UNIVERSITY OF GOTHENBURG

THE QOG INSTITUTE
QUALITY OF GOVERNMENT

Are Swing Voters Instruments of Democracy or Farmers of Clientelism? Evidence from Ghana

Staffan I. Lindberg

Keith R. Weghorst

QoG WORKING PAPER SERIES 2010:17

THE QUALITY OF GOVERNMENT INSTITUTE
Department of Political Science
University of Gothenburg
Box 711
SE 405 30 GÖTEBORG

June 2010

ISSN 1653-8919

 The authors wishes to acknowledge insightful comments on earlier version from Leonardo Arriola, Dominic Lisanti, Kristin Michelitch, and participants in both the Comparative Politics Colloquium at University of Florida and the Quality of Government workshop at Marstrand 17-19 May, 2010. The survey was carried out in collaboration with research officers at Center for Democratic Development-Ghana and we also wish to recognize the excellent work by the 49 assistants we trained for the field work during summer 2008. The research project was sponsored by the Africa Power and Politics Programme, with funding provided by the UK Department for International Development (DFID). As always, the content, errors, omissions, and flaws of the text is the responsibility of the authors.

Are Swing Voters Instruments of Democracy or Farmers of Clientelism? Evidence from Ghana

Staffan I. Lindberg
Keith R. Weghorst

QoG Working Paper Series 2010:17
June 2010
ISSN 1653-8919

Abstract:

This paper is one of the first to systematically address the question of whether strength of ethnic identity, political parties' candidates campaign strategies, poverty, or evaluation of clientelism versus collective/public goods, determines who becomes persuadable voters (swing voters) in new democracies. It brings together three of the major research streams in comparative politics – the literatures on development, democracy, and political clientelism – to properly situate the swing voter as – potentially – the pivotal instrument of democracy and antidote to the public goods deficit in failed developmental states. Secondly, it contributes with a new and more adequate way of conceptualizing and measuring swing voters. Thirdly, it brings the use of count regression models to the study of swing voters and voting behavior in general. Finally, the paper conducts an empirical analysis using a unique data set from a survey conducted ahead of Ghana's 2008 elections. The results show that while constituency competitiveness, poverty, education, and access to information impact on swing voting much as expected, the role of politicians' performance in provision of collective and public goods plays a much larger role than the existing literature makes us expect.

Staffan I. Lindberg
Department of Political Science
University of Gothenburg
staffan.lindberg@pol.gu.se

Keith R. Weghorst
Department of Political Science
University of Florida
keith.weghorst@ufl.edu

Can democracy as a set of procedures "cure" states and political elites in Africa that are persistently underperforming when it comes to public and collective goods? Part of the answer to that question lies in what motivates the African voter. Not just any voter though, but the swing voter – the group of individuals that decides the outcomes of competitive elections[1]. The limited scholarship that exists on African voters typically considers them unsophisticated and unidimensional. In part, this stems from the limited options given by political parties that often lack differentiable ideological foundations even in the continent's more developed democracies. When they do, this rarely translates into distinctive policy platforms, hence "specific policy issues have been virtually non-existent" (van de Walle 2003, 304), especially in the presidential systems that dominate the continent.[2] Voters in these emerging democracies are instead assumed to respond to campaigns that appeal to ethnicity, offer patronage or clientelistic goods, or some combination of both (e.g. Burnell 2001; Nugent 2001; Posner 2005). Using survey data from Ghana (N=1,600), this paper tests and largely discards these prevailing assumptions. While clientelism as a campaign strategy induce some few voters to consider switching their political loyalty, it is largely ineffective. When politicians do well in the eyes of their citizens in terms of providing collective, developmental goods, the importance of clientelism but disappears completely. Swing voters in one of Africa's new democracies – Ghana – evidently consider collective goods of primary importance when it comes to decide whether to switch their vote, or not. In that sense, elections can become instruments of democracy, rather than a clientelistic harvesting season also in Africa.

[1] Mathematically, of course, all potential voters have the same probability of being the 'decisive' vote.

[2] Of 48 sub-Saharan African states, only five of them are currently Parliamentary: Botswana, South Africa, Lesotho, Mauritius, and Ethiopia.

Conceptualizing and Measuring the Swing Voter

Voting behavior is one of the oldest topics in political science that has generated enormous amounts of scholarly attention. As the third wave of democratization extended its reach, inquiries about the conditions making citizens vote, and vote for a particular party or candidate in the newer democracies started to emerge. Yet, astonishingly little academic attention has been paid to the swing voter. Indeed, voters are often said to "swing" elections (e.g. Fedderson and Pesendorfer 1996, 410; also Leech 2003; Powell and Whitten 1993; Fraga and Ramirez 2001) but the literature on the individual swing voter is thin. In fact, one can be *au fait* with the entire literature within a few hours. Kelly (1983) was the first to systematically study what he labeled "the marginal voter", followed by a series of studies published in Mayer (2007) and Mayer (ed. 2008) on American voters. Among the few other studies we have found that give explicit and systematic academic attention[3] to the concept and behavior of swing voters are Nichter (2008) and Lindberg & Morrison (2005, 2008).

The intuitive understanding of a swing voter seems to be uncontroversial in the existing literature. It is an individual voter who is persuadable and hence is "up for grabs"(c.f. Campbell 2008, 118). In Mayer's (2007, 359) words, a swing voter is "a voter who is not solidly committed to one candidate or the other as to make all efforts of persuasion futile". The literature thus tends to treat the swing voter as the conceptual opposite of the "core

[3] There are droves of journalistic accounts and comments by political expert observers on swing voters in specific elections. To be sure, some of the early and widely cited works paid attention to related concepts, e.g. Key (1966) uses the concept of "standpatters"; Eldersveld (1952) identified "independents" as those who have voted for candidates of different parties; Campell *et al.* (1954) and the early Michigan school used "party switchers". Rational choice models of voting has since Downs (1957) worked largely on the assumption of a uni-dimensional ideological spectrum where persuadable voters are located near or at the median.

voter", or party loyalists.[4] The question then is how we best identify and measure these swayable individuals.

The first implication is that despite the popular folk theory that swing voters come from "battleground" areas, there is little evidence suggesting that constituencies that could be won by either party are more likely to have a greater number of voters that may themselves vote one way or another (c.f. Mayer 2007, 361). No assumptions should be made about the relationship between an individual's inclination to switch his or her vote, and the aggregate closeness of the outcome in any particular electoral area.

Yet, given the sparsely literature on swing voters – especially in comparative politics – suggestions of how to precise the intuitive definition and measure it, are unexpectedly diverse. Three approaches treat swing voters as qualitatively different in kind from core supporters and measure it accordingly: based on self-reported ambivalence (e.g. Ferree *et al.* 2009; Gallup); based on lack of party affiliation (e.g. Eldersveld 1952; Linbeck & Weibull 1987); or as an attribute based on past behavior (e.g. Lindberg & Morrison 2005; Shaw 2008);. A fourth approach measures voters' attitudes and assessment of candidates (Campbell 2008; Mayer 2008) producing an index of probability to swing with no clear cut-off point. In what follows we argue that each one of these suffers from important limitations and propose a new measure that builds on the strong elements of each while permitting us to overcome a number of the problems they fail to surmount.

[4] The convention in formal approaches (although not using the concepts of "swing" and "core" voters) also tends to operationalize persuadable voters as those who are more or less likely to be swayed by distributional appeals or do not vote consistently for a political group (e.g. Cox and McCubbins 1986, 376; Lindbeck and Weibull 1987, 279; and Stokes 2005)

Swing Voters as Self-Reported Undecided or Ambivalent

A worrying trend in political science and economics scholarship is simply to not discuss definitions of the concept of swing voting at all. Several studies simply assume that swing voters are simply those who in surveys express some indifference, lack of awareness, or ambiguity about their preferred candidate or party for an upcoming election (Paolin 1995; Abramowitz 1999; Hinich 1981; Bartholdi, Tovey, and Trick 1989; Collier and Vicente 2009). For example, a recent paper in a premier academic journal makes extensive use of the idea yet, the author does not explain what he intends by a "swing voter," except for a figure suggesting they are voters who are indifferent (Nichter 2008, 20). It is not at all clear, however, that indifferent voters constitutes a majority or even a significant portion of the voters that are persuadable.

Another notion of swing voters come from the polling industry (Annenberg, Gallup, Pew) and scholarship associated with it using the responses indicating that a particular individual has not yet decided how to vote, as the measure of swing voters. This may seem intuitive but also has it problems. First, there are typically many more who are undecided when this question is asked well ahead of the polls compared to let's say the day prior to the election (REFs). Although the kind of continuous polling required to make such empirical conclusions only exists for more mature democracies outside of Africa, we have no reason to believe this is any different on this continent. Hence, who is a swing voter largely depends on *when* it is measured using this approach – which seems to defeat the purpose of investigating swing voters as a group and finding generalizable descriptive and explanatory factors. Second, there are possibly a significant number of voters who at any point have already decided how to vote yet, could still potentially be convinced to switch to another candidate given x, y, or z. This group is also not captured by the undecided-approach. What we take

away is that being undecided is a relevant category of swing voters but we need other kinds of information as well in order to capture the full range.

Swing Voters as Independents

The literature that use partisanship to identify swing voters has two problematic sides. The first is equating swing voters with political independents (e.g. Stokes 2005, 319; Eldersveld 1952; Lindbeck and Weibull 1987). While it is fairly intuitive that voters who do not identify a particular party would have a higher probability of going one way or the other, declaring oneself "independent" can also signify other things: I do not pay dues to a particular party; I do not see myself as a partisan per se; or I just do not want to reveal my party identification. In each case, that voter may nevertheless systematically over time support one political party and hence not be persuadable. Scholars of American politics will find this familiar where "independence" for many reflects an ideological desire to be seen as distinct from party stalwarts (Bartels 2000; Keith et. Al 1992; Mayer 2008; Miller 1991). With the widespread skepticism towards political parties in Africa (van de Walle 2003), we have reasonable grounds to assume that this is a general problem.

Second, the reverse association conflating partisanship with core voting seems mistaken as well. In fact, we rarely see political parties distributing policy promises and clientelistic rents exclusively or primarily to non-partisans. We rarely find that all partisans vote for their own party (e.g. Stokes 2005). The link between swing voters and political independents probably lies primarily in interpretations popularized in the media (Mayer 2008, 10). Thus, in either case the categories of independents and partisans are likely to miss

the target of indentifying swing voters with any great precision and should not be used in creating a measure of inclination to switch the vote.[5]

Identifying Swing Voters on Past Behavior

Acknowledging the difficulties with approaching swing voters as either the self-reported undecided or ambivalent, or as the independents, some argue that actual past behavior over a subset of elections is a more reliable indicator of an individual's probability to be a swing voter in an upcoming election (e.g. Shaw 2008, 87). This approach has its roots in the Michigan school. The idea that the electorate is made up of "standpatters" (core voters), "new voters", and "party switchers" (swing voters) was a key notion of Key's (1966) seminal work. Shaw (2008, 88) uses two panel studies from the American National Election Studies to classify "party voters" (core voters) as anyone who voted for the same party over three consecutive elections and everyone else is considered a swing voter. With reliable data on only two consecutive elections in Ghana, Lindberg & Morrison (2005, 9) use the same procedure.

This approach has several advantages. It is conceptually unambiguous and empirically straightforward. It is also fairly intuitive that a past record of voting for different parties is a fairly determinate indicator of exactly what the concept of swing voter entails. It is also not unreasonable to argue that a record of voting for one and the same party over a series of elections should be indicative with a fairly high probability that an individual is less likely to

[5] A related approach is Ferre *et al.*'s (2009) study of "swing voters" in Ghana's 2008 election coding all voters who did not cast their vote for one of the two main parties as persuadable voters. This seems questionable since studies of Ghanaian voters demonstrate both that there are significant numbers of core supporters of the smaller parties' supporters and that substantial portions of the individuals who in a particular election vote for either of the two big parties also are persuadable and have indeed switched parties in the past (Lindberg & Morrison's (2005, 2008; Fridy 2007).

vote for another party in an upcoming election. The data is admittedly based on self-reported behavior from surveys just like many of the measures discussed above and it seems fairly certain that misreporting of past voting behavior could be a significant problem. Yet, asking about past vote choice is probably less likely to "prime" responses, compared to the approaches discussed above.

Yet, a weakness of any such measure is that it necessarily excludes new and young voters. With a measure based on three electoral cycles this means excluding the last 12-15 years of cohorts entering the electoral market – a significant cost and a selection that introduces bias if younger voters (as existing research gives us reason to believe) are both more educated and have less entrenched political views. Second and at least equally important, it is quite plausible that *n* voters that at any given time has voted for *x* party in the last three elections nevertheless were "up for grabs" in all three and could have gone either way. This measure inevitably excludes this important group from the swing voter category.[6]

Still this measure certainly represents a step forward from the partisan-independent distinction in capturing the swing voter and an important supplement to self-reported data on ambivalence in the upcoming election. Past voting behavior is a meaningful indicator of evident inclination to be a swing voter for many, but not all voters. It should be included in a measure of "swingness" but not in isolation.

The Fourth Approach: Attitudinal Criteria

A final strategy in the literature measures the attitudes and feelings voters hold towards a particular party or candidate (e.g. Kelley 1983; Mayer 2008). This measure is attractive because it makes sense to expect individuals who express a number of things they "like" about a particular party/candidate to indicate their willingness to support them in an election.

[6] One could also object that in terms of causality it is mis-ordered with data on the dependent variable dated long before independent variables are measured.

Yet, it is not unambiguous. When making a decision at the polls, most individuals must balance several likes and dislikes of various candidates and parties. In American politics, the approach has been to create thermometer scale based on ranking of "how much" a voter likes the Democrat's and the Republican's candidates respectively creating a -100 to +100 scale (Mayer 2008).[7]

One advantage of this general approach is that an index contains more information than the binominal measures above, that is also less sensitive to small measurement errors affecting large number of cases if they are clustered around the cut-off point. Second, it captures the state of the voter in the present which is desirable. Core supporters are likely to show up on either end of the scale as less persuadable voters. Yet, voters with a swing voting record but who have firmly made up their mind for the present upcoming election and thus are not persuadable, would likewise be correctly classified.

The method's applicability is weakened by its assumption of a two-party system[8]. The method is also susceptible to wide swings in liking and disliking influenced by media reporting and idiosyncratic events that may not in fact be very important for voters' decision on polling day. Finally, the approach has a core weakness that is particularly damaging in emerging democracies. The general questions of "likes and dislikes" of party's candidates creating a single-dimensional "thermometer" assumes a unidimensional political space, typically on a left-right wing scale. Aside from the question of whether that scale is relevant in many emerging democracies, it precludes incorporating the role of non-programmatic, clientelistic goods and services used to get votes. Even if a voter may "like" a candidate *x* more than candidate *y* and if the vote was only about public policy would vote for candidate *x*, candidate *y* and his/her party may be able to offer clientelistic goods with immediate

[7]

[8] While not a concern for our specific analysis since our data comes from a country with two dominant parties, we are striving to provide a new measure that can be used widely across contexts.

gratification changing the equation. Theories of political clientelism suggest that certain categories of voters are instrumental clients who consider going with another party's candidate if offered clientelistic goods. In emerging democracies, such are likely to be important considerations for many poor voters. Standard theories of voting behavior suggest that politically sophisticated and more educated swing voters evaluate provision of collective goods and policies. Hence, while a measure of "predisposition to swing" should ultimately include indicators of both past behavior as well as present attitudes, the latter must capture clientelistic goods and services as well as general programmatic evaluation.

A New Way to Measure the Swing Voter

We propose a measure of the predisposition of a voter to be persuaded by political candidates that incorporates both attitudinal and behavioral factors. By incorporating behavioral factors, we focus on directly measurable attributes that give us concrete evidence of "voting one way or the other." By including positive identification by respondents of willingness to change votes for specific reasons along several issue-dimensions, we overcome the limitations of both the behavioral measure and of the single-dimensional thermometer attitudinal measure.

Thus, we first follow the literature in American politics and consider swing voters as individuals who have a past record and / or express willingness to change their vote along any dimension. Second, drawing insight from the literature surrounding the African voter, we argue that voters whose ballots may be courted by collective goods provision are qualitatively different from those who can be won over by clientelistic appeals. We employ a series of questions from the survey but make sure to distinguish between collective goods and clientelism in order to enable a more sophisticated analysis. It is a count-measure where an individual's predisposition to switch he/her vote is operationalized as answering "yes" to *x* number of questions.

Components of A New Swing Voter Measure

To construct our measure of a swing voter labeled *tsv* (for "total swing vote"), we treat each instance of self-reported willingness to swing one's vote, or having done so in the past, as one count increasing the predisposition of being persuaded to switch. We also needed to construct two sub-categories of this measure of "swingness" to capture the distinction between swing voting based on collective goods and policies on the one hand, and clientelistic offers on the other hand. Our measure *psv* (for "policy swing vote") captures predisposition to swing on public goods and policy and a our measure *csv* (for "clientelistic swing vote") captures a predisposition to swing on clientelistic grounds.[9] We use the same questions from the survey that are used for the *tsv*-measure but include only the answers that tap into clientelism or collective goods provision in each measure respectively. The following items from the survey were used in constructing the count of predisposition to swing[10]:

(1) An individual who voted "split tickets" (voting for different parties in concurrent presidential and legislative elections) received one count on *tsv*.

[9] These measures share mutually exclusive components insofar as they are derived from the same questions. If, for example, a voter indicates willingness to vote split-ticket gives only one response that he or she would for ``small chops," this willingness to swing on clientelistic dimensions also indicates unwillingness to swing on policy dimensions. However, other questions ask independently about particular clientelistic or policy behaviors, are not simply, mirror images.

[10] While the listed dimensions capture the essence of the measure, the actual number of items on the survey questionnaire used to construct the measures is more than six. For the *tsv* measure a total of 25 criteria were used, but some of these questions were mutually exclusive: on an open-ended question where an individual indicates they would swing vote for clientelistic reasons, they could not indicate swing voting with the policy reason. So it is more adequate to say that sixteen different items were considered. For the *csv* measure a total of 13 items and for the policy scale a total of 12 items were considered. Consequently, the theoretical range of these count variables was [0,16], [0,13], and [0,12], respectively. The actual maximum values for each of the variables is lower than the theoretical maximum either because no individuals would swing vote for all items or because we treated not answering questions as 0's for individuals that did not answer all of the questions.

(2) Additional counts on *tsv* were recorded for split ticket voting reasons on the justification that the more reasons that can sway a voter, the higher predisposition to swing. These reasons were also used to record counts on the *psv* and *csv* measures respectively, depending on the nature of the reasons.

(3) An individual who voted for different political parties across elections received one count towards *tsv*.

(4) Additional counts were recorded on *tsv* for individuals who stated one or more reasons for party switching on the justification that the more reasons that can sway a voter, the higher predisposition to swing. These reasons were also used to record counts on *psv*and *csv*.

(5) An individual who identified as undecided when asked about vote intention for the upcoming elections, received one count on *tsv*.

(6) Respondents who positively identified specific items that would make him/her switch party/candidate were given counts for these towards the *stv*.. In the survey, respondents were asked about five such hypotheticals: if the candidate offered a job, gave the respondent a small monetary gift, brought a development project to the community, brought the problems of the constituency to national attention in media or in Parliament and if the candidate was vigilant in oversight of the executive[11]. For each positive

[11] This question was worded as: "You said you would probably vote for ….'s parliamentary candidate if the election is held today. Consider if another candidate from another party did one of the following, and tell me if that could possibly make you switch to that candidate: (a) Offered a job to someone in your family, (b) gave you some 'small chop' say 5 to 10 Ghana Cedis or some in-kind, (c) brought a community development project here, (d) Brought the constituency's problems and needs to attention on the national political arena through press and speeches in parliament, and (e) provided vigilant oversight over the executive, the president and ministers on how the national budget is spent.

[11] This was done in order to get comparable indicators of propensity to swing given that a significant number of respondents could not or would not answer one or more of the questions. At the same time, we wanted to avoid the potential biases that could be introduced by excluding any respondent who did not, or could not, answer one or more of these questions. If a subject has a missing value for one of these inputs, because, for example, they

identification by a respondent that such a circumstance could lead to him or her switch party, we assigned one count on *tsv*. Clientelistic offerings (job, monetary gifts) and collective goods ones (development projects, law-making, executive oversight) were allocated to the *psv* and *csv* measures in the separate construction of these.

We argue that this way of measuring swing voting is superior to any that have been previously employed, as it indicates the central tendency of a voter to change their voter in the aggregate, as well as policy dimensions, in a way which cannot be hijacked by singleton's in an individual's inclination to change the vote.

The Significance of the Swing Voter for Development and Democracy

The focus on swing voters brings together three major strands of literature in comparative politics. The first major cluster of research has sought to explain why some countries have been particularly incapable of providing public and collective goods like economic development, health and education, functioning regulatory systems and markets, and rule of law for their citizens. Various diagnosis have been offered for the deficit of public and collective goods provision, usually found to be particularly acute in African states. This literature is much too vast to give but a few examples here but these can nevertheless be taken as basis for the following argument. Bates (1981) demonstrated that the dependence of rulers on a small urban elite lead to policies undermining economic growth and the development of human capital. Agreeing with Bates on the outcome, scholars like Hyden (1980, 2006) and Chabal (1982) drawing on cultural explanations showed that even when good policies were in place, leaders in Africa consistently undermined these in order to

---

could not vote in the 2004 elections, it is not counted against them. Thus, the total on the additive scale is weighted by the number of the inputs for which each respondent has non-missing values, excepting item non-response; responses such as ``don't know'' are treated as offering no support for the swingness criteria. While this decision is admittedly imperfect, it estimates swingness conservatively, which we find to be more intellectual satisfying because it biases our measure towards lower levels of swingness

produce anything but private goods. Non-cultural, but otherwise similar explanations assigned various labels such as “clientelism” (Lemarchand 1972), “neopatrimonialism” (Medard 1982), “prebendalism” (Joseph 1987) and “politics of the belly” (Bayart 1993) as the cause of the non-developmental character of African states, in the extreme leading to warlordism when patronage failed to secure rulers’ power (Reno 1995).

Recent accounts take us back in the causal chain. Herbst (2000) claimed that indirect strategies of rule through patron-client networks were rational in a context defined by sparse populations dispersed over vast territories whereas Boone (2003) demonstrated varying degrees of indirect and direct rule within countries using a similar model of explanation. Leys (1975), Mamdani (1996,) and Young (1994) demonstrated the continuing impact of colonialism on state-society relationships leading to the same observed outcome in terms of detrimental behavior by elites and rulers. Englebert’s (2000) related argument was that the root cause is the widespread popular perception in Africa of the state as an illegitimate creation, requiring politicians to entice the populace to acquiesce. Since the state in Africa is associated with colonial rule and abuse of power, trust-based options such as programmatic policy are not viable and politicians turn to political clientelism. Englebert was building on Jackson (1990) famous observation that the international norms of judicial sovereignty did away with rulers’ need for actual territorial control. Van de Walle (2001) agreed that international permissiveness contributed to the “permanent crisis” of development but added that donor aid also actively upheld developmentally dysfunctional regimes.

It is not our ambition to adjudicate between the different causal models put forth in these and related works. There seems to be no lack of evidence however, that among less developed nations African states have been particularly incapable of producing public and collective goods enabling development. African states’ incapacity in this regard has recently been further evidenced (again with varying causal explanations) by the comparative work by

scholars such a Acemoglu *et al.* (2002), Barro (1998), Collier (2007), Evans (1995), and Krieckhaus (2007). The outcome is nevertheless invariant and that is what concerns us here. The question is if swing voters' behavior in elections can make a difference to this malaise?

Democracy as the Solution?

A second strand of literature suggests a possible solution to this public and collective goods' deficit. Democratization is the process of establishing an institutional framework of rights and procedures that should make rulers responsive to citizens in order to gain and hold on to power (e.g. Dahl 1971:8, 1989:316-7; Bollen and Jackman 1989:612-8; Coppedge and Reinicke 1990; Diamond 1996:53; Lindberg 2009:11-13).[12] The thesis that representative democracy can address public and collective goods' deficits hinges on the role of elections as "instruments of democracy" (Powell 2000; c.f. Lijphart 1994)[13]. Through elections citizens can select leaders and then hold them accountable for the implementation of policies that benefit the broader populace. Making a political system more democratic thus should expand

[12] It is a well-known fact that many so called transitions during the third wave of democratization led (so far, at least) to many less than democratic, hybrid regimes. But this does not negate the fundamental changes introduced with processes making it more possible to hold rulers accountable. The literature is rich on the theme of diminished subtypes. Collier and Levitsky (1995) reportedly stopped counting at 550 different when reviewing the literature in the 1990s. Examples range from "limited democracy" (Archer 1995, 166), to "restricted democracy" (Waisman 1989, 69), "protected democracy" (Loveman 1994), and "tutelary democracy" (Przeworski 1986, 60-61). Some labels are perhaps misleading since they are negations of democracy, for example Joseph's (1997, 367-8) "virtual democracy". Collier and Levitsky (1997) like Schedler (1998) place diminished subtypes on the classical conception classification scheme based on a dichotomous approach and organize them on the ladder of generality and Diamond's (2002) provides a comprehensive classificatory scheme.

[13] The right to self-government, as Dahl reminds us, is neither a trivial nor merely a procedural right (Dahl 1989, Ch.12). The procedures of liberal representative democracy are creating freedoms while distributing power equally in the sense of "one man, one vote". This is what Locke referred to as all men are, or ought to, be considered equal as political beings[13] (Locke 1689-90/1970, 322) and what Dahl calls the "idea of intrinsic equality" (1989, 85). Repetitive, relatively free and fair multiparty elections is the most important institution in actualizing this right to self-government making a particular kind of vertical accountability taking on paramount significance (Schedler 1999).

the scope of citizens' possibilities of ensuring that rulers act in ways that guarantees the provision of more collective and public goods.

So while the literature on development in Africa in part accredits the persistent failures to a lack of popular control of ruling elites, the literature on democratic theory suggests that elections could cure such ill-governed political systems. Yet, even among established democracies, the reach of electoral processes tends to be limited with regards to directing politicians in terms of policy. At the same time, the large expansion of public and collective goods provision in terms of the modern welfare state emerged in the decades following democratization in the established democracies. To what extent are electoral processes in emerging democracies tools for making politicians become more oriented towards public goods and service provision?

Political Clientelism Undermining Democracy's Effect?

The third strand of literature we draw on suggests at least two reasons why elections in new democracies would not have such beneficial effects. Political clientelism and patronage can be used to subvert the logic of democratic accountability, for example by political machines capable of effective monitoring of voters choice (e.g. Cox & McCubbins 1993; Stokes 2005). Keefer & Vlaicu (1997) posit that political clientelism is a strategy for politicians to gain repute, when it is lacking otherwise. This logic is equivalent to accounts of how political parties provide private goods and policy favors primarily to groups who are receptive to material incentives (e.g. Lindbeck & Weibull 1987; Persson & Tabellini 2000). Most new democracies in Latin America, Africa, and Asia are presidential systems that create politics of "winner takes all," where the party in power controls state institutions and the spoils (Linz 1990). In less developed countries this translates into monopoly of a state that typically controls the vast majority of economic activity as well as the networks within which such

public resources can be "privatized" and channeled in exchange for political support.[14] Control over office has been shown to permit the distribution of development funds (Miguel 2004), educational support (Miguel and Guggerty 2002), and other forms of financial enrichment (Barkan 1979, van de Walle 2001, Wantchekon 2003).

A number of scholars attribute this to poverty (e.g. Dixit & Londregan 1996). For the poor, immediate improvements of precarious material conditions, even a small cash handout or a bag of rice, take priority over long-term policy changes that creates credible commitment problems, especially in contexts where politicians enjoy little trust to begin with. Future improvements are subject to a high level of uncertainty – quite beside the significant problems of monitoring and enforcement from the point of view of a poor citizen. In this context, clientelistic distribution is a more viable strategy for politicians and the cost of buying political loyalty from a poor person is also lower than beguiling the rich (cf. Stokes 2005). The price, however, should vary with the size of the electorate: the larger number of voters, the smaller the marginal value of each vote. Among others, Kitschelt & Wilkinson (2007) suggest that in addition to level of development, the level of political competitiveness therefore impacts the cost and benefits of clientelistic strategies. The value of the marginal voter, hence the acceptable price of a *quid pro quo*, is much higher in competitive districts than in safe havens and we should therefore expect more clientelism (understood as provision of private goods to individuals) in highly competitive settings. Yet, candidates can also use clientelistic goods to drive up turnout (mobilization rather than persuasion) much along the lines suggested by Nichter (2008) and Dunning & Stokes (2008), or do both as evidenced by

[14] The canon of African politics has it that the vast majority of voters here are predisposed towards material distributions. For example, it has been shown that Members of Parliament in Ghana spend a tremendous amount of time in their constituencies providing personal assistance to voters, by paying educational expenses, attending funerals, distributing jobs and other benefits, as well as direct financial transfers in the form of "small chops" (Lindberg 2003, 2010). In this sense, politics can degenerate into pitching support for parties that best fill a voter's "belly" (Bayart 1993).

Magaloni *et al.* (2007). Nonetheless, there are evidently several possible ways in which clinetelism can undermine the logic of democratic accountability that should otherwise lead to provision of more collective goods.

Hypotheses and Indicators

Voting in repetitive multiparty elections is the means of vertical accountability whereby rulers can be made responsive to the needs and interests of the people. In less developed countries with a pervasive neglect of public goods and services, elections could be thus be expected to be instruments of collective goods provision. Not all voters are equally important in this regard, however. While political equality is enshrined in the principle of one man – one vote, the outcome of an election can in theory be determined by a single voter. This is particularly true for legislative elections in majoritarian systems dominating the African landscape where turnovers have been rampant. [15] The pivotal fraction of persuadable voters is what we understand to be swing voters.

There is a saying in Africa that in safe havens, the incumbent political party could "put a goat" on the ticket and still win the legislative seat. In such situations, voters do not influence policy or the behavior of rulers through elections. We recognize that this does not preclude the possibility that leaders are still held accountable and being responsive through for example intra-party mechanisms. From the perspective of the voter, however, being a swing voter in such a constituency gives zero bargaining power and possibly excludes you from the influence of policy that one can gain from being within the ruling party. Because clientelism in such areas is typically used to mobilize core supporters to actually vote (so as to increase turnout) rather than persuade swing voters, the swing voter is also excluded from the distribution of clientelistic goods. Hence, we hypothesize that:

[15] Many legislatures in Africa's emerging democracies experiences a turnover rate of 50% or more at regular elections (Barkan *ed.* 2009).

H1 *An individual located in a safe haven constituency is less likely to be a swing voter than the same individual located in a competitive constituency*

We measure constituency competitiveness with a dummy variable where safe havens are coded as "1" when one party has won the last several elections with a margin of victory exceeding 20 percent. Other constituencies are coded as "0"[16].

To some extent safe havens overlaps in places like Africa with geographically concentrated ethnic groups affiliated with particular political parties and tribal identities can also be a mechanism for mobilizing political support (Barkan 1979; Fridy 2007; McLaughlin 2007; Posner 2007; c.f. Lipset 1961). Voters seems to both receive "psychic benefits" for supporting candidates like themselves (Chandra 2004) and in lieu of clearly defined policy aims, use ethnicity as a cognitive shortcuts to estimate similar electoral preferences (Ferree 2006, c.f. Lijphart 1999, Synder 2000). While ethnicity captures a multi-faceted identity defined a shared myth of common ancestry, encompassing clan, language, religion, region, and even nation. (Chandra 2004, Chazan 1983, Fearon and Laitin 2000, Horowitz 1985, Young 1976), it has been demonstrated that their make-up and political relevance can change over time (Posner 2005). At any one point, individuals hence can be expected to be more or less "ethnics" in their perceived identity. This leads us to expect ethnicity to be associated with core voters if an ethnic identity have a clear contemporary affiliation with a particular political party:

H2 *If an individual self-identify with a tribe affiliated with a particular political party, this lowers the likelihood that individual is a swing voter*

In the case of Ghana, this means that members of the two primary politicized groups in Ghana — the Ewe and the Ashanti[17] — should be expected to be core supporters of a

[16] The country in which the survey data was collected – Ghana – use the first-past-the-post plurality rule in single-member constituencies and has two dominant parties that regularly captures 96% or more of the total vote.

particular political party. We employ two dummy variables derived from a question that asks respondents to identify their tribal belonging with "1" in both cases indicating being Ashanti or Ewe respectively.[18]

In competitive elections a candidate must convince voters who can go either way and should therefore be more responsive to the interests and needs of the swing voter than a core voter. Hence, it is the swing voter that potentially is the primary "instrument of democracy" as well as development. Yet, this only happen if swing voters do not demand private goods to be distributed in exchange for their votes, and politicians do not successfully use clientelistic vote-buying as a main political strategy. Political clientelism undermines vertical accountability and consequently relieves the pressure of the politician (once elected) to be responsive to the collective goods and service needs of the swing voters. Hence, we expect that if candidates use clientelism as a major vote-winning strategy then more people will be exposed to it and hence potentially influenced by distribution of private goods.[19] Focusing on the incumbent we test the hypothesis that:

---

[17] The Ashanti make up the majority and also the cultural core of the ethno-linguistic group called Akans. Most other Akan tribes typically associate closely to the Ashanti. In our sample, that includes the Akyems. Another Akan-tribe is also in our sample – the Fanti – but they are more of an exception among the Akans since their affiliation with the Ashanti is much weaker and to some extent historically antagonistic. Hence, to avoid misunderstanding, we refer to Ashanti and Akyems as 'Ashanti" rather than "Akan", and keep Fanti separate in the analysis.

[18] As a robustness check we also constructed an index variable measuring how strongly individuals from these two ethnic groups identified with their tribe rather than with being Ghanaian. We used an ordinal variable ranging from 0 ("Only Ghanaian") to 4 (Only Ethnic) and tribal origin was then interacted with this identification question to distinguish individuals who not only belong to one of the politically relevant ethnic groups but also identify strongly with it. The results reported below were not substantially altered by using this indicator so in the interest of keeping the analysis as straightforward as possible, we used to more intuitive measure.

[19] One can also expect clientelistic vote buying to become more normalized and accepted in such circumstances.

H3 *The more an incumbent uses distribution of clientelistic goods an electoral strategy, the higher the likelihood that an individual will be a swing voter receptive to inducements of private goods nature.*

We operationalize this variable ('*Clientelism Supply'*) as the weighted average of exposure to small gifts, handouts, and similar things that in Ghana are referred to as "small chops". The survey asked a series of five questions regarding the respondent's observations of this form of clientelism during both the previous elections campaign in 2004 and the current 2008 pre-election period, as well as comparisons between the two. The index measure ranges from 0 (no exposure) to 1 (highest level of exposure). We expect this indicator to be negatively associated with the total swing, and clientelistic swing measures, but positively associated with the measure of policy-based swing voting.

Core voters vote for the same party more or less regardless of what they and their candidates do, whereas swing voters can potentially be persuaded by something, to change their vote. In general, we would expect swing voters to be more evaluative. Use of clientelism as electoral strategy could be demand-driven but Lindberg's (2009, 2010) work on Ghana suggests that incumbent MPs can change the context they operate in. By engaging in more forceful provision of collective goods (e.g. constituency service providing non-excludable goods for communities such as toilets, roads, markets, and competitive scholarship schemes), as well as engaging in more public education regarding the "proper" role of elected representatives, MPs can reduce the pressures for clientelistic goods provision. Thus, we come to formulate two hypotheses:

H4 *The 'better' the incumbent has performed in the eyes of an individual in terms of clientelistic goods provision, the smaller the susceptibility of that individual to be persuadable and to swing on the basis of clientelistic offers.*

The variable *'Patron Assistance'* variable is based on a response assessing the performance of an MP in providing clientelistic benefits to constituents. It has five values ranging from 0 (strongly negative evaluation) to 4 (strongly positive evaluative views). We expect positive evaluations of the incumbent MPs performance as patron to be negatively associated with the total swing, and clientelistic swing measures, but positively associated with the measure of policy-based swing voting.

H5 *The 'better' the incumbent has performed in the eyes of an individual in terms of collective/public goods provision, the smaller the susceptibility of that individual to be persuadable and to swing on the basis of collective goods offers.*

We have three variables capturing different types of collective goods. All three are ordinal variables scaled from 0 (very negative evaluation) to 4 (strongly positive evaluative views). The variable '*Constituency Service'* measures delivery of collective development goods to the respondent's community. We expect this indicator to be negatively associated with all kinds of swing voting. The indicator '*Law-Making'* measures the respondent's evaluation of the incumbent MPs' performance in terms of law-making. Based on much of the Africanist literature, we could expect this indicator to be irrelevant for voting behavior. Yet, if voters in new democracies, also in Africa, are sophisticated voters, we can expect this indicator to be negatively associated with measures of total and policy-based swing voting but not relevant or even positive for clientelistic swing voting. '*Executive Oversight*' measures the respondent's evaluation of the incumbent MPs' performance in terms of executive oversight. Again, we could expect to find this to be irrelevant, but if voters are more 'mature democrats' than much of the literature assumes, we can expect this indicator to be negatively associated with measures of total and policy-based swing voting but not relevant or even positive for clientelistic swing voting.

Finally, the literature gives us reason to hypothesize regarding the "demand-side" that clientelistic swing voters are poorer than other voters and that this structural disposition is what makes them more likely to swing based on clientelistic goods provision:

H6 *The poorer an individual, the more likely that individual is be willing to change her/his vote in exchange for clientelistic goods.*

It is virtually impossible (we have tried in earlier surveys) to get reliable responses on individuals' income in African countries. We therefore adopted a measure used in the Afrobarometer asking respondents to evaluate their personal economic situation relative to other Ghanaians. While this measure can not approximate income, it provides at least some relatively reliable information of whether a respondent is much poorer or richer than average. In what follows, we subject these hypotheses to several tests using survey data of 1,600 individuals in one of the new democracies in Africa (Ghana).

Control Variables

We include a set of control variables in all equations. While a potentially long list of suspects could be included, we restrict our sample to the most conspicuous ones. *Economic Voting*: Ours is not an analysis of economic voting per see but since this is one of the perennial findings in studies of voting behavior, we include it as a control variable. We use a survey question asking respondents to indicate how they evaluate the state of their own economic situation compared to one year ago. It is an ordinal variable ranging from much worse (0) to much better (4) and we expect it to be negatively associated with swing voting in general. *Education:* To capture the formal education of a subject, we consider the subjects' highest level of schooling. This ordinal variable with five levels ranges from no formal schooling (0) to post-tertiary/university education (4). Clientelistic swing voting should be negatively associated with level of education while policy-swing voting should have the opposite

relationship. *Age:* We control for the age of a subject using a continuous variable indicating exact age and we expect older individuals to be more set in their ways and therefore age should be negatively associated with all types of swing voting. *Information:* It seems plausible that more knowledgeable and informed subjects would be more evaluative in orientation in particular in terms of public policy and collective goods. We measure a subject's access to information based on a series of questions of how often the subject gets information on politics from the radio, newspapers, and TV. *Gender*: We also include a control for gender where men are coded (1) and women are assigned (0). Based on the literature on clientelism, men should be involved in clientelism more often than women and therefore being male should be positively associated with clientelistic swing voting.[20]

Research Design

We take advantage of a unique dataset collected by one of the authors in August 2008[21], almost four months before Ghana's concurrent presidential and legislative elections on December 7. The timing of the data collection was strategic. At this point, the primary elections for both legislative seats and presidential slots had been finalized and the revision of the voters' registry just completed, but the campaigning had not started yet. Thus, potential voters had been registered and the candidates that would be running in each legislative district had been identified so as to make it possible for us to interview respondents in a meaningful way. At the same time, very little in terms of campaigning had taken place and we therefore were able to minimize the impact of the campaign on our results. As campaigns

[20] It may be worth noting that Ghanaian folklore wisdom has it that women are more principled and less swayable by personal interest than men. If this is true one would expect being male to be positively associated with any kind of swing voting.

[21] The authors wishes to acknowledge the collaboration with CDD-Ghana for the data collection exercise, and in particular Victor Brobbey, Harrison Belley, Daniel Lartey, and Kojo Asante. Special thanks also to all of the 49 very dedicated field research assistants.

roll out, more and voters are typically persuaded and therefore would be less likely to answer that something could change their mind and make them vote for a different candidate. It is to be expected that the longer campaigns have been running, the fewer persuadable voters will be left. A survey collecting data closer to polling day, hence, would run a serious risk of underestimating the true number of persuadable voters. It would also bias the estimates given that the more easily convinced voters may have different reasons for voting one way or the other from those who stay undecided until the very end. The chosen period for the intervention should generate the most reliable results.

The survey included 1600 subjects who were recruited through clustered, stratified, multi-stage area probability sampling procedure.[22] We include one constituency from each of the ten regions in Ghana reflecting a wide range of districts from safe havens to hotly contested constituencies, with 160 subjects interviewed in each constituency[23].

[22] This is following a procedure established by Lindberg and Morrison (2005, 2008). The strategic selection of constituencies was done in order to get enough respondents from each constituency in order to make valid inferences possible about particular areas. With respect to demographic factors and regional distribution, the data collected in our survey roughly matches national averages. The sampling procedure involved first stratifying constituencies in the 2008 elections by Ghana's ten regions. Then one constituency was strategically selected from each of the ten regions by weighting a number of both quantitative and qualitative indicators in order to ensure a representative selection of constituencies as far as possible. Within each constituency, we used polling stations as sampling frame, and 16 of them were selected at random by a computer guided by a distance-rule in order to ensure geographic coverage of the constituency. Within enumeration areas, surveyors selected random walking paths from the designated starting points, surveyed every *nth* household determined by the day of the month and within the household, selected respondent randomly from members in the household above the age of 18 (c.f. Afrobarometer Survey Methods 2009).

[23] Three constituencies are safe-havens for the New Patriotic Party (NPP) and Volta region for the National Democratic Congress (NDC). Ho West in the Volta Region, a stronghold of the NDC, was split in two for the 2004 election so in the second round, both these constituencies were sampled to ensure consistency over time. Kwabre, in the heartland of the Ashanti region is a National Patriotic Party (NPP) stronghold. Akim Swedru in the Eastern region was added to reflect the fact that the NPP have almost double the number of safe havens compared to the NDC. Besides being safe havens, each of these constituencies has a diverse population of urban and rural residents engaged in trading, farming and education (c.f. Lindberg and Morrison 2005). Three highly competitive districts were also selected. The Central region and the Greater Accra region have been contested

While many of the questions included in the survey employed force response formats, several of the questions were open-ended and gave subjects ample opportunities explain their answers. This served the purpose of building rapport with the survey administrator to enhance response quality and to increase the sheer volume of information produced by the survey (c.f. Groves et. Al 2004). We also wanted to make sure to capture the full range of responses to questions such as those addressing why a individual decided to vote for a different party in the last election, or chose to split his or her vote between two parties' candidates in the presidential and legislative elections respectively. These answers were then post-coded informed by the theories of clientelism and collective/public goods discussed above. In this way, we sought to generate the truest possible representation of people's actual views and thoughts that is possible to capture in quantitative format.

The Dependent Variable and Choice of Count Regression Model

Table 1 provides more detail on swing voting across the constituencies validating both our theoretical interest in the importance of swing voters for development and democracy, and

---

regions in several elections. Both Cape Coast and Ablekumah South constituency had been held NPP constituency over the last three election cycles but with radically decreasing margins and both were eventually lost to the NDC in 2008. Both have a combination of fishing, farming, trading, and small-scale cottage industry communities, and a mixture of urban and rural communities. Ablekumah South is also one of the most populous constituencies in the country and provide a fairly good cross-section of residents in the capital. The last competitive are was Bolgatanga in the far north of the country. In addition to contributing to geographical representation of the country and inclusion of some minority ethnic groups from the North, it is a constituency where one of the small parties has won a seat in the past. During the time of the survey, the PNC was holding the seat although it was lost to the NDC in the 2008 election. In addition four semi-competitive constituencies were selected. Kpone-Katamanso lies on the outskirts of the Accra/Tema metropolitan area with a mixed population of various occupations ranging from farmers to traders and citizens who work in the city but live outside. Evalue-Gwira is located in the Western region and a traditional strong-hold of the CPP, which is the party with the strongest historical link to the country's founding father Kwame Nkrumah, but has become increasingly competitive over the years. Jaman South is located in Brong-Afaho region and while somewhat competitive, is still relatively safe for the NPP. Tamale Central constituency in the Northern region is also relatively competitive but won by the NDC.

our conceptualization and measurement of the phenomenon. The first column with percentages provides the projected vote based on what the respondents told us in the survey. The second column reports what share of these would consider switching their vote based on public policy and collective goods, as opposed to the questions that tapped into clientelistic provision. The third column with percentages reports the actual results in that constituency in the legislative elections December 7, 2009, while the final column gives the percentage gap between projected and actual results for each party in each constituency. Essentially, the big take-home lesson is that competitive constituencies have large number of potential swing voters a few months before the election. Hence, appealing to and convincing swing voters was a crucial task for political parties and the theoretical argument that swing voters not only decide elections but also determine whether elections work as instruments of democracy or not, is real in emerging democracies like Ghana.

<TABLE 1 ABOUT HERE>

Table 1 also provides a preliminary assessment of the accuracy of our empirical data collection strategy measures of swing voting. While we would not at all expect a measure of predisposition to vote for a candidate to one to one correspond with swing voting outcomes, we do see that there is enough correspondence. For example, in Ablekuma South, roughly 60% of the respondents in our projected their MP vote would be for the NPP but some 10 to 20% of these voters had some potential to swing their vote by our clientelism and policy measures. When considering that the NPP candidate lost the 2008 elections with 46.5% of the votes, this gap of 13% (the last column) fits in well with the variability of the vote projections and thus would suggest our measure of swing voting accurately reflects swing voting dynamics at the constituency level.

Our three measures of predisposition to switch the vote are non-linear count measures suggesting that we should use some type of the generalized linear model (McCullagh and

Nelder 1989). Count regression models are specific cases of GLM based on maximum likelihood procedures implementing conversions to make the non-linear count dependent variable linear (Elhai, *et al.* 2008, 131). These models have been used more extensively in for example epidemiology, public health, and biology (e.g. Agrawal *et al*. 2002, Brown *et al.* 2005, Minami *et al.* 2006, Yau, *et al*. 2001) but to the best of our knowledge, we are the first to demonstrate the value of this analytical approach in studies of voting behavior, and one of the few ever in the discipline of political science. Hence, we will expand some on the choice of models and procedures.

The simplest count model is the Poisson regression model (PRM) which assumes a Poisson distribution (substantial positive skew and variance that equals the mean). However, PRM assumes that the variable's variance is not greater than its mean, which is rarely the case leading to over-dispersion (Elhai, *et al.* 2008, Long 1997, 219). To deal with this issue, the negative binominal (NB) model has been introduced which in addition to being able to deal with non-normal, heteroscedastic distributions includes a dispersion parameter to capture unobserved heterogeneity in the model and/or temporal dependency (Cameron&Trivedi 1998, Long 1997, 236, Rose *et al.* 2006, 464). Yet, neither of these basic models address he existence of count data with excess zero values. Hurdle and zero-inflated models have been developed to handle covariates to a large number of zeros. The hurdle regression model is preferred when excess zeros are mainly due to sampling zeros whereas the zero-inflated models are designed to handle both sampling and structural excess zeros (Long&Freese 2006, 387, 394). Sampling zeros are cases who happen to take on a zero-value due to the time or framing of the sampling, whereas structural zeros are cases that would always score zero no matter the parameters of the sampling. For studies of voting behavior in political science, it seems reasonable to assume that there are, for example, voters who would never even consider to vote for any other party than X (thus would be structural zeros in a sample such

as ours measuring swing voting). In studies of turnout, there are certainly always voters who would never or always go to cast their vote, and so on. In short, zero-inflated (and the related zero-truncated) models seems more appropriate (c.f. Atkins 2007, Cameron&Trivedi 1998, Long 1997). Zero-inflated regression has been used for almost two decades since the introduction of the zero-inflated Poisson (ZIP) model in econometrics by Lambert (1992) followed by the zero-inflated negative binominal (ZINB) regression. Following the conceptual logic between structural zeros (the "Always Zero"-group) and sampling zeros and counts (the "Not Always Zero"-group) zero-inflated models changes the mean structure to allow for excess zero-counts to be the result of two distinct processes rather than by one as in the Hurdle regression. In terms of interpretation, both ZIP and ZINB thus distinguishes between covariates associated with structural zeros ("Core Voters" in our study) and covariates associated with cases that could have a count although it is not certain given the sampling ("Swing/Undecided Voters" in our study)[24].

<FGIURE 1 ABOUT HERE>

The distribution of counts on the dependent variables in this study are illustrated in Figure 1. This optical suggests over-dispersion and excess of zeros in the data and using the command countfit in STATA, we tested PRM, NB, ZIP, and ZINB for goodness of fit. Observed versus predicted counts, likelihood ration chi-square statistics, Akaike's information criteria, Bayenesian information criterion, and the Voung test were also used to determine which model is best suited to analyze our data (see Appendix A). For all three measures, these tests makes it clear that zero-inflated models are strongly preferred to PRM and NB regressions. This was expected but also makes most conceptual and theoretical sense. For the total swing-, and the policy swing-measures all tests indicate that ZINB is strongly preferred over ZIP, whereas for the clientelism swing voting measure there is somewhat of a

[24] INSERT SHORT FORMAL DISCUSSION OF MODELS WITH EQUATIONS HERE.

preference for ZIP over ZINB. However, the differences in for example, observed versus predicted counts between ZIP and ZINB regarding the clientelism swing-measure are extremely small and the substantive implications of choosing one over the other are negligible.

<FGIURE 2 ABOUT HERE>

The graphic illustration of the goodness of fit between the different models over the three dependent variables is displayed in Figure 2 where the reference line at zero on the y-axis denotes the actual distribution of counts and markers indicate how much the different models over/under-predict the count at different values on the x-axis. The axes of the three graphs have been standardized to put the relative differences in the right perspective and illustrate the small differences in goodness of fit across the models for the clientelism measure compared to the other two. In the end, the value of using the same model to estimate all three dependent variables, thus making the results directly and unambiguously comparable, to our mind clearly outweighs the slight improvement in fit regarding the clientelism swing measure.

Results

For all the main estimations of the three dependent variables (*tsv* = "total swing voting", *psv* = "policy swing voting", and *csv* = "clientelism swing voting"), we report the coefficients, robust standard errors, *z* and *p*-values, as well as the 95% confidence interval for coefficients but put these in Appendix B1-B3 since the results need further analysis to be interpretable. When interpreting the results of zero-inflated negative binominal regression models, it is easy to be confused by the direction of the coefficients and Long&Freese (2006, 398) recommend turning to factor and/or percentage change in expected counts and odds ratio for the two

equations in the model respectively. Table 2A and 2B report these statistics for all three dependent variables along with the raw coefficients and *p*-values.

<TABLE 2A and 2B ABOUT HERE >

Table 2A contains the results from the first equation (for the "Not Always Zero" group) for which the factor and percentage change pertains to changes in expected counts of swing voting characteristics. Table 2B presents the results from the second equation which produces factor and percentage change in odds of being in the "Always Zero" group (core voters) rather than in the "Not Always Zero" group. From now on we will refer to these two groups as swing and core voters respectively.

Explaining Swing Voting in General

Starting with the count-equation of swing characteristics for the overall *tsv*-measure, a number of variables are statistically insignificant: Safe Havens (H_1), belonging to the ewe-tribe (H_2), the MPs performance as patron in terms of providing personal assistance (H_4) and MPs' performance as law-maker (H_5), an individual's relative poverty(H_6). But many variables have affects on the expected count of swing characteristics that are statistically significant. Corroborating the second hypothesis, being Ashanti increases the expected count by a factor of 1.26 (or by 26%) and each level towards a more intensive exposure to clientelism increases the expected count by a factor of 1.06 (6%), evidence in support of hypothesis three. Each unit increase in evaluation of MPs community development efforts decreases the expected count by a factor of .90 (or by -10%), while ach unit increase in evaluation of MPs efforts at executive oversight decreases the expected count by a factor of .98 (-2%), both addressing the fourth and fifth hypothesis. Looking at the control variables, each increase in level of education decreases the expected count by a factor of.92 (-8%), with each additional year of age the expected count decreases with 1%, each increase in access to

news also decreases the expected count by a factor of .99 (-1%), and being male increases the expected count by 11%.

Moving to the second equation modeling the binary distinction between core and swing voters, a number of variables are also found to be statistically insignificant. Some are the same as for the first equation but not all: Being Ewe (H_2), exposure to a greater supply of clientelistic offers (H_3), evaluation of the MPs performance as patron providing personal assistance (H_4), and finally an individual's relative poverty (H_6). Among the controls, age and gender are unrelated to the distinction between core and swing voters. But several of the hypothesized factors show very strong association with the odds of being a core voter. Corroborating the first and second hypotheses, being an individual in a safe constituency increases the odds of being a core voter by a factor of 1.84 (or by 84%) and being Ashanti increases the odds by factor of 1.919 (92%). Independently of those effects, each unit increase towards a more positive evaluation of MPs community development efforts increases the odds of being a core voter slightly (by factor of 1.069 or 7%), while evaluation of MPs lawmaking effort increases the odds of being a core voter by factor of 1.30 (31%) and an increase in evaluation of MPs executive oversight increases the odds by factor of 1.12. These three indicators all speak in support of the fifth hypothesis. Among the control variables, each unit increase in individual's retrospective evaluation of his/her economic condition increases the odds of being a core voter by a factor of 1.08. A much greater substantive effect results from each unit increase in education level which decreases the odds of being a core voter by a factor of .67 (-33%), and from each increase in access to news which increases the odds of being a core voter by factor of 1.22.

In sum, the analysis using the first dependent variable (*tsv*), which counts all characteristics predispositioning an individual to switch party, paints a relatively clear picture. An individual is much more likely to be a core voter if he/she resides in a safe haven,

belongs to the politicized tribe associated with one of the major parties, have a positive evaluation of the MP's performance in terms of providing collective and public goods, perceives that his/her own economic situation has improved, has a low level of education, and has better access to information. On the other hand, among those who are not core voters, the predisposition to swing increases an individual is exposed to supply of clientelistic offers, the more he/she disapproves of the MP's performance in providing constituency service and conducts executive oversight, lacks education, is younger, and is a man.

To illustrate the substantive effects of these variables taking both equations into account, we created Figure 3 displaying the expected changes in the probability of being a core voter (hence, the reverse of the probability of being a swing voter) as independent variables take on different values.[25]

<FIGURE 3 ABOUT HERE>

The effect of safe havens and competitive constituencies is captured by the solid and dashed lines on the first page of Figure 3, except in the lower-right graph. In the upper-right graph it is particularly striking how insignificant the effect of politicians' efforts at clientelistic vote-buying is compared to the effect of what they do with regards to constituency development, law-making and even executive oversight. In light of the rather extensive literature on African politics claiming primacy to clientelism and 'big man' politics as the main way to get and keep power, these results are both surprising and positive. Voters in new democracies such as Ghana are obviously much wiser than academic observers have hereto given them credit for. The insignificant substantial effect of exposure to greater clientelistic supply shown in the upper-right graph further testifies to this. On the other hand, factors that in democracies the world over are found to be important to voting behavior, have substantively very strong effects: relative standard of living, access to information, and level

[25] All these graphs in Figure 3, 4, and 5 were created by generating predicted probabilities .

of education. Poor, uninformed, and uneducated voters are much more likely to be persuadable (swing) voters. The left hand graph on the second page of Figure 3, looks at the combined effects of some of these factors: safe havens, education, and MPs' performance. Performing well or bad as a 'big man' patron providing personal assistance to constituents still have no substantial impact on the probability of being a core voter, whereas the effects of constituency service, law-making and executive oversight remains and is relatively constant across the two 'ideal type' constructions here: an individual with no education in a safe haven vs. an individual with university education in a competitive constituency.

Comparing Voters Persuadable by Policy and Collective Goods vs. Clientelism

The second and third main columns of Table 2A and 2B shows the results of the zero-inflated negative binominal regression using the dependent variables restricted to characteristics that are related to programmatic policy and provision of collective goods (*psv*), and clientelism (*csv*) respectively. For several variables the results are essentially identical but on a few, the results merits noting the differences especially as these differences give us further leverage on some of the hypotheses discussed above.

As above, we start with discussing the first equation modeling the expected count. Tribal affiliation with one of the major politicized group increases the expected count on policy and collective goods-swing characteristics but not clientelistic ones. The effects are not dramatic (being Ashanti or Ewe increases the expected count of policy swing characteristics by 22% and 19% respectively) but it is remarkable that tribe is not impacting on clientelistic swing voting given that so much of the literature assumes that clientelistic goods typically are channeled through informal networks structured by affiliations such as kinship and tribe.

Greater supply of clientelism increases the expected count of both policy and clientelism swing characteristics, but very modestly so (by 5% and 2% respectively). A more positive view of the MP as patron surprisingly affects policy-swingness but not clientelism-swingness but the substantive effect is again negligible. More worth noting, MPs' performance in terms of constituency development has both a statistically significant and substantively meaningful effect (-11% per unit increase in evaluation) for policy/collective goods-swingness, but none on clientelistic swing-voting. MPs' performance when it comes to law-making and executive oversight are not statistically different from zero. Intriguingly, relative poverty that was insignificant for the general swing-measure is also insignificant for policy/collective goods-swingness but has a substantively modest (-3%) effect on the count of clientelistic swing-characteristics. More affluent people are indeed less likely to be persuadable to switch party by clientelistic factors.

Among the control factors pocket voting and education makes no difference, whereas age shows an interesting pattern. When it comes to policy/collective goods-swing characteristics, younger people have more of them just as we would expect. When it comes to clientelistic swing characteristics, however, it is rather older people who have a higher expected count suggesting that the younger generation is more disapproving of vote-buying related approaches, and more concerned with policy-related issues. Finally, being male is positively related to a greater count (+21%) policy/collective goods swing factors, but not to a higher expected count of clientelism swing characteristics.

Moving to the second equation distinguishing between core voters and voters who may be persuadable, an individual in a safe haven has a 91% higher odds of being a core voter in the policy-swing analysis but the effect is statistically indistinguishable from zero in the analysis of swingness on clientelistic items. Clientelistic efforts to persuade voters are apparently equally effective in safe and competitive constituencies whereas efforts at winning

over voters based on policy issues and collective goods are only likely to be effective in competitive areas. Speaking strongly in favor of hypothesis two, being Ashanti increases the odds of being a core voter on both dependent variables. The effect is almost six times greater (2.08 compared to 11.7) for the clientelism items of swing, however, and for the other main politicized group (Ewe) the relationship switches direction between the two dependent variables suggesting again that the existing literature that binds ethnicity and clientelism together is misguided. Another reminder exposure to a greater supply of clientelistic offers does not have much effect on either securing core voters nor on persuading swing voters, comes from the statistically insignificant findings in both models. MPs performance as patrons offering personal assistance is also irrelevant, and so is constituency service and executive oversight. Each unit increase in evaluation of MPs' performance as law-makers, however, increases the odds of being a core voter the substantial amount of 31% in the analysis of policy/collective goods-swingness but a zero relationship to clientelistic swing voting. Affluence has a significant effect on both dependent variables and in the expected direction but the substantive effect is much stronger (68% as compared to 28% increase) on the odds of being a core voter when considering only clientelistic swing characteristics. This comparison brings out clear evidence corroborating hypothesis six since affluent individuals are much less likely to be persuadable by clientelistic items than by policy/collective goods issues. This is further corroborated by the results for pocket voting. An individual's perception of his/her economic situation at this time of the survey compared to one year earlier, has no statistically significant effect on the odds of being a core voter when considering only policy/collective goods factors. But when considering only clientelistic items, this variable has a relatively substantial effect. Each unit increase on the five-point scale of evaluation, increases the odds ratio by a factor of 1.8. Individuals who think they are better off than one year earlier have a much higher odds of being a core voter when we

analyze clientelistic swing voting. Level of education, however, has a similar effect on both dependent variables. Higher levels of education substantially decreases the odds of an individual being a core voter. Age has no statistically significant effects whereas greater access to information does – but only for policy/collective goods swing voting. The relationship is positive which makes sense. Being more informed about politics should make an individual less swayable on policy issues. Finally, gender has no impact on the odds of being a core voter on policy issues. Men and women are equally likely to be core voters. But being male significantly decreases the odds (by 59%) of being a core voter in the analysis of clientelistic swing voting. This implies that men are much more inclined to be swayed by clientelistic offers than women, perhaps reflective of what is often said that small handouts, jobs, and other forms of personalized clientelistic goods are more likely to go to men in the first place.

<FIGURE 4 ABOUT HERE>

Figure 4 illustrates the substantial impacts of the various variables. Of particular interest is that as expected an individual in safe havens are much more likely than the same individual in a competitive constituency, to be a core voter when it comes to policy and collective goods. Somewhat surprisingly, this is not true when we measure swing characteristics associated with political clientelism. Safe havens are simply not the consequence of particularly intensive or successful clientelistic strategies but rather the result of successful creation of party identification and policy/collective goods performance. A typical voter in a safe haven Ghana who perceive his/her MP to be performing very well when it comes to law-making, has a 72% probability of being a core voter, i.e. not being persuadable by any means. The same individual but with a negative perception of the MP's performance as law-maker only has a 53% probability to be a core voter on the policy/collective goods measure. Yet, for individuals who are predispositioned to swing

along clientelistic lines, the difference between safe havens and competitive constituencies is statistically insignificant and MPs' performance count for very little.

A second noteworthy effect comes from the level of education. Just as we would expect, lack of education makes an individual much more likely to be predispositioned to swing on clientelistic offers. And exactly as our hypotheses predicted, the relationship runs the opposite direction for policy/collective goods swing voting. Uneducated voters are much less likely to swing for items that are related to policy and collective goods. But exposure to clientelistic practices and the MPs' performance as patron providing personal assistance has practically no impact on any of the two dependent variable contrary to what the existing literature lead us to believe. Individual voters at all levels of education, poverty, and access to information pay attention to what their political representatives do in terms of policy and provision of collective goods. Constituency service, performance when it comes to law-making and even executive oversight greatly affects the probability that an individual will be a core or a swing voter whether that individual is predispositioned to swing based on policy/collective goods items or on clientelistic grounds.

Conclusions

This paper is one of the first to systematically address the question of whether strength of ethnic identity, political parties' candidates campaign strategies, poverty, or evaluation of clientelism versus collective/public goods, determines who becomes persuadable voters (swing voters) in Africa. This is somewhat surprising given the amount of references in the literature on merging democracies and elections in Africa where various assumptions regarding the motivation of voters, and in particular voting that determines the outcome of elections, undergird much of the analysis.

As every pollster and political strategist knows, the outcome of competitive democratic elections are determined by the persuadable, or swing voters. Therefore it is also the swing voters that decide whether elections function as instruments of democracy, to borrow Powell's (2000) phrase, or merely become a "harvesting season" for the portion of the electorate who engage in political clientelism, to borrow a phrase from an unnamed MP in Ghana. If political clientelism is limited, elections can become contests based on programmatic appeals and evaluations of collective/public goods provisions that are part and parcel of development efforts. Therefore a focus on the swing voters in emerging democracies is crucial.

Advancing a new, more comprehensive, and more theoretically fit measure of the inclination to be persuaded ("swingness"), and analyzing the determinants of swing voters in Ghana's 2008 election, we have been able to both refute some of the current orthodoxies as well as evidence some of the literature's theoretical arguments.

It is worth noting that the control for age shows a consistent and negative relationship with susceptibility for swing voting. It is an important substantive finding that corroborates the common sense theory that younger people are less set in their ways. But it also has an important methodological implication. Measures of swing voting based on indicators that systematically excludes younger voters, such as past voting records, are likely to produce biased results and this finding validates our approach to measuring "swingness". Measures of past voting behavior that do not include first-time voters—who are most often youth that reach the legal voting age—also do not include the most prevalent group of swing voters.

Our analysis corroborates the hypothesis that swing vote-inclination vary over constituency competitiveness but with an important qualifier that the count model allows us to see. It is only associated with distinguishing core voters from those who have any predisposition to swing. It does not affect the composition nor the number of characteristics

of ‘swingness’. With regards to the second hypothesis about ethnic voting our findings lend more support to some research work done by (Cheeseman 2008, Lindberg&Morrison 2008) that have questioned the ethnic census thesis (c.f. Ferree et. Al 2009). Still Ewe and Ashanti are dominant players in tribal voting and these tribes are concentrated in certain constituencies and are associated with being a core voter.

Testing the third and fourth hypotheses we find little evidence to support the expected relationship. Greater exposure to clientelism has generally no or very limited impact on swingness. The supply-side of clientelism is not an important determinant of people’s behavior. The results suggests that the presence of clientelism in African elections may not be single-handedly damning for democratic accountability. Some voters—ones that are willing to change their votes over substantive, policy appeals—are unaffected by often pervasive levels of clientelism. The fourth hypothesis that voters will reward their MPs for providing private goods, such as school fees, jobs, and other private transfers, also do not get much support from our analysis. This is the demand side of clientelism and it seems to have little significant impact on swing voting – even clientelistic swing characteristics. This finding contradicts much of we have been taken as conventional wisdom in African politics (without much systematic evidence perhaps) holding that citizens in Africa are easily swayed by whomever lures with distribution of private goods.

The testing of the fifth hypothesis provides some further clues to the question of what makes politicians in a new democracy like Ghana decide on whether to pursue a clientelistic path or not. Voters who evaluate a particular MP positively in terms of provision of collective goods provided for the constituency, law-making, and to some extent executive oversight, are significantly less likely to consider switching their vote for any reason. The flip-side of this is that the greater the dissatisfaction with the MPs performance on these public and collective goods, the higher the inclination for an individual to switch his or her vote. This suggests that

voters in Ghana, especially the ones who are most likely to change their vote over political policy truly value the performance of an MP in terms of public and collective goods provisions. Consequently, MPs must meet the demands of their constituents to deliver on these public goods, or voters will punish them for their poor performance. Thus, elections in fact have the potential to serve as an opportunity to deepen democracy and improve governance in sub-Saharan Africa. These voters use elections to reward and sanction behavior of politicians in terms of their performance as public officials who are supposed to act in the public interest.[26] Whether elections will be instruments of democracy, or not, is in part dependent on how politicians chose to behave in the longer run.[27]

Finally, the literature led us to consider this in light of socio-economic status because voters who are poor and uneducated are expected to be more easily swayed. Our analysis demonstrates that individuals who perceive themselves to be poorer than the average Ghanaian, have a significantly higher inclination to be a swing voter on policy/collective goods characteristics but *less* likely to be swayable on clientelistic items. That same dual-directional relationship is found with regards to education. Individuals with little or no education are less likely to be swayable by policy/collective goods issues but more likely to be persuadable by clientelistic items.

The latter is a significant finding that points towards a possible future in emerging democracies in Africa such as Ghana. If incentives and support for politicians can be structured as to help them supply more collective goods, even if this means primarily

[26] Our measure is not sensitive to ideology or differences in political platforms other than to distinguish politicians who use clientelism as a campaign strategy to a greater extent than others.

[27] Naturally, this conclusion raises the next question going further back in the causal chain: What determines the behavior of these politicians. While we can provide some thoughts on this as in the following, the present project was not designed to answer that question. Fieldwork in Ghana suggests, however, that societal norms of reciprocity involving "parental" responsibility for the welfare of the constituents in return for support, is one important factor. (Lindberg *forthcoming* 2010)

constituency service to begin with, winning elections then become a matter of competing to provide more of, or higher quality, collective goods and not about strategic and efficient use of clientelism. More pervasive supply of clientelistic goods and services increases the number of people who are likely to consider to switch their political loyalty but only marginally. However, when voters perceive that politicians do a good job at providing collective goods for the constituency, clientelistic-private goods provision no longer matters for swing voters. In addition, poverty impacts on "swingness". In short, much of the power to make sure that elections become instruments of democracy lies in the hands of the political elites. It is possible for them in African democracies such as Ghana to focus primarily on provision of collective goods. When they do, it pays off in terms of winning over swing voters. Then, swing voters decide elections and they request more collective, as opposed to private, clientelistic, goods. In short, voters in emerging democracies like Ghana on the one hand seem to display a clear pattern of "mature" democratic accountability. They evaluate incumbents on a range of issues that has to do primarily with constituency service, and if they are dissatisfied with the incumbent's record of accomplishment, they become more likely to "throw the rascals out". This should in the long run create the kind of learning mechanism democratic theory hopes leading to politicians behaving in ways that are more in line with the interests and needs of the people. Elections thus are, at least to some extent, instruments of democracy.

References

Acemoglu, Daron, Simon Johnson, and James A. Robinson. 2002. "Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution." *Quarterly Journal of Economics* 117: 1231-1294.

Agrawal, D. K., A. E. Gefland, and S. Citron-Pousty. 2002. "Zero-Inflated Models with Application to Spatial Count Data." *Environmental Ecology Statistics* 9: 341-355.

Angus Reid Global Monitor. 2008. "Akufo-Addo Leads Rivals in Ghana" *Angus Reid Global Monitor* <http://www.angus-reid.com/polls/view/akufo-addo-leads-rivals-in-ghana/.

Archer, Ronald P. 1995. "Party Strength and Weakness in Colombia's Besieged Democracy." In Mainwaring, Scott and Timothy R. Scully eds. *Building Party Systems in Latin America.* Stanford: Stanford University Press.

Atkins, David C. and R. J. Gallop. 2007. "Re-Thinking How Family Researchers Model Infrequent Outcomes: A Tutorial on Count Regression and Zero-Inflated Models." *Journal of Family Psychology* XX: XX-XX.

Barkan, Joel D. 1979. "Legislators, Elections, and Political Linkage," in Barkan and Okumu, *Politics and Public Policy in Kenya and Tanzania* New York: Praeger, 64-92.

Barkan, Joel. Ed. 2009. *Emerging Legislatures in Emerging Democracies*. Boulder C.O.: Lynne Rienner.

Bates, Robert H. 1981. *Markets and States in Tropical Africa.* Berkeley and Los Angeles: University of California Press.

Bayart, Jean-Francois. 1993. *The State in Africa: the Politics of the Belly* New York: Longmann.

Bollen, Kenneth, and Robert W. Jackman. 1989. "Democracy, Stability and Dichotomies." *American Sociological Review* 54: 438-457.

Brown, C. J., J. A. Pagan, and E. Rodriguez-Oreggia. 2005. "The Decision-Making Process of Health Care Utilization in Mexico." *Health Policy* 72(1): 81-91.

Buchanan, J. 1965. 'An economic theory of clubs', *Economica* 32, 1: 1-14.

Burnell, Peter. 2001. "The Party System and Party Politics in Zambia: Continuities Past, Present, and Future," *African Affairs* 100(399): 239-63.

Carey, J. M. 2000. 'Parchment, equilibria, and institutions', *Comparative Political Studies* 33, 6/7: 735-61.

Chandra, Kanchan. 2004. *Why Ethnic Parties Succeed.* New York: Cambridge University Press.

Chazan, Naomi.1983. *An Anatomy of Ghanaian Politics. Managing Political Recession, 1969-1982*. Boulder, CO: Westview.

Collier, David, and Steven Levitsky. 1995. “Democracy with Adjectives: Strategies to Avoid Conceptual Stretching.” Paper presented at the Annual Meeting of the Latin American Studies Association, Washington D.C. A revised version was later published as 1997. ”Democracy with Adjectives: Conceptual Innovation in Comparative Research.” *World Politics* 49: 430-451.

Coppedge, Michael, and Wolfgang H. Reinicke 1990. “Measuring Polyarchy.” *Studies in Comparative International Development.* 25(1): 51-73.

Cox, G. & M. McCubbins. 1993. *Legislative Leviathan: party government in the House.* Berkeley, CA: University of California Press.

Cox, G. W. 1997. *Making Votes Count: strategic coordination in the world’s electoral systems.* Cambridge University Press.

Dahl, Robert. 1971. P*olyarchy: Participation and Opposition.* New Haven: Yale University Press.

Dahl, Robert. 1989. *Democracy and Its Critics*. New Haven: Yale University Press.

Diamond, Larry. 1996. “Democracy in Latin America: Degrees, Illusions, and Directions for Consolidation.” In Farer, Tom J. ed. *Beyond sovereignty: Collectively Defending Democracy in the Americas.* Baltimore: John Hopkins University Press.

Diamond, Larry. 2002. “Elections Without Democracy: Thinking about Hybrid Regimes.” *Journal of Democracy* 13(2): 21-35.

Dixit, A. & J. Londregan. 1996. ‘The determinants of success of special interests in redistributive politics’, *Journal of Politics* 58, 4: 1132-55.

Downs, A. 1957. *An Economic Theory of Democracy.* New York: Harper Collins.

Dunning, T. & S. C. Stokes. 2008. ‘Clientelism as persuasion and as mobilization’, paper presented at the American Political Science Association annual meeting, 28-31 August, Boston.

Elhai, John D., Patrick S. Calhoun, and Julian D. Ford. 2008. “Statistical Procedures for Analyzing Mental Health Services Data.” *Psychiatry Research* 160: 129-136.

Evans, Peter. 1995. *Embedded Autonomy: States and Industrial Transformation*. Princeton: Princeton University Press.

Fearon, James D. and David Laitin. 1996. “Explaining Interethnic Cooperation.” *Annual Political Science Review* 90(4): 715-735.

Ferree, Karen. 2006. “Explaining South Africa’s Racial Census,” *Journal of Politics*t 68(3): 803-15.

Fridy, Kevin. 2007. “The Elephant, Umbrella, and Quarrelling Cocks: Disaggregating Partisanship in Ghana’s Fourth Republic,” *African Affairs* 106(423): 281-305.

Groves Robert M., Floyd J. Fowler, Jr., Mich P. Couper, James M. Lepkowski, Elanor Singer, and Roger Tourangeau. 2004. *Survey Methodology* Hoboken, NJ: John Wiley & Sons.

Herbst, Jeffrey. 2000. *States and Power in Africa: Comparative Lessons in Authority and Control*. Princeton: Princeton University Press.

Horowitz, Donald. 1985. \emph{Ethnic Groups in Conflict} Berkeley: University of California Press.

Hyden Goran. 1983. *No Shortcuts to Progress: African Development Management in Perspective* Berkeley: University of California Press.

Hyden, Goran. 1980. *Beyond Ujamaa in Tanzania*. Berkeley: University of California Press.

Jackson, Robert H. 1990. *Quasi-States: Sovereignty, International Relations and the Third World*. Cambridge: Cambridge University Press.

Joseph, Richard. 1987. *Prebendalism and Democracy in Nigeria*. Cambridge: Cambridge University Press.

Kaminski, Marek. 2002. ``Do Parties Benefit from Electoral Manipulation? Electoral Laws and Heresthetics in Poland, 1989-1993." *Journal of Theoretical Politics* 14(3): 325- 359

Keefer, P. & R. Vlaicu. 1997. 'Democracy, credibility and clientelism', Washington, DC: World Bank Policy Research Working Paper No. 3472.

Kettering, S. 1988. 'The historical development of political clientelism', *Journal of Interdisciplinary History* 18, 3: 419-47.

Kitschelt, H. & S. Wilkinson, eds. 2007. *Patrons, Clients, and Policies: patterns of democratic accountability and representation.* Cambridge University Press.

Krieckhaus (2007)

Lambert, D. 1992. "Zero-Inflated Poisson Regression with An Application to Defects in Manufacturing." *Technometrics* 34: 1-14.

Lijphart, Arend. 1999. *Patterns of Democracy: Government Forms and Performance in Thirty Six Countries*. New Haven, CT; Yale University Press.

Lijphart, Arendt. 1994. "Democracies: Forms, Performance and Constitutional Engineering." *European Journal of Political Research* 25(l): 1-17.

Lindbeck, A. & J. W. Weibull. 1987. 'Balanced-budget redistribution as the outcome of political competition', *Public* Choice 52: 273-97.

Lindberg, Staffan I. 2003. 'It's our time to "chop": do elections in Africa feed neopatrimonialism rather than counter-act it?', *Democratization* 14, 2: 121-40.

Lindberg, Staffan I. 2010. "What Accountability Pressures Do MPs in Africa Face and How Do They Respond? Evidence from Ghana" *Journal of Modern African Studies* 48(1).

Lindberg, Staffan I. and K.C. Morrison. 2008. "Are African Voters Really Ethnic or Clientelistic?: Survey Evidence from Ghana," *Political Science Quarterly* 123: 95-122.

Lindberg, Staffan I. and Minion K. C. Morrison. 2005. “Exploring Voter Alignments in Africa: Core and Swing Voters in Ghana.” *Journal of Modern African Studies* 43(4): 1-22.

Lindberg, Staffan. 2003. “It’s Our Time to ‘Chop’”: Do Elections in Africa Feed Neo-Patrimonialism Rather than Counteract it?”*Democratization* 10: 121-140.

Linz, Juan. 1990. “The Perils of Presidentialism,” *Journal of Democracy* 1(1): 51-69.

Lipset, Seymour Martin. 1961. *Political Man: The Social Bases of Politics* Baltimore, MD: Johns Hopkins University Press.

Locke, John. 1689-90/1970. *Two Treaties of Government*. 2nd ed. Cambridge: Cambridge University Press.

Long, Scott J. 1997. *Regression Models for Categorical and Limited Dependent Variables.* Thousand Oaks, CA: Sage Publications.

Loveman, Brian. 1994. “’Protected Democracies’ and Military Guardianship: Political Transition in Latin America 1978-1993.” *Journal of Interamerican Studies and World Affairs.* 36(Summer): 108-111.

Magaloni, B., A. Díaz-Cayeros & F Estévez. 2007. ‘Clientelism and portfolio diversification: a model of electoral investment with application to Mexico’, in Kitschelt & Wilkinson, eds. *Patrons, Clients, and Policies*, 182-205.

Mamdani, Mahmood. 1996. *Citizen and Subject: Contemporary Africa and the Legacy of Late Colonialism.* Princeton: Princeton University Press.

Mayer, William G. 2007. *The Swing Voter in American Politics* Washington, D.C: Brookings Institutio Press.

Mayer, William G. 2008. “The Swing Voter in American Presidential Elections” *American Politics Research* 35(3): 358-388.

McCullagh, P. and J. A. Nelder. 1989. *Generalized Linear Models*. 2nd edit. London: Chapman and Hall.

McLaughlin Eric S. 2007. “Beyond the Racial Census: The Political Salience of Ethnolinguistic Cleavages in South Africa,” *Comparative Political Studies* 40: 435-456.

Medard, Jean-Francois. 1982. “The Underdeveloped State in Tropical Africa: Political Clientelism or Neo-Patrimonialism?” In Clapham, Christopher, ed. *Private Patronage and Public Power: Political Clientelism in the Modern State.* London: Frances Pinter.

Miguel, Edward and Mary Kay Gugerty. 2005. “Ethnic Diveristy, Social Sanction, and Public Goods in Kenya,” *Journal of Public Economics* 89(11): 2325-2368.

Minami, M., C. E. Lennert-Cody, W. Gao, and M. Román-Verdesoto. 2007. “Modeling Shark Bycatch: The Zero-Inflated Negative Binominal Regression Model with Smoothing.” *Fisheries Research* 84: 210-221.

Nichter, S. 2008. 'Vote buying or turnout buying? Machine politics and the secret ballot', *American Political Science Review* 102, 1: 19-31.

Nugent, Paul. 2001. "Winners, Losers, and Also Rans: Money, Moral Authority, and Voting Patterns in the Ghana 2000 Election," *African Affairs* 100(400): 405-428.

Persson, T. & G. Tabellini. 2000. *Political Economics: Explaining Economic Policy*. Cambridge: MIT Press.

Posner, Dan. 2004. "Measuring Ethnic Fractionalization in Africa." *American Journal of Political Science* 48(4): 849-864.

Posner, Daniel N. 2005. *Institutions and Ethnic Politics in Africa* New York: Cambridge University Press

Posner, Daniel N. 2007. "Regime Change and Ethnic Cleavages in Africa," *Comparative Political Studies.* 40(11): 1302-1327.

Powell, Bingham G. 2000. *Elections as Instruments of Democracy.* London: Yale University Press.

Przeworski, Adam. 1986. "Some Problems in the Study of Transitions to Democracy." In O'Donnell, Guillermo, and Philippe Schmitter. Eds. *Transitions form Authoritarian Rule: Prospects for Democracy.* Baltimore: Johns Hopkins University Press.

Reno, William 1998. *Warlord Politics and African States*, London: Lynne Rienner.

Rose, C. E., S. W. Martin, K. A. Wannemuehler, and B. D. Pilkaytis. 2006. "On the Use of Zero-Inflated and Hurdle Models for Modeling Vaccine Adverse Event Count Data." *Journal of Biopharmaceutical Statistics* 16: 463-481.

Schedler, Andreas. 1998. "What is Democratic Consolidation?" *Journal of Democracy* 9(2): 91-107.

Schedler, Andreas. 1999. "Conceptualizing Accountability." In Schedler, Andreas, Larry Diamond and Marc F. Plattner. Eds. *The Self-Restraining State: Power and Accountability in New Democracies*. Boulder, CO: Lynne Rienner.

Stokes, S. C. 2005. 'Perverse accountability: a formal model of machine politics with evidence from Argentina', *American Political Science Review* 99, 3: 315-26.

Stokes, Susan. 2005. "Perverse Accountability: A Formal Model of Machine Politics with Evidence from Argentina" *American Political Science Review* 99: 315-325.

Synder, Jack. 2000. *From Voting to Violence: Democratization and Nationalist Conflict* New York: W.W. Norton.

Van de Walle, Nicholas. 2001. *African Economies and The Politics of Permanent Crisis, 1979-1999.* Cambridge: Cambridge University Press.

Van de Walle, Nicolas. 2003. "Presidentialism and Clientelism in Africa's Emerging Party Systems," *Journal of Modern African Studies 41*(2): 297-321.

Voung, Q. H. 1989. “Likelihood Ratio Tests for Model Selection and Non-Nested Hypotheses.” *Econometrica* 57: 307-333.

Wantchekon, Leonard. 2003. “Clientelism and Voting Behavior: Evidence from a Field \indent Experiment in Benin,” *World Politics.* 55: 399-422.

Yau, K. K. W., and A. H. Lee. 2001. “Zero-Inflated Poisson Regression with Random Effects to Evaluate an Occupations Injury Prevention Programme.” *Statistical Medicine* 20: 2907-2920.

Young, Crawford. 1976. *The Politics of Cultural Pluralism* Madison, WI: University of Wisconsin Press.

Young, Crawford. 1994. *The African Colonial State in Comparative Perspective* . New Haven: Yale University Press.

Table 1: Projected MP Vote vs 2008 Results, By Constituency

Type	Constituency	Party	Projected Vote %	*N*	% Policy Swing, by Projected Vote***	MP Election Results, 2008	Project /2008 Result Gap
Competitive	Ablekuma S.	NPP	34.4%	*55*	20.0%	46.5%	12.1%
		NDC	20.0%	*32*	34.4%	51.2%	31.2%
		CPP	3.1%	*5*	40.0%	1.2%	-1.9%
		PNC	--	--	-	0.8%	
		None*	33.8%	*38*	12.0%		
			Total	*130*			
					* chi square = 10.52, p=.061, df=5		
	Cape Coast	NPP	24.4%	*39*	12.8%	44.0%	19.6%
		NDC	40.0%	*64*	20.3%	54.1%	14.1%
		CPP	6.9%	*11*	18.9%	1.3%	-5.6%
		PNC	1.3%	*2*	0.0%	--	
		None*	15.6%	*25*	8.0%		
			Total	*141*	* chi square = 4.871, p=845, df=9		
	Bolgatanga	NPP	16.3%	*26*	42.3%	20.2%	3.9%
		NDC	18.8%	*30*	36.7%	57.7%	38.9%
		CPP	1.3%	*2*	0.0%	1.3%	0.0%
		PNC	21.3%	*34*	11.8%	20.1%	-1.2%
		None*	29.4%	*47*	32.4%		
			Total	*142*			
					* chi square = 18.20, p=.011, df=7		
Semi-competitive	Tamale C.	NPP	26.3%	*42*	33.3%	31.4%	5.2%
		NDC	45.0%	*72*	26.4%	65.6%	20.6%
		CPP	3.1%	*5*	60.0%	1.5%	-1.6%
		PNC	0.6%	*1*	100.0%	0.6%	0.0%
		None*	13.7%	*22*	8.0%		
			Total	*142*	* chi square = 14.88, p=.038, df=7		
	Jaman S.	NPP	55.0%	*88*	28.4%	55.8%	-0.8%
		NDC	17.5%	*28*	32.1%	34.3%	-16.8%
		CPP	3.8%	*6*	33.3%	0.4%	3.4%
		PNC	1.9%	*3*	33.3%	0.7%	1.2%
		None*	6.3%	*10*	17.2%		
			Total	*135*	* chi square = 5.99, p=.647, df=8		
	Evalue-Gwira	NPP	35.6%	*57*	17.5%	57.6%	-22.0%
		NDC	13.8%	*22*	40.9%	30.8%	-17.0%
		CPP	12.5%	*20*	25.0%	11.5%	1.0%
		PNC	--	--	--		
		None*	21.9%	*35*	31.4%		
			Total	*134*	* chi square = 13.1, p=.022, df=5		
	Kpone Kat.	NPP	27.9%	*44*	25.0%	32.5%	-4.6%

		NDC	31.7%	*50*	10.0%	63.0%	-31.3%
		CPP	7.6%	*12*	41.7%	4.6%	3.0%
		PNC	1.3%	*2*	0.0%	--	
		None*	17.8%	*28*	28.0%		
			Total	*136*			
Safe Havens	Ho West				* chi square = 17.32, p=.015, df=7		
		NPP	15.6%	*25*	32.0%	11.4%	4.2%
		NDC	53.8%	*86*	24.4%	87.5%	-33.7%
		CPP	1.3%	*2*	50.0%	1.1%	0.2%
		PNC	--	--	--	--	
		None*	13.0%	*21*	25.0%		
			Total	*134*	* chi square = 4.63, p=.592 df=6		
	Kwabre E.	NPP	71.9%	*115*	21.7%	76.0%	-4.1%
		NDC	6.9%	*11*	36.7%	19.8%	-12.9%
		CPP	1.9%	*3*	33.3%	3.1%	-1.2%
		PNC	--	--	--		
		None*	10.6%	*17*	14.3%		
			Total	*146*	* chi square = 6.84, p=.554, df=8		
	Akim Swedru	NPP	50.6%	*81*	24.0%	63.6%	-13.0%
		NDC	10.6%	*17*	16.3%	35.7%	-25.1%
		CPP	1.3%	*2*	50.0%	0.7%	0.6%
		PNC	--	--	--		
		None*	7.0%	*11*	25.0%		
			Total	*111*	* chi square = 16.98, p=.009 df=6		

*This includes undecided and undisclosed, as well as 'don't know'. ***These values correspond with the percentage of project voters for party X who indicatea propensity to vote that is "high" to "very high"

Table 2A
Count Equation: Factor Change in Expected Count for Swing Characteristics

	tsv				psv				csv			
	b	*P>z*	e^b*	%[a]	b	*P>z*	e^b*	%[a]	b	*P>z*	e^b*	%[a]
Safe Haven	.012	*.514*	1.01	1	-.042	*.079*	0.96	-4	-.141	*.146*	0.9	-13
Tribe: Ashanti	.227	*.000*	1.26	26	.200	*.000*	1.22	22	.101	*.662*	1.1	11
Tribe: Ewe	.110	*.114*	1.12	12	.178	*.000*	1.19	19	-.068	*.647*	0.9	-7
Clientelism Supply	.061	*.005*	1.06	6	.051	*.022*	1.05	5	.017	*.008*	1.0	2
Patron Assistance	-.002	*.633*	1.00	0	.011	*.001*	1.01	1	.000	*.998*	1.0	0
Constituency Service	-.102	*.001*	0.90	-10	-.115	*.000*	0.89	-11	-.052	*.193*	0.9	-5
Law-Making	.083	*.070*	1.09	9	.082	*.111*	1.09	9	-.051	*.187*	0.9	-5
Executive Oversight	-.021	*.003*	0.98	-2	-.028	*.388*	0.97	-3	.003	*.941*	1.0	0
Relative Poverty	.018	*.574*	1.02	2	.019	*.149*	1.02	2	-.027	*.003*	1.0	-3
Pocket Voting	.039	*.088*	1.04	4	.065	*.155*	1.07	7	.058	*.125*	1.1	6
Level of Education	.079	*.000*	0.92	-8	.000	*.999*	1.00	0	-.066	*.206*	0.9	-6
Age	-.005	*.002*	1.00	-1	-.004	*.023*	1.00	0	.002	*.000*	1.0	0
Access to Information	-.005	*.030*	0.99	-1	-.001	*.944*	1.00	0	-.092	*.148*	0.9	-9
Gender (Male=1)	.103	*.000*	1.11	11	.188	*.000*	1.21	21	-.019	*.791*	1.0	-2

Table 2B
Binary Equation: Factor Change in Odds of Always 0

	tsv				psv				csv			
	b	*P>z*	e^b**	%[aa]	b	*P>z*	e^b**	%[aa]	b	*P>z*	e^b**	%[aa]
Safe Haven	.610	*.000*	1.84	84	.646	*.000*	1.91	91	1.168	*.247*	3.2	222
Tribe: Ashanti	.652	*.000*	1.92	92	.731	*.000*	2.08	108	2.455	*.000*	11.7	1065
Tribe: Ewe	.279	*.313*	1.32	32	.323	*.008*	1.38	38	-14.560	*.006*	0.0	-100
Clientelism Supply	.014	*.756*	1.01	1	.038	*.343*	1.04	4	-.232	*.224*	0.8	-21
Patron Assistance	-.031	*.763*	0.97	-3	-.013	*.915*	0.99	-1	-.086	*.615*	0.9	-8
Constituency Service	.068	*.000*	1.07	7	.065	*.217*	1.07	7	.698	*.116*	2.0	101
Law-Making	.266	*.000*	1.30	31	.267	*.000*	1.31	31	-.145	*.608*	0.9	-14
Executive Oversight	.114	*.000*	1.12	12	.055	*.483*	1.06	6	1.721	*.156*	5.6	459
Relative Poverty	.180	*.156*	1.20	20	.245	*.000*	1.28	28	.519	*.000*	1.7	68
Pocket Voting	.075	*.000*	1.08	8	.055	*.300*	1.06	6	.581	*.000*	1.8	79
Level of Education	-.402	*.000*	0.67	-33	-.322	*.000*	0.72	-28	-.887	*.000*	0.4	-59
Age	.001	*.938*	1.00	0	-.001	*.930*	1.00	0	.037	*.424*	1.0	4
Access to Information	.200	*.020*	1.22	22	.179	*.017*	1.20	20	.124	*.320*	1.1	13
Gender (Male=1)	-.103	*.340*	0.90	-10	.033	*.815*	1.03	3	-.886	*.000*	0.4	-59

*e^b = exp(b) = factor change in expected count for unit increase in X
**e^b = exp(b) = factor change in odds for unit increase in X
[a]percent change in expected count for unit increase in X
[aa] percent change in odds for unit increase in X

Fig. 1: Distribution: Dependent Variables

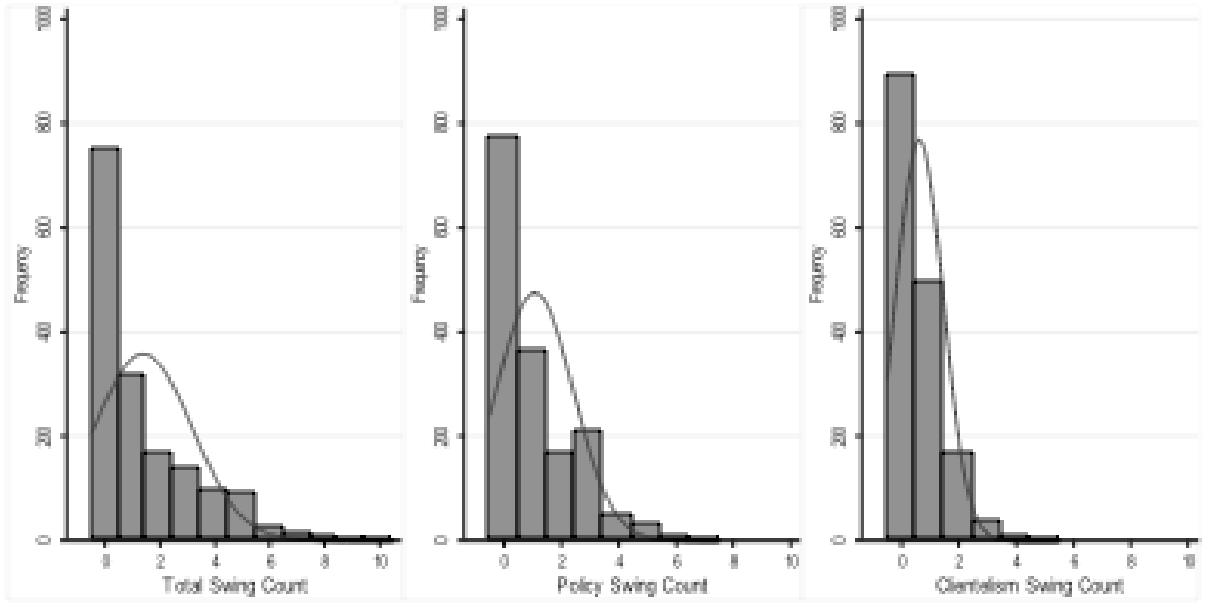


Fig. 2

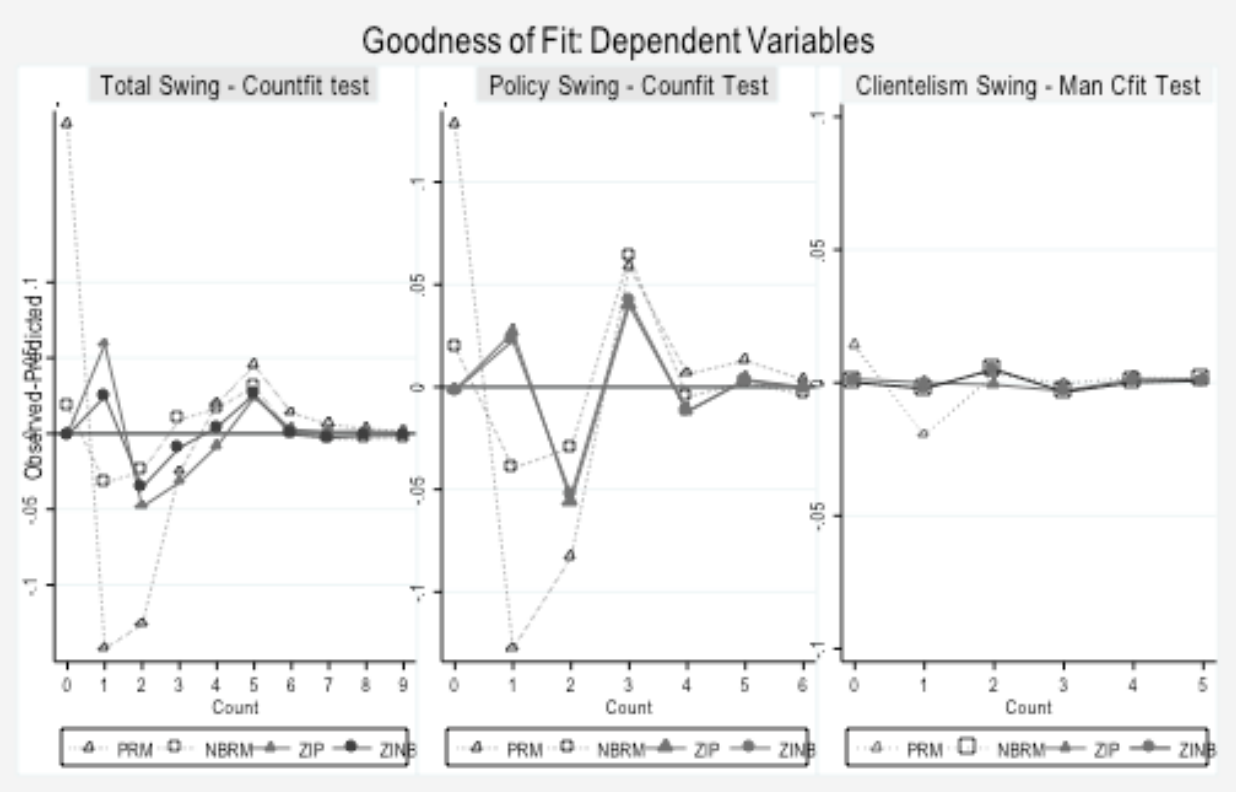
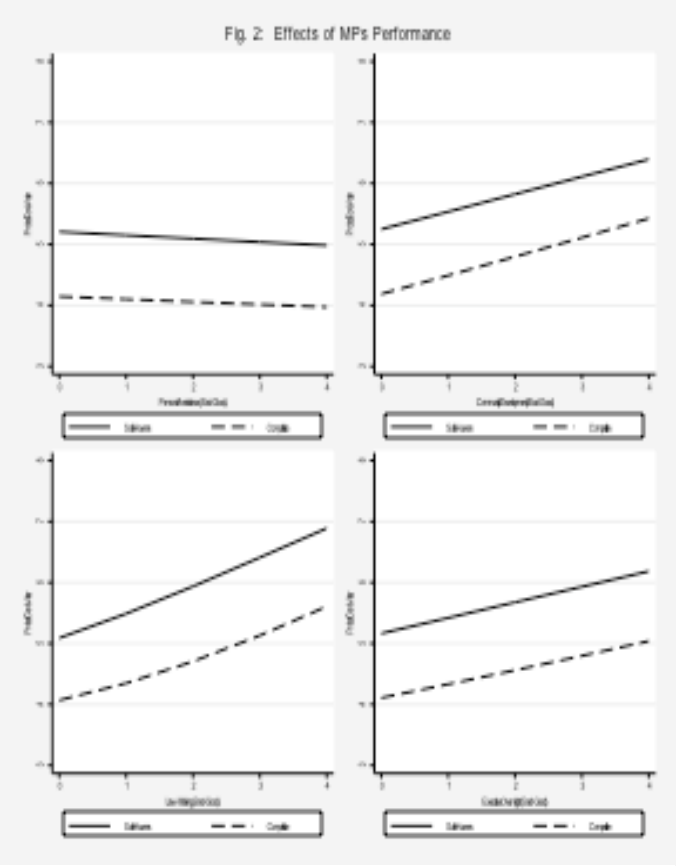
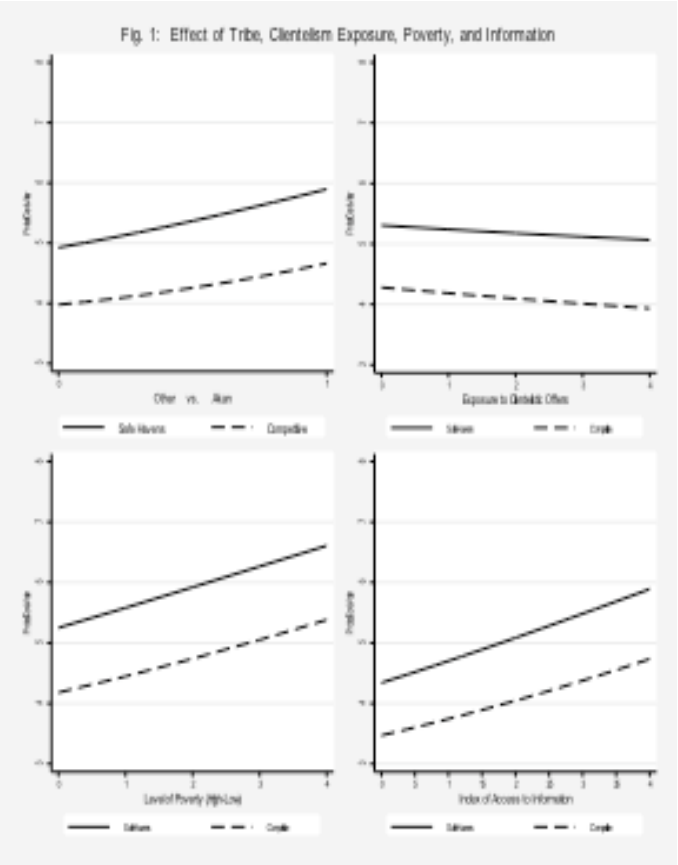
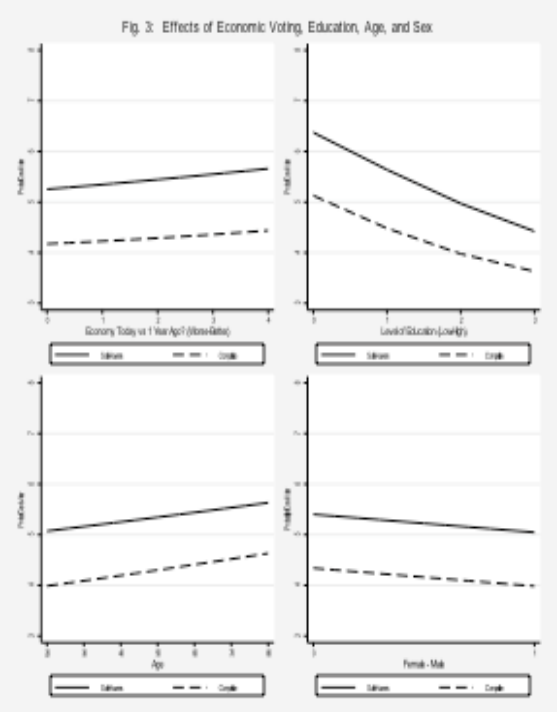

Goodness of Fit: Dependent Variables
Total Swing - Countfit test
Policy Swing - Counfit Test
Clientelism Swing - Man Cfit Test
Observed-Predicted
Count
PRM
NBRM
ZIP
ZINB

FIGURE 3 – COMBINATION OF GRAPHS ON TSV (FIRST DV, GENERAL SWING)







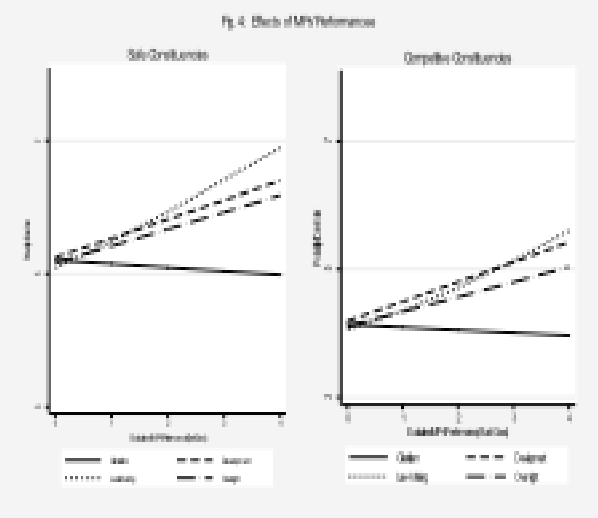


FIG. 3 CONTINUED…

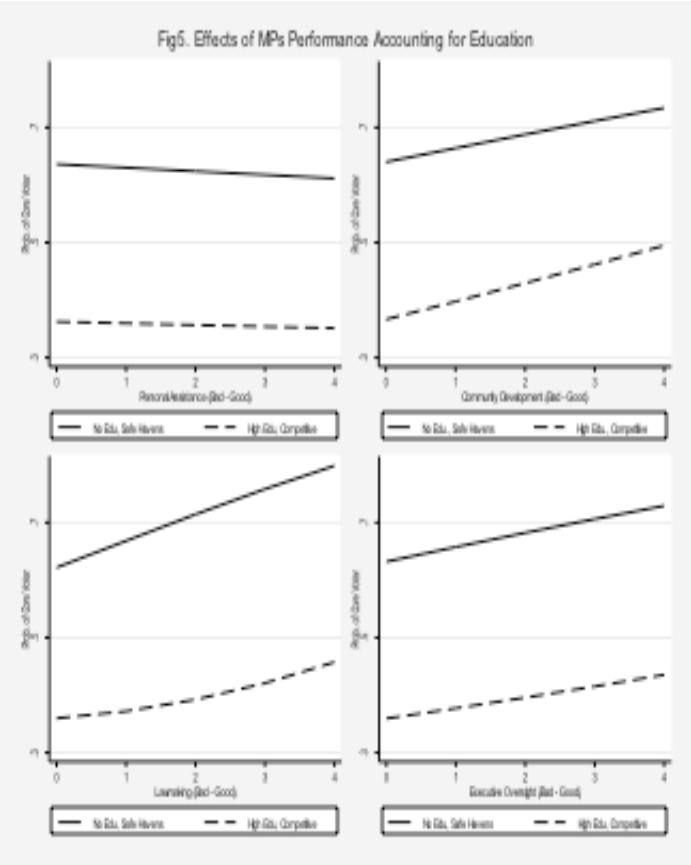
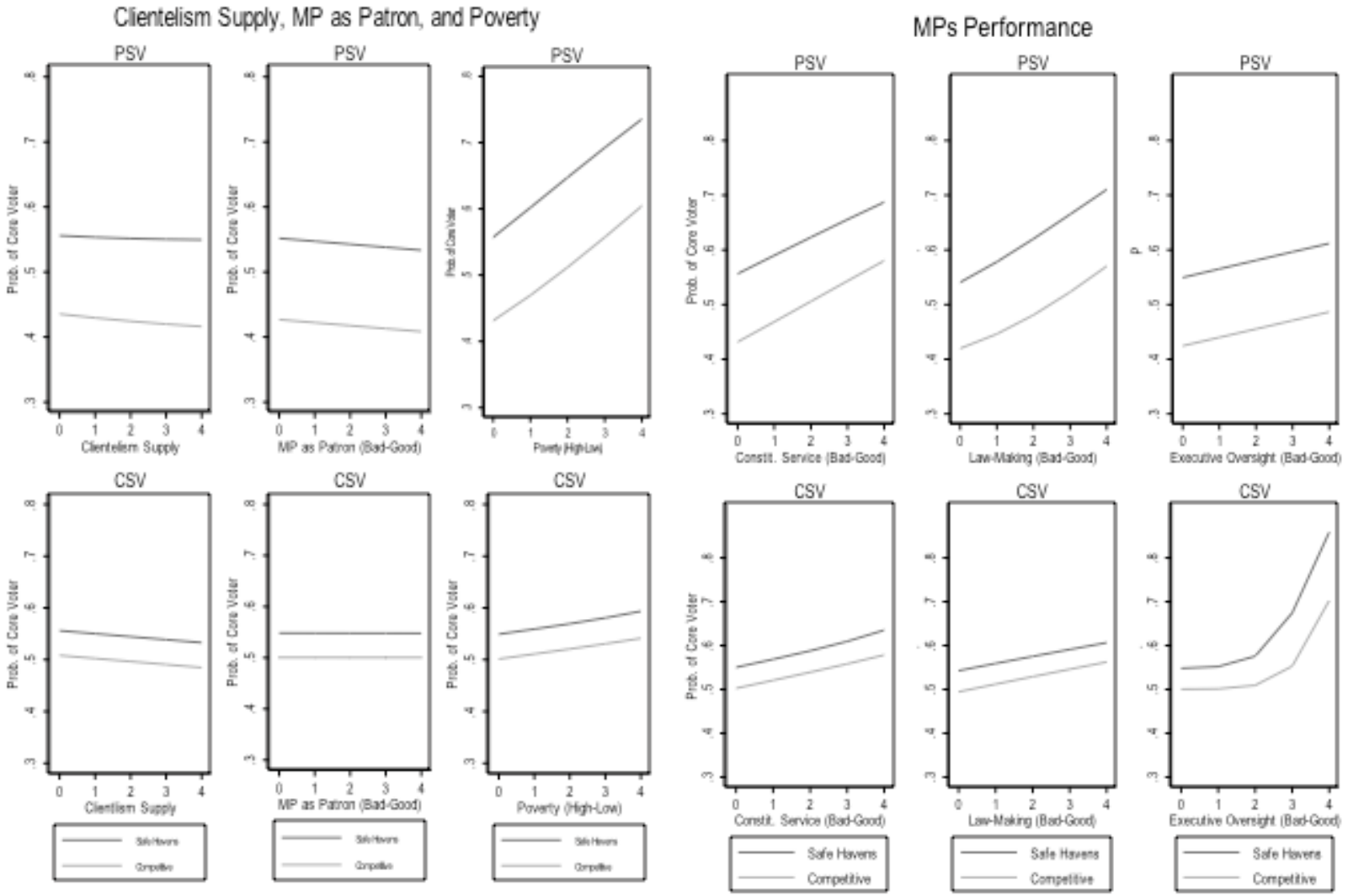
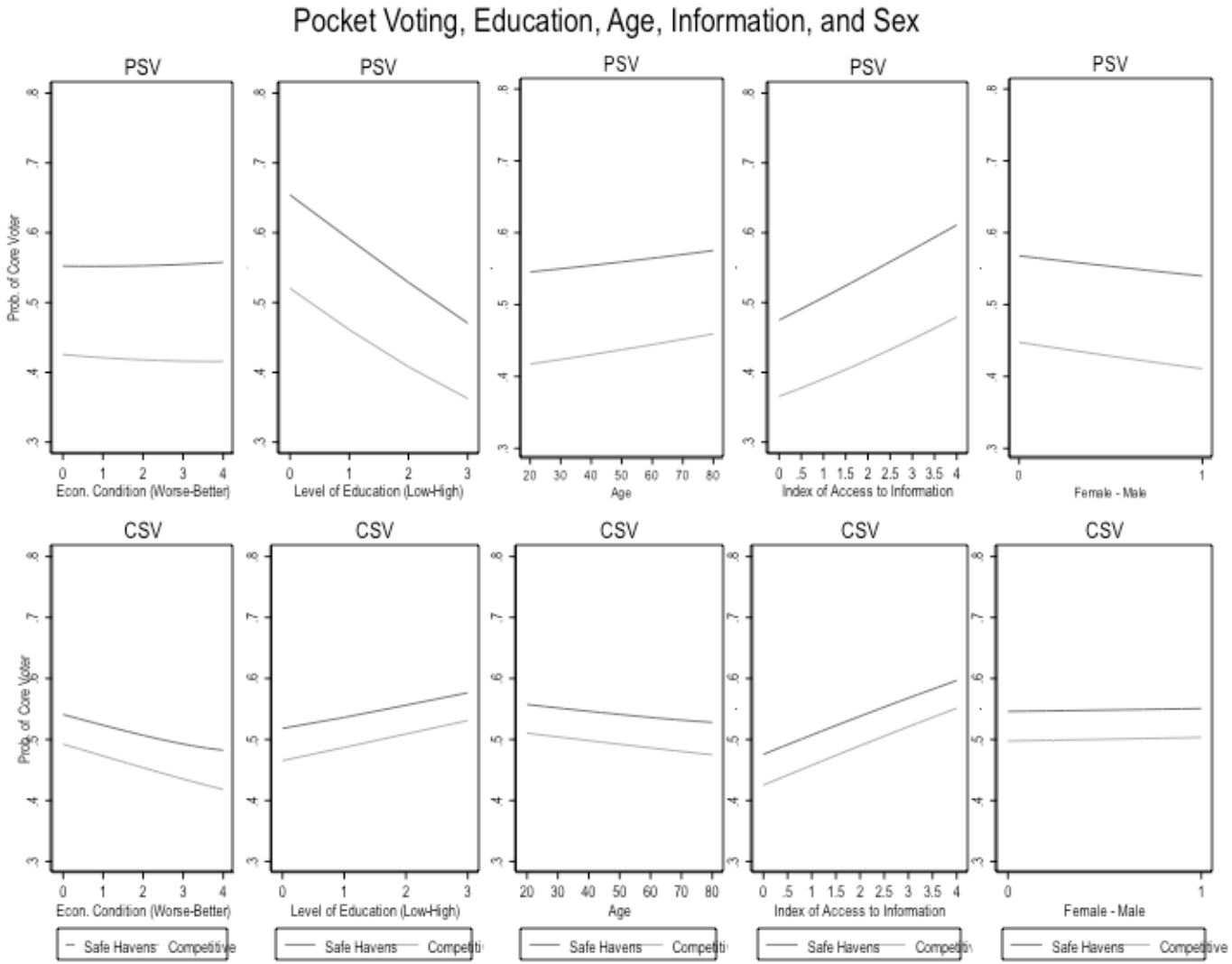


FIGURE 4 – COMPARISON BETWEEN PREDICTED PROBABILITIES OF BEING CORE VOTER – PSV and CSV




Pocket Voting, Education, Age, Information, and Sex
PSV
CSV
Prob. of Core Voter
Econ. Condition (Worse-Better)
Level of Education (Low-High)
Age
Index of Access to Information
Female - Male
Safe Havens
Competitive

Appendix B1: ZINB - TOTAL SWING VOTING MEASURE

Zero-inflated negative binomial regression — Number of obs = 1434; Nonzero obs = 764; Zero obs = 670

Inflation model = logit — Wald chi2(14) = .

Log pseudolikelihood = -2249.653 — Prob > chi2 = .

(Std. Err. adjusted for 2 clusters in safe_constituency_dummy)

tsv	Coef.	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
tsv						
safe_const~y	.0124133	.0190278	0.65	0.514	-.0248805	.0497071
q52_akan	.2273387	.0648287	3.51	0.000	.1002767	.3544006
q52_ewe	.1095756	.0692968	1.58	0.114	-.0262437	.2453948
cliexpo	.0605921	.0213696	2.84	0.005	.0187085	.1024756
q33c_4c	-.0021436	.0044854	-0.48	0.633	-.0109348	.0066476
q33b_4c	-.1021676	.0293745	-3.48	0.001	-.1597405	-.0445946
q33a_4c	.0829552	.0458275	1.81	0.070	-.0068651	.1727755
q33d_4c	-.0213744	.0071328	-3.00	0.003	-.0353545	-.0073943
q49_5c	.0178744	.0317992	0.56	0.574	-.044451	.0801997
q50b_5c	.0391851	.022957	1.71	0.088	-.0058097	.08418
q46_c	-.079461	.0148311	-5.36	0.000	-.1085295	-.0503925
q42	-.0047487	.001544	-3.08	0.002	-.007775	-.0017224
news_acces~x	-.0052265	.0024094	-2.17	0.030	-.0099488	-.0005042
male	.1027102	.0289089	3.55	0.000	.0460499	.1593706
_cons	.7934625	.0857107	9.26	0.000	.6254725	.9614524
inflate						
safe_const~y	.609987	.0916845	6.65	0.000	.4302886	.7896854
q52_akan	.6517431	.166029	3.93	0.000	.3263322	.9771541
q52_ewe	.2790293	.2767681	1.01	0.313	-.2634262	.8214847
cliexpo	.014384	.0463046	0.31	0.756	-.0763714	.1051393
q33c_4c	-.0310596	.1030086	-0.30	0.763	-.2329528	.1708336
q33b_4c	.067504	.0176408	3.83	0.000	.0329288	.1020793
q33a_4c	.2660848	.0588275	4.52	0.000	.1507849	.3813846
q33d_4c	.1144636	.0080797	14.17	0.000	.0986276	.1302996
q49_5c	.1797102	.1265788	1.42	0.156	-.0683797	.4278
q50b_5c	.0746929	.0135025	5.53	0.000	.0482285	.1011572
q46_c	-.4022322	.0454137	-8.86	0.000	-.4912414	-.313223
q42	.0010063	.012855	0.08	0.938	-.024189	.0262016
news_acces~x	.2004916	.0862565	2.32	0.020	.031432	.3695513
male	-.1030448	.1080522	-0.95	0.340	-.3148233	.1087337
_cons	-1.14377	.8661374	-1.32	0.187	-2.841369	.5538276
/lnalpha	-1.225646	.135094	-9.07	0.000	-1.490426	-.9608668
alpha	.2935679	.0396593			.2252767	.3825611

Appendix B2: ZINB - POLICY SWING VOTING MEASURE

Zero-inflated negative binomial regression — Number of obs = 1434; Nonzero obs = 739; Zero obs = 695

Inflation model = logit — Wald chi2(14) = .

Log pseudolikelihood = -1972.44 — Prob > chi2 = .

(Std. Err. adjusted for 2 clusters in safe_constituency_dummy)

psv	Coef.	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
psv						
safe_const~y	-.0424404	.0241347	-1.76	0.079	-.0897436	.0048627
q52_akan	.1999032	.0061287	32.62	0.000	.1878912	.2119152
q52_ewe	.1776434	.0431993	4.11	0.000	.0929743	.2623126
cliexpo	.0514192	.0224667	2.29	0.022	.0073853	.095453
q33c_4c	.0109748	.0032257	3.40	0.001	.0046525	.017297
q33b_4c	-.1145522	.0279674	-4.10	0.000	-.1693673	-.0597372
q33a_4c	.0820519	.051525	1.59	0.111	-.0189353	.1830391
q33d_4c	-.0284922	.0330214	-0.86	0.388	-.0932129	.0362285
q49_5c	.0194197	.0134504	1.44	0.149	-.0069426	.0457819
q50b_5c	.064632	.0454951	1.42	0.155	-.0245367	.1538007
q46_c	9.04e-06	.0052891	0.00	0.999	-.0103574	.0103755
q42	-.0038865	.0017046	-2.28	0.023	-.0072274	-.0005455
news_acces~x	-.001285	.0182144	-0.07	0.944	-.0369846	.0344146
male	.1884059	.0369166	5.10	0.000	.1160507	.260761
_cons	.3827077	.0943068	4.06	0.000	.1978698	.5675455
inflate						
safe_const~y	.6463377	.0914761	7.07	0.000	.4670479	.8256275
q52_akan	.730681	.1869987	3.91	0.000	.3641703	1.097192
q52_ewe	.3234809	.1219701	2.65	0.008	.0844238	.562538
cliexpo	.0383054	.040372	0.95	0.343	-.0408222	.117433
q33c_4c	-.0133555	.1250728	-0.11	0.915	-.2584937	.2317826
q33b_4c	.0648966	.0525204	1.24	0.217	-.0380415	.1678347
q33a_4c	.2671969	.0288922	9.25	0.000	.2105692	.3238245
q33d_4c	.0549758	.078413	0.70	0.483	-.0987108	.2086624
q49_5c	.2445865	.0647168	3.78	0.000	.1177439	.3714292
q50b_5c	.0547367	.0527836	1.04	0.300	-.0487172	.1581906
q46_c	-.3220327	.0540221	-5.96	0.000	-.4279139	-.2161514
q42	-.0012718	.0144889	-0.09	0.930	-.0296694	.0271259
news_acces~x	.1787117	.0746153	2.40	0.017	.0324685	.324955
male	.0330753	.1412061	0.23	0.815	-.2436835	.3098342
_cons	-1.194452	.8295814	-1.44	0.150	-2.820402	.4314973
/lnalpha	-3.301706	.160355	-20.59	0.000	-3.615996	-2.987416
alpha	.0368203	.0059043			.0268901	.0504175

Appendix B3: ZINB - CLIENTELISM SWING VOTING MEASURE

Zero-inflated negative binomial regression — Number of obs = 1434; Nonzero obs = 632; Zero obs = 802

Inflation model = logit — Wald chi2(14) = .

Log pseudolikelihood = -1464.993 — Prob > chi2 = .

(Std. Err. adjusted for 2 clusters in safe_constituency_dummy)

csv	Coef.	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
csv						
safe_const~y	-.1405825	.0966208	-1.45	0.146	-.3299558	.0487907
q52_akan	.1005249	.2303077	0.44	0.662	-.35087	.5519197
q52_ewe	-.0675348	.147318	-0.46	0.647	-.3562729	.2212032
cliexpo	.0168272	.0063079	2.67	0.008	.0044639	.0291905
q33c_4c	-.0000346	.0156775	-0.00	0.998	-.030762	.0306927
q33b_4c	-.05245	.0403271	-1.30	0.193	-.1314896	.0265897
q33a_4c	-.051369	.0389181	-1.32	0.187	-.1276471	.024909
q33d_4c	.0025573	.0346154	0.07	0.941	-.0652876	.0704021
q49_5c	-.0271917	.0092889	-2.93	0.003	-.0453975	-.0089858
q50b_5c	.0578172	.0376658	1.54	0.125	-.0160064	.1316408
q46_c	-.0661069	.0522781	-1.26	0.206	-.1685702	.0363564
q42	.0018378	.0000243	75.69	0.000	.0017902	.0018854
news_acces~x	-.0919002	.0634534	-1.45	0.148	-.2162666	.0324662
male	-.0186997	.0705095	-0.27	0.791	-.1568958	.1194965
_cons	-.1006056	.0518095	-1.94	0.052	-.2021503	.0009391
inflate						
safe_const~y	1.168214	1.008616	1.16	0.247	-.8086379	3.145065
q52_akan	2.455345	.180409	13.61	0.000	2.10175	2.80894
q52_ewe	-14.5597	5.280007	-2.76	0.006	-24.90833	-4.211078
cliexpo	-.2317057	.1905778	-1.22	0.224	-.6052313	.1418198
q33c_4c	-.0864495	.1716668	-0.50	0.615	-.4229102	.2500113
q33b_4c	.6983939	.4449075	1.57	0.116	-.1736087	1.570397
q33a_4c	-.1452607	.2835855	-0.51	0.608	-.701078	.4105565
q33d_4c	1.721484	1.212248	1.42	0.156	-.6544776	4.097445
q49_5c	.5185699	.0107189	48.38	0.000	.4975612	.5395785
q50b_5c	.580628	.0368419	15.76	0.000	.5084192	.6528368
q46_c	-.8870416	.2244374	-3.95	0.000	-1.326931	-.4471523
q42	.036856	.0461099	0.80	0.424	-.0535178	.1272298
news_acces~x	.1236329	.124266	0.99	0.320	-.1199241	.3671899
male	-.8859124	.0490625	-18.06	0.000	-.9820731	-.7897517
_cons	-4.976648	3.675317	-1.35	0.176	-12.18014	2.226841
/lnalpha	-3.105059	2.812569	-1.10	0.270	-8.617592	2.407475
alpha	.0448219	.1260646			.0001809	11.10588