population employed %	48.6	50.7	52.2
Population with mobile %	36.7	29.4	29.4
Population Ga-Dangme %	73.8	84.5	6.9
Population Ewe %	18.7	8.4	14.0
Population Akan %	4.1	4.3	44.7

Note: Data extracted from the 2010 Population and Housing Census (Ghana Statistical Service 2010) and official election results (Electoral Commission of Ghana 2015).

Description of the campaigns

To prepare the ground for the discussion in Chapter 3, where I develop my theoretical argument, in the following, I provide descriptions of the NDC campaigns in LMK and Ada. I use the opportunity to introduce key terms.

In both LMK and Ada, the NDC campaign was organised in concentric circles, held together by a constant flow of patronage, an elaborate system of surveillance, and the perspective of being close to the future MP. The parliamentary candidates were at the centre, often represented by their campaign managers. The campaign managers were effectively 'chiefs of staff', controlling access to the parliamentary candidates. Their motivations were primarily political. In LMK, the campaign manager was an Ewe, who had contested the party primary, for the position of constituency chairman, but had been defeated by a Krobo candidate, backed by the incumbent MP. In Ada, it was a former constituency party leader, who had left the party in 2000, when the NPP came to power, but who saw the emergence of a new MP as an opportunity to return to the ruling party.

The first circle consisted of what the campaign manager in LMK referred to as 'the core group': 5-10 operatives (growing to 15-20 in the weeks before the elections), who worked practically fulltime on the campaign. The core group were the 'officers' of the campaign, responsible for liaising with other spheres of the campaign and executing decisions. They did not receive salaries but were paid 'chop' money: GHS 10-20 (USD 5-10) a few times a week. Their motivations were both political and professional. As one of them told me: "I need a job; I need a better life for myself and my wife. Perhaps I can be a police officer. My wife doesn't understand why I'm here. But she will see".[39]

The second circle of the campaign consisted of the branch executives:[40] 'foot soldiers', whose responsibility it was to mobilise party supporters. Their primary compensation was the ability to control the flow of patronage to their branch: cutlasses, torches, bulbs, kitchenware, glassware, matches, serviettes, mosquito nets, and mosquito repellent that were distributed at the end of 'community meetings'. They also controlled the recruitment of polling agents; a rare opportunity for cash-paying employment in many rural constituencies in Ghana. While the operatives were tied to the parliamentary candidates or the campaign managers, the branch executives were tied to the party, and in both LMK and Ada their loyalty was often split between

[39] Interview with Henry Ayertey, NDC branch executive, Agormanya, 5 December 2012.

[40] Branch is equivalent to polling station. The term 'branch' is used by the NDC; 'polling station' is used by the NPP and the Electoral Commission. I use the terms interchangeably. The branch or polling station executives are those elected to represent the parties at polling station-level.

the incumbent MP and the constituency party leadership on one side, and the elected parliamentary candidate on the other.

The third circle consisted of the polling agents: political 'mercenaries', who were recruited to represent the parliamentary candidates' interest on election-day. They were the only ones with a regular salary: GHS 40 (USD 20 USD) plus food on election-day. Although most were party members, their loyalty was constantly questioned and tested: deployment plans were changed and the polling agents were reshuffled to prevent them from taking bribes from other parliamentary candidates. Such pre-emptive measures were taken primarily out of fear of infiltration: "you have to deploy your best agents to your opponent's strongholds", the campaign manager in LMK told me; "otherwise, they will do things".[41]

Ensuring rank and file loyalty was a general concern. "I know there are people here, who are spying for the independent candidate", the campaign manager also told me, "but I know who they are and will send them away".[42] His distrust was not limited to the polling agents. The operatives and branch executives were also monitored. As one of them told me, "I am spying on someone here, and I know someone is spying on me".[43] In LMK, the campaign manager even had 'moles' inside the campaign of the incumbent MP and independent candidate, who were tasked with reporting on movements, planned events, and possible fifth columnists.

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[41] Interview with David Walter Hormenu, campaign manager for Okleter Ebenezer Terlarbi, NDC candidate for LMK, Agormanya, 28 September 2012.
[42] Ibid.
[43] Interview with Papi Tetteh, Agormanya, former NDC branch executive, 5 December 2012.

I include this brief description for three reasons: First, to delineate the different spheres of the campaign and to illustrate the different degrees of control: more control at the centre, less control in the periphery. The second reason is to illustrate that although the campaigns were highly organised, they were also extremely vulnerable. If the patronage did not reach the outer spheres of the campaign, the organisation collapsed, and the candidates could no longer count on the branch executives and polling agents to represent their interests. The different degrees of control and the vulnerability of the campaign become important when I discuss the costs and benefits of different types of electoral manipulation. The last reason why I include the description is to introduce key terms. 'Parliamentary candidates', 'campaign managers', 'operatives', 'branch executives', and 'polling agents' denominate different functions in the campaign but they also denominate different spheres and different motivations. Again, I return to this and its implications in later chapters.

2.5 Conclusion

In this chapter I have defined electoral manipulation and described my data. First, I operationalised my definition of rigging into three types: voter inflation, miscounting, and ballot stuffing. Second, I presented my quantitative data: an original dataset containing information about every regular, constituency-level parliamentary election in Ghana over the 2008 and 2012 electoral cycles. I described how data were collected and coded; provided summary measures; and described how bias and measurement errors were addressed. Finally, I presented my qualitative data: participant observations from LMK and Ada. I argued that participant observations can potentially shed light on some of the aspects of electoral manipulation we know

least about; described how cases were selected, using statistical matching; and provided background descriptions of the two cases and introduced key terms. The chapter has contributed to the overall argument of the study by preparing the ground for the theoretical discussion in Chapter 3 and the empirical analyses in Chapters 4-6.

3 Explaining electoral manipulation

3.1 Introduction

In Chapter 2 I defined electoral manipulation and presented my data. In this chapter I develop my theory. First, I review the literature that has dominated academic research on electoral manipulation up until recently. I argue that it converges on two central arguments about electoral manipulation: that politicians rig elections when they fear electoral defeat, and that they opt out of electoral manipulation when they fear getting caught. Second, I consider the empirical record in Ghana. I show that the two arguments, alone, cannot explain the variations in my data, suggesting there is more to electoral manipulation than electoral uncertainty and risk. Third, I develop a framework for approximating the properties of different types of electoral manipulation and making predictions about their patterns. The framework rests on three arguments about the costs and benefits of electoral manipulation: first, that in addition to the direct benefits of electoral manipulation, i.e. the increased chance of winning, there are important indirect benefits that drive some politicians to rig, also when they are confident that they will win; second, that electoral manipulation is expensive and that the direct costs, meaning what politicians spend, discourage them as much as the indirect costs, i.e. the risk of getting caught; and third, that different types of electoral manipulation have different cost-benefit profiles, which means politicians can choose the types that best match their needs and capabilities. The

chapter contributes to the thesis by providing the framework for the empirical analyses in Chapters 4-6.

3.2 Conventional wisdom

In this section I review the literature that has dominated academic research on electoral manipulation up until recently.[44] This literature converges on two central arguments about electoral manipulation. The first is that the aim of electoral manipulation is to win elections and that politicians rig elections when they fear electoral defeat. The second is that electoral manipulation is risky and that politicians opt out of when they fear getting caught. I refer to the two arguments collectively as 'conventional wisdom'. In the following, I consider each of them in detail.

Argument #1: Politicians rig when they fear electoral defeat

The first argument is that the aim of electoral manipulation is to win elections and that politicians manipulate when they fear they are about to lose. The logic behind it is simple: when elections are close, the probability that electoral manipulation could change the electoral outcome is larger. This perspective runs deep in the literature. Lehoucq (2003), for example, in an article that contributed to setting in motion the wave of academic interest in rigging, concludes that "political competition shapes the rhythm and nature of electoral fraud" (ibid., 252). He refers to empirical evidence from Spain (Varela-Ortega 2001), Costa Rica (Lehoucq and Molina 2002; Molina and Lehoucq 1999), and Mexico (Dominguez and McCann 1996); to which could be

[44] I review the more recent literature later in the chapter, when I develop my theoretical argument.

added more recent evidence from Japan (Fukumoto and Horiuchi 2011; Nyblade and Reed 2008).

The argument is not new. In what may be the earliest comparative study of elections, Seymour and Frary (1918a) write about elections in England, before the industrial revolution, that "when elections in the counties began to be really contested […] coercion of electors seems to have been common" (ibid., 91).[45] It is reflected also in early work on American politics around the turn of the century (Gosnell 1924, 1933, 1937; Peel 1933). Writing about Thomas 'Boss' Platt and his Republican machine in upstate New York, Gosnell (1924) notes that "in a close campaign, Platt was sure that every Republican voter could be reached by some sort of party organ" (Gosnell 1924, 130–31).[46]

More recently, the argument has been formalised and tested empirically (Birch 2011; Hafner-Burton, Hyde, and Jablonski 2014; Simpser 2013). This body of research has added nuance to the argument by embedding it in the broader comparative politics and political economy literature. Birch (2007) and Simpser (2013), for example, find positive correlations between electoral manipulation and first-past-the-post (FPTP) parliamentary elections. Reflecting on this finding, Birch (2007) argues that "candidates in [FPTP] systems have more to gain from individual efforts to manipulate elections than is the case for candidates in PR contests; and

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[45] Other early examples include Grego (1892), Porritt (1903), and Butler (1914).

[46] Another early example is Scott (1969, 1972), who writes about corruption and machine politics in the US that "the greater the competitive electoral pressures, the wider the distribution of inducements is likely to be" (ibid., 1146) and that "when the race is close, the marginal utility of the additional dollar of […] patronage promises […] is all the greater" (ibid., 96).

malfeasance is more efficient under [FPTP] rules, in that the number of votes that must be altered to change the outcome is typically smaller than it is under PR" (ibid., 1533). In other words, FPTP parliamentary elections are closer. Simpser (2013) and Hafner-Burton, Hyde, and Jablonski (2014) find negative correlations between rigging and population size. This finding is also consistent with the argument that smaller win-margins make rigging the elections more attractive.[47]

The argument is reflected also in the literature on African politics. Bratton (2008), for example, reports that 71% of voters in Nigeria say that competition between political parties 'often' or 'always' leads to violent clashes (Bratton 2008, 624), while Weghorst and Lindberg (2011) speculate that "with heightened political competition under multiparty electoral democracy, the pressure to increase both the scope and penetration of clientelistic distribution should increase" (ibid., 1196). Echoing Birch (2007, 2011) and Simpser (2013), Lindberg (2005) argues that "it follows from the winner-takes-all of majoritarian systems that the stakes are higher, hence the incentive for using irregular practices to win is stronger than in proportional systems" (ibid., 44). Vicente and Collier (2011) model the effect of electoral uncertainty and argue that political competition affects different types of electoral manipulation differently: that it stimulates vote buying and ballot stuffing but contains electoral violence.[48] They test aspects of their model in two natural experiments in

[47] Hafner-Burton, Hyde, and Jablonski (2014) do not discuss the correlation although it is consistent with their argument that "an incumbent who is uncertain about electoral victory and does not face significant institutional constraints is more likely to use election violence" (ibid., 154).

[48] The argument that political competition contains electoral violence is consistent with Chaturvedi (2005), who finds that "a party with lower initial political support will resort to more political violence,

Sao Tome and Principe (Vicente 2014) and Nigeria (Collier and Vicente 2014), finding higher frequencies of vote-buying and ballot stuffing in competitive and rural constituencies (Collier and Vicente 2014, F349; Vicente 2014, F383).

In sum, the argument that politicians rig elections when they fear electoral defeat is well developed, both theoretically and empirically, and has been explored also in the context of Africa.

Argument #2: Politicians opt out of electoral manipulation when they fear getting caught

The second argument is that electoral manipulation is risky and that politicians opt out when they fear getting caught. Again, the logic is straightforward: when the risk of getting caught is high, the costs of rigging outweigh the benefits. This argument is less explicit in the literature but generally assumed. Lehoucq (2003), in the article cited above, does not discuss the risks associated with electoral manipulation but nonetheless makes secrecy part of his definition: "*clandestine* and illegal efforts to shape election results" (ibid., 233, my emphasis).

Again, the idea can be traced back to early 20th century work on elections in Western Europe and North America. Seymour (1915), for example, writes about parliamentary candidates in England and Wales, after the passing of the *Representation of the People Act* 1832 (the Great Reform Act), that "they desired to avoid detection, not because the act they were performing was in their own opinion

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ceteris paribus and as the fraction of undecided voters goes up, elections will tend to be less conflictual" (ibid., 189).

disgraceful, but simply because the law affixed a punishment and a disability upon those who performed such acts" (ibid., 195–96). Similarly, Gosnell (1933), in his work on machine politics in New York and Chicago, including its "distortion of the election process by demagogic and corrupt practices" (ibid, 26), argues that "legal regulations are necessary in the fight against the spoilsmen" (ibid, 28).

Recent work has made the connection more explicit. Birch (2011), in her study of electoral manipulation in sub-Saharan Africa, Latin America, Eastern Europe, and the former Soviet Union, concludes that "factors that affect the legitimacy costs of electoral malpractice are central in determining whether leaders will, in any given context, run the risks associated with rigging elections" (ibid., 3). Similarly, Simpser (2008) argues that "when cheating can be verified, for instance, redress becomes more plausible, rendering cheating a riskier proposition" (ibid., 216).

Perhaps the strongest testimony to the argument is the growth of election observation industry. Since the late 1980s, organisations, such as the Organisation of American States (OAS), the Carter Centre, the European Union (EU), and the African Union (AU), have deployed election observers to "enhance the integrity of election processes, by deterring and exposing irregularities and fraud" (United Nations 2005).[49] Several studies have examined the deterrence effect of international election observers (see Kelley 2012 for an overview).[50] They have come to no clear-cut

[49] Along the same lines, the AU Commission (2013) lists "deterring improper practices and attempts of fraud" as one of eight 'purposes' of election observation (African Union Commission 2013, 7), while the European External Action Service (2015) notes that "election observation can […] help deter election fraud, intimidation, and violence" (ibid.).

[50] Kelley (2012) finds that international election observers "can only improve elections under certain conditions" and that "in many situations even repeated efforts in a country are futile" (ibid., 178).

conclusions. On one hand, international election observers seem to reduce election-day manipulation (Hyde 2007a, 2007b);[51] on the other, politicians respond by shifting their illegal activities to the period before the elections (Hyde and O'Mahony 2010),[52] or by manipulating the elections in ways that are not easily detected (Simpser 2008; Simpser and Donno 2012).[53]

Long absent, the perspective is beginning to make it also into the African politics literature.[54] Gyimah-Boadi (2007), for example, notes that "incumbents have been keen to rig to the extent that they can get away with it" (ibid., 27), suggesting they cannot get away with everything. Similarly, Lindberg (2005) argues that "the stronger the incentives for cheating, the stronger the guardians of fairness and sanctions against fraud must be" (ibid., 44), implying that sanctions can deter electoral manipulation. Natural experiments have documented the link between risks and electoral manipulation in Africa. Aker, Collier, and Vicente (2013) show that the distribution of free newspapers newspaper in Mozambique contains misconduct

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[51] Hyde (2007a, 2007b) finds that in Indonesia in 2004, international election observers had "a measurable effect on votes cast for the incumbent candidate" (Hyde 2007a, 511), while in Armenia in 2003, they "reduced the vote share for the incumbent politician by about 5.9 percent in the first round" (Hyde 2007b, 52).

[52] Hyde and O'Mahony (2010) find that pre-electoral fiscal manipulation is more likely when the elections are observed by international election observers (ibid., 690).

[53] Simpser (2008) argues that international election observers can motivate governments and ruling parties to choose "less easily verifiable forms of electoral manipulation" and that there are "serious negative effects associated with unverifiable forms of electoral manipulation" (ibid., 20). Testing the argument, Simpser and Donno (2012) find that international election observation is associated with negative post-electoral changes in law and order, bureaucratic quality, and media freedom.

[54] In the African politics literature, the assumption appears to have been that African governments and ruling parties manipulate without repercussions. Bratton (1998), for example, argues that "civilian presidents have not hesitated to use executive power to rig the rules against their opponents", and that "the more dominant the elected ruling party and the more secure its legislative majority, the greater its latitude in this regard" (ibid., 65).

during the election campaign, as reported by domestic observers;[55] Collier and Vicente (2014) that empowering voters in Nigeria reduces electoral violence, both in the eyes of voters and as reported by journalists; Ichino and Schundeln (2012) that election observers deter and displace registration irregularities in Ghana; and Asunka et al. (2014) that domestic observers significantly reduce over-voting and suspicious turnouts in Ghana (although they also find that the parties respond by shifting their electoral manipulation from observed to unobserved polling stations). Overall, this body of research suggests that both the risk of getting caught, and of loosing legitimacy in the eyes of the electorate, are important factors when African politicians choose whether to rig the elections.

In sum, the argument that politicians opt out of electoral manipulation when they fear getting caught has long been assumed in the academic literature and is becoming increasingly explicit, including in the literature on African politics.

3.3 The empirical record in Ghana

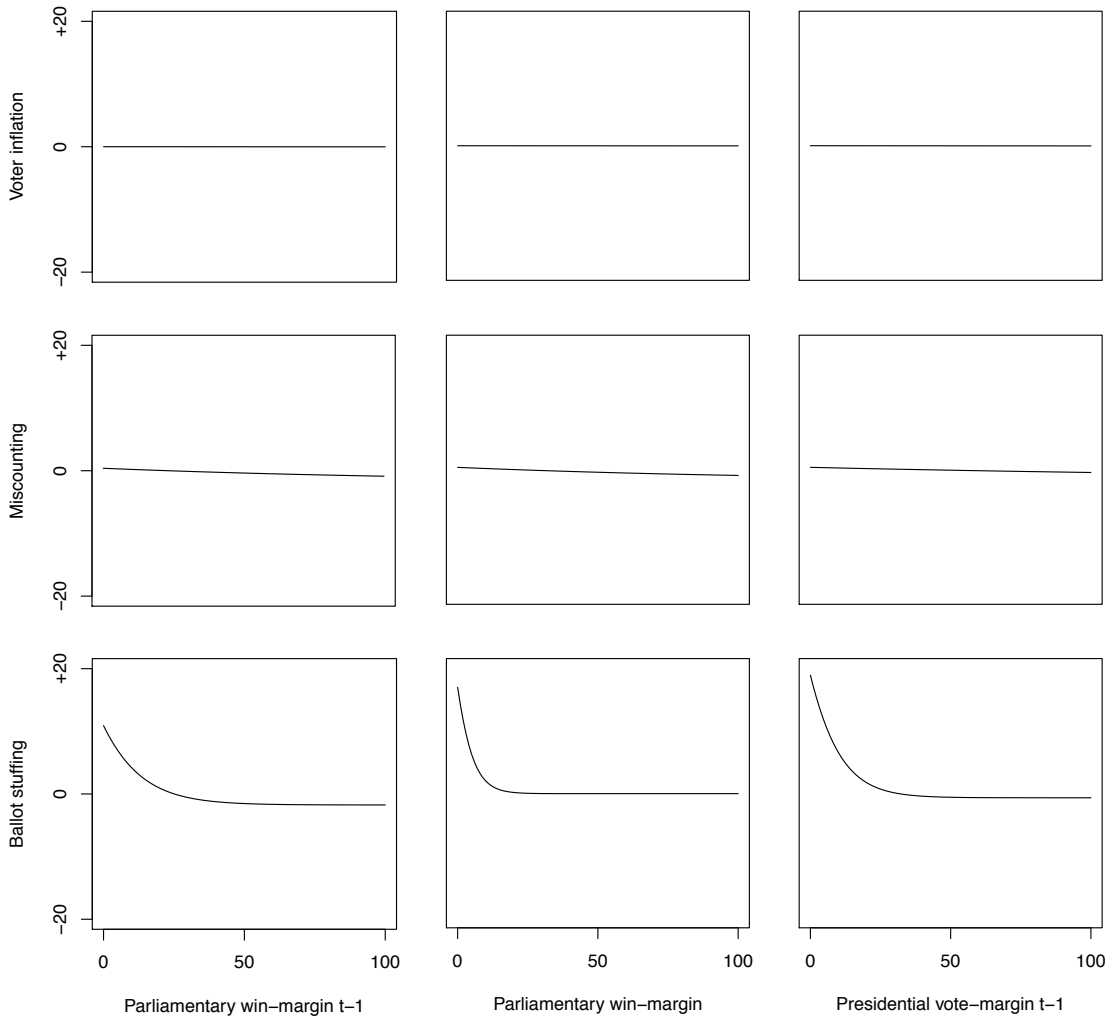
Does conventional wisdom square with the empirical record in Ghana? In the following, I answer this question, drawing on my quantitative data. I find that conventional wisdom alone cannot explain the variations in my data. I interpret this as evidence, not that conventional wisdom is wrong but rather that there is more to electoral manipulation than the fear of defeat and the fear of getting caught.

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[55] Aker, Collier, and Vicente's (2013) measure of campaign misconduct covers mainly "the use of public resources for campaigning, vandalism and intimidation" (ibid., 15). They link their finding to education, information, and demands for political accountability.

Consider the first argument: that politicians rig elections when they fear electoral defeat. If so, electoral manipulation should be positively correlated with electoral uncertainty. The left-hand column in figure 3.1 plots the relationship between the win-margin in the last parliamentary election and the number of registrations challenged relative to the number of voters registered, my measure of voter inflation; the number of parliamentary ballots rejected relative to the number of parliamentary ballots cast, my measure of miscounting; and the probability that a parliamentary election was challenged on grounds that section 28(f) of the *Representation of the People Law* (PNDCL 284) 1992 was violated, my measure of ballot stuffing. My measures are far from ideal. I discuss their limitations further in Chapters 4-6. For the time being, we assume the measures capture voter inflation, miscounting, and ballot stuffing. With that caveat, the graphs support the first argument. The three types of electoral manipulation are negatively correlated with the win-margin in the last parliamentary election, thus positively correlated with electoral uncertainty. However,the coefficients are statistically significant and substantive only for ballot stuffing. The underlying regression results are reported in Appendix B.

Figure 3.1: Electoral uncertainty and manipulation



Note: Logit models.

One explanation could be that past win-margins do not capture the level of electoral uncertainty; i.e. that the parliamentary candidates are better at gauging their electoral prospects, and deploying the 'right' amount of electoral manipulation, than what past win-margins suggest. If so, electoral rigging should be correlated with electoral competitiveness. The centre column in figure 3.1 plots the relationships between win-margins in the present parliamentary election, on often-used proxy of electoral competitiveness (Abramowitz, Alexander, and Gunning 2008; Blais and Dobrzynska 1998; Endersby, Galatas, and Rackaway 2002; Holbrook and Tidmarch 1993; Koetzle 1998; Southwell and Burchett 2000; Trounstine 2006), and the three

types of electoral manipulation. The pattern remains the same. All types are negatively correlated with the win-margin in the parliamentary election, meaning positively correlated with electoral competitiveness. However, the coefficients are statistically significant and substantive only for ballot stuffing.

Ichino and Nathan (2012b) argue that presidential vote-margins are a better measure of electoral uncertainty in Ghana, as they provide "a better measure of underlying support for the party in the few constituencies where the parliamentary seat was held by a third-party candidate in alliance with one of the major parties" (Ichino and Nathan 2012b, 783). The right-hand column plots the relationship between the vote-margin in the constituency in the last presidential election and the three types of electoral manipulation. The pattern does not change. All types are negatively correlated with the vote-margin in the constituency in the last presidential election but, again, the coefficients are statistically significant and substantive only for ballot stuffing.

Consider now the second argument: that politicians opt out of electoral manipulation when they fear getting caught. If so, rigging should be negatively correlated with the risks. I use three measures to capture the different dimensions of risks. First, I use constituency size to proxy the risk that electoral manipulation is detected.[56] The assumption here is that the detection risk is smaller in larger

[56] In criminology, an often-used measure of detection risk is clearance rates: the rate of reported crimes that, according to police definitions, are cleared (Carr-Hill and Stern 1973; Ehrlich 1973, 1975; Sjoquist 1973). Ahlberg and Knutsson (1990) have criticized the use of clearance rates, arguing that not all crimes are detected, that not all detected crimes are reported, that some reported crimes are not crimes, and that some reported crimes 'disappear' along the way. Supporting this argument, Cloninger

constituencies, where polling stations are further apart.[57] I base this assumption on Ichino and Schundeln (2012) and Asunka et al. (2014, 2017), who find that, in Ghana, registration irregularities, over-voting, and suspicious voter turnouts are positively correlated with the distance to the nearest polling station to which election observers were deployed, and on di Tella and Schargrodsky (2004), who find that, in Argentina, car thefts are positively correlated with the distance to the nearest building to which police officers were deployed.[58] Second, I use literacy and mobile ownership rates to proxy the risk that electoral manipulation is reported and penalised. My assumption here is that literate and informed voters are more likely to report violations of the electoral laws, and more likely to condemn parliamentary candidates, who are associated with electoral manipulation. This assumption is supported by Fafchamp and Vicente (2013), who find that, in Nigeria, voters who receive voter education, are

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(1994) has shown that measures of police presence are statistically superior to clearance rates. He argues that police presence, besides increasing the probability that crimes are detected, "serves as a not-so-subtle reminder of the type of behaviour society has deemed unacceptable" (Cloninger 1994, 281). Police presence is therefore a better measure of the perceived risk that crimes are detected in the minds of potential criminals. My measure should be seen as an indirect measure of police presence: the larger the constituency, the smaller the probability that police (and journalists and election observers) are present at any given polling station at any given point in time.

[57] The correlation between Constituency size 000 km2 and Polling stations is -0.261. In other words, in absolute terms, there are more polling stations in smaller constituencies. It therefore seems reasonable to assume that polling stations are further apart in larger constituencies, all else being equal.

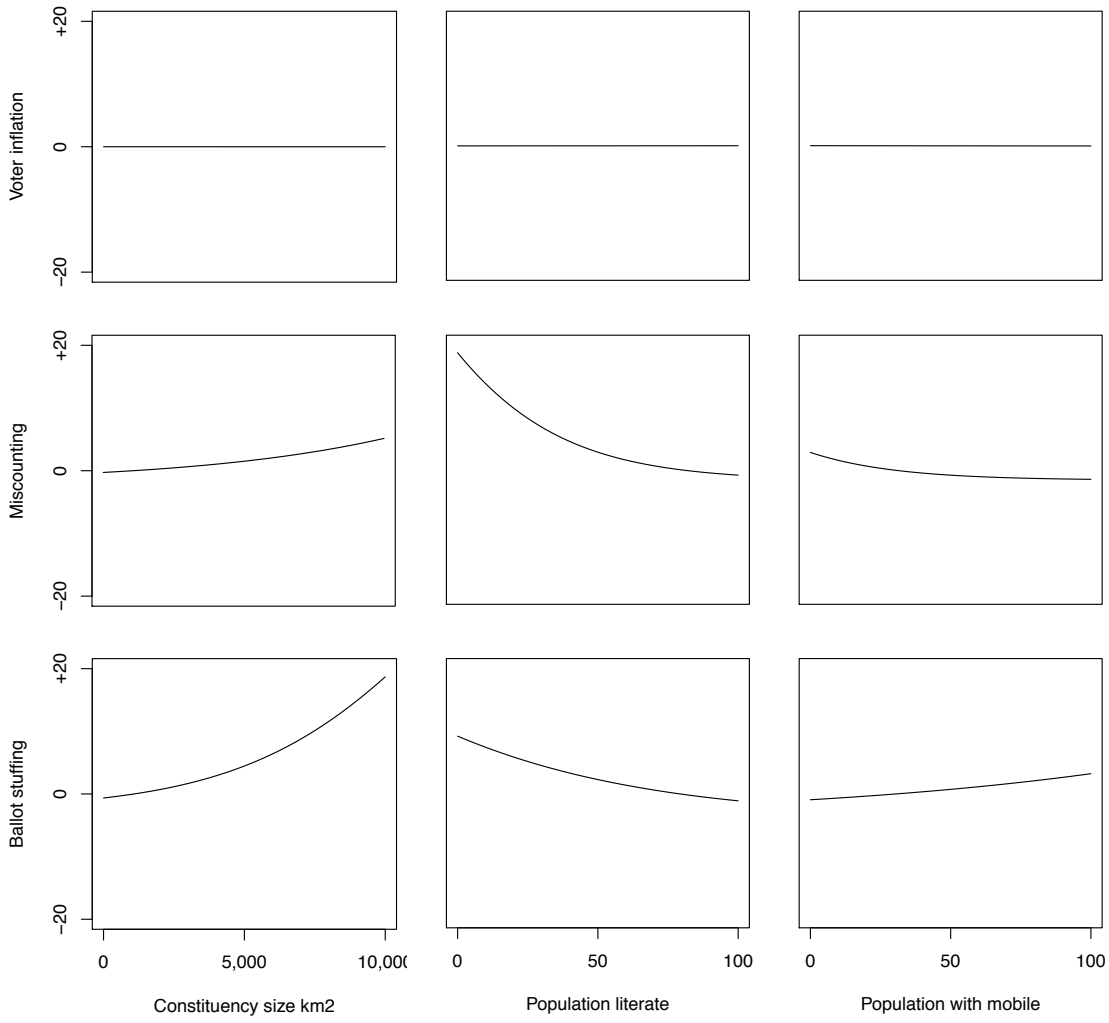
[58] In Ghana, most domestic observers and police are deployed to one polling station, where they remain until the closing of polls. By contrast, international observers and police patrol teams roam between polling stations. Either way, constituency size and the distance between polling stations should reduce their ability to detect and deter electoral manipulation. Stationary domestic observers and police may deter electoral manipulation in the polling station to which they are deployed. However, their ability to deter electoral manipulation in neighbouring polling stations decreases with the distance to those polling stations, as demonstrated by Ichino and Schundeln (2012) and Asunka et al. (2014). Similarly, international observers and police patrol teams may deter electoral manipulation in the polling stations they visit. However, in larger constituencies, where polling stations are further apart, they are able to visit fewer poling stations.

more likely to condemn, and less likely to experience, electoral violence;[59] and, again, by Aker, Collier, and Vicente (2013), who find that, in Mozambique, electoral areas, where newspapers are freely distributed, experience fewer electoral irregularities.

Figure 3.2 plots the relationship between constituency size (left-hand column), the fraction of the constituency population that is literate (middle column), and the fraction of the constituency population that owns a mobile phone (right-hand column), and the three types of electoral manipulation. The graphs partially support the second argument. Miscounting and ballot stuffing are positively correlated with constituency size, thus negatively correlated with the risk that electoral manipulation is detected, and both types are negatively correlated with the fraction of the constituency population that is literate. However, while miscounting is negatively correlated with the fraction of the constituency population that owns a mobile phone, ballot stuffing is positively correlated. Finally, voter inflation appears to be unaffected by the risk that electoral manipulation is detected, reported, and penalised. The coefficients are sometimes positive, other times negative, and never substantive or statistically significant.

[59] Interesting, Fafchamp and Vicente (2013) also find an effect of distance to the nearest voter exposed to voter education. Voters further away were less probable to engage in campaigns against electoral violence and had more experiences with electoral violence. In other words, distance does not affect only the risk that rigging is detected; it also appears to affect the risk that rigging is penalised.

Figure 3.2: Risks and electoral manipulation



Note: Logit models

I recognise that my measures are crude, and that this could explain why so much of the variation remains unaccounted for. African politicians draw on various sources of information when they gauge their electoral prospects: information fed to them by their parties, the size of the crowds they pull during the election campaign, the performance of the government and the economy etc. Win- and vote-margins are just one. Similarly, their assessment of the risks associated with rigging the elections is based not only on the size of the constituency and literacy and mobile ownership rates but on a range of factors, including their social status and penetration of the

district administration, the ability of their opponents to deploy and maintain their polling agents, whether election observers are deployed in the constituency etc.

Regardless of how politicians gauge their electoral prospects and assess the risks, if rigging is always driven by the fear of electoral defeat and contained by the fear of getting caught, different types of electoral manipulation should co-vary: the parliamentary candidates should inflate the voter register in the same constituencies as where they co-opt election officers and stuff the ballot boxes. This perspective is common in the academic literature. Simpser (2013), for example, argues that "the decision about how much, and how blatantly, to manipulate comes first and reflects strategic considerations, and the decision about how exactly to manipulate comes second" (Simpser 2013, 46).

Table 3.1 provides a correlation matrix of the three measures. It shows that none of them co-vary. Voter inflation is negatively correlated with miscounting and ballot stuffing; and miscounting is negatively correlated with ballot stuffing. In other words, it appears that the three types of electoral manipulation are deployed in different settings.

Table 3.1: Correlation matrix

		(1)	(2)	(3)
Voter inflation	(1)	1.000	-0.068	-0.087
Miscounting	(2)	-0.068	1.000	-0.008
Ballot stuffing	(3)	-0.087	-0.008	1.000

Note: The number of registrations challenged, my measure of voter inflation, is provided relative to the number of voters registered. Similarly, the number of ballots rejected, my measure of miscounting, is provided relative to the number of ballots cast. Using the measures in their absolute form, does not substantively affect the results.

To sum up, only some types of electoral manipulation are substantively correlated with electoral uncertainty and substantively correlated with the associated risks, and none of the three types considered in this study co-vary. While this does not

mean that conventional wisdom is wrong, it certainly suggests additional factors are at play. Conventional wisdom provides a starting but we must look beyond to explain patterns of electoral manipulation we observe.

3.4 A theory about electoral manipulation

IHaving demonstrated that conventional wisdom alone cannot account for the variations in my data, in this section, I develop my theory about how incumbents in parliamentary elections choose from the menu manipulation. Building on more recent academic literature, the theory rests on three arguments about the costs and benefits of electoral manipulation. In the following, I discuss each of them in detail. I use the opportunity to highlight some of the findings if the analyses in Chapters 4-6.

Argument #1: direct and indirect benefits

The first theoretical argument is that in addition to the direct benefits of electoral manipulation, i.e. the increased chance of winning, there are important indirect benefits that drive some incumbents to rig, even when victory guaranteed. The dynamics have to do with the incentives that a presidential system with first-past-the-post (FPTP) parliamentary elections creates. FPTP parliamentary elections are often close (Duverger 1954, Downs 1957), giving many parliamentary candidates a direct incentive to rig. This is certainly the case in Ghana. Of the 505 elections included in my dataset, 281 (56%) were won by a margin below 20% points; 164 (32%) were won by a margin below 10% points; 89 (18%) were won by a margin below 5%

points. In other words, in one fifth of the elections, five or six stuffed ballot boxes could have changed the electoral outcome.[60]

The parliamentary candidates' short-term fortunes are determined at constituency-level. This is where they build the intra-party coalitions that secure electoral victory in the primaries (Ichino and Nathan 2012a, 2012b).[61] Ultimately, it is also where they win their seat in parliament. However, their long-term destinies are shaped by their ability to build and maintain relations at regional and national level: with the party leaders who control the flow of party funds and—when the party is in power—of government resources. One way they do so is by delivering good electoral results. When they deliver above expectation, they raise their party status and profile; regardless of whether they do so in an electoral stronghold of their party, a swing constituency, or an electoral stronghold of another party. When they secure lots of votes for the party's presidential candidate, they become assets to the party leadership. The parliamentary candidates use the election results they deliver to negotiate resources after the elections: political appointments for themselves; jobs and resources for their constituents. This gives them an incentive to rig, regardless of whether they expect to win the elections. In other words, the marginal benefit of

[60] In 2012, 5% points corresponded to 2,000 votes, on average. The average number of voters registered per polling station was 540; the average number of valid ballots recorded per polling station was 424.

[61] Ichino and Nathan (2012a, 2012b) have studied parliamentary primaries in Ghana. They argue that "candidate selection is driven by local party members seeking benefits from primary contestants" (Ichino and Nathan 2012b, 769) and estimate that party leaders interfered in only 9% of all primaries held before the 2004 and 2008 elections.

electoral manipulation certainly decreases above and below the winning threshold. However, it does not decrease as quickly as conventional wisdom suggests.

In this study, I provide evidence of some of the benefits that electoral manipulation yields, beyond what the parliamentary candidates reap from securing a seat in parliament. For example, I show that between 2010 and 2016, more funds from the District Assemblies Common Fund (DACF) were disbursed to districts that delivered more votes to the winner of the 2008 and 2012 presidential elections. This supports the argument that parliamentary candidates have an incentive to manipulate elections, beyond their fear of electoral defeat: to attract DACF funds. I also, show that districts that delivered more votes to the winner of the 2008 presidential election were more likely to be divided in 2012. 45% of the DACF are allocated evenly between the districts. When a district is split it therefore means that additional funds are disbursed to the area. Finally, I show that parliamentary candidates who delivered strong electoral results in 2008 and 2012 were more likely to be appointed to government after the elections.

The argument, that electoral rigging yields indirect benefits, is not entirely new. Simpser (2013) argues that excessive and blatant electoral manipulation, meaning rigging above the winning threshold and in ways that are easily detected,

> "has a series of intended effects that include, among other things: to discourage opposition supporters from turning out to vote or to protest; to convince bureaucrats to remain loyal to the government; to persuade potential backers of parties and candidates to avoid supporting the manipulator's opponents (and/or to support the incumbent candidate); to deter political elites from opposing the ruling party or from even entering the political fray; to increase the manipulators post-electoral bargaining power vis-à-vis other political and social groups such as labour unions and other political parties; to reduce the need to share the rents ad spoils of government with elites and organisations; and to enhance the career prospects of politicians at subnational levels of government" (Simpser 2013, 3).

Simpser develops his argument in the context of presidential elections and electoral manipulation by incumbents. By contrast, my argument applies to parliamentary elections and rigging by ruling parties as well as opposition candidates.

In Ghana, most parliamentary candidates have something to gain from electoral manipulation: 30-40% of all parliamentary elections are competitive,[62] and all parliamentary candidates potentially gain from securing votes for the winner of the presidential candidate.[63]

Argument #2: direct and indirect costs

The second theoretical argument is that electoral manipulation is expensive and that the direct costs, meaning what politicians spend, discourages them as much as the indirect costs, i.e. the risk of getting caught.[64] Electoral manipulation is expensive. It requires 'chop' and jobs for operatives, patronage for the branch executives, salaries for polling agents, bribes for election officers, food and drinks for everybody, money for cars and petrol etc. According to my—rough—estimates, the price of substantially rigging, meaning changing the outcome of, a parliamentary election in Ghana is around GHS 50,000-200,000 (USD 25,000-100,000). I base this figure on how much the parliamentary candidates paid their operatives and polling agents; what they spent on patronage for the branch executives, before the elections, and on 'chop' money for election officers on election-day. When the price exceeds what they can pay, they

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62 32% of the parliamentary elections in my dataset were won by a margin below 10% points. Ichino and Nathan (2012b) estimate that "40 per cent of parliamentary constituencies are competitive and could be won by either the NPP and NDC in each election" (ibid., 777).

63 Presidential elections in Ghana are close. The last four (2004, 2008, 2012, and 2016) were won by a margin below 10% points.

64 My use of the terms direct and indirect costs differs from Birch's (2011), who uses the terms to distinguish "the drain on state capacity that results from the misuse of state resources" (ibid., 7) from "the socially suboptimal policy choices resulting in allocative inefficiency that are typically generated by officials chosen through poorly run elections" (ibid., 7); i.e. the socio-economic consequences of electoral manipulation.

revert to cheaper types of electoral manipulation. Eventually they opt out of electoral manipulation altogether.

The second argument essentially contains three perspectives. The first is that the price of electoral manipulation varies depending on the type; i.e. that some types are more expensive than others. Electoral manipulation committed in the outer circles of the campaign is more expensive than electoral manipulation committed close to the centre; rigging by hired polling agents is more expensive than rigging by trusted operatives etc. One of the factors that drive up the costs is the distance between the principal (the parliamentary candidate) and the agent. The longer this distance, the less control, the greater the agency loss (Sappington 1991).

The second perspective is that the price of rigging varies depending on the context. Electoral manipulation is more expensive when the election is expected to be close; cheaper when the constituency is poor. This follows simple market logic: when the demand for stolen votes is high, the price goes up; when there is an over-supply of cheap votes, the price drops. In the study, I show that the parliamentary candidates choose safer but more expensive types of electoral manipulation, when there are few voters registered in the constituency, and revert to cheaper but riskier types, when they need lots of votes to change the electoral outcome. This is consistent with the first and second perspective; i.e. that the price of electoral manipulation varies depending on the type and context.[65]

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[65] To illustrate this, consider two identical constituencies: one with 100,000 registered voters; the other with 20,000 registered voters. The value of the seat is the same; whether measured as the amount of resources that can be extracted from the seat or the ability to influence public policy. In the first constituency, the value of each vote is therefore the value of the seat/100,000; in the second, it is the

The third perspective is that some parliamentary candidates have better access to resources than others. MPs who also serve as ministers have better access to resources than other ruling party MPs; who in turn have better access to resources than opposition MPs. In the study I show, both quantitatively and qualitatively, that the effect of electoral uncertainty on electoral manipulation is conditional on resources. Incumbents with access to resources can choose from a wider range of options on the menu of manipulation. Incumbents without must choose from among the cheaper types. Also, I show that electoral uncertainty and resources are interlinked. Incumbents attract more resources, when there is an external threat, and they take into consideration the resources they have at their disposal when they gauge their electoral prospects. In other words, electoral uncertainty both increases their incentive to manipulate and it increases their ability to do so without getting caught.

The argument, that the direct costs discourage electoral manipulation, also is not new. Van Ham and Lindberg (2016) mention the "financial and organisational costs associated with organising manipulation" (ibid., 9), while Birch (2011) discusses the "participation of relatively large numbers of political actors" and the "considerable costs associated with inducing them to behave in the manner required and monitoring their behaviour so as to prevent 'agency loss'" (Birch 2011, 60).[66]

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value of the seat/20,000. In other words, the value of each vote is higher in the constituency with 20,000 registered voters and the parliamentary candidates are therefore willing to pay more for each stolen vote.

66 In addition, she discusses the 'external (international) costs' of electoral manipulation, arguing that "states that are heavily dependent on international trade, aid, and/or foreign direct investment (FDI) can ill afford to see the legitimacy of their regimes plunge precipitously in the international arena" (Birch 2011, 58); and the 'domestic legitimacy costs', understood as "the proportion of the population that can

Similarly, both Simpser (2013) and Vicente and Collier (2011) include cost functions in their models of electoral manipulation, defined as "the capacity of a party to engage in electoral manipulation" (Simpser 2013, 125, original emphasis) and "the total resources available to each of the candidates" (Collier and Vicente 2011, 126). My understanding of the direct costs is closest to that of Vicente and Collier (2011). Like them, I allow the price of rigging to vary, depending on the type and context, and recognise that some politicians have more resources than others. The result is that some parliamentary candidates are forced to choose cheaper types of electoral manipulation; others to opt out.

Argument #3: different cost-benefit profiles

The third argument is that different types of electoral manipulation have different cost-benefit profiles, allowing incumbents to tailor their manipulation strategies. To illustrate, consider ballot stuffing and miscounting. Ballot stuffing is committed by operatives close to the centre of the campaign. As already argued, this gives the parliamentary candidates more control and reduces agency loss. It also exposes them to risk. A stuffed ballot box is an unequivocal violation of the electoral law. If detected, it is more likely to be reported and penalised. On one hand, the parliamentary candidates therefore run considerable risks, when they stuff the ballot boxes. On the other, they also reap considerable benefits. A few stuffed ballot boxes easily generate hundreds of votes; enough to change the outcome of many parliamentary elections. Compare that with miscounting. Miscounting is committed

be expected to acquiesce to having their contribution to public choice taken from them or distorted (as perceived by the leader in question)" (ibid., 59).

by election officers, outside the campaigns themselves. This leaves the parliamentary candidate with much less control and the direct costs increase. It also minimises the risks. Even if detected, miscounting is hard to prove and practically impossible to attribute to the parliamentary candidates. The indirect costs are therefore low, but so are the direct benefits. Miscounting rarely generates more than 10-20 votes, and the parliamentary candidates therefore must run multiple, parallel operations to change the outcome of the parliamentary elections.

The different cost-benefit profiles allow politicians to tailor their manipulation strategies; i.e. to choose the blend of rigging techniques that best matches their needs and capabilities. Incumbents in ruling party strongholds can choose from a wide range of options. They have well-established clientelistic networks around which they can organise their campaigns, which means they can distribute patronage more effectively and bring the different campaign circles closer to the centre, and they can co-opt clients outside the campaigns themselves: election officers, police, the polling agents of other parliamentary candidates etc. They are less concerned about the outcome of the parliamentary elections, which means they can turn their attention to positioning themselves ahead of the post-electoral negotiations over appointments, jobs, and resources. Compare that with opposition candidates in closely contested constituencies. Their clientelistic networks are fragile and often overlapping with those of other parliamentary candidates. It is harder to co-opt election officers and they cannot necessarily count on their polling agents to monitor and enforce compliance. Meanwhile, they are under pressure to win the seat in parliament, which means they must choose types of electoral manipulation that secure lots of votes for themselves, even if it exposes them to risk. In Chapters 4-6 I show that the pattern of electoral manipulation in Ghana is consistent with the argument that incumbents in

parliamentary elections in Ghana indeed tailor their manipulation strategies. In strongholds, they inflate the voter register to secure votes for their party's presidential candidate. In competitive constituencies, their choice depends on what resources they have at their disposal. Parliamentary candidates with deep clientelistic networks co-opt election officers and destroy ballots during the counting; parliamentary candidates without stuff the ballot boxes.

The argument, that different types of electoral manipulation have different cost-benefit profiles, is new. Existing studies rarely distinguish different types of electoral manipulation (Simpser 2013),[67] and when they do, they rarely reflect on what it is that distinguishes them. Bratton (2008), for example, finds that in Nigeria "violence reduces turnout; and vote buying enhances partisan loyalty" (ibid., 631). However, he does not reflect on why some politicians engage in violence, while others buy votes. In all elections there should be at least one candidate who has an interest in reducing turnout, and one who has an interest in enhancing partisan loyalty, and we should see a constant amount of violence and vote buying across all constituencies. Similarly, Collier and Vicente (2011) hypothesise that bribery and ballot fraud—a concept that encompasses anything that has to do with the administration of the elections—is the equilibrium strategy for a strong incumbent facing local competition, while violence is the equilibrium strategy for all weak candidates. This is closer to what I argue. However, I believe, their disaggregation of

[67] Simpser (2013) explicitly notes that "for the purposes of the analysis in this book, different tools or techniques of electoral manipulation function largely as substitutes – as different means to the same end" (ibid., 28).

electoral manipulation into vote buying, ballot fraud, and violence is insufficient to make meaningful predictions. Some types of ballot fraud may be available only to incumbents, while others are available also to opposition challengers.[68]

A framework for approximating properties and predicting patterns

In addition to the theory, in this study, I offer a framework for approximating the properties of different types of electoral manipulation and making predictions about their patterns. The framework rests on two distinctions. The first is between *discretionary* and *non-discretionary* manipulation, where the former refers to electoral manipulation that affects only one election; the latter to electoral manipulation that has spillover effects on other elections. The distinction is important because it shapes the benefits of electoral manipulation. When the parliamentary candidates secure votes for themselves, the benefits are limited to what they reap from winning their seat and winning it by a large margin. When they secure votes also for their party's presidential candidate, the benefits include the rewards they receive after the elections.

The second distinction is between *retail* and *wholesale* manipulation, where the former refers to electoral manipulation that affects one vote at the time; the latter to electoral manipulation that affects multiple votes. This distinction is important for two reasons. First, it affects the direct benefits of rigging. When politicians steal votes

[68] Besides, Collier and Vicente (2011) assume that electoral manipulation at constituency-level reflects the interests of the presidential candidates. I believe this is a problematic assumption in countries with weak political parties, FPTP parliamentary elections, and constituency-level parliamentary primaries, where the national party leadership has little influence over the parliamentary candidates.

one by one, the direct benefits are limited: a single operation rarely generates more than a dozen votes. When they steal votes in bulk, the benefits are high: each operation potentially generates hundreds of votes.

The second reason why the distinction is important is that it shapes the costs and cost profiles of electoral manipulation. When politicians steal votes one by one, the direct costs are high (several parallel operations, salaries for hundreds of polling agents, 'chop' money, food, and drinks for the elections officers etc.), while the indirect costs are low (risks spread out and assumed by polling agents in the outer spheres of the campaign). By contrast, when they steal votes in bulk, the direct costs are low (one or two operations and bribes for a few presiding officers), while the indirect costs are high (risks concentrated in fewer transactions; offences committed closer to the centre of the campaign; exposure of the campaign manager and the parliamentary candidate etc.).

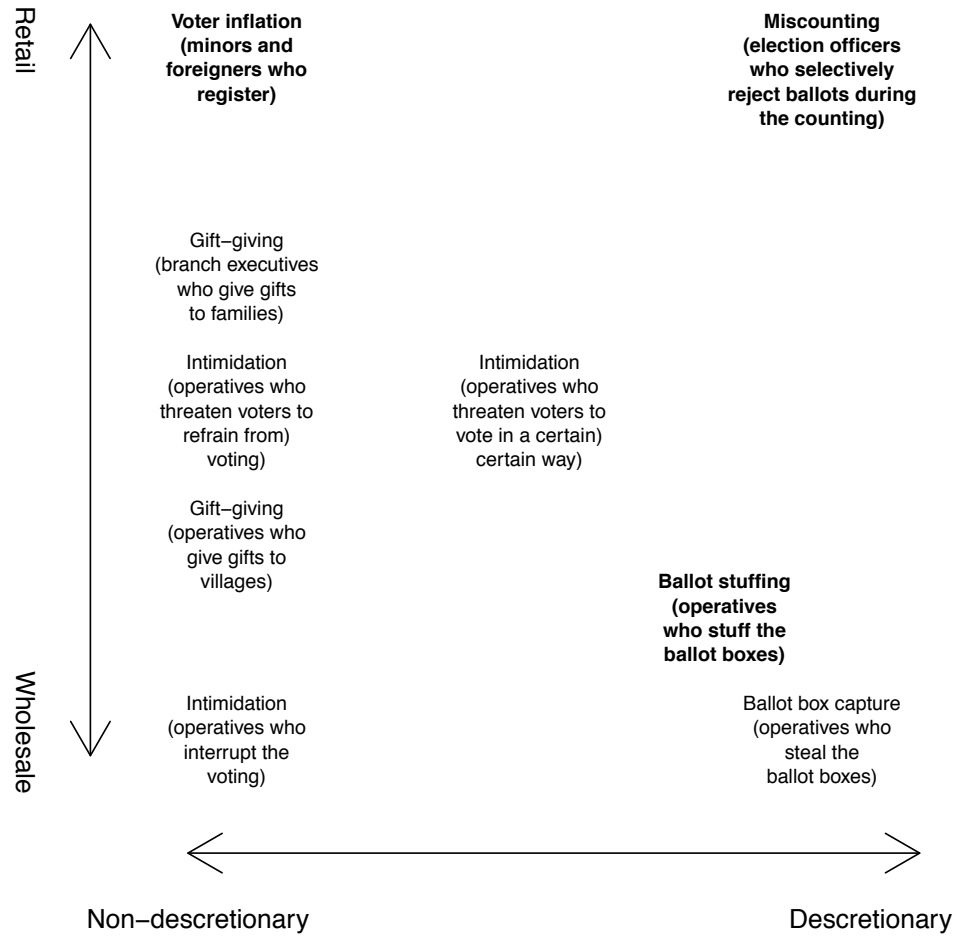
The empirical analyses in Chapters 4-6 back up many of these claims. As already demonstrated, the different types of rigging considered in this study do not co-vary (see correlation matrix in table 3.1). Voter inflation is negatively correlated with both miscounting and ballot stuffing, suggesting incumbents, who induce minors and foreigners to register, are driven by other cost-benefit considerations than incumbents who co-op election officers into selectively rejecting ballots during the counting or who deploy their operatives to stuff the ballot boxes. Also, while my observations in LMK and Ada suggest that miscounting is common in Ghana, cases are rarely brought before the courts. Of the 30 petitions included in my dataset, only one contained allegations that ballots were selectively ejected during the counting (E121209). By contrast, they regularly claim that the ballot boxes were stuffed. In

other words, for the parliamentary candidates, the risks associated with ballot stuffing are greater than the risks associated with miscounting.

On the basis of the two distinctions, I propose a framework for approximating the properties of different types of electoral manipulation. The framework should be thought of as a spatial map, where each corner represents an 'ideal' type of electoral manipulation with an 'ideal' set of properties: discretionary retail manipulation; non-discretionary retail manipulation, discretionary wholesale manipulation, and non-discretionary wholesale manipulation. No actual type of electoral manipulation is entirely discretionary or non-discretionary, or entirely wholesale or retail. Intimidation, for example, can be more or less discretionary, depending on whether the operatives threaten a voter to vote in a certain way or threaten her to refrain from voting. Similarly, it can be more or less wholesale, depending on whether they threaten a voter to refrain from voting or they interrupt the voting in a polling station. However, the framework provides a useful starting point for reflecting on the properties of different types of electoral manipulation. More non-discretionary types of electoral manipulation have higher indirect benefits than more discretionary types. More wholesale types have higher indirect costs than more retail types and so forth.

The framework is summarised in table 3.2. It demonstrates the location of the three types of electoral manipulation considered in this study (highlighted) as well as the location of six other types listed in the Ghanaian electoral law. In principle, all 55 types listed in the Ghanaian electoral law could be included in the framework. I limit myself only to make the argument clear.

Figure 3.3: Framework for approximating properties of electoral manipulation



Additional considerations

Having presented my theoretical argument, in this section, I briefly discuss two additional considerations: information and variations over time.

Information

In advanced democracies, politicians have detailed knowledge about voter behaviour, including the role and influence of party identification (Belknap and Campbell 1951), voter responsiveness to campaign messages (Converse 1962), and the impact of the media on voter decision-making (McComb and Shaw 1972). They draw on

macroeconomic models (Lewis-Beck 2005; Lewis-Beck and Tien 1999) and public opinion polls (Traugott 2005) when they gauge their electoral prospects.[69] This does not mean that elections in advanced democracies are more predictable; only that politicians accept smaller safety margins and are able to optimise the allocation of resources.

This is not the case in Africa, where research on voter behaviour is still in its infancy, electoral forecasting models are non-existent, and public opinion polls are unreliable due to problems with sampling, non-response rates, and measurement error (Heath, Fisher, and Smith 2005). For example, in Zambia, polls conducted mainly in the urban areas before the 2006 elections predicted a landslide victory for the opposition challenger, Michael Sata, prompting incredulity among his supporters when Levy Mwanawasa, the incumbent president, was declared the winner (Larmer and Fraser 2007).[70] In the absence of forecasting models and reliable polls, African politicians revert to other sources of information when they gauge their electoral prospects: ethnicity, the size of the crowds they pull during the campaign, information fed to them by their party machines, and past electoral results. All of these sources are inefficient predictors of electoral results: only some ethnic groups have consistent

[69] In the US, they even have access to databases with information about every registered voter (name, home address, turnout history, party registration, phone number etc.), which means they do not even have to rely on inferential statistics (Hillygus 2011).

[70] Considering that Sata won the 2011 elections, it could be argued that the public opinion polls before the 2006 elections were right but that the elections were rigged. This does not appear to be the case. The 2006 elections were "widely recognised as free and fair. Although the verification process revealed some anomalies, and a few parliamentary results have since been nullified by the courts, for the first time since 1991 defeated presidential candidates did not dispute the results in the courts" (Larmer and Fraser 2007, 620).

voting patterns; campaign meetings attract supporters from all parties (particularly when they involve music, food, drinks, and party paraphernalia); party-fed information is distorted by clientelism and sycophancy; and past election results provide only rough estimates of future electoral outcomes. As a result, African politicians require larger safety margins and sometimes rig far more than necessary. Other times, they opt out, even if a few stolen votes could have changed the electoral outcome.

In this study I present qualitative evidence of the parliamentary candidates' inability to predict electoral outcomes. For example, asked about his electoral chances, two months before 2012 elections, the NDC candidate in LMK said, "I think we will win; we have worked very hard but with this guy [the incumbent MP and independent candidate] we have to be careful […] He knows everything about elections".[71] The NDC candidate won by a margin of 8,186 votes (20% points). The independent candidate came third with only 3,658 votes. In other words, not only did the NDC candidate underestimate his own electoral prospects; he also identified the wrong candidate as his main rival. By contrast, the campaign manager of the NDC campaign in Ada was overly confident that NDC candidate would win the election, referring to the independent candidate as "that small boy".[72] The independent candidate received 5,298 votes (20%): the largest vote share for a non-NDC candidate ever recorded in the constituency.

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[71] Interview with Ebenezer Okletey Terlarbi, NDC candidate for LMK, Agormanya, 29 September.

[72] Interview with Gad Akwerh, campaign manager for Doyoe-Ghansah, NDC candidate for Ada, Ada Foah, 5 October 2012.

Others have noted the discrepancies between electoral manipulation and win-margins. Simpser (2013), for example, finds that the median win-margin in clean elections is 12% points, while in stolen elections it is 30% points. He attributes the difference to indirect benefits, which drive governments and parties to manipulate "far beyond the victory threshold and in any excess of any plausible safety margins" (Simpser 2013, 1). While I do not disagree—indirect benefits certainly increase the incentive to manipulate elections also in Ghana—I argue that, in Africa, another factor is information deficit and African politicians' inability to predict electoral outcomes: they simply do not know when they have enough votes and continue to steal until they exhaust their resources. The argument is consistent with the idea that rationality is 'bounded' (Simon 1955, 1956); that "agents experience limits in formulating and solving complex problems and in processing (receiving, storing, retrieving, transmitting) information" (Williamson 1981, 553). African politicians would prefer to deploy the 'right' amount of rigging and but do not know what that amount is.

Variation over time

Time is a constant in my theory (although I control for time in my models). Yet, we know that patterns of electoral manipulation have changed over time in Ghana. In 1992, "there can be no doubt that the electoral playing field was far from level" (Gyimah-Boadi 1994, 79) and that "a combination of ballot box stuffing, electoral register inflation and intimidation of political opponents" contributed to the results (Haynes 1993, 462). Similarly, in 1996, "[e]lectoral fraud/malpractice may have been less prevalent" (Jeffries 1998, 204) but the elections were still "marred by serious lapses" (Gyimah-Boadi 1997, 83), including a bloated voter register, "episodes […]

of voting by children" (ibid.), and reports that "NDC activists were offering to buy voters' identity cards" (Jeffries 1998, 199). By contrast, in 2008, "[t]he two main parties each believed that they could triumph by subtly manipulating the process" (Gyimah-Boadi 2009, 146), including by disseminating false information about their opponents and by "virtually declaring their respective strongholds […] as 'no go' zones for their opponents" (ibid. 143), and in 2012, most irregularities were "election officials [who] did not comply with regulations requiring mandatory biometric verification", presiding officers who "did not sign the official results form", and polling stations that "saw more people vote than were legally registered at the station" (Brierley and Ofosu 2014, 4). In other words, Ghanaian politicians appear to have shifted from blunt electoral manipulation to subtle manipulation in the grey zone.

My theory explains these variations in terms of changes in the cost-benefit profiles of electoral manipulation. First, the number of constituencies has increased, from 200 before 2000 to 275 since 2012, meaning that the constituencies are on average 38% smaller today than they were in the 1990s. This has reduced the logistical costs associated with electoral manipulation, but it has also reduced the average distance between polling stations and thereby raised the risk that electoral manipulation is detected. Second, the number of voters registered has increased from around 8 million in 1992 to more than 14 million in 2012. The Electoral Commission has responded by adding more polling stations, again reducing the average distance between them. In addition, the expansion of the electorate has reduced the marginal benefit of each stole votes. Third, since 1996 and particularly since 2000, more election observers and polling agents have been deployed (Gyimah-Boadi 1997, 2001), and their presence at polling station-level has been "crucial […] in minimising abuse on polling day" (Nugent 2001, 418). Fourth, while in 1996 there were few

private newspapers with a reach beyond Accra (Karikari 1998), today all major radio and television stations have journalists roaming the polling stations on election-day reporting on irregularities (Gyimah-Boadi 2009). Again, this has increased the risk that electoral manipulation is detected and reported. Fifth, the introduction of new integrity measures, such as voter cards with photo identification, biometric voter registration (BVR), and fingerprint verification, has closed loopholes in the voting and counting procedure. Finally, employment rates have gone up, while poverty levels have dropped. This has made voters less likely to accept bribes (or has pushed up the price), again, adding to the direct costs of electoral manipulation. All of these factors have forced the parliamentary candidates to shift towards subtler types of electoral manipulation or opt out altogether.

In sum, time is a constant in my theory. However, we know that patterns of rigging change over time. I explain these variations in terms of changes in the cost-benefit profiles of electoral manipulation. Some types become more attractive; other types become ineffective or too expensive.

Theoretical parameters

In this final section, I briefly discuss the parameters of my theory. The present study focuses on Ghana. However, with minor modifications, the theory it advances should be applicable to other countries in Africa with presidential or semi-presidential systems and FPTP or two-round system parliamentary elections. That is 20 countries. In countries with presidential or semi-presidential systems and FPTP or two-round system parliamentary elections, the interests of the presidential and the parliamentary candidates are not necessarily aligned. The presidential candidates have an interest in rigging the elections everywhere; particularly in their electoral strongholds, where the

risks are lower. By contrast, the parliamentary candidates have an interest in rigging the elections mainly in closely contested constituencies. I argue that this creates intra-party markets for votes, where votes are traded for resources. In countries with parliamentary systems or presidential or semi-presidential systems and list proportional representation (PR) parliamentary elections, the interests of the prime ministerial/presidential candidate and the parliamentary candidates are more closely aligned; particularly, when there are few constituencies and the prime ministerial/presidential candidate also serve as party leader. Here, the patterns of electoral manipulation are likely to be closer to what has been described by conventional wisdom. That being said, I posit that the framework presented in this chapter serves as a useful starting point for making more accurate predictions about the patterns of electoral manipulation across all political and electoral systems in Africa. Electoral manipulation has indirect benefits everywhere; and everywhere politicians ponder the direct costs before they rig the elections. Table 3.3 provides an overview of countries in Africa and their political and electoral systems. The 20 countries with presidential or semi-presidential systems and FPTP or two-round system parliamentary elections are highlighted.

Table 3.2: List of countries in Africa and their political and electoral systems

Country	Political system	Electoral system for parliament
Angola	Presidential	List PR
Benin	Presidential	List PR
Botswana	Parliamentary	FPTP
Burkina Faso	Semi-presidential	List PR
Burundi	Presidential	List PR
Cameroon	Presidential	Parallel
Cape Verde	Semi-presidential	List PR
Central African Republic	**Presidential**	**TRS**
Chad	Presidential	PBV
Comoros	**Presidential**	**TRS**
Congo-Brazzaville	**Presidential**	**TRS**
Congo-Kinshasa	Semi-presidential	NA
Cote d'Ivoire	**Presidential**	**FPTP**
Djibouti	Semi-presidential	PBV
Equatorial Guinea	Presidential	List PR
Eritrea	One-party	NA
Ethiopia	Parliamentary	FPTP
Gabon	**Presidential**	**TRS**
Gambia	**Presidential**	**FPTP**
Ghana	**Presidential**	**FPTP**
Guinea	Presidential	Parallel
Guinea-Bissau	Semi-presidential	List PR
Kenya	**Presidential**	**FPTP**
Lesotho	Monarchy	MMP
Liberia	**Presidential**	**FPTP**
Madagascar	**Semi-presidential**	**FPTP**
Malawi	**Presidential**	**FPTP**
Mali	**Semi-presidential**	**TRS**
Mauritania	**Semi-presidential**	**TRS**
Mauritius	Parliamentary	BV
Mozambique	Presidential	List PR
Namibia	Presidential	List PR
Niger	Semi-presidential	List PR
Nigeria	**Presidential**	**FPTP**
Rwanda	Presidential	List PR
Sao Tome and Principe	Semi-presidential	List PR
Senegal	Semi-presidential	Parallel
Seychelles	Presidential	Parallel
Sierra Leone	**Presidential**	**FPTP**
Somalia	Parliamentary	NA
South Africa	Parliamentary*	List PR
South Sudan	Presidential	NA
Sudan	Presidential	Parallel
Swaziland	Monarchy	FPTP
Tanzania	**Presidential**	**FPTP**
Togo	**Presidential**	**TRS**
Uganda	**Presidential**	**FPTP**
Zambia	**Presidential**	**FPTP**
Zimbabwe	**Presidential**	**FPTP**

Note: FPTP=First-past-the-post; List PR=List proportional representation; MMP=Mixed member proportional; Parallel=Parallel system; PBV=Party block vote; TRS=Two-round system (Reynolds, Reilly, and Ellis 2008).
* South Africa has a president, who is elected by parliament.

3.5 Conclusion

In this chapter I developed my theory. First, I argued that the literature that has dominated academic research up until recently converges on two arguments about electoral manipulation: that politicians manipulate elections when they fear electoral defeat and that they opt out of electoral manipulation when they fear getting caught. Second, I demonstrated that conventional wisdom about rigging does not fully square with the empirical record in Ghana: not all types are stimulated by electoral uncertainty or contained by the risk that electoral manipulation detected, reported, and penalised. Finally, I developed a framework for approximating the properties of different types of electoral manipulation and making predictions about their patterns. I argued that in addition to the direct benefits of electoral manipulation, there are important indirect benefits; that electoral manipulation is expensive and that the direct costs discourage it as much as the risk of getting caught; that different types of electoral manipulation have different cost-benefit profiles; and that the cost-benefit calculations behind electoral manipulation are made difficult by the information scarcity. The chapter has contributed to the overall argument of the study by introducing two distinctions and a framework for approximating the costs and benefits of different types of electoral manipulation.

4 Electoral manipulation with indirect benefits

Episode

LMK. Tuesday 4 December 2012. Three days before the elections. Evening. Adams is in his early 40s. He is the acting constituency secretary of the NDC; instated by the regional executives after the elected constituency secretary declared his support for the independent candidate. As many of the operatives, he is a Northerner. He is one of the more articulate among the operatives and one of the few, besides the campaign manager, who knows that I am studying their 'tricks'. He has already told me how there were able to inflate the voter register in his electoral area; by registering immigrants from Mali and Niger. The registration officers and NPP agents were 'friends', as he explained, "so there were no problems". I am on my way home and pass by the mosque. Adams greets me and hands me a document: two pages with names. "What is it?", I ask. He laughs. "Do you remember what I told you about the voter register?". I nod.

4.1 Introduction

In the first half of the thesis, I presented my data and developed my theory. In the second half, I put my theory to work. In this chapter, I look at voter inflation: minors and foreigners who register.[73] First, building on the framework presented in Chapter

[73] In Chapter 2, I defined voter inflation as "[a] person who […] knowingly makes a false statement in or in connection with an application to have his name included in a register" (*Representation of the People Law* (PNDCL 284) 1992, 27(a)).

3, I develop a model. I argue that voter inflation is characterised by high indirect benefits and conditional returns. The parliamentary candidates potentially secure votes both for themselves and their party's presidential candidate, however, only when registrants vote as intended. This makes voter inflation attractive to parliamentary candidates who are confident that they will win the election and who have lots of ethnic supporters, which means they can predict voter behaviour.

Second, I explore the patterns of voter inflation, using regression analysis. I find that the number of registrations challenged, relative to the number of voters registered, is negatively correlated with the win-margin in the last parliamentary election but positively correlated when I interact this variable with the fraction of the constituency population that is Akan or Ewe. This is consistent with my model, suggesting that the effect of electoral confidence on voter inflation is conditional on ethnicity. When the parliamentary candidates have few ethnic supporters, they choose other types of electoral manipulation with high indirect benefits.

Third, I explore some of the indirect benefits that the parliamentary candidates reap from inflating the voter register and securing votes for their party's presidential candidate. I show that between 2010 and 2016, more District Assembly Common Fund (DACF) funds were disbursed to districts that delivered more votes to the winner of the 2008 and 2012 presidential elections, and that districts that delivered more votes to the winner of the 2008 presidential election were also more likely to be divided in 2012. Also, I find that parliamentary candidates, who delivered above expectation, were more likely to be appointed to government after 2008 and 2012 elections.

The chapter is structured as follows. In the following section, I provide background and describe the registration process. In section two, I characterise the

properties of voter inflation and develop my model. I section three and four, I examine the patterns and explore some of the indirect benefits that the parliamentary candidates reap. Finally, I draw conclusions. The findings of the chapter support my first theoretical argument: that in addition to the direct benefits of electoral manipulation, there are important indirect benefits that drive some politicians to rig even when victory is guaranteed or entirely beyond reach. The chapter also illustrates how the effect of electoral uncertainty is often conditional on socio-economic factors surrounding the elections.

4.2 Background: voter inflation

The voter register has always been "[t]he Achilles' heel of election administration in Ghana" (Jockers, Kohnert, and Nugent 2010, 112). In 1992, it was the primary reason why the New Patriotic Party (NPP) withdrew from the parliamentary elections, held two months after the presidential election (Haynes 1993; Jeffries and Thomas 1993; Rocha et al. 1993).[74] A new voter register was compiled in 1996 but most researchers agree it was inflated. As Gyimah-Boadi (1997) rhetorically asks, "how could 9.2 million voters be enrolled in a country with only about 17 million people, very many

[74] There is consensus that the voter register was inflated in 1992. Jeffries and Thomas (1993) argue that "[i]t is generally accepted that the total of 8,255,056 registered voters was an impossibly large number" (Jeffries and Thomas 1993, 349); Haynes (1993) that "a number of sources claimed that it was inflated by between one and two million names" (Haynes 1993, 462); the International Foundation for Electoral Systems (IFES) that "the total number of registered voters listed (8,410,990) is improbable, given an estimated population of sixteen million, of whom half are under fifteen yeas of age" and that "[a]n estimate of a million erroneous entries is not inappropriate" (Cooper, Hayward, and Lee 1992, 45).

of whom are under age" (ibid., 83).[75] The Electoral Commission was "able partially to cleanse the register" in 2000 but "the legitimacy of the register remained in question" (ibid.), and two months before the elections, the Chairman of the Electoral Commission, Kwadwo Afari-Gyan, publicly admitted that the voter register was "not in the best of shape" (Salia 2000).[76] A second, new voter register was compiled in 2003 but the problems with illegal registrations persisted. Speaking at a political party seminar, in February 2004, the Director of Operations at the Electoral Commission said, "the over-bloating of the current voters' register cannot be blamed on the EC […] We at the Electoral Commission did not tell any minor to go and register, neither did we ask anybody to go and do multiple registration" (Akli 2004). Another attempt to cleanse the voter register was partially successful, but still in 2008 "stakeholders, including the Chair of the EC itself, believed that the register was bloated" (Commonwealth Observer Group to Ghana 2008),[77] and three days before the second round of the presidential election, the government closed the border "on suspicion that

[75] Challenging the argument that the voter register was inflated in 1996, Jeffries (1998), in his review of the 1996 elections, argues that the high voter turnout "certainly left no room for suspicions of the kind entertained by the opposition in 1992 that the voters' register might be inflated; the real voter turnout would then have been impossibly high" (ibid., 201).

[76] Smith (2002a), in his review of the 2000 elections, argues that the low voter turnout "may be best accounted for by the EC's bloated register and the high number of ghost names still believed to be on the books" (ibid., 623–24). Similarly, Ayee (2002), in his review, argues that "[t]he electoral roll after the exercise stood at 10.96 million, which was doubted by the EC, the political parties and even some voters and yet somehow remained credible enough to be used" (ibid., 152). Preliminary census figures, released three months before the elections, suggested the voter register contained 1.5 million too many names. According to the Ghana Statistical Service, the voter population was about 9.2 million in 2000. The voter register contained 10.7 million names (Salia 2000).

[77] In 2008, the Electoral Commission expected 800,000 new registrations, the estimated number of people who had attained voting age since 2004. However, when the registration period ended, 1.8 million new names had been added to the voter register. Ichino and Schundeln (2012), in their study of registration irregularities in Ghana, call this "prima facie evidence of inflation of the voters register" (ibid., 246).

a number of Ewe people from Togo had registered and would vote in the interest of their kinsmen" (Jockers, Kohnert, and Nugent 2010, 110).[78]

The registration process has changed several times since 1992. Appendix C contains an overview. In 2012, the Electoral Commission introduced full biometric voter registration (BVR). To register, people had to go to a registration centre in the electoral area, in which they resided or were 'ordinarily resident'; present evidence of their identity and eligibility or produce two registered voters as guarantors, and declare their name, age, gender, address, parents' name etc.[79] The information was captured on handwritten forms; then transferred to an electronic database, to which photo and fingerprint identification was attached. Voter cards were printed and issued on the spot. Registrations could be challenged by anyone registered as a voter. The challenges were forwarded to a District Registration Review Committee, comprising party representatives and representatives of the District Assembly, police, and traditional authorities, who would consider the challenge and instruct the Electoral Commission to amend the voter register accordingly. Copies of the provisional voter register were shared with the political parties three months before the elections and exhibited outside all registration centres. During the exhibition period, registrations

[78] Until 1914, most of what is now the Volta region was part of Togoland, a German protectorate, which included what is now Togo. Ewes—the largest ethnic group in the Volta region—live on both sides of border (Nugent 2000).

[79] In 2012, the Electoral Commission accepted the following documents as evidence of identity and eligibility: birth certificates, baptismal certificates, passports, driver's licenses, National Health Insurance Scheme (NHIS) cards, national identify cards, or existing voter identification cards.

could be challenged by anyone registered as a voter.[80] The final voter register was published in November, a few weeks before the elections (*Public Elections (Registration of Voters) Regulations* (C. I. 72) 2012).[81]

Before 2012, the parliamentary candidates could inflate the voter register simply by double-registering their supporters, using different names. With the transition to full BVR, including fingerprint verification, this loophole was closed. However, they could still inflate the voter register by registering minors and foreigners. Both domestic and foreign election observation reports suggest they did so. In its report on the 2012 voter registration exercise, the Coalition of Domestic Election Observers (CODEO) (2012) noted that BVR "cannot by itself detect fraudulent registration like the inclusion of foreign nationals or underage voters in the voters' roll" (ibid., 6) and that "the policy of providing guarantors in the absence of eligibility documents was massively abused at many rural and urban centres" (ibid., 38). Similarly, the Commonwealth Observation Group (2013), in its report on the 2012 elections, noted that "there were reported cases of violence and misconduct by some political actors", including "the registration of minors, registration of non-Ghanaians, [and] bussing of persons to register in constituencies other than where

[80] The challenges were forwarded to a District Registration Revising Officers: either the Chairman of the District Community Tribunal or a lawyer appointed by a High Court Judge. Decisions by the District Registration Revising Officer could be appealed to the High Court.

[81] The *Public Elections (Registration of Voters) Regulations* (C. I. 72) 2012 adds detail to the *Constitution of the Republic of Ghana* 1992, which states that "every citizen of Ghana of eighteen years of age or above and of sound mind has the right to vote and is entitled to be registered as a voter for the purposes of public elections and referenda" (ibid., 42).

they are resident" (ibid., 9).[82] The Chairman of the Electoral Commission admitted the problem, three weeks before the elections. At a meeting with the Editors' Forum of Ghana, he said, "the biometric verification machine cannot determine who is a minor or a foreigner […] examination of images of those captured during the biometric registration shows that minors were registered all over the country" (Ghana News Agency 2012c).[83]

In sum, the voter register has always been the Achilles' heel of Ghana's electoral system. In 2012, the parliamentary candidates could inflate the voter register by registering minors and foreigners. Election observation reports suggest some of them they did so.

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[82] 'Bussing' refers to the practice of moving people around to register and vote in constituencies other than where they reside. Jeffries (1998) discusses bussing in the context of the 1996 elections, while Ichino and Schundeln (2012) provide anecdotal evidence from the 2008 elections. In LMK, I personally witnessed how voters were bussed in to vote; something that would only be possible if they had also been bussed in to register (or, at least, to transfer their registration). They were not explicitly told whom to vote for but, upon arrival, the night before the elections, they were seated in front of the NDC candidate's house and addressed by his campaign manager. I do not consider bussing in this study, as it is not explicitly illegal. The regulation guiding voter registration states that "[a] person is entitled to have the name of that person included in the register of voters of an electoral area, if that person is […] resident or ordinarily resident in an electoral area" (*Public Elections (Registration of Voters) Regulations* (C. I. 72) 2012, 1(1)). What 'ordinarily resident' means is not entirely clear. For example, civil servants rarely register in the constituency to which they are deployed, and students generally register in their home constituency, as opposed to the constituency in which they study. In fact, in 2008, when students at the University of Cape Coast and Cape Coast Polytechnic transferred their registration from their home constituency to Cape Coast, the NPP candidate was accused of 'bussing' (Painstil 2008). Similarly, the voters that were bussed in to vote in LMK were all Krobos working or studying in Accra or Kumasi but with ties to the constituency.

[83] After the election, the NPP presented suggestive evidence that thousands of Togolese nationals had registered and voted in the Volta region and recommended that "[a] new voters register should be created to replace the over bloated 2012 register" (Bawumia 2015, 9). The evidence consisted of "76,286 potential matches of the same people, with the same names and faces on the Ghanaian as well as Togolese voters registers" (Bawumia 2015, 8). The NPP did not consider the possibility that the matches were indeed Ghanaian nationals who had registered in Togo.

4.3 Spillover effects and ethnic cues

In the following, I develop my model. I argue that voter inflation is characterised by high indirect benefits and conditional returns, making them attractive to parliamentary candidates, who are confident that they will win the elections and who have lots of ethnic supporters.

In Chapter 1 I introduced a distinction between *discretionary* and *non-discretionary* manipulation: electoral manipulation that affects only one election as opposed to electoral manipulation that has spillover effects on other elections. Voter inflation is distinctly non-discretionary. When the parliamentary candidates inflate the voter register, they potentially secure votes both for themselves and their party's presidential candidate. A voter whose name is in the voter register can vote in both the presidential and the parliamentary elections. This is a property voter inflation shares with many types of vote-buying and intimidation. A voter who has been bought or threatened to stay at home on election-day cannot vote in either election.

The parliamentary candidates potentially secure votes both for themselves and their party's presidential candidate but only if the registrants vote as intended. The problem is similar to that described in the clientelism literature, where politicians must target either swing voters (what is referred to as 'vote buying;) or unmobilised supporters (what is referred to as 'turnout buying') (Brusco, Nazareno, and Stokes 2004; Gans-Morse, Mazzuca, and Nichter 2014; Nichter 2008; Schaffer 2007a; Stokes 2005; Weitz-Shapiro 2012). The clientelism literature broadly assumes that swing voters and unmobilised supporters can be differentiated (Gans-Morse, Mazzuca, and Nichter 2014; Stokes 2005). Stokes (2005) argues that politicians "use their deep insertion into voters' social networks to try to circumvent the secret ballot and infer individuals' votes" (Stokes 2005, 315), while Gans-Morse, Mazzucca, and

Nichter (2014) explicitly assume they can "observe citizens' political preferences and voting costs through [their] extensive social networks" (Gans-Morse, Mazzuca, and Nichter 2014, 420). Lindbeck and Weibull (1987) relax this assumption and suggest politicians assign probability distributions to voters based on "information concerning the party preference distribution in the electorate, e.g. via opinion polls (perhaps disaggregated in terms of socio-economic and geographic characteristics)" (Lindbeck and Weibull 1987, 274).

Building on Lindbeck and Weibull (1987), I argue that, in Ghana, an important piece of information concerning the party preference distribution is ethnicity. Ethnicity has long been seen as playing an important role in structuring African politics (Bates 1983; Lemarchand 1972; Olorunsola 1972; Young 1976). In his book, *Ethnic Groups and Conflict*, Horowitz (1985) describes elections in ethnically divided societies as 'ethnic censuses'. In such societies, he argues, "mobilising known supporters and appealing to marginal voters are effectively the same thing, for there are virtually no uncommitted voters to be had on either side of the boundary. What is uncertain is not *how* a voter will vote if he votes [….] all that is uncertain is *whether* a potential voter will vote" (Horowitz 1985, 331–32.

The ethnic census model has been used to explain voting patterns in Africa. However, recent research has shown the effect of ethnicity on voting is more complex than what the model suggests. For example, a series of Afrobarometer working papers have found that the effect is moderated by ethnic fractionalisation (Norris and Mattes 2003), and that it diminishes over time (Cheeseman and Ford 2007). Bratton, Bhavnani, and Chen (2012) have found that African voters engage in ethnic, economic, and partisan voting simultaneously; Eifert, Miguel, and Posner (2010) that ethnic self-identification varies over the electoral cycle, suggesting that ethnic voting

is something that can be mobilised. Specifically in the context of Ghana, researchers have shown that although ethnicity and voting is correlated, few voters actually think in ethnic terms when they cast their vote (Bluwey 1998; Lindberg and Morrison 2008).[84]

Regardless of whether ethnicity determines voting, or is merely correlated with the factors that do, ethnicity contains information about voter behaviour. Not in causal terms but in probabilistic terms: Akan voters are more likely to vote for NPP candidates; Ewe voters are more likely to vote for NDC candidates, all else being equal (Fridy 2007; Lentz and Nugent 2000; Lindberg 2012).[85] Afrobarometer data support this argument. In Rounds 5 and 6 combined (Afrobarometer 2012, 2015), 42% of all Akan respondents said they felt close to the NPP, while 12% said they felt close to the NDC. By contrast, 44% of all Ewe respondents said they felt close to the NDC, while 9% said they felt close to the NDC. Table 4.2 summarises the figures across the five largest ethnic groups in Ghana. The table suggests two things: that the correlation between ethnicity of voter behaviour varies across different ethnic groups, and that Akan and Ewe voters have the most pronounced ethnic voting patterns in Ghana. This resonates with Lindberg (2012), who concludes that "ethnicity may be a

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[84] Bluwey (1998) reports that 5-11% thought in ethnic terms when they cast their vote in 1996, while Lindberg and Morrison (2008) report that 10% and 14% did so in 1996 and 2000, respectively. Note that the figures are based on self-reported answers to a rather blunt question. Few would probably admit to thinking in ethnic terms when they cast their vote.

[85] Lindberg (2012) estimates that 61% of Ewe/Anlo voters (covers what I refer to as Ewe voters) are NDC core voters, while 70% of Ashanti/Akyem voters (covers what I refer to as Akan voters, excluding Fante voters) are NPP core voters, but that other ethnic groups are approximately evenly split between the two parties. This finding leads him to the conclusion that "while ethnicity may be a powerful predictor for vote choice in some ethnic groups, it is not so in many others" (ibid., 951). While this is true, it is worth noting that Ewe and Akan voters are the largest ethnic group in 195 of Ghana's 275 constituencies and the majority in 160 constituencies.

powerful predictor for vote choice in some ethnic groups" but that "it is not so in many others" (ibid., 951). Appendix C contains a more detailed analysis of ethnicity and voter behaviour in Ghana, using regression analysis. It also provides comparable figures from Kenya and Zambia.

Table 4.1: Ethnicity and voter behaviour in Ghana

"Do you feel close to any particular party? Which party is that?" (%)

Ethnic group	%	NDC	NPP	Other	Did not feel close to any party	Refused to answer
Akan	48	12	41	3	38	4
Ewe	17	44	9	2	41	2
Mole-Dagbani	14	38	18	3	39	2
Ga-Dangme	7	30	14	3	48	4
Gurma	6	32	15	1	50	1

Notes: Data extracted from Rounds 5 and 6 of the Afrobarometer (2012a, 2015) and the 2010 Population and Housing Census (Ghana Statistical Service 2010).

Ethnicity thus provides an important cue when parliamentary candidates inflate the voter register: by helping them to predict voter behaviour. Ichino, Bowers, and Fredrickson (2013) make a similar argument in their study on registration irregularities in Ghana, when they suggest that "a political party's agents target registration centres in areas dominated by its associated ethnic groups" (ibid., 2). They emphasise the lower risks. I emphasise the higher returns. Akan and Ewe voters are more likely to vote as intended.

A model of voter inflation

Building on these arguments, about the properties of voter inflation, I propose the following model. The model assumes the marginal benefit of electoral manipulation is highest around the winning threshold. When the parliamentary candidates fear electoral defeat, they invest in types of electoral manipulation with high direct benefits. When victory is guaranteed or entirely beyond reach, they invest in types

that secure votes for their party's presidential candidate. Voter inflation potentially secures votes for both, but only if voters vote as intended. This makes voter inflation attractive in constituencies, where the outcome of the parliamentary election is given and there are lots of ethnic voters.

The model diverts from conventional wisdom by taking into consideration the indirect benefits of electoral manipulation and the effect of ethnicity, complementing existing work by Ichino, Bowers, and Fredrickson (2013). Also, it provides an explanation of why voter inflation in Ghana is concentrated in the Ashanti and Volta regions. The standard explanation is that the risks associated with electoral manipulation are lower in the electoral strongholds of the two dominant parties. However, based on this argument, we should expect all types of electoral manipulation to be concentrated the Ashanti and Volta regions. I argue that voter inflation is concentrated in the electoral strongholds of two dominant parties because two conditions are met: the parliamentary candidate are less concerned with the outcome of the parliamentary election and turn their attention to helping their party's presidential candidate, and there are lots of ethnic supporters, who are likely to vote as intended. Both conditions are necessary but insufficient. In closely contested constituencies, the parliamentary candidates focus on the parliamentary election; in electoral strongholds with few ethnic voters, they choose other types of electoral manipulation with high indirect benefits.

4.4 Patterns

In this section, I examine the patterns of voter inflation in Ghana, using regression analysis. I find that the number of voter registrations challenged, relative to the number of voters registered, is negatively correlated with the win-margin in the last

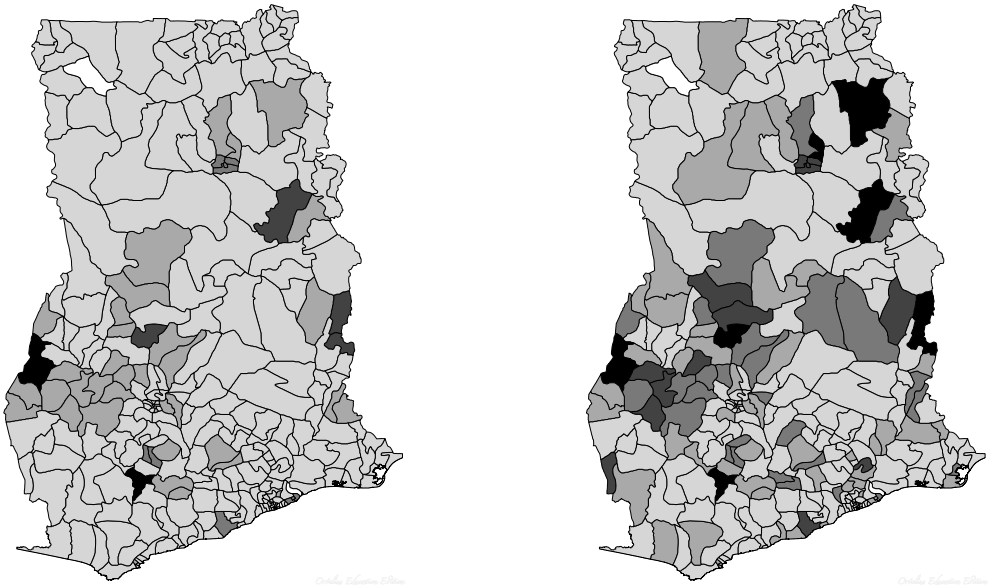
parliamentary election but positively correlated when I interact this variable with the fraction of the constituency population that is Akan or Ewe. This is consistent with the model and supports the argument that the effect of electoral confidence on voter inflation is conditional on the ethnic distribution of the constituency.

A first cut

I first visually examine the patterns. Figure 4.1 maps (a) the number of voter registrations challenged in 2012; (b) the number of voter registrations challenged in 2012, relative to the number of voters registered. The darker the constituency, the more registrations were challenged. White indicates that data were unavailable.

Figure 4.1: Map of *Voter registrations challenged*, 2012

(a) (b)



Note: Panel (a), from light grey to black=→99; 100→199; 200→299; 300→399; 400→. Panel (b), from light grey to black=→0.09%; 0.1%→0.19%; 0.2%→0.29%; 0.3%→0.39%; 0.4%→. White=missing data.

The figure suggests some of the findings of the following sections. First, overall, relatively few voter registrations are challenged: less than 100 in most constituencies. While I recognise that my measures are conservative (not all illegal registrations are challenged), this challenges the NPP's claim that "the 2012 voter register [was] incurably flawed" (Bawumia 2015, 7). Second, more registrations are challenged in the Ashanti and Volta regions. This resonates with the general belief that the two dominant parties inflate the voter register in their electorate strongholds. Finally, there are concentrations in the Brong Ahafo and Northern regions, along the Ivorian and Togolese borders. This is consistent with the argument that voter inflation is often caused by foreigners crossing the border and registering illegally in Ghana.

Regression analysis

I now turn to the regression analysis. The analysis draws on the dataset described in Chapter 2. I first describe the variables and the model. Then I report and plot the results and describe the robustness tests.

Variables

As my dependent variable, I use *Voter registrations challenged*, which counts the number of registrations challenged in each constituency. Data were available only for 2012 and, in some cases, only at district-level, the lowest administrative level of the Electoral Commission. This presents a problem, when districts have multiple constituencies. One solution is to divide the number of registrations challenged in each district by the number constituencies in that district. This would be acceptable, if constituencies in the same districts had generally similar levels of electoral uncertainty and ethnic distributions. This is not the case. For example, until June 2012, Kwaebibirem had two constituencies: Kade and Akwatia. In Kade, the NPP has

held the constituency seat uninterruptedly since 1996 and Akans constitute two thirds of the constituency population. In Akwatia, the constituency seat has also been uninterruptedly by the NPP since 1996 but in 2008, the NPP candidate won by a margin of only 6% points, and the constituency is more ethnically diverse. My model suggests the NPP candidate in Kade should inflate the voter register in 2012, while his party comrade in Akwatia should invest his resources in getting re-elected. Dividing the number of the registrations challenged in the district would therefore eliminate the predicted variation. An alternative solution is to exclude observations that cannot be attributed to any specific constituency or parliamentary race. While this reduces the number of observations from 229 (all constituencies before June 2012, excluding Dade Kotpon for which data were unavailable) to 164 (observations that could be attributed to a specific constituency), it seems preferable. I use all observations and divide the number of registrations challenged in each district by the number of constituencies in the district as a robustness test. The variable ranges from zero to 1,449 (Odododiodioo in the Greater Accra region). It is based on data collected from the regional offices of the Electoral Commission.

My model suggests the parliamentary candidates inflate the voter register when the outcome of the parliamentary election is given and there are lots of ethnic supporters in the constituency, which means they can predict voter behaviour. I capture this conditional effect by interacting *Parliamentary win-margin*$_{t-1}$, which measures the win-margin in the last parliamentary election, with *Ethnic voters*, which measures the fraction of the constituency population that is Akan or Ewe. As demonstrated earlier, Akans and Ewes have the most pronounced ethnic voting patterns in Ghana. I use *Ethnic voters* + *MD*, which includes Mole-Dagbanis as a robustness test. Data were extracted from official election results (Electoral

Commission of Ghana 2015) and the 2010 Population and Housing Census (Ghana Statistical Service 2010).

Other factors could affect the number of voter registrations challenged. The District Election Officer in LMK suggested that some people register illegally simply because they are unaware of the registration criteria.[86] To control for this, I include *Population educated*, which measures the fraction of the constituency population with primary education, *Population with mobile*, which measures the fraction of the constituency population that owns a mobile phone. Other Electoral Commission officials suggested that illegal registrations are often caused by foreigners, who live on both sides of the border, or by immigrants, who want to obtain Ghanaian citizenship.[87] To control for this, I include *Population foreign*, which measures the fraction of the constituency population that is non-Ghanaian African, and *Border constituency*, which indicates whether the constituency was located on one of the borders. The two variables are partially overlapping. The fraction of the constituency population that is non-Ghanaian African is 0.7% points higher in border constituencies than in the rest of the country. However, the constituencies with the most non-Ghanaian Africans are often located far from a border: Ayawaso East (5%) and Gomoa East (7%), which is around 200 km from the Togolese border at Noepe, and West Gonja (7%), which is around 100 km from the Ivoirian border at Chache.

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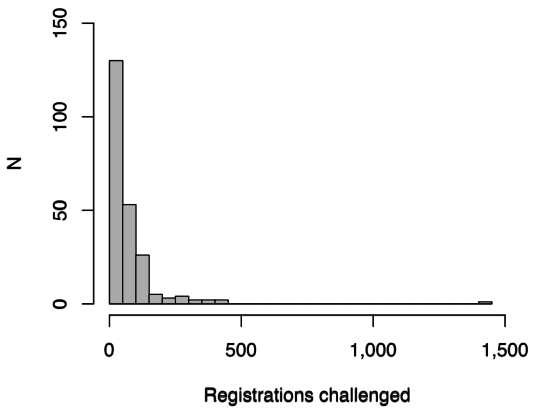
[86] Interview with Asare Baffour Djan, LMK District Election Officer, Electoral Commission, Agormanya, 1 October 2012.

[87] Interview with Laurentia Kpatakpa, Volta Regional Director, Electoral Commission, Ho, 30 October 2012.

Model

Figure 4.2 provides a histogram of the dependent variable. It shows that it is bounded below zero and positively skewed, meaning that in most constituencies, relatively few voter registrations are challenged. This suggests that a linear least square model would be inappropriate. Instead I use a negative binomial model, which is the appropriate model for over-dispersed, event count data (event count data where the variance is greater than the mean). Failure to account for over-dispersion could bias the standard errors downwards (Cameron and Trivedi 1986; Gourieroux, Monfort, and Trognon 1984; King 1989; Long 1997). Note that the negative binomial model assumes the mean differs from the variance. It captures the difference by estimating a dispersion parameter that is held constant in the Poisson model, which is the model most often used for event count data. The Poisson model is therefore nested in the negative binomial model. The fully specified model looks as follows:

Figure 4.2: Histogram of *Voter registrations challenged*



$$E(Y) = \beta_0 + \beta_1 Parlamentary\ win\ margin_{t-1} + \beta_2 Ethnic\ voters + \beta_3 Parlamentary\ win\ margin_{t-1} \times Ethnic\ voters + \beta_4 X + \varepsilon + offset(log\ (Voters\ registered))$$

where β_0 is the constant; $\beta_4 X$ is a vector of control variables; and ε is the error term. Following Brambor, Clark, and Golder (2006), I include the constitutive terms of both interaction variables, although I do not necessarily expect any independent effect. Also, note that the model offsets the number of registrations challenged by the number of voters registered, which means it estimates the dependent variable as fraction.

Results

The results are reported in table 4.2. Model 1 maximises the goodness of fit (minimises Akaike's Information Criterion). Model 2 includes all control variables. Model 3 expands ethnic voters to include Mole-Dagbanis. The results are consistent with my model. *Parliamentary win-margin*$_{t-1}$ and *Ethnic voters* are negative and statistically significant in models 1 and 2, while the interaction between the two is positive and statistically significant. In other words, the parliamentary candidates inflate the voter register when the last parliamentary election was won by a large margin and there are lots of Akan and Ewe voters in the constituency. When one condition is not met, they choose other types of electoral manipulation or opt out. The results change slightly in model 3, when I expand ethnic voters to include Mole-Dagbanis. *Parliamentary win-margin*$_{t-1}$ and *Ethnic voters + MD* are negative, although only the former is statistically significant, and the interaction between the two is positive and statistically significant. In addition, *Population non-Ghanaian African* is positive and statistically significant in models 1 and 2. This supports the argument that illegal registrations are sometimes caused by foreigners, who register, whether because they want to obtain an official Ghanaian document or because they intend to vote in the elections. However, when I expand *Ethnic voters* to include Mole-Dagbanis, the variable is negative and not statistically significant. One

explanation could be that non-Ghanaian African immigrants are often Moshies from Burkina Faso. Moshies are not distinguished in the census (Ghana Statistical Service 2010), although 2-3% of the respondents in Round 5 and 6 of the Afrobarometer (2012, 2015) self-identified as Moshies or Frafras (their co-ethnics). In the census, Moshies or Frafras were clustered with other ethnic groups as Mole-Dagbanis. Expanding ethnic voters to include Mole-Dagbanis thus creates multicollinearity between *Ethnic voters* and *Population non-Ghanaian African*. This explanation is supported by the fact that *Population non-Ghanaian African* is positively correlated with the fraction of the constituency population that is Mole-Dagbani.

Table 4.2: Voter inflation, regression results

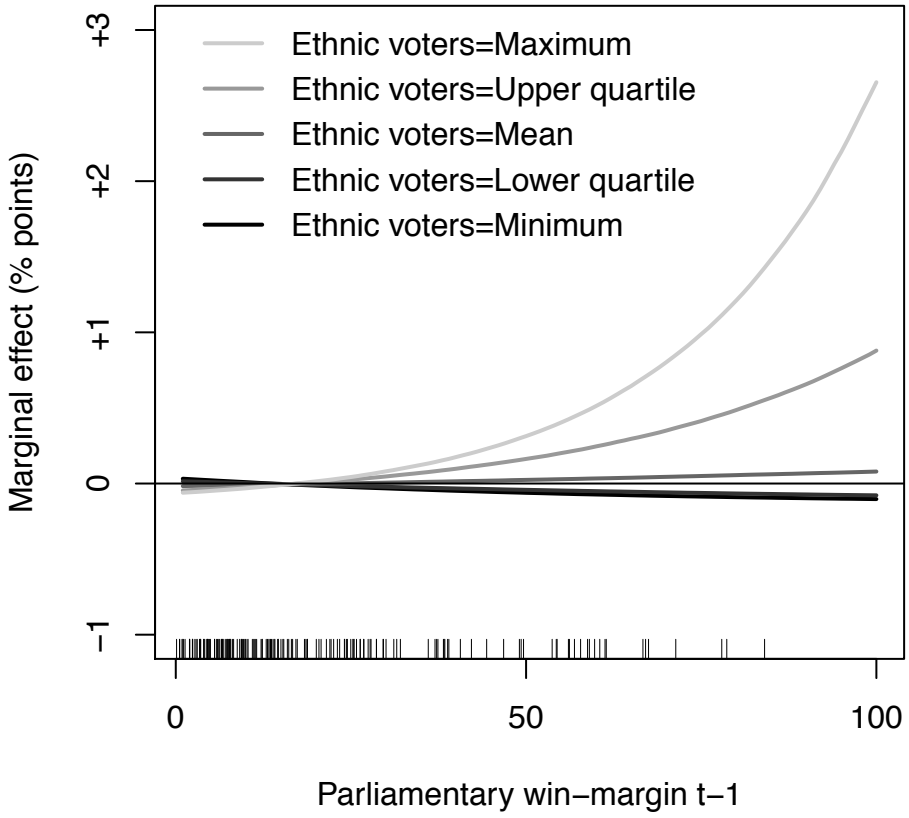
	(1)	(2)	(3)
	Voter registrations challenged		
Parliamentary win-margin$_{t-1}$	**-1.659****	**-1.890*****	**-1.800*****
	(0.702)	**(0.705)**	**(0.654)**
Ethnic voters	**-1.054****	**-1.630*****	
	(0.426)	**(0.508)**	
Ethnic voters + MD			-0.534
			(0.599)
Population educated		-5.877	
		(4.041)	
Population with mobile		-0.566	
		(1.053)	
Population non-Ghanaian African	**14.552***	**20.883*****	-8.113
	(7.670)	**(7.774)**	(8.009)
Border constituency		-0.292	
		(0.256)	
Parliamentary win-margin$_{t-1}$ × Ethnic voters	**4.517****	**5.547*****	
	(1.980)	**(1.984)**	
Parliamentary win-margin$_{t-1}$ × Ethnic voters + MD			**12.006*****
			(3.286)
Constant	**-6.507*****	**-4.799*****	**-6.623*****
	(0.250)	**(1.218)**	**(0.218)**
AIC	1,682.537	1,685.605	1,675.776

Notes: Negative binomial models. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Figure 4.3 plots the marginal effect of *Parliamentary win-margin*$_{t-1}$ for different values of *Ethnic voters*. The coefficients are extracted from model 1 in Table

4.2, which produces the best goodness of fit. For values of *Ethnic support* below the mean, the effect of *Parliamentary win-margin*$_{t-1}$ is negligible. For values of *Ethnic support* around the upper quartile, the effect is 1% point across the range of the variable. For values above that, the effect is 2-3% points. In a 'typical' constituency, with 60,000 voters registered, 2-3% points is around 1,200-1,800 additional voter registrations or around 800-1,200 additional ballots in the ballot boxes, with a voter turnout around 60-70%.

Figure 4.3: Marginal effect on voter inflation



Notes: Coefficients extracted from Model 1 in Table 4.2.

Robustness tests

Appendix C contains several robustness tests. First, I include all observations and divide the number of registrations challenged in each district by the number of constituencies in the district. Second, I change my dependent variable to *Voter*

registrations disqualified, which counts the number of registrations disqualified; i.e. names that were removed from the voter register. Third, I introduce alternative and additional control variables: *Constituency municipal*, which indicates whether the constituency was located in one of the municipal districts; *Constituency metropolitan*, which indicates whether the constituency was located in one of the metropolitan districts; *Voter density*, which counts the number of voters registered, divided by the size of the district; *MP party tenure*, which counts the number of years the party of the incumbent MP had held the constituency seat since 1992; and the interaction between *MP party tenure* and *MP party ruling*, which counts the number of years the party of the incumbent MP had held the constituency seat since 1992 and indicates whether the party was the ruling party. Finally, I change my model to a generalised linear model (GLM) model with a Poisson distribution. Substantively, the results are unaffected by these changes. The interaction between *Parliamentary win-margin*$_{t-1}$ and *Ethnic voters* is positive and statistically significant in all models, except when I include all observations ($p = 0.265 - 0.443$). As described earlier in this chapter, including all observations eliminates part of the predicted variation and the lower p-values are therefore expected. Note that *MP party tenure* is sometimes positive, other times negative, and never statistically significant. I did not make any predictions about the effect, but in Chapters 5-6 I show that *MP party tenure* conditions the effect of electoral uncertainty on miscounting and ballot stuffing. I include *MP party tenure* here only to illustrate the difference.

Limitations

In this section, I briefly some of the limitations of my analysis. One problem about using registration challenges to measure voter inflation is that registration agents are unlikely to challenge registrations when they believe the registrants are supporters of

their own candidate. This may not be a problem in closely contested constituencies, where the challenger's registration agents are present in all polling stations, but it could lead to significant under-reporting in electoral strongholds. If so, my results would be even more robust.

Another problem is that registrations challenges may capture multiple types of electoral manipulation. I treat them as attempts by the incumbent to register minors and foreigners. Another possibility is they reflect the incumbent's efforts to disenfranchise opposition supporters (voter deflation). I am unable to differentiate the two and my measure probably captures both voter inflation and voter deflation. However, it does not undermine my theoretical argument and the empirical findings in this chapter. Either way, this type of electoral manipulation would have indirect benefits and ethnicity would provide an important cue.[88]

In sum, the findings of this analysis are consistent with my model, suggesting that the parliamentary candidates inflate the voter register when the outcome of the parliamentary election is given, which means they can turn their attention to helping their party's presidential candidate, and when there are lots of ethnic voters in the constituency, which means they can predict voter behaviour. If either condition is not met, the parliamentary candidates chose other rigging techniques and opt out of electoral manipulation altogether. The finding challenges conventional wisdom about

[88] A final possibility is that registration challenges reflect the challenger's attempt to disenfranchise the incumbent's supporter. I disregard this possibility. Challenging a registration only makes sense if there is a possibility that the District Registration Review Commission upholds the registration and disqualifies the registrant. It seems unlikely that any challenger would have this capacity.

electoral manipulation; or, rather, it adds nuance by taking into consideration the benefits that the parliamentary candidates reap from securing votes for their party's presidential candidates and the properties that differentiate voter inflation from other types of electoral manipulation. The presidential candidates have an interest in inflating the voter register in all constituencies. However, they are dependent on the parliamentary candidates and other constituency party leaders to do the 'dirty work', and their interests are not always aligned.

4.5 Causal mechanisms

In the remainder of this chapter, I explore some of the indirect benefits that the parliamentary candidates reap from inflating the voter register. I show that when the parliamentary candidates secure votes for their party's presidential candidate, they attract funds after the elections; when they deliver above expectation, they improve their chance of being appointed to government.

Government funds

7.5% of total government revenues are allocated to the District Assemblies Common Fund.[89] In 2012, that amounted to GHS 572 million (USD 286 million). Around half of that is disbursed directly to the Metropolitan, Municipal, and District Assemblies (hereafter referred to as 'District Assemblies'), according to a formula proposed by

[89] The Ghanaian constitution states that "parliament shall annually make provision for the allocation of not less than five percent of the total revenues of Ghana to the District Assemblies for development; and the amount shall be paid into the District Assemblies Common Fund in quarterly installments" (*Constitution of the Republic of Ghana* 1992, 252(2)). In 2008, the allocation was increased to 7.5% of total government revenues.

the DACF Administrator and approved by parliament ('direct transfers'). The other half is used to fund government programmes with district-level activities, such as the Ghana School Feeding Programme (GSFP),[90] several modules under the National Youth Employment Programme (NYEP),[91] and the Local Enterprises and Skills Development Programme (LESDEP)[92] ('indirect transfers'). 4% are reserved for the MPs ('MPs' share'). In 2012, the MPs' share' amounted to GHS 2.3 million (USD 1.15 million) or almost GHS 100,00 (USD 50,000) for each of the 230 MPs. As the DACF Administrator is appointed by the president and parliament is controlled by the ruling party, Banful (2011) argues, "the president can advance a DACF formula that produces allocations that are in line with the pattern of transfers that will maximize his prospects of re-election" (ibid., 381). Consistent with this argument, she notes that the DACF Administrator has been changed every time there has been a change of government;[93] that the DACF formula is presented to the president before it is submitted to parliament; that the DACF formula has been changed every year since 1994, "with particularly remarkable changes occurring in election-years and in 2002, the year after a political regime switch" (bid., 381); and that the DACF formula is always approved by parliament as proposed by the DACF Administrator.

[90] Under the Ministry of Gender, Children, and Social Protection.

[91] Now the Ghana Youth Employment and Entrepreneurial Development Agency.

[92] Under the Ministry of Local Government and Rural Development.

[93] President Rawlings appointed the first DACF Administrator, Josiah Ampiah, in 1993. Ampiah served until 2001, when president Kuffuor appointed Joshua Magnus Nicol. In 2010, Nicol was replaced when president Mills appointed Kojo Fynn.

Table 4.3 reports the DACF formula for 1994, 2004, and 2014, including factors, indicators, and weighting.[94] Three things should be noted. First, the factors have remained the same since the early 1990s, and the indicators have not changed since the mid 2000s. What has changed is the weighting. Second, 'population' has not been included as an indicator since the mid 1990s. However, other indicators are divided as population fractions, meaning that 'population' is indirectly taken into consideration. This becomes important when I discuss my variables below. Third, 'equality' has been the most important factor since the mid 2000s. 'Equality' is the share of the DACF that is distributed evenly between the districts, regardless of 'need', 'responsiveness', and 'service pressure'. I return to this below, when I look at district creation.

Table 4.3: DACF formula

Factor	Indicator	Weighting		
		1994	2004	2014
Need	GDP/capita	30		
	Population	5		
	Health facilities/population		5	9
	Health professionals/population		10	8
	Education facilities/population		5	10
	Trained teachers/students		5	8
	Tarred road coverage		5	5
	Water coverage		5	5
Responsiveness	Revenue/capita	20		
	Revenue improvement		2	6
Service pressure	Population density	15	3	4
Equality		30	60	45

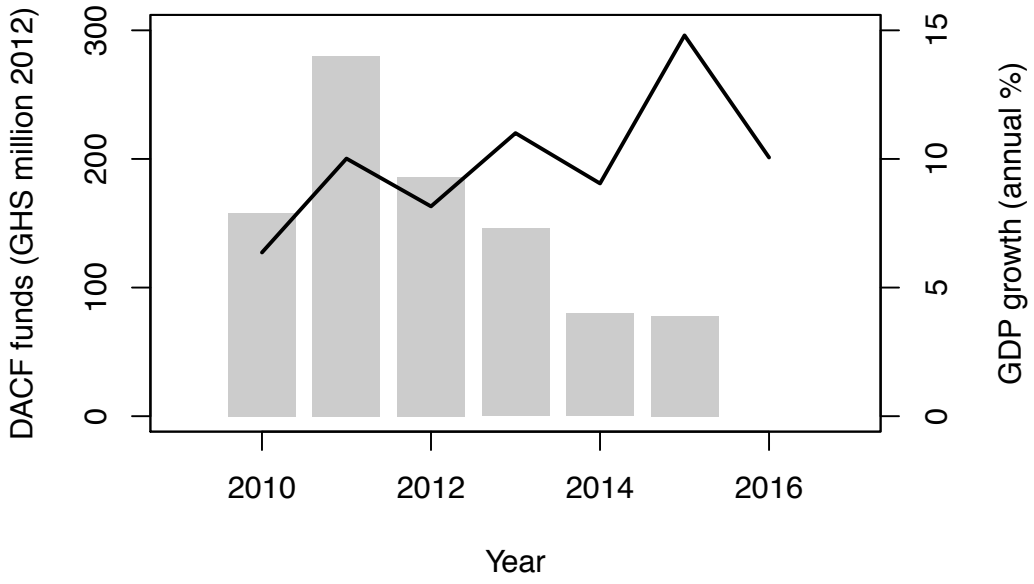
Notes: Data extracted from Banful (2011) and website of the District Assemblies Common Fund.

[94] The DACF formula for 2015 and 2016 could not be obtained.

Figure 4.4 plots the disbursement of DACF funds to the District Assemblies between 2010 and 2016 (direct transfers). The grey bars indicate annual GDP growth rates. The figure shows that the total disbursements increased by 50-100%, with substantial year-to-year variations. In 2010, GHS 130 million (USD 65 million) were disbursed to the District Assemblies. In 2015, that had increased to almost GHS 300 million (USD 150 million), but in 2016, it dropped to GHS 200 million (USD 100 million). Three factors probably explain the variations: the creation of new districts in 2012; recovery after the global economic recession, which hit Ghana in 2009 and produced high GDP growth rates between 2010 and 2013;[95] and missing data for 2014 and 2016 (fourth quarter disbursements). There are no signs of political budget cycles in the form of expansions before the elections or contractions after. On the contrary, in both 2012 and 2016, fewer funds were disbursed than in 2011 and 2015 (taking into consideration missing data in 2016).

[95] Recall that allocations to the DACF are determined as a percentage of total government revenues. The global economic recession hit Ghana in the form of low commodity prices. The price of gold—Ghana's main export—dropped from USD 30/kg in mid 2008 to USD 28/kg in early 2009. Similarly, the price of cocoa—another important export—dropped from USD 3,022/tonne in June 2008 to USD 2,068/tonne in November. Annual GDP growth rates dropped from 8.4% in 2008 to 4.0% in 2009 but bounced back to 8.0% in 2010 and 15.0% in 2011.

Figure 4.4: DACF disbursements, 2010-2016



My data allow me to test whether presidents Mills and Mahama used the disbursement of DACF funds to the District Assemblies to reward the constituencies and parliamentary candidates, who helped them win the 2008 and 2012 elections. As my dependent variable, I use *DACF funds/capita (log)*, which provides the natural logarithm of the DACF funds disbursed to each District Assembly, divided by the number of people in the district. This is dependent variable used in other studies of on the DACF (Banful 2009, 2011). I use constant 2012 GHS to eliminate the effect of inflation.[96] Data were extracted from quarterly financial reports, collected from the office of the DACF Administrator, and the 2010 Population and Housing Census (Ghana Statistical Service 2010).

[96] Annual inflation averaged 11.2% between 2010 and 2016.

As my independent variable, I use *NDC presidential vote*, which measures the vote margin for the NDC presidential candidate in the last election. Vote margins are widely used in the literature on distributive politics, as a measure of the president's or the ruling party's popularity (Case 2001; Dahlberg and Johansson 2002). In districts with multiple constituencies I aggregate the votes, which means the variable captures the vote margin for the NDC presidential candidate in all constituencies in the district. I recognise that this adjustment is not ideal, and therefore restrict the sample to districts with only one constituency, as a robustness test.

Banful (2011) argues that "the targeting of DACF resources was achieved by manipulation of the formula itself" (ibid., 388). It is therefore debatable whether to include the DACF indicators as control variables. I first run the model without control variables and then add the following three control variables: *District size*, which measures the size of the district in squared kilometres; *Population density*, which counts the number of people in the district, divided by the district size; and *Education facilities/population*, which counts the number of education facilities in the district, divided by the number of people. I consider *District size* as a proxy for 'tarred road coverage'. My control variables therefore cover three of eight DACF indicators. Data were extracted from annual reports published by the Ministry of Education (2011, 2012, 2013, 2014, 2015, 2016) and, again, the 2010 Population and Housing Census (Ghana Statistical Service 2010).

A Hausman test suggests the use of a fixed effects (FE) model.[97] I use a random effects model to test the robustness of my results. As the disbursement of DACF funds is characterised by inertia, I introduce a one-period lag of the dependent variable to curb the results of serial correlation.[98] The fully specified model looks as follows:

$$E(Y)_{it} = \beta_0 + \beta_1 DACF\ funds/capita\ (log)_{it-1} + \beta_2 NDC\ presidential\ vote + T_t + \beta_3 NDC\ presidential\ vote \times T_t + N_i + \beta_4 X_{it} + \varepsilon_{it}$$

where β_0 is the constant; $DACF\ funds/capita\ (\log)_{it-1}$ is the one period lag of the dependent variable; $NDC\ presidential\ vote$ is the vote margin for the NDC presidential candidate in the last election; T_t is the year fixed effects; N_i is the district fixed effects; X_{it} is a vector of control variables; and ε_{it} is the error term.

The results are reported in Table 4.4. Model 1 is the base model. Models 2-4 add control variables. Models 1-2 include all observations. Model 3 restricts the sample to districts where the NDC presidential candidates received more than 50% of the votes, while model 4 restricts the sample to districts where he received less than 50% of the votes. Note that the district fixed effects are not reported. The results suggest that presidents Mills and Mahama used the disbursement of DACF funds to reward constituencies and parliamentary candidates who helped them win the 2008 and 2012 elections. The interactions between the year fixed effects and *NDC presidential vote* is positive and statistically significant in all models, except in one

[97] An F test suggests the inclusion of time fixed effects.

[98] A Breusch-Godfrey/Wooldridge test suggests significant serial correlation.

year, when I restrict the sample to districts where the NDC presidential candidate received less than 50% of the votes. In other words, between 2012 and 2016, more DACF funds were disbursed to districts that delivered more votes to the NDC presidential candidates in the last election. The effect is substantial: an additional GHS 0.16/capita (USD 0.08) for every additional percentage the district delivered to the NDC presidential candidate. In a 'typical' district, with a population around 120,000, that is an additional GHS 20,000 (USD 10,000) every year. Put differently, a 'typical' district that delivered 64% (the upper quartile) for the NDC presidential candidate received GHS 1.6 million (USD 800,000) more, over four-year period, than districts that delivered only 43% (the lower quartile), with all other variables held at their means. That is an additional 37%. It is important to note that the interactions between the year fixed effects and *NDC presidential vote* is positive and statistically significant also in models 3 and 4. This suggests that the constituencies and the parliamentary candidates gained from securing votes for NDC presidential candidates also in the electoral strongholds of the opposition.

Table 4.4: Government funds, regression results

	(1)	(2)	(3)	(4)
	DACF funds/capita (log)			
	All N		N where NDC presidential vote>0.5	N where NDC presidential vote<0.5
DACF funds/capita (log)$_{t-1}$	**0.303*****	**0.258*****	**0.245*****	**0.218*****
	(0.022)	**(0.024)**	**(0.033)**	**(0.040)**
2012	**-0.539*****	**-0.519*****	**-0.556*****	**-0.525*****
	(0.042)	**(0.042)**	**(0.106)**	**(0.066)**
2013	**-0.197*****	**-0.192*****	**-0.338*****	**-0.228*****
	(0.041)	**(0.040)**	**(0.102)**	**(0.073)**
2014	**-0.448*****	**-0.434*****	**-0.607*****	**-0.469*****
	(0.041)	**(0.041)**	**(0.102)**	**(0.072)**
2015	0.037	0.043	-0.090	0.040
	(0.041)	(0.041)	(0.102)	(0.073)
2016	**-0.429*****	**-0.405*****	**-0.598*****	**-0.365*****
	(0.042)	**(0.042)**	**(0.103)**	**(0.073)**
NDC presidential vote	-0.112	-0.091	-0.163	-0.559
	(0.135)	(0.134)	(0.238)	(0.389)
District size		**-0.001*****	**-0.001*****	**-0.001****
		(0.001)	**(0.001)**	**(0.001)**
Population density		0.0001	0.003	-0.001
		(0.001)	(0.003)	(0.001)
Education facilities/population		-3.791	-47.371	56.372
		(33.032)	(42.922)	(57.316)
2012 × NDC presidential vote	**0.240*****	**0.242*****	**0.301***	**0.321***
	(0.079)	**(0.077)**	**(0.166)**	**(0.174)**
2013 × NDC presidential vote	**0.270*****	**0.241*****	**0.444*****	**0.421****
	(0.075)	**(0.074)**	**(0.157)**	**(0.194)**
2014 × NDC presidential vote	**0.178****	**0.160****	**0.409*****	**0.378***
	(0.075)	**(0.074)**	**(0.157)**	**(0.198)**
2015 × NDC presidential vote	**0.299*****	**0.281*****	**0.476*****	**0.360***
	(0.075)	**(0.074)**	**(0.157)**	**(0.198)**
2016 × NDC presidential vote	**0.176****	**0.163****	**0.457*****	0.195
	(0.076)	**(0.075)**	**(0.158)**	(0.198)
N	1,178	1,178	695	483
Adjusted R^2	0.604	0.608	0.596	0.577

Notes: FE models. District fixed effects are not reported. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Appendix C contains several robustness tests. First, I restrict the sample to districts with one constituency. As noted, in districts with multiple constituencies, I aggregate the votes, which could affect the results. Second, I change my model to a random effects model and exclude the one-period lag of the dependent variable (Allison 1999). Third, I replace *NDC presidential vote* with *Voter registrations challenged*, divided by the number of voters registered, as a more direct test of whether the parliamentary candidates are rewarded specifically for inflating the voter register. Fourth, I disaggregate my data and use quarterly observations. The DACF formula is approved annually and there is no reason to expect quarterly variations. However, disaggregating the data substantially increases the number of observations (from 1,512 to 6,048) and circumvents the problem of missing data. Finally, I replicate Banful (2011), meaning I change my independent variable to *NDC/NPP presidential vote*, which measures the vote margin between the NDC and the NPP presidential candidates in the last election, and change my control variables to *Schools*, which counts the number of schools in the district.[99] The results are very robust. The interactions between the year fixed effects and *NDC presidential vote* are positive and statistically significant in all models, except when I restrict the sample to districts with one constituency ($p = 0.06 - 0.22$). The interactions between the year fixed effects and *Voter registrations challenged* are also positive and statistically significant. When I replicate Banful (ibid.), the interaction between the year fixed effects and *NDC/NPP presidential vote* is negative. However, when I introduce the

[99] Banful (2011) uses *Schools* as a proxy of district wealth, noting "a positive correlation between district GDP per capita in 1992 and number of schools in the district in each year" (ibid., 385).

one-period lag of the dependent variable, it becomes positive, and when I change the independent variable back to *NDC presidential vote*, it becomes positive and statistically significant. In other words, using the exact same variables as Banful (ibid.), I find very different results. While she finds that between 1995 and 2004, more DACF funds were disbursed to districts with smaller vote margins between the NDC and NPP presidential candidates, I find that between 2010 and 2016, more DACF funds were disbursed to districts with larger vote margins for the NDC presidential candidate. One explanation could be that presidents Rawlings and Kuffuor used the DACF differently in the late 1990s and early 2000s than presidents Mills and Mahama did after 2010. While the former used it to capture swing voters (Dixit and Londregan 1996; Lindbeck and Weibull 1987), the latter used it to mobilise their core supporters (Cox and McCubbins 1986). Another explanation could be that Banful's results are simply biased because she does not curb the results of serial correlation.

In sum, the findings of the analysis strongly support the argument that the parliamentary candidates—and their constituents—are generally rewarded for securing votes for their party's presidential candidates. Districts that delivered more votes to the winner of the 2008 and 2012 presidential elections received more DACF funds between 2010 and 2016, controlling for other factors that may have affected the disbursement. The findings also support the argument that the parliamentary candidates reap indirect benefits specifically from inflating the voter register.

District creation

As noted, 45% of the DACF are distributed evenly between the districts.[100] In 2011, that amounted to GHS 460,000 (USD 230,000) for each district, irrespective of need, responsiveness, and service pressure. For the president, the most effective way of rewarding the constituencies, who helped him win the elections, is therefore by dividing the districts that delivered most votes.[101] This is the argument of Ayee (2012), who writes that "the creation of districts and constituencies may be regarded as a patronage-building exercise for the president" and that "the main beneficiaries […] are politicians, traditional leaders and youth groups" (Ayee 2012, 15-16). District status means District Assembly seats; jobs in the district administration, including as District Chief Executive; and access to the DACF.[102] It also means representation in parliament.[103] By dividing the districts that delivered most votes, the president therefore not only rewards the constituencies that helped him win the election. He

[100] In the 1990s, the weighting of the 'equality' factor was only 30%. In 1998, the weighting was increased to 35%, while in 2004, it was increased to 60%. In 2009, it was decreased to 45%.

[101] According to the *Local Government Act* (Act 462) 1993, "the President may, by executive instrument (a) declare an area to be a district, and (b) assign a name to the district" (ibid., 1(1)).

[102] In 2012, an additional GHS 1 million (USD 500,000) was allocated to each of the 45 new districts for their "needed administrative infrastructure" and 9,000 motorcycles were procured for new District Assembly members (Ghana News Agency 2012e).

[103] The *Local Government Act* (Act 462) 1993 states that, "a District Assembly shall consist of […] the member or members of Parliament from the constituencies that fall within the area of authority of the District Assembly, except that that member or those members shall not have voting rights" (ibid., 5(1)(c)); and that, "a person shall not at anyone time be a member of more than one District Assembly" (ibid., 6(7)). Effectively, this means that no constituency can fall within more than one district, and that the Electoral Commission is forced to create a new constituency, when the government has created a new district (unless the new district is already its own constituency).

also potentially increases the number of safe seats for the ruling party in parliament.[104]

The following examples illustrate some of the sensitivities related to district creation in Ghana. In 2007, "the chiefs and people of the Kassena Nankana East district protested against the creation of the new Kassena Nankana West district" (Ghana News Agency 2007). They specifically challenged the inclusion of seven communities in the new district and demanded that a new district be created to ensure that "the government's development policy of promoting balanced development would be enhanced" (ibid.). Also in 2007, youth in the Sunyani West district "raised their tempers after the announcement of the proposed newly created districts and their capital towns" (Boateng 2007). Led by the Akwamuhene—the paramount chief of the Akwamu traditional area—they "vehemently protested against the decision to name Odumasi as the district capital", fearing that the development of Nsoatre would be ignored (ibid.).[105] Similarly, in 2012, the inauguration of the District Assemblies in many districts "was characterised by protests and agitations" (Daily Graphic 2012). In Ho West, for example, it was "a bitter-sweet celebration", as it took "a last minute engineering to get the District on the list of the newly-created districts" (Ghana News

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[104] This argument is common in public debate about district creation in Ghana. However, the recent rounds of district creation do not back it up. In 2004, an NPP government created 28 new districts, which led to the creation of 30 new constituencies. Of those, the NDC won 16 in the elections later that year, while the NDC won 13. The PNC won one. In 2012, an NDC government created of 45 new districts, which led to the creation of 45 new constituencies. The NDC won 22 in the 2012 elections, while the NPP won 23.

[105] Protests have often focused on the location of district capitals. This was the case in 1989, in Tano, Kwaebibirem, Asuogyaman, and Tolon Kumbungu (Ayee 1994); and in 2004 in Adaklu Anyigbe (Ayee 2012). In 2012, such protests were 'legion' (Ayee 2012, 15). To defuse the tension, government officials "met the aggrieved towns and chiefs and assured them that the distribution of amenities which had been the bone of contention would not be concentrated in the district capitals alone" (ibid.).

Agency 2012b). And in Asokore Mampong, "a free-for-all fight disrupted the inauguration" when "aggrieved people believed to come from Kentikrono, Duase, Kenyase, Sepe-Dote, Weweso and Aprade electoral areas which were not included in the new municipality, stormed the event midway through the programme and brought proceedings to a temporary halt as a result of the fight" (Ghana News Agency 2012a).[106]

My data allow me to test whether President Mills used the creation of districts in 2012 to reward the constituencies, who helped him win the 2008 election. The unit of analysis is district and my sample is the 170 districts that existed before 2012. As my dependent variable, I use *District divided*, which indicates whether the district was divided in 2012. I assume constituencies always benefit when their district is divided. As the examples above illustrate, protests against district creation are over the demarcation of district boundaries—the inclusion or exclusion of different electoral areas—or over the location of district capitals. To my knowledge, the only protests against district creation generally have been from academics, like Ayee (2012), who see it as a 'patronage-building exercise'.

Again, my independent variable is *NDC presidential vote*$_{t-1}$, which measures President Mills' vote margin in the 2008 election. And, again, in districts with multiple constituencies, I aggregate the votes, meaning that the variable captures the

[106] The redistributive effects of district creation are reflected even in official documents. In its report on the Sagnarigu district, the Ghana Statistical Service (2014c) notes that "one of the reasons for the creation of the district was to redirect developmental projects to the communities north and west of the Metropolis (now Sagnarigu) which were relatively less developed as compared to the urban areas in the Tamale Metropolis" (ibid., 29).

combined vote share in all constituencies. I restrict the sample to districts with only one constituency as a robustness test.

The president creates districts by executive instrument.[107] However, the *Local Government Act (Act 462)* 1993 requires that he "directs the Electoral Commission to make appropriate recommendations" (ibid., 1(3)) and that the Electoral Commission takes into consideration the number people and "the geographical contiguity and economic viability of the area" (ibid., 1(4)(b)).[108] To control for the Electoral Commission's considerations, I include the following five control variables: *Population*, which counts the number of people in the district; *District size*, which measures the size of the district in squared kilometres; *Population density*, which counts the number of people in the district, divided by the size; *Population educated*, which measures the fraction of the district population with primary education; and *Population employed*, which measures the fraction of the district population that is employed. Data were extracted from official election results (Electoral Commission of Ghana 2015) and the district reports, prepared by the Ghana Statistical Service.

The regression results are reported in table 4.5. Model 1 maximises the goodness of fit (minimises Akaike's Information Criterion). Models 2 and 3 add control variables. Models 1 and 2 include all observations, while Model 3 excludes

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[107] The *Local Government Act* (Act 462) 1993 states that "the President may, by executive instrument (a) declare an area to be a district, and (b) assign a name to the district" (ibid., 1(2)).

[108] The *Local Government Act* (Act 462) 1993 further specifies that a district must have a minimum population of 75,000 people; that a municipality must have a minimum population of 95,000 people and must consist of "a single compact settlement"; a that metropolis must have a minimum population of 250,000 people (ibid., 4(a)). It defines 'geographical contiguity and economic viability' as "the ability of an area to provide the basic infrastructural and any other developmental needs from the monetary and any other resources generated in the area" (ibid., 1(4)(b)).

the six metropolitan districts. In Accra, Tema, Kumasi, and Tamale, sub-metropolitan districts were carved out and given district status. It could be argued that this is equivalent to uplifting an existing district to municipal or metropolitan status and therefore not comparable to creating a new district. The results support the argument. *NDC presidential vote*$_{t-1}$ is positive and statistically significant in all models, suggesting that districts that delivered more votes for Mills in 2008 were more likely to be divided in 2012. The effect is substantial. Districts that delivered 58% for Mills (the upper quartile) were two and a half times more likely to be divided in 2012 than districts that delivered only 38% (the lower quartile), with all other variables held at their means. Note that the coefficients do not change substantially in Model 3, when I exclude the six metropolitan districts. In fact, the goodness of fit improves, indicating that the metropolitan districts simply add noise.

Table 4.5: District creation, regression results

	(1)	(2)	(3)
		District divided	
		All N	Excluding metropolitan N
NDC presidential vote margin$_{t-1}$	**4.408*****	**4.193*****	**4.000****
	(1.525)	**(1.561)**	**(1.574)**
Population (log)	**3.954*****	**4.182*****	**4.437*****
	(0.787)	**(0.870)**	**(0.945)**
District size (log)	**1.389*****	**1.359*****	**1.409*****
	(0.335)	**(0.415)**	**(0.412)**
Population density		0.0001	0.0002
		(0.001)	(0.0005)
Population educated	11.979	16.109	15.550
	(8.689)	(10.032)	(10.009)
Population employed		7.431	6.369
		(5.890)	(6.005)
Constant	**-62.257*****	**-69.016*****	**-71.629*****
	(11.892)	**(13.527)**	**(14.414)**
N	169	169	163
AIC	130.369	132.718	128.355

Notes: Logit models. Standard errors in parenthesis. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Appendix C contains two additional robustness tests. First, I include *Ethnic fractionalisation*, which is calculated as one minus the Herfindahl index for the nine ethnic groups used in census. It is possible that the Electoral Commission takes into consideration ethnicity and recommends that ethnically fractionalised districts are divided to prevent inter-ethnic conflict. When the chiefs in Kassena Nankana East challenged the inclusion of seven communities in Kassena Nankana West, ethnicity was their main argument. Speaking to the media, they said "the new district dismembered the people of the Kassena Nankana East, who lived in the same location and spoke the same dialect that is different from people of the new District" (Ghana News Agency 2007). Second, I include *Constituency >1*, which indicates whether the district had more than one constituency. It also possible that the Electoral Commission takes into consideration the number of constituencies and simply recommends that districts with more than one constituency be divided. The results are unaffected by these changes. *NDC presidential vote*$_{t-1}$ is still positive and statistically significant and the coefficient never drops below 4.1. *Constituency>1* is also positive and statistically significant, confirming the relationship, but excluding districts with more than one constituency does not affect the results. Overall, the results appear very robust.

In sum, the findings of the analysis further support the argument that the parliamentary candidates—and their constituents—reap indirect benefits from inflating the voter register and securing votes for their party's presidential candidates. Districts that delivered more votes to the winner of the 2008 presidential elections were more likely to be divided in 2012.

Government appointments

By dividing districts that delivered more votes, the president rewards the constituencies generally, who helped him win the election. A way of rewarding the parliamentary candidates specifically is by appointing them to government.[109] African ministers "not only have a hand in deciding where to allocate public resources", Arriola (2009) argues; they are "also in positions to supplement their personal incomes by offering contracts and jobs in exchange for other favours" (ibid., 1346). This makes ministerial appointments "an instrument for managing elite relations" (ibid., 1347). Along the same lines, Van de Walle (2001) argues that "in most countries, a ministerial appointment is an important position for a member of the political elite, bringing with it patronage opportunities and as well as significant perks and status-enhancing privileges" (ibid., 103), and that "African states have long been notorious for their large cabinets, with ministerial appointments that often have little relevance to policy-making priorities or the size of actual budgets" (ibid.).

Government appointments are used patronage also in Ghana. In 2001, the Deputy Minster for Local Government and Rural Development, Alima Mahama, said the ruling party had "rewarded members who contested last year's parliamentary election with appointments" (Ghana News Agency 2001). Speaking at a seminar, organised by the International Federation of Women Lawyers, she explained that the NPP "appreciated the immense contributions of its parliamentary candidates,

[109] Building on Zolberg (1969), who writes that "each minister is also a kind super-representative, who keeps in touch with the country through his clientele of deputies" (Zolberg 1969, 283), it could be argued that appointing a parliamentary candidate to government is also a way of rewarding the constituency party leaders.

especially those who lost the elections" and that it had "duly appointed them as deputy ministers, directors, district chief executives and members of boards" (Ghana News Agency 2001). In 2016, the promises were made even before the elections. At the launch of the NDC campaign in the Upper East region, the General Secretary of the NDC, Asiedu Nketia, said it was "important for those who lost the primaries to support the winning parliamentary candidates and President John Dramani Mahama […] All is not lost with you. Better opportunities await you. Some of you have the competence to be district chief executives, ministers, board members, and ambassadors among others depending on your contributions towards the party's victory" (Ghana News Agency 2016).

Again, my data allow me to test whether Presidents Mills and Mahama used government appointments in 2009 and 2013 to reward the parliamentary candidates, who helped them win 2008 and 2012 elections. The unit of analysis is NDC candidate and my sample is the 505 NDC candidates, who contested the 2008 and 2012 elections. As my dependent variable, I use *NDC candidate appointed*, which indicates whether the NDC candidate was appointed to government after the elections: as a minister or deputy ministers, whether at national and regional level, or as a minister in the presidency. In 2009, President Mills appointed 40 NDC candidates to government. In 2013, president Mahama appointed 51. Note that the variable only captures

appointments immediately after the elections. Government reshuffles are not taken into consideration.[110] Appendix C contains a list of the all 91 appointments.

I use two different independent variables. First, as in previous analyses, I use *NDC presidential vote*, which measures the vote margin for the NDC presidential candidate in the last election. This variable may not capture the parliamentary candidate's performance. Or rather, their performance may be determined not on the basis of how many votes they secure, but on the basis of how many votes they secure, relative to what could reasonably be expected. I therefore include a second independent variable, *NDC vote difference*, which measures the vote margin for the NDC presidential candidate in the last election minus the vote margin for the NDC parliamentary candidate. Positive values indicate that the presidential candidate received more votes than the parliamentary candidate; negative values means the parliamentary candidate outperformed the presidential candidate.

I use the following control variables. First, I include *NDC candidate minister*, which indicates whether the candidate was in government already before the elections.[111] The NDC party constitution requires that parliamentary candidates are active members in their constituency "for the two years immediately preceding the date of filing nomination" (National Democratic Congress 2010, 43(9)(b)). This reduces their ability to change constituency. However, it is possible that some

[110] For example, on 14 February 2013, president Mahama appointed ten regional ministers. Already on 11 March, the ministers were reshuffled. Nine were re-appointed, while one, Moses Bukari Mabengba, minister for the Northern region, was sacked. He was later appointed as Ghana's ambassador to Angola (Ghana News Agency 2014). *NDC candidate appointed* only takes into consideration the first appointments.

[111] Note that the variable is equal to zero for all candidates in 2008, when the NPP was in government.

ministers and deputy ministers are able to circumvent this rule and choose safer constituencies.[112] Also, candidates who are already in government are likely to be closer to the president and therefore likely to be re-appointed after the elections. The variable controls for both. Second, I include *NDC candidate winner*, which indicates whether the candidate won the election. The Ghanaian constitution requires that more than half the ministers and deputy minsters are appointed from among the members of parliament (*Constitution of the Republic of Ghana* 1992, 78(1)). By winning their seat, the parliamentary candidates therefore substantially improve their chance of being appointed to government. Of the 242 NDC candidates who lost in 2008 and 2012, only 14 (7%) were appointed to government. Of the 263 candidates who won, 74 (28%) were appointed. Third, I include regional dummy variables with the Volta region as the reference category. Regional considerations are important when governments are formed. On one hand, the president must ensure that all 'main' regions are represented: the Akan-dominated Ashanti region, the Ewe-dominated Volta region, the Ga-Dangme-dominated Greater Accra region, and the three northern regions.[113] On the other, the president may be tempted to reward his own electoral strongholds. Finally, I include an election-year dummy variable with 2008 as the

[112] This does not seem to be the case. 25 ministers and deputy ministers contested the 2012 parliamentary elections on the NDC ticket (one contested on the PNC ticket). 16 ran for re-election, while nine were new NDC candidates. Only four new NDC candidates won their seat. One defeated an incumbent MP and NPP candidate. Two ran in new constituencies without an incumbent MP. One defeated an incumbent MP in the NDC primaries. Three won by margins of less than 15% points. One won by a margin of 28% points.

[113] Since 1993, all of the 'main' ethno-regions have been represented in government: the Ashanti and Eastern regions, which are dominated by Akan speakers; the Volta region, which is dominated by Ewe speakers, the Greater Accra region, which is dominated by Ga-Dangme speakers; and the three Northern regions, which are dominated by Mole-Dagbani, Gurma, and Grusi speakers. The only case of possible ethnic favoritism is the second Kuffuor government (2005-2009), which had 69% Akan ministers and deputy ministers, although Akan speakers only make up 49% of the population.

reference category. In 2008, Mills was the opposition candidate, while in 2012 Mahama was the incumbent president. It is possible that the pressure was stronger on Mills to reward the parliamentary candidates, who helped him the elections, than it was on Mahama. Data were extracted from official election results (Electoral Commission of Ghana 2015).

The results are reported in Table 4.6. Model 1 maximises the goodness of fit (minimises Akaike's Information Criterion). Model 2 includes all control variables. Model 3 limits the sample to NDC candidates, who won their seat. Model 4 limits the sample to NDC candidates who lost. The results suggest that Presidents Mills and Mahama used government appointments to reward the NDC candidates, who performed above expectations. As expected, both *NDC candidate minister* and *NDC candidate winner* are positive and statistically significant, meaning that ministers who ran for parliament and NDC candidates who won their seat were more likely to be appointed to government after the 2008 and 2012 elections. *NDC presidential vote* is never statistically significant and the coefficients are close to zero. However, *NDC vote difference* is negative and statistically significant in all models. In other words, government appointments were not used to reward NDC candidates, who secured more votes. Rather, they were used to reward NDC candidates, who delivered above expectation. The effect is substantial. NDC candidates, who won their seat and received more votes than the president, had a 54% chance of being appointed to government. Candidates who won but received 10% points fewer votes had a 29% chance, while candidates who won but received 20% fewer votes only had a 16% chance. Similarly, NDC candidates who lost their seat but received more votes than the president had a 9% chance of being appointed to government. Candidates who lost and received 10% points fewer votes had a 1% chance, while candidates who lost and

received 20% fewer votes basically had no chance at all. There are 101 (20%) cases in my data, where the NDC candidate received more votes than the NDC presidential candidate; 86 (17%), where she received 10% fewer votes, and 25 (5%), where she received 20% points fewer votes. None of the regional dummy variables are statistically significant. Changing the reference category does not affect the results.

Table 4.6: Government appointments, regression results

	(1)	(2)	(3)	(4)
	NDC candidate appointed			
	All N		NDC candidate won	NDC candidate lost
NDC presidential vote	-0.318	-0.234	0.128	-1.795
	(1.105)	(1.555)	(1.787)	(4.350)
NDC vote difference	**-7.935*****	**-9.185*****	**-6.917****	**-32.352*****
	(2.607)	**(2.838)**	**(2.970)**	**(9.906)**
NDC candidate minister	**1.183*****	**1.074****	**1.167****	-0.005
	(0.458)	**(0.482)**	**(0.551)**	(1.586)
NDC candidate winner	**2.036*****	**1.892*****		
	(0.407)	**(0.443)**		
NDC parliamentary vote		-0.249	-0.780	4.950
		(0.824)	(1.234)	(6,551.780)
Ashanti region		0.299	0.655	5.413
		(0.644)	(0.722)	(6,551.780)
Brong Ahafo region		0.029	0.444	-11.492
		(0.683)	(0.742)	(6,975.090)
Central region		-0.414	-0.055	4.578
		(0.742)	(0.828)	(6,551.780)
Eastern region		-0.087	0.039	5.946
		(0.614)	(0.657)	(6,551.780)
Greater Accra region		-0.203	0.045	-10.246
		(0.632)	(0.667)	(6,895.595)
Northern region		0.619	0.533	8.174
		(0.688)	(0.738)	(6,551.780)
Upper East region		0.829	0.706	8.635
		(0.724)	(0.775)	(6,551.780)
Upper West region		0.033	0.096	5.858
		(0.655)	(0.712)	(6,551.780)
Western region		-0.020	0.146	-0.603
		(0.266)	(0.304)	(0.625)
2012	**-2.430*****	**-2.331****	-1.017	-6.792
	(0.464)	**(1.102)**	(1.473)	(6,551.781)
N	502	502	263	239
AIC	420.285	434.623	322.789	120.384

Notes: Logit models. Standard errors in parenthesis. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

A closer look at some of the outliers reveals interesting nuances. There are only three cases in my data, where the NDC candidate received 20% points fewer votes than the president and was appointed to government.[114] Two are in the Upper East region. In Zebilla, in 2008, the NDC candidate, Cletus Avoka, won the election and was appointed as Minister of Interior. He defeated the incumbent MP and former national vice chairman of the PNC, John Ndebugri.[115] Avoka received 41% of the votes, while Ndebugri received 21%. In the presidential election, Mills received 61%, while the PNC candidate received only 3%. In other words, the NDC vote difference was caused not by a split NDC vote but by a split PNC vote. PNC supporters voted for the PNC candidate in the parliamentary election, and the NDC candidate in the presidential election. In Builsa North, in 2012, the NDC candidate, James Agalga, won the election and was appointed as Deputy Minister of Interior. Agalga received 50% of the votes, while the PNC candidate, Francis Agilinko, received 23%. In the presidential election, Mills received 71%, while the PNC candidate received only 3%. Again, the NDC vote difference was caused by a split PNC vote. The only real outlier is the 2008 election in Ho East, where Juliana Azumah-Mensah won and was appointed as Minister of Tourism. She received 55% of the votes, while an independent candidate, Samuel Buame, received 40%. In the presidential election, Mills received 91%.

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[114] Juliana Azumah-Mensah, who won the 2008 election in Ho East and was appointed Minister of Tourism; Cletus Avoka, who defeated the incumbent MP and PNC candidate in Zebilla in 2008 and was appointed Minister of Interior; and James Agalga, who won the 2012 election Builsa North, in another PNC stronghold, and was appointed Deputy Minister of Interior.

[115] Ndebugri fell out with the national leadership of the PNC and contested the 2008 election as an independent candidate. In 2009, he defected from the party and joined the NPP.

Appendix C contains additional robustness tests. I use the opportunity to further explore the data. First, I run the model separately for the two election-years in my data. The election-year dummy variable is negative and statistically significant in my main models, suggesting that the results may be driven by government appointments after the 2012 elections. Second, I change my definition of government appointments to include only ministerial appointments (as opposed to deputy ministerial appointments) and to include only appointments at national level (as opposed to appointments at regional level). The results do not change. *NDC presidential vote* is positive in three of four models but never statistically significant. *NDC vote difference* is negative and statistically significant in all models. Finally, I change my independent variable to *Voter registrations challenged* as a direct test of whether the parliamentary candidates are rewarded not just for securing votes for their party's presidential candidate generally but for inflating the voter register specifically. This substantially reduces the number of observation due to the data limitations described earlier in the chapter. Nonetheless, *Voter registrations challenged* is consistently positive in all four models and statistically significant in two.

In sum, the findings support the argument that presidents Mills and Mahama used government appointments to reward the parliamentary candidates. However, contrary to my expectation, they did not reward the candidates who secured more votes for the presidential candidate. They rewarded the candidates, who were able to maintain party cohesion and delivered above expectation.

4.6 Conclusion

In this chapter I have looked at voter inflation. First, building on the framework proposed in Chapter 3, I developed a model. I argued that voter inflation is

characterised by high indirect benefits and conditional returns, making it attractive to parliamentary candidates who are confident that they will win the elections and have lots of ethnic supporters. Second, I examined the patterns of voter inflation, using regression analysis. I found that the number of voter registrations challenged, relative to the number of voters registered, is negatively correlated with the win-margin in the last parliamentary election but positively correlated when I interact this variable with the fraction of the constituency population that is Akan or Ewe. This is consistent with my model. Third, I explored some of the indirect benefits that the parliamentary candidates reap from inflating the voter register and securing votes for their party's presidential candidate. I found that between 2010 and 2016, more DACF funds were disbursed to districts that delivered more votes to the NDC presidential candidates in 2008 and 2012; that districts that delivered more votes to the NDC presidential candidate in 2008 were more likely to be divided in 2012; and that that NDC parliamentary candidates who delivered above expectation were more likely to be appointed to government after the 2008 and 2012 elections. The findings of the chapter support my first theoretical argument: that there are important indirect benefits of electoral manipulation that drive some politicians to manipulate, even when victory guaranteed or entirely beyond reach.

5 Electoral manipulation in the 'grey zone'

Episode

LMK. 7 December 2012. Election-day. Afternoon. Walter is in his 40s. He is a former presiding member of the District Assembly and Terlarbi's campaign manager. He is Ewe; originally from North Tongu, across the river in the Volta region, but born and raised in LMK. In 2010, he contested the constituency party elections for the position of constituency chairman. He lost to a Krobo candidate, who was backed by the incumbent MP. The following year, Walter organised a series of meetings to introduce Terlarbi to the branch executives. This made him a natural choice as campaign manager. I have been with Walter since early morning. With his entourage of operatives, he is visiting polling stations in Akuse, "supervising the polling agents". It is the sixth polling station we are visiting. He walks into the polling station and straight to the presiding officer, a young woman. They greet each other and speak for a few minutes. Walter takes out a GHS 10 (USD 5) note from his pocket and gives it to the presiding officer. He proceeds to the table, where the NDC agents are seated; two young guys, who stand up when they see Walter. He picks up a copy of the polling station register. They speak for a few minutes and Walter takes out another GHS 10 (USD 5) note from his pocket and gives it to the polling agents. "Buy them something", he says, pointing to the polling agents of the other parliamentary candidates. One of the NDC agents gets up from his chair. "Why don't you give it to us?", he asks Walter; "if you give it to them, they keep it". Walter looks at him and smiles. "You know I can't do that. If I give it to you, it will be a big problem".

5.1 Introduction

In this chapter, I look at one type of miscounting: election officers who selectively reject ballots during the counting.[116] First, building on the framework presented in Chapter 3, I develop a model. I argue that miscounting is characterised by low risks and high direct costs. It is almost invisible, embedded in the cultural norms and practices surrounding elections. However, it is expensive, requiring that the parliamentary candidates distribute large amounts of patronage to co-opt the election officers and deploy and maintain their polling agents to monitor and enforce compliance during the counting. This makes miscounting attractive only to parliamentary candidates who fear electoral defeat and have well-established clientelistic networks.

Second, I examine the patterns in my data, using regression analysis. I find that the number of ballots rejected, relative to the number of ballots cast, is positively correlated with the number of years the party of the incumbent MP has held the constituency seat but negatively correlated when I interact this variable with the win-margin in the last parliamentary election. This is consistent with my model, supporting the argument that the effect of electoral uncertainty on miscounting is conditional on resources. When the parliamentary candidates do not have well-established clientelistic networks, they are more likely to choose other types of electoral manipulation.

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[116] In Chapter 2, I defined miscounting as "[a]n election officer who […] wilfully counts a ballot paper as being cast for a candidate which he knows or has reasonable cause to believe was not validly cast for the candidate" (*Representation of the People Law* (PNDCL 284) 1992, 30(e)).

Third, I explore some of the causal mechanisms of my model, drawing on participant observations from Lower Manya Krobo (LMK) and Ada. In LMK, 3.7% of the ballots cast were rejected; far more than what can reasonably be attributed to illiteracy and misinformation. In Ada, only 1.7% of the ballots cast were rejected. I argue that in LMK, the threat from the independent candidate, brought the different spheres of the NDC campaign closer together, enabling the NDC candidate to distribute patronage more efficiently and expand his clientelistic networks beyond the ruling party. By contrast, in Ada, in the absence of an external threat, the different spheres drifted apart, undermining the NDC candidate's capacity to deploy the entire party machine. The findings add nuance to my model of miscounting by pointing to a dual effect of electoral uncertainty. It increases the parliamentary candidates' incentive to rig and, by bringing constituency party leaders closer together, increases their capacity to do so without getting caught.

The chapter is structured as follows. In the next section, I provide background. In section two, I develop my model. In sections three and four, I examine the patterns and explore some of the causal mechanisms of my model. Finally, in section five, I draw conclusions. The findings of the chapter support my second theoretical argument: that electoral manipulation is expensive and that the direct costs discourage it as much as the indirect costs, i.e. the risk of getting caught.

5.2 Background: miscounting

Excluding the 1992 elections, where most voters voted for the first time, the number of ballots rejected in Ghanaian parliamentary elections has remained relatively constant. In the last three elections, 1.6% of the ballots cast were rejected.[117] Compared with other countries in Africa, this is relatively little. In Cote d'Ivoire, for example, a country with an electoral system similar to Ghana's, 5.4% of the ballots cast in the 2011 parliamentary elections were rejected. Similarly, in Uganda, another country that combines a presidential system with first-past-the-post (FPTP) parliamentary elections, 4.9% of the ballots cast in the 2016 parliamentary elections were rejected. Appendix D contains a table that compares the number of ballots rejected in recent parliamentary elections in Africa. The continental average is 5-6%; 4-5% when outliers are excluded.

Although relatively few ballots are rejected in Ghana, rejected ballots have been potentially decisive in around 5-10% of all recent parliamentary elections. In 2008, there were 18 elections, where the number of ballots rejected exceeded the win-margin; in 2012, there were 17. Moreover, rejected ballots may have changed the margin of majority in two of the last four parliaments. In 2000, there were 18 constituencies, where the number of ballots rejected exceeded the win-margin. The margin of majority in parliament was four seats. In 2008, there were also 18 elections, where the number of ballots rejected exceeded the win-margin. The margin of

[117] My study does not cover the 2016 elections. However, it is worth noting that 1.6% of the ballots cast were rejected also in the 2016 parliamentary elections.

majority was only two seats. Table 5.1 provides an overview of the number of ballots rejected in parliamentary elections in Ghana from 1992 to 2012.

Table 5.1: Ballots rejected in parliamentary elections in Ghana, 1992-2012

	1992	1996	2000	2004	2008	2012
Constituencies	200	200	200	230	230	275
Ballots rejected (% of ballots cast)	3.0	1.1	2.1	1.6	1.6	1.6
Constituencies where ballots rejected exceeded the win-margin	NA	6	18	14	18	17
Margin of majority in parliament (seats)	178	66	4	26	2	21

Note: Data extracted from official election results (Electoral Commission of Ghana 2015). Recall that the NPP boycotted the 1992 parliamentary elections.

The counting procedure and the procedure for rejecting ballots has not changed substantially since 1992. Ballots are counted at polling station-level. Immediately after the closing of voting, the presiding officer opens the ballot box and sorts the ballots. Ballots that do not bear the official mark of the Electoral Commission, that do not clearly indicate for whom they have been cast, that are not thumbprinted, or that contain marks or writings that may identify the voter, are rejected. Rejected ballots are shown to the polling agents, who are given an opportunity to express their opinion. The word 'REJECTED' is endorsed on the ballots, and if a polling agent disagrees with the rejection, the words 'REJECTION OBJECTED TO' are added. The presiding officer then counts the ballots and records the results on the declaration form (*Public Elections Regulation* (C. I. 75) 2012, 37).

The procedure has advantages and disadvantages. An advantage is that it obviates sensitive ballot box transfers, before the ballots have been counted. Another is that it allows the political parties and election observers to conduct parallel vote tabulations. A disadvantage is that it places a lot of responsibility in the hands of the election officers. Rejected ballots are kept separately and submitted to the returning officer, together with the declaration form and other electoral material. The returning

officer may decide to review the ballots that have been rejected but it rarely happens, unless the number is abnormally high. Overall, this makes the counting procedure one of the most delicate steps of the Ghanaian electoral process.

Rejected ballots are generally attributed to voter illiteracy, inexperience, and misinformation: voters who do not mark their ballots, voters who mark their ballots wrongly (with a pen, with the wrong finger,[118] or outside the designated boxes), or voters who mark their ballot multiple times. Gyimah-Boadi (1997) writes about the 1996 elections that "the relatively high incidence of rejected ballot papers […] suggests inadequate voter education" (ibid., 83), while Debrah (2011), in his review of the Electoral Commission's performance since 1996, blames "the incidents of rejected ballot papers and problems associated with counting […] on the EC's inability to provide adequate voter information and education" (Debrah 2011, 36). Similarly, the Coalition of Domestic Observers (CODEO) (2009) has recommended "[a] comprehensive and focused voter education in all facets of the electoral process, including incidence of rejected ballots" (ibid., 4), while the former Commissioner for Human Rights and Administrative Justice, Francis Emile Short, has stressed "the need for the Electoral Commission (EC) to collaborate with the National Commission on Civic Education (NCCE) to sufficiently educate electorates on proper thumb printing to ensure that the incidence of rejected ballots is reduced to the barest minimum" (Asiamah 2012). This reflects the literature on electoral administration, where

[118] In 2008, voters were told they could use any finger. However, later, the Electoral Commission, in consultation with the Inter-Party Advisory Committee (IPAC), decided that only the thumb could be used. On election-day, the little finger was dipped in indelible ink, which added to the confusion. As a result, some voted with their little finger instead of their thumbs.

rejected ballots have been used as "an indicator of the combined quality of voter education, ballot paper design and counting instructions (including rules for acceptance of cast votes)" (Elklit and Reynolds 2002, 102).

More recently, rejected ballots have also been linked to electoral manipulation: "partisan electoral officers who deliberately soil ballot papers with ink so as to render those ballots invalid to the advantage of another political party" (Gyampo 2009, 292). The Carter Center, for example, in its report on the 2008 elections, notes that it "observed one counting in the Akwatia district of the Eastern Region where more than 200 ballots were ruled invalid despite their clearly illustrating the correct intent of the voter" and that "the invalidated ballots in this case were overwhelmingly for one candidate" (Carter Center Election Observation Mission 2009, 45). Similarly, the Institute of Economic Affairs (IEA), a donor-funded public policy think tank in Accra, has suggested that "rejected ballots are a creation of malevolent election officials who manage to find their way to the strongholds of their opposing candidate and during the issuing out of ballot papers to voters or setting out of the ballots for counting after the poll, apply extra thumbprints to a number of ballot papers to invalidate them, thereby reducing the votes of their opponent" (Institute of Economic Affairs 2014).

In sum, in Ghana, ballots are counted and at polling station-level. An advantage is that it obviates sensitive ballot box transfers. Also, it allows political parties to conduct parallel vote tabulations. A disadvantage is that it places a lot of responsibility in the hands of the election officers. Rejected ballots are generally attributed to illiteracy, inexperience, and misinformation. More recently, they have been linked to electoral manipulation.

5.3 Patronage distribution and co-optation

In the following, I develop my model. I argue that miscounting, specifically election officers who selectively reject ballots during the counting, is characterised by low risks but high direct costs, making it attractive to parliamentary candidates who fear electoral defeat and have well-established clientelistic networks.

Elections in Ghana have been described as 'harvesting season': "the time when it is time to reap the fruits from the parliamentary tree" (Lindberg 2003, 127).[119] Lindberg (2003, 2012) reports that, in 2000, 57% of Ghanaian MPs spent more than 25% of their campaign budget on 'personalised patronage' (Lindberg 2003, 131), and that, in 2008, 85% of Ghanaian voters expected their MP to "first and foremost deliver personal or very narrow, small-scale 'club', goods" (Lindberg 2012, 949). His findings lead him to the conclusion that, in Ghana, "[l]egislative elections are not about legislation, or executive oversight for that matter. They are about local small-scale club and private goods" (Lindberg 2012, 949).

The goods are not single transactions. They are part of "complex, continuing webs of exchange, obligation, and reciprocity" (Kitschelt and Wilkinson 2007, 19), in which the parliamentary candidates distribute patronage, "in exchange for contributions to their electoral efforts" (ibid., 8). The purpose is "to establish and

[119] Lindberg (2003) argues that "the culture of gift-giving has always existed in Ghana" but that "this has been turned into a weapon in the political war over parliamentary and executive power" (ibid., 135). Nugent (2007) argues that Ghanaian "voters expect to be showered with gifts as evidence that the candidate genuinely does have local interests at heart" (ibid., 256). Supporting this, data from the African Legislatures Project (ALP) (2009) suggest Ghanaian MPs spent an average of USD 52,000 on their campaign and USD 1,500-2,000 on monthly 'donations'.

reproduce pacts of mutual loyalty" (Lindberg 2003, 124): the clients are "(re-)assured that the 'big man' (or 'big woman' for that matter) will attend to their needs in times of hardship" (ibid.); the parliamentary candidates secure potentially decisive votes.

The election officers are part of these networks. They are recruited from the electoral areas to which they are deployed on election-day, and are employed only for a few days around the elections. After that they return to their regular jobs (or unemployment). The parliamentary candidates know this and "use their social penetration to recruit and co-opt electoral officials", who "may feel social pressure to use nefarious tactics or turn a blind eye to electoral malfeasance" (Asunka et al. 2014, 27). Asunka et al. (2014) suggest election officers reciprocate by "swinging results in the favour of their preferred party by manipulating the results" (ibid., 27). I argue that another way is by considering the parliamentary candidate's interests during the counting: by allowing her polling agents more space to challenge ballots and by scrutinising ballots cast for other parliamentary candidates more closely.

Obviously, not all election officers reciprocate. There are competing norms, overlapping networks, and costs associated with reneging contracts with the Electoral Commission (the opportunity to work in the future). Some election officers may reciprocate spontaneously, for example, when what they receive is sufficiently valuable or when they attribute little value to other, competing norms (Lawson and Greene 2014).[120] Others have to be reminded to "uphold their end of the bargain"

[120] Lawson and Greene (2014) have explored the conditions under which "feelings of obligation become activated to serve clientelism" (ibid., 63). The point to two factors: the value of what is provided, and the value of other obligations.

(van de Walle 2007, 64). The polling agents serve as brokers in this relationship between the parliamentary candidates and the election officers. First, they are part of "the complex pyramidal network" through which the parliamentary candidates "organize the flow of material resources" (Kitschelt and Wilkinson 2007, 8). Second, they are the "means to monitor and enforce the terms of the clientelistic bargain" (Kitschelt and Wilkinson 2007, 12).

Two properties differentiate miscounting from most other types of electoral manipulation; certainly the ones considered in this study. The first is that *the indirect costs are low*. Miscounting is practically invisible, embedded in the cultural norms and practices surrounding elections in Ghana. The parliamentary candidates are expected to distribute patronage and the election officers are mandated to reject ballots during the counting. Miscounting is electoral manipulation in the grey zone. The second property is that *the direct costs are high*. First, even when election officers reciprocate, the returns are low. Miscounting in a single polling station rarely generates more than 10-20 votes. By contrast, ballot stuffing and other types of wholesale manipulation often generate 100-200 votes. This means the parliamentary candidates must run multiple parallel operations to affect the electoral outcome; i.e. they must distribute patronage and co-opt election officers in multiple polling stations and they must deploy and maintain polling agents to monitor and enforce compliance during the counting. Second, miscounting is committed in the outer spheres of the campaign; or, rather, outside the campaigns themselves. As argued in Chapter 3, while this further reduces the risks, it also introduces agency loss. The patronage that is distributed through the polling agents may not reach the election officers, and the election officers may accept bribes from multiple parliamentary candidates.

A model of miscounting

Building on these arguments, I propose the following model. The model assumes the marginal benefit of electoral manipulation is highest around the winning threshold, meaning that the parliamentary candidates invest in types of electoral manipulation with high direct benefits when they fear electoral defeat. The indirect costs of miscounting are low, making it preferable to other types of electoral manipulation. However, the direct costs are high, meaning it is an option available only to parliamentary candidates with well-established clientelistic networks.

The model diverts from conventional wisdom by emphasising the direct costs of electoral manipulation. Birch (2011) discusses the 'human resources costs' of electoral malpractice: "the participation of relatively large numbers of political actors" and the "considerable costs associated with inducing them to behave in the manner required and monitoring their behaviour so as to prevent agency loss'" (Birch 2011, 60).[121] Similarly, both Simpser (2013) and Vicente and Collier (2011) include cost functions in their models of electoral manipulation. My understanding of the direct costs of electoral manipulation is closest to that of Vicente and Collier (2011). Like them, I allow the price to vary, depending on type and the context, and recognise that some parliamentary candidates have better access to resources than others. Ballot

[121] In addition, Birch (2011) discusses the 'external (international) costs' of rigging, arguing that "states that are heavily dependent on international trade, aid, and/or foreign direct investment (FDI) can ill afford to see the legitimacy of their regimes plunge precipitously in the international arena" (ibid., 58); and the 'domestic legitimacy costs', understood as "the proportion of the population that can be expected to acquiesce to having their contribution to public choice taken from them or distorted (as perceived by the leader in question)" (ibid., 59)

destruction is more expensive than other types of electoral manipulation, making it more attractive to parliamentary candidates with deep clientelistic networks.

5.4 Patterns

In what follows, I explore the patterns of miscounting in Ghana, using regression analysis. I find that the number of parliamentary ballots rejected, relative to the number of parliamentary ballots cast, is positively correlated with the number of years the party of the incumbent MP has held the constituency seat but negatively correlated when I interact this variable with the win-margin in the last parliamentary election. The results are consistent with my model, suggesting that the parliamentary candidates rig elections in the grey zone when they fear electoral defeat and have well-established clientelistic networks.

A first cut

As in the previous chapter, I first visually examine the patterns. Figure 5.1 maps (a) the number of parliamentary ballots rejected in 2008; (b) the number of parliamentary ballots rejected in 2008, relative to the number of parliamentary ballots cast; (c) the number of parliamentary ballots rejected in 2012; and (d) the number of parliamentary ballots rejected in 2012, relative to the number of parliamentary ballots cast. The darker the constituency, the more ballots were rejected. White indicates that data were unavailable.

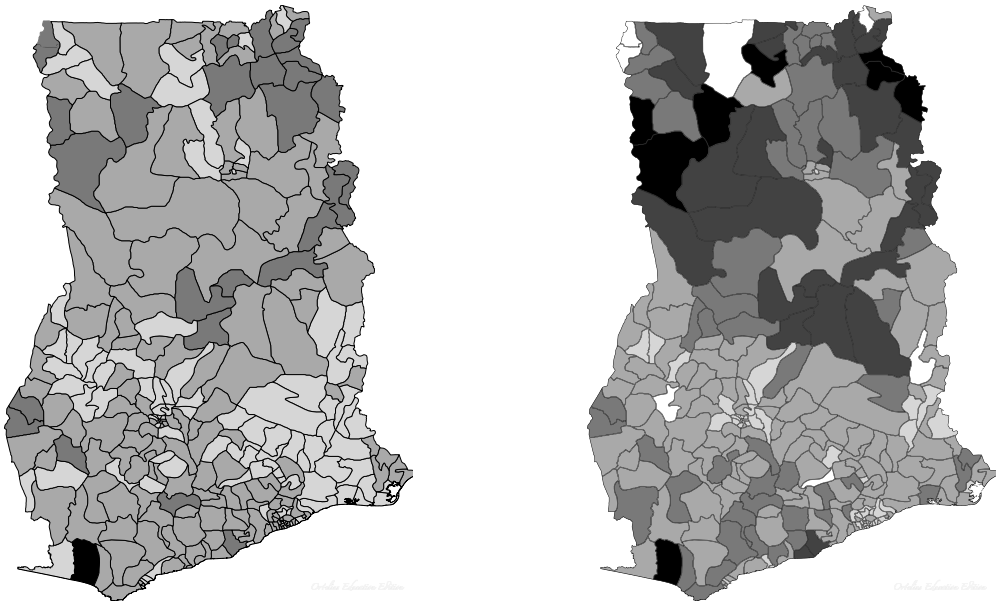
Two things should be noted. First, more ballots are rejected in the three northern regions (Northern, Upper East, and Upper West), where literacy,

employment, and mobile ownership rates are among the lowest in the country.[122] This underlines the importance of controlling for illiteracy, inexperience, and misinformation in my models. Second, visibly fewer ballots are rejected in the Ashanti and the Volta regions, the electoral strongholds of the NPP and the NDC respectively. This suggest electoral uncertainty has a positive effect on the number of ballots rejected.

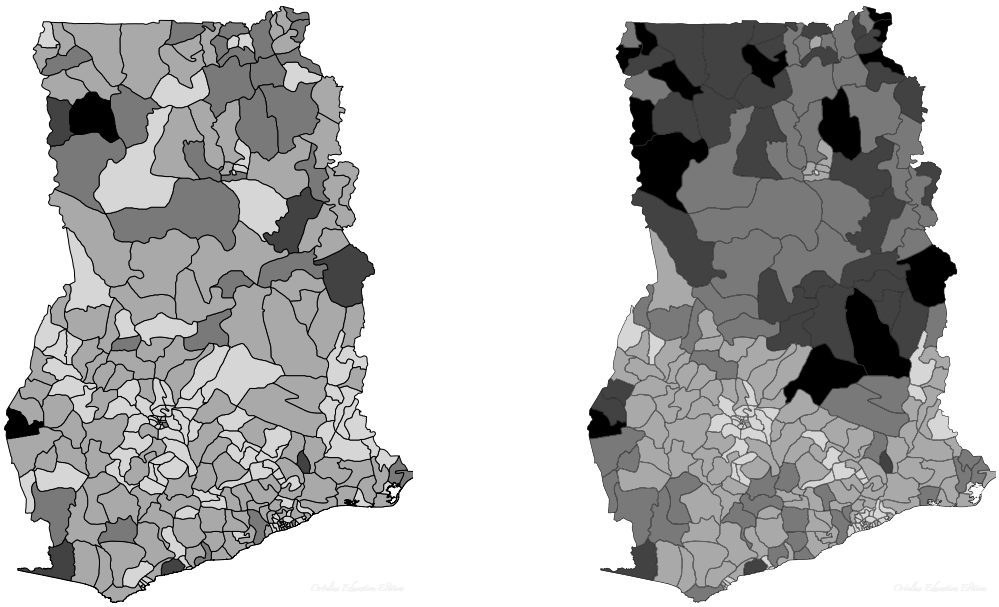
[122] In the three northern regions, the average education rate is 49%, while the average mobile ownership rate is 14%. In the remaining seven regions (Ashanti, Brong Ahafo, Central, Eastern, Greater Accra, Volta, and Western), the average education rate is 81%, while the average mobile ownership rate is 34%.

Figure 5.1: Map of *Parliamentary ballots rejected*, 2008 and 2012

(a) (b)



(c) (d)



Note: Panels (a) and (c), from light grey to black=→500; 500→1,000; 1,000→1,500; 1,500→2,000; 2,000→. Panels (b) and (d), from light grey to black=→1%; 1→2%; 2→3%; 3→4%; 4%→. White=missing data.

Regression analysis

I now turn to the regression analysis. The analysis draws on the dataset described in Chapter 2. I first describe the variables and specify my model. I then present and plot the results and describe the robustness tests.

Variables

As my dependent variable, I use *Parliamentary ballots rejected*, which counts the number of ballots rejected. It ranges from zero to 5,590: the highest number of ballots rejected in any election (the 2008 election in Ellembele). I use *Presidential ballots rejected* as a robustness test. Data were extracted from official election results (Electoral Commission of Ghana 2015). No further adjustments were necessary.

My model suggests the parliamentary candidates rig elections in the grey zone when they fear electoral defeat and have well-established clientelistic networks, which means they can distribute patronage to co-opt election officers and can deploy and maintain polling agents to monitor and enforce compliance during the counting. To capture the first factor, the parliamentary candidates' fear of electoral defeat, I use *Parliamentary win-margin*$_{t-1}$, which measures the win-margin in the last parliamentary election. To capture the second factor, their clientelistic networks, I use *MP party tenure*, which counts the number of years the party of the incumbent MP has held the constituency seat. My assumption is that the longer a party has held a constituency seat, the more established are the party's clientelistic networks. The interaction between *Parliamentary win-margin*$_{t-1}$ and *MP party tenure* captures the conditional effect. All data were extracted from official election results (Electoral Commission of Ghana 2015).

A party's clientelistic networks may suffer shocks, when the incumbent MP decides to run as an independent candidate. As described in Chapter 2, this happened

in LMK, where it caused a party split between the constituency party leadership on one side and the branch executives on the other. To control for this, I include *MP running independent*, which indicates whether the incumbent MP ran as an independent candidate. As discussed in Chapter 2, the number of ballots rejected captures both electoral manipulation and unintentional violations of the electoral laws, caused by illiteracy, inexperience, and misinformation. I use three different variables to control for this: *Population literate*, which measures the fraction of the constituency population that is literate; *Population employed*, which measures the fraction of the constituency population that is employed; and *Population with mobile*, which measures the fraction of the constituency population that owns a mobile phone. As also described in Chapter 2, the three variables were adjusted in ways that violate the assumed independence of observations. I therefore use an alternative control variable, when I test the robustness of my results: *Constituency metropolitan*, which indicates whether the constituency was located in one of the six metropolitan districts. *Constituency metropolitan* is closely correlated *Population literate*, *Population employed*, and *Population with mobile*, and capture many of the same, underlying dynamics. The marginal direct benefit of electoral manipulation depends on the number of voters registered. In constituencies with more voters registered, the parliamentary candidates must steal more votes to change the electoral outcome, making expensive retail manipulation less attractive. To control for this, I include *Voters registered (log)*, which provides the natural logarithm of the number of voters registered in the constituency. Finally, there may be temporal shocks in my data, caused by the 2008 presidential election, which was very close. To control for this, I include an election-year dummy variable, with 2008 as the reference category.

Model

Figure 5.2: Histogram of *Parliamentary ballots rejected*

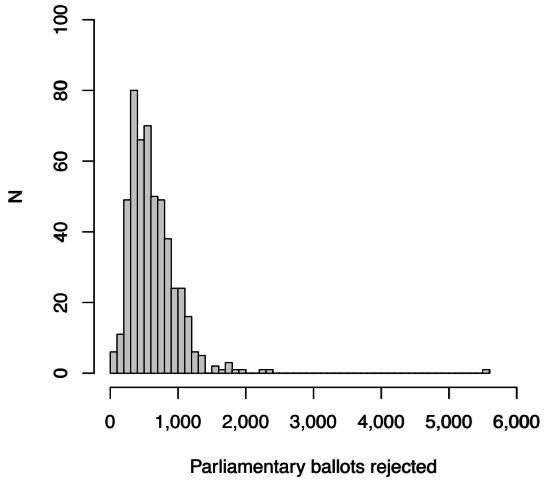


Figure 5.2 provides a histogram of the dependent variable. As in Chapter 4, it is bounded below zero and positively skewed, meaning that in most elections relatively few ballots are rejected. Again, I use a negative binomial model to account for possible over-dispersion (Cameron and Trivedi 1986; Gourieroux, Monfort, and Trognon 1984; King 1989; Long 1997). Recall that Poisson model is nested in the negative binomial model. The fully specified model looks as follows:

$$E(Y) = \beta_0 + \beta_1 MP\ party\ tenure + \beta_2 Parliamentary\ win\ margin_{t-1} + \beta_3 MP\ party\ tenure \times Parliamentary\ win\ margin_{t-1} + \beta_4 X + \varepsilon + offset(log\ (Parliamentary\ ballots\ cast))$$

where β_0 is the constant; $\beta_4 X$ is a vector of control variables; and ε is the error term. Following Brambor, Clark, and Golder (2006), I include all of the constitutive terms of the interaction variables. Again, note that the model offsets the number of ballots rejected by the number of ballots cast, meaning that it estimates the dependent variable as fractions.

Results

The results are reported in Table 5.2. Model 1 maximises the goodness of fit (minimises Akaike's Information Criterion). Model 2 includes all control variables.

Model 3 replaces *Population literate*, *Population employed*, and *Population with mobile* with *Constituency metropolitan*. Model excludes the interaction term. The results are consistent with my model. *MP party tenure* is positive and statistically significant in all models, while the interaction between *MP party tenure* and *Parliamentary vote-margin*$_{t-1}$ is negative and statistically significant. In other words, more ballots are rejected when the last election was won by a smaller margin and the party of the incumbent MP had held the constituency seat for more years. As expected, *Population literate*, *Population employed*, and *Population with mobile* are negative and statistically significant in all models, where included, as is *Constituency metropolitan*. This confirms the effect of illiteracy, inexperience, and misinformation. Finally, *Voters registered (log)* is negative and statistically significant in all models, suggesting that miscounting is less attractive in constituencies with fewer voters registered, while *MP running independent* is positive and statistically significant, suggesting that it is more attractive when the incumbent MP ran as an independent candidate, whether because the incumbent MP brings with her the clientelistic networks of her former party or because it drives the new parliamentary candidate to rig the elections.

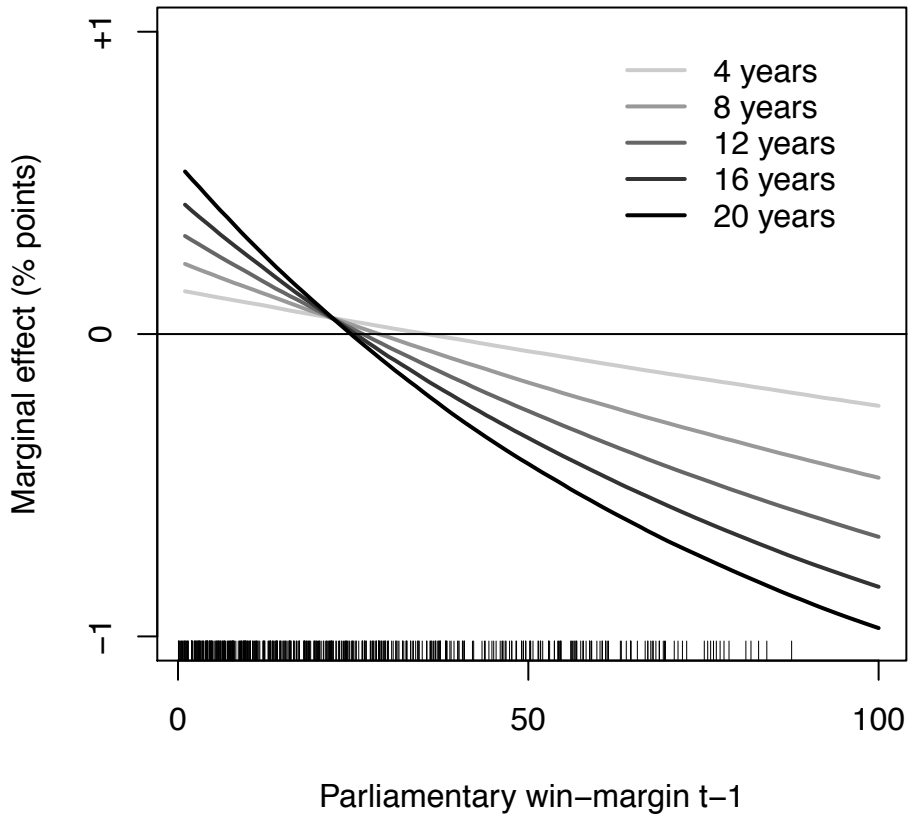
Table 5.2: Miscounting, regression results

	(1)	(2)	(3)	(4)
	Parliamentary ballots rejected			
MP party tenure	**0.013****	**0.013****	**0.014****	0.002
	(0.005)	**(0.005)**	**(0.007)**	(0.004)
Parliamentary win-margin$_{t-1}$	0.421	0.391	0.051	**-0.392*****
	(0.302)	(0.318)	(0.381)	**(0.103)**
MP running independent	**0.248***	**0.249***	**0.346****	0.218
	(0.142)	**(0.142)**	**(0.171)**	(0.143)
Population literate	**-1.103*****	**-1.102*****		**- 1.089*****
	(0.318)	**(0.318)**		**(0.321)**
Population employed	**-1.347*****	**-1.347*****		**-1.429*****
	(0.503)	**(0.503)**		**(0.506)**
Population with mobile	**-2.567*****	**-2.563*****		**-2.555*****
	(0.262)	**(0.262)**		**(0.264)**
Constituency metropolitan			**-0.691*****	
			(0.074)	
Voters registered (log)	**-0.109****	**-0.110****	**-0.478*****	**-0.115****
	(0.053)	**(0.053)**	**(0.054)**	**(0.053)**
2012		-0.012	-0.061	
		(0.040)	(0.049)	
MP party tenure × Parliamentary win-margin$_{t-1}$	**-0.061*****	**-0.059*****	**-0.057****	
	(0.021)	**(0.022)**	**(0.027)**	
Constant	-0.763	-0.742	**1.203****	-0.508
	(0.664)	(0.667)	**(0.590)**	(0.664)
N	505	505	505	505
AIC	6,959.991	6,961.903	7,156.597	6967

Notes: Negative binomial models. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Figure 5.3 plots the marginal effect of *Parliamentary win-margin*$_{t-1}$ for different values of *MP party tenure*. The coefficients are extracted from model 1 in table 5.2, which produces the best goodness of fit. The figure shows that for values of *MP party tenure* between four and eight, the marginal effect of *Parliamentary win-margin*$_{t-1}$ is below 0.5% point, across the range of the variable. For values between 16 and 20, the marginal effect is around 1.5% points. In a 'typical' constituency, with 52,000 registered voters and a voter turnout around 75%, that is 585 votes. By comparison, there are 29 cases (6%) in my dataset, where the win-margin was below 585 votes.

Figure 5.3: Marginal effect on miscounting



Notes: Coefficients extracted from model 1 in Table 5.2.

Robustness tests

Appendix D contains several robustness tests. I use the opportunity to further explore the data. First, I replace *MP party tenure* with the interaction between *MP tenure* and *MP running*, which counts the number of years the incumbent MP has held constituency seat and indicates whether she ran for re-election; and with *Minister running*, which indicates whether a minister or deputy minister contested the election. Second, I replace *Parliamentary win-margin*$_{t-1}$ with *Presidential vote-margin*$_{t-1}$, which measures the vote margin between the NDC and the NPP presidential candidates in the last presidential election in the constituency. Third, I change my dependent variable to *Presidential ballots rejected*, which counts the number of

ballots rejected in the presidential election. Finally, I introduce the following, additional control variables: *Candidates*, which counts the number of parliamentary candidates contesting the election; *Constituency size*, which measures the size of the constituency in squared kilometres; *Ethnic voters*, which measures the fraction of the constituency population that is Akan and Ewe; *Ethnic fractionalisation*, which provides the (one minus the) Herfindal index score for the nine ethnic groups used in the 2010 Population and Housing Census; and *Ethnic polarisation*, which provides which the Montalvo and Reynal-Querol (2005a, 2005b) index score also for the nine ethnic groups used in the census.

The results are almost identical with the results in table 5.2. *MP party tenure* is positive and statistically significant in all models, where included, while the interaction between *MP party tenure* and *Parliamentary win-margin*$_{t-1}$ is negative and statistically significant. Similarly, *Population literate*, *Population employed*, and *Population with mobile* are negative and statistically significant, as is *Voters registered (log)*. Note that the interaction between *MP tenure* and *MP running* and *Minister running* are not statistically significant. In other words, it appears to be the clientelistic networks of the parties, rather than those of the incumbents, that enable them to co-opt election officers.

Limitations

In this section, I consider some of the limitations of my analysis. In principle, the results could be driven not by election officers who reject ballots correctly cast in favour of the challenger, but by election officers who count wrongly cast ballots in favour of the incumbent. This could explain why fewer ballots are rejected in electoral strongholds. While I do not rule this possibility, I do not believe it is the primary explanation. If so, I would expect the distribution of *Parliamentary ballots*

rejected to be negatively skewed; i.e. the mean should be lower than the median. As Figure 5.2 demonstrated, this is not the case. On the contrary, the distribution is positively skewed, meaning the outliers are located above the mean and the median.

The second alternative interpretation of the results is that they entirely driven by illiteracy, inexperience, and misinformation. As argued in Chapter 2, all measures of electoral manipulation are liable to bias. The measure used in this chapter is no exception. Ballot rejections capture both electoral manipulation (possibly even multiple types of electoral manipulation) and unintentional violations of the electoral laws. I have tried to address this bias by using multiple and different control variables. However, illiteracy, inexperience, and misinformation, certainly still contribute to the results.

In sum, the number of ballots rejected, relative to the number of ballots cast, is positively correlated with the number of years the party of the incumbent MP has held the seat, but negatively correlated when I interact this variable with the win-margin in the last parliamentary election. Also, it is negatively correlated with the number of voters registered and positively correlated with whether the incumbent MP ran as an independent candidate. This is consistent with my theoretical argument, suggesting that the parliamentary candidates rig elections in the grey zone, when they fear electoral defeat and have well-established clientelistic networks.

5.5 Causal mechanisms

In the following, I explore some of the causal mechanisms of my model, drawing on participant observations from the 2012 elections in LMK and Ada. In LMK, 3.7% of the ballots cast were rejected. That is 1.6 standard deviations above the mean and 2.5% points above the point estimate when I model the number of ballots rejected as a

function of literacy, employment, and mobile ownership. In Ada, only 1.7% of the ballots cast were rejected: 0.1% point below the mean and exactly the point estimate when I model the number of ballots rejected as a function of literacy, employment, and mobile ownership. Recall that LMK and Ada were chosen as 'most similar' cases: cases that maximise variation on my measure of electoral uncertainty, while minimising variation on seven background variables, including the number of years the party of the incumbent MP had held the constituency seat. This make them ideal for exploring the effect of electoral uncertainty, allowing me to explore both the cross-case variations and to explore the within-case casual mechanisms, using process-tracing methods (Beach and Pedersen 2013; Bennett and Checkel 2014).[123] Process-tracing differ from most other case study methods by focusing explicitly on "the intervening causal process […] between an independent variable (or variables) and the outcome of the dependent variable" (George and Bennett 2005, 206–7). Following Beach and Pedersen's (2013), the findings are presented, not as an analytical narrative (Buthe 2002; Ruback 2010) but as a "stepwise test of each part of the causal mechanism" (Beach and Pedersen 2013, 5). The analysis contributes by pointing to a dual effect of electoral uncertainty. It increases the parliamentary candidates' incentive to rig and, by bringing constituency party leaders closer together, may increase their capacity to do so without getting caught.

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[123] Process-tracing methods—"tools to study causal mechanisms in a single-case research design" (Beach and Pedersen 2013, 1)—have become popular within the social sciences. Yet, there is no consensus as to what process tracing is. Beach and Pedersen (2013) distinguish three types of process-tracing: theory-testing process-tracing; theory-building process-tracing; and explaining-outcome process-tracing. In this chapter, I specifically use theory-building process-tracing.

LMK, 2012: electoral uncertainty and party cohesion

In 2012, the election in LMK was a race between the incumbent MP and independent candidate, Michael Teye Nyaunu; the NDC candidate, Ebenezer Okletey Terlarbi; and the NPP candidate, Difie Dedo Agyarko-Kusi. Terlarbi won by a margin of 18% points. As noted, 3.7% of the ballots cast were rejected; more than what can reasonably be attributed to illiteracy, inexperience, and misinformation. The cross-case variations are consistent with my model. In 2012, the election in LMK was closer than in the rest of the country and more ballots were rejected. In the following, I explore the within-case casual mechanisms. I argue that the threat from the independent candidate brought the different spheres of the NDC campaign closer together, allowing Terlarbi to distribute patronage more efficiently and expand his clientelistic networks beyond the ruling party.

In 2008, the then-NDC candidate, Nyaunu, won by a margin of 13% points. Shortly thereafter, he fell out with the national party leadership of the NDC (Hanson 2008; Takyi-Boadu 2008b).[124] Nyaunu's relationship with the party leadership deteriorated in 2011, when he declared his support for Nana Konadu Agyeman-Rawlings—wife of former president Jerry Rawlings—in her bid for the NDC presidential nomination (Kotey 2011a, 2011b).[125] Nyaunu said president Mills's health had "allowed the people surrounding him […] to take control" (Citifm 2011)

[124] Already before the 2008 elections, Nyaunu said "Prof Mills is very sick and cannot stand the heat of an election campaign. The best thing to do is for the party to organise an emergency congress to elect a new flagbearer to take over from him" (Hanson 2008). Nyaunu was reprimanded by the national party leadership "for using an inappropriate channel to address his concern on the health of the flag bearer of the party, Professor John Evans Atta Mills" (Adu-Gyamerah 2008).

[125] Nyaunu was Agyeman-Rawlings's campaign manager.

and described him and his followers as 'tenants' of the NDC, adding "and there is no way the landlord would allow them the chance to stay in the house again" (Akwetey-Okunor 2011a). Nyaunu's attacks on the president were unpopular in LMK. In May 2011, a group of NDC branch executives demonstrated against the incumbent MP. Interviewed by Ghana News Agency, the branch chairman in Kpong Zongo, Dominic Atenutsui, explained that the demonstration was "intended to inform President John Evans Atta Mills that the people of the area were not in support of Mr Nyaunu's disrespectful behaviour" (Ghana News Agency 2011).

Nyaunu contested the party primaries in January 2012. He was defeated by Terlarbi, the Deputy Eastern Regional Minister and a former NDC candidate in Oforikrom, in the Ashanti Region. Terlarbi was backed by a coalition of marginalised non-Krobos (Ewes and Northerners) and Rawlings-era constituency party leaders, including the former Eastern Regional Minister, Emmanuel Tetteh, and the Municipal Assembly member for West Kpong, George Okyere,[126] who had been excluded from party leadership positions during the incumbency of Nyaunu (The Chronicle 2012). Nyaunu later accused Terlarbi of manipulating the primaries. Interviewed by Peace FM, he said "the entire government machinery" had "descended on his constituency distributing bags of rice, cooking oil, roofing sheets and doling out monies to delegates like the wind without a care in the world" (Quaicoe 2012), and that he

[126] Both Tetteh and Okyere are founding members of the NDC and long-time opponents of Nyaunu. Tetteh was the first MP for LMK but lost the party primaries to Nyaunu in 1996. Okyere was one of the constituency party leaders, who challenged Nyaunu and supported the NPP candidate in 2004 (Akuaku 2004f). I take a closer look at the 2004 election in Chapter 6.

"would have won the primary hands down, if the election was conducted in a fair manner" (Nonor 2012).

Following months of speculation, in October 2012, Nyaunu announced his decision to run as independent candidate (Siaw 2012), causing a party split between the constituency executives on one side, who remained loyal to the incumbent MP, and most of the branch executives on the other, who supported Terlarbi, as the party's elected parliamentary candidate. The party split left the election entirely open. Interviewed three months before the elections, Robert Teye, the constituency organiser said, "[w]e have serious problems in this constituency because we have a new candidate representing the NDC while the incumbent is also standing as an independent candidate for the same seat which is a very serious threat to the party. If things are left as they are now, I'm afraid we will lose the seat totally" (Citifm 2012).

In 2010 and 2011, the government had launched the Local Enterprises and Skills Development Project (LESDEP), under the Ministry of Local Government and Rural Development, and several new modules under the National Youth Employment Programme (NYEP). The programmes were widely used as patronage. An independent evaluation later noted that "[i]n essence, LESDEP and YESDEC[127] were primarily intermediary institutions, adding little value in the process yet creaming off significant surpluses" (Korboe 2014), while a ministerial report concluded that "[f]rom inception, NYEP suffered over politicisation of the Programme with attendant political patronage and cronyism", noting "serious issues with payroll management,

[127] The Youth Enterprises and Skills Development Centre (YESDEC) provided training under LESDEP and NYEP.

'ghost' names, unclaimed beneficiaries allowances and allegations of financial malfeasance" (Ministry of Youth and Sports 2013, 22).

As Deputy Eastern Regional Minister, Terlarbi was one of the patrons of the programmes (Akwetey-Okunor 2011b, 2012),[128] and he used them to organise his campaign: operatives were enrolled as NYEP beneficiaries,[129] and LESDEP start-up kits—agricultural tools, fishing nets, sewing machine, motorcycles, and multiple-purpose tricycles—were distributed as patronage through the branch executives.[130] Terlarbi used the programmes also to expand his clientelistic networks beyond the ruling party. In 2012, around 10,000 youth were enrolled as NYEP beneficiaries in the Eastern region (Ghana News Agency 2012f), including 1,200 in LMK (Lower Manya Krobo District Assembly 2012), and around 2,000 received LESDEP start-up kits or microcredits (Ghana News Agency 2012f). Among them were 200, who completed their LESDEP training in LMK eight months before the election (Akwetey-Okunor 2012).[131] Speaking at their graduation ceremony, Terlarbi said the programme was "conceived by the government […] to address the unemployment situation in the country, if not completely, to a desirable level" and that the beneficiaries should "keep this in mind, come December" (Akwetey-Okunor 2012).

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[128] Terlarbi presided over the launch of the Youth in Road Maintenance Module in the Eastern region (Akwetey-Okunor 2011b), and spoke at LESDEP graduation ceremonies in multiple districts (Akwetey-Okunor 2012).

[129] The ministerial report, already referred to, also noted that in the Eastern region, "[s]everal attempts to ensure that exited beneficiaries were cleaned from the payroll and not consistently paid went unheeded […] resulting in for example allowances being paid into the accounts of exited beneficiaries in November and December 2012" (Ministry of Youth and Sports 2013, 87).

[130] Interview with Joe Teye, LMK District Coordinator of LESDEP, Agormanya, 6 December 2012.

[131] In 2010, the population of LMK was 89,000, while the population of the Eastern region was 2.7 million. In other words, around 3% of the population lived in LMK. Nonetheless, 12% of all NYEP beneficiaries were in LMK, where 10% of all LESDEP start-up kids were also distributed.

Terlarbi's clientelistic networks stretched into the Electoral Commission. For example, the younger brother of Umar Adams Lukman, the acting constituency secretary, was the presiding officer in the polling station to which Lukman was deployed on election-day.[132] Similarly, the lady selling fried plantain in front of Terlarbi's house, and who supplied the operatives before their meetings, was the verification officer in one of the polling stations in the neighbourhood. The District Election Officer acknowledged the problem. Interviewed before the elections, he explained, "we hire more than 500 people. Obviously, we can't check all of them. We have a database and try to hire people we know – people that worked with us before. But everyone has a brother or a friend or knows someone who's working for one of the candidates. What can we do?".[133]

On election-day, Terlarbi sought to activate his clientelistic networks by distributing large amounts of patronage. The opening paragraph in this chapter captures my observations at a polling station in Akuse. The episode is by no means unusual. The campaign manager visited 15-20 polling stations on election-day. In all, he brought food or promised that food would be delivered shortly. In around half, he gave money to the polling agents and told them to 'buy something for everyone here' or 'go house-to-house and get them what they want'. In two, he gave money directly to the presiding officer. Asked why, he said it was "to make sure everything goes

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[132] Interview with Umar Adams Lukman, Acting Constituency Secretary of the NDC in LMK, Agormanya, 1 December 2012. On election-day, I visited the polling station and verified that both Lukman and his brother were present.

[133] Interview with Asare Baffour Djan, LMK District Election Officer, Electoral Commission, Agormanya, 5 December 2012.

well".[134] A former NDC operative had a different explanation. Interviewed three weeks before the elections, he said, "once they've accepted whatever you give them, they have to help you. If you want to make some ballots disappear under the table, they have to look the other way. You can also keep a small piece of coal in your hand or in your hair. And when you get the ballot, you just do like this [raises his right hand and touches his hair, lowers it and touches an imaginary ballot in his left hand]. Then the ballot is invalid, and they can't say anything. Sometimes you don't even need to do anything. If there's some dirt or something on the ballot, you just say it's invalid".[135] Electoral Commission officials confirmed that norms of reciprocity compel the election officers to reciprocate. Interviewed after the elections, the Director of Operations said, "it's a big problem because in our culture, when I give you something, you have to give me something back. It doesn't have to be today or tomorrow. But when you ask me for help, I have to help you".[136]

I have no 'hard' evidence that election officers reciprocated by selectively rejecting ballots during the counting. The election officers I interviewed in LMK admitted to receiving food from the parliamentary candidates but insisted that it did not compromise their impartiality.[137] In fact, 'hard' evidence perhaps does not exist, as the election officers reciprocate almost subconsciously. That being said, detailed electoral reveal significant variation in terms of the number of ballots rejected. In

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[134] Interview with David Walter Hormenu, campaign manager for Ebenezer Okletey Terlarbi, NDC candidate for LMK, Agormanya, 28 September 2012.

[135] Interview with Henry Ayertey, former NDC branch executive, Nuaso, 16 November 2012.

[136] Interview with Emmanuel Asante Kissi, Director of Operations, Electoral Commission, Accra, 15 December 2012.

[137] Interview with Fatao Adams, election officer in LMK, Agormanya, 5 December 2012.

most polling stations, less than ten ballots were rejected. In Agormanya and Akuse—the electoral areas of the NDC candidate his campaign manager—more than 40 ballots were rejected in several polling stations.

Ada, 2012: Electoral confidence and party disintegration

In Ada, the 2012 election was a race between the NDC candidate, Comfort Doyoe Cudjoe-Ghansah; the independent candidate, Emmanuel Tetteh Kabu; and the NPP candidate, Betty Atsupe Gorleku-Quarshie. Cudjoe-Ghansah won by a margin of 61% points. Only 1.7% of the ballots cast were rejected; within what can defensibly be attributed to illiteracy, inexperience, and misinformation. Again, the cross-case variations are consistent with my model: the party of the incumbent MP had held the constituency seat uninterruptedly since 1992, but the outcome of the 2012 election was never in doubt and fewer ballots were rejected. In the following, I explore the within-case causal mechanism. I argue that in the absence of an external threat, the different spheres of the NDC campaign drifted apart, undermining Cudjoe-Ghansah's capacity to co-opt election officers and rig the elections in the grey zone

In 2008, the incumbent MP and NDC candidate, Alex Tettey-Enyo, was re-elected for a second term by a margin of 61% points. After the elections, Alex Tettey-Enyo was appointed as Minister of Education. However, already before his appointment was approved by parliament, he got "entangled with the lies and controversies that bedevil party politics in Ghana" (Akuaku 2012). Appearing before the vetting committee, Tettey-Enyo "had to struggle through with his Curriculum Vitae (CV), which after considerable permutations at the time strongly suggested that he must either have started Primary School when he was one-year old, or he obtained his first University degree when he was just fourteen years old" (Akuaku 2012). And a few days later, "he went ahead to embarrass the president by openly telling the

media that he actually lobbied the Office of the President to be nominated as a minister" (Akuaku 2012).

Tettey-Enyo was sacked already in January 2011, having "spent a whole year bulldozing his way to make those political promises see the light of day, and in the process inadvertently pushing to the rear the dire needs and aspirations of his constituents who elected him into parliament" (Akuaku 2012). He contested the party primaries in Ada in January 2012 but was defeated by Cudjoe-Ghansah, a member of the Accra Metropolitan Assembly, who was backed by the MP for Ablekuma South and later Minister of Information, Fritz Baffour.[138] Since 2010, Cudjoe-Ghansah had courted the branch executives in Ada by providing microcredits to community leaders, and registering 2,000 elderly community members under the National Health Insurance Scheme (NHIS) (Ghana News Agency 2012d).[139] This had given her a platform from which she could challenge the incumbent MP.

Tettey-Enyo withdrew from the elections. However, in August 2012, just four months before the election, a local entrepreneur and NDC benefactor, Kabu, declared his intention to run as an independent candidate. Speaking on local radio, he said, "the time has come for the indigenes of Ada to take their destiny into their own hands and turn around the dwindling fortunes of the constituency" (Abbey 2012), feeding perceptions of Cudjoe-Ghansah as an outsider. There were rumours that Tettey-Enyo and the constituency executives were backing Kabu (Cobbina 2012), but it never

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[138] Cudjoe-Ghansah was Baffour's campaign manager, when he ran for parliament in 2008.

[139] Interviewed in 2012, Cudjoe-Ghansah explained this was "to demonstrate to all Ada people" that she would "deliver as promised when voted for as a Member of Parliament for Ada East, come December 2012" (Ghana News Agency 2012d).

came to a party split as it did in LMK. No one seriously thought Kabu could win; not even Kabu himself. Interviewed three weeks before the election, he explained, "I'm an NDC man. I've always been. And after the election, I'll go back to the NDC. But the lady shouldn't think we're going to accept anything. The people of Ada are tired of people telling them what to do. She must listen to us. They must listen to us".[140] The NPP candidate, Gorleku-Quarshie, also did not expect to win. Rather, she was positioning herself for the position of District Chief Executive, in case Akufo-Addo should win the presidential election. Two weeks before the election, she said, "Akufo-Addo will get more votes than me […] I want Akufo-Addo to win—that's what I care about. I don't care about myself".[141]

In 1996, the government had created the National Disaster Management Organisation (NADMO), an entity under the Ministry of Interior, mandated to ensure disaster preparedness and provide disaster relief, rehabilitation, and reconstruction (*National Disaster Manager Organisation Act* (Act 517) 1996). Since its creation, NADMO was used to provide patronage jobs. After the 2000 elections, when the NPP won, "the new government dismissed thousands of employees who had worked in the districts as officers of National Disaster Mobilisation (NADMO)", accusing them of being "operatives of the past government" (Kathyola and Job 2011, 130-131). After the 2008 elections, when the NDC returned to power, "the victimisation process was repeated" (Kathyola and Job 2011, 130-131), and by 2011, NADMO had become

[140] Interview with Emmanuel Tetteh Kabu, independent candidate for Ada, Big Ada, 28 November 2012.

[141] Interview with Betty Atsupe Gorleku-Quarshi, NPP candidate in Ada, Big Ada, 28 November 2012.

"more National Democratic Congress than the party office at Kokomlemle" (The Chronicle 2011).

Cudjoe-Ghansah's campaign manager, Gad Ackwerh, was a national NADMO official, on leave during the election campaign. Another campaign team member, Samuel Ofori Portuphy, was the District Coordinator of NADMO. A former Rawlings-era activist,[142] Ackwerh had left the NDC in 2000, when the party lost the presidential election. He saw the emergence of a new NDC candidate as an opportunity to return to the ruling party. Portuphy was the nephew of Kofi Portuphy, founding member of the NDC and then-National Coordinator of NADMO,[143] and widely believed to be eyeing the position of District Chief Executive (Kubi 2013).

NADMO resources were systematically redirected through the NDC campaign. However, they were not necessarily channelled through Cudjoe-Ghansah. In May 2012, the first phase of the Wasakuse Water Project was launched; a NADMO-funded extension of the Volta River into the constituency to provide drinking water for 2,000 constituents and to "revamp the farming and fishing businesses" of thousands others (Ghana News Agency 2013a; Viwotor 2013). Cudjoe-Ghansah attended the launch as a special guest but it was presided over by Portuphy, in his capacity as District Coordinator of NADMO. In August, the NDC campaign began supplying drinking water to drought-affected communities in the

[142] Ackwerh was a former member of the Committee for the Defence of the Revolution (CDR). The CDRs were the regional and district subsidiaries of the Provisional National Defence Council (PNDC) (Yeebo 1985).

[143] Kofi Portuphy served as National Coordinator of NADMO between 1996 and 2001 and again between 2009 and 2013. In 2014, he was elected as National Chairman of the NDC.

constituency, in a water tanker belonging to NADMO and donated by the Government of Japan (Zaney 2012). The tanker was often parked in front of Cudjoe-Ghansah's house, as a visible sign of the connection with the NDC and its parliamentary candidate. However, the activity was coordinated by Ackwerh, who personally drove or accompanied the tanker. Finally, in October and November, the party began distributing relief items, also supplied by NADMO, to disaster-prone communities in the Volta River delta and along the Atlantic coast: mosquito nets, mosquito repellent, blankets, matrasses, kitchenware, rice, maize, cooking oil etc. The items were distributed at the end of community meetings, organised by Cudjoe-Ghansah. However, in addition, they were distributed directly by Ackwerh and Portuphy, through the branch executives; and the distribution continued after the elections. For example, on 28 January 2013, three weeks after Cudjoe-Ghansah had been sworn in as MP, Ackwerh was publicly accused by one of the regional executives of the NDC of "circulating NADMO relief items to the electorate in the Ada constituency […] in a bid to flush out the constitutionally elected executives" (Kubi 2013).

Cudjoe-Ghansah's dependence on Ackwerh and Portuphy meant that her clientelistic networks were rather restricted. As the NDC candidate in LMK, she had a core group of operatives but, in addition, Akwerh and Portuphy had their own entourages of NADMO employees and NDC members. Moreover, as the campaign team member responsible for the recruitment of polling agents, Akwerh became the natural centre of gravity for many of the branch executives.

Again, there is no proof that all ballots were counted fairly in Ada. The analysis in this section has only documented a correlation and illustrated how the absence of an external threat, and a single patronage source, affected the campaign

organisation. That being said, there is very little variation in terms of the number of ballots rejected. The average number of ballots rejected in each polling station is 6.6 and there were no polling stations were more than 20 ballots were rejected.

The dual effect of electoral uncertainty

To recapitulate, in LMK, 3.7% of the ballots cast were rejected; far above what can reasonably be attributed to illiteracy, inexperience, and misinformation. Only 1.7% of the ballots cast were rejected in Ada; exactly the point estimate when I model the number of ballots rejected as a function of literacy, employment, and mobile ownership. The cross-case variations are consistent with my model. In both constituencies, the NDC has held the constituency seat uninterrupted since 1994. However, while the NDC candidate in LMK feared electoral defeat, in Ada, she was confident that she would win the seat. The analysis in this section has explored the effect of electoral uncertainty and patronage distribution on campaign organisation. I have argued that in LMK, there was only one source of patronage and therefore only one centre of the campaign, while in Ada there were multiple sources of patronage and therefore no clear command structure. In other words, while the NDC candidate in LMK had both the incentive and the capacity to engage in expensive retail manipulation, the NDC candidate in Ada had neither.

The findings point to a dual effect of electoral uncertainty. As argued throughout this study, electoral uncertainty increases the parliamentary candidates' incentive to rig the elections. The analysis in this section suggests that, in addition, it increases their capacity to do so without getting caught. When parties are under pressure, constituency party leaders come together and channel their resources through the parliamentary candidate. When they are confident that they will win, constituency party leaders pursue their own interests and distribute patronage

themselves to expand their own, personal clientelistic networks. Interviews with constituency party leaders in LMK support this argument. After the 2012 elections, one of them explained, "this time we worked together. Before there were always some that didn't work. But this time we had to work together because of the independent candidate".[144]

5.6 Conclusion

In this chapter, I have looked at miscounting. First, building on the framework presented in Chapter 3, I developed a model. I argued that miscounting is characterised by low risks and high direct costs, making it attractive to parliamentary candidates who fear electoral defeat and have good access to resources. Second, I examined the patterns of miscounting. I found that the number of ballots rejected, relative to the number of ballots cast, is positively correlated with the number of years the party of the incumbent MP has held the seat but negatively correlated when I interact this variable with the win-margin in the last parliamentary election. This is consistent with my model. Third, I explored some of the causal mechanisms of my model, drawing on participant observations from LMK and Ada. I found that in LMK, where the elections were uncertain, the NDC candidate was able to bring the different spheres of his campaign closer together, allowing him to distribute patronage more effectively and expand his clientelistic networks. By contrast, in Ada, where there was never any doubt about the electoral outcome, the different spheres drifted apart, as the

[144] Interview with Emmanuel Tetteh, founding member of the NDC/former Eastern Regional Minister/former MP for LMK, Odumase, 9 December 2012

campaign team members began distributing patronage themselves. This fractured the NDC campaign and limited the NDC candidate’s capacity to engage in expensive retail manipulation.



4 December 2012. Community meeting in LMK.

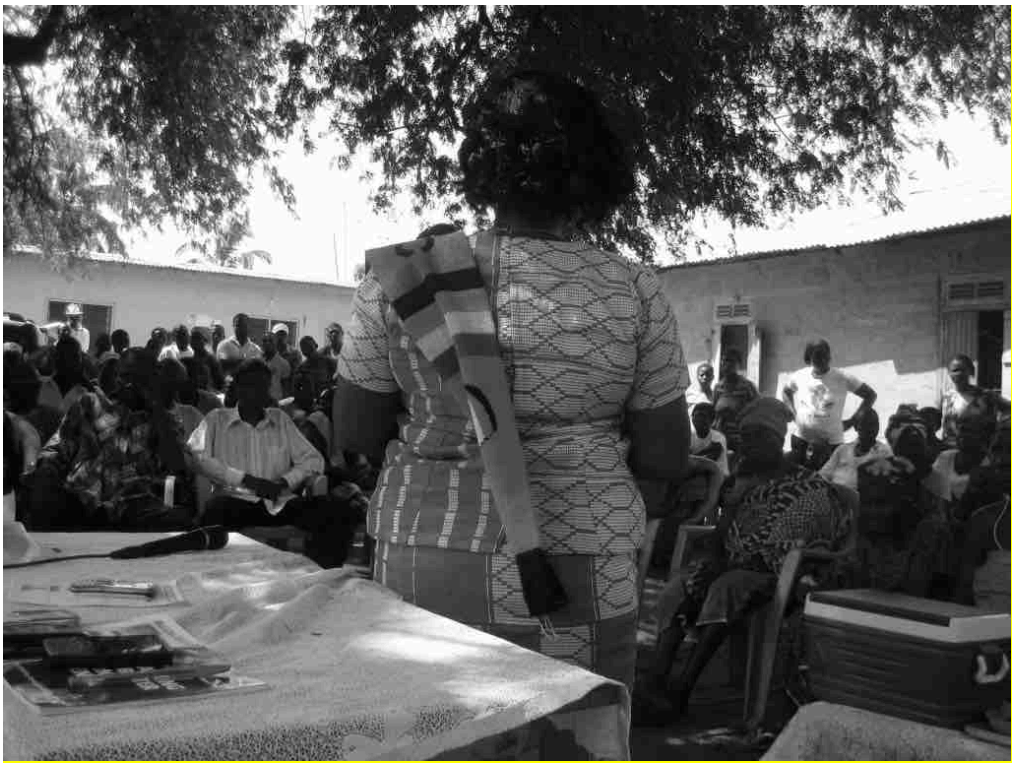

4 December 2012. Community meeting in LMK.



6 December 2012. Community meeting in LMK.



6 December 2012. Community meeting in LMK.



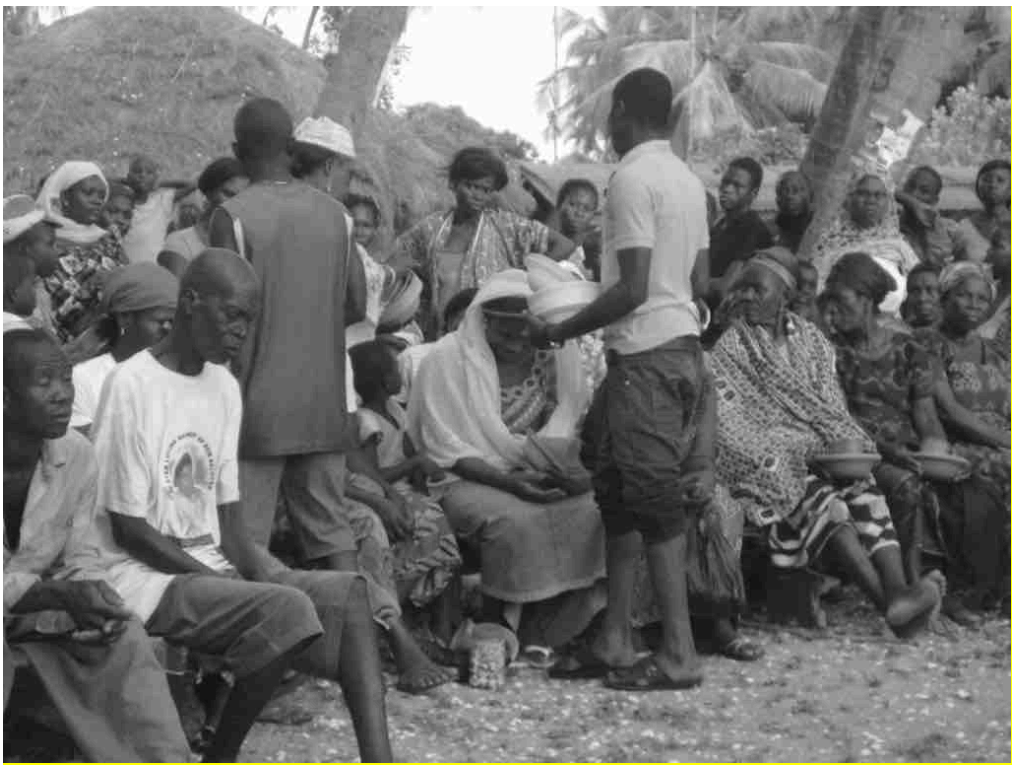
3 November 2012. Community meeting in Ada.



3 November 2012. Community meeting in Ada.



4 November 2012. Community meeting in Ada.


4 November 2012. Community meeting in Ada.

6 Electoral manipulation as a last resort

16 November 2012. Three weeks before the elections. I am with Susu, a local entrepreneur and former NDC operative. I want to ask him about the 2004 elections; an election, the NDC candidate, Michael Teye Nyaunu, won by a narrow margin. Some say the elections were rigged: that the ballot boxes were stuffed. I know Susu was close to Nyaunu at the time, and that they remained close until after the 2008 elections. "Did you campaign for him in 2004", I ask. We are having dinner: banku and tilapia. "I did", Susu replies; "in fact, I was part of the inner team that year". "So is it true that he didn't win?", I ask. Susu laughs and takes a sip of his beer. "You know, that year the lady [NPP candidate] spent a lot of money and Nyaunu thought he was going to lose. So he asked us to go around on put some extra ballots in the ballot boxes". "How did you do it?", I ask. He laughs again. "We prepared a list of polling stations we thought would face some problems on election-day: no material, no electricity, no food—all these things. Then on election-day, we went around and when we saw an opportunity we inserted some extra ballots in the ballot boxes – when there were too many people and too much confusion. Or if the election officers had not received food, we would give them food. I don't know but I'm not sure he would have won that year. The election was very close".

6.1 Introduction

In this chapter, I look at one type of wholesale manipulation: operatives who stuff the ballot boxes with false ballots.[145] First, building on the framework proposed in Chapter 3, I develop a model. I argue that ballot stuffing is characterised by high direct benefits and high indirect costs. When their operatives stuff the ballot boxes, the parliamentary candidates potentially change the electoral outcome in a few targeted operations. However, they also run considerable risks. The violations of the electoral law are unequivocal; they are committed close to the centre of the campaign; they leave evidence behind; they are more likely to be penalised in court; and they are condemned more strongly by voters than other types of electoral manipulation. This makes ballot stuffing attractive only to parliamentary candidates fear electoral defeat and do not have the resources to rig the elections in the grey zone.

Second, I examine the patterns of ballot stuffing, using regression analysis. I find that ballot stuffing is negatively correlated with the number of years the party of the incumbent MP has held the constituency seat and negative correlated win the win-margin in the last election. This supports my model, suggesting that the parliamentary candidates stuff the ballot boxes when they fear electoral defeat and do not have the clientelistic networks that enable them co-opt election officers and monitor and enforce compliance during the counting.

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145 "a person who […] knowingly and intentionally puts into a ballot box anything other than the ballot paper which he is authorised by law to put in" (*Representation of the People Law (PNDCL 284)* 1992, 28(f))

Third, I further explore some of the causal mechanisms of my model, drawing on evidence from LMK. In 2004, the then NDC candidate, Michael Teye Nyaunu, stuffed the ballot boxes. When he ran for re-elections four years later, the election was clean. A comparison of the 2004 and 2008 elections, from the point of view of the NDC candidate, thus provides an opportunity to explore some of the cost-benefit considerations behind ballot stuffing. I argue that when the NDC lost the presidential election in 2000, Nyaunu lost the ability to distribute patronage and the clientelistic networks that had secured him electoral victories in 1996 and 2000 collapsed. Facing a strong NPP candidate in 2004, he was forced to choose cheaper types of electoral manipulation. Four years later, he had re-established himself as the party patron. The NPP candidate was associated with an unpopular government, and Nyaunu had little incentive to manipulate the election.

The chapter is structured as follows. In the following section, I provide background. In section two, I develop my model. In sections three and four, I examine the patterns of ballot stuffing and explore the cost-benefit calculations behind it. Finally, I draw conclusions. The findings of the chapter, when juxtaposed with the findings of Chapters 4-6, support my third theoretical argument: that different types of electoral manipulation have different cost-benefit profiles, allowing politicians to tailor their rigging strategies. When they are confident that they will win the elections, they secure votes for other candidates. When they fear electoral defeat and have resources, they rig the elections in the grey zone. When they do not, they stuff the ballot boxes and accept the increased risks.

6.2 Background: ballot stuffing

Allegations of ballot stuffing have tainted Ghanaian elections since the return to multiparty democracy. In 1992, the NPP claimed that the "blatant mishandling of ballot boxes and papers" had revealed "the systematic nature of the rigging" (Rocha et al. 1993, 46). In their report, *The Stolen Verdict*, they listed 33 constituencies, in which the ballot boxes had been stuffed or tampered with, including Wa Central, where "a ballot box was already filled with NDC thumbprinted ballot papers before the start of voting at the Limanyiri pollign station" (ibid.); Bimbilla, where a "presiding officer refused to open [a ballot box] for inspection, despite the protests of voters" and "when it was forced open, it was full of ballot papers" (ibid., 49); and Ejisu Juaben, where "nine ballot boxes used in the presidential election were found in the houses of unauthorised persons in the Onwe area […] known to be NDC activists" (ibid., 51-52). Several integrity measures were introduced in the late 1990s: the old opaque ballot boxes were replaced with new transparent ones; voter cards with photo identification were introduced; voters were asked to vote behind tabletop voting screens as opposed to in separate rooms; and polling agents were allowed to observe the voting process from within the polling station as opposed to from the outside (Yeboah-Fofie 2017). This did not eliminate the problem. In 2004, the Electoral Commission itself listed eight constituencies, where the ballot boxes had been stuffed or destroyed, including Upper West Akim, where "a group of unidentified persons attacked the [election] officers with machetes and grabbed five of the ballot boxes and bolted with them" (Electoral Commission of Ghana 2005, 76); Asunafo, where "four ballot boxes were stolen" (ibid.); Nanton, where "the youth and sympathizers of the NPP stormed the collation centre during collation time […] and demanded that the NPP parliamentary candidate should be declared the winner, otherwise the election

materials would be destroyed while results were being collated" (ibid.); Zabzugu Tatale, where "a mob attacked the election officials, brutalized them and destroyed 22 ballot boxes". In 2008, there were reports of ballot stuffing and ballot box capture in at least eight constituencies, including Bibiano Anhwiaso Bekwai, where 70% of the ballot boxes did not have NDC seals; Nkwanta North, where NDC seals were broken before the ballot boxes were brought the collation centre; Wa East, where the ballot boxes were stuffed during special voting; and Ablekuma South, where the number of ballots found in six ballot boxes exceeded the number of ballots issued or the number of voters registered. Finally, in 2012, the NPP claimed the elections had been "vitiated by gross and widespread irregularities and/or malpractices which fundamentally impugned the validity of the results in 4,709 polling stations" (Akufo-Addo, Bawumia, and Obetsebi-Lamptey 2013). As evidence, the party presented copies of the declaration forms from 2,065 polling stations, where the number of ballots found in the ballot boxes exceeded the number of ballots issued to or voters registered (Ghana News Agency 2013b).[146]

The voting process has not changed substantially since 2000. It theoretically prevents ballot stuffing. Before the voting begins, the ballot boxes are opened and shown to the polling agents, who affix their seals to the ballot boxes. Ballots are issued only once a voter has gone through verification. Since 2012, this verification has been biometric. The voter places her thumb on a fingerprint scanner and proceeds

[146] My study does not cover the 2016 elections. However, it is worth noting that in 2016, police in Kumasi found "three bags stuffed with materials reported to be thumb-printed presidential ballot papers" (Adogla-Bessa 2016). The NPP blamed the NDC, while the NDC claimed the regional party leadership of the NPP had "planted the fake ballot papers […] in order to accuse the NDC of trying to rig the December 7 polls" (Allotey 2016).

only if there is a match with a fingerprint in the voter register. Before the ballots are issued, they are marked with the official validating stamp of the Electoral Commission. Without this stamp, the ballots are invalid. The voter then proceeds to a voting booth, thumbprints and folds the ballots, and inserts the ballots in the ballot boxes: one for the presidential election; another for the parliamentary election. After the voting, the polling agents verify that their seals have not been broken before the presiding officer opens the ballot boxes and count the ballots, as described in Chapter 5.

Despite the rigorous voting procedures, false ballots find their way into the ballot boxes. One indicator of possible ballot stuffing is 'over-voting':[147] polling stations where the number of ballots cast exceeds the number of ballots issued or the number of voters registered.[148] The Electoral Commission attributes over-voting to 'transferred voters'. Voters are allowed to transfer their registration from a polling station in one constituency to a polling station in another. When they do, their name appears, not on the polling station register but on a separate transferred voters list. The number of transferred voters is not captured on the declaration form and not

147 Note that the meaning of over-voting in Ghana is different from the meaning in the US, where over-voting refers to ballots with multiple votes (Herrona and Sekhon 2003).

148 During the court hearings of the NPP's challenge of the 2012 presidential election, the parties debated the appropriate definition of over-voting. On one hand, the NDC argued that over-voting is when the number of ballots cast exceeds the number of voters registered; a definition that was referred to as the 'classical' definition. On the other, the NPP argued that over-voting is when the number of ballots cast exceeds the number of ballots issued. Initially, the Electoral Commission, as the second respondent, insisted on the classical definition, but later its chairman, Kwdwo Afari-Gyan, told the Supreme Court that he was "not clear […] as to what over-voting is" (Modern Ghana News 2013).

taken into consideration when the polling station turnout is calculated.[149] Therefore, if there are more transferred voters in a polling station than there are registered voters, who did not turn up to vote, voter turnout for the polling station exceeds 100%.[150] Beyond the Electoral Commission, over-voting is attributed to ballot stuffing and other types of wholesale manipulation. In their study of the deterrence effect of domestic election observation, Asunka et al. (2014) use over-voting as "a marker of potential fraud since it suggests that unregistered voters cast ballots, that double voting occurred, or that ballot stuffing took place" (Asunka et al. 2014, 14). They report over-voting in 8.5% of 2,026 randomly sampled polling stations in 2012. Ephson (2008) also links over-voting to ballot stuffing. He lists 67 polling stations in the 2004 elections, where the number of ballots cast exceeded the number of ballots issued. However, he does not explain how the polling stations were sampled, making it impossible to draw inferences.[151]

In sum, allegations of ballot stuffing have tainted Ghanaian elections since the return to multiparty democracy. Several integrity measures have been introduced and the voting process theoretically prevents ballot stuffing. However, false ballots still

[149] The polling station turnout is calculated as the number of ballots cast relative to the number of voters in the polling station register plus the number of voters on the proxy voters list.

[150] According to the District Election Officer in LMK, who had worked in two other constituencies before LMK, there are generally few transferred voters, meaning less than 5. If so, even turnouts of around 90% should be suspicious. Assuming the average number of transferred voters per polling station is 10, with a standard deviation of 10, and assuming that the number of transferred voters per polling station is normally distributed, then more than 99% of all polling stations should have less than 40 transferred voters, which, if added to the average number of ballots cast per polling station and divided by the average number of voters registered, gives a polling station turnout of 87.7%. In other words, more than 99% of all polling stations should have turnouts below 90%. The figure resonates well with the fact that the highest constituency-level turnout in my dataset is 90.0%, recorded in the 2012 election in Nanton.

[151] Note that the meaning of over-voting in Ghana is different from the meaning in the US, where over-voting refers to ballots with multiple votes (Herrona and Sekhon 2003).

find their way into the ballot boxes, and in 2012, 5-10% of the ballot boxes may have been stuffed.

6.3 Polling station capture and escalation

In the following, I develop a model of ballot stuffing. I argue that ballot stuffing is characterised by high direct benefits and high indirect costs. When the parliamentary candidates stuff the ballot boxes, they potentially change the electoral outcome in a few targeted operations. However, they also run considerable risks. This makes ballot stuffing attractive only as a last resort: when the parliamentary candidates fear electoral defeat and there are no other options available on the menu of manipulation.

In Chapter 5, I described how the parliamentary candidates distribute patronage and co-opt election officers. In extreme cases, this can lead to 'polling station capture': the situation where everyone present at a polling station have submitted to the same parliamentary candidate. This does not mean the polling agents of one parliamentary candidate necessarily transfer their loyalty to another. It can occur also when the parliamentary candidates fail to deploy polling agents to all polling stations, or when the polling agents decide to abandon their post, whether because they have been bribed or because they have not received their entitlements. It is therefore often a combination of patronage, glitches in the electoral administration, and the parliamentary candidates' inability to deploy and maintain their polling agents, that leads to polling station capture. Note that my understanding of polling station capture differs from that in the literature on elections in South Asia, where it refers to the forceful capture of a polling station by the members of one community in order to prevent the members of another from voting (Gazdar and Mallah 2013; Verma 2005). In Ghana this would be associated with 'no go areas' and 'macho men'

(Abdulai and Crawford 2010; Gyimah-Boadi 2001; Jockers, Kohnert, and Nugent 2010).[152]

Poling station capture allows the parliamentary candidates to potentially escalate their manipulation. Ballot destruction, as described in Chapter 5, only requires that the presiding officer has been co-opted and that the polling assistants and polling agents of the other parliamentary candidates are sufficiently disinterested or incapable of doing their job. By contrast, ballot stuffing requires that everyone present be in favour of the same parliamentary candidate. Unless false ballots are printed in advance, the polling assistants must issue ballots to voters, whose names are not in the voter register or who have already voted; the polling agents of the other parliamentary candidates, who have copies of the voter register, must accept this; and the presiding officer must allow that illegally issued ballots are inserted in the ballot boxes.

Two properties differentiate ballot stuffing from most other types of electoral manipulation. The first is that *the direct benefits are high*. A single stuffed ballot box easily generates 100-200 votes, and the parliamentary candidates can potentially change the electoral outcome in a few targeted operations.[153] By contrast, miscounting rarely generates more than 10-20 votes, which means the parliamentary candidates must run multiple, parallel operations. The second property is that *the*

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[152] In LMK, I saw cases of polling station capture myself. In one polling station, the only polling agents present were the polling agents of the NDC candidate. Asked why, the presiding officer explained that the polling agents of the NPP candidate had been present in the morning but had left shortly therefore. In another polling station, there were polling agents of all parliamentary candidates, but the polling agents of the NPP candidate were 'friends' of the acting constituency secretary of the NDC, and the presiding officer was his younger brother.

[153] Over the last two electoral cycles, 11% of all regular, constituency-level parliamentary elections were won by a margin below 1000 votes; 20% were won by a margin below 2000 votes.

indirect costs are high. First, a stuffed ballot box is an unequivocal violation of the electoral law and, as noted by Simpser (2008), "can unambiguously be labelled as illegitimate or fraudulent" (Simpser 2008, 218). Again, this contrasts with ballot destruction, which is practically invisible, embedded in the cultural norms and practices surrounding elections in Ghana. Second, ballot stuffing (often) leaves evidence behind: declaration forms with 'over-voting'. The declaration forms can be presented in court. They may not be enough to prosecute the perpetrators, but they are often enough to demand the elections are rerun; certainly, if the number of ballots affected exceeds the win-margin. Third, because of the evidence it leaves behind, ballot stuffing is more often penalised than other types of electoral manipulation. My dataset contains only a handful of cases, where the court ruled in favour of the plaintiff. In all, the petition contained evidence of over-voting. Fourth, Afrobarometer (2012) data suggest Ghanaian voters condemn ballot stuffing more strongly than they condemn other types of electoral manipulation. In Round 5, respondents were asked to list the "three main activities" that "grassroots political party activists (or foot soldiers) primarily engage themselves in during election campaigns and election" (Carter 2012, 48) and to "rate the freeness and fairness of the last national election" (Carter 2012, 17). Respondents who listed "snatching ballot boxes" as their first answer rated the 2008 elections 0.3 points less free and fair than respondents who listed any other activity as their first answer, controlling for sex, age, party preference, urbanisation, and other factors that may have affected the responses. In other words, ballot stuffing had a stronger, negative effect on the respondents' rating of the elections than other types of electoral manipulation. The results are reported in Appendix E.

In sum, patronage distribution, glitches in the electoral administration, and the parliamentary candidates' inability to deploy and maintain their polling agents can lead to polling station capture. Polling station capture allows the parliamentary candidates to potentially escalate their manipulation. Ballot stuffing has high direct benefits but it is risky. It can potentially change electoral outcomes in a few targeted operations but the parliamentary candidates run considerable risks. Ballot stuffing is clear violation of the electoral laws, it (often) leaves evidence behind, and it is more likely to be penalised in court than other types of electoral manipulation.

A model of ballot stuffing

Building on these arguments, about the properties of ballot stuffing, I propose the following model. Again, the model assumes the marginal benefit of electoral manipulation is highest around the winning threshold, meaning that the parliamentary candidates choose types of electoral manipulation with high direct benefits when they fear electoral defeat. The direct benefits of ballot stuffing are higher than those of other types of electoral manipulation. However, it is also riskier. The parliamentary candidates are therefore also more likely to stuff the ballot boxes when they fear electoral defeat and do not have the resources to rig the elections in the grey zone.

Again, the model diverts from conventional wisdom by suggesting that the costs of electoral manipulation are not constant; i.e. that some types are riskier than others. Birch (2011) makes a similar point when she argues that politicians "can thus be expected to opt for those forms of manipulation that carry the least risk in the contexts in which they find themselves, provided such strategies are not excessively costly" (ibid., 61) and that "[b]latant forms of fraud such as the stuffing of ballot boxes and the falsification of results will therefore most likely be strategies of last resort" (ibid., 62). Birch emphasises the high indirect costs of electoral manipulation

on election-day as opposed to electoral manipulation before the elections. I emphasise the high indirect costs of blunt electoral manipulation as opposed subtle rigging in the grey zone.

6.4 Patterns

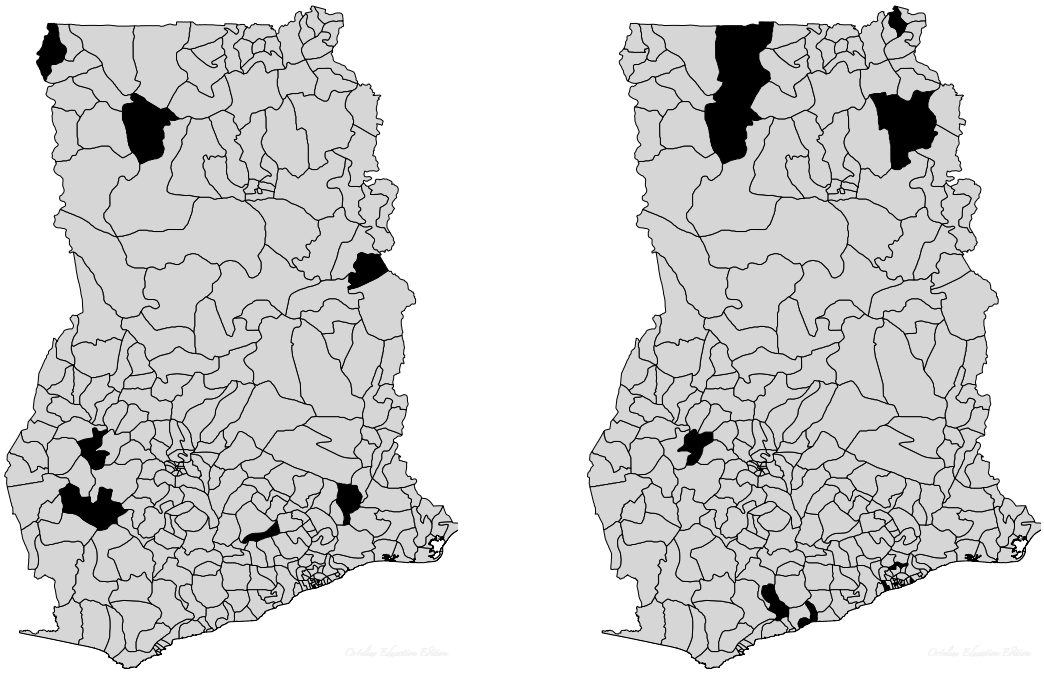
In the following, I examine the patterns of ballot stuffing, using regression analysis and drawing on petitions filed after the 2008 and 2012 elections. I find that ballot stuffing is negatively correlated with the number of years the party of the incumbent MP has held the constituency seat but positively correlated when I interact this variable with the win-margin in the last parliamentary election. This is consistent with my model, suggesting that the parliamentary candidates stuff the ballot boxes when they fear electoral defeat and do not have the clientelistic networks that enable them to choose safer types of electoral manipulation.

A first cut

As in previous chapters, I first visually examine the patterns. Figure 6.1 maps (a) parliamentary elections challenged in 2008 on grounds that section 28 of the electoral law was violated; and (b) parliamentary elections challenged in 2012 on grounds that section 28 of the electoral law was violated.

Figure 6.1: Map of *Election challenged (section 28)*, 2008 and 2012

(a) 2008 (b) 2012



Note: Data extracted from petitions filed after the 2008 and 2012 elections.

The figure does not reveal any clear patterns. Nonetheless, two things should be mentioned. First, relatively few elections are challenged on grounds of ballot stuffing. In 2008, there were eight; in 2012, there were 12. In other words, around 5% of the elections in my dataset were challenged on grounds of ballot stuffing. This resonates with the figures provided earlier in the chapter, based on declaration forms with over-voting; that the ballots boxes were stuffed in 5-10% of the polling stations in 2012. Second, in one constituency, Wa East, the elections were challenged on grounds of ballot stuffing in both 2008 and 2012. Wa East is a large constituency in the Upper West region. Since 2004, the constituency seat has shifted back and forth between the NDC and the NPP, and the win-margins have never been above 8% points. Wa East thus has the profile of a constituency, where ballot stuffing would be

attractive: a competitive constituency, where neither party has the clientelistic networks that enable them to co-opt large numbers of election officers.

Regression analysis

I now turn to the regression analysis. The analysis draws on the dataset described in Chapter 2. I first describe the variables and my model. I then report and plot the results and describe my robustness tests.

Variables

As my dependent variable, I use *Election challenged (section 28)*, which indicates whether the election was challenged on grounds of ballot stuffing. As described in Chapter 2, data were extracted from petitions filed after the 2008 and 2012 elections. The petitions were collected from 15 different High Courts, across ten different regions. They were identified using a survey questionnaire, administered to the High Court registrars in May 2012, and in follow-up interviews with the High Court registrars in December 2013. The data are exhaustive insofar as the information provided by the High Court registrars is complete. If not, the data are still representative, assuming that the High Court registrars who failed to complete the questionnaire (or provided incomplete information) are randomly distributed.

My model suggests the parliamentary candidates stuff the ballot boxes when they fear electoral defeat and do not have the resources and the clientelistic networks that enable them to manipulate the elections in the grey zone. To capture the first factor, the parliamentary candidates' fear of electoral defeat, I use *Parliamentary win-margin*$_{t-1}$, which measures the win-margin in the last parliamentary election. To capture the second factor, their resources and clientelistic networks, I use *MP party tenure*, which counts the number of years the party of the incumbent MP has held the

constituency seat. I interact the two to capture the conditional effect. The variables are the same that I used in Chapter 5. However, while in Chapter 5, I found a positive effect of *MP party tenure*, in this chapter, I predict a negative effect: the parliamentary candidates opt out of ballot stuffing when their party has held the constituency seat for more years.

As agued in Chapter 2, one of the problems about using petitions is that they are biased towards electoral manipulation in competitive constituencies. Elections lost by a 3% points margin are 52% more likely to be challenged in court than elections lost by a 6% points margin; and almost one and a half times more likely to be challenged in court than elections lost by a 9% points margin, all else being equal. To control for this, I include *Parliamentary win-margin <3% points*, which indicates whether the election was won by a margin below 3% points. I recode the win-margins into a binary variable to avoid problems of collinearity.[154] The threshold is arbitrary in the sense that it could be larger or smaller. However, based on my analysis of how win-margins affect the probability that elections are challenged, it appears adequate: large enough to substantially reduce the bias; small enough to avoid problems of complete or quasi-complete separation (Rainey 2016). I change the threshold to 6% points and 9% points, as a robustness test. To facilitate a comparison with the models and results in Chapter 5, I include the following additional control variables: *Voters registered (log)*, which provides the natural logarithm of the number of voters

[154] Election results are serially correlated, meaning that election results at $t-1$ are closely correlated with election results at t. This is the reason why the parliamentary candidates consider past election results when they gauge their electoral prospects.

registered in the constituency; *Population literate*, which measures the fraction of the constituency population that reads; *Population employed*, which measures the fraction of the constituency population that is employed or economically active; and *Population with mobile*, which measures the fraction of the constituency population that owns a mobile phone. As described in Chapter 2, *Population educated*, *Population employed*, and *Population with mobile phone* were adjusted in ways that violate the assumed independence of observations. I therefore also change the variables to *Constituency metropolitan*, which indicates whether the constituency was located in one of the six metropolitan districts. The literacy rate is 14% points higher in the six metropolitan districts; the employment rate is the same; and the mobile ownership rate is 31% points higher. *Constituency metropolitan* therefore captures many of the same dynamics.

Model

I use a rare events model (King and Zeng 2001a, 2001b) instead of a regular logit model to reduce the bias stemming from having a finite sample of rare events data. It is well documented in the statistics literature that regular logit coefficients are biased in samples of less than 100-200 observations, depending on the number of independent variables in the model (Long 1997, 53–54). What is often overlooked is that with rare events data, the biases remain substantive, even in samples of more than 1,000 cases, and that the coefficients consistently underestimate the probability of an event (King and Zeng 2001b). Applied researchers rarely correct for this, although

less biased and more efficient estimators exist (Bull, Greenwood, and Hauck 1997). The rare events model differs from a regular logit model in that it uses a bias-corrected estimator instead of the maximum likelihood estimator (MLE).[155] The method for deriving the bias-corrected estimates is similar to the Firth method (Firth 1993), which is a general method for reducing biases in MLE models. However, it differs in the way the bias-correction term is derived (King and Zeng 2001b). Using Monte Carlo experiments, King and Zeng (2001a, 2001b) demonstrate that with 1,000 observations and 2.8% events, regular logit models underestimate the probability of an event by 63%. With 500 observations and 2.8% events, they underestimate the probability by 128%, and with 500 observations and 1.1% events, they underestimate the probability by 332%. With 505 observations and 5% events, it is debatable whether my data are, indeed, rare events data. Certainly, compared to data, for example, on the outbreak of war, where there are regularly more than a quarter of a million observations (all country dyads since 1945) and only a few hundred events (outbreaks of war), my data are not rare events data. However, given that the differences between the bias-corrected and the MLE estimates simply disappear, as the sample size increases, the rare events model is preferable to the regular logit

[155] The rare event logit model, as proposed by King and Zeng (2001a, 2001b), also differs from a regular logit model in that it allows adaptations of the sampling strategy. King and Zeng (ibid.) specifically recommends collecting all cases where the event occurred and only a random sample of the cases where the event did not occur, and correct the biases, stemming from selecting on the dependent variable, based on prior information about the fraction of events in the population. This approach is known in econometrics as *choice-based* or *endogenous stratified* sampling (Manski and Lerman 1977), and in other fields of applied statistics as *case-control* design (Breslow 1996; Prentice and Pyke 1979). With tens or hundreds of thousands cases, this approach is potentially powerful. However, when there are only a few hundred cases, and all are available, it does not improve the estimates.

model, regardless of whether my data are, indeed, rare events data. The fully specified model looks as follows:

$$E(Y) = \beta_0 + \beta_1 MP\ party\ tenure + \beta_2 Parliamentary\ win\ margin_{t-1} + \beta_3 MP\ party\ tenure \times Parliamentary\ win\ margin_{t-1} + \beta_4 X + \varepsilon$$

where β_0 is the constant; $\beta_4 X$ is a vector of control variables; and ε is the error term.

Results

The results are reported in table 6.1. Models 1-4 are identical, except I change the control variables and the small win-margin thresholds. Model 5 excludes the interaction term. The results support my model. Both *MP party tenure* and *Parliamentary win-margin*$_{t-1}$ are negative and statistically significant all models, suggesting that the parliamentary candidates stuff the ballot boxes when the constituency seat has recently shifted from one party to another and when the last election was won by a small margin, and opt out as either variable increases. The interaction between *MP party tenure* and *Parliamentary win-margin*$_{t-1}$ is positive and statistically significant in all models. This runs contrary to my model. However, as I will demonstrate below, this result is not robust and appears to be a consequence of having a finite sample of rare events data. As expected, *Parliamentary win-margin <3% points* is positive and statistically significant, confirming that elections won by a small margin were more likely to be challenged. However, notably, changing the threshold does not affect the other results. *MP party tenure* and *Parliamentary win-margin*$_{t-1}$ are negative and statistically significant in all models and, substantially, the coefficients do not change much. Finally, *Voters registered (log)* is positive and statistically significant. While not discussed, this is also consistent with my model. In

constituencies with more voters registered, the parliamentary candidates must steal more votes to change the electoral outcome, and naturally they are more likely to choose cheaper types of electoral manipulation.

Table 6.1: Ballot stuffing, regression results

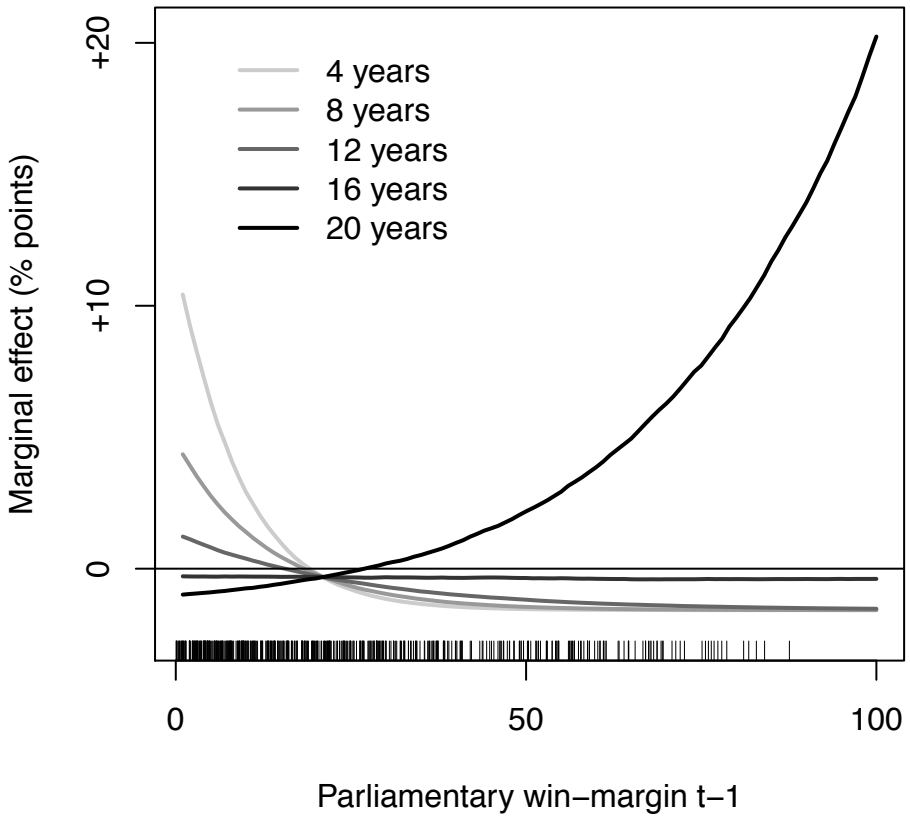
	(1)	(2)	(3)	(4)	(5)
	Election challenged (section 28)				
MP party tenure	**-0.204*** **	**-0.201*** **	**-0.203*** **	**-0.186*** **	
	(0.075)	**(0.073)**	**(0.075)**	**(0.068)**	
Parliamentary win-margin$_{t-1}$	**-17.227** **	**-17.079** **	**-16.423** **	**-16.679** **	**-6.752** **
	(7.048)	**(6.898)**	**(7.137)**	**(6.864)**	**(3.060)**
Voters registered (log)	1.158	**1.383***	**1.103***	**1.313***	0.996
	(0.797)	**(0.721)**	**(0.719)**	**(0.693)**	(0.771)
Population literate	-2.093				-2.539
	(4.261)				(4.162)
Population employed	-5.062				-4.281
	(6.651)				(6.544)
Population with mobile	1.223				1.644
	(3.232)				(3.166)
Constituency municipal		-0.175	-0.018	-0.130	
		(0.655)	(0.682)	(0.648)	
Parliamentary win-margin <3% points	**1.897*** **	**1.853*** **			**1.776*** **
	(0.538)	**(0.517)**			**(0.522)**
Parliamentary win-margin <6% points			**2.563*** **		
			(0.606)		
Parliamentary win-margin <9% points				**2.248*** **	
				(0.681)	
MP party tenure × Parliamentary win-margin$_{t-1}$	**0.971** **	**0.962** **	**1.025** **	**1.023** **	
	(0.474)	**(0.467)**	**(0.464)**	**(0.448)**	
Constant	-9.434	**-15.447***	**-13.473***	**-15.906** **	-8.679
	(9.056)	**(7.718)**	**(7.704)**	**(7.463)**	(8.877)
N	505	505	505	505	
AIC	153.07	149.69	134.6	143.5	

Notes: rare events models. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Figure 6.1 plots the marginal effect of *Parliamentary win-margin*$_{t-1}$ for different values of *MP party tenure*. The coefficients are extracted from model 3 in table 6.1, which produces the best goodness of fit. All other variables are held at their means. The x-axis also indicates the distribution of the observations. The figure shows that for values of *MP party tenure* between four and eight, the marginal effect

of *Parliamentary vote margin*$_{t-1}$ is 5-15% points. For values of *MP party tenure* between 12 and 16, the effect of *Parliamentary vote margin*$_{t-1}$ is only 1-2% points. Finally, for values of *MP party tenure* above 16, the effect is reversed. This explains why *MP party tenure* × *Parliamentary win-margin*$_{t-1}$ is positive in table 6.1. The reversed effect is interesting, as it suggests the parliamentary candidates stuff the ballot boxes also when they are confident that they will win the election, lending support to the argument that electoral manipulation has indirect benefits. However, it does not appear very robust. First, as the x-axis indicates, there are few observations in my dataset, where the win-margin in last parliamentary election was above 60% points, and only 5, where it was above 80% points. Second, there are nine observations in my dataset, where the party of the incumbent MP had held the constituency seat for 20 years. In none of them, the elections were challenged on grounds of ballot stuffing. In other words, the black line in figure 6.2 is based entirely on the relationship between the other four lines.

Figure 6.2: Marginal effect on ballot stuffing



Notes: Coefficients extracted from model 3 in table 6.1.

Heckman sample selection model

Controlling for small win-margins is not the ideal solution to my sample bias. I therefore change my model to a Heckman sample selection model (Heckman 1976, 1979).[156] The Heckman sample selection model has to stages: a first stage (the selection equation), which estimates the probability that an observation was selected and calculates a correction factor—the inverse Mills ratio—which is then inserted into the second stage (the outcome equation). In that way, the model reduces the potential

[156] The Heckman sample selection model is also known as the Tobit-2 model (Amemiya 1984, 1985).

bias stemming from non-random sampling. If the selection is incidental, meaning we do not know what affects it, the selection equation can be rather complex. This is the case, for example, when we want to estimate the average wage of women but have data only for women in wage-paying employment. Here, we need to first estimate the probability that women are employed, calculate a correction factor, and then estimate the average wage (of both employed and unemployed women). If the selection is explicit, meaning we know what affects the selection, we can limit the selection equation to a single independent variable.

In my case, the selection is explicit. I know that the probability that an election is challenged is affected by the win-margin: the smaller the win-margin, the higher the probability that the election is challenged. I therefore limit the selection equation to *Parliamentary win-margin*, which measures the win-margin. The model then calculates a correction factor, which is inserted into the second stage equation. All model specifications remain the same, except I exclude the small win-margin control variable.

The results are reported in table 6.2. Again, they support my model. In the selection equation, *Parliamentary win-margin* is negative and statistically significant in both models, confirming that elections won by a small margin are more likely to be challenged. In the outcome equation, *MP party tenure* is negative in both models, although statistically significant only in one. *Parliamentary win-margin*$_{t-1}$ is negative and statistically significant in both models, and the interaction between the two variable is positive and statistically significant in both models. In other words, the results are almost identical with the results in table 6.2. Substantively, they are also comparable. When I set *MP party tenure* to 4 or 8, the effect of *Parliamentary win-margin*$_{t-1}$ is 11-16% points between the upper and the lower quartile. When I set it to

16, there is no effect, and when I set it to 20, the effect is reversed. In other words, the parliamentary candidates stuff the ballot boxes, when they fear electoral defeat and do not have the resources and clientelistic networks that enable them to rig elections in the grey zone.

Table 6.2: Ballot stuffing, Heckman sample selection model

	(1)	(2)
Selection equation	Election challenged	
Parliamentary win-margin	**-4.984*****	**-4.988*****
	(1.1339)	**(1.133)**
Constant	**-0.885*****	**-0.885*****
	(0.144)	**(0.144)**
Outcome equation	Election challenged (section 28)	
MP party tenure	-0.020	**-0.033***
	(0.021)	**(0.020)**
Parliamentary win-margin$_{t-1}$	**-3.597*****	**-2.970****
	(1.287)	**(1.201)**
Voters registered (log)	0.098	**0.517****
	(0.226)	**(0.207)**
Population literate	**2.640****	
	(1.303)	
Population employed	**3.967****	
	(1.937)	
Population with mobile	-1.443	
	(1.070)	
Constituency municipal		**-0.497****
		(0.198)
MP party tenure × Parliamentary win-margin$_{t-1}$	**0.213***	**0.188***
	(0.115)	**(0.104)**
Constant	-3.167	**-4.044***
	(2.828)	**(2.143)**
N	505	505
AIC	228.939	223.927

Notes: Heckman sample selection models. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Robustness tests

Appendix E contains additional robustness tests. First, I change *MP party tenure* to *MP tenure* × *MP running*, which counts the number of years the incumbent MP has held the constituency and indicates whether she ran for re-election; to *MP party*

ruling, which indicates whether the party of the incumbent MP was the ruling party; and to *Minister running*, which indicates whether a minister or deputy minister contested the seat. The results are inconsistent and rarely statistically significant. In other words, as in Chapter 5, the decisive factor appears to be the number of years the party of the incumbent MP has held the constituency seat, rather than the number of years the incumbent MP has held the constituency seat or other measures of resources. Second, I rerun model 3 in table 6.1, which produces the best goodness of fit, but include the following additional control variables: *MP running independent*, which indicates whether the incumbent MP ran as an independent candidate; *Candidates*, which counts the number of parliamentary candidates who contested the seat; and *Constituency size*, which measures the size of the constituency in squared kilometres. The results are unaffected by these changes. *MP party tenure* and *Parliamentary win-margin*$_{t-1}$ are negative and statistically significant all models, while the interaction between the two is positive and statistically significant. Finally, I rerun model 3 in table 6.1 but restrict the sample to observations in 2008, to observations in 2012, and to observations, where the assumed independence of observations was not violated. When I restrict the sample to observations in 2008, the coefficients are no longer statistically significant. Otherwise, the results are unaffected by the changes. In other words, the results may be partially driven by observations in 2012.

Limitations

As in previous chapters, I conclude by discussing some of the limitations of my analysis. A central argument in this chapter is that ballot stuffing is riskier than most other types of electoral manipulation. Based on this argument, we could expect ballot stuffing to be more prevalent in electoral strongholds, where the dominant party has

well-established clientelistic networks that enable them to co-opt election officers, election observers, and journalists. The variations in my data do not support this argument. I argue that it is because incumbents in electoral strongholds have little incentive to engage in risky electoral manipulation. However, it is a possibility that the pattern is not picked up in my data due to the selection bias described earlier in the chapter.

In sum, election challenges containing allegations of ballot stuffing are negatively correlated with the number of years the party of the incumbent MP has held the constituency seat and with the win-margin in the last parliamentary election. They are also positively correlated with the natural logarithm of the number of voters registered in the constituency. This pattern is consistent with my theoretical argument, suggesting that the parliamentary candidates are more likely to stuff the ballot boxes, when they fear electoral defeat and lack the resources and the clientelistic networks that enable them to rig the elections in the grey zone, and when they need lots of votes to change the electoral outcome. The findings are interesting when juxtaposed with the findings of Chapter 5. In both chapters, the effect of electoral uncertainty is conditional on the number of years the party of the incumbent MP has held the constituency. However, while *MP party tenure* is positively correlated with the number of ballots rejected, it is negatively correlated with election challenges containing allegations of ballot stuffing. This indicates that miscounting and ballot stuffing are alternative rather than complementary strategies. When the parliamentary candidates co-opt election officers into selectively rejecting ballots, they do not deploy their operatives to stuff the ballot boxes and vice versa.

6.5 Causal mechanisms

In the following, I explore some of the causal mechanisms of my model, drawing on data from the 2004 and 2008 elections in LMK. In 2004, the incumbent MP and then NDC candidate, Michael Teye Nyaunu, stuffed the ballot boxes. When he ran for re-election four years later, the election was clean. I base this claim on election results and interviews with former NDC operatives. In 2004, one polling station (polling station E21602) recorded a turnout of 114%, while four other polling stations recorded turnouts above 90%. In 2008, there were no polling stations with over-voting. A comparison of the 2004 and 2008 elections, from the point of view of the NDC candidate, thus provides an opportunity to further explore the conditions under which the parliamentary candidates stuff the ballot boxes and the conditions under which they opt out. Several factors are constant: the constituency is the same, the NDC candidate is the same, and both elections were held under NPP rule. Yet, the outcomes were different. I argue that that the variations are most plausibly explained by electoral uncertainty and resources. When the NDC lost the presidential election in 2000, Nyaunu lost the ability to distribute patronage and the party nearly disintegrated. Facing a strong NPP candidate in 2000, he was forced to choose cheaper types of electoral manipulation. When he ran for re-election four years later, he had re-established himself as the party patron in LMK and his opponent was associated with an unpopular government. This reduced Nyaunu's incentive to rig. The analysis complements the quantitative analysis in two ways. First, it demonstrates that the parliamentary candidates consider several factors when they gauge their electoral prospects, including the performance of the government and the economy. Election results are just one factor, albeit an important one. Second, it documents a

'coattail effect'. When the government is unpopular, ruling party candidates have a stronger incentive to rig.

LMK 2004: party disintegration and desperation

The 2004 election in LMK was a race between the incumbent MP and NDC candidate, Michael Teye Nyaunu, and the NPP candidate, Difie Dedo Agyarko-Kusi. Nyaunu won by a margin of 9% points. Interviews with former NDC operatives indicate that Nyaunu stuffed the ballot boxes: "that year [2004] Dedo spent a lot of money and the man thought he was going to lose so he told us to go around and put some extra ballots in the ballot boxes […] We prepared a list of vulnerable polling stations; polling stations we thought would face some problems on election-day: no material, no electricity—all these things. Then on election-day, we went around, and when we saw an opportunity, we inserted some extra ballots: if there were too many people or too much confusion in the polling station".[157]

In 2000, the NDC lost the presidential election. Soon thereafter, the party began to disintegrate. Jerry Rawlings, who had already stepped down as President, was forced to step down also as national party chairman, and across the country, party hierarchies began to unravel (Boafo-Arthur 2008, 36–37).[158] In LMK, a faction emerged around the constituency party chairman, Joseph 'No Problem' Narh Kwablah, determined "to get Nyaunu replaced on the party's ticket" (Akuaku 2004b). Among them were party heavyweights, such as Emmanuel Tetteh—the former

[157] Interview with Tetteh Susu, former NDC operative, Nuaso, 16 November 2012.
[158] As described in Chapter 5, this happened also in Ada, where Gad Ackwerh left the NDC.

Deputy Eastern Regional Minister who backed Ebenezer Okletey Terlarbi in 2012 (see Chapter 5)—and former District Chief Executive, Ayertey Osino.

In 2002, Nyaunu was sued for failing to repay an amount he had borrowed from two NDC benefactors in 1996. One of the witnesses testifying against him was No Problem. At a party meeting, the constituency executives "asked that the scuffle between the chairman and the MP should be settled for them to be able to win the election" (Quaye 2002). However, No Problem refused to withdraw his testimony, causing the incumbent MP to "invoke the god of thunder to kill Mr Narh Kwabla" ibid.). In other words, by late 2002, the coalition that had secured Nyaunu electoral victories in 1996 and 2000 had collapsed: party members had defected, party benefactors had closed to the tap, and the constituency party chairman had turned against him.

In March 2004, nine months before the elections, The Chronicle reported that "plans were far advanced to torpedo any effort to field the MP for the third time" and that the party had "developed such serious cracks that only a miracle can avert the looming crisis that is gazing at the MP in the face" (Akuaku and Benson 2004). It therefore came as a surprise when Nyaunu won the primaries, sending "such a wave of disaffection among the membership" that it became "glaring that the party could lose the seat to the NPP in December" (ibid.). No Problem accused Nyaunu of rigging the primaries, by handpicking constituency conference delegates "under questionable circumstances", and threatened to vote 'skirt and blouse' (vote for the NDC candidate in the presidential election but for a non-NDC candidate in the parliamentary election) if Nyaunu was not removed as the party's candidate (Quaye 2004). Between early August and early October, there were no party activities in the constituency (ibid.), and in November, less than a month before the election, a faction, calling itself the

'Movement for Change', formed around George Okyere—the Municipal Assembly member for West Kpong, who also backed Terlarbi in 2012 (see Chapter 5)—publicly declared its support for Agyarko-Kusi, the NPP candidate. In a speech, the movement's secretary, Ben Kwawu, said the purpose was to liberate the NDC "from the chains of arrogance, profane rhetoric, selfishness and underdevelopment" and to join "Dedo's unbeatable progressive development programme" (Akuaku 2004d).

In 2001, the new President, John Kufuor, had appointed Andrews Kwesi Teye as District Chief Executive in LMK. Between 2001 and 2004, the government increased allocations to the District Assembly Common Fund (DACF) by about 150% (corrected for inflation). The increases benefitted mainly the District Assemblies, and Teye became the new 'big man' in LMK. In 2002, he revamped the Poverty Alleviation Fund (PAF)—the 20% of the DACF that are earmarked for microcredits—which received a record 1,500 applications that year, according to the Teye due to his "non-selective attitude in receiving applications for the loan", which contrasted with the past, when "such monies were dished out as gifts to party faithfuls" (Akuaku 2002c). In 2003, he awarded contracts worth GHC 340 million (approximately USD 40,000) for the renovation of two schools and the main lorry park, "without due process" (Akuaku 2003b). It was later revealed that, when the contracts were about to be exposed, Teye bribed 14 District Assembly members "to write a good report" (Akuaku 2003b).

The new patronage dynamics in LMK are best illustrated by the 'tractor incident'. After the 1996 elections, the District Assembly had formed the Manya Krobo Co-operative Society, and in his first term as MP, Nyaunu had used the cooperative to extract resources from the District Assembly. In 1998, he had purchased a tractor for the cooperative, partly with his share of the DACF, partly with

a subsidised loan from the Ministry of Food and Agriculture (Quaye 2003). However, instead of letting the tractor work for the cooperative members, he used it for commercial purposes and pocketed the money. The loan was never repaid, and when the tractor broke down, Nyaunu sent the bills to the District Assembly. The scheme was revealed in an audit in 2001, commissioned by Teye, the District Chief Executive (Akuaku 2002b). Nyaunu initially brushed off the audit, saying "[t]here is no big deal; and certainly people are getting it all wrong" (ibid.), but in January 2004—five months before the primaries and ten months before the elections—the Deputy Eastern Regional Minister, Gustav Narh Dometey, ordered a freeze on Nyaunu's share of the DACF (Ghana News Agency 2004a).

The NPP initially had its own problems. In August 2003, two aspirants filed nomination forms to contest the NPP primaries: Teye, the District Chief Executive, and Henry Dema Narh, one of the constituency party executives. Teye and Narh had faced each other in the primaries also in 2000, when Narh won by a margin of only 38 votes. Since then, they had remained "arch opponents" (Akuaku 2003a). Fearing the rivalry could split the party, the regional party executives reopened the nomination period in April 2004, causing "[t]he uneasy calm that had persisted" to "nearly explode with a volcanic force" (Akuaku 2003a).

Andrews and Narh eventually "agreed to bury their hatchets, to give peace a chance" (Akuaku 2004a). Both withdrew their candidacies, and in July, the only remaining aspirant, Agyarko-Kusi, was elected unopposed as the NPP's parliamentary candidate (Akuaku 2004a). Teye and Narh both "pledged to support Mrs Kusi in her campaign to win the seat" (Ghana News Agency 2004b), and, confident that the party would retain the Akan-speaking constituencies in the Eastern region, the regional executives of the NPP "concentrated [their] efforts in winning for the first time the

non-Akan speaking Krobo areas" (Frempong 2006, 180), including LMK. Only two weeks after the primaries, Kusi "addressed a mammoth crowd of supporters that converged to catch a glimpse of their newfound parliamentary candidate" (Akuaku 2004c), and the regional party chairman declared that the party had found "a 'David' who has what it takes to floor any 'Goliath' that would come in its way" ibid.). In October, The Chronicle reported that Kusi was "making strides in what is being seen as her last lap to victory" and that "[w]hen she visited the previously difficult terrains of Kpong, Akuse and Amedeka over the weekend, the response of the people and turnout were enthusiastic" (Akuaku 2004f). Kusi was on course to win the 2004 election in LMK.

As noted, both election results and interviews with former NDC operatives suggest Nyaunu stuffed the ballot boxes. In addition, he exploited the split between Teye and Narh and took credit for goods that were distributed by the District Assembly. In the Obopah electoral area, he convinced voters that six classrooms and a library built by the District Assembly were, in fact, built by him (Akuaku 2005b); and when the District Chief Executive sent corn flour to villages in the Middle Belt, he called the village chiefs and said he had delivered the flour. Nyaunu also took advantage of Krobo customs and beliefs to raise his own profile and to tarnish the reputation of his opponent. When two villages in the Middle Belt lost their crops to floods, he told the villagers that he had 'called thunder' on them to punish them for supporting Agyarko-Kusi; and two days before the elections, he spread the rumour that the NPP candidate "was not a true Krobo", as she had not completed *dipo*

initiation rites,[159] and that "voting for her would be voting for slavery" (Quaye 2005b).[160]

The analysis in this section has illustrated some of the linkages between resources, intra-party dynamics, electoral uncertainty, and electoral manipulation. In 2004, Nyaunu lost the ability to distribute patronage and the party began to disintegrate. Party benefactors and constituency party leaders turned against him, threatening his re-election chances and forcing him into types of electoral manipulation that were less dependent one a party machine. In other words, Nyaunu stuffed the ballot boxes because he had no other option if he were to retain his seat.

LMK 2008: No incentive to rig

Four years later, Nyaunu ran for re-election; this time against Agyarko-Kusi's brother, Emmanuel Agyarko. Nyaunu won by a margin of 4,601 votes. 1.3% of the ballots cast were rejected and there were no allegations of rigging. All evidence suggests the election was clean.

Nyaunu's electoral victory in 2004 "shocked the NPP activists" and "virtually caused a split in the party" (Akuaku 2005a). At an emergency meeting, four months after the elections, "accusing fingers were pointed at some corrupt members who had allegedly collected bribes from the opposition camps and sold vital documents,

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159 *Dipo* is a traditional Krobo festival held every year in April, which is used to usher girls into puberty. Before the festival, parents send their girls to the chief priest, where they must go through certain rituals and tests. If completed, the girls are considered adults and qualified to participate in the festival (Adjaye 1999).

160 When Nyaunu ran as an independent candidate in 2012, he maintained that Kusi was not Krobo. At the launch of his campaign, he said, "my investigations reveal that Dedo has adopted that name for you to accept her as a true Krobo but she is not, because all documents including her passports do not bear the name Dedo. She is Dufie Agarko-Kusi" (Siaw 2012).

information and strategies to their candidates" (Akuaku 2005b). Teye, the District Chief Executive, was accused of being "lazy and ineffective", demonstrated by the fact that "billions of cedis worth of projects financed and completed by government in the district were not commissioned for use", which had made "people believe that they were indeed NDC projects" (ibid.). Public toilets at the Odumase, Lassi, and Manya Kpongunor bus stations had been completed but never inaugurated, and a Cassava-processing machine, bought for the Obopah electoral area, had never been installed "because the District Assembly could not acquire a small plot for its installation" (ibid.). Moreover, the District Chief Executive had failed to implement a government directive, adjusting bus fares before the elections, giving "commercial drivers a field day to charge arbitrarily" and making the "government more unpopular in the district even after the elections" (ibid.). In June 2005, two months after the emergency meeting, Teye was remove (Quaye 2005a).[161]

In 2004, President Kufuor was re-elected by a margin of 8% points. However, the NPP government became increasingly unpopular in its second term. In 2006 and 2007, the country faced power and water shortages, which lead to increased rationing, particularly in Accra, and rising fuel and utility prices, which put heavy burdens on the poor. Moreover, large fiscal deficits in 2007 and 2008 "took away one of the key pillars of the NPP campaign in the 2004 elections: its record of fiscal prudence" (Whitfield 2009, 636). The ruling party's reputation was also tainted by "reports of

[161] Teye later sued the new District Chief Executive, David Asare for "making statements that sought to cast doubts on [Teye's] professional integrity" and for portraying him as "inefficient […] ignorant and uneducated" (Akuaku 2005a).

extravagant expenditures […] including the president's son's purchase of a multimillion-dollar hotel that adjoined his father's private residence" (Gyimah-Boadi 2009, 140); allegations of drug trafficking, peaking with the conviction and imprisonment in the US of a ruling party MP, Eric Amoateng (Ellis 2009; Gyimah-Boadi 2009); and "a divisive contest to replace President John Kufour", which "left the ruling New Patriotic Party (NPP) riven and marred its public image" (Cheeseman 2010, 144).

In LMK, the government was particularly unpopular. In 2005, the only Krobo-speaking minister, Gustav Narh Dometey, was removed as Deputy Eastern Regional Minister. In the three Krobo-speaking constituencies, this was seen as "relegating them to the background in terms of development" (Quaye 2006d). At a People's Assembly meeting in Odumase, the participants expressed "anger over the government's failure to construct good roads in the area and also for not considering any Krobo citizen for a ministerial position" (ibid.).[162] According to The Chronicle, they took turns to ask the Eastern Regional Minster, Yaw Barimah, "what crime they had committed as a people to face such neglect by the New Patriotic Party (NPP) government" (ibid.). They felt that "even though they had not been able to win the parliamentary seats for the NPP in past elections, they had done significantly well […] not to warrant the sort of 'punishment'" (ibid.). The government did not respond. Dometey contested the 2008 election in Upper Manya Krobo on the NPP ticket but lost to the NDC candidate, Stephen Kwao Amoanor.

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[162] The People's Assembly were instituted in 2001, by the Kuffuor government, as an opportunity for ordinary Ghanaians to interact with their government.

Agyarko-Kusi's performance in 2004 had "impressed the regional and constituency executives", who were "bent on keeping her on to vie in 2008" (Quaye 2006c). However, when the nomination period closed, only one aspirant had filed a nomination form: Emmanuel Agyarko, Presiding Member of the District Assembly in LMK and Chief Executive Officer (CEO) of the Food and Drugs Board (FDB) – and Agyarko-Kusi's brother. In September 2006, more than two years before the elections, Agyarko was elected unopposed as the NPP's parliamentary candidate (Quaye 2006b). Together with the new District Chief Executive, David Asare, Agyarko deployed the patronage apparatus of the District Assembly. In 2007, they "awarded contracts of varying grades, including school blocks, roads and drainages, without passing them through tender" (Daily Guide 2007), and in 2008, they paid for the registration, under the National Health Insurance Scheme (NHIS), of more than 100 young professionals, "duly selected by the two NPP gurus" (Akwetey 2008). At the presentation ceremony, Agyarko "appealed to the beneficiaries, to vote massively for the party, in the upcoming December elections, as a reciprocal gesture for the services rendered" (ibid.).

As CEO of the FDB and ex officio member of the governing council of the Narcotics Control Board (NCB), Agyarko got entangled in the drug scandals that crippled the NPP government (Braimah and Frimpong 2006). In 2006, he appeared before the Georgina Wood committee—set up to investigate the disappearance of 77 parcels of cocaine, while in police custody, and an alleged USD 200,000 bribe from a Venezuelan drug trafficker—as the person who had submitted evidence to the

president, revealing the involvement of senior police officers.[163] Agyarko was never accused of any wrongdoings, but his evasive answers and controversies with the journalists covering the committee hearings made him a media target (The Ghanaian Times 2006). Meanwhile, in LMK, he was accused of "supporting the NDC functionaries in the constituency financially", and in 2008, a group of NPP polling station executives demanded that he "step down for his sister" (Azu 2008). Agyarko-Kusi denied any "involvement in the agitation to unseat her brother" (ibid.). Interviewed by the Daily Graphic, she said she had "no interest in contesting for the seat again", after losing the 2004 election, and that she had "other things to do" (ibid.). The issue was eventually settled, in two meetings with the constituency and regional executives, but it left Agyarko without grassroots support.

As described in the previous section, the Deputy Eastern Regional Minister, Gustav Narh Dometey, had ordered a freeze on Nyaunu's share of the DACF before the 2004 election. In 2005, the freeze was lifted. Several reports had revealed a pattern of District Chief Executives withholding the MP's share of the DACF (Ghana News Agency 2004a; The Accra Daily Mail 2003). The DACF Administrator responded by issuing new financial memoranda (*Financial Memoranda for Metropolitan, Municipal, and District Assemblies* 2004), specifying that the "MPs do not have to seek the approval of DCEs before embarking on a project because the DCE has no authority in that direction. Rather, the MP can go ahead with his project

[163] The Georgina Wood committee was established in July 2006 to investigate the disappearance of 77 packets of cocaine disappeared, while in the custody, along with an alleged USD 200,000 bribe to senior police officers by a lady linked to a Venezuelan drug baron. Agyarko appeared twice before the committee.

and just go by the rules and write to the DCE for the release of funds for the said project" (Akrasi 2004).

Nyaunu used his regained access to the DACF to re-establish himself as party patron. In 2006, No Problem—the constituency party chairman, who had led the attack on Nyaunu before the 2004 elections—left the NDC to join the Democratic Freedom Party (DFP), the party founded by former Foreign Minister under Jerry Rawlings, Obed Asamoah. No Problem said his decision to leave the NDC was a reaction to "the dictatorship on the side of the MP Mr Michael Nyaunu", who had "created a lot of bitter rivalry among NDC members in the constituency" (Quaye 2006a). With No Problem out of the way, Nyaunu turned to Agyarko and Asare, the District Chief Executive. In a petition, addressed to the Chief of Staff and Minister for Presidential Affairs, Kwadwo Mpiani, the NDC members of the District Assembly, lead by David Walter Hormenu—who later fell out with Nyaunu and ran Terlarbi's campaign in 2012 (see Chapter 5)—demanded "a probe into the award of contracts and other non-transparent activities of Hon. DCE of Manya Krobo" (Daily Guide 2007). The chief of staff never responded but the petition, which was widely publicised, contributed to further tarnishing the reputation of the ruling party in LMK. In other words, by 2008, Nyaunu had rooted out all intra-party opposition and successfully linked the NPP candidate to an unpopular government, and he was confident that he would win the elections. When interviewed after the 2012 elections,

he said, "last time, I knew I would win. Even the NPP people came to join me. This time it was different".[164]

As agued, all evidence suggests the 2008 election was clean. None of the candidates were accused of rigging the elections; there were no polling stations with over-voting, and only 1.3% of the ballots cast were rejected. Agyarko congratulated Nyaunu on his 13% point victory and withdraw from LMK politics. Four years later, he contested the election in Ayawaso West Wuogon on the NPP ticket and won.

Resources, intra-party dynamics, and electoral uncertainty

Two factors appear to explain why Nyaunu stuffed the ballot boxes in 2004 and opted out of electoral manipulation in 2008: resources and fear of electoral defeat. In 2004, he had lost the ability to distribute patronage, the party machine had collapsed, and he faced a strong NPP candidate. In 2008, he had regained access to the DACF and rooted out intra-party opposition, and his opponent was associated with an unpopular government.

The findings add nuance to my model. First, they confirm that the parliamentary candidates consider several factors when they gauge their electoral prospects: the performance of the government and the economy, their own campaign organisation, the campaign organisation of their opponents, and so on. Past election results are just one, albeit an important one. Second, and related, the findings document a 'coattail effect'. When the government is unpopular, ruling party candidates have a stronger incentive to rig, while opposition candidates have an

[164] Interview with Michael Teye Nyaunu, independent candidate in LMK, Nuaso 9 December 2012.

incentive to opt out. Similarly, when parties disintegrate at national level, party structures unravel also at constituency-level, undermining the parliamentary candidates' control over the branch executives.

6.6 Conclusion

In this chapter I have looked at ballot stuffing. First, I developed a model. Building on the framework developed in Chapter 3, I argued that ballot stuffing is characterised by high direct benefits and high indirect costs, making it attractive to incumbents who fear electoral defeat and do not have the capacity to rig elections in the grey zone. Second, I examined the patterns of ballot stuffing, using regression analysis and drawing on petitions filed after the 2008 and 2012 elections. I found that petitions containing allegations of ballot stuffing are negatively correlated with the number of years the party of the incumbent MP has held the constituency seat and negatively correlated with the win-margin in the last parliamentary elections. This supports my model. Finally, I explored some of the cost-benefit calculations behind ballot stuffing, drawing on evidence from the 2004 and 2008 elections in LMK. I argued that in 2004, the NDC candidate had lost the capacity to distribute patronage and the party machine had almost disintegrated. Facing a strong NPP candidate, he was forced to stuff the ballot boxes, if he were to retain his seat. In 2008, he had regained the capacity to distribute patronage and rooted out intra-party opposition. His main opponent in the parliamentary election was associated with an unpopular government, giving the NDC candidate little incentive to rig. The findings of this chapter, when juxtaposed with the findings of Chapters 4-5, support my third theoretical argument: that different types of electoral manipulation have different cost-benefit profiles, allowing the parliamentary candidates to tailor their rigging strategies. The parliamentary candidates stuff the

ballot boxes only as a last resort; when there are no other options available on the menu of manipulation.

7 Conclusion

How do African politicians choose from the menu of manipulation? I have tried to answer this question by developing a theory and framework for approximating the properties of different types of electoral manipulation and applying it specifically to the case of Ghana. To facilitate broader application of the theory, it was purposefully kept lean, using concepts derived from the mainstream political science literature. The theory's key components—electoral uncertainty, the indirect benefits of electoral manipulation, the risks associated with it, and the direct, material costs—are general enough to be applicable beyond the case of Ghana.

This final chapter is divided into two sections. In the first section, I summarise the theoretical arguments and empirical findings and revisit the puzzle that was introduced in Chapter 1. In the second section, I discuss the broader implications of my study.

7.1 Theoretical arguments and empirical findings

The four theoretical arguments, upon which my theory is based, were sketched out in Chapter 1 and more thoroughly developed in Chapter 3. The first is that that in addition to the direct benefits of electoral manipulation, i.e. the increased chance of winning, there are important indirect benefits that drive some politicians to manipulate, even when victory is guaranteed or entirely beyond reach. Drawing on the dataset described in Chapter 2, in Chapter 4, I showed that voter inflation is

negatively correlated with electoral uncertainty. The parliamentary candidates inflate the voter register, not when they fear electoral defeat but when they are confident that they will the election, which means they can turn their attention to helping their party's presidential candidate win the election. The parliamentary candidates are rewarded for this after the elections. In Chapter 4, I also showed that constituencies that delivered more votes to the winner of the 2008 and 2012 elections received more government funds between 2010 and 2016, and that parliamentary candidates who performed above expectation were more likely to be appointed to government. This proves that both the parliamentary candidates and their constituents reap indirect benefits from electoral rigging.

My second theoretical argument is that electoral manipulation is expensive and that the direct costs, meaning what the parliamentary candidates spend, discourage them as much as the indirect costs, i.e. the risk of getting caught. This argument contains three perspectives: that the price of electoral manipulation varies depending on the type; that the price varies depending on the context; and that some parliamentary candidates can choose from a wider range of options on the menu of manipulation. Drawing the same dataset, in Chapter 5, I showed that miscounting is positively correlated with electoral uncertainty but only when I take into consideration the number of years the party of the incumbent MP has held the constituency seat. The parliamentary candidates co-opt election officers into selectively rejecting ballots when they fear electoral defeat and have well-established clientelist networks that enable them to distribute patronage and deploy their polling agents to monitor and enforce compliance during the counting. When they do not, they revert to cheaper types or opt out of electoral manipulation. In Chapter 5, I also explored some of the linkages between electoral uncertainty and resources, drawing on participant

observations from LMK and Ada. I argued that electoral uncertainty sometimes improves the parliamentary candidates' capacity to rig by bringing constituency party leaders closer together. When they fear electoral defeat, they pool their resources and channel them through the parliamentary candidate. When they do not, they distribute patronage themselves to expand their own, personal clientelistic networks.

The third theoretical argument is that different types of electoral manipulation have different cost-benefit profiles, allowing the incumbents to tailor their rigging strategies and chose the blend of manipulation techniques that best matches their needs and capabilities. Drawing on the same dataset, in Chapter 6, I showed that ballot stuffing is positively correlated with electoral uncertainty but, again, only when I take into consideration the number of years the party of the incumbent MP had held the constituency seat. When juxtaposed, the findings of Chapters 4-6 support the third theoretical argument. When the parliamentary candidates are confident that they will win the elections, they inflate the voter register to reap indirect benefits after the elections: government funds for their constituents; government appointments for themselves. When they fear electoral defeat and have well-established clientelistic networks, they co-opt election officers and deploy their polling agents to monitor and enforce compliance during the counting. When they do not, they deploy their operatives to stuff the ballot boxes. In Chapter 6, I further explored the linkages between electoral uncertainty and resources, drawing on evidence from LMK and Ada. I argued that resources are an important factor also when the parliamentary candidates gauge their electoral prospects. The effect of electoral uncertainty on electoral manipulation is therefore dual: it increases the parliamentary candidates' incentive to rig, and it increases their capacity to do so without getting caught.

In sum, my theory is based on four theoretical arguments. Drawing on a dataset, I provided evidence of the first, second, and third. Drawing on participant observations, I provided evidence of the fourth and explored some of the causal mechanisms. Finally, I explored some of the indirect benefits that the parliamentary candidates reap from rigging the elections, drawing on a dataset containing information about the disbursement of government funds and government appointments.

7.2 The puzzle revisited

In Chapter 1 I used three examples from the 2008 elections to illustrate the puzzle animating the study. Before discussing the broader implications of my study, in this section, I review the three examples, in light of my theoretical argument and empirical findings.

In Asutifi South, the incumbent MP and NDC candidate, Collins Dauda, allegedly bribed the District Election Officer to send the ballot boxes from two polling stations to neighbouring Asutifi North, where they were opened and stuffed by NDC operatives. I have argued that ballot stuffing is an escalation of electoral manipulation and represents and last resort. The evidence supports this argument. In 2004, Dauda won the election by a margin of only 5% points and expectations were that the 2008 election would be equally close (Boateng 2008b). Already before the election, there were clashes between his supporters and the supporters of the NPP candidate (Boateng 2008c). Dauda was accused of "transporting people from Moshie Zongo and other Zongo communities, and also encouraging minors to register, as well as using Macho men to prevent people believed to be NPP supporters from registering" (Boateng 2008d) and of "propagating falsehood that have the tendency to

render the NPP government unpopular" (Boateng 2008d). He responded by accusing the NPP candidate of "transporting people from areas like Ahafo-Ano North, Kumasi, Asutifi North and Asunafo North" (Boateng 2008d), planning to "organise TESCON members and Zoomlion workers from across the region and other parts of the country to cause mayhem" (Boateng 2008c), and introducing the National Identification System (NIS) "partly to disenfranchise some illiterate Ghanaian voters" (Freiku 2007). In an interview, Dauda claimed that "the ruling party exploited several tricks to win the last elections and so was in the process of educating its polling agents and officials to equip them with the necessary skills that would ensure that the NPP does not get the opportunity to rig or adopt any unfair electoral practices to its advantage" (Braimah 2007). In other words, it was a desperate NDC candidate, who entered the election, facing an NPP candidate who also did not shy away from deploying electoral manipulation.

In Ellembele, the NDC candidate, Emmanuel Armah Kofi Buah, was accused of bribing the election officers in multiple polling stations into destroying ballots cast in favour of his opponent, the incumbent MP and CPP candidate. I have argued that the parliamentary candidates choose miscounting, when they fear electoral defeat and have resources. Again, the evidence supports the model. In 2004, the incumbent MP and CPP candidate had been re-elected by a margin of 23% points, but in 2008, he was "fighting hard to maintain his popularity in the constituency" (Samin 2008a), and shortly before the election, 75 CPP leaders defected to the NDC (Samin 2008a). In other words, by the time the CPP candidate entered the election his party had practically disintegrated. By contrast, Buah, was backed by a unified NDC, "determined to snatch the seat from the first Deputy Speaker of parliament, Hon. Freddie Blay" (Samin 2008b). Already before the primaries, "[l]eading members of

the party […] stormed the Elembelle constituency […] to oversee the election of Mr. Emmanuel Kofi Arma Buah, as the party's parliamentary aspirant for the area" (Samin 2008b), and in October, one month before the election, they declared "what could best be described as a political war aimed at unseating the incumbent MP" (Samin 2008a). In other words, it was united NDC that entered the 2008 election in Elembelle, determined to defeat the incumbent MP. After the election, Buah was appointed Deputy Minister for Energy, confirming his party status and relationship with the party leadership.

In Evalue Ajomoro Gwira, the NDC candidate, Peter Arde-Kwodwo, apparently chose not to rig. My theory suggests the parliamentary candidates opt out of electoral manipulation, when electoral victory is guaranteed or entirely beyond reach, when they fear getting caught, or when they do not have the necessary resources. The evidence supports this model. In 2004, the NPP had endorsed the CPP candidate in Evalue Ajomoro Gwira, who won by a margin of 20% points. However, in 2008, the party had "unanimously dissolved the marriage between the two parties" (Adams 2007) and fielded its own parliamentary candidate. The incumbent MP had been abandoned, even by his own party. In 2006, the CPP's Central Committee had called for his dismissal, in view of "various and cumulative acts of indiscipline, disloyalty, bringing the party into disrepute, contempt and public ridicule and breaching provision of the party's constitution" (The Accra Daily Mail 2006). In 2008, he was still a member of the CPP, but the party had practically disintegrated. The NPP candidate won the parliamentary primary convincingly. However, her election was challenged by one of the other parliamentary aspirants, who claimed she did not meet the two-year membership requirement and therefore was not qualified to contest the primaries in the constituency (Adams and Samin 2008). Moreover, the

NPP candidate was accused of racketeering, including by NPP members, and her vetting was suspended for several months in 2008 (Adams and Samin 2008; Takyi-Boadu 2008a). In other words, the NDC candidate faced two rather unimpressive parliamentary candidates in 2008, although one of them turned out the winner.

7.3 Broader implications

In this, final section, I consider the broader implications of my thesis arguments. First, I reflect on why politicians opt out of electoral manipulation. Second, I provide an explanation as to why electoral assistance, aimed at containing electoral manipulation, rarely succeeds. Finally, I discuss the relationship between democratisation and electoral manipulation.

Why politicians opt out of electoral manipulation

In the study, I have developed a theory about how African politicians choose from the menu of manipulation. But perhaps a more interesting question is when they choose not to rig. Electoral manipulation erodes public trust in government institutions and undermines the function of elections as a mechanism of representation and accountability. Understanding when politicians opt out of electoral manipulation is therefore important both from a democratic normative perspective as well as from an economic positivist one.

Conventional wisdom suggests two causal mechanisms. The first is that *politicians opt out of electoral manipulation when victory is guaranteed*. My study suggests this is not necessarily the case. First, African politicians reap indirect benefits from electoral manipulation. They accumulate political capital when they maximise victories and minimise defeats and are rewarded when they secure votes for their party's presidential candidate. This gives them an incentive to rig, irrespective of

their own fear of electoral defeat. Second, African politicians often do not know when victory is guaranteed. When gauging their electoral prospects, they rely on past electoral results, gut feeling, and the pieces of information they gather through their party machines. This causes them to miscalculate their electoral chances and rig when it makes little sense from a marginal victory perspective. In other words, the marginal benefits of electoral manipulation may decrease above and below the winning threshold, which means politicians are more likely to opt out of electoral manipulation when victory is guaranteed or beyond reach. However, the marginal benefits do not decrease as quickly as conventional wisdom suggests, and African politicians often do not know where the winning threshold is located.

The second causal argument, suggested by conventional wisdom, is that *politicians opt out of electoral manipulation when they fear getting caught*. My study generally confirms this mechanism: certainly the patterns of electoral manipulation in Africa are affected by the risk that electoral manipulation is detected, reported, and penalised. However, the study also suggests that the indirect costs are not constant but vary depending on the type. Africa politicians do not immediately opt out of electoral manipulation. Rather, they explore safer alternatives. When polling station A is monitored by election observers, they move to polling station B. When all polling stations are covered, they shift to the period before the elections etc. This is particularly the case, when they have resources. First, resources lower the indirect costs of all types of electoral manipulation, as election officers, police, judges etc. can be bribed. Second, they allow the politicians to choose from a wider range of options on the menu of manipulation.

If the guarantee of electoral victory and the fear of getting caught do not drive politicians out of electoral manipulation, then what does? My study suggests a third

causal mechanism: *politicians opt out of electoral manipulation when they run out of money.* Again the effect is not immediate. They first explore cheaper alternatives. When co-opting the election officers into selectively rejecting ballots becomes too costly, they deploy their operatives to stuff the ballot boxes. When that too exceeds what they can afford, they instruct their operatives to disrupt the collation of results, hoping that it will force the Electoral Commission to rerun the election. This is particularly the case in larger constituencies, where polling stations are further apart and the risk of getting caught is lower, or when voters are illiterate, inexperienced, and uninformed, which means they are less likely to report and penalise electoral manipulation.

In other words, politicians opt out of electoral manipulation when the combined direct and indirect costs exceed the combined direct and indirect benefits. Electoral confidence only drives politicians out of electoral manipulation, insofar as there are no indirect benefits to be reaped. Similarly, the fear of getting caught only drives them towards legitimate electoral practices, insofar as there are no low-risk alternatives.

Why electoral assistance rarely contains electoral manipulation

The argument—that politicians make trade-offs between the direct and indirect costs of electoral manipulation and opt out only when the combined costs exceed the combined benefits—has policy implications. Since the early 1990s, development agencies in Europe and North America have provided electoral assistance to electoral management bodies, political parties, and civil society organisations in Africa, often through specialised agencies, such as International IDEA, International Foundation for Electoral Systems (IFES), and United Nations Development Programme (UNDP). According to Tierney et al. (2011), USD 1.2 billion was invested in ‘elections’ in

Africa, between 1989 and 2010, while USD 2.8 billion was invested in 'democratic participation and civil society'.[165] The figures seem conservative. One agency, the UK Department for International Development (DFID), spent GBP 130 million (USD 240 million) only on UNDP-managed electoral assistance projects in Africa, between 2001 and 2011 (Independent Commission for Aid Impact 2012), and the European Union (EU) and its member states famously invested more than EUR 250 million (USD 320 million) in the 2006 elections in the Democratic Republic of Congo (DRC) (Council of the European Union 2006).

My study suggests electoral assistance has little effect in terms of containing electoral manipulation. Electoral assistance typically increases the costs of certain types of electoral manipulation; for example, by improving electoral laws, introducing new technology, educating election officers and polling agents, educating voters etc. It rarely increases the costs of all types, which means politicians have room to respond by rigging the elections in other ways. Consider the introduction of biometric voter registration (BVR) in Ghana, which cost around GHS 90 million (USD 45 million). Before 2012, the parliamentary candidates could inflate the voter register simply by double-registering their supporters. With the transition to BVR, including fingerprint verification, this loophole was closed. However, the parliamentary candidates could still inflate the voter register by registering minors and foreigners. Election observation reports suggest they did so. In other words, the transition to BVR

[165] Note that this figure does not include USD 2.8 billion invested in 'democratic participation and civil society', including USD 145 million in Ghana. Tierney et al. (2011) draw on data collected by AidData, the Organisation for Economic Co-operation and Development (OECD), International Aid Transparency Initiative (IATI), and Aid Information Management Systems (AIMS). The figure seems conservative.

changed the nature of voter inflation in Ghana but it did not substantially reduce overall levels.

Similarly, take the deployment of election observers. Since 2000, development agencies, such as the United States Agency for International Development (USAID), DFID, and the Ministry of Foreign Affairs of Denmark, have funded the Coalition of Domestic Election Observers (CODEO). In 2012, CODEO deployed 50 long-term observers, over a period of nine month leading up to the elections, and more than 4,000 short-term observers on election-day. The presence of election observers increases the indirect costs of several types of electoral manipulation by increasing the risk that electoral manipulation is detected. However, randomised experiments suggest Ghanaian political parties have responded by manipulating the elections in nearby unobserved polling stations (Asunka et al. 2014; Ichino, Bowers, and Fredrickson 2013; Ichino and Schundeln 2012). In other words, the deployment of election observers also did not substantially contained electoral manipulation.

The argument resonates with the "contemporary pessimistic mood" about "the effectiveness of Western attempts at providing electoral assistance and democracy promotion" (Norris 2017, 1). Schaffer (2008) has pointed to the 'hidden costs of election reform', using examples from Guyana and the Philippines,[166] and Bowler and Donovan (2012) have cautioned that election reforms "may have only minimal effects on engaging citizens with politics", contrary to the assurances of their

[166] In Guyana, when voter identification cards were introduced in 1997, "party agents began to buy them up, thereby purchasing the abstention of their opponents' supporters" (Schaffer 2008, 7). Similarly, in the Philippines, when a new voter register was compiled in 2004, "opportunities to inflate vote totals multiplied" (ibid., 7).

proponents (ibid., 55). Along the same lines, Simpser (2008) has pointed to the 'unintended consequences of election monitoring', arguing that election observers sometimes "induce the monitored party to resort to means of manipulating elections that are more difficult to scrutinize" and that "those forms of electoral manipulation that are less amenable to detection and redress through monitoring can also cause important damage to political, legal, and governmental institutions and to media independence" (ibid., 216). Testing the argument against data from 144 countries, Simpser and Donno (2012) find that "high-quality international election monitoring is robustly associated with negative changes in the rule of law, administrative effectiveness, and media freedom" (ibid., 511).

To be sure, this is not an argument against electoral assistance, which has other benefits. Electoral assistance has contributed to improving electoral laws in Latin America and to spreading gender quotas in the late 1990s and early 2000s (Norris 2017). Similarly, election reforms have contributed to improving voter registers in the US (ibid.). Rather, it is an argument against electoral assistance provided under the assumption that it contains electoral manipulation. It rarely does.

Why electoral manipulation persists through democratisation

The argument also speaks to the broader literature on electoral authoritarianism. My theory implies that the relationship between electoral manipulation and democratisation is curvilinear: constant at the autocratic end of the regime spectrum and in the middle, where politicians shift between different types of electoral manipulation; negative at the democratic end, where they opt out. Data from the Varieties of Democracies (V-Dem) dataset (Coppedge et al. 2017a) support this argument. Figure 7.1 plots the relationship between democratisation—measured by the combined polity score (Polity2) (Marshall, Jaggers, and Gurr 2014) and the

combined average Freedom House score (Freedom House 2017)—and electoral manipulation. The horizontal lines provide the local regression (LOESS) lines for four types of electoral manipulation: vote-buying (whether there was 'evidence of vote and/or turnout buying'), voting irregularities (whether there was 'evidence of other intentional irregularities by incumbent and/or opposition parties, and/or vote fraud'), government intimidation (whether 'opposition candidates/parties/campaign workers [were] subjected to repression, intimidation, violence, or harassment by the government, the ruling party, or their agents'), and electoral violence (whether 'the campaign period, election day, and postelection process [was] free from other types (not by the government, the ruling party, or their agents) of violence related to the conduct of the election and the campaigns (but not conducted by the government and its agents)' (Coppedge et al. 2017b). The vertical lines indicate the different polity thresholds.

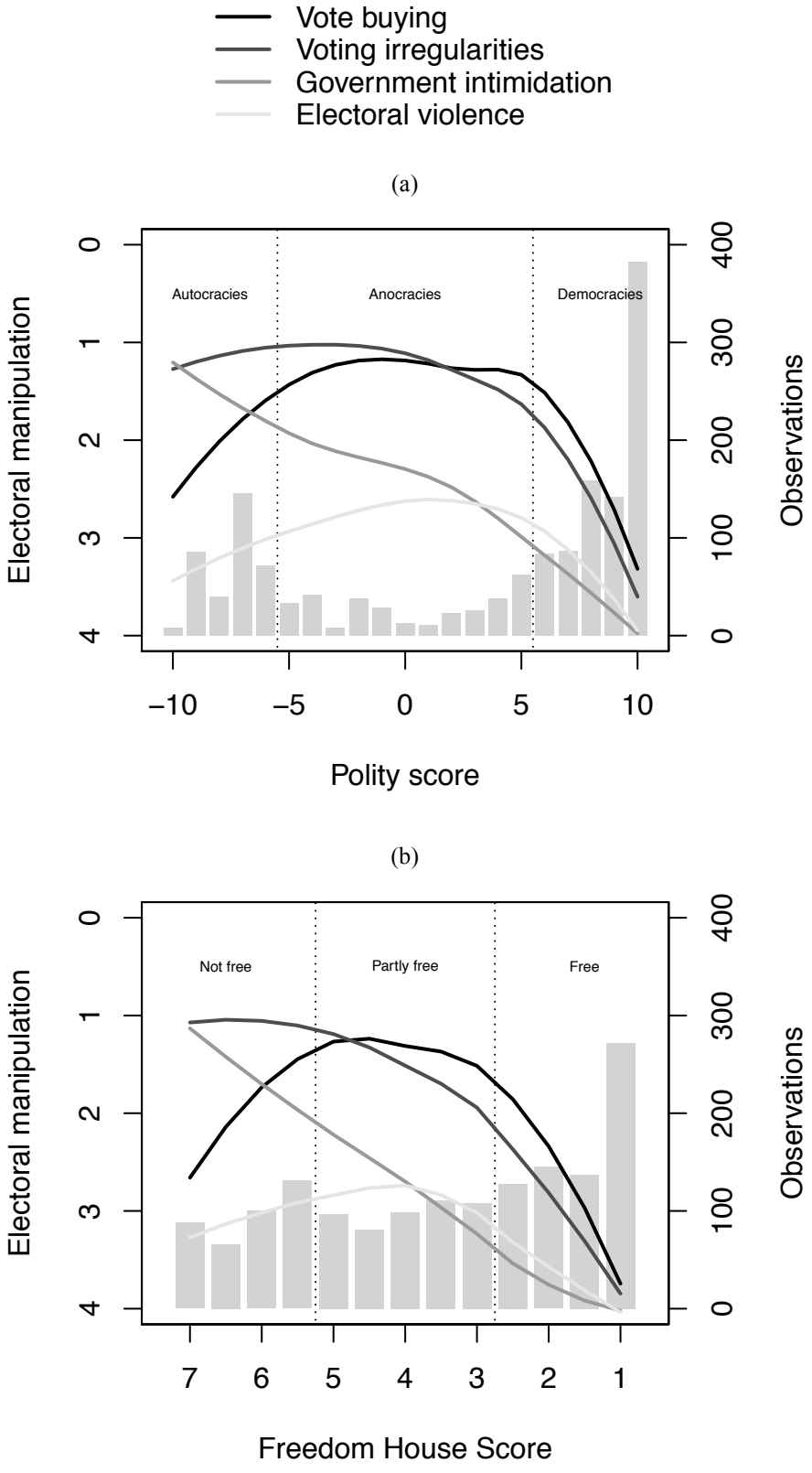
The figure supports the argument. The LOESS line for government intimidation is negative across the regime spectrum, but the lines for vote buying, voting irregularities, electoral violence are negative only at the democratic end. In other words, the effect of democratisation varies depending on the type of electoral manipulation: it has a constant effect on some types, and a threshold effect on others. The location of this threshold obviously depends on how we define and measure democratisation. Figure 7.1 suggests it is around a polity score of 6-8 or a Freedom House score of 3. In Africa, that is Benin, Comoros, Namibia, Botswana, Kenya,

Malawi, Tanzania, Zambia – and Ghana.[167] It therefore seems reasonable to predict that relatively modest democratic advancements in Ghana will have a substantial containing effect on electoral manipulation.[168]

[167] Cape Verde, Mauritius, and South Africa have combined polity score above 8 and combined aggregate Freedom House scores below 3.

[168] For a more detailed analysis of the relationship between democratisation and electoral manipulation, see van Ham and Lindberg (2016).

Figure 7.1: Relationship between democratisation and electoral manipulation



Notes: The lines provide the local regression (LOESS) lines.

Arguably, figure 7.1 describes the history of electoral manipulation in Western Europe and North America. In England and Wales, successive electoral reforms in the 19th century did little to contain electoral manipulation. The *Representation of the People Act* 1832 (the Great Reform Act) extended the franchise to middleclass men but "added inducements for the use of money in elections", as politicians now had to "buy, where they had formerly commanded" (ibid., 122). [169] Similarly, the *Parliamentary Elections Corrupt Practices Act* 1883, which made it illegal for employers to prevent their employees from participating in elections, only "transformed methods of electioneering", which now "assumed a far less blatant form than previously" (ibid., 143). It was not until the early 20th century that "most of the undemocratic survivals that had remained in the electoral system" cleared away (ibid, 179).[170] In other words, it took almost 100 years of democratic development before politicians in England and Wales began opting out of electoral manipulation.

The history of rigging in the US tells a similar story. The *Fifteenth Amendment (Amendment XV) to the US Constitution* 1870, which extended the franchise to African-American men, only "gave further impetus to political corruption" (Goldberg 1987, 182). In New York, for example, the political machine, based at Tammany Hall, peaked in the late 19th and early 20th century. In 1871, it was "so efficient […] that the votes cast were eight per cent in excess of the total voting population", and in 1910, "it was conservatively estimated that the total number of fraudulent registrations and votes prevented equalled the total number of votes" (ibid.,

169 The Great Reform Act extended the franchise to around half a million men.

170 The Fourth Reform Act extended the franchise to 5.6 million men and 8.4 million women.

261). However, by 1928, elections in the US had become "reasonably honest" and "the bribing of voters […] almost a lost political art, practiced only in a desultory fashion in certain sections" (Kent 1928, 200-201). In other words, also in the US, it took decades before the elections started improving.

In sum, my theoretical arguments and empirical findings imply curvilinear relationship between democratisation and electoral manipulation. Politicians shift between different types of electoral manipulation until countries reach a certain democratic threshold after which suddenly opt out. Data from the PEI index (Norris et al. 2016) and the history of electoral rigging in Western Europe and North America support this.

Is the 'trailblazer' still trailblazing?

Ghana has long been described as a democratic 'trailblazer'. The country has held seven successful elections since 1992 and seen three democratic transfers of power (2000, 2008, and 2016). The Electoral Commission is one of the most independent on the continent, and the judiciary has proven capable of handling even high-profile electoral disputes (Gyimah-Boadi 2009; Whitfield 2009). Yet, in the aftermath of the 2008 elections, observers of Ghanaian politics have started questioning the trailblazer narrative. Abdulai and Crawford (2010), for example, argue that the 2008 elections, and "the closeness that Ghana came to political violence", revealed "a latent threat to future democratic stability" (ibid., 26). Similarly, Gyimah-Boadi and Prempeh (2012) argue that "oil will exacerbate the unhealthy partisanship and 'competitive clientelism' that plague Ghanaian politics" and that the "[e]pisodes of localized partisan violence and intimidation, as well as organizational problems that characterized the 2008 election, are being repeated" (ibid., 104-106). Jockers, Kohnert, and Nugent (2010) are even more sceptical. They argue that "neglected or

unrecognised electoral fraud and a history of impunity in already volatile constituencies and regions of decisive importance for the general outcome of the polls […] poses a threat and is a destabilising factor in Ghana's democratisation process" (Jockers, Kohnert, and Nugent 2010, 111-112).

My empirical findings support both the trailblazer narrative and those who are sceptical about it. On one hand, the study has documented the growing importance of Ghana's democratic institutions. The patterns of electoral manipulation have changed over time, as the Electoral Commission has consolidated its independence and closed loopholes in the electoral system. Blunt electoral manipulation has become rarer and violence before the elections is generally triggered by factors that have little to do with the elections themselves. The two dominant parties hold constituency-level primaries and deploy polling agents to all polling stations. When the electoral laws are violated, the parliamentary candidates challenge elections in court and respect the court's rulings. Finally, civil society organisations train and deploy thousands of domestic election observers, who monitor and report on irregularities and violations of the electoral law.

On the other hand, my study has also illustrated some of the vulnerabilities of these institutions. Glitches in the administration of elections are common and election officers are often complicit, when the electoral laws are violated. Registration officers remain silent, when minors and foreigners register, and election officers look the other way, when ballots are marked and invalidated during the counting. Polling agents are co-opted or simply abandon their post. Court challenges are drowned in paperwork, sometimes deliberately, or they are rejected on arbitrary grounds. Finally, sections of the media are biased and uncritically report allegations of electoral

manipulation, undermining public trust in the electoral system and Ghana's democratic institutions.

The trailblazer debate therefore largely becomes a question of whether the glass is half full or half empty. On one hand, there is no doubt that Ghana has come a long way since the return to multiparty democracy and that its democratic institutions are among the most impressive on the continent. On the other, they continue to operate within a framework of poverty, illiteracy, and the informal institutions of clientelism, corruption, and ethnicity. Ghanaians are proud of their democratic credentials. However, many of them still vote for their co-ethnics and expect 'something small, small' in return.

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Appendices

A Studying electoral manipulation

Ghanaian law in perspective

In Chapter 2 I argue that definitions of electoral manipulation do not vary as much across countries as many comparativists suggests. Table A.1 compares the electoral laws of Ghana, Cameroon, and Mozambique and how they define voter inflation, miscounting, and ballot stuffing. As argued in the Chapter, the electoral laws of the three countries cover the same types of electoral manipulation, although there is some variation in terms of how they are clustered.

Table A.1: Definitions of electoral manipulation in perspective

Type	Ghana	Cameroon	Mozambique
Voter inflation	"A person who […] knowingly makes a false statement in or in connection with an application to have his name included in a register" (*Representation of the People Law* (PNDCL 284) 1992, 27(a))	"Any person who […] through false statements or certificates, registers himself unduly on an electoral register or who, through the same means, unduly registers or cancels the name of a citizen" (*Law Relating to the Electoral Code* 2012, 288)w	"Todo a cidadão que prestar falsas declarações ou informações a fim de obter a sua inscrição no recenseamento eleitoral" (*Lei N. 7* 2007, 52) [all citizens who provide false statements or information in order to get their name in the voter register]
Miscounting	"An election officer who […] wilfully counts a ballot paper as being cast for a candidate which he knows or has reasonable cause to believe was not validly cast for the candidate" (*Representation of the People Law* (PNDCL 284) 1992, 30(e))	"Any person who […] before or after the poll, failing to comply with legislative or regulatory provisions or through any other fraudulent act, violates secrecy of the poll, prejudices its fairness, breaches the conduct of the poll and modifies the results thereof" (*Law Relating to the Electoral Code* 2012, 288)	"Aquele que, de alguma forma, com dolo, vicie, substitua, suprima, destrua ou altere os cadernos eleitorais, os boletins de voto, as actas e os editais das mesas das assembleias de voto ou quaisquer outros documentos respeitantes a eleição" (*Lei N. 7* 2007, 227) [Anyone who in any way intentionally misuses, replaces, suppresses, destroys or changes the voter register, ballots, declaration forms, or any other documents related to the election]
Ballot stuffing	"A person who […] knowingly and intentionally puts into a ballot box anything other than the ballot paper which he is authorised by law to put in" (*Representation of the People Law* (PNDCL 284) 1992, 28(f))	"Any person who […] charged during an election with receiving and counting the vote of citizens, subtracts, adds or modifies the ballot papers or includes a name that is not registered" (*Law Relating to the Electoral Code* 2012, 288)	"Aquele que, fraudulentamente, depositar boletins de voto nela recolhidos mais ainda não apurados, ou se apoderar de um boletim de voto, em qualquer momento, desde a abertura da assembleia de voto até ao apuramento geral da eleição" (*Lei N. 7* 2007, 218) [Anyone who fraudulently deposits collected but unmarked ballots, or obtains a ballot, at any time, from the opening of the polling station to the general tabulation of the results]

Notes: Extracted from the *Representation of the People Law (PNDCL 284)* 1992 (Ghana), *Law Relating to the Electoral Code* 2012 (Cameroon), and *Sobre a Eleição Do Presidente Da República E a Eleição Dos Deputados Da Assembleia Da República (Lei N. 7/2007)* 2007 (Mozambique).

Bias and measurement error

In Chapter 2, I argue that public opinion-based measures of electoral manipulation suffer from social desirability and partisan biases. To test the first argument—about social desirability bias—I compare answers from Round 3 of the Afrobarometer (2005), where respondents were asked twice about 'gifts' during election campaigns. First they were asked how often a candidate or someone from a political party offered them something, like food or a gift, in return for their vote during the 2004 election (Kirwin 2007, 26). Later they were asked how often politicians offer gifts to voters during election campaigns (ibid., 37). Assuming the sample is representative, and that people weigh their personal and recent experiences, I would expect respondents who say they were 'often' offered a gift in return for their vote during the 2004 elections to also say that politicians 'often' offer gifts to voters during election campaigns. This is not the case. The median response to the first answer is 'never' (0.4 on a four-point scale). The median response to the second question is 'often' (2.0 on a four-point scale).

To test the second argument—about partisan bias—I compare answers from Round 3 of the Afrobarometer (2005), which was the first after the 2004 elections, when John Kuffuor was re-elected for a second term, with answers from Round 5 (Afrobarometer 2012), which was the first after the 2008 elections, when John Atta Mills reclaimed the presidency for the NDC. In both rounds, respondents were asked to rate the freeness and fairness of the last national election. Assuming no partisan bias, I would expect only minor variations between respondents who said they felt close to the NDC and respondents who said they felt close to the NPP, controlling for sex, age, education, employment, and urbanisation. This is not the case. In Round 3, respondents who said they felt close to the NPP rated the 2004 elections 18% (0.7

points on a four-point scale) freer and fairer than respondents who said they felt close to any other political party. By contrast, in Round 5, respondents who said they felt close to the NDC rated the 2008 elections 10% (0.4 points on a four-point scale) freer and fairer than other respondents who said they felt close to any other political party. The regression results are reported in Table A.2. Note that the NPP was in power both in 2004 and in 2008. The variations are therefore not a result of different governments manipulating the elections in different regions.

Table A.2: Partisan bias in public opinion-based measures

	(1)	(2)	(3)	(4)
	Freeness and fairness of last election (1=Not free and fair; 2=Free and fair with major problems; 3=Free and fair with minor problems; 4=Completely free and fair)			
	Round 3 (first after 2004 election)		Round 5 (first after 2008 election)	
Male	-0.077	-0.057	0.057	0.054
	(0.066)	(0.066)	(0.046)	(0.046)
Young <25	-0.050	-0.041	-0.023	-0.030
	(0.066)	(0.067)	(0.045)	(0.045)
Educated	0.001	-0.0002	**-0.253*****	**-0.264*****
	(0.072)	(0.072)	**(0.048)**	**(0.048)**
Employed	0.021	0.022	-0.031	-0.028
	(0.067)	(0.068)	(0.045)	(0.045)
Urban	0.020	0.054	-0.027	-0.032
	(0.068)	(0.068)	(0.046)	(0.046)
Feels close to NDC	**-0.778*****		**0.378*****	
	(0.071)		**(0.046)**	
Feels close to NPP		**0.733*****		**-0.366*****
		(0.069)		**(0.045)**
Constant	**3.526*****	**2.778*****	**3.231*****	**3.598*****
	(0.086)	**(0.089)**	**(0.058)**	**(0.055)**
N	759	759	1,282	1,282
Adjusted R^2	0.138	0.132	0.087	0.085

Notes: Linear models. Standard errors in parenthesis. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Participant observations from LMK and Ada

In Chapter 2, I describe how data were collected in LMK and Ada. Table A.3 provides a list of interviews.

Table A.3: List of interviews, in chronological order

Name	Position	Location and date*
Victory Brobbey	Research Fellow, Centre for Democratic Development	Accra, 13 June 2012
Kwesi Aning	Director, Kofi Annan International Peacekeeping Training Centre	Accra, 14 June 2012
Ernest Ansah Lartey	Head of Peace and Security Studies Programme, Kofi Annan International Peacekeeping Training Centre	Accra, 14 June 2012
Emmanuel Akwetey	Executive Director, Institute for Democratic Governance	Accra, 14 June 2012
Esther Ofori	National Treasurer of the NPP	Accra, 15 June 2012
Fred Oware	National Vice Chairperson of the NPP	Accra, 15 June 2012
Nana Akomeah	Director of Communication of the NPP/NPP parliamentary candidate for Okaikwei South	Accra, 15 June 2012
Ivor Greenstreet	General Secretary of the CPP	Accra, 16 June 2012
Marcus Adolfsson	Chief Executive, Viasat 1	Accra, 16 June 2012
Daniela Kuzu	Resident Representative, Friedrich Ebert Stiftung	Accra, 18 June 2012
Ben Ephson	Editor, Daily Dispatch	Accra, 18 June 2012
Theophilus Dowetin	West Africa Programme Manager, International Institute for Democracy and Electoral Assistance	Accra, 18 June 2012
Philip Okuko	Country Manager, Ipsos Synovate	Accra 18 June 2012
Francesco Torcoli	Programme Officer, Delegation of the European Union to Ghana	Accra 18 June 2012
Jan Poulsen	Deputy Ambassador, Embassy of Denmark to Ghana	Accra, 19 June 2012
Ruby Sandhu-Rojon	Resident Representative, United Nations Development Programme	Accra, 19 June 2012
Boakye Kyerematen Agyarko	Campaign manager for Nana Akufo-Addo, NPP presidential candidate	Accra, 19 June 2012
Abeeku Essuman-Johnson	Associate Professor, Department of Political Science, University of Ghana Legon	Accra, 19 June 2012
Emmanuel Debrah	Associate Professor, Department of Political Science, University of Ghana Legon	Accra, 19 June 2012
Emmanuel Bombande	Executive Director, West African Network for Peacebuilding	Accra, 19 June 2012
Samuel Atta Akyea	MP/NPP parliamentary candidate for Abuakwa South	Accra, 19 June 2012
Emanuel Asante Kissi	Director of Operations, Electoral Commission	Accra, 20 June 2012

Name	Position	Location and date*
Frank Kwofie	Director of Operations, Criminal Investigations Department, Ghana Police Service	Accra, 20 June 2012
Matilda Haynes	Journalist, TV3	Accra, 20 June 2012
Nana Aba Anamoah	Journalist, TV3	Accra, 20 June 2012
John Larvie	Senior Programme Officer, Centre for Democratic Development/Member of the Advisory Board of CODEO	Accra, 21 June 2012
Samuel Okudzeto Ablakwa	Deputy Minister of Information/NDC parliamentary candidate for North Tongu	Accra, 21 June 2012
Tony Addy	Chief Registrar General, Judicial Service	Accra, 22 June 2012
Steven Narh	Director of Monitoring and Evaluation, Judicial Service	Accra, 22 June 2012
Alex Poku Acheampong	Judicial Secretary, Judicial Service	Accra, 22 June 2012
Alhassan Ibn Abdallah	Secretary, Slum Union Ghana	Accra, 23 June 2012
Daniel Armah Attoh	Statistician, Centre for Democratic Development	Accra, 24 September 2012
Aborampah Mensah	Programme Officer, Centre for Democratic Development	Accra, 24 September 2012
Franklin Owusu	Deputy Director, Centre for Democratic Development	Accra, 24 September 2012
Emmanuel Gyimah-Boadi	Executive Director, Centre for Democratic Development/Professor, Department of Political Science, University of Ghana Legon	Accra, 24 September 2012
Andrews Lamptey	Head of Micro Data, Ghana Statistical Service	Accra, 25 September 2012
Philomena Nyarko	Government Statistician/Chief Executive of the Ghana Statistical Service	Accra, 25 September 2012
Rexford Gyimah	Registrar, Accra Fast Track Court	Accra, 26 September 2012
Kwadwo Sarfo Kantanka	Deputy Chairman of the Electoral Commission	Accra, 27 September 2012
Eunice Yeboah	Ashiedu Keteke District Election Officer, Electoral Commission	Accra, 28 September 2012
David Walter Hormenu	Campaign manager for Ebenezer Okletey Terlarbi, NDC parliamentary candidate for LMK	Agormanya, 28 September 2012
Atenas Fredrick Okoro	NDC branch executive	Agormanya, 28 September 2012
Ebenezer Okletey Terlarbi	Deputy Eastern Regional Minister/NDC parliamentary candidate for LMK	Agormanya, 29 September 2012
Dominic Atenutsui	NDC branch executive	Kpong, 29 September 2012
George Okyere	Founding member of the NDC/Member of LMK District Assembly	Kpong, 29 September 2012
Ben Kwawu	NDC branch executive	Kpong, 29 September 2012
Asare Baffour Djan	LMK District Election Officer, Electoral Commission	Agormanya, 1 October 2012
Esther Tawiah	Constituency Women Organiser of the NDC in LMK	Agormanya, 2 October 2012
Jef Kavianu	NDC parliamentary candidate for Upper Manya Krobo	Asasewa, 4 October 2012

Name	Position	Location and date*
Patience Asem	Yilo Krobo District Election Officer, Electoral Commission	Somanya, 4 October 2012
Magnus Kofi Amoatey	NDC parliamentary candidate for Yilo Krobo	Somanya, 4 October 2012
Alfred Quarm	Ada District Election Officer, Electoral Commission	Ada Foah, 6 October 2012
Christian Odotei	NDC parliamentary candidate for Sege	Sege, 7 October 2012
Alex Quam	Constituency Secretary of the NDC in Sege	Sege, 7 October 2012
Comfort Cudjoe Doyoe-Ghansah	Member of the Accra Metropolitan Assembly/NDC parliamentary candidate for Ada	Ada Foah, 5 October 2012
Gad Akwerh	Campaign manager for Comfort Cudjoe Doyoe-Ghansah, NDC parliamentary candidate for Ada/Acting Constituency Secretary of the NDC in Ada	Ada Foah, 5 October 2012
Vincent Tesia	NDC branch executive	Ada Foah, 5 October 2012
Alfred Gasu	NDC branch executive	Ada Foah, 5 October 2012
Laurentia Kpatakpa	Volta Regional Director, Electoral Commission	Ho, 30 October 2012
Aminu Abukari	Ketu South District Election Officer, Electoral Commission	Denu, 31 October 2012
Karin Poulsen	Deputy Ambassador, Embassy of Denmark to Ghana	Accra, 5 November 2012
Francis Gedzeah	Registrar, Kumasi High Court	Kumasi, 13 November 2012
Samuel Tettey	Ashanti Regional Director, Electoral Commission	Kumasi, 14 November 2012
Dina Osei Asibey	Manhyia North/Manhyia South/Old Tafo/Suame District Election Officer, Electoral Commission	Kumasi, 14 November 2012
K. S. Okra	Registrar, Sunyani High Court	Sunyani, 15 November 2012
Samuel Boadu	Deputy Brong Ahafo Regional Director, Electoral Commission	Sunyani, 15 November 2012
Eric Mensah Bonsu	Deputy Eastern Regional Director, Electoral Commission	Koforidua, 16 November 2012
Tetteh Susu	Former NDC branch executive	Nuaso, 16 November 2012
Emmanuel Olesu	NDC polling agent	Agormanya, 16 November 2012
Joseph Ofori	NDC polling agent	Agormanya, 16 November 2012
Felix Veron Nartsu	Campaign manager for Michael Teye Nyaunu, independent parliamentary candidate for LMK	Nuaso, 17 November 2012
Michael Teye Nyaunu	MP/independent parliamentary candidate for LMK	Nuaso, 17 November 2012
Difie Dedo Agyarko-Kusi	NPP parliamentary candidate for LMK	Agormanya, 17 November 2012
Dan Botwe	Constituency Organiser of the NPP in LMK	Agormanya, 17 November 2012
James Dzoagbey	Registrar, Tarkwa High Court	Tarkwa, 19 November 2012
Francis Asmah	Registrar, Sekondi High Court	Sekondi, 20 November 2012
Stephen Opoku Mensah	Western Regional Director, Electoral Commission	Sekondi, 20 November 2012
Janet Harvey-Ewusi	Registrar, Cape Coast High Court	Cape Coast, 21 November 2012
Serebour Quaicoe	Deputy Central Regional Director, Electoral Commission	Cape Coast, 22 November 2012
Henry Ayertey	NDC branch executive	Agormanya, 27 November 2012

Name	Position	Location and date*
Festus Kayang	NDC polling agent	Ada Foah, 25 November 2012
Emmanuel Tetteh Kabu	Independent parliamentary candidate for Ada	Big Ada, 28 November 2012
Betty Atsupe Gorleku-Quarshi	NPP parliamentary candidate for Ada	Big Ada, 28 November 2012
Leslie Tetteh Plahar	CPP parliamentary candidate for Ada	Big Ada, 29 November 2012
Samuel Ofori Portuphy	Acting Constituency Secretary of the NDC in Ada/Ada District Coordinator of the National Disaster Management Organisation (NADMO)	Ada Foah, 29 November 2012
Umar Adams Lukman	Acting Constituency Secretary of the NDC in LMK	Agormanya, 1 December 2012
Papi Tetteh	NDC branch executive	Agormanya, 5 December 2012
Fatao Adams	Election officer	Agormanya, 5 December 2012
Joe Teye	LMK District Coordinator of the Local Enterprise Skills Development Program (LESDEP)	Agormanya, 6 December 2012
Isaac Tetteh Agbo	LMK District Chief Executive	Agormanya, 9 December 2012
Emmanuel Tetteh	Founding member of the NDC/former Eastern Regional Minister/former MP for LMK	Odumase, 9 December 2012
Dodzi Godact Hlordzi	Ada District Police Commander	Ada Foah, 12 December 2012
Amidu Mahama	Registrar, High Court Tamale	Tamale, 9 December 2013
Godwin Okley	Deputy Northern Regional Director, Electoral Commission	Tamale, 9 December 2013
P. Pankah	Judge, High Court Bolgatanga	Bolgatanga, 10 December 2013
John Bosco Azu	Deputy Upper East Regional Director, Electoral Commission	Bolgatanga, 10 December 2013
Ali Dauda	Deputy Upper West Regional Director, Electoral Commission	Wa, 12 December 2013
Angelina Tego	Deputy Greater Accra Regional Director, Electoral Commission	Accra, 16 December 2013
Catherine de Souza	Registrar, Accra Fast Track Court	Accra, 17 December 2013
Kwesi Jonah	Senior Lecturer, Department of Political Science, University of Ghana Legon	Nairobi, 26 July 2015

* The right-hand column indicates the location and date of the first interview. Some interviewees were interviewed multiple times.

In Chapter 2, I describe how LMK and Ada were chosen as 'most similar' cases (Gerring 2007; Seawright and Gerring 2008), using statistical matching. In Tables A.3, A.4, and A.5, I report the robustness tests. First, I include a background variable to capture whether the constituency was located in one of the six metropolitan districts, instead of a priori excluding metropolitan constituencies. Second, I exclude the background variable that measures the fraction of the constituency population that owns a mobile phone, based on the argument that it co-varies with whether the constituency was metropolitan. Finally, I introduce background variables that were not available when the cases were selected: *Candidates*, which counts the candidates contesting the seat; *MP running*, which indicates whether the incumbent MP ran for re-election; and *Minister running*, which indicates whether one of the candidates was a minister or deputy minister. The results confirm that Ada is the constituency that is most similar to LMK.

Table A.4: Statistical matching, including *Constituency metropolitan*

No.	Matched cases		Distance*	Treatment variance
1	LMK	Ada	3.325	0.092
2	LMK	Anlo	27.704	0.241
3	LMK	Mampong	27.784	0.075
4	LMK	North Tongu	27.864	0.108
5	LMK	Keta	28.087	0.210
6	LMK	South Tongu	28.303	0.179
7	LMK	Ahafo Ano South West	28.751	0.142
8	LMK	South Dayi	29.349	0.183
9	LMK	Odotobri	29.363	0.084
10	LMK	Nsuta Kwamang	29.372	0.090

Notes: matched on the following background variables: *Voters registered*, *MP ruling party*, *Constituency size km2*, *Population educated*, *Population employed*, *Population with mobile phone*, *Population Ga-Dangme*, and *Constituency metropolitan*
* Squared Mahalanobis distance

Table A.5: Statistical matching, excluding *Population with mobile*

No.	Matched cases		Distance*	Treatment variance
1	LMK	Ada	3.146	0.092
2	LMK	Anlo	27.341	0.241
3	LMK	Keta	27.588	0.210
4	LMK	Mampong	27.726	0.075
5	LMK	Odotobri	27.788	0.084
6	LMK	North Tongu	27.864	0.108
7	LMK	South Tongu	28.297	0.179
8	LMK	Ahafo Ano South West	28.395	0.142
9	LMK	twima Nwabiagya South	29.095	0.093
10	LMK	Nsuta Kwamang	29.256	0.090

Notes: matched on the following background variables: *Voters registered*, *MP ruling party*, *Constituency size km2*, *Population educated*, *Population employed*, *Population Ga-Dangme*, and *Constituency metropolitan*
* Squared Mahalanobis distance

Table A.6: Statistical matching, including additional variables

No.	Matched cases		Distance*	Treatment variance
1	LMK	Ada	3.146	0.092
2	LMK	Anlo	27.341	0.241
3	LMK	Keta	27.588	0.210
4	LMK	Mampong	27.726	0.075
5	LMK	Odotobri	27.788	0.084
6	LMK	North Tongu	27.864	0.108
7	LMK	South Tongu	28.297	0.179
8	LMK	Ahafo Ano South West	28.395	0.142
9	LMK	twima Nwabiagya South	29.095	0.093
10	LMK	Nsuta Kwamang	29.256	0.090

Notes: matched on the following background variables: *Voters registered*, *MP ruling party*, *Constituency size km2*, *Population educated*, *Population employed*, *Population with mobile phone*, *Population Ga-Dangme*, *Candidates*, *MP running*, and *Minister running*
* Squared Mahalanobis distance

B Explaining electoral manipulation

The empirical record in Ghana

In Chapter 3, I plot the relationship between electoral uncertainty, the risks associated with electoral manipulation, and the three types of electoral manipulation considered in this study. The underlying regression results are reported in Tables B.1, B.2, and B.3.

Table B.1: The empirical record in Ghana, voter inflation

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Voter registrations challenged, relative to voters registered					
Parliamentary win-margin$_{t-1}$	-0.188					
	(9.452)					
Parliamentary win-margin		-0.188				
		(9.452)				
Presidential win-margin$_{t-1}$			-0.296			
			(8.608)			
Constituency size km2				-0.001		
				(0.000)		
Population literate					0.207	
					(16.980)	
Population with mobile						-0.427
						(13.671)
Constant	**-6.725****	**-6.725****	**-6.691****	**-6.765****	-6.934	-6.646
	(2.912)	**(2.912)**	**(3.053)**	**(2.440)**	(13.723)	(4.309)
N	229	229	229	229	229	229

Notes: Logit models. Standard errors in parenthesis. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Table B.2: The empirical record in Ghana, miscounting

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Parliamentary ballots rejected, relative to parliamentary ballots cast					
Parliamentary win-margin$_{t-1}$	-0.842					
	(1.725)					
Parliamentary win-margin		-0.879				
		(1.737)				
Presidential win-margin$_{t-1}$			-0.497			
			(1.481)			
Constituency size km2				0.001		
				(0.000)		
Population literate					-3.375	
					(2.601)	
Population with mobile						-3.486
						(2.691)
Constant	**-3.773*** **	**-3.777*** **	**-3.825*** **	**-4.140*** **	-1.354	**-3.064*** **
	(0.504)	**(0.486)**	**(0.532)**	**(0.412)**	(1.981)	**(0.705)**
N	505	505	505	505	505	505

Notes: Logit models. Standard errors in parenthesis. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Table B.3: The empirical record in Ghana, ballot stuffing

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Parliamentary election challenged (section 28)					
Parliamentary win-margin$_{t-1}$	**-8.322*** **					
	(2.609)					
Parliamentary win-margin		**-23.878*** **				
		(6.184)				
Presidential win-margin$_{t-1}$			**-11.417*** **			
			(2.997)			
Constituency size km2				**0.001** **		
				(0.000)		
Population literate					-1.655	
					(1.863)	
Population with mobile						0.910
						(1.503)
Constant	**-1.931*** **	**-1.066*** **	**-1.408*** **	**-3.520*** **	-1.883	**-3.463*** **
	(0.337)	**(0.367)**	**(0.348)**	**(0.290)**	(1.467)	**(0.521)**
N	505	505	505	505	505	505

Notes: Logit models. Standard errors in parenthesis. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

C Electoral manipulation with indirect benefits

Background

In Chapter 4, I describe the registration process, following the transition to full biometric voter registrations (BVR) in 2012. Table C.1 provides an overview of the registration process before 2012.

Table C.1: Overview of the registration process since 1992

Year	Registration process
1992	Update of the 1987 voter register.[171] Registration at polling station-level; cross-checked at constituency-level; voters cards with thumbprint identification; no party agents
1996	New voter register. Registration at polling station-level; monitored by party agents; cross-checked at constituency-level; exhibition period; voter cards with photo identification in regional capitals and ten constituencies; voter cards with thumbprint identification in other constituencies
2000	Update of the 1996 voter register. Registration at polling station-level; monitored by party agents; cross-checked at constituency-level; exhibition period; voter cards with photo identification in all constituencies; voter cards with thumbprint identification also accepted
2004	New voter register. Registration at polling station-level; information captured on forms and processed with optical mark recognition (OMR); photo identification in the voter register; monitored by party agents; cross-checked at national level; exhibition period; voter cards with photo identification
2008	Update of the 2004 voter register. Registration at polling station-level; information captured on forms and processed with OMR; voter cards with photo identification; photo identification in the voter register; monitored by party agents; cross-checked at national level; exhibition period
2012	New voter register. Registration at polling station-level; information captured on forms and inserted directly into database; biometric identification in the voter register; monitored by party agents; cross-checked at national level; voter cards with biometric identification; biometric voter verification

Sources: Ayee (1997, 2001a, 2001b, 2002, 2012), Boafo-Arthur (2006a, 2006b), Gyimah-Boadi (1994, 1997, 2001, 2009), Haynes (1993), Ichino and Schundeln (2012), Jeffries (1996, 1998), Jeffries and Thomas (1993), Smith (2002a, 2002b).

[171] The 1987 voter register was compiled by the National Commission for Democracy (NCD), established in 1984 by the Provisional National Defence Council (PNDC) to formulate a programme for the realisation of participatory democracy in Ghana.

Spillover effects and ethnic cues

In Chapter 4, I argue that ethnicity contains information about voter behaviour; more specifically, that Akan voters are more likely to vote for NPP candidates, and that Ewe voters are more likely to vote for NDC candidates. I test this argument against data from Rounds 5 and 6 of the Afrobarometer (2012, 2015), using regression analysis. I use four different dependent variables: *Close to NDC* and *Close to NPP*, which indicate whether the respondent felt close to the NDC or the NPP respectively (Carter 2012, 56; Isbell 2015, 52), and *Vote for NDC* and *Vote for NPP*, which indicate whether the respondent would vote for the NDC or the NPP candidates respectively, "[i]f a presidential election were held tomorrow" (Carter 2012, 59; Isbell 2015, 55). As my main independent variable, I use a categorical variable indicating the ethnic group of the respondent. The 2010 Population and Housing Census (Ghana Statistical Service 2010) uses nine different ethnic groups. For simplicity, I limit myself to the five largest: Akan, Mole-Dagbani, Ewe, Ga-Dangme, and Gurma. Combined, the five groups represent more than 90% of the population. Round 5 of the Afrobarometer uses 24 different ethnic groups, while round 6 uses 19. I merged the groups as summarised in table C.2. I include the following control variables in my models: *Male*, which indicates whether the respondent was male; *Young <25*, which indicates whether the respondent was below 25; *Primary education*, which indicates whether the respondent had completed primary education; *Employment*, which indicates whether the respondent was employed, whether part or full time; *Mobile ownership*, which indicates whether the respondent owned a mobile phone; and *Urban*, which indicates whether the primary sampling unit was urban.

Table C.2: Merger of ethnic groups

2010 Population and Housing Census			Afrobarometer						
			Round 5			Round 6			
Group	%	Notes	Group	N	%	Group	N	%	Notes
Akan	48	Kwa/Potou-Tano/Central Tano	Akan	1296	54	Akan	1208	53	
Mole-Dagbani	17	Gur/Northern/Oti-Volta/Western	Waala	5	<1	Waali	19	<1	Same as Wali
			Dagbani	155	6	Dagomba	133	6	Same as Dagbani
			Moshie	9	<1	Moshie	10	<1	Same as Mossi or Moore
			Frafra	27	1	Frafra	35	2	
			Dagaree	81	3	Dagaaba	74	3	Same as Dagaare
			Mampruli	25	1	Mamprusi	25	1	Same as Mampruli
			Kusasi	52	2	Kusasi	44	2	
			Talensi	11	<1				Same as Talni
			Nabdam	7	<1				Same as Nabit
Ewe	14	Gbe	Ewe	324	14	Ewe/Anglo	364	16	
Ga-Dangme	7	Kwa	Ga/Dangbe	172	7	Ga/Adangbe	216	9	
Gurma	6	Gur/Northern/Oti-Volta	Gruni	24	1	Gruma	13	<1	Same as Gourmanchema
			Konkomba	49	2	Konkomba	45	2	
			Bimoba	2	<1	Basari	10	<1	Same as Moba/Ntcham
Guan	4	Kwa/Potou-Tano	Gonja	14	<1	Gonja	46	2	
			Guan	6	<1				
Grusi	2	Gur/Southern	Kotonkoli	7	<1	Kotokoli	13	<1	Same as Tem
			Kasina	5	<1				Same as Kasem
			Sissala	5	<1				Same as Sisaala
Mande	1		Other	55	2	Buzanga	16	<1	Same as Bissa
Other	1		Hausa	45	2	Hausa	12	<1	
			Bulsa	20	<1	Bulsa	14	<1	
			Nzema	1	<1				

Notes: Classification based on Glottolog (Hammarstrom et al. 2016).

The results are reported in table C.3. They confirm that Akan respondents are more likely than non-Akan respondents to feel close to the NPP and to vote for the NPP's presidential candidate. In models 1 and 2, the coefficients for Ewe, Ga-Dangme, Gurma, and Mole-Dagbani respondents are all positive and statistically significant; in models 3 and 4, they are all negative and statistically significant. The effect is substantial. Akan respondents are three to seven times more likely than non-Akan respondents to feel close to the NPP and also three to seven times more likely to vote for the NPP's presidential candidate, with all other variables held at their means.

Table C.3: Ethnicity and voter behaviour, all observations

	(1) Close to NDC	(2) Vote for NDC	(3) Close to NPP	(4) Vote for NPP
Akan				
Ewe	**1.814*****	**1.924*****	**-1.919*****	**-2.008*****
	(0.102)	**(0.100)**	**(0.138)**	**(0.125)**
Ga-Dangme	**1.319*****	**1.272*****	**-1.468*****	**-1.494*****
	(0.131)	**(0.130)**	**(0.155)**	**(0.138)**
Gurma	**0.923*****	**1.615*****	**-1.316*****	**-1.027*****
	(0.198)	**(0.186)**	**(0.244)**	**(0.202)**
Mole-Dagbani	**1.327*****	**1.459*****	**-1.048*****	**-1.022*****
	(0.106)	**(0.104)**	**(0.111)**	**(0.101)**
Male	**0.410*****	**0.338*****	-0.063	**-0.187*****
	(0.079)	**(0.077)**	(0.072)	**(0.069)**
Young	0.037	0.031	**-0.172***	0.012
	(0.102)	(0.099)	**(0.093)**	(0.087)
Education	**-0.392*****	**-0.274*****	**0.182****	0.125
	(0.093)	**(0.091)**	**(0.087)**	(0.083)
Employment	**0.171****	-0.068	**0.213*****	**0.144****
	(0.082)	(0.080)	**(0.076)**	**(0.072)**
Mobile ownership	-0.069	-0.031	0.029	-0.027
	(0.101)	(0.098)	(0.096)	(0.090)
Urban	**-0.482*****	**-0.480*****	-0.057	0.031
	(0.083)	**(0.081)**	(0.074)	(0.071)
Round 5	0.092	**0.470*****	0.051	0.008
	(0.078)	**(0.077)**	(0.071)	(0.068)
Constant	**-1.811*****	**-1.842*****	**-0.571*****	-0.058
	(0.130)	**(0.128)**	**(0.116)**	(0.110)
N	4,370	4,370	4,370	4,370
AIC	4,239.039	4,382.770	4,876.392	5,265.581

Notes: Logit models. Standard errors in parenthesis. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

To further explore the relationship between ethnicity and voter behaviour, I rerun the regressions only for non-Akan respondents. The results are reported in table C.4. They show that Ewe respondents are more likely than other non-Akan respondents to feel close to the NDC and to vote for the party's presidential candidate. In models 1 and 2, the coefficients for Ga-Dangme, Gurma, and Mole-Dagbani respondents are all negative and statistically significant; in models 3 and 4, they are all positive and statistically significant. The effect is weaker than in the previous

analysis but still considerable. Ewe respondents are two to three times more likely than other non-Akan respondents to feel close to the NDC and 31-87% more likely to vote for the NDC's presidential candidate, with all other variables held at their means.

Table C.4: Ethnicity and voter behaviour, non-Akan observations

	(1)	(2)	(3)	(4)
	Close NDC	Vote NDC	Close NPP	Vote NPP
Ewe				
Ga-Dangme	**-0.459*****	**-0.625*****	**0.473****	**0.523*****
	(0.140)	**(0.139)**	**(0.202)**	**(0.179)**
Gurma	**-0.830*****	-0.271	**0.588****	**1.003*****
	(0.208)	(0.198)	**(0.283)**	**(0.239)**
Mole-Dagbani	**-0.407*****	**-0.410*****	**0.877*****	**1.017*****
	(0.123)	**(0.121)**	**(0.178)**	**(0.159)**
Male	**0.231****	0.144	0.177	0.108
	(0.100)	(0.098)	(0.139)	(0.122)
Young	0.065	0.016	-0.174	-0.131
	(0.130)	(0.127)	(0.189)	(0.162)
Education	-0.178	-0.064	0.085	0.118
	(0.120)	(0.119)	(0.166)	(0.148)
Employment	0.099	**-0.239****	**0.418*****	0.186
	(0.103)	**(0.101)**	**(0.144)**	(0.126)
Mobile ownership	-0.012	-0.061	0.155	0.015
	(0.127)	(0.125)	(0.179)	(0.155)
Urban	**-0.640*****	**-0.574*****	-0.169	-0.007
	(0.109)	**(0.107)**	(0.153)	(0.135)
Round 5	-0.092	**0.295*****	-0.019	-0.235*
	(0.100)	**(0.098)**	(0.137)	(0.121)
Constant	0.084	**0.275***	**-2.694*****	**-2.124*****
	(0.162)	**(0.159)**	**(0.240)**	**(0.208)**
N	1,891	1,891	1,891	1,891
AIC	2,466.152	2,515.477	1,514.507	1,829.301

Notes: Logit models. Standard errors in parenthesis. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

In sum, the findings confirm that Akan voters are more likely to vote for NPP candidates that non-Akan voters, and that Ewe voters are more likely than other non-Akan voters to vote for NDC candidates. It therefore seems defendable to cluster Akan and Ewe voters as 'ethnic supporters', as I do in my analysis. Figure C.5 illustrate my understanding of the approximate distribution of ethnicity and voter behaviour in Ghana.

Table C.5: Approximate distribution of ethnicity and voter behaviour

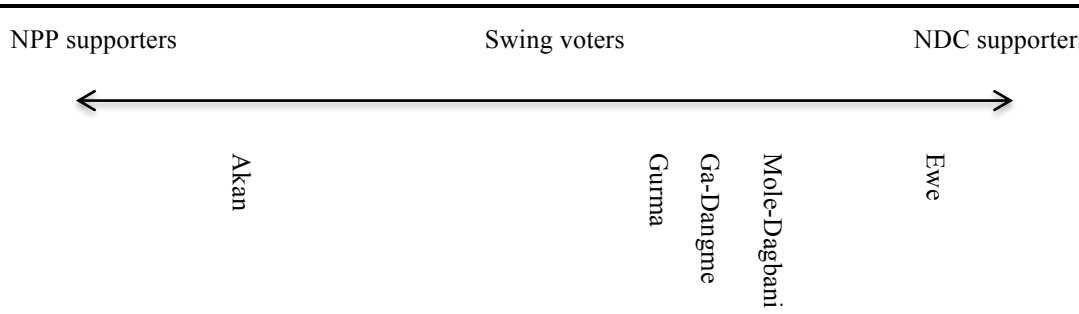


Table C.6 reproduces table 4.1 with figures from Kenya and Zambia. A comparison of the tables suggest the ethnic voting patterns in Ghana are more pronounced than those in Zambia but less than those in Kenya.

Table C.6: Ethnicity and voter behaviour in Kenya and Zambia

"Do you feel close to any particular party? Which party is that?" (%)

Kenya	Ethnic group	%	PNU and TNA	ODM	Other	Do not feel close to any party	Refused to answer
	Kikuyu	17	47	2	4	46	1
	Luo	10	2	74	1	22	1
	Luhya	14	8	41	9	40	2
	Kamba	10	11	17	30	38	3
	Kalenji	13	8	11	47	33	1
Zambia	Ethnic group	%	MMD	PF	UPND and other	Do not feel close to any party	Refused to answer
	Bemba	21	5	41	4	46	4
	Tonga	14	2	16	34	45	4
	Chewa	7	12	20	6	56	6
	Lozi	6	3	19	31	45	2
	Nsenga	3	4	24	6	62	3

Notes: Data extracted from Rounds 5 and 6 of the Afrobarometer (2012a, 2015), the Kenya National Bureau of Statistics and the Zambia Central Statistics Office.

Patterns

Table C.7: Voter inflation, all observations

	(1)	(2)	(3)
	Voter registrations challenged		
	All N		
Parliamentary win-margin$_{t-1}$	-0.571	-0.564	-0.648
	(0.517)	(0.518)	(0.484)
Ethnic supporters	**-0.588***	**-1.022****	
	(0.342)	**(0.426)**	
Population educated		-1.258	
		(3.159)	
Population with mobile		**-1.441***	
		(0.753)	
Ethnic supporters + MD			-0.284
			(0.512)
Population non-Ghanaian African	10.261	**16.094****	1.058
	(6.609)	**(6.869)**	(6.942)
Border constituency		-0.193	
		(0.212)	
Parliamentary win-margin$_{t-1}$ × Ethnic supporters	0.966	1.434	
	(1.261)	(1.287)	
Parliamentary win-margin$_{t-1}$ × Ethnic supporters + MD			**3.453***
			(1.892)
Constant	**-6.631*****	**-5.838*****	**-6.738*****
	(0.208)	**(0.977)**	**(0.185)**
N	229	229	229
AIC	2,357.301	2,359.967	2,357.672

Notes: Negative binomial models. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Table C.8: Voter inflation, alternative dependent variable

	(1)	(2)	(3)
	Voter registrations disqualified		
	N where observations are independent		
Parliamentary win-margin$_{t-1}$	-1.402	**-1.595***	**-1.791****
	(0.902)	**(0.907)**	**(0.854)**
Ethnic supporters	-0.849	**-1.831*****	
	(0.547)	**(0.666)**	
Population educated		**-11.159****	
		(5.437)	
Population with mobile		-0.401	
		(1.376)	
Ethnic supporters + MD			0.037
			(0.774)
Population non-Ghanaian African	**22.696****	**31.604*****	-9.581
	(9.713)	**(9.806)**	(10.557)
Border constituency		-0.023	
		(0.353)	
Parliamentary win-margin$_{t-1}$ × Ethnic supporters	**4.580***	**6.067****	
	(2.541)	**(2.540)**	
Parliamentary win-margin$_{t-1}$ × Ethnic supporters + MD			**16.182*****
			(4.847)
Constant	**-7.490*****	**-4.598*****	**-7.606*****
	(0.340)	**(1.609)**	**(0.291)**
N	131	131	131
AIC	1,129.002	1,131.399	1,119.872

Notes: Negative binomial models. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Table C.9: Voter inflation, alternative control variables

	(1)	(2)	(3)
	Voter registrations challenged		
	N where observations are independent		
Parliamentary win-margin$_{t-1}$	**-1.698****	**-1.713****	**-1.641****
	(0.702)	**(0.712)**	**(0.704)**
Ethnic supporters	**-1.029****	**-1.065****	**-1.032****
	(0.433)	**(0.426)**	**(0.443)**
Constituency municipal	0.114		
	(0.218)		
Constituency metropolitan		0.249	
		(0.323)	
Voters registered			0.000
			(0.000)
Population non-Ghanaian African	**14.263***	**13.350***	**14.505***
	(7.743)	**(7.683)**	**(7.771)**
Parliamentary win-margin$_{t-1}$ × Ethnic supporters	**4.443****	**4.573****	**4.685****
	(1.985)	**(1.979)**	**(1.975)**
Population density			-0.000
			(0.000)
Constant	**-6.534*****	**-6.504*****	**-6.315*****
	(0.257)	**(0.250)**	**(0.359)**
N	164	164	164
AIC	1,684.257	1,683.872	1,685.778

Notes: Negative binomial models. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Table C.10: Voter inflation, additional control variables

	(1)	(2)	(3)
	Voter registrations challenged		
	N where observations are independent		
Parliamentary win-margin$_{t-1}$	**-1.571****	**-1.767****	**-1.624****
	(0.725)	**(0.743)**	**(0.703)**
Ethnic voters	**-1.111*****	**-1.050****	**-1.020****
	(0.426)	**(0.438)**	**(0.427)**
Population non-Ghanaian African	**14.811***	**17.281****	**15.800****
	(7.747)	**(7.832)**	**(7.707)**
MP party tenure	-0.011	0.005	
	(0.018)	(0.033)	
MP party ruling		0.046	
		(0.473)	
MP tenure			0.033
			(0.062)
MP running			0.618
			(0.580)
Parliamentary win-margin$_{t-1}$ × Ethnic supporters	**4.730****	**4.808****	**4.062****
	(1.995)	**(2.003)**	**(2.008)**
MP party tenure × MP party ruling		-0.017	
		(0.037)	
MP tenure × MP running			-0.085
			(0.068)
Constant	**-6.387*****	**-6.533*****	**-6.773*****
	(0.312)	**(0.468)**	**(0.605)**
N	164	164	164
AIC	1,684.207	1,687.580	1,685.817

Notes: Negative binomial models. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Table C.11: Voter inflation, GLM model with Poisson distribution

	(1)	(2)	(3)
	Voter registrations challenged		
	N where observations are independent		
Parliamentary win-margin$_{t-1}$	**-1.133*****	**-1.103*****	**-1.439*****
	(0.075)	**(0.077)**	**(0.071)**
Ethnic supporters	**-0.288*****	-0.086	
	(0.047)	(0.056)	
Population educated		0.109	
		(0.418)	
Population with mobile		**0.368*****	
		(0.096)	
Ethnic supporters + MD			**-0.352*****
			(0.065)
Population non-Ghanaian African	**5.511*****	**6.051*****	-0.033
	(0.675)	**(0.711)**	(0.702)
Border constituency		**-0.300*****	
		(0.029)	
Parliamentary win-margin$_{t-1}$Ethnic supporters	**3.033*****	**3.000*****	
	(0.203)	**(0.212)**	
Parliamentary win-margin$_{t-1}$ × Ethnic supporters + MD			**8.245*****
			(0.277)
Constant	**-6.706*****	**-6.885*****	**-6.719*****
	(0.025)	**(0.126)**	**(0.023)**
N	164	164	164
AIC	16,164.660	15,995.570	15,211.070

Notes: GLM models with Poisson distribution. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Government funds

Table C.12: Government funds, subsets and random effects model

	(1)	(2)	(3)	(4)
	DACF funds/capita (log)			
	N with one constituency		All N	
	FE model		Random effects model	
DACF funds/capita (log)$_{t-1}$	**0.257*****	**0.214*****		
	(0.026)	**(0.027)**		
2011			**0.435*****	**0.433*****
			(0.057)	**(0.056)**
2012	**-0.489*****	**-0.468*****	0.041	0.022
	(0.046)	**(0.046)**	(0.056)	(0.056)
2013	**-0.151*****	**-0.156*****	**0.243*****	**0.243*****
	(0.048)	**(0.047)**	**(0.056)**	**(0.056)**
2014	**-0.383*****	**-0.379*****	0.050	0.049
	(0.048)	**(0.048)**	(0.056)	(0.056)
2015	**0.088***	**0.085***	**0.477*****	**0.474*****
	(0.048)	**(0.047)**	**(0.056)**	**(0.056)**
2016	**-0.398*****	**-0.381*****	**0.140****	**0.136****
	(0.050)	**(0.049)**	**(0.056)**	**(0.056)**
NDC presidential vote	0.009	0.045	-0.164	-0.049
	(0.179)	(0.176)	(0.135)	(0.127)
District size		**-0.001*****		**-0.001*****
		(0.001)		**(0.001)**
Population density		0.001		**-0.001*****
		(0.001)		**(0.001)**
Education facilities/population		-20.728		39.208
		(34.632)		(37.544)
2011 × NDC presidential vote			0.070	0.070
			(0.109)	(0.108)
2012 × NDC presidential vote	0.128	0.126	**0.294*****	**0.338*****
	(0.088)	(0.087)	**(0.107)**	**(0.108)**
2013 × NDC presidential vote	0.134	0.121	**0.422*****	**0.374*****
	(0.086)	(0.085)	**(0.103)**	**(0.103)**
2014 × NDC presidential vote	0.038	0.037	**0.408*****	**0.360*****
	(0.086)	(0.085)	**(0.103)**	**(0.103)**
2015 × NDC presidential vote	**0.161***	**0.158***	**0.526*****	**0.478*****
	(0.086)	**(0.085)**	**(0.103)**	**(0.103)**
2016 × NDC presidential vote	0.106	0.107	**0.439*****	**0.390*****
	(0.087)	(0.085)	**(0.103)**	**(0.103)**
N	968	968	1,346	1,342
Adjusted R^2	0.595	0.599	0.645	0.665

Notes: Constant and district fixed effects are not reported. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Table C.13: Government funds, Voter registrations challenged

	(1)	(2)
	DACF funds/capita (log)	
	All N	
DACF funds/capita $(\log)_{t-1}$	0.015	-0.005
	(0.030)	(0.030)
2014	**-0.217*****	**-0.216*****
	(0.014)	**(0.014)**
2015	**0.277*****	**0.265*****
	(0.011)	**(0.012)**
2016	**-0.116*****	**-0.126*****
	(0.021)	**(0.021)**
Voter registrations challenged		
District size		**-0.001*** **
		(0.001)
Population density		-0.001
		(0.152)
Education facilities/population		-0.486
		0.988
2014 × Voter registrations challenged	**0.077****	**0.074****
	(0.038)	**(0.038)**
2015 × Voter registrations challenged	**0.076****	**0.077****
	(0.038)	**(0.038)**
2016 × Voter registrations challenged	**0.071***	**0.070***
	(0.038)	**(0.038)**
N	844	844
Adjusted R^2	0.849	0.853

Notes: Constant and district fixed effects are not reported. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Table C.14: Government funds, quarterly observations

	(1)	(2)	(3)	(4)
	DACF funds/capita (log)			
	All N		N where NDC presidential vote >0.5	N where NDC presidential vote <0.5
DACF funds/capita $(\log)_{t-1}$	**0.278*****	**0.253*****	**0.253*****	**0.221*****
	(0.012)	**(0.011)**	**(0.011)**	**(0.016)**
DACF funds/capita $(\log)_{t-2}$	**0.102*****	**0.096*****	**0.096*****	**0.080*****
	(0.011)	**(0.011)**	**(0.011)**	**(0.016)**
DACF funds/capita $(\log)_{t-3}$	**-0.071*****	**-0.088*****	**-0.088*****	**-0.096*****
	(0.011)	**(0.010)**	**(0.010)**	**(0.015)**
DACF funds/capita $(\log)_{t-4}$	**0.173*****	**0.141*****	**0.141*****	**0.146*****
	(0.012)	**(0.011)**	**(0.011)**	**(0.017)**
2012	**-0.448*****	**-0.424*****	**-0.424*****	**-0.467*****
	(0.025)	**(0.023)**	**(0.023)**	**(0.038)**
2013	**-0.180*****	**-0.171*****	**-0.171*****	**-0.230*****
	(0.024)	**(0.023)**	**(0.023)**	**(0.042)**
2014	**-0.147*****	**-0.127*****	**-0.127*****	**-0.189*****
	(0.026)	**(0.025)**	**(0.025)**	**(0.045)**
2016	**-0.150*****	**-0.112*****	**-0.112*****	**-0.108****
	(0.027)	**(0.026)**	**(0.026)**	**(0.046)**
NDC presidential vote	-0.074	-0.021	-0.021	-0.379
	(0.086)	(0.082)	(0.082)	(0.235)
District size		**-0.001*****	**-0.001*****	**-0.001*****
		(0.001)	**(0.001)**	**(0.001)**
Population density		0.001	0.001	-0.001
		(0.001)	(0.001)	(0.001)
Education facilities/population		-3.219	-3.219	2.888
		(20.536)	(20.536)	(35.891)
2012 × NDC presidential vote	**0.169*****	**0.116*****	**0.116*****	**0.264*****
	(0.046)	**(0.044)**	**(0.044)**	**(0.101)**
2013 × NDC presidential vote	**0.143*****	**0.090****	**0.090****	**0.329*****
	(0.045)	**(0.043)**	**(0.043)**	**(0.114)**
2014 × NDC presidential vote	**0.155*****	**0.104****	**0.104****	**0.365*****
	(0.047)	**(0.045)**	**(0.045)**	**(0.122)**
2016 × NDC presidential vote	**0.151*****	**0.107****	**0.107****	**0.218***
	(0.048)	**(0.046)**	**(0.046)**	**(0.122)**
N	3,384	3,384	3,384	1,449
Adjusted R^2	0.572	0.605	0.605	0.591

Notes: FE models. Constant and district fixed effects are not reported. Standard errors in parenthesis. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Table C.15: Government funds, replication of Banful (2011)

	(1)	(2)	(3)	(4)
	DACF funds/capita (log)			
	All N			
DACF funds/capita (log)$_{t-1}$		**0.254*****		**0.256*****
		(0.023)		**(0.023)**
NDC/NPP presidential vote	**0.259*****	0.070		
	(0.094)	(0.079)		
NDC presidential vote			-0.186	0.059
			(0.159)	(0.136)
Schools	**-0.002*****	**-0.001*****	**-0.002*****	**-0.001*****
	(0.001)	**(0.001)**	**(0.001)**	**(0.001)**
2011 × NDC/NPP presidential vote	**-0.137***			
	(0.078)			
2012 × NDC/NPP presidential margin	-0.126	0.033		
	(0.078)	(0.060)		
2013 × NDC/NPP presidential margin	-0.092	0.074		
	(0.075)	(0.058)		
2014 × NDC/NPP presidential margin	-0.090	0.053		
	(0.075)	(0.058)		
2015 × NDC/NPP presidential margin	-0.044	**0.101***		
	(0.075)	**(0.058)**		
2016 × NDC/NPP presidential margin	-0.036	**0.096***		
	(0.075)	(0.058)		
2011 × NDC presidential vote			0.073	
			(0.100)	
2012 × NDC presidential vote			**0.316*****	**0.232*****
			(0.100)	**(0.077)**
2013 × NDC presidential vote			**0.292*****	**0.227*****
			(0.096)	**(0.074)**
2014 × NDC presidential vote			**0.273*****	**0.143***
			(0.096)	**(0.074)**
2015 × NDC presidential vote			**0.383*****	**0.260*****
			(0.096)	**(0.074)**
2016 × NDC presidential vote			**0.289*****	**0.139***
			(0.096)	**(0.075)**
N	1,342	1,178	1,342	1,178
Adjusted R^2	0.587	0.608	0.590	0.611

Notes: FE models. Constant, and year and district fixed effects are not reported. Standard errors in parenthesis. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

District creation

Table C.16: District creation, alternative control variables and subsets

	(1)	(2)	(3)
		District divided	
	All N		N where Constituency=1
NDC presidential vote margin$_{t-1}$	**4.202*****	**4.329*****	**4.120****
	(1.544)	**(1.669)**	**(1.933)**
Population (log)	**4.078*****	**2.841*****	**3.088*****
	(0.824)	**(0.870)**	**(1.167)**
District size (log)	**1.468*****	**1.385*****	**1.489*****
	(0.361)	**(0.348)**	**(0.465)**
Population educated	11.749	11.707	17.653
	(8.765)	(9.280)	(13.458)
Ethnic fractionalisation	-0.866		
	(1.149)		
Constituency>1		**2.179*****	
		(0.613)	
Constant	**-63.730*****	**-49.684*****	**-54.602*****
	(12.337)	**(12.877)**	**(16.389)**
N	169	169	132
AIC	131.795	118.285	86.150

Notes: Logit models. Standard errors in parenthesis. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Government appointments

Table C.17: Parliamentary candidates appointed, 2009 and 2013

Year	Name	Constituency	Rank	Ministry
2009	Abdul Rashid Pelpuo	Wa Central	M	Presidency
2009	Akua Sena Dansua	North Dayi	M	Women and Children's Affairs
2009	Albert Abongo	Bongo	M	Water Resources, Works and Housing
2009	Alex Tettey-Enyo	Ada	M	Education
2009	Alexander Asum-Ahensah	Jaman North	M	Chieftaincy and Culture
2009	Alfred Sugri Tia	Nalerigu Gambaga	DM	Agriculture
2009	Alhaji Iddi Saani	Wulensi	DM	Water Resources, Works and Housing
2009	Alhaji Seidu Amadu	Yapei Kusawgu	M	Presidency
2009	Alhassan Azong	Builsa South	M	Presidency
2009	Anima Wilson	Ejisu Juaben	DM	Ashanti Region
2009	Baba Jamal	Akwatia	DM	Eastern Region
2009	Benjamin Kumbuor	Lawra Nandom	DM	Health
2009	Betty Bosomtwe Sam	Sekondi	DM	Western Region
2009	Cletus Avoka	Zebilla	M	Interior
2009	Collins Dauda	Asutifi South	M	Lands and Natural Resources
2009	Ebo Barton-Oduro	Cape Coast	DM	Justice and Attorney-General
2009	Elizabeth Tetteh	Twifo Atti Morkwa	DM	Education
2009	Emmanuel Armah Kofi Boah	Ellembele	DM	Energy
2009	Eric Opoku	Asunafo South	DM	Brong Ahafo Region
2009	Haruna Iddrisu	Tamale South	M	Communications
2009	Hautie Dubie Alhassan	Sissala East	M	Presidency
2009	Henry Kamel	Buem	DM	Lands and Natural Resources
2009	Joe Kwashie Gidisu	Central Tongu	M	Roads and Highways
2009	Joe Oteng-Adjei	Bosomtwe	M	Energy
2009	John Jatuah	Amenfi West	DM	Trade and Industry
2009	Joseph Amenowode	Hohoe South	M	Volta Region
2009	Joseph Annan	KEEA	DM	Education
2009	Joseph Yieleh Chireh	Wa West	M	Local Government and Rural Development
2009	Juliana Azumah-Mensah	Ho East	M	Tourism
2009	Kofi Opoku-Manu	Akrofuom	M	Ashanti Region
2009	Kwadwo Nyamekye Marfo	Sunyani West	M	Brong Ahafo Region
2009	Kwajo Tawiah Likpalimor	Kpandai	M	Presidency
2009	Mark Woyongo	Navrongo Central	M	Upper East Region
2009	Mike Allen Hammah	Effutu	M	Transport
2009	Muntaka Mubarak	Asawase	M	Youth and Sports
2009	Nii Amasah Namoale	Dade Kotopon	DM	Agriculture

Year	Name	Constituency	Rank	Ministry
2009	Nii Armah Ashitey	Korle Klottey	M	Greater Accra Region
2009	Nii Nortey Dua	Ledzokuku	DM	Youth and Sports
2009	Paul Evans Aidoo	Sefwi Wiawso	M	Western Region
2009	Samuel Ofosu-Ampofo	Fanteakwa	M	Eastern Region
2009	Stephen Amoanor Kwao	Upper Manya Krobo	M	Employment and Social Welfare
2009	Zita Okaikoi	Dome Kwabenya	M	Information
2009	Abdul Rashid Hassan Pelpuo	Wa Central	M	Presidency
2009	Akwasi Oppong Fosu	Amenfi East	M	Local Government and Rural Development
2013	Alex Kyeremeh	Techiman North	DM	Education
2013	Alfred Ekow Gyan	Takoradi	DM	Western Region
2013	Alfred Sugri Tia	Nalerigu Gambaga	DM	Health
2013	Alhassan Ahmed Yakubu	Mion	DM	Food and Agriculture
2013	Alhassan Azong	Builsa South	M	Presidency
2013	Alhassan Bashir Fuseini	Sagnarigu	DM	Northern Region
2013	Amin Amidu Sulemana	Sissala West	M	Roads and Highways
2013	Aquinas Tawiah Quansah	Mfantseman	DM	Fisheries and Aquaculture Development
2013	Benita Sena Okity Duah	Ledzokuku	DM	Gender, Children, and Social Protection
2013	Benjamin Kunbuor	Nandom	M	Government Business in Parliament
2013	Bernice Adiku Heloo	Hohoe	DM	Environment, Science, and Technology
2013	Cassiel Ato Forson	Ajumako Enyan Esiam	DM	Finance and Economic Planning
2013	Clement Kofi Humado	Anlo	M	Food and Agriculture
2013	Collins Dauda	Asutifi South	M	Water Resources, Works, and Housing
2013	Comfort Ghansah	Ada	M	Presidency
2013	Dominic Akuritinga Ayine	Bolgatanga East	DM	Attorney-General and Justice
2013	Ebenezer Okletey Terlabi	Lower Manya Krobo	DM	Defence
2013	Edwin Nii Vanderpuye	Odododiodioo	DM	Trade and Industry
2013	Emmanuel Buah	Ellembele	M	Energy and Petroleum
2013	Emmanuel Agyekum	Nkoranza South	DM	Local Government and Rural Development
2013	Eric Opoku	Asunafo South	M	Brong Ahafo Region
2013	Fiifi Kwetey	Ketu South	M	Presidency
2013	Hanna Tetteh	Awutu Senya West	M	Foreign Affairs and Regional Integration
2013	Hannah Louisa Bissiw	Tano South	DM	Food and Agriculture
2013	Haruna Iddrisu	Tamale South	M	Trade and Industry
2013	Helen Ntoso	Krachi West	M	Volta Region
2013	Murtala Muhammed	Nanton	DM	Information and Media Relations
2013	Inusah Fuseini	Tamale Central	M	Lands and Natural Resources

Year	Name	Constituency	Rank	Ministry
2013	Isaac Adjei Mensah	Wassa East	DM	Roads And Highways
2013	James Agalga	Builsa North	DM	Interior
2013	Joe Oteng-Adjei	Bosomtwe	M	Environment, Science, and Technology
2013	John Alexander Ackon	Obuasi West	DM	Chieftaincy And Traditional Affairs
2013	Nii Laryea Afotey Agbo	Kpone Katamanso	M	Greater Accra Region
2013	Kwabena Donkor	Pru East	M	Power
2013	Mahama Ayariga	Bawku Central	M	Information and Media Relations
2013	Mark Owen Woyongo	Navrongo Central	M	Defence
2013	Mavis Ama Frimpong	Abirem	DM	Eastern Region
2013	Mohammed Baba Jamal	Akwatia	DM	Local Government and Rural Development
2013	Mustapha Ahmed	Ayawaso North	M	Presidency
2013	Nii Armah Ashitey	Korle Klottey	M	Employment and Labour Relations
2013	Paul Evans Aidoo	Sefwi Wiawso	M	Western Region
2013	Queenstar Pokua Sawyerr	Agona East	DM	Central Region
2013	Rachel Florence Appoh	Gomoa Central	DM	Gender, Children, and Social Protection
2013	Ricketts Kweku Hagan	Cape Coast South	DM	Finance and Economic Planning
2013	Sampson Ahi	Bodi	DM	Water Resources, Works, and Housing
2013	Samuel Okudzeto Ablakwa	North Tongu	DM	Education
2013	Samuel Yaw Adusei	Bantama	DM	Ashanti Region
2013	Victoria Hammah	Ablekuma West	DM	Communications
2013	Vincent Oppong Asamoah	Dormaa West	DM	Water Resources, Works, and Housing
2013	Yaw Effah Baafi	Kintampo South	DM	Lands And Natural Resources

Notes: M=Minister (including Ministers in the presidency). DM=Deputy Minister.

Table C.18: Government appointments, alternative dependent variable

	(1)	(2)	(3)	(4)
	Candidate appointed		Candidate appointed as minister	Candidate appointed at national level
	N in 2009	N in 2013	All N	
NDC presidential vote	0.313	-0.225	0.035	1.354
	(2.140)	(2.405)	(1.692)	(2.202)
NDC vote difference	-4.792	**-14.204*****	**-5.428****	**-8.694****
	(3.663)	**(4.462)**	**(2.749)**	**(4.067)**
NDC candidate minister		**1.239****	**1.282*****	**2.995*****
		(0.517)	**(0.497)**	**(0.590)**
NDC candidate winner	**1.239****	**2.689*****	**2.105*****	**1.771*****
	(0.591)	**(0.704)**	**(0.511)**	**(0.651)**
Ashanti region	-0.035	-0.182	-0.019	0.658
	(1.156)	(1.230)	(0.926)	(1.127)
Brong Ahafo region	0.060	0.529	0.519	0.725
	(0.945)	(0.940)	(0.702)	(0.891)
Central region	0.139	-0.047	0.506	-0.606
	(0.959)	(1.013)	(0.729)	(1.098)
Eastern region	-0.715	0.105	-0.311	-0.105
	(1.072)	(1.084)	(0.844)	(1.052)
Greater Accra region	-0.217	0.280	0.220	-0.124
	(0.858)	(0.929)	(0.655)	(0.856)
Northern region	-0.438	0.200	0.290	-0.562
	(0.912)	(0.923)	(0.666)	(0.936)
Upper East region	0.452	0.947	1.127	1.179
	(0.993)	(0.991)	(0.704)	(0.902)
Upper West region	1.158	0.682	1.164	0.379
	(0.992)	(1.093)	(0.753)	(1.001)
Western region	0.020	0.116	-0.054	0.251
	(0.961)	(0.939)	(0.735)	(0.934)
2012			-0.027	-1.275***
			(0.291)	(0.443)
Constant	-2.264	**-3.003***	**-3.368*****	**-3.988****
	(1.529)	**(1.741)**	**(1.212)**	**(1.583)**
N	227	275	502	502
AIC	216.632	233.188	380.576	251.792

Notes: Logit models. Standard errors in parenthesis. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Table C.19: Government appointments, subsets

	(1)	(2)	(3)	(4)
	Candidate appointed	Candidate appointed national	Candidate appointed regional	Candidate appointed minister
	N not Ashanti or Volta		All N	
NDC presidential vote	**-11.065*****	**-5.404****	**-17.122****	-4.554
	(3.235)	**(2.669)**	**(7.017)**	(3.196)
NDC candidate minister	**1.061***	**1.297*****	0.284	**2.540*****
	(0.563)	**(0.501)**	(1.124)	**(0.541)**
NDC candidate winner	3.035	1.469	-1.410	1.113
	(2.782)	(1.845)	(3.018)	(2.008)
NDC parliamentary vote	**13.851****	4.175	**14.577****	4.596
	(6.417)	(4.436)	**(7.203)**	(4.740)
NDC candidate winner × NDC parliamentary vote	-2.563	1.534	3.103	0.943
	(6.291)	(4.292)	(6.272)	(4.559)
Ashanti region		-0.072	-1.619	0.169
		(0.952)	(1.742)	(1.060)
Brong Ahafo region		0.595	-0.502	0.433
		(0.737)	(1.477)	(0.868)
Central region	-0.286	0.576	-1.400	-0.814
	(0.537)	(0.758)	(1.709)	(1.061)
Eastern region	-0.583	-0.278	-1.278	-0.473
	(0.640)	(0.852)	(1.601)	(1.013)
Greater Accra region	-0.378	0.280	-0.964	0.098
	(0.506)	(0.678)	(1.466)	(0.784)
Northern region	-0.473	0.350	-1.261	-0.174
	(0.530)	(0.690)	(1.578)	(0.831)
Upper East region	0.424	1.193	0.134	1.276
	(0.636)	(0.731)	(1.631)	(0.829)
Upper West region	0.627	1.229	-15.332	1.228
	(0.663)	(0.778)	(1,334.602)	(0.876)
Western region	-0.253	0.005	0.030	-0.027
	(0.530)	(0.756)	(1.423)	(0.893)
2012	0.120	-0.029	-0.274	**-1.027*****
	(0.303)	(0.291)	(0.498)	**(0.379)**
Constant	-3.447	**-2.940***	-0.841	**-3.056***
	(2.520)	**(1.692)**	(2.426)	**(1.815)**
N	370	502	502	502
AIC	335.381	382.449	179.546	296.883

Notes: Logit models. Standard errors in parenthesis. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Table C.20: Government appointments, alternative independent variable

	(1)	(2)	(3)	(4)
	Candidate appointed			
Voter registrations challenged (total)	**0.006****		0.003	
	(0.003)		(0.003)	
Voter registrations challenged (% of voters registered)		177.399		65.375
		(109.310)		(151.703)
NDC candidate minister	**1.051****	**1.070****	**1.280***	**1.263***
	(0.489)	**(0.485)**	**(0.767)**	**(0.762)**
NDC candidate winner	**2.311*****	**2.207*****	**2.330*****	**2.283*****
	(0.472)	**(0.460)**	**(0.808)**	**(0.802)**
Constant	**-3.553*****	**-3.358*****	**-3.596*****	**-3.474*****
	(0.489)	**(0.458)**	**(0.829)**	**(0.805)**
N	273	273	110	XXX
AIC	226.99	229.2	98.297	XXX

Notes: Logit models. Standard errors in parenthesis. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

D Electoral manipulation in the 'grey zone'

Background

In Chapter 4, I argue that fewer ballots are rejected in Ghana than elsewhere in Africa. Table D.1 provides an overview of the number of ballots rejected in recent parliamentary elections on the continent. The continental average is 6.4%; 5.4% if outliers are excluded. The average for countries with political and electoral systems similar to Ghana (presidential or semi-presidential systems and first-past-the-post or two-round system parliamentary elections) is 5.6%; 3.7% if outliers are excluded (the 2013 parliamentary elections in Mauritania).

Table D.1: Ballots rejected in recent parliamentary elections in Africa

Country	Year	Constitutional system	Electoral system for parliament	Ballots rejected (% of ballots cast)
Angola	2008	Presidential	List PR	10.6
Botswana	2014	Parliamentary	FPTP	1.2
Burkina Faso	2015	Semi-presidential	List PR	4.8
Burundi	2015	Presidential	List PR	19.5
Cameroon	2013	Presidential	Parallel	4.4
Cape Verde	2011	Semi-presidential	List PR	1.3
Central African Republic	**2005**	**Presidential**	**TRS**	**6.0**
Code d'Ivoire	**2011**	**Presidential**	**FPTP**	**5.4**
Congo, DR	2011	Semi-presidential	N/A	4.1
Gambia	**2007**	**Presidential**	**FPTP**	**0.0**
Ghana	**2012**	**Presidential**	**FPTP**	**1.6**
Guinea	2013	Presidential	Parallel	8.6
Guinea-Bissau	2014	Semi-presidential	List PR	14.6
Kenya	**2013**	**Presidential**	**FPTP**	**0.9**
Liberia	**2005**	**Presidential**	**FPTP**	**5.3**
Madagascar	**2013**	**Semi-presidential**	**FPTP**	**4.7**
Malawi	**2014**	**Presidential**	**FPTP**	**1.4**
Mauritania	**2013**	**Semi-presidential**	**TRS**	**32.0**
Mauritius	2010	Parliamentary	PBV	0.9
Mozambique	2014	Presidential	List PR	13.4
Namibia	2009	Presidential	List PR	1.3
Niger	2011	Semi-presidential	List PR	2.6
Rwanda	2008	Presidential	List PR	1.2
Sao Tome and Principe	2010	Semi-presidential	List PR	2.2
Senegal	2012	Semi-presidential	Parallel	0.4
Seychelles	2011	Presidential	Parallel	31.9
Sierra Leone	**2007**	**Presidential**	**FPTP**	**7.3**
South Africa	2009	Parliamentary	List PR	1.3
Sudan	2015	Presidential	Parallel	8.3
Tanzania	**2005**	**Presidential**	**FPTP**	**5.3**
Togo	**2013**	**Presidential**	**TRS**	**5.7**
Uganda	**2016**	**Presidential**	**FPTP**	**4.9**
Zambia	**2011**	**Presidential**	**FPTP**	**1.4**
Zimbabwe	**2013**	**Presidential**	**FPTP**	**1.9**
Mean				6.4

Notes: FPTP=First-past-the-post; List PR=List proportional representation; Parallel=Parallel system; PBV=Party block vote; TRS=Two-round system. Data from International IDEA (2016a, 2016b).

Patterns

Table D.2: Miscounting, alternative independent variables

	(1)	(2)	(3)
	Parliamentary ballots rejected		
MP tenure	-0.007		
	(0.014)		
MP running	-0.198		
	(0.139)		
Minister running		-0.064	
		(0.083)	
Parliamentary win-margin$_{t-1}$	**-1.056*****	**-0.417*****	
	(0.377)	**(0.103)**	
MP party tenure			**0.013****
			(0.006)
Presidential vote-margin$_{t-1}$			0.242
			(0.243)
MP running independent			**0.259***
			(0.142)
Population literate	**-0.890*****	**-1.083*****	**-1.079*****
	(0.319)	**(0.321)**	**(0.322)**
Population employed	**-1.309*****	**-1.391*****	**-1.346*****
	(0.500)	**(0.506)**	**(0.505)**
Population with mobile	**-2.646*****	**-2.552*****	**-2.592*****
	(0.262)	**(0.264)**	**(0.265)**
Voters registered (log)	**-0.125****	**-0.119****	**-0.127****
	(0.052)	**(0.053)**	**(0.053)**
MP tenure × MP running	0.023		
	(0.017)		
MP tenure × Parliamentary win-margin$_{t-1}$	0.046		
	(0.042)		
MP running × Parliamentary win-margin$_{t-1}$	**0.742***		
	(0.438)		
MP tenure × MP running × Parliamentary win-margin$_{t-1}$	-0.039		
	(0.052)		
Minister running × Parliamentary win-margin$_{t-1}$		0.265	
		(0.263)	
MP party tenure × Presidential vote-margin$_{t-1}$			**-0.043****
			(0.017)
Constant	-0.517	-0.494	-0.569
	(0.663)	(0.664)	(0.669)
N	505	505	504
AIC	6,961	6,968	6,952

Notes: Negative binomial models. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Table D.3: Miscounting, alternative dependent variables

	(1)	(2)	(3)
	Presidential ballots rejected		
MP party tenure	**0.014****	**0.013****	**0.014****
	(0.006)	**(0.006)**	**(0.007)**
Parliamentary win-margin$_{t-1}$	0.410	0.366	0.038
	(0.307)	(0.323)	(0.384)
MP running independent	**0.253***	**0.253***	**0.349****
	(0.144)	**(0.143)**	**(0.173)**
Population literate	**-1.105*****	**-1.103*****	
	(0.323)	**(0.323)**	
Population employed	**-1.561*****	**-1.560*****	
	(0.510)	**(0.510)**	
Population with mobile	**-2.597*****	**-2.591*****	
	(0.265)	**(0.266)**	
Constituency metropolitan			**-0.700*****
			(0.074)
Voters registered (log)	**-0.109****	**-0.111****	**-0.474*****
	(0.053)	**(0.053)**	**(0.054)**
2012		-0.018	-0.067
		(0.041)	(0.049)
MP party tenure × Parliamentary win-margin$_{t-1}$	**-0.062*****	**-0.059*****	**-0.057****
	(0.021)	**(0.022)**	**(0.027)**
Constant	-0.651	-0.622	**1.174****
	(0.673)	(0.676)	**(0.595)**
N	504	504	504
AIC	6,960	6,962	7,151

Notes: Negative binomial models. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Table D.4: Miscounting, alternative dependent variable

	(1)	(2)	(3)	(4)
	Presidential ballots rejected			
MP party tenure	**0.013****	**0.013****	**0.014****	**0.014****
	(0.005)	**(0.005)**	**(0.005)**	**(0.005)**
Parliamentary win-margin$_{t-1}$	0.448	0.421	0.406	0.418
	(0.302)	(0.302)	(0.303)	(0.303)
MP running independent	0.195	0.248*	0.259*	0.247*
	(0.144)	(0.142)	(0.142)	(0.142)
Population literate	**-0.958*****	**-1.104*****	**-1.479*****	**-1.102*****
	(0.328)	**(0.325)**	**(0.503)**	**(0.319)**
Population employed	**-1.314*****	**-1.346*****	**-1.306*****	**-1.299****
	(0.501)	**(0.504)**	**(0.503)**	**(0.517)**
Population with mobile	**-2.656*****	**-2.568*****	**-2.409*****	**-2.547*****
	(0.265)	**(0.266)**	**(0.303)**	**(0.265)**
Voters registered (log)	**-0.130****	**-0.109****	**-0.113****	**-0.109****
	(0.054)	**(0.053)**	**(0.053)**	**(0.053)**
Candidates	**0.028***			
	(0.016)			
Constituency size km2		-0.001		
		(0.002)		
Ethnic supporters			0.102	
			(0.110)	
Ethnic fractionalisation				-0.035
				(0.104)
MP party tenure × Parliamentary win-margin$_{t-1}$	**-0.062*****	**-0.061*****	**-0.061*****	**-0.062*****
	(0.021)	**(0.021)**	**(0.021)**	**(0.021)**
Constant	-0.777	-0.763	-0.549	-0.775
	(0.663)	(0.664)	(0.700)	(0.666)
N	505	505	505	505
AIC	6,958	6,961	6,961	6,961

Notes: Negative binomial models. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Evidence from the Afrobarometer

To further explore the linkages between electoral uncertainty, resources, and patronage distribution, I merge my dataset with data from Round 5 of the Afrobarometer (2012). I use two different dependent variables: *Patronage distribution personal*, which measures "how often, if ever", the respondents were offered something, "like food or a gift or money", in return for their vote during the 2008 elections (Carter 2012, 32); and *Patronage distribution general*, which indicates whether the respondents mentioned "influencing electorates with material goods for their votes", when asked to list the "three main activities" that "grassroots political party activists (or foot soldiers) primarily engage themselves in during election campaigns and elections" (ibid., 48). I use the same independent variables as in the main analysis: *MP party tenure*, which counts the number of years the party of the incumbent MP has held the constituency seat; *Parliamentary win-margin*$_{t-1}$, which measures the win-margin in the last parliamentary election; and the interaction between the two. Finally, I include the following control variables: *Voter registered (log)*, which provides the natural logarithm of the number of voters registered in the constituency; *Male*, which indicates whether the respondent was male; *Young <25*, which indicates whether the respondent was below 25; *Education*, which measures the respondent's level of education on a 10-point scale; *Employment*, which indicates whether the respondent was employed (whether part- or full-time); *Mobile phone*, which indicates whether the respondent owns a mobile phone; *Close to NDC*, which indicates whether the respondent said she felt close to the party that won the 2008 presidential election. Data from Round 5 of the Afrobarometer (2012) are geo-referenced at district-level but not at constituency-level. I therefore merge the data

with my data at district-level and exclude observations from districts with multiple constituencies.

Table D.5 reports the results. Models 1 and 3 maximise the goodness of fit. Models 2 and 4 include all control variables. The results are consistent with my model, although not very robust. *Parliamentary win margin*$_{t-1}$ is negative and statistically significant in models; *MP party tenure* is also negative in all models, although not statistically significant; the interaction between the two is positive in all models and statistically significant in two. In other words, respondents are more often offered something in return for their vote, when the last election was won by a small margin, controlling for sex, education, employment, mobile ownership, and partisanship. Similarly, they are more likely to say that "influencing electorates with material goods for their votes" is one of the three main activities that party foot soldiers primarily engage themselves in during election campaigns and elections.

Table D.5: Patronage distribution, regression results

	(1)	(2)	(3)	(4)
	Patronage distribution personal experience		Patronage distribution general experience	
	OLS		Logit	
MP party tenure	-0.002	-0.002	-0.018	-0.018
	(0.004)	(0.004)	(0.022)	(0.022)
Parliamentary win margin$_{t-1}$	**-0.345***	**-0.346***	**-3.010****	**-3.001****
	(0.195)	**(0.195)**	**(1.214)**	**(1.214)**
Voters registered (log)	-0.042	-0.042		
	(0.027)	(0.027)		
Male		0.009	**0.241***	**0.234***
		(0.021)	**(0.129)**	**(0.129)**
Young <25		-0.0002		-0.075
		(0.026)		(0.158)
Education	**0.018*****	**0.018*****	-0.030	-0.027
	(0.006)	**(0.006)**	(0.032)	(0.033)
Employment	0.027	0.027	-0.140	-0.156
	(0.021)	(0.022)	(0.127)	(0.130)
Mobile phone	**0.051***	**0.049***		
	(0.026)	**(0.027)**		
Close to NDC	0.018	0.017	**0.296****	**0.299****
	(0.024)	(0.025)	**(0.141)**	**(0.141)**
MP party tenure × Parliamentary win margin$_{t-1}$	0.023	0.023	**0.171***	**0.170***
	(0.016)	(0.016)	**(0.097)**	**(0.097)**
Constant	**0.497***	**0.490***	**-1.062*****	**-1.046*****
	(0.289)	**(0.290)**	**(0.267)**	**(0.269)**
N	1,724	1,723	1,736	1,735
Adjusted R^2	0.012	0.011		
AIC			1,650.860	1,652.114

Notes: Standard errors in parenthesis. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

E Electoral manipulation as a last resort

Polling station capture and escalation

In Chapter 6, I argue that Ghanaian voters condemn ballot stuffing more strongly than they condemn other types of electoral manipulation. In Round 5 of the Afrobarometer (2012) respondents were asked to list the "three main activities" that "grassroots political party activists (or foot soldiers) primarily engage themselves in during election campaigns and election" (Carter 2012, 48) and to "rate the freeness and fairness of the last national election, held in 2008" (Carter 2012, 17). By paring the answers, I can explore how the activities of grassroots political party activists affect respondents' rating of the election. The results are reported in Table F.1. They support the argument. *Snatching ballot boxes* is negative and statistically significant, meaning that respondents who listed this activity as their first answer rated the last election 0.3% points less free and fair than respondents who listed any other activity as their first answer, controlling for sex, age, education, employment, location, whether they voted for the NDC candidate, and other factors that may have affected their rating of the election. Similarly, both *Moving from one polling station to another creating confusion during elections* and *Intimidating voters at polling stations during elections* are negative and statistically significant. By contrast, *Influencing electorates with material goods for their votes* is positive, although not statistically significant, as is *Disrupting the electoral process at polling stations during election*. In other words, there is a clear correlation between the activities of grassroots political party activists and the respondents' rating of the election. Some illegal activities have a considerable negative effect, while others have no effect or possibly even a positive effect.

Table E.1: Party activities and perception of elections

	(1)	(2)	(3)	(4)	(5)
	Freeness and fairness of last election				
Male	**0.076****	**0.076***	**0.078****	**0.079****	**0.080****
	(0.039)	**(0.039)**	**(0.038)**	**(0.038)**	**(0.038)**
Young <25	0.018	0.019	0.015	0.019	0.025
	(0.057)	(0.057)	(0.057)	(0.057)	(0.057)
Education	**-0.061*****	**-0.061*****	**-0.061*****	**-0.061*****	**-0.060*****
	(0.011)	**(0.011)**	**(0.011)**	**(0.011)**	**(0.010)**
Employment	-0.007	-0.007	-0.004	-0.007	-0.002
	(0.039)	(0.039)	(0.039)	(0.039)	(0.039)
Mobile phone	-0.041	-0.041	-0.038	-0.041	-0.033
	(0.059)	(0.059)	(0.058)	(0.058)	(0.058)
Urban	-0.029	-0.029	-0.028	-0.027	-0.031
	(0.040)	(0.040)	(0.040)	(0.040)	(0.040)
Voted for NDC candidate	**0.259*****	**0.260*****	**0.256*****	**0.260*****	**0.255*****
	(0.038)	**(0.038)**	**(0.038)**	**(0.038)**	**(0.038)**
Influencing electorates with material goods	0.008				
	(0.071)				
Disrupting electoral process at polling stations		0.064			
		(0.161)			
Snatching ballot boxes			**-0.279****		
			(0.142)		
Moving from one polling station to another creating confusion				**-0.255****	
				(0.128)	
Intimidating voters at polling stations					**-0.582*****
					(0.146)
Constant	**2.309*****	**2.309*****	**2.310*****	**2.312*****	**2.305*****
	(0.062)	**(0.061)**	**(0.061)**	**(0.061)**	**(0.061)**
N	1,765	1,765	1,765	1,765	1,765
Adjusted R^2	0.056	0.056	0.058	0.058	0.065

Notes: Linear least square models. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Patterns

Table E.2: Ballot stuffing, alternative independent variables

	(1)	(2)	(3)
	Parliamentary election challenged (section 28)		
MP tenure	-0.060		
	0.159		
MP running	0.951		
	1.817		
MP ruling party		0.797	
		0.748	
Minister running			-0.350
			0.844
Parliamentary win-margin$_{t-1}$	-25.766	-3.331	**-8.447****
	17.308	4.049	**4.160**
Voters registered (log)	**1.300****	**1.293****	**1.358****
	0.659	**0.651**	**0.647**
Constituency metropolitan	-0.854	-0.778	-0.858
	0.831	0.797	0.792
Parliamentary win-margin <6% points	**2.544*****	**2.544*****	**2.491*****
	0.608	**0.600**	**0.597**
MP tenure × MP running	-0.202		
	0.219		
MP tenure × Parliamentary win-margin$_{t-1}$	**2.431***		
	1.362		
MP running × Parliamentary win-margin$_{t-1}$	10.941		
	18.529		
MP tenure × MP running × Parliamentary win-margin$_{t-1}$	-0.976		
	1.536		
MP ruling party × Parliamentary win-margin$_{t-1}$		-5.480	
		6.433	
Minister running × Parliamentary win-margin$_{t-1}$			7.231
			6.414
Constant	**-16.628****	**-17.582****	**-17.663****
	7.531	**7.101**	**7.099**
N	505	505	505
AIC	144.16	138.99	139.19

Notes: rare events models. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Table E.3: Ballot stuffing, alternative control variables

	(1)	(2)	(3)
	Parliamentary election challenged (section 28)		
MP party tenure	**-0.198*** **	**-0.191** **	**-0.195*** **
	0.077	**0.074**	**0.075**
Parliamentary win-margin$_{t-1}$	**-17.140** **	**-15.927** **	**-16.330** **
	7.443	**7.187**	**7.148**
MP running independent	**1.919*** **		
	0.119		
Candidates		0.242	
		0.199	
Constituency size km2			0.001
			0.001
Voters registered (log)	**1.341** **	1.098	**1.440** **
	0.669	0.677	**0.681**
Constituency metropolitan	-0.512	-0.550	-0.430
	0.818	0.831	0.834
Parliamentary win-margin <6% points	**2.584*** **	**2.626*** **	**2.598*** **
	0.620	**0.620**	**0.616**
MP party tenure × Parliamentary win-margin$_{t-1}$	**1.070** **	**0.976** **	**1.015** **
	0.493	**0.459**	**0.456**
Constant	**-1.600** **	**-14.660** **	**-0.173** **
	7.307	**7.232**	**7.506**
N	505	505	505
AIC	135.5	134.39	135.8

Notes: rare events models. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.

Table E.4: Ballot stuffing, subsets

	(1)	(2)	(3)
	N in 2008	N in 2012	N where N fully independent
	Parliamentary election challenged (section 28)		
MP party tenure	-0.065	**0.372****	**-0.141***
	0.155	**0.145**	**0.079**
Parliamentary win-margin$_{t-1}$	-20.090	**-24.449***	**-19.242****
	18.820	**15.123**	**9.729**
Voters registered (log)	1.783	0.794	0.907
	1.382	1.111	0.988
Constituency municipal	-2.089	1.136	-0.466
	1.715	1.004	0.973
Parliamentary win-margin <6% points	**-4.599*****	**2.040*****	**2.521*****
	1.839	**0.754**	**0.853**
MP party tenure × Parliamentary win-margin$_{t-1}$	**1.384*****	**2.210***	**1.183****
	1.358	**1.347**	**0.556**
Constant	**4.599*****	-8.806	-11.539
	1.840	11.947	10.605
N	230	275	283
AIC	52.692	74.002	90.951

Notes: rare events models. Standard errors in parenthesis.
$* p < 0.10$, $** p < 0.05$, $*** p < 0.01$.