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Election Integrity and Political Responsiveness in Developing Democracies: Evidence from Ghana

A dissertation submitted in partial satisfaction

of the requirements for the degree

Doctor of Philosophy in Political Science

by

George Ofosu

2017

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ABSTRACT OF THE DISSERTATION

Election Integrity and Political Responsiveness in Developing Democracies: Evidence from Ghana

by

George Ofosu
Doctor of Philosophy in Political Science
University of California, Los Angeles, 2017
Professor Daniel N. Posner, Chair

In this dissertation, I examine the causal effect of election integrity on the responsiveness of elected officials in developing democracies. In many countries, domestic and international organizations regularly support interventions aimed at reducing electoral fraud. These efforts are rooted in the belief that fairer elections will strengthen the ability of citizens to control politicians and promote political responsiveness. However, we have no empirical support for this widely held belief. I describe a field experiment that randomized the deployment of roughly 1,300 election observers at different intensities across 60 electoral constituencies in Ghana. I leverage this experiment to test the effects of fairer elections on the responsiveness of Members of Parliament (MPs). Because the higher concentration of observers was associated with lower levels of election-day fraud and violence, the random assignment of election observation intensities across constituencies provides an instrument for levels of election integrity.

I assess responsiveness using original data on how MPs in Ghana allocate their state-provided Constituency Development Funds to provide private benefits and public infrastructure to constituents. The results show that politicians elected in intensely monitored elections spend more of their CDFs, suggesting that fairer elections increase the effort of incumbents. Decomposing this effect, intense monitoring increases MPs' spending on public goods but does not affect the level of private goods provision. Moreover, legislators elected in constituencies that had a higher pres-

ence of observers are more likely to abide by the national procurement laws when spending their funds, indicating that fairer elections also promote good governance. Overall, the findings suggest that the quality of elections is an important determinant of political responsiveness and provide the first causal evidence of the connection between election integrity and the performance of elected officials.

To explain my findings, I hypothesize that MPs exposed to high intensity monitoring in the past improve their performance in office because they do not expect to have opportunities to commit fraud in future elections. I contend that the ability of politicians to rig elections influences incumbents' levels of effort to meet the expectations of constituents. The ability to manipulate elections allows politicians to substitute fraud for effort without facing electoral consequences.

To investigate the effects of clean elections on the behavior of politicians, researchers need to manipulate incumbents' *beliefs* about the integrity of future elections. To manipulate these expectations, I implement an experiment that randomized information to 60 of 120 MPs to say that they should expect to receive intense monitoring of their constituencies in Ghana's December 2016 parliamentary elections. The control group did not receive such a letter. I argue that such information should motivate incumbents to work harder to satisfy the demands of citizens because they believe that they cannot rely on election-day fraud. Analysis of election results from the December 2016 election provide tentative support for my hypothesis. Future analyses of legislator spending of CDFs in 2016 would provide a definitive assessment of my primary explanation of the causal effect of fair elections on political responsiveness.

The dissertation of George Ofosu is approved.

Mark Stephen Handcock

Michael F. Thies

Daniel N. Posner, Committee Chair

University of California, Los Angeles

2017

To my mother, Sabina Adwoa Abankwa-Duodu

TABLE OF CONTENTS

1 Introduction **1**

1.1 Motivation: election fraud and democratic responsiveness in Africa 5

1.1.1 Inconclusive evidence of the impact of multiparty elections on democratic responsiveness 6

1.1.2 Inconclusive evidence evidence that competitive elections fail to induce responsiveness because of electoral manipulation 7

1.1.3 Other reasons why elections fail to promote responsiveness 11

1.2 The Argument in Brief 13

1.3 Case selection 15

1.4 Empirical approach 17

1.4.1 Manipulating the integrity of elections 18

1.4.2 Measuring responsiveness 20

1.5 Plan of the dissertation 21

2 Constituency Service as Responsiveness **24**

2.1 Expectations of legislators elected in single-member districts 27

2.1.1 What we know about what citizens demand from legislators in Ghana . . . 29

2.2 Formal role of members of Parliament in Ghana 30

2.3 Pressures Ghanaian MPs say they face and how they allocate their time 34

2.3.1 Pressures Ghanaian MPs say they face in their work? 35

2.3.2 MPs' reported time allocation to legislative work and constituency service . 38

2.4 Electoral competition and constituency service 46

2.5 Conclusion 50

3 Do Fair Elections Increase the Responsiveness of Politicians? 53

3.1 Electoral integrity and the responsiveness of politicians 57

3.2 Electoral politics and election fraud in Ghana 61

3.3 Reseach design 63

3.3.1 Intensity of election observaton as instrument for election integrity 63

3.3.2 Experimental design 63

3.3.3 Two-stage randomization of observers 64

3.3.4 Measuring the total causal effect of intensity of observation on electoral fraud 65

3.3.5 First-stage results of treatment 66

3.4 Measuring the responsiveness of legislators: the use of CDFs 67

3.4.1 Balance statistics 71

3.5 Effect of intensity of election observation on the responsiveness of legislators . . . 72

3.5.1 Intention-to-treat effect of intensity of observation on the utilization of CDFs 73

3.5.2 ITT effect of intensity of observation on procurement patterns of legislators 78

3.5.3 Do legislators substitute for legislative work with constituency services? . . 81

3.6 Election observation, election fraud, and the responsiveness of politicians 84

3.7 Conclusion 87

4 Effect of Expectation of Election Day Monitoring on the Responsiveness of Incumbents 90

4.1 Elections manipulation and incumbent effort: theoretical expectation 96

4.1.1 Theoretical expectation 98

4.2 Research design 100

4.2.1 Intervention and randomization 100

4.2.2 Balance statistics 104
4.3 Data 106
4.3.1 Additional data: electoral data 109
4.4 Analysis 109
4.4.1 ITT effect of information on intensity of observation on the use of CDFs . 110
4.4.2 ITT effect of treatment on the legislative activities of incumbents 112
4.4.3 ITT effect of treatment on vote shares and reelection rates 114
4.5 Discussion 116
4.6 Conclusion 118

5 Conclusion 120
5.1 Election integrity and democratic responsiveness 122
5.2 Empirical challenges and overcoming them 123
5.3 Summary of findings 126
5.4 Academic and policy implications 128

A 131
A.1 Afrobarometer Round 6 questions and coding 131

B 133
B.1 Summary statistics of sample constituences and covariate balance statistics 134
B.2 Measuring responsiveness: utilization of Constituency Development Funds 135
B.2.1 Density distribution of dependent variables across treatment conditions . . 142
B.3 Robustness checks 144
B.4 Testing the mechanisms through which electoral integrity affect MPs' behavior . . 148
B.5 Interviews with MPs 151

C **155**

C.1 Sample and summary statistics 155

C.2 Treatment letters 155

C.3 Balance statistics 158

LIST OF FIGURES

1.1 Challenges to identifying the causal effect of election integrity on democratic responsiveness . . . 3

1.2 Election fraud and violence increased over time . . . 10

1.3 Proportion of elections in Africa with the domestic election observers has increased over time . . . 14

1.4 Map of Africa, Ghana . . . 16

2.1 Median vote margin in parliamentary election between 1996 and 2012 . . . 34

2.2 What MPs say are the main challenges to their work . . . 37

2.3 Frequency of meeting with constituents to listen to their concerns . . . 41

2.4 Frequency of submitting questions relating to national issues . . . 45

2.5 Frequency of submitting questions relating to constituency issues . . . 46

3.1 Map of Ghana: treatment conditions of constituencies . . . 65

3.2 Members of Parliament elected in medium and high intensely monitored constituencies spent more of their available CDFs in 2014 compared to those elected from low-intensely monitored electoral districts . . . 75

3.3 Compared to MPs elected in low-intensely monitored constituencies, MPs elected in medium and high intensely monitored constituencies spent a higher proportion of their available CDFs in 2014 on public goods, but a similar proportion of their CDFs on private goods . . . 77

3.4 Compared to MPs elected in low-intensely monitored constituencies, MPs elected in medium and high intensely monitored constituencies are less likely to procure items without following national procurement laws, and use less of disbursed funds in direct procurement deals . . . 80

4.1 Map of Ghana: treatment and control constituencies 106

B.2.1 Exhibit 1: MPs' CDFs expenditure sheet 137

B.2.2 Exhibit 2: MPs' CDFs expenditure sheet 138

B.2.3 Density plots of the percentages of CDFs used by MPs across treatments conditions 142

B.2.4 Density plots of the percentages of CDFs used by MPs for public and private goods provision by treatment conditions 143

B.2.5 Density plots of the percentages of disbursed CDFs used by MPs for direct procurements 143

B.3.1 Estimates of the intention-to-treat effect of intensity of observation on MPs' utilization of CDFs is not driven by a single case 145

B.3.2 Estimates of the intention-to-treat effect of intensity of observation on MPs' utilization of CDFs for public and private Goods is not driven by a single case 146

B.3.3 Estimates of the intention-to-treat effect of intensity of observation on MPs' utilization of disbursed CDFs in direct procurement is not driven by a single case . . 147

C.2.1 Treatment: letter to Members of Parliament 156

C.2.2 Treatment: follow-up letter to Members of Parliament 157

LIST OF TABLES

1.1 Citizens' assessments of the responsiveness of Members of Parliaments in 36 African countries 7

1.2 Rates of fraud and violence in elections in Africa between 1989 and 2006 9

2.1 Stable reelection rates for contesting incumbents but diminishing margins of victory 33

2.2 MPs allocation of time to parliamentary work and constituency service 40

2.3 MPs allocation of time during constituency visits 42

2.4 MPs allocation of time during constituency visits by level of electoral competition . 48

3.1 Higher-intensity of election observation reduce constituency-level fraud and violence 68

3.2 Average Members of Parliament's total expenditure of CDFs, and average allocations to six expenditure categories across intensity of observation 73

3.3 Similar absence rates in parliament among MPs elected from low, medium and high intensely monitored constituencies 83

4.1 Balance statistics 107

4.2 Intention-to-treat effect of expectation of intense observation on constituency development fund spending 111

4.3 Similar absence rates in parliament among MPs in control and in treated groups . . 114

4.4 Treatment increases the voter share of reelection seeking incumbents 115

4.5 Treatment increases the reelection rate among Members of Parliament 116

A.1.1 Afrobarometer Round 6 Coding 132

B.1.1 Study constituencies (60) are regionally and nationally representative 134

B.1.2 Covariate balance across three treatments 135

B.2.2 Classification of MPs' spending of Constituency Development Funds 139

B.2.3 Summary statistics of MPs' use of their CDFs in 2014 141

B.4.1 The intensity of observation has no effect on the characteristics of elected candidates 148

B.4.2 Suggestive evidence that MPs elected in higher-intensity of observation are more likely to report they saw an observer at a polling station they visited 148

B.4.3 Suggestive evidence that MPs were aware of the intensity of observation within their constituencies 149

B.4.4 The intensity of election observation in a constituency neither affected citizens' pressures on MPs or government officials to provide public goods and services . . 150

B.5.1 Higher-intensity of observation increases MPs' constituency services, but have no effect on MPs' legislative activities 152

B.5.2 When visiting their constituency, MPs elected from higher-intensity observation districts spend more time on inspecting constituency development projects, and less on attending social events 154

C.1.1 Summary statistics of population and sample constituencies 155

C.3.1 Treatment and control constituencies 159

C.3.2 Balance statistics (inculding non-experimental constituency in study regions) . . . 160

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CHAPTER 1

Introduction

"[So] while elections have never been more universal and important, their benefits are by no means assured."

Kofi A. Annan (Chair),
Global Commission on Elections, Democracy and Security (Annan et al., 2012, pg. 3).

In July 2010, the Kofi Annan Foundation, in collaboration with the Stockholm-based International Institute for Democracy and Electoral Assistance (International IDEA), established the Global Commission on Elections, Democracy, and Security (GCEDS) to identify the challenges, and map out strategies to strengthen the integrity of elections around the world. In their report, released in September 2012, the GCEDS recommended that donor agencies increase their support for two popular approaches deemed to strengthen election integrity: the building of independent and competent election administration bodies, and domestic election observation. In line with beliefs held by many scholars and democracy advocates, the commission argued that for elections to promote democratic values and human rights and provide "tangible benefits for citizens," they must be conducted with integrity (Annan et al., 2012, pg.5). These concrete benefits include "empowering women, fighting corruption, delivering services to the poor, improving governance, and ending civil wars." Today it is estimated that multilateral organizations invest approximately US$5 billion annually to support programs that aim to bolster electoral integrity around the globe (Norris, 2014).

However, while the intrinsic importance of honest elections to democratic self-governance is, perhaps, obvious, its instrumental consequences including political responsiveness are typically

assumed in the literature.[1] We do not have solid evidence that improving the quality of elections motivates incumbents to be more responsive to the needs of their citizens (Norris, 2014).[2] In this dissertation, I seek to fill this gap.

To be sure, the effects of the GCEDS's proposed interventions on the integrity of election have been the subject of empirical research in the past two decades. In the case of election administration, scholars have found in Sub-Saharan Africa and Latin America that autonomous bodies are more likely to conduct honest elections compared to those controlled by the government (Pastor, 1999; Mozaffar, 2002; Hartlyn, McCoy and Mustillo, 2008; Kerr, 2013). Concerning election observation, which involves the deployment of trained personnel to monitor voting at polling stations, empirical research has provided evidence that the presence of observers reduces fraud and violence (Hyde, 2010; Ichino and Schündeln, 2012; Asunka et al., 2017). However, to date, we have no evidence that these interventions, through their impacts on election integrity, ultimately improve the responsiveness of politicians and governments to the needs of citizens. The reason we do not have any causal evidence of election integrity on the efforts that governments and officeholders take in promoting the interests of citizens is that such investigation poses inferential and measurement challenges.

Figure 1.1 illustrates these empirical challenges. First, at the national level countries choose to adopt independent election administration, invite international monitors or allow domestic observers for different reasons including pressure from foreign governments and financial institutions, local political competition or threats, and their level of economic development (Bjornlund, 2004; Hyde, 2011). These factors, represented by U in figure 1.1, may also explain the performance of elected governments, which makes any relationship we find between such "induced" election integrity and responsiveness causally ambiguous. Moreover, as Powell (2005) notes, re-

[1]Some scholars also contest the assumption that in general election induce political responsiveness. A recent provocative work by Achen and Bartels (2016) follows in this ongoing debate on the connection between elections and democratic responsiveness, and why that link often fails.

[2]Norris (2014), for example, asserts that the "instrumental consequences needs to be demonstrated with systematic evidence, however, rather than simply assumed carte blanche, or patched together based on limited support derived from selected case studies that fit the pattern."(pg. 7) By instrumental consequences, Norris (2014) was referring to: citizens' trust in the electoral process and confidence in democracy, voter turnout and civic engagement, and political representation (responsiveness).

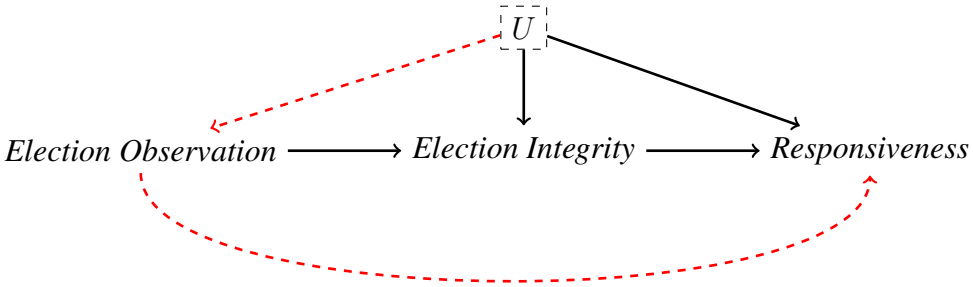

Figure 1.1: Challenges to identifying the causal effect of election integrity on democratic responsiveness

Notes: Figure 1.1 demonstrates the difficulties in establishing the causal effects between election integrity and democratic responsiveness. In the real world, we might observe that countries or electoral districts that hold cleaner elections also have responsive governments or politicians. However, these two outcomes may have a common cause such as state capacity, strong opposition parties, or public-spirited politicians (i.e. U). Thus, we cannot conclude a causal relationship between election integrity and responsiveness. Moreover, these underlying factors, U, may be responsible for the presence or absence of interventions such as election observation intended to improve the quality of elections, which the red arrow from U to election observation represents. Lastly, states that allow monitoring may receive economic benefits from international actors for which the government may play no role, and electoral districts, whose citizens are trained to participate in observation, may, in turn, get active constituents who demand responsiveness from their representatives. For these reasons, election observation may directly influence responsiveness without affecting the quality of elections (i.e. red arrow from *Election Observation* to *Responsiveness*). To establish causality, researchers must randomize election observation and demonstrate that their presence or absence is independent of other factors, U, and that monitoring influences the level of election integrity.

sponsiveness, which involves linking governments' or incumbent politicians' policy choices with citizens' preferences, is context specific. What people demand from officeholders is shaped by the realities of settings within which they live. Thus, cross-national analyses that use measures such as economic growth as an indicator of government performance is "dubious," because it may not capture responsiveness in different settings (pg. 66).

Similar challenges to establishing causality are present at the sub-national level. For example, election observation groups typically deploy more observers to potential "trouble spots" to deter fraud and violence. If observers "succeed" in their goals, we might be misguided to attribute the subsequent performance of incumbents to the quality of elections, which the initial tense political environment, U, may explain. It is also possible that public-spirited politicians desist from election fraud and work harder in office, suggesting that the level of effort has little to do with election integrity but with politicians' personal attributes (again a third factor U). For these reasons, scholars have found it hard to determine the effects of the integrity of elections on incumbents performance.

To overcome these inferential challenges, scholars need to find a way to manipulate the quality of elections in which politicians are elected or change incumbents' expectations about the extent to which they can rig the vote in the next election. In this dissertation, I employ experimental methods informed by recent work on election observation to circumvent the inferential difficulties. I ask whether improved elections, produced by election monitoring, increase legislators' effort toward citizens' representation, legislative work, or constituency service, and if so, through what channels. These are critical outcomes for a well-functioning democracy, and they have all been associated in the literature with free and fair elections. Thus, it will be extremely valuable to see whether experimental inducement of fair elections or their expectation can generate these important outcomes. Evidence in support of or against this assumption will be beneficial to domestic and international actors in determining what free and fair elections can and cannot accomplish in new democracies. It will also help policy makers to allocate their resources effectively in their bid to strengthen good governance and improve the well being of the poor in nascent democracies (Norris, 2014).[3]

[3]For example, Norris (2014) argues that if elections with integrity or elections, in general, are not pivotal to

In line with the literature, I argue that the level of integrity of elections mediates their effects on the ability of voters to select their preferred candidates or sanction poorly performing politicians. Accordingly, I argue that constraining the ability of politicians to rig the polls increases the likelihood that they put in more effort to satisfy citizens' demands, and earn their support. Thus, effective interventions or reforms that improve the quality of elections and improve the chance that voters can reliably select (reward) and punish politicians should motivate office-seeking incumbents to work harder to earn the support of citizens. I examine the causal effects of one such effort to enhance the integrity of elections, *election observation*, on democratic responsiveness in a new democracy, Ghana.

In focusing on election integrity as a conditioning factor for effective electoral accountability, however, I do not discount other factors that may mute the effects of elections. For example, recent studies suggest that elections may fail to deliver better performance and economic growth if voters lack information on the incumbent's performance (Sen, 1999; Keefer and Khemani, 2005; Humphreys and Weinstein, 2012) or are indifferent to politicians' performance, responding instead to ethnic or party cues, clientelistic arrangement or the instruction of traditional leaders (Callaghy, 1993; van de Walle, 2001, 2003; Wantchekon, 2003; Posner, 2005). Rather, I argue that, because these factors may undermine democratic responsiveness irrespective of the quality of elections, we need to establish whether free and fair elections are fundamental to democratic responsiveness in developing democracies.

1.1 Motivation: election fraud and democratic responsiveness in Africa

When democracy's 'third wave' reached Sub-Saharan Africa (hereafter Africa) in the early 1990s, citizens and democracy promoters were jubilant. They were optimistic that the (re)-introduction of multiparty elections would usher in a new era of political accountability and thus the responsiveness of ruling elites to the demands of the poor (Ake, 2000). Between the late 1950s and

"strengthening democratization" or inducing political responsiveness, then scarce resources can be retargeted to other interventions including building inclusive and independent legislatures to constrain the executive branch and increasing the capacity of state agencies to provide services.

1990, Africa's political landscape was replete with personal dictatorships, one-party regimes, and military rule following the transition from colonial administration in the early 1960s (Bratton and van de Walle, 1997).[4] In fact, the Washington-based Freedom House classified only four countries (Botswana, The Gambia, Mauritius, and Namibia) as 'electoral democracies' in Africa in 1990, while recent rankings in 2017 place the number at 22.[5] The authoritarian regimes that proliferated the continent were not only noted for their human rights abuses but also for their poor performance in governance that exacerbated the poverty of their citizens (see Ake, 2000, pg. 35-37). Many scholars and proponents of democracy had hoped that more competitive elections would provide the incentives for rulers to respond to citizens' interests, providing the impetus for their promotion on the continent. According to an International IDEA dataset, between 1989 and 2016, 47 countries in Africa held 415 multiparty elections, a majority (55 percent) of which were legislative elections.[6] This number (415) represents an average of about 15 multiparty elections per year during this period, which contrasts with an average of slightly less than one a year between 1960 and 1989 (Gyimah-Boadi, 2015).

1.1.1 Inconclusive evidence of the impact of multiparty elections on democratic responsiveness

In spite of the spread of competitive elections, assessments of their impact on the responsiveness of politicians (and governments) to the needs and preferences of citizens have produced mixed

[4]During this period of authoritarian rule, countries that practiced a semblance of democracy were Botswana, The Gambia, Senegal, Zimbabwe, Mauritius, Algeria, Egypt, Morocco, and Tunisia.

[5]Freedom House (FH) classifies a country as an "electoral democracy" if it scores 7 or better (out of a possible 12 score) in the *Electoral Process* subcategory of their *Political Rights (PR)* index, and an overall PR score of 20 or better (out of a possible 40). The electoral process category comprise of three questions relating to: 1) Freeness and fairness of the presidential elections; 2) Freeness and Fairness legislative elections, and 2) Fairness of the electoral laws. A country is removed from the list if its last national elections were not sufficiently free and fair, or if changes in laws significantly eroded the public's opportunity for electoral choice. Accordingly, electoral democracies may be "Free" or "Partly Free" by FH status depending on their level of election integrity, but not all electoral democracies are "Free." (See `https://freedomhouse.org/report/methodology-freedom-world-2017`)

[6]The International Institute for Democracy and Electoral Assistance (International IDEA) is an intergovernmental organization that works to support and strengthen democratic institutions and processes around the world to develop sustainable, effective and legitimate democracies. International IDEA approach their mission through supporting and conducting research on relevant topics around the globe.

results. Some scholars report that the introduction of competitive elections has led to better government performances regarding a reduction in infant mortality deaths (Kudamatsu, 2012) and an increase in investments in primary education (Stasavage, 2005).[7] At the same time, Lewis (2008) suggests that democracies in Africa only have a marginal advantage in promoting citizens' welfare (i.e. improving a country's Human Development Index score) over their nondemocratic counterparts, and in fact do no better when it comes to economic performance.[8] Evidence from the recent Afrobarometer (AB) data (Round 6 (R6)), a cross-national survey of citizens in Africa, also suggests low levels of democratic responsiveness of officeholders despite multiparty elections. Almost a third of respondents in 36 countries believe that "all or most" Members of Parliament (MPs) are involved in corruption while more than 4 in 10 say they (strongly or simply) "disapprove" the performance of their MPs. At the same time, more than three-quarters says their representatives "never try their best to listen" to their views (see Table 1.1 (Panel B)).

	Mean	SD	Min	Max
MPs never listens	0.762	0.148	0	0.939
Strongly disapprove or disapprove MPs performance	0.423	0.197	0	0.706
All or most MPs involved in corruption	0.324	0.145	0	0.678

Table 1.1: Citizens' assessments of the responsiveness of Members of Parliaments in 36 African countries

Notes:(1) Source: Afrobarometer Round 6. (2) See Table A.1.1 in Appendix A for exact question wording and coding.

Assuming that multiparty elections ought to increase the welfare of the poor, these mixed and sometimes disappointing results have led scholars to turn to both cross-national and fine-grained country-level analyses to examine how elected officials can defy the 'electoral connection' in new democracies including Africa.

[7]In a broader set of countries beyond Africa, Lake and Baum (2001) show that across states and over time democratically elected governments provided higher levels of basic services related to public health and education compared to their authoritarian counterparts.

[8]In cross-national studies extending beyond Africa, Ross (2006) also shows that democracies have little or no effect on infant and child mortality rates. He argues that the apparent high spending on health and education in democracies compared to nondemocracies may accrue to middle- and upper-income groups for whom mortality rates are already low.

1.1.2 Inconclusive evidence evidence that competitive elections fail to induce responsiveness because of electoral manipulation

In their search for explanations, many scholars and democracy promoters have pointed to election manipulation as one of the principal causes of poor performance of politicians. Indeed, as noted by a number of scholars, while elections have become popular on the continent, they are often rigged (e.g., Schedler, 2002; Gyimah-Boadi, 2007; Diamond, 2010). For example, according to the Varieties of Democracy dataset, 100 of the 237 national elections held in Africa (42 percent) were fraudulent to the extent that their results were affected, while some manipulations *may* also have tainted an additional 37 elections (16 percent) (see Column (A) of Table 1.2) (Coppedge et al., 2015). Moreover, 117 of these elections (49 percent) recorded some form of electoral violence (i.e. government sponsored intimidation)(see Column (B) of Table 1.2). Figure 1.2 shows that the rates of election fraud and violence have increased and remained high over time. Democracy advocates argue that such manipulation of elections undercut the efficacy of voting to incentivize democratic responsiveness. They assert that to the extent that politicians in democracies are able to rig the ballot through nefarious tactics such as inflating the voter's list with unqualified persons, stuffing the ballot box, intimidating their opponents' supporters, or simply fiddling with the vote tally, citizens lose control over politicians.

In spite of the popular belief that credible elections should induce political responsiveness, which, in turn, drives millions of dollars of investments in their promotion, we simply do not have evidence to back this claim. While a handful of cross-national studies examine the relationship between the integrity of elections and government economic performance, they have produced mixed results on government performance. Specifically, while Collier and Hoeffler (2015) find that fraudulent elections increase the incentives for national governments to deliver good economic performance, van Ham (2009) finds a negative and statistically insignificant association between the integrity of elections and subsequent economic growth. Similarly, Bratton (2013*a*) finds no significant relationship between citizens' perceptions of election integrity and their assessments of politicians' responsiveness in Sub-Saharan Africa. Moreover, such cross-national studies do not allow scholars to rule out other factors that may simultaneous cause election integrity and

responsiveness (as illustrated in figure 1.1), raising doubts about the causal connection between the two variables. Besides, scholars have identified a number of factors that they believe undermine the efficacy of elections in new democracies, irrespective of their quality.

	A Elections Free and Fair				B Election Government Intimidation		
	Parliamentary	Presidential	All		Parliamentary	Presidential	All
	(1)	(2)	(3)		(1)	(2)	(3)
No, not at all	0.131	0.183	0.143	Yes	0.069	0.050	0.063
	23	11	34		12	3	15
Not really	0.229	0.417	0.278	Yes, frequent	0.143	0.233	0.165
	40	25	66		25	14	39
Ambiguous	0.177	0.100	0.156	Yes, some	0.263	0.267	0.266
	31	6	37		46	16	63
Yes, somewhat	0.297	0.250	0.287	Restrained	0.274	0.200	0.257
	52	15	68		48	12	61
Yes	0.166	0.050	0.135	None	0.251	0.250	0.249
	29	3	32		44	15	59
	175	60	237		175	60	237

Table 1.2: Rates of fraud and violence in elections in Africa between 1989 and 2006

Notes:

1. Source: Varities of Democracy dataset
2. Question wording: Column (A): Taking all aspects of the pre-election period, election day, and the post-election process into account, would you consider this national election to be free and fair?; Column (B) In this national election, were opposition candidates/parties/campaign workers subjected to repression, intimidation, violence, or harassment by the government, the ruling party, or their agents?

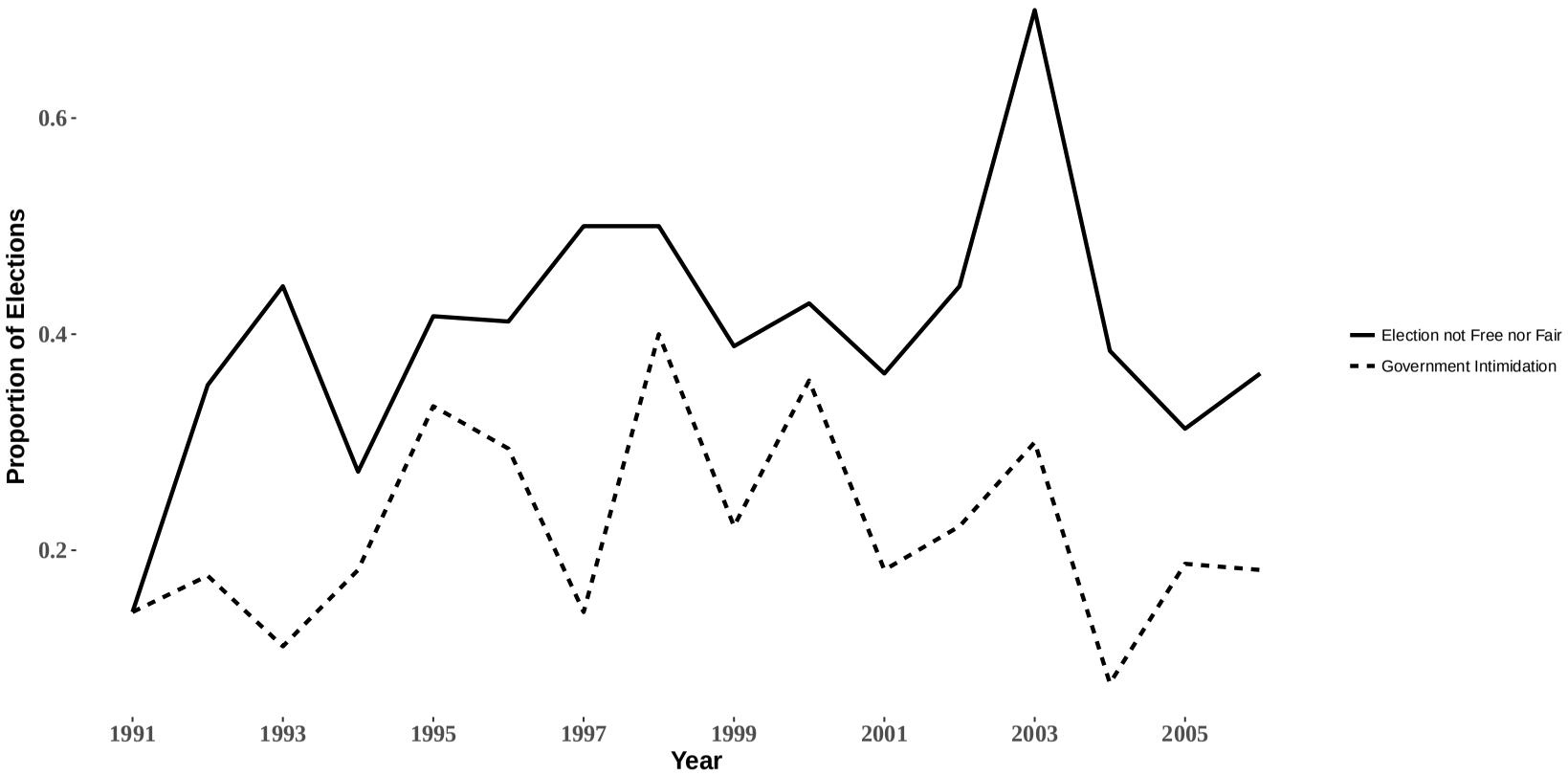

Figure 1.2: Election fraud and violence increased over time
Source: Varieties of Democracy dataset

1.1.3 Other reasons why elections fail to promote responsiveness

An extensive body of scholarship on elections and electoral politics in Africa and other developing countries also points to at least three factors that may undermine the electoral connection between citizens and politicians.

First, many Africanists have cited the use of patronage (including the mobilization of voters along ethnic lines) by incumbents to sustain the loyalties of relevant voters even when they fail to satisfy the demands of the general electorate (i.e., delivering public goods and services). Empirical research in this area attempts to demonstrate who politicians target with 'goodies' as well as the extent and efficacy of patronage in Africa's fledging democracies. For example, Wantchekon's seminal work (2003) shows that candidates in democratic Benin employ patronage or clientelistic appeals to significant effects, whereas platforms constructed around investments in public goods yield small electoral benefits. Kramon and Posner (2013) find that multiparty elections have not reduced ethnic favoritism in the distribution of certain public goods (e.g., expenditures on education, water supply, and electricity, etc) in a number of countries in Africa. Kasara (2006) shows how the ruling elites in Kenya undertook an expensive and inefficient sub-national proliferation of administrative districts as a strategy to win the votes of minority ethnic groups following the transition to democracy in 1992.

These findings seem to support the caution offered by Callaghy (1993), and van de Walle (2001, 2003) that competitive elections may not generate improvements in economic and social policies, but only reinforce patterns of ethnic politics and patronage in Africa. Moreover, while freer and fairer elections may be necessary for genuine choice, they may not be sufficient to strengthen political responsiveness if voters are indifferent to politicians' performance, and instead respond to ethnic or party cues, clientelistic arrangements, or the instructions of traditional leaders (Callaghy, 1993; van de Walle, 2001, 2003; Wantchekon, 2003). However, despite the prevalence of the use of patronage in elections in Africa, some scholars have noted that increasingly "assertive" voters can punish incumbents for poor performance if elections are conducted fairly (Gyimah-Boadi, 2007; Lindberg, 2013; Cheeseman, Lynch and Willis, 2017). These observations suggest that the quality

of elections may have an independent effect on democratic responsiveness.

Second, ruling elites have been found to resort to vote buying (including small cash handouts, T-shirts, and food items) in the months leading to elections (Kramon, 2013; Vicente and Wantchekon, 2009). While the provision of cash handouts with the goal of vote buying has been described in a number of African countries such as Benin, Ghana, Nigeria, São Tomé and Príncipe, Uganda, and Kenya, its purpose and effects is contested in the literature. For example, it is not clear whether payments are used to win over undecided voters (Stokes, 2005) or encourage turnout of core supporters (Nichter, 2008) or whether they are dispensed to serve as a 'costly signal' to voters about the credibility of candidates' promises of future patronage supply (Kramon, 2016). The latter two would serve to perhaps reinforce patronage or clientelistic politics while the first would imply increasing the number of votes to meet an electoral threshold. Irrespective of the purpose, scholars assume that these tactics (illegal in some countries such as Kenya) serve to undermine electoral accountability. However, if vote buying only serves to increase turnout by core supporters, then it might not necessarily undermine accountability. Second, if vote buying only serves as a costly signal, then voters can renege and vote based on earlier delivery of patronage goods. I argue that it is perhaps the uncertainty about how handing out cash and other goodies translates into actual votes that incumbents feel the need to complement them with election-day fraud and violence.

Last, recent scholarship notes that elections may fail to deliver better governance if voters lack information on the incumbent performance (Sen, 1999; Keefer and Khemani, 2005; Humphreys and Weinstein, 2012). Accordingly, scholars have examined the impact of providing information on the performance of politicians to voters (especially by civil society groups) in the hope that they will base their vote choice on candidates' qualities and performance. Empirical work has produced mixed results. For example, Humphreys and Weinstein (2012) find that giving information about legislators' activities to citizens two years before Uganda's 2011 parliamentary elections had no impact on incumbents' performance or their reelection rates. However, Chong et al. (2014) find that informing citizens about the corrupt practices of incumbents led not only to low voter turnout but also decreased the vote shares for both incumbents and challengers in Mexico's municipal elections. Indeed, these mixed findings highlights the need to pay attention to the conditions under

which an information intervention can incentivize higher legislator effort (Lieberman, Posner and Tsai, 2014). In this dissertation, I focus on one of these possible conditions: *election integrity*.

1.2 The Argument in Brief

In this project, I argue that the effect of elections on the responsiveness of politicians is mediated by election quality. I argue that higher levels of election quality increase political responsiveness because it limits the ability of politicians to win office through outright rigging. I assume that politicians desire to stay in power. To simplify, I assert that incumbents can win reelection by either putting in more effort to satisfy the needs of constituents or by cheating in the polls. Essentially, incumbents can either rig elections to remain in office or "earn" their reelection by working harder to meet the expectation of voters. Obviously, incumbents can win office by other factors such as vote buying, access to more campaign funds, and media coverage (incumbency advantage). Nevertheless, officeholders often supplement these assets in their disposal with vote rigging. I suggest that, all else equal, when it is easy for incumbents to engage in election-day fraud, they can reduce the time, personal resources, and the amount of effort they devote to address the needs of constituents, and instead pursue their private business activities to earn outside rents (in addition to their salaries as politicians). My argument implies that if an intervention, such as election observation, places a constraint on the ability of politicians to rig their reelections, they will need to exert more effort to win the support of voters. Such interventions, therefore, should encourage political responsiveness because by increasing the integrity of elections, voters can, in principle, select quality candidates who they believe will serve their interests, and sanction those who shirk.

In this study, I focus on the effects of election observation on responsiveness because it remains one of the principal and most visible tools employed by civil society groups to improve the integrity of elections (Carothers, 1997; Bjornlund, 2004). According to the Varieties of Democracy dataset, between 1989 and 2006 among the 237 elections held in Africa, domestic election observers were present in 182, representing about 78 percent. Indeed, today, domestic election

observation groups are active in at least 60 countries.[9] In fact, as shown in Figure 1.3, domestic election observers were present in almost all elections in Africa in 2006. So far, scholars have examined the immediate effects of monitoring on election integrity and shown that the presence of observers reduces fraud and violence at polling stations and within electoral districts (e.g. Hyde, 2010; Ichino and Schündeln, 2012; Asunka et al., 2017). Others have also shown that such interventions also boost positive views on the legitimacy of government, even in less stable countries (Berman et al., 2014). However, to my knowledge, we have no systematic evidence that election observation, by improving the quality of elections, also promotes political responsiveness as assumed by democracy promoters. I address this gap by examining the *causal* relationship between election observation and democratic responsiveness.

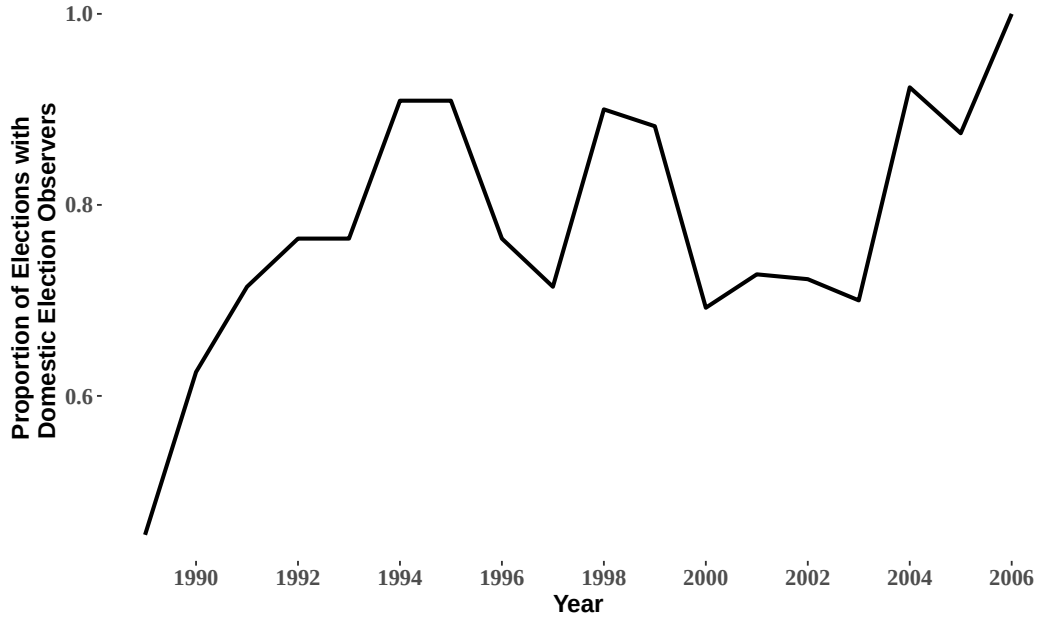

Figure 1.3: Proportion of elections in Africa with the domestic election observers has increased over time

Source: Varieties of Democracy dataset.

[9] See `http://www.gndem.org`, accessed January 4, 2017. Domestic election observation contrast with international election monitoring. The former is organized by local or national civil society groups and are typically deploy thousands of trained citizens to polling stations. In contrast, international election monitoring is deployed by international organizations such as the United Nations or sub-regional bodies such as the African Union and Economic Community of West African States. Bjornlund (2004) find that international election observers were present in 86 percent of the national elections organized in 95 newly democratic, or competitive authoritarian regimes, between 1989 and 2002. However, international organizations typically deploy a handful of observers. Thus, I focus on domestic election observation in this study.

1.3 Case selection

This study is sited in Ghana, a former British colony located in West Africa (see Figure 1.4). Ghana is on the coast of the Gulf of Guinea and bordered by Côte d' Iviore, Togo, and Burkina Faso. The population of 27.41 million is ethnically and religiously diverse and have a Gross Domestic Product per capita of $1,381 (World Bank 2015 estimates). Following the country's independence from colonial rule in March 6, 1957, Ghana's political landscape was dominated by military and personal rule interspersed with short-lived democratic experiments (Gyimah-Boadi, 1994). However, Ghana's latest democratic transition in 1992 has ushered in an uninterrupted period of seven multiparty elections organized every four years with three (in 2000, 2008, and 2016) leading to a turnover of executive power between the country's current two major parties (see below). Currently, direct elections are held concurrently for president and a unicameral national parliament, which is composed of 275 members elected by plurality from single-member districts. Thus, while Ghana's electoral success has made it a "third wave" democratic superstar, it shares structural and institutional characteristics with many countries in Africa.

I chose Ghana for this study for a number of reasons. First, the increasing level of electoral competition and turnover rates of legislators provide real incentives for incumbents to think about how they deploy their resources when seeking reelection. Indeed, while two major parties, the National Democratic Congress (NDC) and the New Patriotic Party (NPP), have dominated the electoral landscape of Ghana since 1996, vote margins have dwindled.[10] Between 1996 and 2012, the average vote margin in the parliamentary elections decreased by about 11 percentage points. Also, between 2000 and 2012, the average turnover rates for incumbents seeking reelection was 24 percent.

Second, while the increasing electoral competition may incentivize higher levels of incumbent responsiveness, it can also serve as a motivation for election fraud (Lehoucq, 2003). Indeed, in the AB R6, Ghanaians provided poor ratings of the responsiveness of their legislators compared

[10]The NPP, then the opposition, boycotted the December 28, 1992 Parliamentary elections accusing the incumbent NDC of rigging the presidential polls held earlier in November 3, 1992 (Oquaye, 1995).

to the average ratings of the 36 countries. For example, about 63 said that they strongly or simply disapprove of their MPs' performance compared to the cross-national average of about 45 percent. Similarly, 48 percent of Ghanaians said all or most of their MPs are involved in corruption compared to the average of 34 percent for the 36 countries. These poor ratings may be explained by high expectations of Ghanaians of their representatives after more that two decades of democratic elections. However, they may also be due to the ability of politicians to engage in the local manipulation of elections.

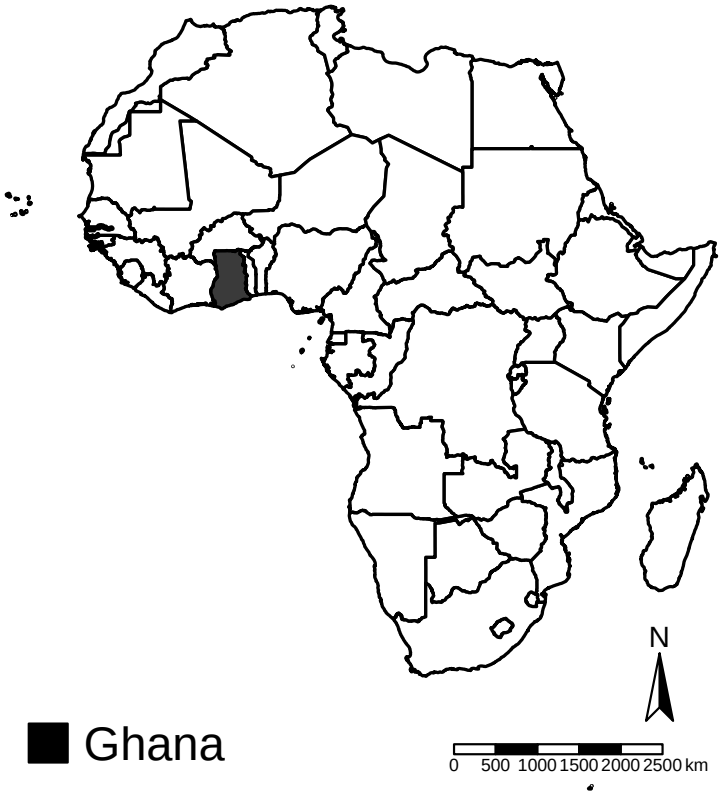

Figure 1.4: Map of Africa, Ghana

Indeed, several studies suggest that Ghana's elections are often characterized by fraud and violence (Gyimah-Boadi, 2007; Jockers, Kohnert and Nugent, 2010; Ichino and Schündeln, 2012; Straus and Taylor, 2012; Asunka et al., 2017). The country's 2012 general elections was a case in point. Following the polls, the main opposition party (NPP) filed a petition in the country's highest (Supreme) Court pointing to several polling station level irregularities in the elections. While the Supreme Court eventually acknowledged some of the allegations in its verdict, no official or party

was indicted, and the case was dismissed, suggesting that politicians may use fraud and violence while facing little risk of punishment. Accordingly, fraud and violence are viable options for officeholders who face stiff competition or simply seek to ward off strong competitors.

Third, to decrease electoral fraud, civil society groups, with support from international donors, have monitored the Ghana's elections since 1996 (Gyimah-Boadi and Yakah, 2012). Prominent among these groups is Ghana's Coalition of Domestic Election Observers (CODEO).[11] Since its formation in 2000, CODEO has observed all of the country's general and local government elections. The group is now composed of about 34 independent civil society organizations including religious, professional, and student bodies. Similar to other election observation missions, CODEO's aim is to promote the integrity of the electoral process and strengthen political accountability. Also, recommendations from these groups and opposition parties have served as grounds for several election reforms following the 1992 election, including the adoption of transparent ballot boxes, photo identification cards for voters, and recently the introduction of biometric registration systems (Frempong, 2008). Still, variation in the quality of elections persists at the sub-national electoral units, which makes Ghana an ideal setting for testing whether this variation can explain differences in the democratic responsiveness of incumbent politicians.

1.4 Empirical approach

In testing my argument, I faced two key main empirical challenges. The first relates to measuring and identifying the causal effect of election integrity. The second concerns the measuring of the responsiveness of officeholders. In the case of the former, I propose and use a research design to measure and identify the causal effect of election integrity on the responsiveness of incumbents of the demands of citizens. Regarding the latter, I build on current scholarship to directly measure individual politicians' responsiveness to their constituents' demands.

[11] For discussions on the role of civil society observations in Ghana's current democratic experiment see Gyekye-Jandoh (2016).

1.4.1 Manipulating the integrity of elections

Election fraud typically involves illegal, and often clandestine, efforts by politicians and their agents to tilt election results in their favor, which makes it difficult to measure (Schedler, 2002; Lehoucq, 2003). Of course, scholars have advanced methods including the so-called 'election forensics' to determine whether politicians manipulated election outcomes given expected a theoretical (probability) distribution of election results (Mebane, Jr., 2007). The key challenge, however, is that even if I employ such methods, I then face the problem of identifying the causal effect of quality of these elections on responsiveness. Just comparing the effort levels of incumbents elected amid different levels of election integrity does not rule out other underlying factors that may shape both the quality of elections and the behavior of incumbents.

Accordingly, to test my hypothesis, I need to manipulate the quality of elections in which citizens elect their office holders or randomize incumbents' beliefs about what limits they might face in rigging the ballot on election day. To overcome these challenges, I employ experimental methods. First, to vary the integrity of elections through which voters elect their officeholders, I leverage insights from the outcome of a collaborative research project that measured the impact election observation on election-day fraud and violence in Ghana (Asunka et al., 2017). My collaborators and I employed a *randomized saturation design* to estimate the effect of election observers (Baird et al., 2012). The design involved randomizing the intensity (saturation) of monitors (i.e. treatment) across electoral districts. Here, saturation refers to the percentage of polling stations within a constituency that is monitored by independent observers.

The randomized saturation design enables me to manipulate a variable experimentally, the proportion of polling stations in a constituency that are monitored by election observers (*intensity of observation*), that I go on to use as an instrument for the quality of constituency-level elections. The intensity of observation serves as an appropriate instrument for the following reasons. First, as mentioned above, empirical evidence suggests that monitors reduce fraud where civil society organizations deploy them. Second, my collaborators and I found that increases in the intensity of observation within a constituency further reduces the overall levels of fraud and violence after

accounting for potential displacement of such election manipulation tactics to unmonitored stations (Asunka et al., 2017). Thus, the intensity of observation, if randomly assigned, serves as a relevant exogenous instrument for the level of credibility of elections in a constituency. In my research design, I leverage this initial random assignment of the intensities of election observation across 60 electoral constituencies as my exogenous instrument for the quality of elections. I refer to this as *Actual Intensity of Observation (AIO)* from which citizens chose their representatives.

The levels of responsiveness of incumbents may be explained by the success of voters in using cleaner elections to select quality candidates who share their interests or by officeholders' expectations of electoral sanctions in the next fair elections. Regarding the selection of quality candidates, we can compare relevant observable characteristics of candidates elected in intensely monitored elections to those elected in districts that had fewer observers. If for example, we find that candidates elected in intensely monitored constituencies were of a better quality and are more responsive compared to those from least observed districts, on average, that will be consistent with a selection mechanism of electoral accountability. However, if we find no difference in the quality of elected officials but more effort among incumbents elected in intensely monitored constituencies, that will be consistent with a sanctioning model of electoral accountability. That is, we can argue that officeholders exert higher efforts because they anticipate limited opportunities for fraud in the next elections. However, such assertion will only be suggestive because incumbents' expectation may not be random, nicely induced by the first randomized AIO.

Thus, to systematically examine the influence of expectation of fairer elections, I implemented a second experiment with a random set of legislators. Specifically, I randomize information about the intensity of observation of the next election among 120 MPs a year before Ghana's 2016 general elections. Because election observers reduce fraud and violence, I assume that such news would influence incumbents' beliefs about their ability to rig their re-election and thus the prospects of electoral sanction. I refer to this as an incumbent's *Expected Intensity of Observation (EIO)* in the next elections.

Still, these two treatments, AIO and EIO, may have independent as well as joint and reinforcing effects on the responsiveness of incumbent politicians. For example, voters may succeed in

selecting quality candidates in intensely monitored elections who, in office, put in more effort to satisfy citizens' interests. At the same time, incumbents who also anticipate keen observation in the next election might work even harder compared to those elected in a cleaner elections who do not expect any serious monitoring. My design allows me to examine such possibilities.

However, focusing on election-day fraud presents one main limitation to my project. In fact, better monitoring of election-day behavior may simply induce incumbents or parties to shift their manipulation tactics to the pre-or post-election periods (Simpser and Donno, 2012). Such potential effects would make it harder to detect the effect of election-day monitoring on the responsiveness of incumbents, which implies that the true effects of the treatment are at least large as what I will show.

1.4.2 Measuring responsiveness

Measuring democratic responsiveness also presents both theoretical and empirical challenges because it involves connecting an incumbent's choices about policies or expenditures to the preferences of citizens (Pitkin, 1967; Powell, 2005). Theoretical work demonstrates the difficulties of aggregating individual preferences to what is preferred by a group; it turns out that deciding "what citizens want" is not that straightforward (Arrow, 1963). Also, let us assume some majority-preferred outcome(s) (e.g., economic growth, low inflation, and a higher provision of local public infrastructure) exist, and that we observe its provision. We are then faced with how to determine what aspects of such outcome, which are often produced by the collective effort of multiple office-holders, to attribute to individual politician, and for whom they offered such effort.

Focusing on politicians elected in single-member electoral districts allows me to link the activities of individual incumbents to particular electoral constituencies. For want of a better strategy of aggregating preferences, I operationalize responsiveness as satisfying majority preferences about the expected roles of legislators. Drawing on existing literature and an original survey of Ghanaian legislators, I suggest that responsiveness implies the provision of constituency services, which involves the supply of local public goods and regular visits to constituents (Lindberg, 2010).

According to the survey, citizens seem to place little emphasis on the lawmaking and oversight responsibilities of their MPs.

To measure legislator effort to providing constituency service, I measure how MPs use their state-provided Constituency Development Funds (CDFs).[12] The state provides CDFs to legislators to help MPs supply local public infrastructure and personal benefits to constituents. To use their CDFs, legislators must devote a great deal of effort to coordinate their plans with the local governments located in their constituencies and supervise the implementation of these projects. Indeed, legislators have discretion over the use of these funds, and thus may shirk in their spending if they do not face electoral pressure (Keefer and Khemani, 2009). My use of CDFs as a measure of legislator effort follows in the steps of recent research that examines factors that determine the levels of spending, corruption in the use of funds, and where incumbents site projects (Keefer and Khemani, 2009; Chong et al., 2014; Harris and Posner, 2017). Further, because my data allow me to disaggregate MPs' expenditures by types, I go beyond earlier studies to construct an original dataset and examine the impact of the treatments on legislator spending on local public goods and private transfers to citizens. I complement these data with an original survey of MPs on how they report allocating their time to constituency services and legislative work, and how they spend their time in their constituencies.

1.5 Plan of the dissertation

The remaining chapters of my dissertation are organized as follows.

In chapter 2, I characterize what democratic responsiveness implies in the setting of my study, Ghana. Because legislators perform multiple functions (legislating, executive oversight, representation and constituency service) on behalf of citizens, I first examine which of these roles citizens prioritize. Drawing on existing literature and my interviews with Ghanaian MPs, I demonstrate that a majority of the people want legislators to prioritize constituency service compared to parlia-

[12] In Ghana, CDFs are referred to as MPs' Common Funds administered under the District Assemblies (local government) Common Fund.

mentary work. Further, I show that constituency service implies providing local public goods (i.e. infrastructure) as well as regular visits to the constituency and listening to constituents' demands. It also includes providing private benefits to citizens including financial assistance to pay school fees, medical bills, and funerals. My analyses of data from interviews with 92 legislators, however, show a significant variation in the levels of provision of constituency service among MPs. I further show a weak relationship between electoral competition (measured by vote margin) on the levels of responsiveness, which suggests other factors may help explain the variation in democratic responsiveness. I argue that the honesty of elections in which MPs are elected and in which they expect to contest their reelection may explain such variation.

In chapter 3, I describe a field experiment that randomized the deployment of roughly 1,300 election observers at different intensities across 60 electoral constituencies in Ghana that I leverage to test my primary hypothesis. The results show that politicians elected in constituencies that were intensely monitored by observers spend significantly more of their CDFs, suggesting a higher level of effort. Decomposing this increase, I show that the increase in the intensity of election observation increase MPs' spending on public goods but does not affect the level of private goods provision. MPs elected through highly monitored elections also spend more time in their constituencies. However, I show that an increase in the intensity of election observation does not change parliamentary attendance by MPs, which suggests that the treatment had no effect on legislative activities. Overall, these findings suggest that the quality of elections is an important determinant of political responsiveness (i.e. constituency service). While chapter 3 provide tentative support for my explanation of the findings, expectation of intense future monitoring, it does not rule out the possibility of that other confounding factors cause the outcome. I address this concern in the next chapter.

In chapter 4, I use an experimental research design to examine the impact of incumbents' expectations of intense election observation in the next election on their level of responsiveness to constituents' demands in the current term of office. As described above, I do so by randomizing information about the intensity of future election observation (i.e. EIO) among 120 Ghanaian legislators a year before the country's 2016 general elections. Again, I assess the responsiveness of

legislators by comparing MPs' CDF spending in the treated and control groups. Data on spending (between January and December 2016) were not available at the time of writing. I, however, expect to find that incumbents who received my treatment (letters) and thus expect keen election observation in the next election will spend more of their CDF compared to those who did not get the information. In the meantime, consistent with my findings in chapter 3, I find that the treatment has no effect on the absenteeism rates of MPs during parliamentary meetings in 2016, which implies that expectations of election day observation do not cause incumbents to alter their efforts in legislative attendance.

In the conclusion (chapter 5), I reiterate and discuss the theoretical, normative, and policy implications of the findings, and highlight directions for future research.

CHAPTER 2

Constituency Service as Responsiveness

Legislators perform four core functions.[1] First, they are elected to *represent* a 'constituency' in the legislature. Depending on the type of electoral system, the constituency that an officeholder represents may be geographical or a group with well-defined interests. Accordingly, incumbents *re-present* the concerns of their constituents in the legislature. Second, they contribute to lawmaking or national policy formulation (i.e. *legislating*). Third, lawmakers *oversee* the executive branch to ensure that the implementation of policies comply with the law. Fourth, representatives perform *constituency service*, which involves addressing the non-policy concerns of citizens. Therefore, as agents, elected officials perform multiple functions for their principals, citizens (Eulau and Karps, 1977). As principals, citizens hold expectations of their representatives and political *responsiveness* is the extent to which incumbents satisfy these desires of citizens (Hyden, 2010).

Accordingly, assessing the responsiveness of incumbents requires a determination of the extent to which they act in ways consistent with "what voters want" (Powell, 2005). However, examining the responsiveness of officeholders, in turn, raises the question: "what do citizens want (expect) from legislators?"[2] Understanding what citizens expect from their representatives will provide insights on which dimension(s) of legislators' roles is likely to be impacted by a change in the integrity of elections. I argue that politicians are likely to increase their level of responsiveness to those aspects of their functions that they believe citizens value the most. I suggest that incumbents

[1] In this study, I use legislators, representatives, and lawmakers interchangeably.

[2] In principle, one can assess how responsive legislators are to citizens preferences for each of their core functions. For example, one can assess whether, in voting in the legislature (i.e. legislating), representatives vote in line with their constituents' views on policies. Regarding representation, we can examine how often legislators show up at legislative meetings compared to citizens' expectations. Concerning constituency service, we can assess how often voters want their representatives to visit them and listen to their concerns, and how often incumbents do.

who cannot rely on election-day fraud will increase their supply of such valued goods to help them get reelected.

In this chapter, I examine what citizens expect (i.e. value) from politicians elected in single-member districts (SMDs), focusing on Africa. I then consider the case of Ghana, the setting of my study. To understand what roles of representatives citizens value, I draw insights from literature on the behavior of legislators in Africa as well as an original survey of MPs in Ghana that I conducted in Fall 2015. The literature suggests that a majority of citizens prefer that their MP provide them with constituency service. Only few demand that their representatives focus on lawmaking and overseeing of the executive branch (Hopkins, 1970; Barkan et al., 2010; Lindberg, 2010, 2013). Barkan (2009) notes that in agrarian countries, constituency service takes two primary forms. First, it involves regular visits by legislators to their electoral districts to meet with their constituents and assist them with their individual needs. Second, and perhaps more importantly, it means undertaking small-to-medium-scale development projects that provide public goods to the residents of their districts, including roads, water supply systems, schools, health clinics, and meeting halls.

While the supply of constituency service may fall short of the demand, African legislators elected in SMDs report to dedicate more time and effort to constituency service than those elected through proportional representation systems (Barkan et al., 2010).[3] Specifically, Barkan et al. (2010) find that while legislators in Kenya, Malawi, and Zambia who are elected in SMDs say they spend on average 38 percent of their time on 'constituency work,' their counterparts in Namibia and Mozambique who are selected through a PR system devote, on average, 18 percent. However, this comparative finding masks variation in how much time MPs elected in SMDs dedicate to constituency work. Also, if there is variation in the level of responsiveness of legislators on this dimension, it is not clear what explains it and under what conditions they exert more effort to satisfy constituents' expectations.

[3]Some scholars have noted the 'representation gap (or deficit)' in African new democracies. For example, using the 2005 Afrobarometer survey data, Bratton (2013*a*) finds that while three-quarters (76 percent) of citizens want their legislators to visit their constituencies at least once per month, only one-quarter (26 percent) say their representatives do.

Notwithstanding the dominant view that accountability relationships between citizens and legislators is centered on the provision of local public goods and private benefits in many African countries, some scholars suggest that MPs put a considerable amount of effort in their lawmaking and oversight roles. For example, Hyden (2010) argues that Ghanaian MPs are adept at discharging their lawmaking and oversight functions in the capital while traveling to their constituencies during the weekends to perform constituency service. Some scholars have also noted the increasing importance of some African legislatures as 'countervailing forces' in democratic governance in their respective countries, suggesting that some legislators are increasingly putting the brakes on executive excesses and making critical inputs into legislation (Posner and Young, 2007; Barkan, 2009; Brierley, 2012).

How then do legislators juggle their multiple roles? Is there a variation in the level of responsiveness of legislators elected in SMDs to citizens' demands in new democracies? If there is variation, what might explain it? To examine these questions, I conducted interviews with 94 Ghanaian MPs using a standard instrument in November and December 2015. These interviews, which took about an hour each, took place in the capital Accra.

I analyze how MPs allocate their time between legislative work and constituency service, given that they report facing competing pressures for their time and other resources. I find that while Ghanaian MPs may face enormous demands for constituency service, as reported in the literature, they report dedicating a substantial amount of their time to legislative and oversight work, which is consistent with Hyden (2010)'s observation. Moreover, I find significant variation in the percentage of time MPs say they spend in their constituencies when Parliament is sitting. Because the amount of time an incumbent spends at home does not necessarily translate into constituency service, I also consider what activities they prioritize when they visit. Consistent with the literature and anecdotal evidence, I find that an overwhelming majority (76.6 percent) of MPs attend social events such as funerals, and religious and traditional events. Incumbents' attendance of social events is followed in frequency by their holding of community and one-on-one meetings with constituents. In spite of the reported high demand for community development programs, only a fifth of MPs report that they prioritize inspecting projects when they visit their constituencies.

Nonetheless, I show that while electoral competitiveness is not significantly associated with the time an MPs spend in their constituencies versus the capital, it exerts some influence on activities legislators prioritizes when they visit. Legislators who face stiff competition may be more likely to focus on or dedicate more time to activities related to the design and implementation of local development projects compared to those elected in safe electoral districts. In contrast, MPs in less competitive districts are more likely to prioritize meeting local party executives who are key to winning local party primaries (Ichino and Nathan, 2012). Although not all these relationships are statistically significant at conventional levels, in line with the literature, they highlight the potential impact of electoral competitiveness on political responsiveness in Ghana. However, the weak link that I find suggests that the influence of electoral competition may be mitigated or conditioned by other factors one of which is explored in this dissertation (i.e. potential for election-day fraud).

In the next section, I review the literature on citizens' expectations of their representatives and the incentives of legislators to respond to these demands. I suggest here and in subsequent chapters that while electoral incentives motivate incumbents to respond to citizens' needs, the quality of elections is likely to mediate such influence of elections. I then present results from my interviews with MPs on the pressures they face and how they divide one of their scarce resources, *time*, to these demands. With these results, I demonstrate a weak relationship between electoral competitiveness and legislator effort to provide local public goods in Ghana.

2.1 Expectations of legislators elected in single-member districts

An extensive literature on legislator behavior shows that politicians elected in SMDs have greater incentives to conduct constituency service to 'cultivate personal votes' compared to parliamentary work (Cain, Ferejohn and Fiorina, 1987; Carey and Shugart, 1995).[4] Constituency service is the non-policy related activities that legislators undertake for constituents individually (private goods)

[4]Unlike legislators elected in SMDs, legislators chosen through proportional representation systems dedicate their efforts to pleasing party leaders because they determine their chance of reelection and career in the legislature (Carey and Shugart, 1995). Accordingly, these legislators are drawn more to programmatic or policy work rather than conducting constituency work.

or collectively (local public goods). A review of the literature suggests that across settings, constituency service comes in three main forms. First, it involves 'going home', meeting constituents and addressing their concerns or socializing with them (i.e. 'Home Style') (Fenno, 1978; Eulau and Karps, 1977). Second, constituency service involves providing *personal assistance* to constituents who seek redress from other government agencies (i.e., case work). This can involve addressing delays in social security payments, veteran benefits, unemployment, immigration, and healthcare (Cain, Ferejohn and Fiorina, 1987; Searing, 1994). In many African countries, including Ghana, personal assistance has been found to also include helping constituents to address their private financial needs including cash handouts for schools fees, health dispensary bills, funerals and venture capital (e.g. Lindberg, 2010; Barkan and Mattes, 2014). Third, constituency service involves helping constituents to construct local development projects or achieve some collective goals. These typically involves acquiring resources or funds ('pork') from the state or other entities for a local agency to undertake a project (Mayhew, 1974) or in some cases executing such projects using their state-provided funds as in the use of Constituency Development Funds (CDFs) (Keefer and Khemani, 2009).

Scholars suggest that politicians elected in SMDs focus on constituency service because they believe it boosts their chances of reelection compared to activities carried out in the legislature. The logic here is quite simple. Voters judge the performance of legislators in a retrospective manner. Citizens' assessments of a legislator's performance are directly informed by what they can directly observe. Because constituency service is carried out in the district, voters can see the amount of resources (i.e. time dedicated to personal assistance and projects) provided by their representative during his term. Indeed, some scholars contend that because constituency service is more visible to voters than parliamentary work, incumbents are likely to shirk on the latter, which citizens find difficult to evaluate (e.g. Ashworth and Bueno de Mesquita, 2006). Thus, while legislators find constituency service exacting, it constitutes a prominent part of their activities because it increases their visibility among voters and thereby enhances their prospects for reelection. In fact, empirical work indicates that voters reward incumbents who bring home projects and punish them if they fail to do so (Fiorina, 1981; Barkan, 1978). For example, Barkan (1978) finds that even among MPs

in Kenya's one-party regime, differences in incumbents' vote shares were explained largely by variation in the provision of local projects. Similarly, Young (2009*a*) finds in a comparative study of Kenya and Zambia that MPs who are perceived by voters to visit their constituency at least once a year were about 37 percent more likely to be reelected (pg.8). Young (2009*a*) forcefully argues that citizens in these settings (and possibly other African countries) prefer legislators to supply local development projects (i.e. local public goods) than personal goods that usually go to party supporters.

2.1.1 What we know about what citizens demand from legislators in Ghana

As expected, a number of studies on Ghanaian MPs, who are also elected in SMDs, suggest that they face constant and intense 'pressure' for constituency service from constituents compared to the demand for legislation and executive oversight (Lindberg, 2010; Hyden, 2010). Through systematic interviews with eighteen Ghanaian MPs, Lindberg (2010) finds that, when asked which groups of actors hold them to account, the majority of legislators state that it is voters compared to community leaders, local party executives and activists, or civil society and religious groups. MPs report that citizens hold them accountable primarily for private benefits and local pubic goods. Accordingly, it is reasonable to assume that in Ghana voters *expect* first and foremost constituency service from MPs, which involves supplying constituency development projects, and that such provisions would constitute *political responsiveness*.

Surveys of voters corroborate the propositions derived from interviews with politicians the citizens expect local development projects from their representatives. In 2010, the Afrobarometer Round 4 survey of citizens in Ghana asked respondents: "Which of the following do you think is *the most* important responsibility of your Member of Parliament": (1) listen to constituents and represent their needs, (2) deliver jobs or development projects back to constituency, (3) make laws for the good of the country, or (4) monitor the president and his government? Almost 9 in 10 respondents (85.7 percent) said they wanted their MPs to listen and represent their needs (perhaps in the Parliament or other government agencies) (45.2 percent) or deliver employment or development projects to their constituency (40.5 percent). Similarly, Lindberg (2013) finds that about 7 in

10 expected or hoped that the candidate elected in the 2008 elections would prioritize constituency service while about 15 percent expected them to focus on personal support. These findings support the conclusion above that citizens expect or want their representatives to not only listen and represent their concerns in the capital, but importantly to 'deliver' development projects to their constituencies. Obviously, to be able to listen to constituents' needs, MPs must regularly visit and organize meetings to listen to their concerns. In fact, in the AB Round 4 survey, almost half of Ghanaians (48.8 percent) said MPs should visit their constituencies at least once a month (only 9.9 percent said they should never visit). Accordingly, I consider regular visits to the constituency, especially when it involves meeting with constituents to listen to their needs and ensuring the smooth implementation of community projects, as being responsive.

There is also a considerable demand for private goods or benefits from MPs in Ghanaian similar to other developing democracies. However, it is often difficult to determine when incumbent supply them in a programmatic manner (Asunka, 2017) and when they are clientelistic (Lindberg, 2010). In fact, one of the dominant views of African politics is that it is clientelistic—a system of politics where an individual or a group's access to resources is contingent on his or her provision of political support (Hicken, 2011). According to this view, politician exchange cash or gifts for votes or solidify political backing from their ethnic groups (van de Walle, 2003; Kramon, 2013). Empirical work finds that voters are more responsive to clientelistic than to programmatic campaign appeals (Wantchekon, 2003), and are more likely to turn out at the polls in response to vote buying (Vicente and Wantchekon, 2009). Because these insights are drawn from the behavior of politicians during election years, researchers need to be cautious in how we interpret the provision of private benefits as being responsiveness to the broader electorates. For example, Lindberg (2010) reports that for Ghanaian MPs, it is their local party executives and activists who regularly demand private benefits from them for their "continued support" (pg. 125). Indeed, scholars suggest that Ghana's newly instituted party primaries serve as a means for local activists to extract clientelistic benefits from legislators (Lindberg, 2010; Ichino and Nathan, 2012). Moreover, the survey data cited above suggest that the median voter seems to demand local public goods. Nevertheless, in subsequent chapters, I also consider how improvement in the integrity of elections influence legislator supply

of private benefits to constituents.

2.2 Formal role of members of Parliament in Ghana

Ghanaian MPs are elected for four-year terms using plurality rule. There are no term limits for MPs. Currently, the unicameral Parliament (also called "the House") is composed of 275 members (see Table 2.1).[5] In the 2013-2016 Parliament, 148 belonged to the ruling NDC, 123 to the opposition NPP, and one to the People's National Convention. There were also three independent MPs. The NDC and NPP have dominated Ghanaian electoral politics since 1996, with the two parties controlling over 98 percent of seats.[6]

Chapter 10 of Ghana's 1992 Constitution and the Parliament's Standing Orders outline the formal roles of MPs.[7] These roles are standard for legislators elected from single-member districts. Thus, four formal roles are expected of MPs: representation, legislation, executive oversight, and constituency service.[8] To provide constituency service, the central government provides each MP with an equal amount of funds, called MPs' District Assembly Common Fund, to spend on constituents' needs.[9]

The four-year terms of MPs are divided into yearly Sessions during which Parliament sits for, on average, 28 weeks and go on recess (break) for 24 weeks. Within a session, the sittings of the

[5]The number of MPs has increased since 1992. Between 1993 and 2004, there were 200 MPs. The number rose to 230 in 2005 and 275 in 2012.

[6]The NPP, then the opposition, boycotted the December 28, 1992 Parliamentary elections, accusing the incumbent NDC of rigging the presidential polls held earlier in November 3, 1992. In the 1992 elections, the NDC was led by Jerry Rawlings who originally seized power in the early 1980s in a military coup. Thus, Ghana's First Parliament of its Fourth Republic was a single-party deliberative chamber.

[7]Chapter 10 also lays out the qualification and emoluments of MPs. For example, Article 94 (1a) states that citizens have to be at least twenty-one (21) years old to run for Parliament. Also, an individual needs to hail from a constituency or have lived there for at least 5 out of the 10 years prior to the elections to contest as its representative (Article 94).

[8]In addition to these core functions, Ghana's constitution requires that the president appoints at least half of his ministers of state from among MPs (Article 78 (1)). Accordingly, some MPs, especially from the ruling party, also serve as ministers.

[9]In subsequent chapters, I employ the use of CDFs as an indicator of democratic responsiveness because spending provides an objective measure of effort as described in chapter 1.

House are further divided into three Meetings, each of which lasts for 9 to 10 weeks. Currently, the Parliament meets between January and March (first meeting), May and July (second meeting), and October and December (third meeting).[10] During these periods, the House meets from Tuesday to Friday, making an average of 132 sittings in a Session. Ordinarily, MPs attend plenary meetings and work in their respective committees during these days. The law requires MPs to request permission from the Speaker of Parliament to absent themselves from a plenary session (Article 97(1c), 1992 Constitution).[11] Most legislators travel to their constituencies during weekends. Performing their functions of representation, legislating, and overseeing the executive, which take place in Accra, and going home during weekends therefore put enormous pressure on MPs (Interviews with MPs, November 2015). Nevertheless, MPs report visiting their constituencies almost every weekend (see below).

In addition to being elected in SMDs, other features of Ghana's institutions and electoral politics reinforce legislators' incentives for constituency service. First, MPs cannot introduce legislative bills; the executive has the sole mandate to introduce legislation (Article 108).[12] This constitutional provision makes *legislation* effectively secondary for MPs. Second, since 1992, the party that has controlled the executive also had dominated the legislature. Coupled with extreme partisanship between the two major parties, presidents generally can count on their majority support in parliament (Lindberg, 2009). Thus, legislators (especially those from the government's party) have fewer incentives to oppose the executive and instead may focus on constituency service. However, Brierley (2012) finds that MPs made significant amendments to certain legislation between 1993 and 2008 that were introduced by the president. The legislative capabilities of Parliament is aided by the fact that many MPs are professional lawyers. Brierley (2012) infers from

[10]See `http://www.parliament.gh/mps`, accessed on March 15, 2017.

[11]This provision states that: "A member of Parliament shall vacate his seat in Parliament if he is absent, without the permission in writing of the Speaker and he is unable to offer a reasonable explanation to the Parliamentary Committee on Privileges from fifteen sittings of a meeting of Parliament during any period that Parliament has been summoned to meet and continuous to meet." As I report in subsequent chapters, Ghanaian MPs are absent about a quarter of the time, on average, when parliament is in session. However, only about two percent of legislator absence is explained by permissions from the Speaker as required by law.

[12]This provision is not unique to Ghana. Many countries in Africa that inherited the Westminster model of parliamentary democracy during independence in the 1960s have similar provisions (see Barkan, 2009).

these data that MPs can and are able to provide input into legislation, suggesting that it is lack of political will, rather than capacity, that explains why the parliament for the most part acts as a"rubber stamp." Nevertheless, the above argument only suggests a lower incentive for legislation and executive oversight, and not that MPs neglect their parliamentary duties entirely. Third, Lindberg (2010) suggests that, in Ghanaian society, informal norms that ascribe "heads of family" roles to MPs comes with expectations to provide private goods in clientelistic networks and cater to the development needs of the constituency (pg. 126).

Finally, and more importantly, legislative races are increasingly competitive, and MPs must work hard to win reelections. The median vote margin decreased from 27.5 percent in 1996 to 17 percent in 2012 (a 38 percent decrease) (see Figure 2.1). Also, while MPs often win by seemingly large margins (averaging 20 percent between 1996 and 2012), they cannot take reelection as given. Between 2000 and 2012, incumbents seeking reelection have had, on average, about 1 in 4 chance of being "thrown out." (see Table 2.1).[13] The increasing level of competitiveness of legislative elections implies that MPs need to pay careful attention to constituents' priorities (expectations), and as I argue in section 2.1, this implies providing constituency development projects.

In spite of the strong incentive to provide constituency service compared to legislation and executive oversight, we have no systematic data on how MPs allocate their time and other resources in Ghana (and elsewhere). In addition, we have limited evidence on factors that influence variation (if any) in allocation patterns.[14] In the next section, I use an original survey of MPs to provide descriptive analyses of the pressures MPs report they face in Ghana and how they allocate their time to addressing these demands. The results indicates significant variation in the amount of time and resources MPs dedicate to constituency service, and thus in their levels of responsiveness.

[13]According to my calculation, the overall turnover rates for legislators between 2000 and 2012 is 45.38 percent (i.e., new MPs in parliament), and the average percentage of seats changing between parties averaged 22.45 percent (Election data from Ghana's Electoral Commission). In my calculation, I use the official list of MPs during each election and those who appear on the official ballots for the given year's parliamentary race.

[14]For example, both Lindberg (2010) and Hyden (2010) suggest urbanization and education influence the allocative decisions of MPs. They report that, in conducting constituency service, MPs in urban areas are more like to provide local development projects than cater to personal financial requests (e.g. for funerals, schools fees). Similarly, more educated MPs focus on providing local development projects that benefit a broader set of electorates.

Parliament	# of MPs	# seeking reelection	Re-election rate	Vote Margin (Median)
1997-2000	200	154	0.734	0.197
2001-2004	200	124	0.774	0.203
2005-2008	230	172	0.762	0.143
2009-2012	230	161	0.758	0.154

Table 2.1: Stable reelection rates for contesting incumbents but diminishing margins of victory

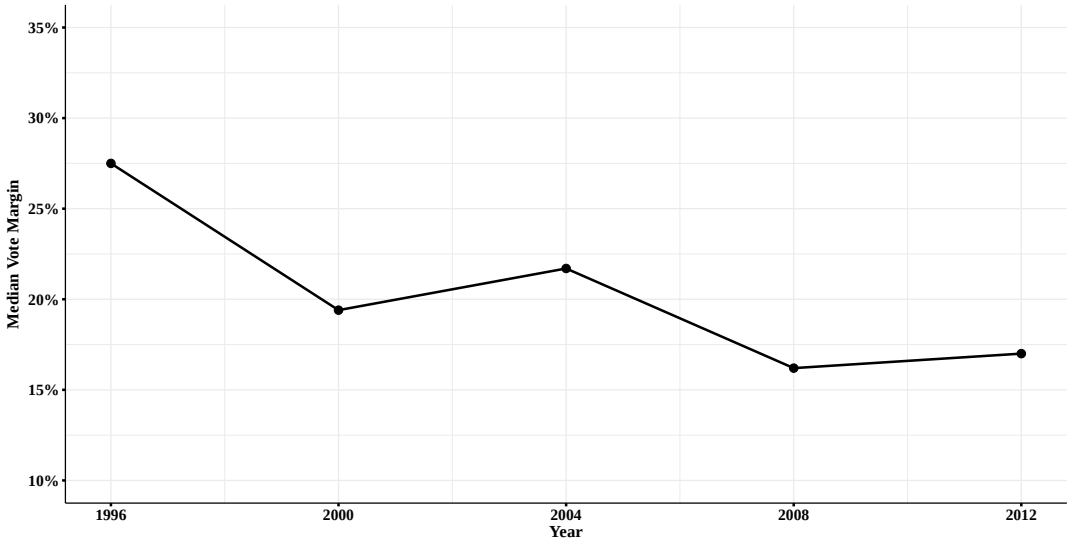

Figure 2.1: Median vote margin in parliamentary election between 1996 and 2012

2.3 Pressures Ghanaian MPs say they face and how they allocate their time

To understand the pressures that MPs face, and how they allocate their time to the different roles they play, I conducted interviews with 94 incumbent legislators. In these interviews, I asked MPs what challenges they face in their work as legislators. Answers to this question provides insights as to 'who' and 'what' comes to MPs' minds when considering their roles. Further, I asked how they allocate their time between parliamentary work and constituency service; how often they contribute to legislative and oversight work in Parliament; and what takes up most of their working hours when they visit their constituencies. Answers to these questions provide insights into not only what MPs prioritize, but also whether their priorities align with constituents' expectations as discussed above. As of the time of this research, Ghanaian MPs did not have official offices in Parliament that kept a systematic record of their daily activities, which would have been ideal for

this analysis. Accordingly, these interviews conducted in November and December 2015 using a standard instrument provide the first cut to estimate how MPs allocate their time. These 94 MPs are representative of legislators elected from five regions of Ghana: Ashanti, Brong Ahafo, Central, Volta, and Western regions.[15]

2.3.1 Pressures Ghanaian MPs say they face in their work?

Figure 2.2 displays the frequency of keywords (in a word cloud) that came up when MPs were asked *In your view, what are the three key challenges to your work as an MP?* Consistent with the literature, I find that the top concern for MPs was 'constituents' demands' for private benefits and constituency development projects, and the 'financial' burden that comes with such requests, as their primary challenge. For example, a former Ghanaian Member of Parliament, Elizabeth Ohene, wrote about the demands of constituents who formed long queues in front of representatives' houses as follows:

> Some of them want money to pay school fees or hospital bills, some want jobs for themselves or for their children or both, some just want to tell their MP they are angry the MP's vehicle drove past them and did not offer them a ride and they wouldn't be voting for him or her at the next elections. You ignore your demanding constituents at your electoral peril.[16]

Several newspaper articles also report MPs' frustration with constituents' high expectations for public infrastructure projects such as roads, especially when they hold a ministerial position.[17] Indeed, MPs reported in my interviews that the plethora of demands from citizens for constituency service undercut their ability to perform their other responsibilities as legislators.

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[15] My target was to interview all the 120 MPs in my study sample (see chapter 4).

[16] BBC's Letter from Africa: Elizabeth Ohene, January 19, 2017. `http://www.bbc.com/news/world-africa-38668188`, accessed April 17, 2017.

[17] Example: "Inusah Fuseini's aide slams protesting Tamale Central constituents," `http://www.ghanaweb.com`, accessed April 17, 2017.

The above primary issues were followed by MPs' complaints about the lack of "office" space and "staff" to support "research," and the Parliament's dependence on the executive branch for operational funds, which they say frustrates their abilities to hold the executive to account. MPs say that citizens lack "knowledge" about their formal roles as lawmakers and rather expect them to deliver things that are outside their mandate, including excessive requests for financial contributions towards funerals, weddings, child-naming ceremonies, and traditional festivals, which imposes a significant "financial" burden on them. Moreover, they lamented the "inadequate" and "delays in the release" of statutory funds to embark on constituency development projects. An MP, for example, said that their job comes with substantial "psychological stress, which impacts on your [sic] health."

These findings highlights the diverse pressures that legislators face in Ghana where citizens look to their elected representatives to satisfy the public infrastructure needs of their communities as well as provide them with individual financial help (Ninsin, 2016).

Figure 2.2: What MPs say are the main challenges to their work

2.3.2 MPs' reported time allocation to legislative work and constituency service

How then do legislators allocate their time to their competing demands? Table 2.2 shows descriptive statistics of how MPs say they allocate their time among their core functions (Panel A), and what proportion of their time they spend in their constituency versus the capital (Accra) (Panel B). Panel C of Table 2.2 reports the frequency of visits MPs say they pay to their constituencies per month. Since MPs may spend a significant proportion of their time in their constituencies when Parliament is on break, I specifically asked about their time allocation when parliament is in session. I contend that an MP's time allocation between parliamentary work and constituency service during this period provides insights into what they prioritize, given the pressures they face and their time constraints.

First, I asked MPs: *In your best estimate, in practice, what percentage of your working time as an MP do you dedicate to the following activities when parliament is in session*? I provided MPs with four main options: attending plenary sessions, working in committees, lobbying for projects for their constituency, and providing personal assistance to constituents.[18]

MPs say that, on average, they spend about 40 and 25 percent of their time attending plenary and committee meetings, respectively. These figures suggests that Ghanaian legislators spend most of their time on legislative work (65 percent) when parliament is sitting. They also report spending about a third of their time (28.9 percent) on constituency service (i.e. lobbying for projects for their constituency and providing personal assistance to constituents).

Also, incumbents say they spend about 40 percent of their time in their constituencies and the remainder in the capital (Accra) when Parliament is in session.[19] They also say they visit their constituencies, on average, three times a month. These trips back home are more impressive when

[18]They were also free to choose 'other' and specify.

[19]Exact question: In your best estimate, in practice, what percentage of your time as an MP do you spend in your constituency versus in the capital (Accra) when Parliament is in session? For example, in a typical month of, say 30 days, how many days do you spend in your constituency, and how many do you spend in Accra? Also, this estimate is consistent with percentage of time legislators in other countries in Africa that elect their legislators in single-member districts say they dedicate to constituency work: Kenya (40 percent), Malawi (46 percent), and Zambia (28 percent) (Barkan et al., 2010).

one considers the fact that only about 3 in 10 of MPs (29.8 percent) say their immediate families live in their constituencies. More importantly, I find significant variation among MPs regarding the time they allocate to legislative work and constituency service. For example, while some MPs spend as much as 70 percent of their time in their constituencies, others use only 30 percent.

Variable	N	Mean	St. Dev.	Min	Median	Max
Panel A: Allocation of time to core functions						
Plenary sessions	94	40.07	17.21	0.42	40.00	85.00
Committee work	94	24.46	12.34	0.18	20.00	60.00
Lobbying for projects for constituency	94	13.17	8.46	0.00	10.00	40.00
Providing personal assistance to constituents	94	15.76	11.53	0.00	12.50	55.00
Other	94	1.28	3.94	0.00	0.00	25.00
Panel B: Constituency versus Capital						
Constituency	94	39.42	12.01	0.30	40.00	70.00
Capital (Accra)	94	58.47	13.59	0.30	60.00	93.00
Panel C: Frequency: Constituency visits						
# visits to constituency per month	92	3.04	1.14	1	3	8

Table 2.2: MPs allocation of time to parliamentary work and constituency service

However, spending time in one's constituency does not automatically translate into service. Therefore, to examine whether time spent in the constituency brings constituency service, I asked legislators two questions relating to what they do when they visit their constituencies. First, I asked legislators how often they organize meetings to listen to their constituents' demands. Figure 2.3 displays the results. Almost half of MPs (47.6 percent) say they hold *monthly* meetings while about a third (32.9 percent) say they convene such meetings *once every three months*. Only 2.4 percent say they never organize meetings and 17 percent call for a gathering every six months.

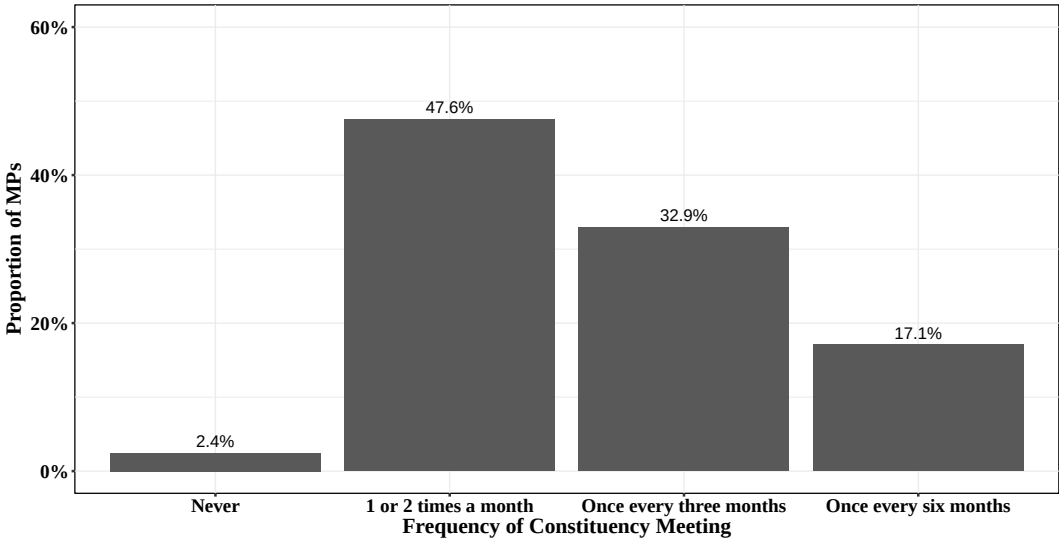


Figure 2.3: Frequency of meeting with constituents to listen to their concerns

Activity	% (N=94) MPs	% of MP's Time Allocated				
		Mean	SD	Min	Median	Max
	(1)	(2)	(3)	(4)	(5)	(6)
a) Holding one-on-one meetings	59.6	39.418	13.085	20	40	65
b) Holding community meeting	62.8	34.542	13.587	10	30	70
c) Holding meetings with community leaders	30.9	23.103	6.997	10	20	35
d) Holding meetings with party executives	48.9	31.326	14.391	10	30	60
e) Inspecting constituency projects	20.2	22.789	8.135	10	20	40
f) Attending social events (e.g. funerals, religious meetings, traditional festivals, etc.)	76.6	35.789	13.129	10	35	65

Table 2.3: MPs allocation of time during constituency visits

Second, I asked MPs what activities take most of their time when they visit their constituencies. Specifically, I asked MPs to chose three of six activities that took most of their time when they visit their constituencies. They were then asked to estimate the proportion of their time they allocate these three activities. Table 2.3 reports results. Column (1) shows the proportion of MPs choosing the respective activities while Column (2) shows the average (mean) percentage of time those legislators allocate to these activities.[20] The top three activities were: attending social events such as funerals, holding community meetings, and holding one-on-one meetings.

An overwhelming majority of MPs, 76.6 percent, say that attending social events is part of the top three things they do when they visit home. This activity consumes about 36 percent of the time of those MPs (13.1 SD). In fact, in Ghana and other developing country settings, it is not surprising that most legislators engage in these activities when they visit their constituencies. Indeed, Hyden (2010) describes Ghanaian legislators as 'socially embedded' (pg. 10). To be successful, MPs attempts to remain visible in all community events because failure to do so might be electorally suicidal.

Majorities of MPs also said that holding meetings with constituents individually (59.6 percent) and in groups (62.8 percent) were part of their top three activities. For these MPs, one-to-one meetings take about 39 percent of their time (the highest proportion of time allocation) (13.1 SD) while holding community meetings makes about 35 percent of their time (13.6 SD). As stated above and reported in other studies, MPs in Ghana and elsewhere often wake up to long queues of constituents at their residences. These constituents typically come to present and seek help from their representatives on various issues.

Almost half of MPs (48.9 percent) also placed meeting with local party executives on their priority list while about 31 percent say they held meetings with community leaders such as chiefs (perhaps, discussing local development challenges). The former takes about 31 percent (14.4 SD) while the latter consumes about 23 percent (7.0 SD) of the time of legislators for whom these activities form part of their top priorities.

[20]The standard deviation (SD), minimum (Min), median, and maximum (Max) are reported in Columns (3), (4), (5) and (6), respectively.

These findings suggest that MPs spend a significant amount of their time in their constituencies socializing with constituents and *listening* to their constituents' concerns. Both activities are necessary for effective representation in the capital. However, by "meeting with constituents" individually or in groups, MPs may be referring to party supporters or activists, and thus caution is needed in interpreting such meetings as being responsive. However, meeting with community leaders (who Lindberg (2010) reports to mainly demand community development) and inspecting development projects may rather serve to directly benefit a broader set of voters.

However, the results show that only a handful of MPs say *inspecting constituency development projects* is among their top three activities. Specifically, only a fifth of MPs (20.2 percent) say that inspecting constituency development projects such as the construction of schools, roads, boreholes, toilets, playing/soccer fields, etc. is part of their top three occupations when they visit home. Moreover, for these MPs, only about 23 percent of their time is spent on this activity (with a standard deviation of 8.2 percent). These results suggest that, while MPs are allocated funds to supervise development projects in their constituencies, only a few do and even then only a tiny fraction of their time is dedicate to this activity.[21] These results therefore suggest that, in spite of the apparent higher demand for local public goods, fewer MPs pay attention to activities related to their provision. Furthermore, among these legislators who devote time to inspecting development projects, only less than a quarter of their time is spent on these activities.

For the purpose of this study, however, across all these activities that MPs carry out in their constituencies, we find significant variation, which is essential for examining whether electoral competition has any influence on them. Before I turn to this examination, however, I report on the frequency of legislators activities in the House.

I asked MPs to estimate how many times they have raised questions relating to national issues in the House. Specifically, MPs were asked how many times they have "submitted a question to a minister of state concerning the status of a national policy or project implementation (e.g., national budget, education, health, energy, road, etc.)." Figure 2.4 shows the distribution of MPs' responses.

[21] A part of MPs' allocated CDFs designated for monitoring of projects in their constituency.

The bar chart shows a bimodal distribution of the level of participation in legislative and oversight activities of Parliament. A plurality of MPs, about 35 percent, say they have submitted questions about 1 to 3 times since the beginning of the Parliament in 2013. However, close to a third (29.8 percent) also say they have submitted questions 10 or more times during the period, suggesting they are more active. A little over 1 in 10 (12.8 percent) of MPs, however, say they have never raised a question on the floor.

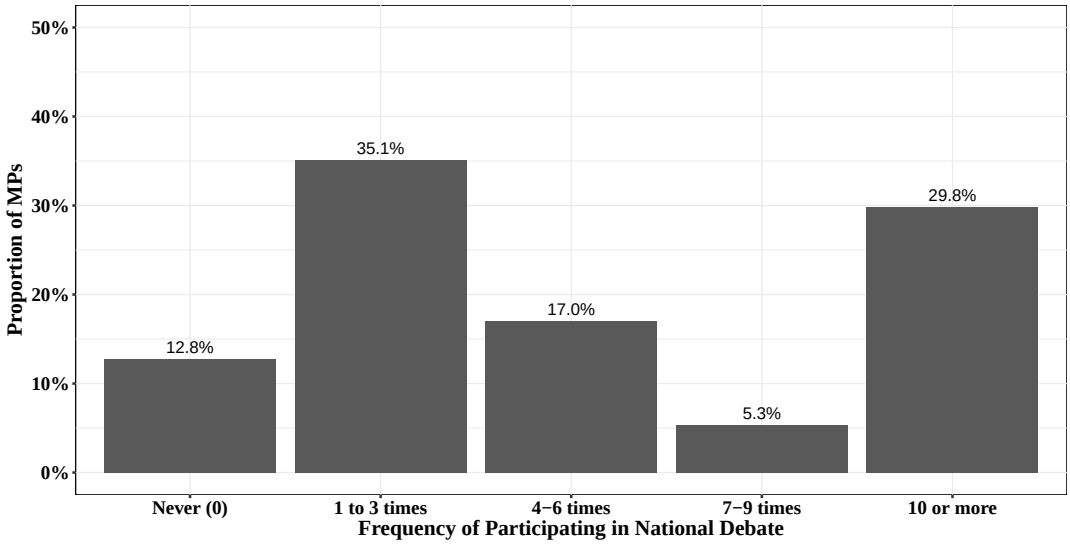


Figure 2.4: Frequency of submitting questions relating to national issues

A similar pattern of MPs responses obtains when asked the number of times they have raised questions relating to the concerns of their constituents on the floor of the House as shown in Figure 2.5. Two reasons may explain this similar responses. First, MPs who are vocal on national issues may also be as active when it comes to raising constituent concerns on the floor of the house. Also, MPs may see raising constituents concern as raising a national concern—solving the developmental concern of their constituencies imply addressing national development. Second, it might be that different sets of MPs prioritize the different issues. A cross-tabulation of the two variables provide support for the former (i.e. a strong association between those who say they raise national issues and those who report raising local issues). All the same, along these dimensions of legislator activities, I also find differences in the rate of performance by MPs.

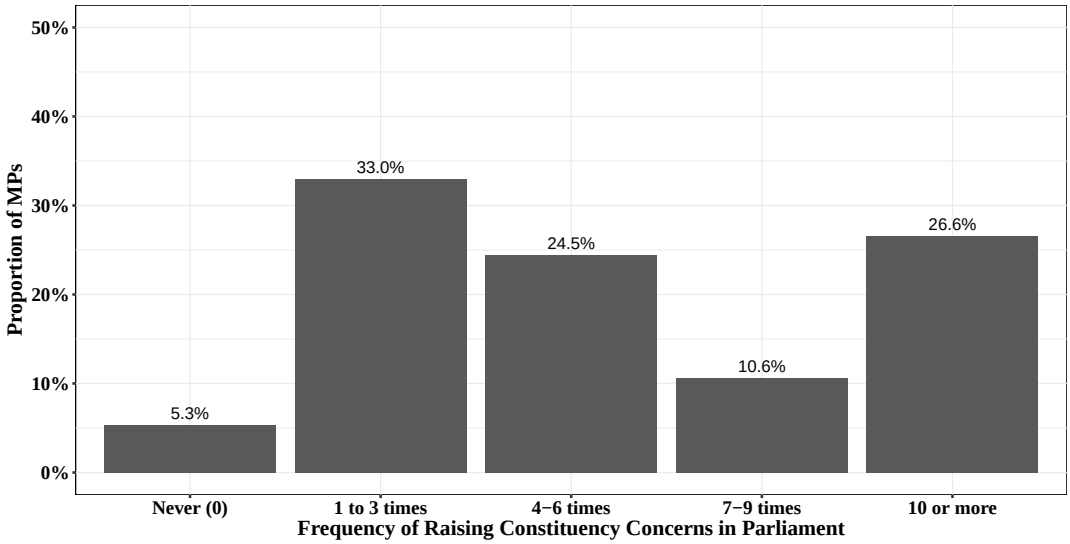


Figure 2.5: Frequency of submitting questions relating to constituency issues

2.4 Electoral competition and constituency service

As noted above, the literature asserts that electoral incentives are the primary motivation for legislator responsiveness. Accordingly, I conclude my analysis by examining the relationship between the behavior of MPs and electoral competition in Ghana. Surprisingly, I do not find a systematic relationship between electoral competition (vote margin) and the proportion of time MPs report to spend on the four core activities (i.e., plenary session, committee work, lobbying for projects, and providing personal assistance) presented in Table 2.2 (results not shown). Similarly, I do not find a relationship between vote margin and the number of times MPs report going home every month. Instead, *distance* is an important determinant of the number of times an MP goes home. The average distance from the capital to constituencies of incumbents in my sample is 206.5 Km with a standard deviation of 72.55 Km. I find that MPs who travel less than 166 Km (the first quantile of the distance variable), on average (median), visit four times a month while those who must travel more than 257 Km (upper quantile) do so twice per month, on average. Those between 166 and 257 km goes three times a month.[22]

However, interesting patterns emerge between electoral competition and constituency service,

[22]The finding is consistent with what Fenno (1978) reports of US Congresspersons.

when we consider how MPs allocate their time when in their constituencies (as in Table 2.3). I code constituencies as competitive if the incumbent won the most recent election by less than ten percentage points. Table 2.4 reports the results. Columns (1) and (2) report the proportion of MPs elected in competitive and non-competitive constituencies, respectively, who chose each activity as part of their top priorities when they visit home. Columns (3) and (4) reports the corresponding median percentages of time those MPs spend on these activities in competitive and non-competitive constituencies, respectively.

Activity	% of MP's		% of MP's Time Allocated	
	Competitive	Non-Competitve	Competitve	Non-Competitive
	(1)	(2)	(3)	(4)
a) Holding one-on-one meetings	67.86	56.06	40	40
b) Holding community meeting	60.71	63.64	40	30
c) Holding meetings with community leaders	32.14	30.30	30	20
d) Holding meetings with party executives	35.71	54.55^{+}	30	30
e) Inspecting constituency projects	25	18.18	30	20
f) Attending social events (e.g. funerals, religious meetings, traditional festivals, etc.)	75	77.27	30	40
N	28	66		

Table 2.4: MPs allocation of time during constituency visits by level of electoral competition

The results indicate that electorally vulnerable MPs are more likely to include and spend more time on activities related to the provision of local public goods when they visit home. Specifically, the results show that MPs elected in competitive constituencies are about seven percentage points more likely to include inspection of constituency projects as part of their top priority activity (a 38 percent increase) than those from non-competitive electoral districts. Also, among MPs choosing to inspect projects, those in competitive constituency spent ten percentage points more time on this task than those from non-competitive electoral districts (a 50 percent increase). Second, while incumbents from competitive constituencies are only slightly more likely (about two percentage points) than their counterparts from non-competitive constituencies to select holding meetings with community leaders, they spend ten percentage points more time on this activity than their electorally safe counterparts. As I indicated above, I assume that such meetings are likely to be about constituency development projects. Incumbents from competitive constituencies also devote more time on holding community meetings with constituents (40 percent compared to 30 percent in non-competitive electoral constituencies).

The results also show a striking difference in the proportion of MPs who spend their time with local party executives. Incumbents elected in non-competitive constituencies, whose reelection success mainly relies on winning party primaries, are about 19 percentage points more likely to place 'holding meetings with party executives' among their top three activities (about a 53 percentage increase). However, among these incumbents I find no difference in the average percentage of time spent in competitive and non-competitive constituencies. The results, however, indicate that the level of electoral competition influences whether incumbents prioritize meeting local party executives when in their constituency.

Finally, while most MPs seem to spend time attending social gatherings, those elected in electorally safe constituencies spend ten percentage points more of their time on this activity, a third higher than that used by incumbents elected in competitive electoral districts (30 percent).

Overall, however, while some of these differences are substantively important, almost all are not statistically significant (with the notable exception of meeting with party leaders at the 10 per-

cent level).[23] Thus, these results suggest that a more intense electoral competition may motivates MPs to dedicate more time to providing constituency service in the form of inspecting constituency development projects. However, these influence of electoral competition may be small or mitigate by other factors including election-day fraud.

2.5 Conclusion

In this chapter, I have reviewed the literature on citizens' expectations of legislators elected in single-member districts in Ghana. Research on legislator behavior around the world points to the electoral system and the electoral connection to explain what role(s) representatives prioritize and the extent to which they are responsive to citizens' demands. Compared to incumbents elected in PR systems, legislators elected in SMDs have greater incentives to prioritize constituency service because, through credit claiming for time and resources spent on constituents, they boost their chances of reelection.

Further, the literature indicates that in Ghana and other developing country settings, constituency service mainly involves the provision of local public goods (community development projects). It also includes regular visits and meetings with constituents to listen to their demands. A considerable share of citizens also demand private goods. In this study, I argue that because the provision of private goods is susceptible to clientelism (or partisanship), scholars be to be cautious in interpreting its provision as an indicator of democratic responsiveness. However, because many citizens prefer the provision of local public goods (locally nonexcludable and nonrival), we can consider its supply as being responsive to the broader electorate.

I show that there exists variation in the level of responsiveness of MPs to constituents' demands for constituency development projects. Within electoral districts, while some MPs spend a significant portion of their time investigating citizens' needs, and planning and supervising development projects, others spend a smaller amount of time. My analysis suggests that MPs who are likely to

[23]The lack of statistical significance in Table 2.3 may be due to number of cases in competitive versus non-competitive constituencies. The results should only be taken as indicative.

face stiff electoral competition dedicate more time to inspecting local projects than their counterparts in safe districts. The results also illustrate that while electoral competition is likely increase the supply of local public goods (conduct of constituency service) by MPs, it need not undermine legislators conduct of their legislation and executive oversight functions.

This chapter also highlights which aspects of legislators' roles we might expect an intervention that improves MPs' electoral incentives to impact. As I suggested at the beginning of this chapter, legislators perform multiple tasks as representatives of citizens. If we simply divide these roles into parliamentary and constituency work, I argue that because citizens prefer the latter, incumbents are likely to increase their provision of constituency service but may not alter their effort in legislative duties.

But what then do politicians give up, in their effort to meet constituents' needs for constituency service, in the face of higher electoral incentives? So far, I have presented politicians a devoting their time to parliamentary work or constituency service. I have also suggested that because MPs have set days in the week and some weeks in year to conduct these activities, their working on one dimension should not necessarily detract from the other. I argue that legislators increase in efforts may come at the expense of their time allocated to their private activities or business and leisure.

Legislators in Ghana (as elsewhere) often pursue private (activities) business to generate outside income. In my interviews, close to 80 percent of Ghanaian MPs reported that they earn a substantial income from other sources (see chapter 4). Accordingly, when parliament is sitting, legislators face a tradeoff between allocating time between legislative work and generating outside income. During parliamentary breaks (recess), they need to decide whether to devote their time to addressing constituents' problems or working on their private ventures. Thus, theoretically, MPs face these tradeoffs and that increasing the quality of elections, which I ague strengthens the electoral connection, incentivize incumbents to tilt the balance in their time allocations in favor of what their constituents' prefer—constituency service.

In the next chapter, I examine the effect of free and fair elections on the responsiveness of politicians (legislators) to the desires of citizens in Ghana. To estimate the effect of fair elections, scholars need to manipulate the quality of election in electoral constituencies in which legislators

are elected. I provide insights from an experimental study that examines the impact of intense election observation on election-day fraud and violence and show that it helps to overcome the challenge of exogenously varying the quality of elections across constituencies. In addition to some of the survey outcomes in this chapter, I employ objective measures of legislator spending (a measure of constituency service) and absenteeism in parliament to estimate the effect of improving the quality of elections, as induced by greater election observation, on the different dimensions legislator roles.

CHAPTER 3

Do Fair Elections Increase the Responsiveness of Politicians?

Democracy advocates contend that, beyond guaranteeing the fundamental democratic principle of political equality, free and fair elections yield tangible benefits for citizens, especially in developing countries (Annan et al., 2012). These concrete benefits include the delivery of public goods and services and reduction of corruption. It is on these grounds that multilateral organizations invest approximately US$5 billion annually to support programs that aim to bolster electoral integrity around the globe (Norris, 2014). Prominent among these programs is the conduct of systematic election observation.[1] A growing number of researchers have provided credible evidence that election observation reduces fraud and violence (e.g. Hyde, 2010; Asunka et al., 2017). However, to date, we have no systematic evidence that election observation, through its influence on election integrity, ultimately affects the responsiveness of politicians during their terms in office.[2] Using an experimental research design and original data on politician spending, I investigate the effects of election observation on political responsiveness in Ghana, a model "third wave" democracy in Africa.

I argue that higher levels of election integrity increase political responsiveness because fair elections limit the ability of politicians to win the polls through outright manipulation. Accordingly, interventions such as election observation that constrain politicians from securing their re-

[1] In this study, I use election observation and election monitoring interchangeably. Also, election observation is defined as the deployment of trained and independent personnel to polling stations to monitor compliance with electoral laws on election day. Other forms of election observation include monitoring the pre-election and post-election environments. In this study, I focus on election-day observation by domestic observation groups because it constitutes a major and visible compenent of election monitoring missions.

[2] I define *electoral fraud* as illegal activities aimed at influencing election results (Lehoucq, 2003), and *political responsiveness* as politicians meeting the needs of their constituents (Powell, 2005).

election through rigging, will encourage them to invest instead in efforts to meet the needs, and win the support, of their constituents.[3]

However, there are at least two theoretical reasons why improved election quality may have no effect on political responsiveness or perhaps increase corruption. First, many efforts to reduce electoral fraud, including the one in this study, are concentrated on election-day balloting and vote-counting processes. Thus, politicians may shift their illegal tactics to the period before election day instead of responding to the needs of citizens. For example, politicians may inflate the voter register with unqualified individuals to boost their chances of reelection (Ichino and Schündeln, 2012). Second, improving election quality may generate negative externalities through increased rent seeking. Incumbents may just discount their reelection in the future and rather increase their rent seeking efforts, exacerbating corruption (Bates, 2008). In spite of these theoretical possibilities, and despite the vast sums spent on programs to promote election integrity, we have limited evidence to support the idea that improved election quality produces concrete benefits for citizens.[4]

The reason that we lack firm evidence is that the causal arrow between election integrity and political responsiveness may point in the opposite direction or a third factor may explain the presence of both. For example, if public-spirited politicians also choose not to employ corrupt practices to secure their election, we cannot necessarily attribute their performance in office to fairer elections. Because of these challenges, scholars have struggled to discern the direction of the causal arrow that runs between fraud and responsiveness.

To overcome these challenges, I leverage a field experiment that randomized the intensity of election observation across electoral districts in Ghana's 2012 elections. *Intensity of observation* is the proportion of sample polling stations within an electoral district that is monitored by observers.

[3]Collier and Hoeffler (2015), for example, argue that the ability of incumbents to use illicit tactics in elections substantially undercuts their incentives to deliver good economic performance.

[4]A handful of cross-national studies examine the relationship between the integrity of elections and government economic performance. However, these studies have produced mixed results on government performance. Specifically, while Collier and Hoeffler (2015) find that fraudulent elections increase the incentives for national governments to deliver good economic performance, van Ham (2009) finds a negative and statistically insignificant association between the integrity of elections and subsequent economic growth. Similarly, Bratton (2013*a*) finds no significant relationship between citizens' perceptions of election integrity and their assessments of politicians' responsiveness in Sub-Saharan Africa.

In Asunka et al. (2017), we randomly assigned 60 constituencies to receive one of three levels of intensity of observation (IO): *low*, *medium*, or *high*.[5] Given that observers reduce fraud, and that greater intensities of observers reduce fraud more, I use the intensity of election observers within a constituency as an instrument for election integrity. To measure the effects of election integrity on responsiveness, I compare the performance of legislators elected in low IO constituencies to those in medium and in high IO constituencies, respectively. Because the intensity of observation was randomized, this allows me to make causal claims about the impact of election integrity on responsiveness.

It is equally challenging to measure politicians' responsiveness, because doing so involves linking incumbents' decisions to citizens' preferences. To measure responsiveness, I use new data on Members of Parliament's (MPs) spending of their state-provided individual Constituency Development Funds (CDFs). MPs must exert a significant amount of effort to use their funds to provide constituency service and public infrastructure because doing so involves satisfying a set of bureaucratic regulations.[6] Also, analyzing CDF spending provides an opportunity to examine what types of voter preferences politicians prioritize. MPs have discretion over the use of their funds; they may construct local public goods or simply offer private benefits to constituents. The availability of these data allows me to assess the proportion of funds legislators spend on both public goods and private benefits with the expectation that greater spending on public goods is indicative of high responsiveness. For these reasons, CDF spending is an appropriate measure of legislator effort on behalf of citizens.

To examine whether higher-integrity elections reduce corruption, I consider how MPs access their CDFs. Legislators deploy funds in one of two ways: by applying to their local governments or by writing to the national fund administrators for a reimbursement. Working with the local government requires politicians to comply with national procurement laws. However, the national fund administrators do not apply procurement regulations and reimburse MPs with minimal oversight.

[5]The IO for *low*, *medium*, and *high* are 30, 50, and 80 percent of sample polling stations within constituencies, respectively.

[6]Prior work in India finds that representatives often do not make use of their funds unless they face high levels of electoral competition (Keefer and Khemani, 2009)

This opens up opportunities for corruption.[7]

My results are fourfold. First, I find that politicians elected in more intensely monitored elections use higher shares of their allocated CDFs, which implies that they exert greater levels of effort to meet constituents' demands. Politicians elected in medium IO constituencies spend ten percentage points more of their total funds compared to MPs in low IO constituencies. Ditto for those elected in high IO constituencies compared to low IO constituencies. Second, I find that MPs elected in intensely monitored elections spend eight percentage points more of their funds on public infrastructure projects. Third, across treatment conditions, MPs allocate a similar proportion of their funds to provide private benefits. Taken together, these findings imply that the significant differences in the level of total expenditure among legislators are driven by greater levels of spending on public goods, and not spending on private benefits, by MPs in higher IO constituencies. Finally, I find that politicians elected in medium and high IO constituencies are 46 percentage points more likely to access their funds through channels that require compliance with national procurement laws. This demonstrates that legislators elected in fairer polls are more likely to adopt good governance practices when using their funds.

The effects I find are most consistent with the *sanction mechanism* model of electoral accountability (Ferejohn, 1986). Theoretical work suggests that elections may influence the performance of politicians through two main channels: *selecting* "better" quality candidates and *sanctioning* poor performance (Fearon, 1999). Using data from a survey I conducted with MPs, I provide evidence to suggest that because politicians saw rigorous election observation, which they say is effective in reducing fraud in their constituencies, they estimate that future rigging will be futile. Such expectations may explain the improved performances of politicians elected in intensely monitored constituencies. Indeed, I find no systematic evidence that the intervention affected the number of candidates or the observable qualities of those who were ultimately elected, which would indicate

[7]In their review of the operation of Ghana's CDF, King et al. (2003) report that the administrator of the fund requires that MPs submit their expenditure plans and request for payments to their local governments. The aim is to mitigate abuse of the funds by ensuring compliance with the national procurement laws that the local government payment system requires. As the data shows, and as I learned from my interviews, the fund administrator does not strictly apply these regulations, allowing MPs to make direct purchase from self-selected vendors.

a selection effect (Besley, 2005).[8] Also, I find no support for an alternative explanation that suggests that high-intensity observation may have heightened citizens' pressure on and oversight of politicians to supply public goods and services.[9]

With this study, I make four contributions to the literature. First, this paper is, to my knowledge, the first to show that rigorous election monitoring, by decreasing fraud and violence, also produces a downstream causal effect on the responsiveness of politicians, suggesting that increased election integrity generates concrete benefits for citizens. This breaks new ground in providing empirical support to justify the billions of dollars that the international community dedicates to promoting electoral integrity. My work complements existing research that shows that electoral integrity matters for outcomes such as political participation (Birch, 2010; Hyde and Marinov, 2008), regime legitimacy (Birch, 2008; Berman et al., 2014; Hall, Hyde and Wellman, 2015), and stability (Hyde and Marinov, 2008). Second, I contribute to the literature on election observation. I show that observers can affect political outcomes long after the election day itself. I therefore extend prior work that focuses on the effect of observers before the polls (Ichino and Schündeln, 2012), and on election day at the polling station level (Hyde, 2008, 2010; Sjoberg, 2012; Enikolopov et al., 2013; Asunka et al., 2017). Third, a large literature asks under what conditions politicians "give up" clientelism (Lindberg and Morrison, 2008; Young, 2009*b*; Weitz-Shapiro, 2012; Fujiwara and Wantchekon, 2013). As far as scholars take the distribution of private benefits as clientelistic, I show in this case that fairer elections neither exacerbate clientelism nor reduce it, but they do increase spending on local public goods. Finally, I contribute to the literature on electoral accountability, which to date has only considered institutional determinants of political responsiveness such as term limits, electoral systems and rewards (wages) from office (see Ashworth, 2012). I explore the effects of electoral fraud and demonstrate that, beyond formal institutional rules, election manipulation also affects democratic accountability.

[8] See Section 3.6 for details.

[9] This also obviates concerns that the effect of election observation may have worked to improve performance of politicians through channels other than its effect on election day fraud and thus violating the exclusion restriction assumption of my instrument (See results in Table B.4.4 in Appendix B.4).

3.1 Electoral integrity and the responsiveness of politicians

Democracy advocates believe that free and fair elections are essential for government legitimacy and for improving politicians' responsiveness to citizens. While the influence of electoral integrity on government legitimacy has received some attention in the literature, the effect of high-quality elections on responsiveness has only received limited consideration. The underlying assumption in the connection between cleaner elections and responsiveness is that the extent to which politicians can rig elections influences their incentives to cater to the demands of citizens (e.g. Collier and Hoeffler, 2015). I assume that politicians are office-seeking. While in office, I argue that incumbents can meet their re-election goals by choosing to exert effort on behalf of constituents or by engaging in fraud. When it is easy for politicians to engage in fraud, they can reduce the time they spend responding to their constituents. Instead, incumbents can fulfill their reelection goals by just bribing voters, party workers, and election officials rather than providing constituency services. However, if an intervention, such as election observation, limits their ability to engage in fraud, they would need to exert more effort to satisfy citizens' needs to retain their positions. Accordingly, democracy promoters believe that higher levels of election quality incentivize politicians to be more responsive to the demands of citizens. In essence, if you cannot steal votes, you must earn them.

By definition, responsiveness, which involves doing what voters want, is context-specific. Voters in developing countries may demand a different form of representation from their elected officials compared to citizens in developed countries. Politicians in developed countries are generally considered to be responsive if they take positions on policy issues that are similar to that of their constituents (see Miller and Stokes, 1963; Fiorina, 1974; Peress, 2013). Of course, many scholars have also considered the focus of politicians elected in single-member districts on constituency service including the provision of 'pork' to 'cultivate personal vote' in advanced democracies (see Fenno, 1978; Searing, 1994). However, in developing countries, some studies suggest that voters primarily demand the delivery of local public infrastructure and personal benefits from politicians.

In such contexts, being responsive implies providing concrete benefits to constituents.[10] Therefore, to examine responsiveness, we first need an understanding of what voters want.

Unfortunately, there is no consensus on what inform voter choice in elections in young democracies, including those in Sub-Saharan Africa. In fact, there are two views on the subject. The dominant view of African politics is that it is clientelistic—a system of politics where an individual or a group's access to resources is contingent on their provision of political support (Hicken, 2011). According to this view, in African elections, votes are exchanged for cash or gifts, or given freely for political backing and ethnic loyalties (van de Walle, 2003; Kramon, 2013). Scholars find that voters are more responsive to clientelistic than to programmatic appeals (Wantchekon, 2003), and are more likely to turn out at the polls in response to vote buying (Vicente and Wantchekon, 2009). Several scholars have also shown evidence of voting based on ethno-regional identities (see Mozaffar, Scarritt and Galaich, 2003; Posner, 2005; van de Walle, 2007). Second, an emerging body of work argues that performance evaluation plays a role in determining voters' choice in Africa. According to this view, African voters grant their votes to politicians in exchange for local public goods and services. Indeed, pressures to provide public goods leads politicians to engage in projects that are easily attributable to political action, such as the construction of local roads (Harding, 2015; Kim, 2016).

Accordingly, these two views lead to two main predictions about the type of effort to expect from reelection-seeking politicians in response to an increase in election quality. If politics is clientelistic, then cleaner elections might exacerbate such practices. If voters prefer private benefits in exchange for their votes, then it is reasonable to expect that responsiveness will take the form of politicians providing more private goods to citizens. Accordingly, in this settings, higher-integrity elections may increase the provision of private benefits to citizens.

The second view leads to a different prediction. If voters use elections to evaluate incumbents' records of providing public goods, then we would expect higher quality elections to generate responsiveness to these demands. In particular, politicians would deliver more roads, schools, clinics,

[10] See chapter 2.

and toilets to their constituents, goods that are likely to be attributed directly to their political action and thus enhance their reelection prospects. Therefore, higher-integrity elections would increase the provision of public goods to citizens.

However, there is also a third possibility; politicians may deliver a combination of public and private goods (Asante, Brobbey and Ofosu, 2011). The few studies on legislators in Africa suggest that they face enormous pressure to supply both types of goods (Lindberg, 2010; Hyden, 2010). Therefore, it is possible that politicians would increase the provision of both types of goods. The more savvy politicians may, however, weight the electoral benefits of these goods. For example, Lindberg (2010) reports that some Ghanaian legislators are beginning to realize that providing private benefits does not have a high electoral payoff, especially in urban areas. Accordingly, they dedicate more of their resources to the provision of public goods.

Yet, two theoretical considerations may complicate the relationship between election integrity and the responsiveness of politicians. First, the integrity of election-day processes may not affect the responsiveness of politicians because incumbents can choose other manipulation strategies before the polls. The literature on election fraud suggests that election fraud can occur at different stages of the electoral process: *pre-election*, *election day*, and *post-election* phases (Elklit and Reynolds, 2005). Incumbents bent on rigging the polls may just manipulate the process before election day (Ichino and Schündeln, 2012; Daxecker, 2014). Accordingly, in anticipation of interventions such as the election-day observation that would reduce the opportunities for fraud, incumbents can shift their illicit activities to the pre-election period and avoid exerting effort on behalf of citizens. This implies we will find no relationship between improvements in election-day integrity and political responsiveness. A second possibility is that higher-integrity elections may lead incumbents to increase rent-seeking from office, leading to corruption. When incumbents deem their reelection chances dim because they cannot win in clean elections, they may grab rents while in office (Bates, 2008).[11] Accordingly, higher-integrity elections may exacerbate corruption. At the same time, office-seeking incumbents may limit their rent-seeking, if that enables them to

[11]The logic here is similar to that of the scholarship on term limits. Scholars have found that in many cases when incumbents are term-limited, they have fewer incentives to provide services to their constituents (e.g., Ferraz and Finan, 2011; Christensen and Ejdemyr, 2016).

provide better public goods and service to constituents.

The politicians I analyze in this study are legislators elected from single-member districts. Across the world, legislators perform four core functions: legislation, executive oversight, constituency representation, and constituency service. However, recent studies in Africa show that voters do not place equal weight on each of these functions. For example, a majority of citizens in sub-Saharan Africa say in public opinion surveys that they want their legislators to provide them with local public goods and services, visit them regularly and listen to their concerns, and bring their concerns to the national arena. Voters place less emphasis on legislators' role in lawmaking and oversight of the executive (see Barkan et al., 2010; Lindberg, 2010, 2013; Weghorst and Lindberg, 2013; Barkan and Mattes, 2014). Some voters also request personal benefits, especially party activists and workers (Lindberg, 2010). In light of these studies, I use a combination of data to examine the impact of the integrity of elections on how legislators respond to different citizens' demands as well as the potential for incumbents to rent-seek.

3.2 Electoral politics and election fraud in Ghana

Ghana is an ideal setting to study the effect of elections because the level of competitiveness and turnover means that politicians have real incentives to think about how they use their resources when seeking reelection. Similar to many other countries, the country adopted multiparty elections in the early 1990s. Ghana's 2012 general elections, which elected the 2013-2017 Parliament, were the sixth since the country's return to multiparty politics in 1992.[12] Ghanaian legislators are elected for four-year terms from single-member districts using plurality rule. There are no term limits for MPs. Currently, the Parliament is composed of 275 members.[13] Of these, 148 belong to the ruling National Democratic Congress (NDC), 123 to the main opposition party, the New Patriotic Party (NPP), and one to the People's National Convention. There are also three independent MPs.

[12]Ghana held concurrent presidential and parliamentary elections in 1992, 1996, 2000, 2004, and 2008.

[13]The number of MPs has increased since 1992. Between 1993 and 2004, there were 200 MPs. The number rose to 230 in 2005 and 275 in 2012.

The NPP and NDC have dominated Ghanaian electoral politics since 1996 with the two parties controlling over 98 percent of seats.[14] Parliamentary races are increasingly competitive. Between 1996 and 2012, the average vote margin declined by about 11 percentage points, which represents a 38 percent decrease. Also, between 2000 and 2012, the average turnover rates for incumbents seeking reelection was 24 percent. Scholars have noted similar high turnover rates in many African legislatures (e.g. Barkan and Mattes, 2014; Opalo, 2017).[15]

While Ghana is touted as a democratic success in sub-Saharan Africa, several studies suggest that the country's elections are often characterized by fraud and violence (Gyimah-Boadi, 2007; Jockers, Kohnert and Nugent, 2010; Ichino and Schündeln, 2012; Straus and Taylor, 2012; Asunka et al., 2017). These studies suggest that the prevalence of fraud and violence in Ghanaian elections may be explained by the rewards politicians receive from office and the ability of politicians and their agents to avoid prosecution for engaging in illicit electoral practices. On the former, the literature suggests that the enormous benefits and patronage resources that elected officials receive from office ensure that politicians are willing to adopt illicit tactics including rigging and violence to win a seat in Parliament (Gyimah-Boadi, 2009; Ninsin, 2016).[16] On the latter, the 2012 general elections is a case in point. Following the polls, the main opposition party (NPP) filed a petition in the country's Supreme (highest) Court pointing to several irregularities in the polls. While the Supreme Court eventually acknowledged some of the allegations in its verdict, no official or party was indicted, and the case was dismissed, suggesting that politicians may use fraud and violence

[14]The NPP, then the opposition, boycotted the December 28, 1992 Parliamentary elections accusing the incumbent NDC of rigging the presidential polls held earlier in November 3, 1992. In the 1992 elections, the NDC was led by Jerry Rawlings who seized power in the early 1980s in a military coup. Thus, Ghana's First Parliament of its Fourth Republic was a single-party deliberative chamber.

[15]According to my calculation, the overall turnover rates for the Ghanaian Parliament between 2000 and 2012 is 45.38 percent (i.e., either losing through party primaries or general elections), and the average percentage of seats changing between parties averaged 22.45 percent (Election data from Ghana's Electoral Commission). In my calculation, I use the official list of MPs who appeared on the official ballots for reelection.

[16]In 2012, the salary of MPs was increased from $2,225 to $3,800 a month, which is fifty times the monthly minimum wage of $70 and more than seven times the average monthly salary of civil servants, such as teachers ($500) (see `http://www.bbc.com/news/world-africa-20188452`). Beyond their salaries, MPs are also entitled to *ex gratia* after each term in office. In 2013, those who served in the 2009-2012 Parliament received $138,000 (GHC276,000) each in *ex gratia* payments (see `http://www.graphic.com.gh/news/politics/mps-receive-gh-47-million-as-ex-gratia.html`, accessed July 12, 2016.)

while facing little risk of punishment. Accordingly, fraud and violence are viable options for officeholders who face stiff competition or simply seek to ward off strong competitors.

To curb electoral fraud, civil society groups, with support from international donors, have monitored the country's elections since 1996. Prominent among these groups is Ghana's Coalition of Domestic Election Observers (CODEO). Since its formation in 2000, CODEO has observed all of the country's general and local government elections. The group is now composed of about 34 independent civil society organizations including religious, professional, and student bodies. In 2012, CODEO deployed about 4,000 observers to polling stations around the country on election day.[17] Similar to other election observation missions, CODEO's aim was to promote the integrity of the electoral process and strengthen political accountability. At the time of the December, 2012 elections, my collaborators and I leveraged CODEO's observation mission to measure the effects of election observers on indicators of election day fraud and violence (Asunka et al., 2017). In collaboration with CODEO, we randomized the intensities of observers across electoral constituencies. I suggest that such random assignment of the intensity of election observation across constituencies provides exogenous variation in election integrity. Accordingly, Ghana provides a unique setting for this initial study of the causal link between election integrity and democratic responsiveness.

3.3 Reseach design

3.3.1 Intensity of election observaton as instrument for election integrity

To examine the causal effect of election integrity on the responsiveness of politicians, I need to find a way to manipulate the quality of elections exogenously. I employ a system of randomized intensity of election observation in electoral constituencies from which voters elect legislators as my instrument for election integrity. In this section, I show a negative causal relationship between the intensity of election observation and indicators of election day fraud and violence, providing

[17]The United States Agency for International Development (USAID) supported CODEO's observation mission with US$1.2 million in the 2012 elections `http://ghana.usembassy.gov/peaceful_elections.html`, last accessed, July 28, 2016.

evidence for the *relevance* of my instrument for the quality of elections within constituencies.

3.3.2 Experimental design

In Asunka et al. (2017), my collaborators and I use a randomized saturation experimental design to study the impact of election observation (Baird et al., 2012). The design randomly placed observers at about 1,300 polling stations, with the concentration of observers varied across 60 constituencies. Ghana's ten regions are divided into 275 electoral constituencies. Many polling stations are nested within each constituency. On average, 94 stations with a standard deviation of 34 are located within a constituency. We selected four regions— Ashanti, Central, Volta, and Western. These four regions contained 122 electoral constituencies. We selected 60 to from our study sample. We chose these regions to allow for a mix of competitive and non-competitive constituencies. Ashanti and Volta are the historic strongholds of the two major political parties, NPP and NDC, respectively, while Central and Western are electorally competitive. Of the 60 constituencies in our sample, 23 were competitive. We coded constituencies as competitive if the vote margin between the two presidential candidates in the 2008 presidential election was less than ten percentage points.[18] Table B.1.1 in Appendix B.1 shows the summary statistics of constituencies in the country, those in the four study regions, and those in the sample for some electoral and socio-economic characteristics. The summary statistics show that the sample of 60 constituencies is broadly representative of both the study regions and the country as a whole.

3.3.3 Two-stage randomization of observers

The experimental design involves a two-stage randomization of treatment (i.e., observation). In the first stage, we assigned the 60 constituencies in our study to one of three *intensity of observation*

[18]We used the 2008 presidential elections to code the level of electoral competition. There is a high correlation between presidential and parliamentary results at the constituency level. In 2012 the correlation between NPP presidential and parliamentary results at the constituency level was 0.942 and that of the NDC was 0.897. Also, while 10 percent margin may seem significant in some contexts, it is a margin that is frequently overturned in Ghanaian elections. For those constituencies in which a different party won a majority in the presidential election in 2008, and 2004, the average margin of victory in 2004 was about 12 percent.

(IO) levels: *low*, *medium*, or *high*. We then randomly sampled 30 percent of polling stations from our selected constituencies to form our study sample. In *low* intensity constituencies, CODEO agreed to send observers to 30 percent of polling stations in the sample. In the *medium* and *high* intensities, CODEO deployed observers to 50 percent and 80 percent of polling places of the study samples, respectively. We assigned the 60 constituencies to low IO with 20 percent probability and to medium and high IOs with 40 percent probabilities.[19] Accordingly, 13 constituencies are assigned to low IO, while 24 and 23 were assigned to medium and high, respectively. Figure 3.1 shows the treatment conditions of constituencies in the sample.

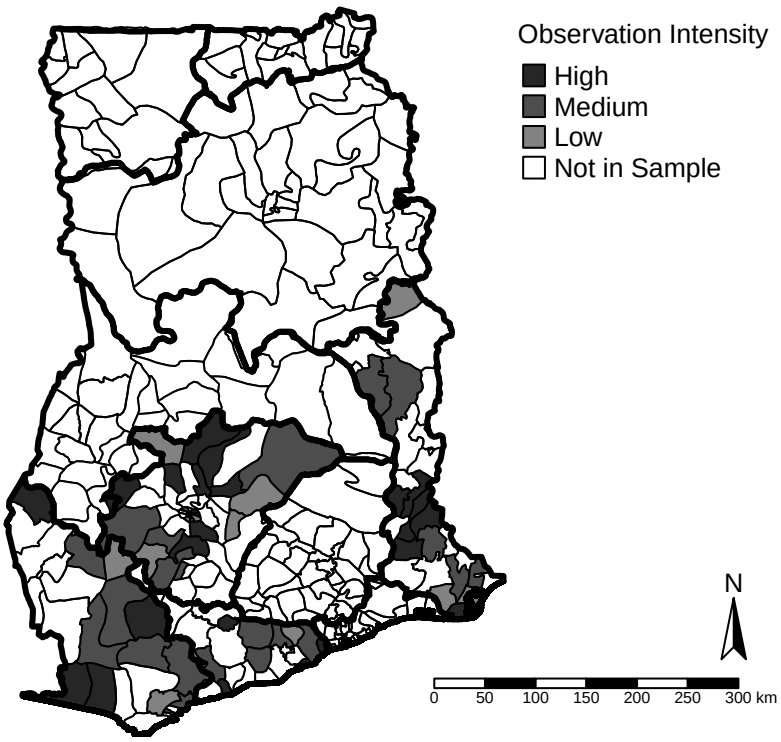


Figure 3.1: Map of Ghana: treatment conditions of constituencies

In the second stage, we assigned our sampled polling stations nested within each of the 60 constituencies to treatment (i.e., *observation*) with probabilities based on the intensities assigned

[19]Our decision to adopt these probabilities was based on how we compute spillover effects of observers. To estimate spillover effects, we compare average outcomes of fraud measures in control units in the low-intensity observation constituencies to controls in the medium and high electoral districts. Since there are relatively few control stations in the higher intensity constituencies, we assigned more constituencies to the medium and high conditions. This increases our statistical power to detect spillover effects.

to their constituencies in the first stage.[20] There were 2,310 polling stations in the sample and 1,292 were assigned to treatment.

3.3.4 Measuring the total causal effect of intensity of observation on electoral fraud

To estimate the total average causal effect of observers at the constituency level, TCE, I compare the average fraud and violence outcomes for all stations (treated and control) at medium (high) IO constituencies to the average outcome in control units in low IO constituencies. The control stations in the low IO constituencies serve as the estimate of the level of fraud in the absence of observers at a given IO taking into account potential spillover effects.[21] Thus, I calculate the $TCE(m)$ as follows:

$$TCE(m) = E(Y_{ij}|M_j = m) - E(Y_{ij}|T_{ij} = 0, M_j = low)$$

where $E(Y_{ij}|M_j = m)$ is the average level of fraud or violence for polling station i located in constituency j with intensity of observation $m \in \{medium, high\}$. $E(Y_{ij}|T_{ij} = 0, M_j = low)$ measures the average outcome for all control stations in low IO constituencies. $T_{ij} = t$ represents the treatment status of polling station i located in constituency j, where $t \in \{\text{treated} = 1, \text{control} = 0\}$. [22]

[20] The actual concentration of observers in a constituency is, therefore, lower than the assigned intensities. Let PS represent the total number of polling stations in a constituency and $m \in \{0.3, 0.5, 0.8\}$ represent the assigned intensity of observation. Then the proportion of stations assigned to treatment in a constituency is $m * 0.3 * PS$.

[21] Spillover effects occur when in the presence of observers at a given station, perpetrators of fraud shift their activities to unmonitored stations (i.e., displacement or positive spillover effect) or desist from such acts in unmonitored stations with the assumption of heightened oversight by observers (i.e., deterrence or negative spillover effects). The saturation design helps to account for such potential spillover effects to estimate the unbiased effect of observers. The control polling stations in the low IO constituencies are less susceptible to such spillover effects and thus serve as "uncontaminated" counterfactual units. The direct and spillover effects of observers are presented in Asunka et al. (2017). Here I focus on the overall effect of observers within constituencies, which the relevant quantity of interest. It answers the question: taking the potential (negative and positive) spillover effects of observers, do polling stations in constituencies with higher intensity of observation have lower levels of fraud?

[22] Based on the operational structures of political parties in Ghana, I assume that spillover effects will be confined within constituencies. That is, I assume no interference across constituencies (see Asunka et al., 2017).

3.3.5 First-stage results of treatment

Table 3.1 reports the treatment effect of IO on fraud and violence. I include the results for indicators of fraud and violence, *turnout* and *intimidation of voters* during voting, reported in Asunka et al. (2017). I extend these findings to estimate the treatment effect of observation on the vote counts for the major parties: *Logged NDC votes* and *Logged NPP votes*. To be sure, turnout and vote counts for parties are not fraudulent in themselves. These outcomes only serve as indicators of fraud insofar as they systematically vary with randomly placed observers. That is, in the absence of fraud in the form of multiple voting and ballot stuffing, we should expect similar turnout rates and vote counts for parties, on average, in treated (monitored) and control (unmonitored) polling stations.

The last two columns (4 and 5) report the TCEs for increasing the IO from low to medium, and from low to high, respectively. I confirm that increasing the intensity of election observation reduces fraud at polling stations within these constituencies. Specifically, increasing the IO from low to medium reduces turnout by 5.6 percentage points. The treatment decreases turnout by 4.5 percentage points at polling stations in high IO constituencies. Similarly, increasing a constituency's IO from low to high reduces the incidence of intimidation of voters during voting at polling stations by 4.5 percentage points. I find neither substantive nor statistically significant decrease in such incidents in the medium IO constituencies.

Turning to vote counts for the two major parties, I find that an increase in IO reduces both of the main parties' overall vote counts at polling stations within constituencies, on average, which suggests that election observation reduced the ability of candidates and agents from both parties to commit fraud. In particular, I find that increasing the IO from low to high leads to a 14 percent decrease in the (geometric) average number of votes cast for the NPP and 11 percent for the NDC. As suggested above, the two parties have dominated Ghanaian politics since 1996 and have strong organizational capacity on the ground to commit fraud. Therefore, the results suggest that the effects of observation were not confined to candidates from particular parties, providing good grounds to examine the behavior of all legislators irrespective of party affiliation.

In sum, these first-stage results suggest that increasing the intensity of observation in a constituency reduces overall levels of fraud and violence. Further, they justify using IO as an instrument for the integrity of elections.

	Intensity of Observation			Total Causal Effect	
Fraud indicators	Low	Medium	High	Medium	High
Turnout	0.889	0.833	0.841	-0.056**	-0.048**
	(0.022)	(0.010)	(0.008)	(0.024)	(0.024)
Intimidation during voting	0.102	0.098	0.057	-0.004	-0.045*
	(0.025)	(0.012)	(0.008)	(0.028)	(0.026)
Log NPP votes	5.104	5.076	4.952	-0.028	-0.151*
	(0.085)	(0.034)	(0.037)	(0.092)	(0.093)
Log NDC votes	5.255	5.271	5.140	0.016	-0.116*
	(0.056)	(0.026)	(0.029)	(0.062)	(0.063)
N	163	676	766		

Table 3.1: Higher-intensity of election observation reduce constituency-level fraud and violence

Notes: I use four indicators of electoral fraud and violence: *turnout*, *NPP votes (log)*, *NDC votes (log)*, and *intimidation during voting*. The unit of analysis is the polling station. For each indicator, Columns 1, 2, and 3 reports the mean and standard errors (in parentheses) for polling stations located in constituencies in low (control units), medium (treated and control units), and high (treated and control units) election observation intensities, respectively. Columns 4 and 5 shows the *Total Causal Effect (TCE)*, the *overall effect* of observers within constituencies monitored at medium and high intensities, respectively. *TCEs* is the difference-in-means estimates for constituencies in low and medium IOs, and in low and high IOs. In calculating these estimates, each unit (polling station) is weighted by the inverse of its treatment probability. Standard errors of the difference-in-means estimates are reported in parentheses. Data source: Asunka et al. (2017). $^{*}p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

3.4 Measuring the responsiveness of legislators: the use of CDFs

Measuring the responsiveness of legislators to voters' demands is difficult because their actions are often not directly observable. Accordingly, scholars rely on different proxies to measure lawmakers' levels of effort. Such proxies have included: legislators' subjective assessment of their priorities for constituency service (Heitshusen, Young and Wood, 2005); committee membership, on the assumption that membership of some committees facilitates legislators' abilities to provide benefits to their voters (Stratmann and Baur, 2002); and sponsorship of relevant legislative bills (Schiller, 1995; Wawro, 2001). As Keefer and Khemani (2009) argue, while these proxies are

useful measures of legislator activity, they hardly tell us the actual amount of work an individual representative does, and who directly benefits.

To obtain a more direct measure of MPs' efforts, I measure responsiveness using legislators' spending of their Constituency Development Funds. The central government allocates equal amounts of money in CDFs to help MPs provide services and public infrastructure within their constituencies each year. For instance, in 2014, each Ghanaian MP was allocated GHC 348,667 ($93,727). Unspent funds are rolled over to the next year. MP spending of CDFs is an appropriate measure of responsiveness for two reasons.

First, MPs have to exert a significant amount of effort to use their funds. For example, to construct a bridge or repair a road in a local community, an MP must submit at least three price quotations from different vendors (Section 43 of the Public Procurement Act 663, 2003). The CDF regulations require MPs to pass their plans and all their payments through their local governments, which maintain the accounts to which the Fund Administrator (FA) deposits disbursed funds. The mayor and the procurement entity of the local government will then approve payment for the winner of the bid. These processes take time and energy.[23] In the case of providing personal assistance such as paying school fees or medical bills of individual constituents, MPs must write letters providing reasons for the requests and the lists of selected recipients. Because MPs can decide to use or not use their funds, aggregate levels of fund spending provides a useful proxy of effort. In this regard, this study joins an emerging literature that uses politician spending of CDFs or other central government's transfers in their electoral districts as measures of responsiveness (e.g. Keefer and Khemani, 2009; Chong et al., 2014; Harris and Posner, 2017)

Second, when MPs decide to use their funds, they have discretion over the allocation. They can either decide to provide public goods or private benefits to their constituents. Data on how MPs allocate their funds provide an avenue to examine which types of citizens' demands they prioritize. In settings such as Ghana, where scholars argue that legislators face enormous pressure to provide

[23]Indeed, this requirement often results in rancorous relationships between MPs and their local governments because some legislators attempt to circumvent such laws. For example, see `http://www.myjoyonline.com/politics/2016/may-14th/mp-and-suhum-mce-haggle-over-release-of-common-fund.php`, last accessed, May 14, 2016.

clientelistic goods, politicians may use CDFs to provide benefits to their supporters (Van Zyl et al., 2010). A legislator may, for example, allocate her funds to friends or party supporters under the pretext of "self-help" projects. Therefore, I consider the proportion of funds that each legislator spends on public goods and private benefits with the assumption that spending on the former is more responsive to the demand of more voters.

Beyond the level of spending, and how legislators' allocate their funds, I consider the way in which MPs access their funds. As I mentioned above, legislators are required to follow the national procurement regulations when they use their funds. In practice, I find from my interviews with administrators of the fund, as well as the data I was provided, that some legislators do not always comply with the national regulation.[24] Sometimes, they access their funds by writing directly to the national fund administrators for a reimbursement. The national administrators do not apply procurement regulations and instead reimburse the companies from whom the MP states they have purchased items. The consideration of procurement method is important in this context because the CDF in some cases can be an avenue for corruption. MPs, for example, may channel funds to their favorite contractors, who in turn help finance their campaigns (Brierley, 2016). Therefore, I complement CDF spending with data on the *method* through which legislators access their funds under the expectation that MPs who work through the local government are more responsive because this method reduces the risk that funds will be misappropriated (King et al., 2003, pg. 26).

I gained access to the official expenditure records of legislators from the administrators of the CDF for the 2014 fiscal year. These are monthly ledger records of legislator spending on various items for the period. I digitized these records from the paper accounts. I then constructed an original database on how MPs' allocate their funds among five principal expense categories: *personal assistance* to constituents (e.g., school fees, medical bills, business support, roofing of house, etc.); *local public goods* (e.g., construction or repairs of local roads, construction or rehabilitation of schools and clinics, streetlights, and bridges); *monitoring of constituency projects and office expenses*; *transfers towards local government projects and activities* (e.g., funds for national independence day or farmers day celebration); and *donations to support local groups to under-*

[24]Interview with staff at the District Assembly Common Fund (the administors of the CDF) , December 17, 2015.

take projects or activities (e.g., traditional authorities, religious groups, and youth associations). A last category of expenditure, which I code as *unclear*, are expenses for which the purpose or beneficiary was not clear from the ledger. In the Appendix, section B.2, I provide my coding rules (Table B.2.2) and show examples of the expenses sheets (Figures B.2.1 and B.2.2), as well as the summary statistics of these data (Table B.2.3).

In general, I code MPs' allocations that benefit individuals as private goods and those that serve communities as public goods. However, the purpose of expenses that went towards supporting MPs' local government activities or projects is hard to determine from the books. In some cases, the records show that these amounts paid were to support activities organized by the local governments, while in other instances they are reported as 'loans' deducted from an MP's CDF account to his or her, perhaps cash-strapped, local government. These expenses may be an MP's support towards local public goods provision, but because the local government implements such activities, I consider them as separate. Also, MPs' payouts to groups only benefit the stated identifiable groups (clubs) within their constituencies, and do not necessarily benefit entire communities. Some of the expenses in this category may serve patronage purposes but may also be intended to help build skills and sports development especially of the youth.

Monitoring and office expenses provide insight on MPs' personal activities in their constituencies. These expenses are for inspecting the implementation of development projects in MPs' constituencies and operating an office (including staff salaries) where citizens can visit instead of going to an MP's political party office or residence. Such expenses indicate an MPs' dedication to constituency services and listening to constituents needs. Although I do not verify these expenditures in the field, they provide a useful measure of constituency services.

3.4.1 Balance statistics

Before I report the results of the effect of the intensity of observation on the responsiveness of politicians, I show the differences- in-means tests for a set of covariates across the three levels of assigned treatment (i.e., *low*, *medium*, or *high*). Table B.1.2 in Appendix B shows the covariates

balance statistics of the sample constituencies across the different treatment conditions in my sample. It is important to note here that, on average, across the three treatment arms constituencies had an equal number of candidates (4.5) contesting in the 2012 polls, suggesting the IO did not influence the number of candidates. I return to this fact in section 3.6. Also, across treatment arms, constituencies are equidistant from the Parliament house in the capital (about 183 kilometers), which suggests that elected MPs would have to travel similar distances to visit their constituencies, on average.[25] There is also balance across treatments on citizens' assessment of the performance of the previous MP on constituency service, as well as support for the major parties.

3.5 Effect of intensity of election observation on the responsiveness of legislators

I estimate the intention-to-treat (ITT) effect of the intensity of observation on the responsiveness of legislators.[26] Specifically, I compare the average outcomes for representatives elected in constituencies randomly assigned to medium (high) intensity of observation to those elected in low. The random assignment of intensities of observation allows me to interpret any significant differences as the causal effect of higher-intensity observation on my outcome measures. Formally, let $Y_i(M_i)$ denote the outcome of interest for legislator i elected from a constituency with an intensity of observation M. I estimate:

$$ITT(m) = E[Y_i \mid M_i = m] - E[Y_i \mid M_i = \text{low}]$$

[25] Scholars find that the distance to an MP's district influences how often they visit, which indicates levels of constituency service (e.g., Mayhew, 1974). This also holds in the case of Ghana as discussed in chapter 2.

[26] While I use the intensity of observation as an exogenous instrument that influences the outcome of interest, "election fairness," I use the reduced form of the ideal Two Stage Least Squares (2SLS). Ideally, one would estimate the Local Average Treatment Effeect (so-called LATE). The ITT is appropriate in this context because there are no direct measures of the overall "election fairness" at the constituency level. Nevertheless, I have shown above that polling stations located in higher IOs constituencies had, on average, lower levels of fraud and violence. The IO therefore serves as a weak intrument for election fairness (see Chernozhukov and Hansen, 2008) and the results can be interpreted as a lower bound estimate of the intensity of observation on responsiveness.

where $m \in \{medium, high\}$ is the treatment condition (IO) of constituencies, which elected the respective legislators. Ideally, one could compare politicians elected in medium IO constituencies to those in high IOs. However, I do not have statistical power to detect differences between medium and high.

3.5.1 Intention-to-treat effect of intensity of observation on the utilization of CDFs

Before presenting results for the ITT effects of IO on the use of the CDF, I first show the breakdown of the average amounts spent by legislators on the various expenditure categories by treatment. Table 3.2 displays three interesting patterns. First, MPs elected from intensely-monitored constituencies spent more of their allocated funds. Specifically, MPs elected from medium and high IOs paid out $22,594 and $21,267, on average, respectively, while those from low IO spent only $12,451. Insofar as the level of expenditure is indicative of an MP's effort, higher-integrity elections appear to increase responsiveness.

Second, when I break down the total expenditure into categories, I find that MPs elected from highly monitored constituencies spent more of their CDFs on local public goods. However, MPs across the different treatment levels appear to spend equal amounts on personal assistance (with those in medium IO constituencies spending slightly more). Finally, MPs elected in higher-integrity elections donate more to organized groups, spend more on their local government activities, and spend more on monitoring local projects and the running of their constituency offices.

Expenditure Category	Intensity of Observation *Low*	*Medium*	*High*
	$	$	$
Public Goods	4,885	12,567	12,609
Private Goods	4,763	6,843	4,123
Donation to Local Groups	408	817	1,123
Transfers to District Assembly	72	1,207	2,481
Monitoring and Office Expense	285	484	429
Unclear Purposed Expenditure	2,031	667	489
Total Expenditure	12,451	22,594	21,267

Table 3.2: Average Members of Parliament's total expenditure of CDFs, and average allocations to six expenditure categories across intensity of observation

To simplify the analysis, I focus on MPs' total expenditure (*utilization*), and allocations to public and private goods (i.e., the first two items in Table 3.2).[27] The former measures the general level of MPs' efforts on behalf of constituents while the latter examines which citizens' demands politicians mostly provide.

Figure 3.2 displays the results for CDF utilization. The results indicate that higher-integrity elections improve the level of effort of politicians. The *left* side of Figure 3.2 shows average utilization of CDFs by legislators across the three treatment conditions along with the 95 percent confident intervals (CIs). The average CDF spending in the low IO constituencies is 13.3 percent (s.e. 2.2) while the average utilization in medium and high intensity constituencies is 24.1 (s.e. 3.2) and 22.7 (s.e. 4.1) percent, respectively.[28] The *right* side of Figure 3.2 shows the ITT for medium

[27] Appendix B.2.1 shows the density plots for my dependent variables across treatment levels.

[28] The 95 percent confidence intervals around these averages suggest that the average spending in low IO constituencies is clearly lower than the average spending in medium and high IO constituencies. Panel C of Table B.2.3 in the Appendix shows that in 2014, MPs spent, on average, 21.2 percent of their allocated funds. While this suggests that some MPs were "passing on pork" to their constituents, it also indicates the low level of spending of this money among MPs. However, the lack of full use of these available funds to improve constituents' welfare is not unique to Ghana. Other scholars have reported similar results in other developing democracies. For example, in India, Keefer and Khemani (2009) find that until the country's press shone some light on the use and abuses of the Member of Parliament Local Area Development Scheme (MPLADS) in 1999, the use of the fund was 36 percent between 1993 (when it was begun) and 1999. Spending went up to 85 percent, on average, between 1999 and 2003. In Mexico, Chong et al. (2014) find that mayors for the municipalities in their study sample spend, on average, only 56 percent of the funds they receive through the central government's allocated municipal infrastructure fund (FISM). The FISM is meant to improve the delivery of service in poor areas in the country. Finally, in Kenya, Harris and Posner (2017) find that MPs

and high IO constituencies as well as the 95 percent CIs around these estimates. The results show that MPs elected in medium and high IO constituencies spent 10.9 percent and 9.4 percent more of their allocated CDFs during the period, which represents about a 82 and 71 percent increase from a baseline of 13.3 percent in low IO constituencies. The 95 percent CIs show that these effects are statistically significant as they do not cross the horizontal-dashed zero line.[29] These results support the idea that increases in intensity of observation cause politicians to exert more effort to get re-elected.

spent, on average, 84 percent of the funds allocated to them through the country's CDF on projects. The low spending in Ghana reflects the lack of attention paid so far to the use and possible abuse of MPs' CDFs. To my knowledge, there is no systematic study of the utilization of CDFs by Ghanaian MPs.

[29] Appendix B.3provides robustness checks for all the results presented in this section. Specifically, I rerun the estimates leaving out the data for one MP at a time. This ensures that the results are not driven by any single observation.

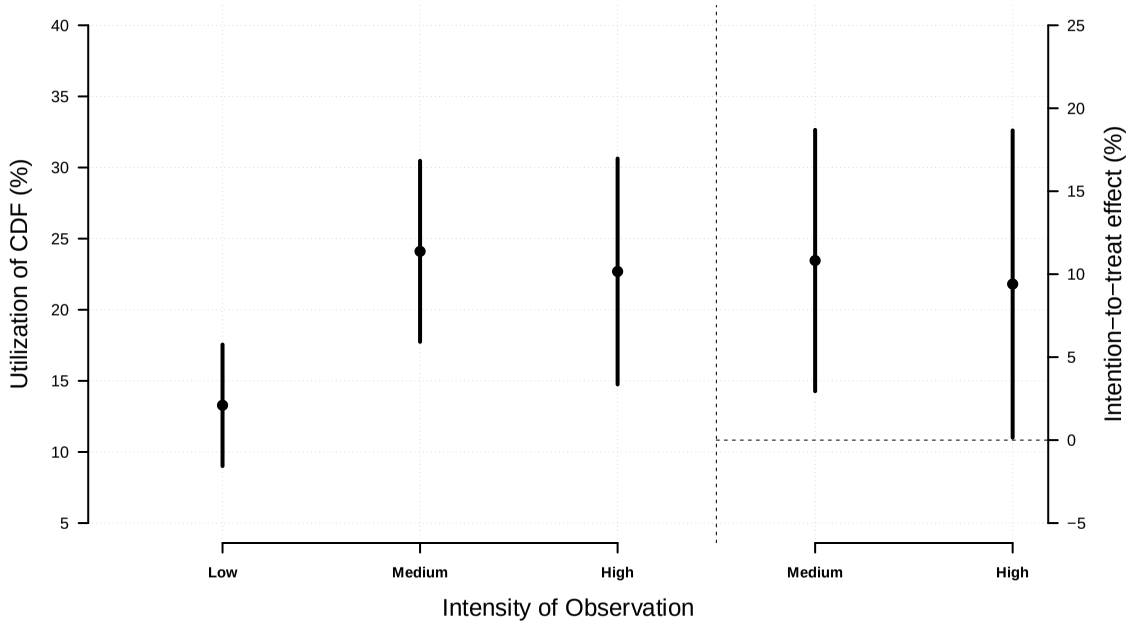


Figure 3.2: Members of Parliament elected in medium and high intensely monitored constituencies spent more of their available CDFs in 2014 compared to those elected from low-intensely monitored electoral districts

Notes: The left panel of Figure 3.2 shows the mean of the percentage of available CDF ($93,727) used by MPs elected from constituencies monitored at low, medium and high levels of election monitoring intensities. The right panel of Figure 3.2 shows the intention-to-treat (ITT) effects of election observation at the different intensities on the utilization of the CDF. These estimates are presented along with 95% confidence intervals. The ITT effects are the difference-in-means estimates between low and medium, and low and high intensely monitored constituencies. Robust standards errors are used to generate the 95% intervals around these ITTs.

In Figure 3.3, I disaggregate the results by the type of expenditure: public goods (left figure) and private benefits (right figure). I find that higher-intensity monitoring increases spending on public goods, but has no effect on MPs' expenditures on private goods. In the *left* side of Figure 3.3, the average use of CDF for public goods are 5.2 (s.e. 1.4), 13.4 (s.e. 2.7) and 13.9 (2.9) percent in low, medium, and high IO constituencies, respectively. An increase in the treatment from low to medium and high both lead to a similar increase of about an 8 percentage points in spending on public goods. The 95 percent confidence interval around the estimates show that these estimates are statistically significant. The estimate is also substantively significant. An increase in the intensity of observation more than doubles legislators' spending on local public goods, suggesting higher-integrity elections improves spending on public works. The *right* panel of Figure 3.3 shows the results for spending on private goods. The average spending in low, medium, and high IO constituencies are 5.1 (s.e. 1.4), 7.3 (s.e. 1.7), and 4.4 (s.e. 1.0), respectively. The 95 percent CIs around the ITTs in medium and high IO constituencies suggest the difference in spending between low and medium, and low and high are not statistically significant. This implies that intense election observation does not lead to significant increase (or decrease) in spending on private goods. In sum, the findings indicate that an increase in intense monitoring, through its influence on election fraud, raises the responsiveness of politicians to constituents' demands for public goods.

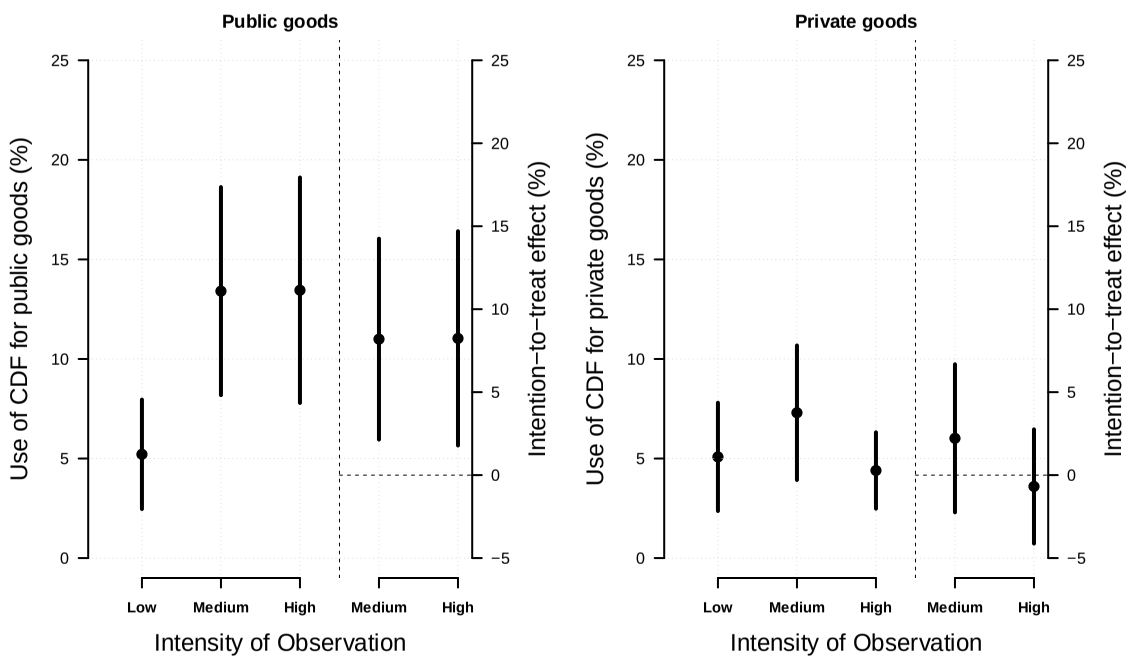


Figure 3.3: Compared to MPs elected in low-intensely monitored constituencies, MPs elected in medium and high intensely monitored constituencies spent a higher proportion of their available CDFs in 2014 on public goods, but a similar proportion of their CDFs on private goods

Notes: Figure 3.3 disaggregate the results of MPs' utilization of CDFs by expenditure category: public goods (left panel) and private goods (left panel). In both cases, the left sides of the figures displays the average in constituencies monitored at the three levels of intensities along with 95% confidence intervals. The right sides shows the ITT effects estimates as the difference-in-means between low and medium, and low and high intensely monitored constituencies. Robust standards errors are used to generate the 95% intervals around these ITTs.

The above results on CDF spending support MPs' self-reported frequency of visits to their constituencies and the activities they prioritize when they visit, which are indicators of provision of constituency services. In section B.5 of the Appendix B, I show that legislators elected in intensely monitored elections report spending more time in their constituencies compared to those elected in constituencies with proportionally fewer observers. Also, compared to their counterparts in low intensely monitored electoral districts, these legislators were more likely to report that they organize monthly meetings to listen to constituents' needs and that they spend a significant proportion of their time inspecting constituency development projects when in their constituency. The legislator spending results indicate that MPs elected through intensely monitored elections work harder in providing local public goods and that they seem to do so in a more transparent manner.

3.5.2 ITT effect of intensity of observation on procurement patterns of legislators

To examine the effect of rigorous monitoring on corruption, I estimate the ITT effect of intensity of observation on the procurement patterns of legislators. I show that higher intensity of election observation reduces the likelihood of procurement practices susceptible to corruption. The left panel of Figure 3.4 displays the proportions of MPs who made direct purchases (i.e. buying goods and services from vendors they selected) across treatments and the ITTs, along with the 95 percent CIs. The results show that while about 78 percent of legislators in the low IO accessed part of their funds directly from the national administrators, only 33 and 35 percents of MPs in the medium and high IO constituencies did so, respectively. These results are both statistically and substantially significant. Indeed, these estimates are large and the magnitudes may be an artifact of the few cases across treatments in the sample, which also explains their large variances. Nevertheless, these results indicate that legislators elected in intensely monitored elections were significantly less likely to choose to spend their funds in a way that avoids compliance with national procurement laws, which are meant to check the abuse of funds and limit opportunities for corruption. The right panel of Figure 3.4 shows averages of the percentage of disbursed funds that MPs used in such direct purchases and the ITTs together with the 95 percent CIs. The results imply that the

percentage of the funds used in direct purchases was significantly less among MPs elected in higher-quality elections (8.5 and 12.3 percent in medium and high, respectively, compared to 29.3 percent in low).

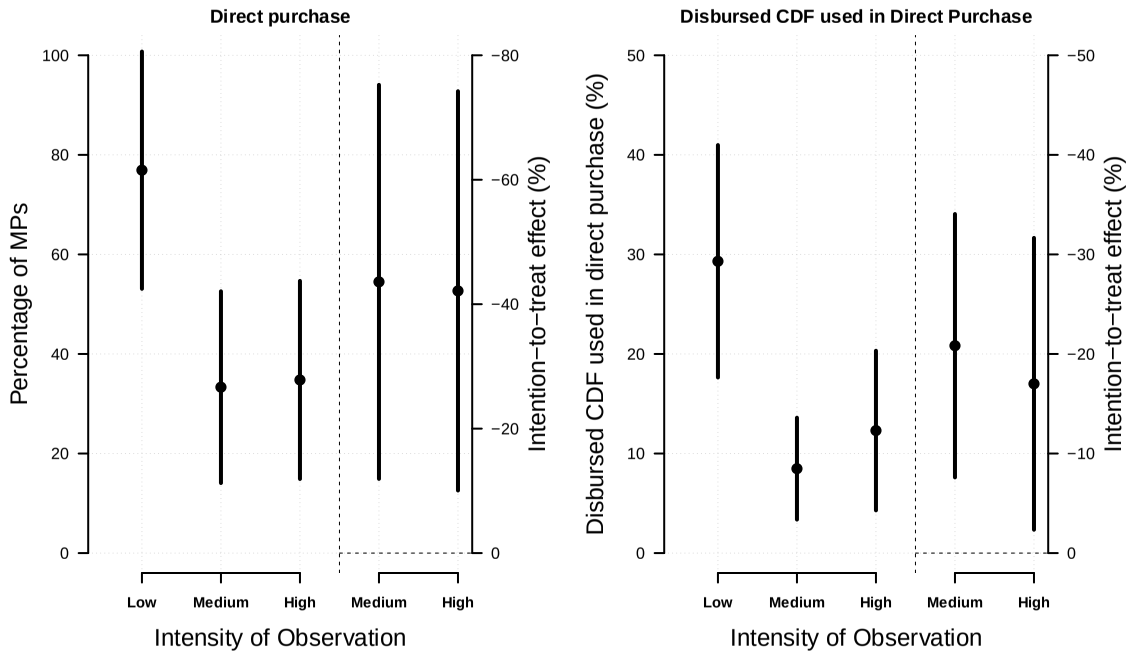


Figure 3.4: Compared to MPs elected in low-intensely monitored constituencies, MPs elected in medium and high intensely monitored constituencies are less likely to procure items without following national procurement laws, and use less of disbursed funds in direct procurement deals

Notes: The left panel of Figure 3.4 shows the proportion of MPs who used part of their disbursed CDFs to purchase items that did not follow national procurement laws. The right panel of Figure 3.4 shows averages of the percentages of disbursed CDFs that MPs used in procurement deals that did not follow national procurement laws. In both cases, the left sides of the figures displays the averages in constituencies monitored at the three levels of intensities along with 95% confidence intervals. The right sides shows the ITT effects estimates as the difference-in-means between low and medium, and low and high intensely monitored constituencies. Robust standards errors are used to generate the 95% intervals around these ITTs.

These results complement the analysis of how MPs spend their CDFs in an important way. They suggest that MPs elected through cleaner elections not only provide more local public goods to their constituents, but are also more likely to comply with good governance standards by choosing a mode of spending that forces them to abide by national procurement regulations. Thus, intensely monitored elections appear to generate good governance outcomes.

3.5.3 Do legislators substitute for legislative work with constituency services?

One possible implication of the above findings is that improvement in election quality might lead legislators to shirk on their equally important roles as legislators in parliament and overseers of the executive, since constituency service may be more visible than lawmaking and oversight functions (Ashworth and Bueno de Mesquita, 2006). This potential trade-off is of particular importance in this study because I find that cleaner elections increase levels of constituency service.

To examine this potential externality, I estimate the ITT effect of the IO on legislators' absence at Parliamentary sessions. Ghana's Parliament meets four times a week (Tuesday to Friday).[30] For each session, an MP may be present, absent with permission, or absent without permission. Using Parliamentary Hansards, I code legislators' absence (without permission) for 254 parliamentary meetings between January 2013 and July 2015. I compare the absence rates for legislators elected from constituencies that received low, medium and high levels of observation.

I find that intense election observation has no effect on MPs' absence rates in Parliamentary sessions. Table 3.3 shows the average absence rate in the full sample in Column (1), and in low, medium and high IO constituencies in Columns (2), (3), and (4), respectively. I report the standard errors of these estimates in parentheses. The results show that MPs in the sample were absent without excuse from Parliament about a quarter (25.6 percent) of the time during the period. The absence rate was 25.3, 23.5, and 28.1 percent in low, medium and high, respectively. The ITT for medium and high IO constituencies are shown in Columns (5) and (6), with robust standard errors reported in parentheses. The results indicate no significant difference in the absence rates among

[30] MPs must seek permission from the Speaker to excuse themselves from these meetings (Article 97(1c), 1992 Constitution).

legislators across the three treatments. These results suggest that higher-quality elections do not cause MPs to shirk on their legislative duties. The results may be explained by the fact that MPs can undertake the delivery of constituency service when they visit their constituencies during the weekend and on Mondays, when Parliament is not is session, or during their recess, when many of them go to live in their constituencies.

		Intensity of Observation			ITT	
	Full sample	Low	Medium	High	Medium	High
	(1)	(2)	(3)	(4)	(5)	(6)
Average absence rate	0.256	0.253	0.235	0.281	**−0.018**	**0.028**
	(0.021)	(0.033)	(0.036)	(0.036)	(0.050)	(0.050)
N	60	13	24	23		

Table 3.3: Similar absence rates in parliament among MPs elected from low, medium and high intensely monitored constituencies

Notes: Table 3.3 reports the intention-to-treat effect of intensity of observation on the absence of MPs from Parliamentary sessions. Columns (1)- (4) shows the means and standard errors for absence rate in the full sample, and the low, medium, and high intensities, respectively. Columns (5) and (6) report the ITT in medium and high IO constituencies. Each unit is weighted by the inverse of its treatment probability. Robust standard errors are reported in parentheses. Significance level indicated by $^{*}p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$ are based on two-sided hypothesis test.

3.6 Election observation, election fraud, and the responsiveness of politicians

The experiment that I present in this paper provides a unique test of whether election observation, through its impact on the quality of elections, can increase the responsiveness of elected officials. The findings provide the first causal evidence that improvements in election integrity enhance political responsiveness. The findings, however, raise a second order question. What might explain the causal relationship between election observation and incumbents' performance in office? To answer this question, I draw on two theories of the channel through which elections influence politicians' responsiveness: *selection* and *sanction*. I argue that electoral fraud impairs citizens ability to both select better candidates and to sanction poorly-performing incumbents. I then examine the plausibility of these mechanisms in light of the research design, the electoral outcomes in the sample constituencies, and data collected through my interviews with 47 out of the 60 MPs in the study.

The effect of elections on political *selection* can be thwarted by electoral fraud for two reasons. First, electoral fraud may dissuade "quality" or service-oriented politicians from joining the pool of candidates, which limits the likelihood of electing responsive leaders. Second, even when more responsive candidates contest the polls and voters vote for them, they may not win because of fraud. These two factors are essential to the selection model of electoral accountability, which suggests that voters use elections to elect competent and honest candidates who are likely to act in their best interests (Miller and Stokes, 1963; Kingdon, 1989; Fearon, 1999; Besley, 2005; Mansbridge, 2009). Besley (2005) argues that for political selection to work, quality candidates must be attracted to contest the polls, succeed in these elections, and be rewarded with reelection. The prospects of fraudulent elections can discourage quality candidates from entering the race whereas rigging on election day would reduce the chances that the candidate for whom most voters cast their ballot wins.

While selection is a plausible mechanism, I argue that the selection mechanism cannot explain the findings in this study because of the features of the research design, the outcome of the elec-

tions, and the characteristics of elected MPs across the intensities of observation. In the case of the research design, because the intensity of election observation was not announced in constituencies ahead of the polls, the treatment could not have influenced the candidate pool. In fact, as I show in Table B.1.2 in Appendix B, an equal number of candidates contested across the different treatment conditions. Second, although I show in my analysis, here and in Asunka et al. (2017), that the presence of observers reduced the level of fraud and violence at the polling station and constituency level, I do not believe they were enough to affect who eventually won the polls due to the small size of the treatment effect. I do not find a significant relationship between constituency level vote margins for the parliamentary candidates and the treatment, suggesting that the treatment did not affect who eventually won. Also, the treatment did not produce legislators who were qualitatively different, on average, across multiple characteristics such as education, age, party affiliation, or term-in-office as I show in Table B.4.1 in Appendix B.4. Accordingly, the treatment is unlikely to have influenced the responsiveness of incumbents through selection.

The above findings on selection must be interpreted within the context of the study. Ghana is a third wave democratic success story with increasingly competitive and fair elections. A possible reason why the intensity of election observation did not affect the overall outcome in the country's 2012 elections may be explained by relatively low levels of fraud and strong two-party system compared to competitive authoritarian regimes such as Zimbabwe (Levitsky and Way, 2010). Thus, Ghana may be a tough case to test the selection mechanism and the finding may not hold in less democratic settings where election observation might generate selection effects.

Turning to the *sanction* mechanism, I argue that it provides a plausible explanation for the findings I present in this paper. If incumbents expect to be able to rig the next polls, they are likely to be unresponsive to voters. The sanction model holds that voters use elections to punish poorly performing incumbents (including taking positions that voters do not like) (e.g., Mayhew, 1974; Ferejohn, 1986). In this view, incumbents are self-interested, rent-seeking, and want to be reelected. However, as I argue above, to win reelection, incumbents can either satisfy voters' needs or rig the polls. If she can cheat in the polls, the incumbent is likely to be less inclined to exert effort. The threat of electoral sanction in free and fair elections would encourage incumbents to be

responsive to citizens.

However, for election observation at time $t-1$, to affect the performance of incumbents in time t, during her tenure in office, three conditions must hold. First, incumbents must be aware of the intensity of election observation in their constituencies in the prior election (at time $t-1$). Second, they must believe election observation is effective at reducing electoral fraud. Third, incumbents must believe that the intensity of election observation in their constituencies will be repeated in the upcoming election (at time $t+1$), reducing their ability to commit fraud.

To test the first condition, I conducted interviews with MPs in my study sample. I asked them whether they saw observers at polling stations they visited during the 2012 polls. I find a positive association between higher intensities of observation and MPs' reports that they saw observers. The probability that an MP saw an observer increases by 15.4 and 18.3 percentage points in medium and high IO constituencies, respectively.[31] Also, MPs elected from intensely monitored constituencies report that a higher proportion of polling stations were observed in their constituency in the last election (3.3 and 22.8 percentage point increase in medium and high IO constituencies, respectively).[32] While these increases support the sanctioning mechanism, I note they are not statistically significant at conventional levels. However, they suggest that the increase in IO heightened politicians' awareness of election observers in their constituencies. On the second condition, I asked MPs whether they thought observers were effective at reducing fraud in their respective constituencies. A majority (58%) said they believe that election observation was effective at reducing fraud in their constituencies. This shows that MPs acknowledge the power of monitoring to limit fraud.

Testing the third condition is, however, challenging. It is not clear that MPs' experiences with observers in their constituencies in time $t-1$ will automatically shape their expectation about the intensity of observation in time $t+1$. While we can safely assume that MPs would expect some future monitoring in their constituencies because CODEO, Ghana's domestic election observation

[31] See Table B.4.2 in Appendix B.4.

[32] See Table B.4.3 in Appendix B.4. Only 18 MPs provided a response to this survey question and thus this result is only suggestive.

group, is credibly committed to observing elections, we cannot be certain about the actual intensity of observation that MPs expect. Furthermore, we can not be sure that these expectations map on to the treatment assignment in the 2012 elections. A belief about future monitoring based on past experience would allow me to make causal claims about this mechanism.

To investigate the third condition of the sanctioning mechanism, a careful research design would randomly manipulate the expectations of MPs about future monitoring, then study whether that generate differences their performance. If we find in such study that incumbents who expect greater observation in their constituency are more responsive to the demands of their constituents by, for example, spending more of their CDFs than those who did not, it will provide further support for the sanctioning mechanism. In chapter 4, I undertake and report such study to examine whether incumbents' expectations of intense observation in their constituency in the next election increase their responsiveness to citizens needs.

3.7 Conclusion

In this chapter, I described a field experiment that randomized the intensity of election monitoring across constituencies in Ghana's 2012 general elections that I leverage to examine the effect of election integrity on political responsiveness. I argue that because higher intensity election observation reduces the ability of politicians to commit election-day fraud, it incentivizes incumbents to improve their efforts to meet citizens' needs. The random deployment of observer intensities across constituencies serves as an exogenous instrument for election quality and allows me to interpret as causal any significant difference in performance between incumbents elected in low-intensity monitored districts and those elected from constituencies with a higher concentration of election observers.

Using original data on MPs' allocation of their CDFs as my measure of responsiveness, I demonstrate that fair elections produce concrete benefits for citizens. I find that representatives elected from intensely monitored elections spend more of their available funds. Since MPs need to exert a significant amount of effort to use these resources, I interpret higher levels of spending as

indicative of improved responsiveness. Disaggregating MPs' spending by payouts to private benefits versus local public works, I find that higher intensity of observation increases the provision of public infrastructure and services and has no effect on the supply of private goods. The interpretation of this finding is twofold. First, this result implies that fair elections incentivize incumbents to provide public goods that benefit whole communities. Second, fairer elections do not change MPs' provision of private benefits to constituents. If we are to interpret the provision of private benefits, in this context, as clientelistic, then fairer elections seem to have no effect on such exchanges in the case of CDF spending. The last advantage of improved election integrity is its effect on levels of potential corruption. My results show that higher-integrity elections reduce incumbents' rent-seeking behavior by increasing the likelihood that incumbents choose to abide by national procurement laws when spending their CDFs. Taken together, these results provide evidence that election integrity is causally related to responsiveness. Preliminary evidence suggests that politicians' expectations of future intense monitoring elections drive these results, which is consistent with the sanctioning mechanism of electoral accountability. In the next chapter, I systematically test my proposed mechanism.

The results of this research hold implications for both pro-democracy actors and scholars of democratic consolidation and electoral fraud. For promoters of democracy, these results suggest that the systematic monitoring of elections by local civil society groups plays a significant role in promoting electoral integrity, corroborating earlier findings. Moreover, election observation eventually promotes democratic accountability and reduces corruption. However, Ghana's well-established civil society groups, which regularly undertake election monitoring during national and local elections and make the threat of electoral sanction more credible, may drive these results. Accordingly, efforts to strengthen such independent civil society organizations may be required to achieve similar results elsewhere. Nevertheless, my findings are important in contexts where elections remain the primary mechanism through which citizens demand accountability from their representatives. My results suggest that, in these settings, attention must be paid not only to the regular conduct of elections, but also to strengthening their integrity. In light of my findings, scholars should also carefully consider the impacts of interventions aimed at reducing electoral

fraud, in the pre-election and election day periods, on downstream political outcomes that are germane to citizen welfare. This research agenda will advance our understanding of electoral fraud and democratic accountability in new democracies.

CHAPTER 4

Effect of Expectation of Election Day Monitoring on the Responsiveness of Incumbents

In chapter 3, I showed that incumbents who were elected in constituencies that were heavily monitored by election day observers in the previous election were more responsive to the preferences of the majority of citizens. I argued that this finding is consistent with the sanctioning view of electoral accountability. Specifically, I suggested that intensely monitored incumbents put in more effort to satisfy citizens' demands because they anticipate potential sanction in the next elections that may also get greater monitoring. In this chapter, I test this claim more systematically.

In democracies, scholars argue, citizens use periodic voting to incentivize political responsiveness (Dahl, 2000). Applying retrospective judgments on incumbents' performance, voters either reward or punish incumbents on election day (Ferejohn, 1986). In anticipation of electoral sanction, a reelection-seeking incumbent will choose a level of performance that satisfies the demands of voters. Recognizing that the mere conduct of periodic elections is insufficient for electoral accountability, recent theoretical and empirical work examines what institutional and contextual factors could strengthen incumbents' incentives to serve their constituents' interests through fear of sanction (see Ashworth, 2012, for a review).

Research focuses primarily on two conditions that the models of electoral accountability identify as important determinants of incumbent responsiveness: 1) rewards from reelection (or office); and 2) voters' access to information on performance. For example, comparing incumbents who were eligible for reelection to those who were not, some scholars have shown that incumbents with electoral incentives work harder (Besley and Case, 1995; Christensen and Ejdemyr, 2016) and

are less corrupt (Ferraz and Finan, 2011).[1] In the US, scholars have also shown that incumbents who expect voters to get precise information about their legislative work through extensive media coverage of their actions, participate more in committee activities and spend more resources to address constituents' needs compared to those who have limited or no press coverage in the US (Snyder, Jr and Strömberg, 2010). In contrast, experimental research in developing democracies on the impact of providing information to citizens on the performance of their representatives to encourage incumbents to work harder or deter them from corruption have produced mixed results. For example, Humphreys and Weinstein (2012) find that providing data on legislators' activities to citizens two years before Uganda's 2011 parliamentary elections had no impact on incumbents' performance or reelection rates. However, Chong et al. (2014) find that informing citizens about the corrupt practices of incumbents led not only to low voter turnout and decreased officeholders but also reduced support for the challenger in Mexico's municipal elections. These mixed findings highlight the need to pay attention to the conditions under which term-limits or an information intervention can incentivize higher legislator effort (Lieberman, Posner and Tsai, 2014). I focus on one of these possible conditions: *election integrity*.

In this chapter, I suggest that while the above studies provide valuable insights on the conditions that strengthen electoral accountability, they are based on the assumption that elections are freely and fairly contested. I propose that incumbents will not fear being sanctioned if they know they can manipulate the polls on election day, all else equal. I argue that changes in the integrity of elections, which determines whether voters can hold incumbents to account on election day, influences officeholders' levels of responsiveness. Specifically, I posit that the ability of the electorate to punish non-responsive elected officials increases with higher levels of election integrity. In turn, when constrained in their capacity to rig their reelection, incumbents are likely to exert a higher effort to respond to voters' needs. For example, when officeholders can rig the polls, providing information about their corrupt practices or absence in Parliament cannot help voters to hold them accountable. In principle then, constraining the capacity of officeholders to manipulate elections

[1] However, other scholars have found no effect of term-limits on the performance officeholders (Besley and Case, 2003; Gagliarducci and Nannicini, 2013).

should strengthen their incentives for responsiveness because voters can sanction them on election day.

The implication of my argument is that the beliefs of incumbents about their chances to rig the next ballot influence how much effort they exert trying to win over the hearts and minds of voters. Incumbents who believe they will face challenges in rigging the vote should work harder to satisfy the needs of citizens to win their support on election day while those who feel they have no such limitations should be more likely to shirk, all else being equal. To test my hypothesis, I need to manipulate the beliefs of incumbents about what constraints they might face on election day to rig the polls and study how they, in turn, respond to the demands of voters.

I draw insights from the literature on election observation to investigate whether incumbents who believe they cannot rely on election-day fraud are more responsive to citizens' needs compared to those who hold the opposite beliefs. Election observation involves the training and deployment of independent agents to polling stations. As I indicated in previous chapters, prior research has found that election observers reduce fraud at polling stations and in constituencies to which they are deployed (Hyde, 2007, 2010; Enikolopov et al., 2013; Asunka et al., 2017). For example, as I show in chapter 3, in Ghana's December, 2012 elections, the presence of observers at higher intensities in constituencies reduced inflated voter turnout rates and the incidence of intimidation of voters by about 5 and 4.5 percentage points, respectively. These findings suggest that, when effective, election observation makes it harder (if not, impossible) for incumbents to rig on election day and should incentivize them to respond to the demands of voters.

My research design involves the randomization of announcements (letter) about election observation in their constituency to individual legislators a year before Ghana's December 2016 election. In consultation with the country's Coalition of Domestic Election Observers (CODEO), I wrote a letter to inform a random set of 60 out of 120 MPs in my study sample to expect intense election observation on election day. Specifically, the letter stated that CODEO is *likely* to deploy observers to 80 percent of polling stations located within their constituencies. These letters (the treatment) were delivered to MPs in person during November and December, 2015. I sent a reminder to MPs in the treatment group in April and May 2016, which was followed up with phone calls to confirm

receipt. MPs in the control group did not receive the letter. I argue that the announcement of intense observation on the next election day should alter the beliefs of incumbents about the chances of fraud detection on election day and thus on their ability to rig their reelection. Indeed, I predict that this information will change the expectations of incumbents about the probability with which illegal activities will be detected (Becker and Stigler, 1974). The random assignment of the letters allows me to interpret any difference in the levels of performance in office in the year leading up to the election between legislators who received the letter ("treated") and those who did not get the information ("control") as the causal effect of expecting intense observation on election day. The performances of legislators in the control group offer a counterfactual of what we would have seen had I made no such announcements. I then observe the responsiveness of legislators to their constituents' demands for a one-year period.

This study is sited in Ghana because while its elections are highly competitive, they are often characterized by fraud and violence (Straus and Taylor, 2012; Ichino and Schündeln, 2012; Asunka et al., 2017). For example, in 2013, the country's highest court acknowledged in its ruling on a petition filed by the then main opposition, the New Patriotic Party, that there were instances of administrative irregularities and ballot stuffing in the country's 2012 general elections. Furthermore, the country has extensive experience with domestic and international election observation. Also, while some scholars have found that election observers might shift election manipulation and violence to the pre-election phase (e.g. Ichino and Schündeln, 2012; Daxecker, 2014; Simpser and Donno, 2012), Ghana has other features that mitigate such concerns. First, the country has no record of extreme violence during elections; the cases of violence have been minor and sporadic. Second, CODEO and other civil society groups organize comprehensive pre-election day observation programs that help to deter and detect pre-election manipulation and violence.[2] Nevertheless, if the treatment leads to a temporal displacement of fraud to the pre-election phase, this should attenuate the causal effects of the treatment on the responsiveness of politicians.

[2]For example, Ichino and Schündeln (2012) finds the CODEO's pre-election registration observers reduce the registration of illegal voters at electoral areas. Also, in 2016, CODEO observed all the election related activities including voter registration, exhibition of the voter's register, and party and candidates' meetings and campaigns. See CODEO's report on these activities here: `http://www.codeoghana.org/lib-press.php`, accessed on February 16, 2017.

As I discussed in chapter 2, responsiveness involves satisfying the expectations of citizens. The politicians in my study are legislators elected from single-member districts, and thus expected to perform four core functions: representation, legislating, overseeing of the executive, and constituency service. However, as I demonstrated in chapter 2, in studies conducted in Ghana and elsewhere, a majority of citizens expect their representatives to provide constituency service in the form of local development projects. A minority of the people also demand individual assistance to find a job in the civil service or request funds to pay education, medical, and funeral expenses. Citizens, however, do not put pressure on their representatives to deliver particular legislation or oversee the executive (i.e. parliamentary work). Accordingly, to assess whether the treatment increases the responsiveness of legislators, I examine the impact of MPs' expectations of greater election observation on their constituency work, which most citizens prefer, and their absenteeism in parliament (my proxy for parliamentary work), which is the least favored. Because voters place more weight on constituency service, I expect the treatment to improve the responsiveness of legislators to such demands. However, I do not expect the treatment to impact incumbents parliamentary attendance because citizens put minimal emphasis on it.[3]

Similar to chapter 3, to measure the impact of the intervention on the responsiveness of politicians to their constituents' demands for constituency service, I study the share of state-provided Constituency Development Funds (CDFs) that incumbents spend ahead of the December 2016 elections. As I indicated in chapter 3, MPs need to exert a significant amount of time and effort to plan and coordinate with the local government bureaucracies in their constituencies to use of their CDFs to provide public infrastructure and private assistance to their constituents. Thus, the use of CDFs serves as a proxy for legislator effort on behalf of constituents. Indeed, as I show is chapter 3, there are low levels of spending of CDFs among legislators in Ghana (about 25 percent in 2014). I also demonstrate that incumbents use more of their funds when elected in constituencies intensely monitored by observers in the December, 2012 election, which suggests that cleaner

[3]MPs performance of these two functions (constituency and parliamentary work) are not necessarily mutually exclusive. Ghana's Parliament meet on Tuesdays through Friday. MPs travel to their constituencies during the weekends. Parliament also meet for a total of 28 weeks in a year and thus MPs can conduct constituency service (i.e. plan and oversee the construction of local infrastructure) when parliament is on recess.

elections increase legislator effort. Similarly, Keefer and Khemani (2009) find that Indian legislators exert more effort to use their CDFs when faced with stiff electoral competition.[4] Therefore, following the literature, I estimate the effect of expectation of intense election observation on the use of CDFs by MPs by comparing the average spending between legislators who receive a letter announcing observation and those who did not. Further, because I can disaggregate MPs' expenditures by types (as in chapter 3), I examine the impact of the treatment on legislator spending on local public goods and private benefits to citizens.

At the time of writing, data on MP spending in 2016 (the time between the treatment and the election) was not available. This chapter, therefore, lays out a "pre-analysis" plan for the main dependent variable, *percentage of CDF spent in 2016*. Once the spending data become available, I expect to find that the treatment increases CDF spending effort, which indicates higher levels of responsiveness. Also, I anticipate that the differences in total spending between treated and control politicians will be driven by higher expenditures on local public goods, suggesting that incumbents pay more attention to the preferences of the majority of voters.

Consistent with my findings in chapter 3, I do not find that the treatment changes the rates of absence of legislators in parliamentary meetings. That is, on average, incumbents who received the letters were absent a quarter of the time similar to their counterparts who did not receive the letter, which suggests that legislators' expectations of future intense election monitoring does not increase their shirking in parliament.

I also examine the relationship between the treatment and election-day outcomes: incumbents' votes shares and reelection rates. Logically, if voters reward responsiveness and the intervention encourages higher performance (i.e. spending), then incumbents who received the letters should be expected to obtain more votes and, in turn, win reelection compared to those who did not get the announcement, on average. Consistent with this expectation, I find that the treatment increased the vote shares of incumbents by 3.2 percentage points and their reelection rate by 13 percentage

[4]The lack of CDF spending among incumbents is not unique to Ghana and India. Other scholars have also shown the lack of full spending of CDFs and other central-government-provided funds in other developing democracies such as Mexico and Kenya (Chong et al., 2014; Harris and Posner, 2017)

points. These increases are substantively important (but not statistically significant at conventional levels). I suggest that higher levels of effort exerted by treated incumbents may explain these effects because both the treated and control groups had equal opportunity (i.e. similar intensity of observation on election day) to commit election-day fraud, all else equal. However, I also argue that under certain conditions we may find no relationship between the treatment and electoral outcomes (e.g. when treated incumbents temporally displace fraud to the pre-election phase while control MPs rig on election day) and that the link between the treatment and electoral outcomes is therefore not straightforward given my research design.

The remaining part of this chapter is structured as follows. In section 4.1, I present my theoretical expectation of the link between expectation of intense observation and political responsiveness. I then show my research design and data to test my hypothesis in sections 4.2 and 4.3, respectively. I present my analysis plan and partial results for this chapter in section 4.4. In section 4.5, I discuss possible threats to inference and preliminary thoughts on the results. I conclude this chapter in section 4.6 with my contributions to the literature.

4.1 Elections manipulation and incumbent effort: theoretical expectation

In theory, competitive elections should improve political responsiveness of leaders, aligning political outcomes with the preferences of voters. A growing consensus in the literature is that the effects of elections on performance can arise through two distinct and reinforcing channels (Ashworth, 2012). First, elections can help to screen candidates, *selecting* competent or public spirited types and rejecting or discouraging low quality types (Miller and Stokes, 1963; Kingdon, 1989; Fearon, 1999; Besley, 2005). Second, elections can provide incentives for officeholders to perform well, irrespective of type, because voters can retrospectively *sanction* poor performance (Ferejohn, 1986). In practice, however, these two mechanisms may operate simultaneously (Miller and Stokes, 1963; Mansbridge, 2009). While the selection and sanctioning models of electoral accountability provide plausible explanations for an incumbent's performance in office, both models typically assume that elections are run honestly—that the will of the voters is accurately reflected

in the results. I suggest that electoral incentives for incumbents can be attenuated by their ability to rig their reelections.

In office, politicians may faithfully implement their promised policies or take steps to address the pressing needs of citizens to win reelection. However, instead of working for the electorate, incumbents may shirk and pursue private business activities to earn outside incomes (in addition to their salaries as politicians). A number of studies have analyzed the relationship between electoral competitiveness and legislator shirking or absenteeism in parliamentary meetings, which some scholars take as proxy for rent seeking (e.g. Becker, Peichl and Rincke, 2009; Gagliarducci, Nannicini and Naticchioni, 2008; Galasso and Nannicini, 2011; Bernecker, 2014). While these studies focus on German and Italian Parliaments, they suggest that incumbents who face less electoral competition are more likely to absent themselves from parliament (Bernecker, 2014) and pursue outside income (Gagliarducci, Nannicini and Naticchioni, 2008; Becker, Peichl and Rincke, 2009).

Insofar as conducting private business activities does not 'prejudice' their work or raise a 'conflict of interest' issues, Ghana's laws allow legislators to hold other offices of profit or emoluments with the permission of the Speaker of Parliament (Article 98 (2), 1992 Constitution). In my interviews with Ghanaian MPs, I find that about 80 percent earn a substantial income besides their official salaries as politicians. MPs report that they earn significant outside income from activities such as serving as lawyers and consultants, conducting private business (in construction, farming, private schools, pharmaceuticals, manufacturing, hospitality, and radio and television broadcasting), lecturing, and publishing books. This implies that a large majority of legislators face a tradeoff between allocating their time and resources to solving constituents' problems or spending their time private activities to generate outside earnings. As current research indicates, increasing electoral competitiveness should encourage politicians to allocate more of their time to solving constituents' needs, all else equal.

However, incumbents may adopt undemocratic tactics to frustrate voters' ability to hold them to account at the polls even when they shirk. I suggest that incumbents may adopt undemocratic electoral tactics such as ballot stuffing, multiple voting, manipulation of results tally sheets and

using violence against opposition supporters (Schedler, 2002; Lehoucq, 2003).[5] Several studies demonstrate that the use of these sorts of local-level fraud, perpetrated by local party activists, are commonplace in new democracies because they are hard to detect compared to blatant fraud such as the cancellation of aggregated results (e.g. Weidmann and Callen, 2013). Accordingly, efforts to deter and detect fraud, including election observation, are deployed at the polling station level.

I argue that incumbents' perceptions about their ability to use election fraud and violence influences their performance in office. That is, because election fraud blunts voters' ability to sanction, officeholders who believe they can manipulate the polls without any constraints should have fewer incentives to exert optimal effort on behalf of citizens. To illustrate, assume the incumbent operates under a time or attention budget constraint. Further, assume that providing local public goods or constituency services is costly in terms of time and effort, and that the incumbent seeks to maximize rents in office by engaging in private business activities to generate outside income. Finally, assume that it is relatively cheaper to rig the polls, which may involve buying a few voters or bribing few election officials compared to providing services that require extensive lobbying with other legislators and working with your local bureaucracy. I argue that an incumbent, if he can, would prefer to rig the polls and to undertake minimal efforts in office. On the other hand, a reelection-seeking incumbent would exert a higher effort if he believes he cannot rely on election-day fraud.

4.1.1 Theoretical expectation

My argument implies that incumbents' beliefs about their chances of rigging election influences their performance in office. Such beliefs about the prospects of rigging may be imposed by external factors that increase the probability that election fraud will be detected and punished. In this study,

[5]Legislators may also use vote buying but can only count on its ability to signal to voters that he/she can deliver future local development projects (or patronage) (Kramon, 2016). Indeed, because the ballot is secret, voters can renege on their side of the bargain. In Ghana and other developing democracies, opposition parties and political observers have often urged citizens to 'take the money and still vote your [sic] concience.' E.g. 'Let your vote count on December 7,' `http://www.ghanaweb.com/GhanaHomePage/features/Let-your-vote-count-on-December-7-481880`, accessed May 2, 2017. Accordingly, candidates cannot entirely rely on vote buying, which may partly explain the incidence of election-day fraud in countries where vote buying is said to be common.

I focus on one such external factor: *election observation*.[6]

I argue that by increasing the probability that fraud will be detected and reported on election day, observers deter incumbents from vote manipulation (Hyde, 2011; Kelley, 2012). If apprehended, incumbents may face legal punishment or reputational damage (i.e. being caught in an illegal or socially reprehensible act) (Hyde, 2011; Snyder, 1987). In fact, empirical studies have shown that the presence of observers reduces the number of illegal votes that a cheating incumbent and her agents can obtain on election day through ballot stuffing or the intimidation of voters (Hyde, 2007; Enikolopov et al., 2013; Asunka et al., 2017). In turn, this reduces the vote share and the chances of reelection for nonperforming officials, which implies that election observation increases the political cost for incumbents.

Beyond losing their own position, election observation poses a threat to other rents that incumbents can receive should their party's presidential candidate win. In Ghana, presidential and parliamentary elections are held concurrently. Accordingly, legislators often seek to inflate the number of votes for themselves and their party's presidential candidate. A victory for an incumbent's presidential candidate may bring additional perks of office, which may include, for example, appointment to a ministerial position. Election observation reduces both the number of illegal votes for incumbents on election day and their ability to intimidate opposition voters without legal and reputational costs.

Therefore, I argue that faced with rigging constraints, reelection-seeking incumbents will work harder to meet their constituents' demands to win their support on election day. Specifically, I hypothesize that *incumbents who expect to contest their reelection in intensely monitored elections will be more responsive to the demands of citizens compared to those who do not anticipate such greater observation.*

However, the influence of election observation on the behavior of incumbents may differ by the level of electoral competition that they face. Politicians in electorally safe constituencies may be deterred by observers from adding illegal votes to their own total votes tally or that of their presi-

[6]Other scholars note the role of independent election commissions in constraining electoral fraud at the national level.

dential candidate, but may fail to or only slightly alter their levels of responsiveness because they are guaranteed of electoral victory. On the other hand, incumbents who face stiff competition and are counting on fraud to win their reelection would need to substitute satisfying their constituents' demands for such vote rigging ambitions. Similarly, incumbents who are not seeking reelection have fewer incentives to exert higher effort on behalf of constituents in the face of election observation. Therefore, I also examine the heterogenous effects of the expectation of intense election observation on the performance of incumbents elected in districts with different levels of electoral competition, and whether they are seeking reelection or not.

It is also possible that incumbents diversify their election rigging portfolio by shifting fraud to the pre-election phase choosing rather to, for example, inflate the voter's register with unqualified persons (Ichino and Schündeln, 2012). These possibilities would reduce the magnitude of the effects of expectation of election-day observation on the performance of politicians.

4.2 Research design

To examine the impact of the *expectation of election observation* on the performance of incumbents, I use an experimental design to study the behavior of a subset of the legislators in Ghana's Sixth Parliament (2013-2016). I randomly selected 120 of 151 electoral constituencies located in five of Ghana's 10 regions to form my experimental sample: Ashanti, Brong Ahafo, Central, Western, and Volta regions. These regions were selected to allow for a mixture of competitive and non-competitive constituencies. The Ashanti and Volta regions are the strongholds of the New Patriotic Party (NPP) and the National Democratic Congress (NDC), respectively. The remaining regions contain some of the most competitive constituencies in the country. Each constituency is represented by a Member of Parliament (MP) elected through plurality rule. The sample of constituencies is distributed proportionally to the total number of constituencies contained in each region. I also chose these constituencies to be representative of these five regions in terms of electoral competitiveness, turnout (in 2012), number of voters, proportion of polling stations that were

monitored in 2012, distance to the capital, and other socio-economic characteristics.[7] Table C.1.1 in Appendix C shows the summary statistics of the characteristics of constituencies located in these five regions and those in my sample and confirms that sample is regionally representative.

4.2.1 Intervention and randomization

The way in which observer missions announce (and often eventually deploy) election observation makes it difficult to estimate its causal effect on the performance of incumbents ahead of their reelection race. Observer missions often issue a press statement to notify politicians about their intended observation and the number of observers they will deploy on election day nationwide. Blanket notifications do not provide variation in the expectation of individual politicians about how election observation will impact their chances of reelection. This is because the number of observers deployed is often a small fraction of the total number of polling stations in a country, and all incumbents can assume that observers will be present at an equal proportion of polling stations in each electoral districts (say, 20 percent). Moreover, any variation in expectation about the serious presence of election observers may be influenced by previous levels of deployment in incumbents' constituencies, which are often informed by convenience and problems with election fraud and violence (Hyde, 2007). Accordingly, it is difficult to determine what share of observed variation in the performance of legislators can be attributed to such announcements and what portion of their behavior is explained by other underlying factors. To reduce such concerns, I employ an experimental approach to randomly manipulate the expectation of individual incumbents about the *potential* for intense observation in their constituencies.

In consultation with the Coalition of Domestic Election Observer (CODEO), I designed an intervention to generate expectations among legislators about a likely intense election observation in their constituencies. The intervention involved writing letters to a set of Ghanaian Members of

[7] I collected the election day from Ghana's Electoral Commission, and the socio-economic data was compiled using Ghana's 2010 Population and Housing census. The proportion of polling stations within a constituency that were monitored was computed using data provided by CODEO on the number of observers deployed to these constituencies. The sample also includes all the constituencies that were involved in my earlier studies that investigated the effects of actual election observation in 2012 on the performance of legislators in office. I employed to so-called "big stick" method to ensure that sample was representative of the regions (Bruhn and McKenzie, 2009).

Parliament (MPs) a year ahead of the country's 2016 parliamentary elections. The letter informed treated MPs that CODEO plans to conduct *intense election observation* in their constituencies during the December, 2016 elections as part of a study with me. Specifically, the letter informed a random set of 60 out of the sample of 120 MPs that CODEO *plans* to deploy observers to **80% percent of polling stations** in some constituencies in the upcoming elections as part of an impact evaluation and that their constituency happens to be one of those. I did not send the letter to MPs in the control group. The letter was stated in probabilistic terms because the number of observers CODEO eventually deploys is dependent on the availability of donor funds. The level of funds available was not confirmed at the time I circulated the letter. However, I needed to send out the letters at the time I did to give incumbents enough time to respond to the treatment in meaningful ways.[8] In fact, Harris and Posner (2017) find that in Kenya 56 percent of the projects implemented by MPs using their CDFs took a year while about a quarter took 2 years.

To underscore the potential impact of intense observation on politicians' abilities to rig the vote in their constituencies, I recounted a study that I conducted with my co-authors in Ghana's 2012 elections to treated MPs (Asunka et al., 2017).[9] As I described in chapter 3, in Asunka et al. (2017), we varied the intensity of election observation across constituencies and measured the effects of the

[8]Because the number of observers CODEO can deploy on election day is often determined by the funds they are able to raise from donors, I wrote the letter in prospective terms. That is, in the letter, I informed MPs that I was still in consultation with CODEO on the actual implementation of my study, but that I was almost sure of the roll out of my plan on election day. It is worth noting that it is the effect of the *expectation* of intense observation in their constituencies that is relevant for this study and not the *actual* intensity. Nevertheless, since its establishment in 2000, CODEO had deployed observers to all constituencies and are well known by politicians. The only difference my intervention sought to make was to inform a set of randomly selected MPs to expect a potential increase in the presence of observers in their constituencies. In 2016, observers were deployed to all constituencies, but CODEO rather deployed more observers to potential "trouble spots" in addition to their nationally representative sample to conduct a Parallel Vote Tabulation (PVT) (Listen to Dr. Kojo Asante's interview with Kim Yi Dionne on Ufahamu Africa podcast at: `https://ufahamuafrica.com/2017/01/07/from-episode-1-what-were-reading-this-week/`, accessed April 14, 2017). On average, therefore, one would expect similar levels of intensity across electoral constituencies in the treated and control groups.

[9]In Asunka et al. (2017), we implement a randomized saturation design to study the direct and spillover effect of election observers on election day fraud. The randomized saturation design involved a two-stage randomization (see Baird et al., 2012). First, we randomized the saturation (intensity) of election observers across constituencies. Second, we randomized observers to individual polling stations. The proportion of polling stations within constituencies that received election observers was determined by the randomized saturation in the first stage. Beyond the direct and spillover effect of election observers, the design also allows us to measure the overall effect of observers within constituencies, accounting for potential spillover effects. See Asunka et al. (2017) for details.

presence of election observers at polling station and constituency levels. I informed the treated MPs that we found that intense election observation reduced the overall levels of fraud (i.e., more people voting than were registered at polling stations) and voter intimidation within treated constituencies. The legislators were then told that the purpose of my study (in collaboration with CODEO) was to help confirm these results because, if true, they hold promise for democratic consolidation in the country.

Indeed, my intervention is motivated by insights from the election observation literature that show that the presence of observers deters election day fraud. Also, in my interviews with Ghanaian legislators in 2015, more than half (58 percent) said that election observers are able to reduce fraud in their constituency. Second, the intervention is based on insights from the literature on corruption that when (election day) monitoring is announced it will alter the expectations of incumbents about the chances of fraud detection. That is, it will change expectations about the probability that potentially illegal activities will be detected on election day (Becker and Stigler, 1974). Third, I argue that to win the support of their constituents, incumbents with updated beliefs about election observation will increase their efforts to satisfy constituents' demands to get reelected. Assuming some non-zero probability that fraud will be detected (because some observers are often deployed to all constituencies in Ghana), announcing a higher presence of observers increases their salience to incumbents and therefore increases the likelihood that they re-calibrate their strategies for winning their reelection.

To ensure that MPs in the treatment group received the letter and the information it contained, I trained research assistants (RAs) to deliver them in person. The RAs informed the MPs about the content of the letter and then gave the letters to the legislators.[10] Some incumbents remarked that they knew about the activities of CODEO and were happy I had informed them about CODEO's plan for their constituency a year before the elections. They requested further information about what roles the monitors will play on election day, and to which polling stations in their constituency CODEO will deploy observers (perhaps, to help plan strategies for election day). In fact, one MP

[10]For the few (5) MPs who my RAs could not meet in person, I first delivered their letters to their mailboxes in Ghana's Parliament House and followed up with a call to inform them about the letter and its content.

wrote an email to me with a list of polling stations observers needed to be deployed. Others were silent or gave no comments about the announcement, while some said they were not worried about the presence of observers. Those who were not contesting for reelection duly informed me and said they will inform their party's candidate about the study. The letters were delivered in November and December, 2015. Figure C.2.1 in the Appendix C shows a copy of the treatment letter.

In April and May, 2016, I wrote a second letter to legislators in the treated group to remind them of my plan (in collaboration with CODEO) to deploy intense observation in their constituencies. Again, those in the control group did not receive the letter. The letter, shown in Figure C.2.2 in the Appendix C, recalled the first letter and stated that "as a courtesy, I want to remind you that your constituency is one of those that would receive observers at 80 percent of polling stations on election day." These letters were delivered to MPs' mailboxes in the Parliament House in Accra. With the help of one RA, I followed up with phone calls to confirm that incumbents did receive their letters.

It is possible that MPs in the control group will hear about my intervention and, potentially, also come to expect that their constituencies will also be intensely monitored on election day. For example, treated MPs may inform their colleagues (or friends) who may be in the control group or tell a national party executive who, in turn, informs other MPs about the intervention. While these are plausible and, if right, pose a threat to inference about the unbiased effect of the treatment on legislator responsiveness, two key factors mitigate such concerns. First, I personalized my letters to individual MPs and did not say that CODEO will deploy no observers to other constituencies. However, it notified treated MPs that the presence of observers in their constituencies would be intense compared to others. Moreover, if some control MPs mimic the behavior of treated MPs by increasing their level of responsiveness, this will reduce the treatment effect. Second, in Ghana, MPs typically organize and fund their campaigns with the help of local party executives. Thus, they are more likely to inform their local party operatives than their national party officials, who may then help an MP find other undemocratic tactics in the pre-election period circumvent the impact of intense election-day monitoring.[11]

[11] I discuss further concerns to inference below.

4.2.2 Balance statistics

Figure 4.1 depicts control and treatment electoral constituencies. Table C.3.1 in Appendix C shows the distribution of legislators in treated and control groups in the full sample, across the five regions, and by MPs' reelection-seeking status (i.e., whether the legislator appeared as candidate on the ballot in 2016). Ideally, I would select and study the effect of the treatment on MPs seeking reelection. However, during my field research both parties (i.e., NDC and NPP) were still conducting their parliamentary primaries and thus the Electoral Commission had not finalized the list of the parliamentary candidates. Therefore, it was not possible to select only reelection-seeking MPs. Nevertheless, this provided an opportunity to also examine the heterogenous effect of the treatment on incumbents seeking reelection and those who were not. The challenge, however, is that doing so reduces the sample size and thus the power to detect any effect of the treatment on the behavior of reelection seeking incumbents. Among the 120 MPs in my experimental sample, 86 ended up seeking reelection. As expected, because the treatment was randomized, it has no effect on whether MPs contested for reelection.[12]

Table 4.1 shows that balance statistics between treated and control constituencies (MPs). To assign constituencies to treatment and control, I used the available covariates on MP and constituency characteristics to obtain an optimal balance. Specifically, I ran 58 iterations of randomization until I obtained a treatment and control group where the smallest p-value associated with the covariates' difference in means was $p\text{-}value \geq 0.21$. This approach is referred to as "big stick" method (Bruhn and McKenzie, 2009). The balance between treatment and the comparison group suggests that legislators are similar regarding characteristics that have been found to explain legislative activity and constituency services. Specifically, the MPs in the treated and control groups are similar in: the number terms they have served to date (1.87 in control, 1.92 in treated), membership in the incumbent party (53.3 percent, 50.0 percent), distance to their constituencies (213 Km, 203 Km), the vote margin they obtained in 2012 (26.6 percent, 30.6 percent), and the turnout in their constituencies in the 2012 elections (76.2 percent, 77 percent). Constituencies in the control and

[12]For most MPs, their decision to contest for reelection would have been taken prior to the treatment. To increase power, I include the remaining 31 of the 151 constituencies in my study regions as part of the control constituencies.

treated conditions also have a similar number of polling stations (100, 95) and saw a similar proportion of these polling locations monitored (20, 19) in 2012. Because the legislators are similar, on average, across the control and treated groups, we can attribute any significant difference in the performance of MPs to the information about election observation.

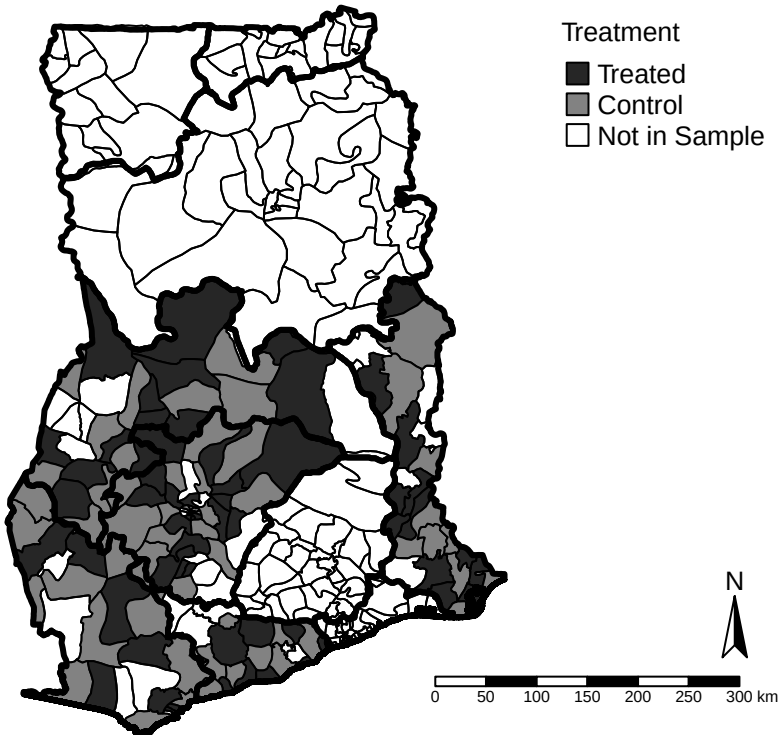


Figure 4.1: Map of Ghana: treatment and control constituencies

4.3 Data

A central challenge to the study of the responsiveness of legislators is that it involves linking the actions of politicians to the demands of their constituents. To understand what voters demand from their representatives, scholars have relied on surveys of citizens and legislators (asking what believe their voters want from them). Scholars find that a majority of citizens in developing countries demand constituency infrastructure projects and personal assistance from their MPs far more than they request law-making and oversight of the executive efforts in parliament (Lindberg, 2010; Barkan et al., 2010; Weghorst and Lindberg, 2013). To estimate effect of the treatment on the

Variable	Mean Control	Mean Treated	Mean Difference	P-value
Number polling stations (ps)	99.517	94.650	-4.867	0.396
Registered voters (2012)	52039.167	49562.200	-2476.967	0.507
Proportion of monitored ps (2012)	0.201	0.186	-0.014	0.330
Valid votes (2012)	38733.133	37628.950	-1104.183	0.672
Candidates (2012)	4.458	4.483	0.025	0.873
Vote margin (2012)	0.266	0.306	0.040	0.361
Turnout (2012)	0.762	0.770	0.009	0.353
Term of MP	1.917	1.867	-0.050	0.803
Area (km. sq.)	775.125	819.338	44.213	0.761
Distance to constituency	213.056	203.513	-9.543	0.518
Rural population	0.605	0.572	-0.033	0.510
Proportion of pop. with electricity	0.552	0.563	0.010	0.756
Fuel (electric and gas)	0.092	0.102	0.010	0.584
Cement walls	0.506	0.529	0.023	0.558
Muslim population	0.120	0.115	-0.004	0.748
Population in Agriculture	0.508	0.488	-0.020	0.639
Asante	0.222	0.237	0.016	0.762
Fante	0.160	0.117	-0.043	0.344
Ewe	0.150	0.180	0.030	0.567
Dagomba	0.008	0.009	0.001	0.735
Education (primary or less)	0.912	0.906	-0.006	0.585
Employed	0.503	0.506	0.003	0.737
NDC (incumber party)	0.533	0.500	-0.033	0.718

Table 4.1: Balance statistics

Notes: Table 4.1 shows the covariate balance for electoral and geographic variables across treatments. To calculate distances from the capital to constituencies, I use the `geocode` function in the `ggmap` package in R to take the geocordinates of constituency capitals. Using the geo-coordinates of Ghana's parliament, I calculated the euclidean distances between constituency capitals and the Parliament. Table 4.1 also shows the balance for socio-economic characteristics per Ghana's 2010 Population and Housing Census across treatment.

responsiveness of politicians to the demands of citizens, I employ two measures; one capturing their provision of constituency service and the other their parliamentary work.

Regarding the provision of constituency service, I use the proportion of MPs' Constituency Development Funds that they spent in 2016. As I discussed in chapter 3, the extent to which legislators use their state-provided CDFs is an appropriate measure of responsiveness because spending the funds requires significant efforts. The law requires legislators to work with the local governments (LGs) located in their constituencies to execute their projects.[13] These LGs maintain the accounts to which the Fund Administrator (FA) deposits disbursed CDFs. To construct public in-

[13]Ghana's Public Procurement Act 663, 2003.

frastructures such as bridges, schools, and repairs of roads in their constituencies, MPs must submit at least three price quotations from different vendors to the LG (Section 43 of the Public Procurement Act 663, 2003). The mayor and the procurement entity of the LG in an MP's constituency will then approve payment to the winner of the bid. Providing personal assistance such as paying school fees or medical bills to individual constituents is simpler but still requires some effort of MPs in terms of identifying needy residents or responding to citizens' requests by writing letters to their LGs. These letters must provide reasons for the requests and the names of selected recipients.[14] These processes take substantial time and energy, and without electoral pressures, MPs may shirk on spending such funds, as Keefer and Khemani (2009) show in India. Therefore, I employ the shares of CDFs MPs spend as my measure of effort regarding the provision of constituency service and expect that the treatment will increase the use of these funds.

Beyond the fact that spending of CDFs provides a useful proxy for effort, the discretion politicians have over how to spend these funds provides addition insights. As mentioned above, MPs can decide to use their funds to provide local public goods or private benefits to their constituents. The data I use put me in the position to disaggregate MPs spending by type (i.e. public versus private). While providing public goods implies taking care of a broader set of constituents, legislators can use their funds to provide private benefits to their supporters. Therefore, I also consider the proportion of funds spent on each type of good with the assumption that spending on public goods is more responsive to the demand of more voters compared to expense on private benefits. In line with my findings in chapter 3, my expectation is that incumbent legislators in the treatment group might spend more of their funds on local public goods provisions compared to those in control group. However, the treatment might have no effect on MPs' levels of spending on private benefits for constituents, suggesting that the additional spending that I may find in the total use of funds in my treated incumbents will be driven by expenses devoted to providing local public goods.

Concerning parliamentary work, I use data on legislator attendance in parliamentary meetings to measure the effect of the treatment on their legislative activities. Obviously, attendance at meetings does not guarantee participation or contribution to legislation and committee work, but MPs

[14] Interview with officials in Ghana's District Assemblies' Common Fund (December 2015).

needs to be present in the first place. Accordingly, I assess the effect of the treatment on absenteeism rates of incumbents. In theory, there are plausible reasons to believe that the treatment might lead MPs to abandon parliamentary work for more visible and electorally rewarding constituency service as discussed in chapter 3. However, I suggest that because MPs have set times in the weeks and during the year (during recess) to conduct constituency work, the treatment need not distract from their work in the House. Moreover, because citizens do not hold MPs accountable on this dimension of their work, it is not likely to boost their attendance in parliament.

4.3.1 Additional data: electoral data

An empirical implication of my hypothesis is that incumbents who received the treatment would work harder (i.e. spend more of their CDF) and, accordingly, should get more votes and would be more likely to be reelected, all else equal. Thus, I also use election results from Ghana's 2016 Parliamentary elections from my sample constituencies. Specifically, I collected the vote shares of reelection-seeking incumbents, and coded whether they won their seats or not. I coded whether incumbents contested the polls using the list of candidates published by the Electoral Commission. I collected the vote shares and re-election of incumbents from online sources.[15]

4.4 Analysis

To measure the effect of the intervention (*information on intensity of observation*), I compare the percentage of CDF spending among politicians in treated and control conditions. Specifically, I estimate the intention-to-treat (ITT) effect of receiving information about a likely intense election observation in one's constituency on legislators' levels of spending. The random assignment of the intervention allows me to interpret any significant differences in the average spending between treated and control groups as causal. Formally, let $Y_i(O_i)$ denote the level of spending (the outcome

[15] I used the following online sources: `http://www.ghanaweb.com/GhanaHomePage/ghanaelection2016/elections.parliamentary.results.php` and `http://www.ghanamps.com/mps/`, sourced on: February 25, 2017.

of interest) for legislator i assigned to treatment conditions O. I estimate:

$$ITT = E[Y_i \mid O_i = 1] - E[Y_i \mid O_i = 0]$$

where $o \in \{1 = \text{treated}, 0 = \text{control}\}$ is the treatment status of legislators.

4.4.1 ITT effect of information on intensity of observation on the use of CDFs

To test my main hypothesis that expectation of intense observation would increase incumbent effort to respond to constituents, I analyze the effect of my intervention on the proportion of CDF spent by MPs. My primary dependent variable is the percentage of available CDF that was spent in 2016 ($Util$). I estimate the intention-to-treat effect by comparing the mean of the proportions of CDF spending among MPs in the treated group to those in the control group. The difference-in-means estimate provides the causal effect of providing information about intense monitoring on the provision of benefits to constituents. As I mentioned above, the total level of spending masks the type of benefits MPs provide to their constituents in their effort to win reelection. To provide further insights into what kind of MP spending might explain any difference that I may find, I disaggregate total spending into two main types: expenditure on public goods ($Util_Pub$) and private benefits ($Util_Priv$). I conduct similar difference-in-means analysis between the two treatment groups.

Table 4.2 shows the main analysis that I will run when I collect and code the data on CDF spending. Columns (1)- (3) will report the means and standard errors of the proportions of CDF expenditure in the full sample, and for the control and treated groups, respectively. Column (4) will report the ITT (difference-in-mean estimate) with the corresponding standard error and *P-value* from Welch two-sided t-test. The first row of Table 4.2 will report the results of the total proportion of CDF spent by MPs. Rows (2) and (3) will report the results for MPs' spending on public goods and private benefits, respectively.

	Full sample (1)	Mean Control (2)	Treated (3)	Difference in mean *ITT* (4)
(1) **CDF spending**	$E[Util_i]$	$E[Util_i(0)]$	$E[Util_i(1)]$	$E[Util_i(1)]$- $E[Util_i(0)]$
(2) **Public goods**	$E[Util_Pub_i]$	$E[Util_Pub_i(0)]$	$E[Util_Pub_i(1)]$	$E[Util_Pub_i(1)]$- $E[Util_Pub_i(0)]$
(3) **Private benefits**	$E[Util_Priv_i]$	$E[Util_Priv_i(0)]$	$E[Util_Priv_i(1)]$	$E(Util_Priv_i(1))$- $E(Util_Priv_i(0))$
N	120	60	60	

Table 4.2: Intention-to-treat effect of expectation of intense observation on constituency development fund spending

Notes: Table 4.2 will report the intention-to-treat effect of treatment on the level of CDF spending among MPs to respond to their constituents' needs. Columns (1)- (3) shows the means and standard errors for the proportion of CDF spent in the full sample, and in the control and treated groups, respectively. Columns (4) reports the ITT effect of treatment. Rows (1)-(3) reports these estimates for the main DV (Total CDF spending), public goods, and private benefits, respectively. The statistical significance of the difference in means will be based on Welch two-sided t-test.

To analyze the heterogenous effects of information on intense election observation, I will estimate the following ordinary least squares model:

$$Util_i = \alpha + \beta_1 \mathrm{O}_i + \beta_2 X_i + \beta_3 \mathrm{O}_i * X_i + \epsilon_i$$

where $Util_i$ represents the proportion of CDF spent by legislator, i. O_i is the treatment variable and takes the value $o \in \{1(\text{treated}), 0(\text{control})\}$. I will estimate two versions of this equation. In the first equation, X_i will represent the vote margin for legislator i in the 2012 elections. In the second version, X_i will represent the dummy variable that indicates whether the incumbent is seeking reelection $(X_i = 1)$ or not $(X_i = 0)$. In both cases, β_3 estimates the interaction effect of being in the treatment group and changes in the vote margin (or reelection-seeking status of the incumbent). That is the equation helps to examine whether the treatment induces any additional effect among MPs in competitive electoral constituencies and those who are seeking reelection, respectively. In the first version of the equation, I expect β_3 to take a negative sign, which will suggest that the intervention will have a lower effect among MPs elected with higher electoral margins in 2012. In the second version of the equation, I would expect β_3 to have a positive sign, suggesting that the treatment will have a higher effect among legislators who are seeking reelection compared to those who are not.

4.4.2 ITT effect of treatment on the legislative activities of incumbents

In their attempt to satisfy the demands of voters, incumbents might substitute constituency services for legislative activities. Constituency services are more visible to citizens and more likely to influence their assessment of the performance of incumbents compared to legislators' other functions of lawmaking and oversight (Ashworth and Bueno de Mesquita, 2006). Accordingly, I assess whether the treatment has an impact on the legislative activities of officeholders. Specifically, I estimate the ITT effect of information about intense election observation on the absence rate of legislators at Parliamentary meetings. Ghana's Parliament meets four times each week (Tuesday through Friday). The attendance of MPs to Parliamentary sessions are recorded in the Hansards (official records

of legislative debates). For each meeting, the records indicate whether an MP was present, absent with permission, or absent without permission.[16] I code the absence rate (without permission) of MPs between January 26 and October 26, 2016.[17] During this period, Ghana's Parliament met 92 times. To estimate the treatment effect of the letters to MPs on their legislative activities, I compare the absence rates of MPs in the treated and control group.

Columns (1) -(3) of Table 4.3 report the absenteeism rate among MPs in my full sample, and in the control and treatment groups, respectively. Standard errors of these estimates are reported in parentheses. Column (4) reports the ITT effect of the intervention on MPs absenteeism rate and the corresponding standing error. On average, MPs were absent a little over a quarter of the time (26 percent) in the full sample. The results show similar absence rates for MPs in control (26.4) and treated (25.6) groups, suggesting that, statistically and substantively, the intervention has no effect on the absence rates of MPs. If my interpretation of the results below on MPs' votes share and reelection rates is true, then these results suggest that the treatment does not encourage MPs to substitute constituency service for legislative activities. This is consistent with my earlier findings that MPs elected in intensely monitored elections do no better in their attendance rates in parliament, but put more effort into providing public infrastructure for their constituents. Thus, these extra efforts may come at the cost of an MP's pursing private business activities or leisure.

[16]MPs must seek permission from the Speaker to excuse themselves from these meetings (Article 97 (1c), 1992 Constitution of Ghana). Absence with permission, however, constitutes less than 2% of the absence rates in Ghana's Parliament.

[17]This data was extracted from the Votes and Proceedings of the Parliament of Ghana by the staff of Odekro PMO Foundation (`www.odekro.org.`) and shared with me on February 9, 2017.

	Full sample (1)	Control (2)	Treated (3)	*ITT* (4)
Average absence rate	0.260	0.264	0.256	-0.008
	(0.013)	(0.019)	(0.018)	(0.026)
N	120	60	60	

Table 4.3: Similar absence rates in parliament among MPs in control and in treated groups

Notes: Table 4.3 reports the intention-to-treat effect of treatment on the absence of MPs from Parliamentary sessions in January 26 - October 26, 2016. Parliament met for 92 times during this period. Columns (1)- (3) shows the means and standard errors for absence rate in the full sample, and in the control and treated groups, respectively. Columns (4) reports the ITT effect. Robust standard errors are reported in parentheses. Significance level indicated by $^{*}p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$ are based on two-sided hypothesis test.

4.4.3 ITT effect of treatment on vote shares and reelection rates

Tables 4.4 and 4.5 present my results for incumbents' vote shares and reelection rates, respectively. For each dependent variable (vote shares and reelection), I present two analyses in Panels A and B of the results tables. Panel A presents the results with the original sample of 120 constituencies, and Panel B adds the 31 remaining of 151 constituencies in the five regions to the control group. In the original sample, 89 MPs were seeking reelection, and 46 are in the control group. In the increased sample, 109 of the 151 are seeking reelection, and 69 are in the control group. The purpose of adding the remaining constituencies is to increase statistical power. Indeed, for both dependent variables, adding the remaining constituencies increases the precision (i.e. reduces the standard error) of the estimated mean in control without changing its size. Also, Table C.3.2 in Appendix C shows that balance is maintained by adding these 31 constituencies, which makes sense because my original sample was representative of the five regions.

Table 4.4 displays the findings for vote shares, and shows that the treatment increases the vote shares of reelection-seeking incumbents by about 3.2 percentage points. Columns (1)-(3) report the means and standard errors of the mean of vote shares of incumbents in the full sample, and in the control and treated groups, respectively. Column (4) reports the treatment effect of the intervention on vote share. In the full sample, the mean of the vote shares of incumbents is 58.6 percent (and 57.8 percent for increased sample in Panel B). In control group, the average vote

share is 57.1 percent (2.2 s.e.) for the original sample and 56.3 percent (1.7 s.e.) for the increased sample. These averages rose to 60.3 percent (2.5 s.e.) in the treatment group. Accordingly, the treatment increased the vote shares of incumbents by 3.2 percentage points (3.3 s.e.) for the original sample and 4.1 percentage points (3 s.e.) for the increased sample, which represents an increase of more than 5 percent. While the ITT effect estimate is not statistically significant for the original and increased sample, if real, it is substantial. Also, the reduction in the the *p-value* associated with these estimates with increasing in the sample suggests the effect may be real.[18] The finding suggests that reelection-seeking MPs got a boost in their vote shares as results of the treatment, which imply they may have worked harder to win the support of their constituents.

	Full sample	Control	Treated	ITT
Panel A				
Average MP vote shares	0.586	0.571	0.603	0.032
	(0.016)	(0.022)	(0.025)	(0.033)
N	86	46	40	*P-value*= 0.340
Panel B				
Average MP vote shares	0.578	0.563	0.603	0.041
	(0.014)	(0.017)	(0.025)	(0.030)
N	108	68	40	*P-value*= 0.1872

Table 4.4: Treatment increases the voter share of reelection seeking incumbents

Notes: Table 4.4 reports the intention-to-treat effect of treatment on the vote share among MPs seeking reelection. Columns (1)- (3) shows the means and standard errors for reelection rate in the full sample, and in the control and treated groups, respectively. Columns (4) reports the ITT effect of treatment. *P-value* associated with the difference in means is based on Welch two-sided t-test.

Indeed, Table 4.5 displays the findings for the reelection rates of incumbents and provides consistent results. It shows that the treatment increases the reelection rate of incumbents by about 13.3 percentage points. Columns (1)-(3) report the proportions and standard errors of reelected incumbents in the full sample, and in the control and treated groups, respectively. Column (4) shows the ITT effect of the intervention on reelection rates. In the full sample, out of the 86

[18]The sample size was in part explained by the resources available for this study. In replicating this study, the sample size will need to be increase to increase statistical power.

incumbents who contested for reelection, about 78 percent were reelected. Similarly, within the bigger sample, 76.9 percent of the 109 incumbents on the ballot were re-elected. In the control group, 71.7 percent (72.1 percent in the larger sample) of incumbents were reelected compared to 85 percent in the treated group. Again, the increased sample improves the precision of the estimates. Using this sample suggests a 12.9 percentage points increase in the reelection rates for treated incumbents (significant at the 11 percent level). The increase represents almost a 17.9 percent boost in reelection rate for incumbents, a substantively large effect.

	Full sample (1)	Control (2)	Treated (3)	*ITT* (4)
Panel A				
MP reelected	0.779	0.717	0.850	**0.133**
	(0.045)	(0.067)	(0.057)	(0.088)
N	86	46	40	*P-value*= 0.136
Panel B				
MP reelected	0.769	0.721	0.850	0.129
	(0.041)	(0.055)	(0.057)	(0.079)
N	108	68	40	*P-value*= 0.106

Table 4.5: Treatment increases the reelection rate among Members of Parliament

Notes: Table 4.5 reports the intention-to-treat effect of treatment on the reelection rates among MPs seeking reelection. Columns (1)- (3) shows the means and standard errors for reelection rate in the full sample, and in the control and treated groups, respectively. Columns (4) reports the ITT effect of treatment. *P-value* associated with the difference in means is based on Welch two-sided t-test.

4.5 Discussion

A potential threat to inference in my study is whether legislators who I did not send letters indeed went untreated. That is, it is possible that the belief about intense election observation of MPs in control group may be influenced by information passed on by their treated colleagues, which raises concerns about the Stable Unit Treatment Value Assumption (SUTVA) of the treatment assignment. If SUTVA is breached, it may attenuate the difference in performance in treated and

control group biasing my estimates downwards. However, if it encourages untreated legislators to further shirk in the hope that they will be able to cheat in the upcoming elections, this will exaggerate the effect size. However, I believe that the former is more likely the case in the setting of my study. First, the letters did not say other constituencies will not get any election observers; it only stated that treated electoral districts will receive more observers. In Ghana, CODEO as a policy, deploy some monitors to all constituencies. Thus, all legislators expect some monitoring. My treatment served to make observation more salient and to generate expectations of a greater intensity of election observation among treated MPs. Second, the limited resources available to CODEO to deploy an equally large number of observers to all constituencies means that those who did not receive such letters may assume a limited observation. Thus, reelection-seeking incumbents in the control group may rather slightly increase their responsiveness should their colleagues remind them of the impending election monitoring. Nevertheless, these theoretical possibilities may need to be accounted in future research.

With this possible limitation in mind, I conclude with preliminary thoughts about what we would learn from this chapter. I test the idea that incumbents' beliefs about avenues for future election day fraud shape their responsiveness to voters' interests and preferences. I posit that when such opportunities are limited because an external factor such as election monitoring imposes a constraint on such activities, officeholders are likely to divert their efforts to satisfying the needs for citizens to retain their positions, compared to when they do not face such limitations. While measures of performance related to meeting constituents' demands are not yet available, I show that incumbents whom I exogenously manipulated their beliefs about the prospects rigging were more likely to be reelected, which suggests they may have exerted more effort on behalf of voters to win their support. Further, the results suggest that the prospects of competing in free and fair elections may encourage political responsiveness.

With these initial findings, I draw three main conclusions. First, the results demonstrate that *expectations* of serious election observation seems to impact the performance of politicians as indicated by their electoral success. If confirmed, it would provide for my conjectures in the previous chapter that the higher levels of responsiveness of legislators elected in constituencies that

had rigorous monitoring did so because they expected sanction through future fair elections. Second, if my argument that the electoral success of these politicians derives from their provision of publics goods to their citizens (via CDF spending), it will corroborate the existing literature that suggests that voters reward politicians who supply more local public goods. Third, contrary to earlier studies that emphasize the displacement of election manipulation in expectation of election observation, this chapter puts the spotlight the potential positive externality of observation on political responsiveness. It suggests that election observation holds the potential for the consolidation of democracy in this setting insofar as it encourages politicians to meets the needs of citizens.

4.6 Conclusion

With this chapter, I seek to make three contributions to the literature. First, I shift the focus on the conditions that strengthen the electoral incentives for incumbents to their perceived chances of rigging their reelection. I hope to demonstrate and quantify the effect of changes in beliefs (or salience) about the chances of election day fraud detection on the political responsiveness of politicians in a consolidating democracy with a significant capacity of independent election observation. To my knowledge, this is the first experiment to examine the link between the expectations of election-day monitoring and incumbents' responsiveness to citizens' needs at the electoral district level, and adds to the scholarly work that examines institutional and contextual factors such as term limits and information on electoral accountability.

Second, I contribute to the political economy literature on corruption, which suggests that increasing the probability of external audits of officeholders promotes accountable behavior (Olken, 2007; Björkman and Svensson, 2009; Callen et al., 2016). I demonstrate that because election observers increase the chances that fraud will be detected, announcing their impending monitoring on election day incentivizes incumbent to more responsive to their constituents' demands. Preliminary evidence suggests that politicians who expect a higher level of observation in their constituency are more likely to be reelected than those who do not expect higher levels of observation, suggesting they may have worked harder to satisfy voters needs.

Third, the chapter contributes to the growing body of scholarship on the "unintended" consequences of election observation in developing countries (Simpser, 2008). Contrary to the dominant focus in this literature on the negative response of incumbents to election monitoring (i.e. shifting fraud to earlier stages of the electoral process), my work highlights its potential "positive" effect on political accountability at the local level. My findings suggest that officeholders can respond to such threats of electoral sanction by substituting hard work to satisfy voters demand for election manipulation. Future research would have to carefully consider both responses.

CHAPTER 5

Conclusion

Since the late twentieth century, the vast majority of countries in the world have come to use elections to elect their leaders. However, in these new democracies, elections are often marked by fraud and violence, raising concerns about the efficacy of voting in encouraging the responsiveness of officeholders to the demands of citizens. During the last two decades, scholars, policy makers, and democracy advocates have argued that to the extent that politicians can circumvent electoral accountability through manipulation tactics such as ballot stuffing, multiple voting, and intimidation of voters, incumbents would be less inclined to exert more effort to meet the demands of citizens. These beliefs about the connection between the free and fair elections and democratic responsiveness have driven several democracy promotion efforts, especially in developing countries. Indeed, civil society groups and international organizations invest billions of dollars in activities aimed at improving the quality of elections. In this dissertation, I have focused on examining the instrumental consequences of one such activity, election observation, beyond the immediate impact of improving the quality of elections.

I have argued that two main assumptions underpin election observation efforts. First, democracy advocates believe that monitoring limits the ability of politicians to tip the electoral scales to their advantage, thus improving the quality of elections. Second, they assume, if only implicitly, that because voters can effectively select and punish politicians in clean elections, incumbents would be motivated to exert more effort to respond to the demands of citizens, all else being equal. However, while recent empirical research shows that election monitoring reduces fraud and violence, supporting claims of its impact on election integrity, we have no reliable evidence that these efforts subsequently induce democratic responsiveness. In this project, I extend this literature to

examine whether election monitoring ultimately improves the performance of politicians while in office.

In part, this project is motivated by normative concerns, shared by scholars working in this literature, that electoral manipulation further undermines the "limited" power that citizens typically exercise in new democracies. For example, researchers have found that in nascent democracies in Africa, voting remains the principal channel through which citizens participate in the democratic process (see Bratton, 2013*b*). Beyond election day, citizens hardly use other channels such as joining others to raise a petition or participate in a demonstration to demand accountability from elected officials. Accordingly, politicians' ability to also manipulate the polls can severely damage political accountability and democratic responsiveness in these new democracies.

However, the project is also motivated by concerns about the potential for 'electoral fallacy' that continues to be expressed by policy makers and journalists commentary about the importance of conducting honest elections to achieve all "good things." The electoral fallacy refers to the belief that holding repetitive elections, irrespective of their quality, will automatically yield consolidated democracy (see Lindberg, 2006). While recent scholarship has tempered this initial optimism about the "democratization power" attributed to multiparty elections, with the recognition that elections are necessary for but not the sufficient cause of democratic governance, the policy community continues to place enormous expectations on what free and fair elections can achieve. For example, as noted in chapter 1, a recent report released by the Global Commission for Elections and Security suggests that free and fair elections matter not only for stabilizing democratic regimes but also for providing concrete benefits such as "empowering women, fighting corruption, delivering services to the poor, improving governance, and ending civil wars" (Annan et al., 2012, pg.5). As I argue, we do not have firm evidence to support these beliefs about the instrumental benefits of improving the integrity of elections. Therefore, it is important to establish what goals free and fair elections can achieve.

In this dissertation, I have sought to empirically examine the causal effect of free and fair elections on the responsiveness of politicians to citizens needs. I ask whether honest elections, compared to sham elections, motivate elected officials to put their shoulders to the wheel to meet

the expectations of people to win their vote in the next elections. However, to establish causality, scholars need to manipulate the level of election quality across countries or electoral districts, and then compare the degree of performance of incumbent governments or politicians elected in such randomly assigned honest elections to those chosen from fraudulent ones. Unfortunately, researchers typically do not have such a luxury because free and fair elections cannot be simply assigned to countries or districts. Thus, in spite of the theoretical and practical importance of this question, we simply do not have evidence to back the belief that free and fair elections induce democratic responsiveness. My dissertation provides the first step in this direction.

5.1 Election integrity and democratic responsiveness

A primary argument in this dissertation is that the quality of elections is an important determinant of their efficacy as a principal channel through which citizens can motivate elected officials to respond to their needs. I argue that in office, politicians can combine two main strategies to win elections: (1) exerting effort to meet citizens' demands and (2) manipulating elections. I contend that the ability of politicians to rig elections (i.e. the level of electoral integrity) influences incumbents' levels of effort to provide the needs or meet the expectations of constituents. The ability to manipulate elections allows politicians to substitute fraud for effort on behalf of constituents without facing electoral consequences. Rather than simply assuming that all good things flow from improving the quality of elections, this project has sought to test the instrumental effects that are often associated with election integrity in the literature and contributes causal evidence to this growing body of scholarship.

Beyond establishing whether election quality generates tangible benefits for citizens, I have sought to test the possible mechanisms through which honest elections can affect the behavior of incumbents. Specifically, I examine the two channels through which elections are believed to exert influence on political responsiveness: the selection of quality candidates and the sanctioning of poor performance. Testing how improving the quality of elections influences incumbents' performance through each of these channels is challenging because, in practice, they can operate

simultaneously. For example, citizens' success in electing public-spirited and hardworking candidates can explain incumbents higher levels of responsiveness. However, such elected officials may also fear that voters will show them the exit in the next elections. I suggest, however, that election fraud can undermine each of these channels, which breaks down the chain of democratic responsiveness. First, through election fraud, the candidate most citizens prefer may simply not win, undermining the potential selection effect. Second, in rigged elections, candidates can invade the electoral sanction of dissatisfied citizens because the people's vote may not count. While the findings in this dissertation appear to support the sanctioning mechanism, it does not rule out the theoretical possibility of the other channel in other settings. Accordingly, I provide an empirical framework to examine these channels systematically.

To focus on establishing the causal effect of election quality of the responsiveness of politicians does not imply that it is the only factor that matters. Indeed, an extensive scholarship highlights several factors that may undermine the electoral accountability in new democracies. These factors include the possibility that voters emphasize candidates' attributes such as ethnicity and religious identities that may not necessary engender better performance in office. It also includes incumbents resorting other undemocratic tactics such as vote buying and control of the media. Citizens may also lack information about the performance of incumbents in office. These factors may undermine democratic responsiveness, irrespective of the quality of elections. However, it is for these reasons, and to avert the electoral fallacy, that we need to examine whether honest elections have independent effects on political responsiveness. Specifically, I have sought to examine whether honest elections, on average, improve politician effort to satisfy citizens' preferences if other factors are held fixed.

5.2 Empirical challenges and overcoming them

To overcome the challenge establishing causality, I leverage insights from current research on one of the notable tools used by international organization and local civil society groups to promote the free and fair election in developing democracies, election observation. Adopted almost concur-

rently with the the third wave of democratization, election observation has become an international norm (Hyde, 2011; Kelley, 2012), with domestic election groups present in more than 60 countries. As I have described in previous chapters, election observation involves the deployment of trained personnel to monitor polling stations on election day to deter and reduce the incidence of fraud and voter intimidation (Bjornlund, 2004). Experimental research has offered credible evidence that the presence of observers reduce election manipulation activities at polling stations. Accordingly, *if all else are equal*, because observers reduce fraud, researchers can use their presence or absence in an election can serve as an instrument for levels of integrity. However, across states and sub-national electoral units, things are *not* always equal, which presents a challenge to establishing causality.

Cross-nationally, it turns out, states exercise the discretion to invite international observers or permit local civil society groups to deploy observers (Bjornlund, 2004; Merloe, 2015). The ability of governments to decide whether to invite or permit election observation generates inferential challenges because scholars have found that such decisions are typically informed by governments' strategic concerns. For example, governments may seek political legitimacy and other economic benefits from the international community (Hyde, 2011), or avert potential violent protest by increasingly strong opposition parties or respond to pressures from assertive civil society groups (Bjornlund, 2004). These underlying factors that generate the presence of observers may thus confound the association that we may observe between election integrity and the subsequent responsiveness of incumbent governments. Therefore, we would be misguided if we attribute the responsiveness of incumbents to the election observation.

Unfortunately, the manner in which election observation groups deploy monitors at the electoral district level does not mitigate the inferential challenge of establishing the causal relationship between honest elections and the efforts politicians elected at this level exert on behalf of citizens. While the recent spread of statistical-based observation allows civil society groups to detect potential fraud in national elections (i.e. Parallel Vote Tabulation), the samples are typically representative at the national level and offer no variation at the district level. Variation at the district level is required to examine impact on incumbents' behavior. Moreover, election observation groups often deploy more monitors to districts likely to experience higher levels of fraud or violence. The

underlying factors that inform such deployment present similar challenges to those I have outlined. Accordingly, to examine the causal effect of election observation on democratic responsiveness, researchers must manipulate the presence of observers at the national or subnational level. Randomizing observers at the national level remains a formidable challenge. However, as I indicate in this dissertation, progress has been achieved regarding the latter in the past few years, putting me in a position to address the empirical challenge of establishing causality.

In 2012, my collaborators and I conducted a field experiment in Ghana's general elections that randomized the intensity of election observation (the proportion of sampled polling stations in a constituency that was monitored by an observer) across 60 electoral districts. We found that increasing the concentration of observers in a constituency significantly reduces the average levels of election fraud and violence of all polling stations located in the electoral district. The finding suggests that the initial randomization of intensity of monitoring can be taken as an exogenous instrument to estimate the impact of the level of election quality on the responsiveness of elected officials during their terms in office. By comparing the average levels of effort exerted by incumbents elected in districts that randomly received higher levels of monitoring to those that received fewer monitors, we can estimate the causal effect of honest elections induced by intense observation. In this dissertation, I build on this insight and compare the performance of legislators elected in constituencies that had a minimal presence of observers to those intensely monitored to examine the causal effect of election integrity and responsiveness. Since monitoring intensity was randomized, I can make causal claims about the impact of electoral integrity on political responsiveness because randomization allows me to hold the other factors fixed, on average. I followed Members of Parliament (MPs) elected from these electoral districts with different levels of exogenously induced election quality during their four-year terms in office to examine their responsiveness.

Yet, measuring democratic responsiveness also presented a challenge in my study. A review of the literature suggests that democratic responsiveness is the extent to which elected candidates satisfy the collective preferences of citizens. To establish what people prefer, I drew on recent survey research that attempts to gauge what citizens demand from their legislators in Ghana and other developing societies. I also conducted interviews with Ghanaian MPs to establish what they

believe citizens want from them and how they juggle these demands. In chapter 2, I showed in the Ghanaian context, a higher proportion of citizens say their MPs should dedicate their time primarily to constituency service. Only a few people say their legislators should conduct parliamentary work. Further, constituency service involves the provision local public (development) goods and regular visits to one's constituency. It also involves providing private benefits to constituents such as paying their school fees, medical bills, disaster funds, and making funeral contributions. In chapter 2, I also showed that in spite of the apparent high demand for constituency service, there exist a significant variation regarding the extent to which MPs provide them. Moreover, I found a weak relationship between electoral competition, which scholars suggest increases incumbents' incentives, and the provision constituency in Ghana, which implies that other factors might explain the variation in the level of responsiveness of MPs. I argue that one such factor is the level of election integrity.

5.3 Summary of findings

In chapter 3, my analyses of interviews with 47 of the 60 MPs provide an initial support for my primary hypothesis that higher-integrity elections promote responsiveness. Specifically, I found that legislators elected in intensely monitored constituencies report to devote more time in their constituencies and organize regular meetings to listen to their constituents needs. Furthermore, they spend a higher proportion of their time inspecting development projects when they visit their constituencies. However, self-reported responsiveness might not necessarily correspond to reality on the ground.

Thus, to measure concrete political responsiveness, I go further to use original data on how legislators use their individual Constituency Development Funds (CDF). Members of Parliament (MPs) use these state-provided funds to deliver private benefits (e.g., school fees, healthcare costs) and local public goods (e.g. health clinics, latrines) to constituents. I also assess whether MPs choose to comply with procurement laws meant to reduce abuse of their funds, which serves as an indicator of good governance practice. My results are threefold. First, I find that politicians elected

in intensely-monitored constituencies use higher amounts of their CDFs. Because spending CDFs requires effort on the part of the MP, this finding implies that cleaner elections increase levels of effort among elected officials. Second, I find that MPs elected in cleaner elections spend twice as much on public goods compared to their counterparts elected in constituencies with low levels of election-monitoring. In fact, my results show that the increase in spending of MPs in cleaner elections is driven almost entirely by increases in spending on public goods rather than spending on private goods (which is similar across MPs elected in all types of constituencies). Finally, I find that legislators elected in fairer polls are more likely to adopt good governance practices when using CDFs to provide constituency services and public infrastructure as they are more likely to abide by national procurement laws.

To explain these findings, I draw on two theories of electoral accountability: the selection of "better" candidates and the sanctioning of poor performing incumbents. I suggest that the observer intervention could not have influenced performance through selection because the intervention affected neither the number of candidates nor the quality of those who were ultimately elected. Instead, I provide tentative evidence that MPs' expectations of electoral sanctioning in fair future elections explain my findings. Using data from a survey I conducted with MPs in the original sample (N=47), I find that politicians elected in intensely-monitored constituencies were more likely to report that they saw observers at a polling station they visited and to guess that a higher proportion of polling stations in their constituencies were monitored. Accordingly, I hypothesize that MPs exposed to high intensity monitoring in the past improve their performance in office because they have lower expectations than their less intensely monitored counterparts that they would have opportunities for fraud in future election. Politicians, therefore, must improve their performance, which means increasing their efforts to provide goods to constituents. While these results provide support for my hypothesized channel of impact, it does not entirely rule out the other possible mechanisms through which election quality might influence responsiveness. Therefore, I use an experimental method to systematically test my proposed explanation in chapter 4.

In the last empirical chapter of my dissertation (chapter 4), I test directly whether MPs' expectations of high levels of election monitoring affects their behavior in office. Specifically, to analyze

the effects of a cleaner election on prospective behavior, scholars need to manipulate incumbents' *prospective beliefs* about the integrity of future elections. I do this by sending personalized letters to 60 MPs to say that they should expect to receive intense monitoring of their constituencies in the December 2016 parliamentary elections, when they will contest their reelection. In the control group, 60 MPs did not receive such a letter. I sent these letters to the treated MPs in Winter 2015 and a reminder in Spring 2016. Similar to chapter 3, I use legislator spending of their CDFs in 2016 as my indicator of responsiveness. These data were not available at the time of filing this dissertation. However, I expect that MPs who received the letter will be more responsive to citizen's needs compared to those who did not receive the information treatment. Specifically, I expect MPs in the treated group to spend more of their funds on public goods provisions in 2016. Such results would provide evidence that improvements in election integrity increase responsiveness, on average, through belief about possible electoral sanctions in the next election. In fact, analysis of election outcomes provides some support for my expectation. The results show that MPs seeking reelection who received the letters were more likely to be reelected in the 2016 elections, which implies they may have earned more votes for their higher effort, on average, all else being equal.

5.4 Academic and policy implications

Many argue that higher levels of election integrity improve the responsiveness of governments and incumbent politicians to citizens' needs. If voters can effectively select their preferred politicians and punish unresponsive incumbents though genuine elections, scholars and advocates argue, elected officials would find it hard to ignore the needs and preferences of citizens. Accordingly, many suggests that placing limits on the ability of politicians to rig the polls should improve electoral accountability and encourage democratic responsiveness. This rationale has been the motivation for major investments in activities aimed at improving the quality of elections around the developing world. Similar beliefs have encouraged research into the efficacy of these interventions implemented by international organizations and local civil society groups to reduced election fraud in the hopes that by generating quality elections, politicians will work harder to improve the

welfare of the poor.

However, theoretical work on elections, which typically assumes that elections are fairly organized, paints a more nuanced picture about the effect of elections on electoral accountability. Some theories suggest that the chain of responsiveness in democracies can be broken in a number of stages and for multiple reasons, raising doubts about whether the mere improvement in the quality of elections can induce greater responsiveness. Also, if the quality of election matters for the responsiveness of politicians, to what expectations of citizens do incumbents respond? Answers to these questions are important to understanding what free and fair elections can achieve in new democracies.

While the results I have presented in this dissertation provide support for the conventional view that the quality of election influence the responsiveness of politicians to the needs of citizens, they raise important caveats. By investigating the impact of free and fair elections on the responsiveness of legislators who play multiple functions for their constituents, the study provides important insights into which roles politicians prioritize. The evidence suggest that politicians indeed do 'what voters want,' providing more constituency service. Moreover, among aspects of constituency service, incumbents supply more local public goods, which many voters prefer. To my knowledge, it provides the first causal evidence that election observation, one of the prominent tools of democracy promotion, ultimately induces incumbents' responsiveness by increasing the quality of elections. This should come as welcome news for democracy promoters.

However, the evidence also suggests that the integrity of elections cannot achieve all things. The results suggest that the election integrity had no impact on the frequency with which legislators attend parliamentary meetings, suggesting that honest elections may not influence legislative work. Parliamentary work, which involves passing legislation and overseeing the executive branch of government, are crucial to a well-functioning democracy. While democracy promoters may celebrate the fact that increasing the quality of elections does not decrease legislator effort in these duties, it also does not increase them. The implication of my finding, therefore, is that democracy promoters cannot entirely count on fair elections to strengthen the legislative arm of government. Accordingly, in contrast to (Ochieng' Opalo, 2012), the evidence I provide in this dissertation

suggests that honest elections may not strengthen parliamentary checks on the executive.[1]

Nevertheless, insofar as scholars believe that democratic responsiveness is an important ingredient to the survival of new and old democracies, my findings are promising for democracy promoters. The results presented in this dissertation suggest that for multiparty competitions to motivate incumbents to serve the interests of citizens, effective interventions must be devised to place limits on the ability of politicians to manipulate elections.

[1]Ochieng' Opalo (2012) argues that presidents in Africa use election manipulation including gerrymandering and results fiddling.

APPENDIX A

A.1 Afrobarometer Round 6 questions and coding

Variable name	Question wording	Coding
MPs never listens	Q59A: How much of the time do you think the following try their best to listen to what people like you have to say? Members of Parliament.*Options*: 0) Never, 1) Only sometimes 2) often 3) Always 9) Don't know	1-[0) Never, 1) Only sometimes], 0- Otherwise
Strongly disapprove or disapprove MPs performance	Q68B: Do you approve or disapprove of the way that the following people have performed their jobs over the past twelve months, or haven't you heard enough about them to say? 1) Strongly disapprove, 2) Disapprove, 3) Approve, 4) strongly approve, 9) Don't know/ haven't heard enough	1 [1) Strongly disapprove, 2) Disapprove]; 0 -Otherwise
All or most MPs involved in corruption	Q53B: How many of the following people do you think are involved in corruption, or haven't you heard enough about them to say? Members of Parliament. *Options*: 0) None, 1) Some of them, 2) Most of them, 3) All of them, 9) Don't Know/ Haven't heard enough	1-[2) Most of them, 3) All of them], 0- Otherwise

Table A.1.1: Afrobarometer Round 6 Coding

APPENDIX B

	National			Sample region			Study constituencies		
Statistic	Mean	St. Dev.	N	Mean	St. Dev.	N	Mean	St. Dev.	N
# polling stations	94.553	32.276	275	96.074	30.707	122	99.333	30.049	60
Voters	51,024.700	23,702.350	275	52,217.480	20,654.510	122	53,546.850	19,421.790	60
Candidates	4.682	1.003	275	4.496	0.887	122	4.517	0.868	60
Distance (Km)	239.142	178.880	256	186.356	63.184	104	181.860	68.037	53
Ln Area (Km^2)	5.946	1.584	275	5.873	1.414	122	5.996	1.340	60
Ln Voter Density (Area (Km^2)/# voters)	4.789	1.850	275	4.910	1.572	122	4.812	1.501	60
% rural	0.564	0.301	275	0.587	0.291	122	0.557	0.290	60
% electricity	0.542	0.230	275	0.586	0.188	122	0.584	0.177	60
% households with electric/gas	0.120	0.142	275	0.112	0.112	122	0.111	0.110	60
% Cement walls	0.480	0.265	275	0.532	0.227	122	0.539	0.210	60
% Muslim	0.183	0.212	275	0.105	0.063	122	0.107	0.074	60
% population in Agric.	0.490	0.280	275	0.463	0.247	122	0.465	0.240	60
% Ashanti	0.140	0.229	275	0.256	0.295	122	0.257	0.303	60
% Fante	0.097	0.183	275	0.165	0.250	122	0.147	0.231	60
% Ewe	0.132	0.219	275	0.188	0.300	122	0.197	0.318	60
% Primary education or less	0.902	0.072	275	0.905	0.062	122	0.902	0.068	60
% employed	0.521	0.057	275	0.498	0.047	122	0.495	0.046	60

Table B.1.1: Study constituencies (60) are regionally and nationally representative

Notes: Table B.1.1 shows the summary statistics constituency characteristics. I obtained data on the electoral characteristics of constituencies from Ghana's Electoral Commission. To calculate distances from the capital to constituencies, I use the `geocode` function in the `ggmap` package in R to take the geocordinates of constituency capitals. Using the geo-coordinates of Ghana's parliament, I calculated the euclidean distances between constituency capitals and the Parliament. Data on the socio-economic characteristics of constituencies are from Ghana's 2010 national census.

B.1 Summary statistics of sample constituences and covariate balance statistics

		Intensity of observation			
Variable	N	Low	Medium	High	P-value
Part A: Constituency electoral characteristics					
# polling stations	60	96	100	101	0.6427
# registered voters (2012)	60	53210	52804	55081	0.7285
# candidates 2012 polls	60	4.5	4.5	4.5	0.9742
Distance from capital to constituency (Kms)	60	182	183	185	0.8911
Log Area (Km. sq.)	60	5.6618	6.2426	5.9272	0.7280
Log # voters per Km. sq.	60	5.2094	4.5211	4.8905	0.7058
Part B: Constituency characteristics-district census					
% rural population	60	0.5228	0.5877	0.5441	0.9305
% households with electricity	60	0.5905	0.5558	0.6099	0.6261
% households with electric/gas	60	0.1174	0.1026	0.1165	0.9498
% Cement walls	60	0.5642	0.4967	0.5698	0.7632
% Muslim	60	0.0987	0.0990	0.1213	0.3243
% population in Agric.	60	0.4534	0.5100	0.4243	0.5810
% Ashanti	60	0.3033	0.2094	0.2792	0.9613
% Fante	60	0.1248	0.2169	0.0864	0.4196
% Ewe	60	0.1897	0.1760	0.2221	0.7196
% Primary education or less	60	0.8988	0.9185	0.8875	0.4651
% employed	60	0.4935	0.5096	0.4810	0.2638
Part C: 2012 Survey: respondent's rating of 2012 incumbent performance					
Delivering public service to community	59	0.5122	0.4713	0.4717	0.5717
Helping the national economy	59	0.4377	0.4214	0.3889	0.3684
Improving your family's economic situation	59	0.3801	0.3742	0.3195	0.2389
Providing peace and security	59	0.5086	0.5231	0.5010	0.8503
Helping the poor	59	0.4024	0.4177	0.3985	0.8882
Managing country's new oil revenues	59	0.4219	0.3937	0.3409	0.1816
Part D: 2012 Survey: respondent's party choices in 2008					
Prop. voting for NPP parliamentary candidate	59	0.4230	0.4284	0.4139	0.8846
Prop. voting for NDC parliamentary candidate	59	0.4133	0.4530	0.4383	0.8070

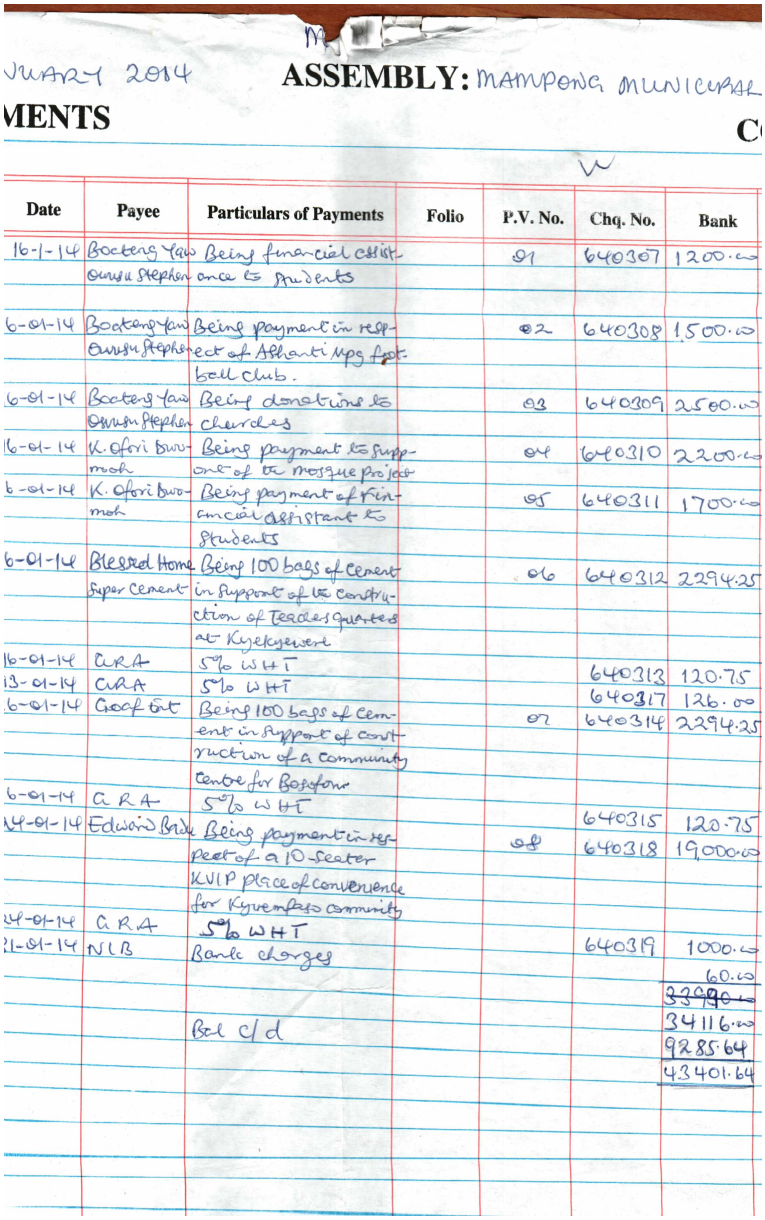
Table B.1.2: Covariate balance across three treatments

Notes: Part A of Table B.1.2 shows the covariate balance for electoral and geographic variables across treatments. To calculate distances from the capital to constituencies, I use the `geocode` function in the `ggmap` package in R to take the geocordinates of constituency capitals. Using the geo-coordinates of Ghana's parliament, I calculated the euclidean distances between constituency capitals and the Parliament. Part B of Table B.1.2 shows balance for socio-economic characteristics per Ghana's 2010 Population and Housing Census across treatment. Part C of Table B.1.2 shows balance for citizens ratings for their MP who served 2009-2013 terms in a post-election survey I conducted with my collaborators in 2012. These ratings were in response to the question was: "How would you rate your incumbent MPs performance in the following areas?" Respondents had five options: "Excellent," "good, " "fair," "poor," and "don't know." I created a dummy with the the first two options taking a value of 1. Accordingly, the average across treatment represents the proportion of respondents who believed the incumbent had performed "Excellent" or "good." Part D of Table B.1.2 report voters' reported choices in the prior (2008) parliamentary elections. The group means and p-values corresponding to the F-test statistic of all three treatment conditions are shown in the last column of the table.

B.2 Measuring responsiveness: utilization of Constituency Development Funds

I use MPs' spending of their state-provided CDFs as my measure of responsiveness. I use monthly reports of MPs' expenses to record and classify the type of goods and services to which MPs allocate their funds. Figures B.2.1 and B.2.2 provide examples of the expense sheets I coded. These records are available at the Ghana District Assemblies' Common Fund Administration at Accra in Ghana. I coded MPs expenses for the 2014 fiscal year that were available in the archives of the

DACF office. Table B.2.2 shows the six main expenditure types as well as their sub-categories and the coding rule used to classify individual expenses.



JUARY 2014 ASSEMBLY: MAMPONG MUNICIPAL

MENTS C

Date	Payee	Particulars of Payments	Folio	P.V. No.	Chq. No.	Bank
16-1-14	Boateng Yaw Owusu Stephen	Being financial assistance to students		01	640307	1200.00
6-01-14	Boateng Yaw Owusu Stephen	Being payment in respect of Ashanti Mpg foot-ball club.		02	640308	1500.00
6-01-14	Boateng Yaw Owusu Stephen	Being donations to churches		03	640309	2500.00
16-01-14	K. Ofori Buromoh	Being payment to support of the mosque project		04	640310	2200.00
6-01-14	K. Ofori Buromoh	Being payment of financial assistant to students		05	640311	1700.00
6-01-14	Blessed Home Super Cement	Being 100 bags of cement in support of the construction of teachers quarters at Kyekyewere		06	640312	2294.25
16-01-14	GRA	5% WHT			640313	120.75
13-01-14	GRA	5% WHT			640317	126.00
6-01-14	Goof Ent	Being 100 bags of cement in support of construction of a community centre for Bosoforo		07	640314	2294.25
6-01-14	G R A	5% WHT			640315	120.75
14-01-14	Edwin Brix	Being payment in respect of a 10-seater KVIP place of convenience for Kyerempaso community		08	640318	19,000.00
14-01-14	G R A	5% WHT				
21-01-14	NLB	Bank charges			640319	1000.00
						60.00
						~~33990.00~~
						34116.00
		Bal c/d				9285.64
						43401.64

Figure B.2.1: Exhibit 1: MPs' CDFs expenditure sheet

Notes: MPs' CDFs expenditure sheets are month-by-month reports of itemized spending by an individual legislator. These sheets are submitted by MPs' local governments to the national fund administrator.

ASSEMBLY: SEKYERE KUMA

MENTS **C**

Date	Payee	Particulars of Payments	Folio	P.V. No.	Chq. No.	Bank
02/10/14	Gideon Appiah Charles Appiah	Being financial support to Charles Appiah (blind) to complete his house project.		01/10/14	687462	200.00
02/10/14	Herbert A. Boateng	Being financial assistance, a student at Offinso Coll. of Educ.		02/10/14	687464	400.00
02/10/14	Seedorf Amoakohene	Being financial assistance, a student of University of Ghana		03/10/14	687465	300.00
13/10/14	Dadeaase Community	Being financial support for electricity extension project		04/10/14	687466	700.00
13/10/14	Dadeaase Community	Being financial support for renovation of D/A 'A' JHS block		05/10/14	687467	1,200.00
13/10/14	Akotosu Community	Being financial support for toilet project		06/10/14	687468	1,000.00
13/10/14	Akrofoso Unit Committee	Being financial support for completion of toilet project		07/10/14	687469	1,000.00
15/10/14	Pepease Community	Being financial assistance for the construction KVIP		08/10/14	687470	1,000.00
20/10/14	Esther Gyebye	Being financial assistance, a student at S.D.A College of Education		09/10/14	687471	400.00
20/10/14	Twenebonk Kodwo S.H.S	Being financial assistance to Dapaa Salomey A., a student at TK SHS.		10/10/14	687472	300.00
20/10/14	Twenebonk Kodwo S.H.S	Being financial assistance to Osei Francis.		11/10/14	687473	300.00
20/10/14	Ejisu S.H.S	Being financial assistance to Frank Adu Poku.		12/10/14	687474	300.00

Figure B.2.2: Exhibit 2: MPs' CDFs expenditure sheet

Notes: MPs' CDFs expenditure sheets are month-by-month reports of itemized spending by an individual legislator. These sheets are submitted by MPs' local governments to the national fund administrator.

Type	Categories	Criteria
Public goods	Education	Construction or repair of school buildings, extra classes for schools, mock exams for final year students, and textbooks and other school supplies distributed to schools.
	Health	Construction or repair of local clinics, clearing of community dumpster, immunization exercises, and health awareness programs.
	Repair and construction	Road, bridges, water pumps, and purchase of construction materials to support community initiated projects (electoral area is specified).
	Safety and Security	Police operations (i.e., providing security for community events) and providing street lights or replacing street bulbs.
Personal goods	Education	Scholarship for "needy but brilliant" students, including scholarships for education abroad. Also include sponsorship for apprenticeships (driving school, hairdressing, and dressmaking).
	Health	Medical bills for individuals (including medical surgeries).
	Business	Support constituents to start their own businesses including farms and retail shops.
	Needy	Replacing roofing sheets, and pocket money (general financial assistance).
Donation to groups	Religious/traditional authorities	Donation to church fundraising activities (e.g., church building and annual harvest). Donation to traditional festivals, funerals, and repairs of the chief's palace.
	Youth organizations	Sponsor capacity building workshops and soccer tournaments.
Transfers to District Assembly	Organization of national events locally	Payment for national events held locally, including independence day celebration and national farmers' day celebration.
	Operational cost	Repair works on local government buildings and infrastructure, fuel local government vehicles and maintenance of machinery. Transfers to local government account often stated as a loan.
Monitoring and Office Expense	Monitoring of MPs' project	Paid directly to MPs to cover their inspection of projects in their constituency.
	Office expense	Office building rent, operational expenses, and staff salary for MPs' office in the constituency.
Unclear Purpose Expenditure	Beneficiary or purpose of payment is unclear	Examples include: MP direct purchase (e.g., TV sets, cutlasses, etc.) for which the Fund Manager deducted amounts; purchase of building materials for which the purpose was not stated; purchase of motorbikes with no stated beneficiary or purpose; purchase of food items (e.g., bags of rice, oil etc.) with no stated beneficiaries; and transfers to individuals or business organizations with no stated service provided or materials supplied.

Table B.2.2: Classification of MPs' spending of Constituency Development Funds

B.2.0.1 Summary statistics of expenses

Table B.2.3 presents the summary statistics of MPs' use of their CDF in general (total expenditure) and across different expenditure categories (Panel A). Table B.2.3 also shows actual disbursements from the Fund Administrator (FA) during the first three quarters (January-August 2014) of the year (Panel B). MPs' allocations represents the total amount they expect to receive during the fiscal year. Funds are then released to MPs in four tranches during the fiscal year. In anticipation of these disbursements, MPs can provide benefits to their constituencies. MPs' creditors are reimbursed when funds are released. When MPs make direct purchases, the FA deducts the amount used before transferring the remaining (net amount) to MPs' CDF account managed by their local governments.

This allows me to code for MPs who used part of their funds in direct purchase. Table B.2.3 Panel C shows the summary statistics of the dependent variables used in my analysis, which I created using the data on expenditure and procurement methods. *Utilization* measures the proportion of allocated funds (i.e., $93,727) spent during 2014. *Public Goods* and *Private Goods* measures the proportion of allocated funds used by an MP to provide public and private goods, respectively. *Direct Purchase (DP)* is a dummy variable that indicates whether an MP used part of her funds in direct purchase and the *Proportion of funds used in Direct Purchase* measures the share of disbursed funds the FA deducted before transferring the amounts to MPs' accounts .

The average total expenditure for MPs during the period is $19,835 with a standard deviation (SD) of $15,365, which represents only about a fifth (21.2 percent) of the allocated funds. Breaking down this sum by expenditure type, legislators spent, on average, $10,890 and $5,335 on public goods and personal assistance, respectively. The amounts represent an average of 11.6 percent and 5.7 percent of the allocated funds, respectively. MPs also spent an average of $850, $1,446, and $422 on donations to local groups, their local government projects or activities, and on their own monitoring and office activities, respectively. They also spent an average of $892 for which the purpose was not clear from the ledger. Such unclear expenditure included amounts spent in direct purchase that was deducted by the FA and items or services paid for out of an MP's account for which the beneficiary or purpose cannot be discerned from the ledger book.

Finally, Panel B shows that during this period, the FA disbursed a total of $35,694 to each MP.[1] About 43 percent of MPs in the sample used part of their disbursed funds in direct purchase. The average amount used in DP was $5,162 with an SD of $6,830, which represents 14.5 percent (SD=19.1 percent) of disbursed funds.

[1]In my interview with the staff at the CDF secretariat, they indicated that the remainder of the allocated fund remains unpaid to MPs' accounts. However, the FA had disbursed part of MPs' allocated funds for 2015.

Statistic	N	Mean	St. Dev.	Min	Max
		$	$	$	$
Panel A: CDF Spending					
Public Goods	60	10,890	11,637	0	44,357
Private Goods	60	5,335	6,124	0	30,895
Donation to Groups	60	850	1,542	0	9,940
Transfers to District Assembly	60	1,446	4,578	0	32,636
Monitoring and Office Expense	60	422	1,292	0	7,587
Unclear Purpose Expenditure	60	892	2,348	0	15,996
Total Expenditure	60	19,835	15,365	0	63,985
Panel B: CDF disbursement					
MP's Share of CDF	60	35,694	0	35,694	35,694
Direct Purchases	60	5,162	6,830	0	22,388
Net Amount to Local Government	60	30,533	6,830	13,306	35,694
Panel C: Dependent variables					
Utilization	60	0.212	0.164	0.000	0.685
Public Goods	60	0.116	0.124	0.000	0.475
Private Goods	60	0.057	0.066	0.000	0.331
Direct Purchase (DP)	60	0.433	0.500	0	1
Proportion of funds used in DP	60	0.145	0.191	0.000	0.627

Table B.2.3: Summary statistics of MPs' use of their CDFs in 2014

Notes: Table B.2.3 shows the summary statistics of the use of CDFs by MPs. Part A presents the summary statistics of legislators' itemized expenses as well as their total expenditure in actual amounts. Part B shows the summary statistics of legislators' procurement patterns when they use their CDFs. This includes: the amount the FA disbursed to each legislator in the first three-quarters of 2014 fiscal year (*MP's share of CDFs*); the amount used by the legislator in direct procurements (*Direct Purchases*); and the remaining amount sent to the MP's account managed by their local government (*Net Amount to Local Government*. Finally, Part B shows the proportion of MPs who made non-transparent procurement deals (*MP made non-transparent procurement*) and the percentage of funds used in such transactions (*Proportion of funds used in non-transparent procurement*). Amounts are converted from Ghana Cedis (GHC) to US dollars using the exchange rate $GHC3.72 = \$1$, August 2014.

B.2.1 Density distribution of dependent variables across treatment conditions

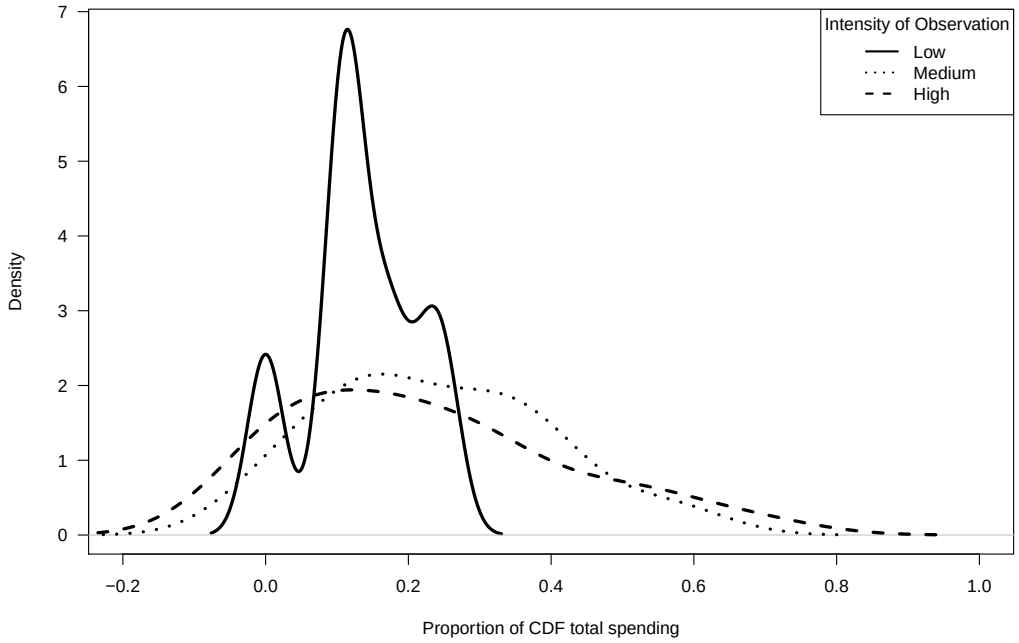


Figure B.2.3: Density plots of the percentages of CDFs used by MPs across treatments conditions

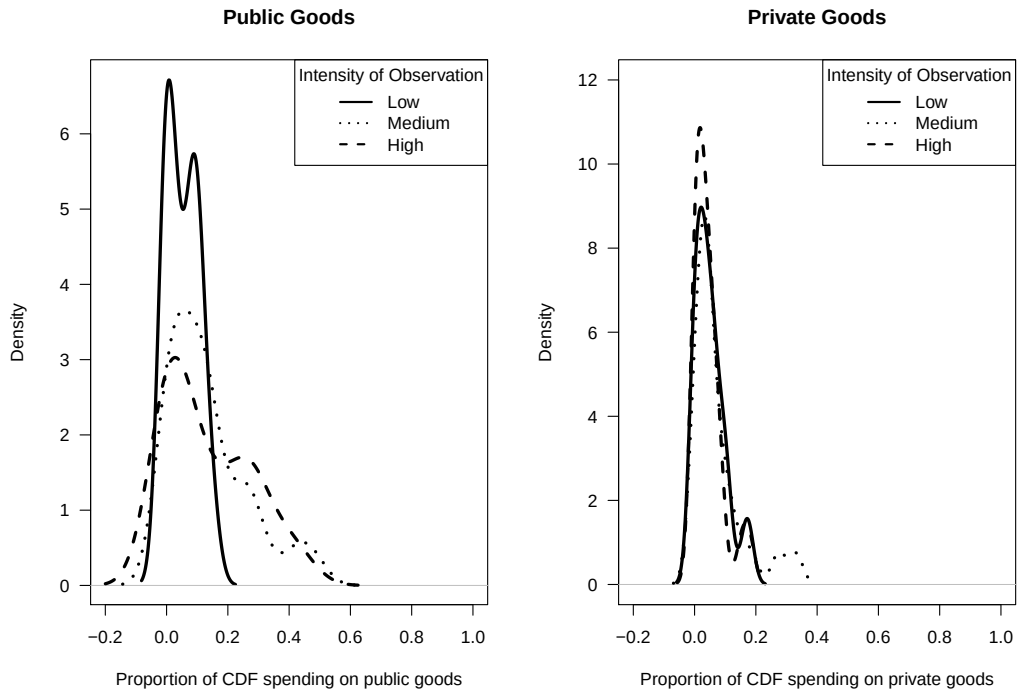


Figure B.2.4: Density plots of the percentages of CDFs used by MPs for public and private goods provision by treatment conditions

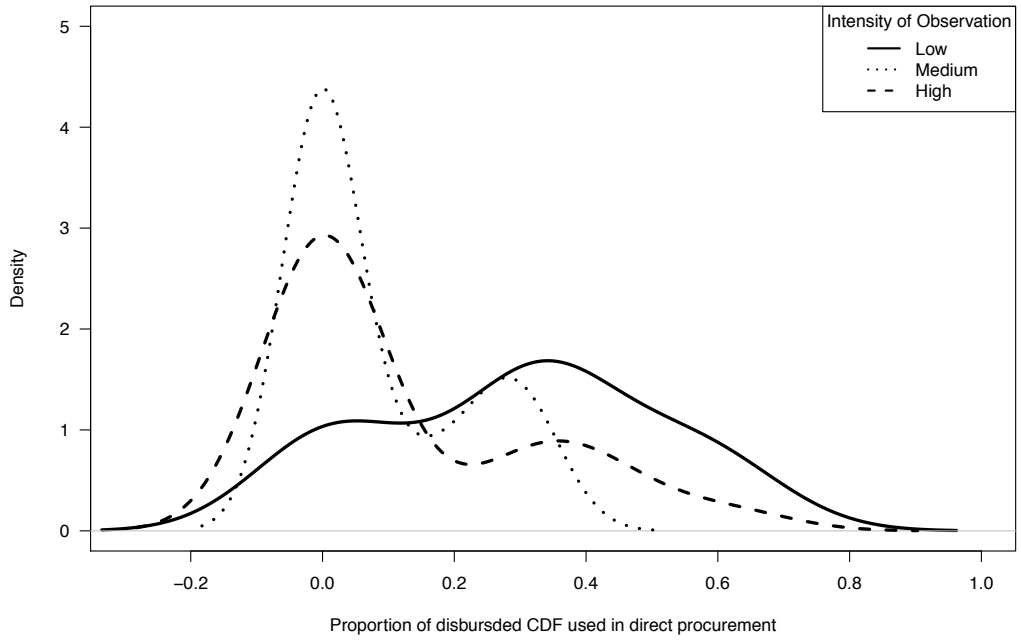


Figure B.2.5: Density plots of the percentages of disbursed CDFs used by MPs for direct procurements

B.3 Robustness checks

In this section, I show that the main results reported in Section 3.5 are robust to potential influential observations or outliers. To examine the robustness of the results presented in Section 3.5 to influential observations, I reestimate the various ITT effect coefficients over 36 times. In each case, I remove one observation and reestimate the relevant coefficients. The estimated ITT effects for *utilization*, and *public* and *private* expenditures are displayed in Figures B.3.1 and B.3.2, respectively. In each case, the estimates for the medium IOs are in the left panels, and that of high IOs are on the right panels. In Figure B.3.2, estimates for public goods are shown in the top row and that of private goods are displayed in the bottom row. Figures B.3.3 shows the estimates for *direct purchases*, in the top row, and *Proportion of funds used in direct purchase* in the bottom row.

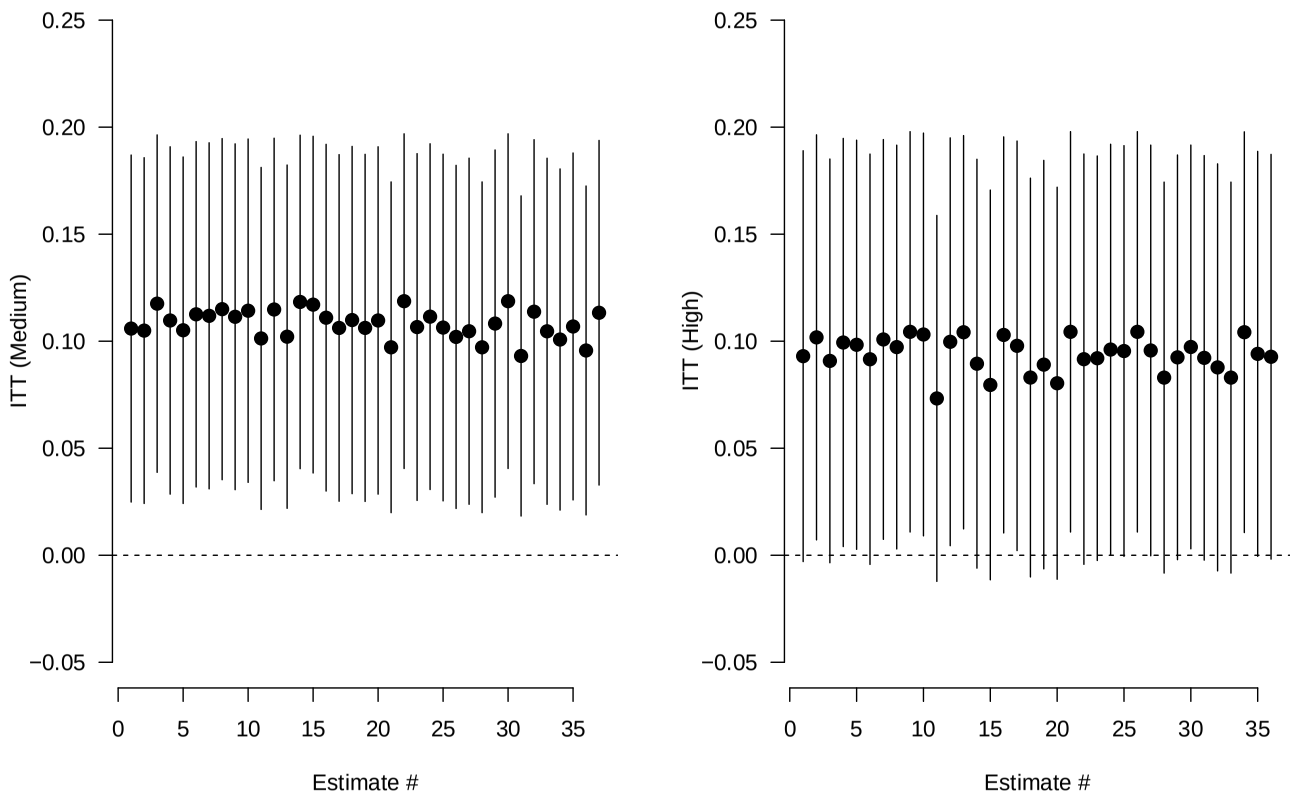


Figure B.3.1: Estimates of the intention-to-treat effect of intensity of observation on MPs' utilization of CDFs is not driven by a single case

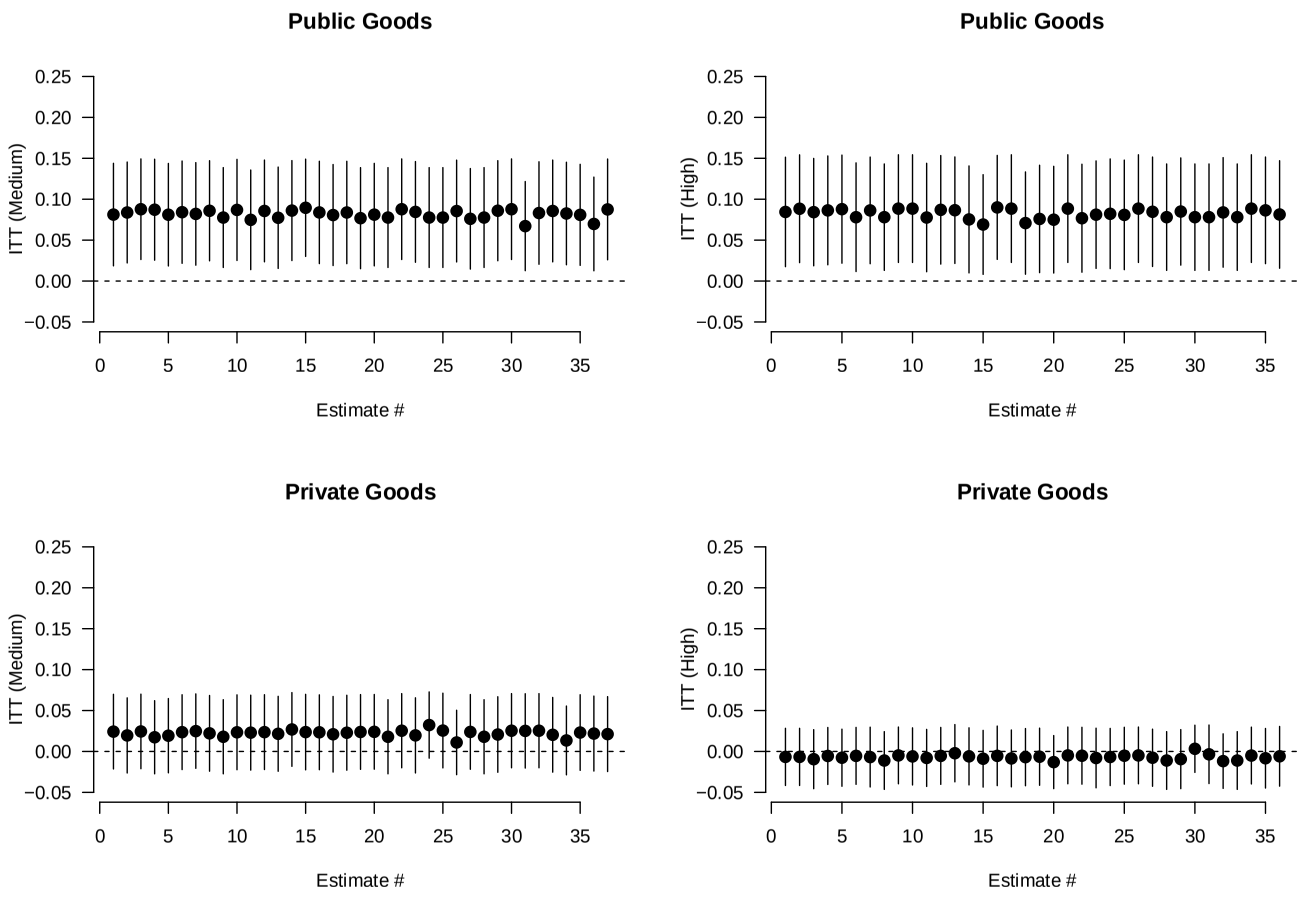


Figure B.3.2: Estimates of the intention-to-treat effect of intensity of observation on MPs' utilization of CDFs for public and private Goods is not driven by a single case

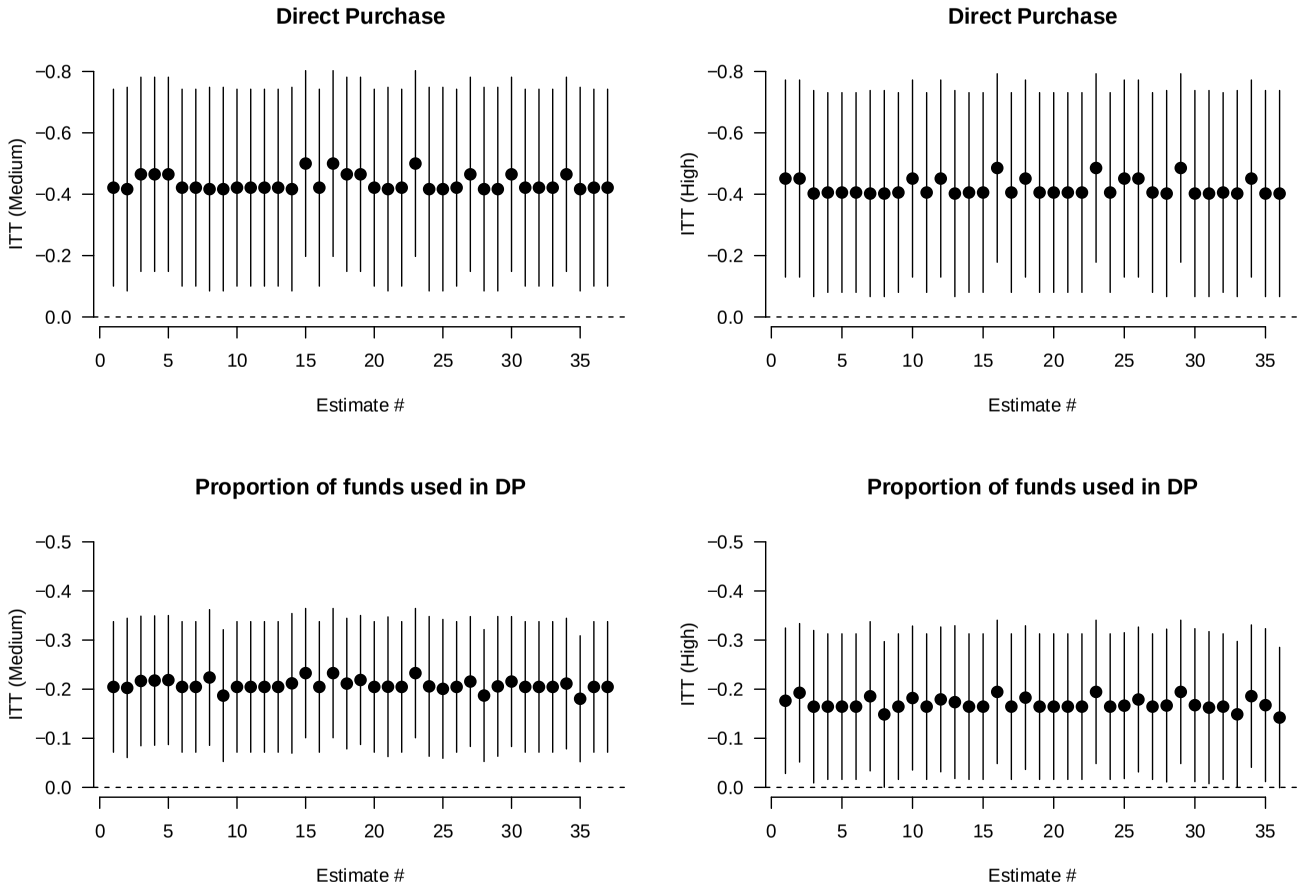


Figure B.3.3: Estimates of the intention-to-treat effect of intensity of observation on MPs' utilization of disbursed CDFs in direct procurement is not driven by a single case

B.4 Testing the mechanisms through which electoral integrity affect MPs' behavior

		Intensity of observation			
Incumbents Characteristics	N	Low	Medium	High	P-value
# Parliamentary Terms-incumbent MP	60	1.4615	2.1667	1.7826	0.6131
Female	60	0.0769	0.1667	0.00	0.2652
Minister	60	0.1538	0.2083	0.00	0.0953
Incumbent Party MP	60	0.3846	0.7083	0.4783	0.8666
Age	60	47.6923	50.2917	45.4348	0.2309
Highest education	60	5.0769	5.1667	5.1304	0.9073

Table B.4.1: The intensity of observation has no effect on the characteristics of elected candidates

Note: Data on MPs' gender, age, and education was coded from the handbook "Know Your MPs (2013-2017)." (Vieta, 2013). I coded incumbents' term in office and party affiliation using election results obtained from Ghana's Electoral Commission. I coded ministerial status from parliamentary records. While there seem to be a significant difference across the treatment codition on the ministerial status of legislators, including it in a multivariate regression does not change the results of my analysis. Results is not presented but available by upon request. The group means and p-values corresponding to the F-test statistic of all three treatment conditions are shown in the last column of the table.

	Low	Medium	High
MP saw Observers	0.417	0.571	0.600
N	5	8	12
MP did not see observers	0.583	0.429	0.400
N	7	6	8

Table B.4.2: Suggestive evidence that MPs elected in higher-intensity of observation are more likely to report they saw an observer at a polling station they visited

Notes: Specific question: "Did you personally see observers at some of the polling stations you visited?" $N = 47$ MPs, $\chi = 1.0794$, P-value$= 0.5829$

		Intensity of Observation			*ITT*	
	Full sample	Low	Medium	High	Medium	High
MPs estimate of intensity of observation	0.258	0.133	0.167	0.361	0.033	0.228
	(0.294)	(0.153)	(0.175)	(0.366)	(0.171)	(0.156)
N	18	3	6	9		
Empirical intensity of observation	0.222	0.145	0.178	0.302	0.033*	0.157***
	(0.085)	(0.054)	(0.025)	(0.057)	(0.018)	(0.017)
N	60	13	24	23		

Table B.4.3: Suggestive evidence that MPs were aware of the intensity of observation within their constituencies

Note: Table B.4.3 (upper panel) report the average of MPs' estimates of the proportion of polling stations in their constituencies that were monitored by election observers with standard deviations reported in parentheses. Their estimates were in response to the question: *For every twenty (20) polling stations in your constituency, how many would you say were monitored by domestic election observers.* Table B.4.3 (lower panel) also provide the average of the empirical saturation of observation across the three treatment intensities below these estimates with standard deviations reported in parentheses. Empirical intensity of observation refers to the actual proportion of polling stations within the entire constituency, and not the experimental sample, that were monitored by observers. $^{*}p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

	Dependent variable:					
	Contacted MP	Attended Community Meeting	Joined Group to Raise Issue	Requested Government Action	Contacted Government Official	Voters' Duty that MPs' Work
	(1)	(2)	(3)	(4)	(5)	(6)
Medium Intensity of Observation	−0.040	−0.026	−0.046	−0.024	−0.020	0.049
	(0.035)	(0.095)	(0.060)	(0.051)	(0.029)	(0.056)
High Intensity of Observation	0.011	−0.016	−0.087	−0.066	0.038	−0.010
	(0.041)	(0.095)	(0.058)	(0.054)	(0.035)	(0.075)
Constant	0.123***	0.453***	0.406***	0.170***	0.132***	0.358***
	(0.029)	(0.077)	(0.042)	(0.045)	(0.023)	(0.047)
Observations	447	447	447	447	447	447
R^2	0.006	0.0004	0.004	0.005	0.005	0.003
Adjusted R^2	0.001	−0.004	−0.0001	0.001	0.001	−0.001

Table B.4.4: The intensity of election observation in a constituency neither affected citizens' pressures on MPs or government officials to provide public goods and services

Notes: Table B.4.4 presents results from analysis of Ghana's Afrobarometer Round 6 data conducted in 2014. I analyze questions related to potential increase in citizens pressures on MPs within constituencies to deliver public goods as a results of the treatment. For easy analysis and interpretation of results, I coded these questions as dummies indicating whether citizens took the stated action. The specific questions are as follows: Column (1): "During the past year, how often have you contacted any of the following persons about some important problem or to give them your views: A Member of Parliament"; Columns (2)-(3): "Here is a list of actions that people sometimes take as citizens. For each of these, please tell me whether you, personally, have done any of these things during the past year ": Attended a community meeting (Column (2)), and Got together with others to raise an issue (Column (3)). Columns (4)- (5) : "Here is a list of actions that people sometimes take as citizens when they are dissatisfied with government. For each of these, please tell me whether you, personally, have done any of these things during the past year. If not, would you do this if you had the chance?": Joined others in your community to request action from government" (Columns (4)) ; and Contacted a government official to ask for help or make a complaint (Column (5)). Column (6): "Who should be responsible for: Making sure that, once elected, Members of Parliament do their jobs?" [Coding: The voters (1) as oppose to The president/executive or The Parliament/local council, or their political party (0)]. Standard errors are clustered at the constituency level. $^{*}p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$

B.5 Interviews with MPs

I conducted interviews with 47 out of 60 MPs in my sample between November 2015 and January 2016. The purpose of these interviews was twofold. First, it was to assess MPs' responsiveness to their constituents indicated by how they report allocating their time. Second, it was to examine some potential mechanism that drives the results in this study. I have shown some of the interview results on the latter in Section B.4. In this section, I report on the first. The results broadly support the findings presented in the paper that MPs elected in intensely monitored constituencies provide greater constituency services and public goods.

Table B.5.1 shows MPs' self-reported levels of provision of constituency services (Part A) and legislative activities (Part B). In Part A, I show results for the following: (1) the percentage of MPs' times spent in the constituency (during parliamentary sessions); (2) number of times they visit their constituency in a year; (3) whether they have applied for external funds to support constituency development projects; and (4) whether they organize monthly meetings to listen to constituents demands. In Part B, I report results on whether an MP has spoken frequency (7 or more) during their term in office on: (1) National policy or project implementation issues; and (2) Constituency development issues.

The results show that MPs elected from intensely monitored constituency report to spend a higher proportion of their time in their constituencies compared to those elected from low-intensity observation constituencies. They also visit more annually. Also, representatives elected from high-integrity elections report to seek external funds to support projects in their constituencies (not statistically significant) and organize meetings frequently (monthly) to listen to their constituents concerns. Together, these results suggest that high-election integrity increases the level of effort legislators exert in constituency services.

		Intensity of Observation			*ITT*	
	Full sample	Low	Medium	High	Medium	High
	(1)	(2)	(3)	(4)	(5)	(6)
Constituency Services						
Percentage of MPs' time spent in constituency	41.000	34.333	43.800	42.900	9.467**	8.567**
	(11.335)	(10.569)	(9.458)	(11.934)	(3.974)	(3.656)
# of MP visits to constituency annually	38.348	33.818	37.600	41.400	3.782	7.582*
	(12.032)	(15.005)	(11.885)	(9.907)	(4.726)	(4.469)
MP applied for donor funds to support constituency	0.277	0.167	0.267	0.350	0.100	0.183
	(0.452)	(0.389)	(0.458)	(0.489)	(0.163)	(0.150)
MP organizes monthly constituents' meeting	0.615	0.400	0.643	0.733	0.243	0.333*
	(0.493)	(0.516)	(0.497)	(0.458)	(0.192)	(0.188)
Legislative Activities						
National policy or project implementation	0.383	0.250	0.400	0.450	0.150	0.200
	(0.491)	(0.452)	(0.507)	(0.510)	(0.179)	(0.165)
MP raise concerns of constituency	0.383	0.333	0.400	0.400	0.067	0.067
	0.491	0.492	0.507	0.503	0.184	0.169
N	47	12	15	20		

Table B.5.1: Higher-intensity of observation increases MPs' constituency services, but have no effect on MPs' legislative activities

Note: Table B.5.1 presents result from a survey of MPs on their constituency services and legislative activities. A standard instrument was used to conduct these interviews with the help of research assistants. Columns (1)-(4) report the means and standard deviation (in parentheses) for each MPs self-reported activities in the Full sample, and Low, Medium, and High intensely monitored constituencies, respectively. Columns (5) and (6) report the ITT effects of intensity of observation in Medium and High IO constituencies, respectively along with robust standard errors. *p<0.1; **p<0.05; ***p<0.01

Table B.5.2 display results for how MPs report spending their time on the top three activities that take the most of their time when they visit their constituency. I provided MPs with six items (and they were free to add other activities). I gave MPs the following options: holding a one-to-one meeting with constituents; holding community with constituents; holding meetings with community leaders; holding meetings with party executives; inspecting constituency projects; and attending social events such as funerals, religious activities, traditional festivals, etc. They were first to choose the three activities and then divide their 100 percent working time to these three things. For most of these activities, I find no significant difference among MPs across the treatment who chose them, suggesting they dedicate a similar amount of time. Interesting, among the few MPs who chose "inspecting constituency projects" as one of their three key activities, those elected in intensely monitored constituencies spend a higher percentage of their time on this activity. They, however, dedicate less time to social events such as funerals and church services. These results support my claim that high-integrity elections encourage legislators to exert a higher effort in providing public goods (works) to their constituents.

		Intensity of Observation			*ITT*	
	Full sample	Low	Medium	High	Medium	High
	(1)	(2)	(3)	(4)	(5)	(6)
Holding one-to-one meeting with your constituents	38.323	36.300	38.636	40.000	2.336	3.700
	12.419	10.552	15.507	11.304	5.289	5.457
Holding community meeting with your constituents	34.767	30.375	33.500	38.750	3.125	8.375
	(14.701)	(16.466)	(12.704)	(15.244)	(6.854)	(6.493)
Holding meetings with community leaders	19.091	15.000	18.333	20.833	3.333	5.833
	(4.908)	(7.071)	(7.638)	(2.041)	(4.161)	(3.517)
Holding meetings with party executives	34.818	32.500	42.500	29.600	10.000	-2.900
	13.828	11.902	13.887	12.799	6.953	6.596
Inspecting constituency projects	26.333	10.000	25.000	32.667	15.000	22.667**
	(10.231)		(7.071)	(6.429)	(6.650)	(6.071)
Attending events such as funerals, church services, durbars, etc.	32.707	38.545	26.364	33.000	-12.182**	-5.545
	(12.544)	(12.136)	(13.618)	(10.924)	(4.993)	(4.235)
N	47	12	15	20		

Table B.5.2: When visiting their constituency, MPs elected from higher-intensity observation districts spend more time on inspecting constituency development projects, and less on attending social events

*Note:*Table B.5.2 presents results from a survey of MPs on how they divide their time when they visit their constituencies. MPs were provided with all the activities in the table and asked to choose the top three that took most of their time. They were then asked to allocate what proportion of their time they assigned to their top three choices. The specific question was: "When in your constituency, which THREE of the following activities take up the most of your time? Please tell me what percentage of your time you spend on each of these three:. " Table B.5.2 Columns (1)-(4) reports the means and standard deviations (in parentheses) of the time MPs report they allocate to each of these activities, if they selected it as one of their top three, in the Full sample, and Low, Medium, and High intensely monitored constituencies, respectively. Columns (5) and (6) report the ITT effects of intensity of observation in Medium and High IO constituencies, respectively along with robust standard errors. *p<0.1; **p<0.05; ***p<0.01

APPENDIX C

C.1 Sample and summary statistics

	National			Sample		
Variable	*Average*	*SD*	*N*	*Average*	*SD*	*N*
Number polling stations(ps)	95.768	31.171	151	97.083	31.256	120
Registered voters (2012)	50440.311	20579.264	151	50800.683	20333.136	120
Proportion of monitored ps (2012)	0.192	0.080	151	0.193	0.080	120
Valids votes	37998.556	14415.139	151	38181.042	14186.979	120
Number of candidates	4.503	0.878	151	4.471	0.851	120
Vote margin	0.286	0.233	151	0.286	0.241	120
Turnout	0.762	0.051	151	0.766	0.050	120
Term of MP	1.887	1.074	151	1.892	1.091	120
Area (km. sq.)	785.440	791.428	151	797.232	790.931	120
Distance to constituency	212.015	76.437	133	208.549	75.656	108
Voter density	670.876	2566.536	151	431.373	1112.802	120
Rural population	0.583	0.273	151	0.589	0.269	120
Percentage with electricity	0.568	0.184	151	0.558	0.182	120
Fuel (electric and gas)	0.100	0.106	151	0.097	0.104	120
Cement walls	0.517	0.217	151	0.517	0.210	120
Muslim population	0.116	0.069	151	0.118	0.072	120
Population in Agric.	0.493	0.239	151	0.498	0.234	120
Asante	0.224	0.279	151	0.229	0.284	120
Fante	0.136	0.233	151	0.139	0.246	120
Ewe	0.160	0.277	151	0.165	0.289	120
Dagomba	0.008	0.012	151	0.008	0.013	120
Education (primary or less)	0.908	0.059	151	0.909	0.061	120
Employed	0.505	0.051	151	0.504	0.049	120

Table C.1.1: Summary statistics of population and sample constituencies

Notes: Table C.1.1 shows the summary statistics for contituencies (MPs) in my sample and in the population. Electoral data were obtained from Ghana's Electoral Commission.To calculate distances from the capital to constituencies, I use the `geocode` function in the `ggmap` package in R to take the geocordinates of constituency capitals. Using the geo-coordinates of Ghana's parliament, I calculated the euclidean distances between constituency capitals and the Parliament. Socio-economic data is taken from Ghana's 2010 Population and Housing Census.

C.2 Treatment letters

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December 16, 2015

CDDRL
Stanford University Encina Hall
Stanford, CA 94305,USA.

Dear [redacted]

As you may recall, I asked during our interview whether you or your agents saw independent election observers at polling stations in your constituency during last years elections. In 2012, I was part of a research team from UCLA that worked with CODEO to study the impact of observers on election day irregularities at a sample of the polling stations in the country. As part of this study, some constituencies were randomly selected to have a higher proportion (about 80 percent) of their polling stations monitored by observers during the polls.

We found that constituencies that had a higher proportion of their polling stations monitored by observers had lower incidence of electoral fraud. This was a credit to domestic election observation and the important role they play in promoting electoral integrity and democracy in Ghana.

To validate our finding, I am seeking to collaborate with CODEO to repeat this study in a random set of constituencies. While I await confirmation to implement this study, I have already selected my sample of constituencies and randomly assigned some to have about 80 percent of stations observed. As a courtesy, I want to inform you that your constituency happened to be one of those that will receive observers at 80 percent of stations.

I will get back in touch with you once I have confirmation that the study will go ahead, but I am at this point very hopeful that it will happen.

Sincerely,

George Ofosu
Doctoral Candidate, UCLA.
Predoctoral Fellow, Stanford University.

Figure C.2.1: Treatment: letter to Members of Parliament

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April 15, 2016

Hon. [redacted]
Parliament House
Accra.

Dear **Hon.** [redacted]

Thank you for your participation in my MPs' survey last year (November and December, 2015).

As you may recall, I mentioned that I am seeking to collaborate with the Coalition of Domestic Election Observers (CODEO) to study the impact of domestic election observers on election day processes in Ghana's November 2016 general elections. While I await confirmation to implement this study, I have already selected my sample of constituencies and randomly assigned some to have about 80 percent of stations observed by CODEO monitors.

As a courtesy, **I want to remind you that your constituency is one of those that would receive observers at 80 percent of polling stations on election day**.

I will get back in touch with you once I have confirmation that the study will go ahead, but I am at this point very hopeful that it will happen.

Sincerely,

George Ofosu
Doctoral Candidate, UCLA.
Pre-doctoral Fellow, Stanford University.

Figure C.2.2: Treatment: follow-up letter to Members of Parliament

C.3 Balance statistics

		Regions					Re-election seeking	
	Full sample	Ashanti	Brong Ahafo	Central	Volta	Western	No	Yes
Control	60	18	10	10	9	13	14	46
	0.50	0.49	0.43	0.56	0.43	0.62	0.41	0.53
Treatment	60	19	13	8	12	8	20	40
	0.50	0.51	0.57	0.44	0.57	0.38	0.59	0.47
Total	120	37	23	18	21	21	34	86

Table C.3.1: Treatment and control constituencies

Variable	Mean Control 91	Mean Treated 60	Mean Difference	P-value
Number polling stations(ps)	96.505	94.650	-1.855	0.720
Registered voters (2012)	51019.286	49562.200	-1457.086	0.673
Proportion of monitored ps (2012)	0.196	0.186	-0.010	0.485
Valid votes (2012)	38242.253	37628.950	-613.303	0.801
Candidates (2012)	4.516	4.483	-0.033	0.819
Vote margin (2012)	0.273	0.306	0.033	0.413
Turnout (2012)	0.756	0.770	0.015	0.068
Term of MP	1.901	1.867	-0.034	0.844
Area (km. sq.)	763.089	819.338	56.249	0.690
Distance to constituency	217.303	203.513	-13.791	0.321
Rural population	0.590	0.572	-0.018	0.693
Percentage of pop. with electricity	0.571	0.563	-0.008	0.788
Fuel (electric and gas)	0.099	0.102	0.003	0.854
Cement walls	0.510	0.529	0.019	0.599
Muslim population	0.117	0.115	-0.002	0.885
Population in Agric.	0.497	0.488	-0.009	0.812
Asante	0.216	0.237	0.022	0.648
Fante	0.148	0.117	-0.031	0.418
Ewe	0.147	0.180	0.033	0.489
Dagomba	0.008	0.009	0.001	0.636
Education (primary or less)	0.910	0.906	-0.004	0.725
Employed	0.505	0.506	0.001	0.889
Incumbent contested in 2016	0.758	0.667	-0.092	0.232
NDC (incumber party)	0.527	0.500	-0.027	0.743

Table C.3.2: Balance statistics (inculding non-experimental constituency in study regions)

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