

SIERRA LEONE 2012 ELECTIONS PROJECT

PRE-ANALYSIS PLAN: POLLING CENTER LEVEL INTERVENTIONS

PIs: Kelly Bidwell (IPA), Katherine Casey (Stanford GSB) and Rachel Glennerster (JPAL MIT)

20 November 2012

This study examines the impact of providing citizens with information about Parliamentary candidates via structured inter-party debates in the lead up to the Sierra Leone November 2012 Elections. Randomization and treatments were conducted on multiple levels: constituency, polling center and individual (details on sampling and randomization are available in the project's "Sampling Procedures" document). This pre-analysis plan governs the analysis of the polling-center level treatment only. It was written and registered with the Abdul Latif Jameel Poverty Action Lab before fieldwork for the exit poll, which is the primary source of data for this analysis, was completed (where the current estimated completion date is 22 November 2012). This document is the first installment in a planned sequence of registry and data analysis, where we will next: (i) register separate plans for the individual-level and constituency-level treatments; (ii) analyze treatment effects for the individual-level treatments; (iii) examine the distribution of outcomes for the control group polling centers in the exit poll data; (iv) analyze the expert panel scoring of debates and the before/after debate surveys; (v) register an update to this document reflecting learning from steps 2 to 4; and then (vi) analyze treatment effects at the polling-center level in the exit poll and voting returns data

1. Background

Our NGO partner, Search for Common Ground, hosted and filmed debates between Parliamentary candidates in 14 constituencies. We randomly selected these constituencies from what we estimated would be the 28 most competitive constituencies, stratifying on the strength of the ethnic bias favoring one party over the other. Within constituencies, polling centers that were sufficiently small (fewer than ~900 registered voters) and far apart from their nearest neighbor (at least ~ one mile) were randomly assigned to treatment and control groups.

Treatment at the polling center level consisted of an evening showing of a video tape of the relevant debate projected at a convenient public place, usually the polling center itself, in the weeks leading up to the Election. Typical protocol for these screenings was as follows: host polling center and satellite communities were notified in advance and invited to attend the screening; 25 randomly selected residents (using data from an earlier listing exercise) were provided a small incentive (10 Maggi spice cubes for cooking) to attend the screenings; the video was played once in a pause and play format that inserted translation into the relevant local language after each question; the video was played a second time with or without translation; and a secondary screening was held in the largest accessible satellite village earlier in the day, in most cases without translation.

We hypothesize that this video screening intervention may have treatment effects on three different sets of actors: voters, candidates and centralized parties, which we will treat as distinct domains. For each set, we lay out a series of hypotheses regarding the likely areas of impact with corresponding outcome measures below. We will provide treatment effects with unadjusted (or per comparison) p-values for all outcomes specified in this document for all domains. We will also compute mean effects indices by

hypothesis and correct for multiple inference across outcomes within a hypothesis. Since we have multiple hypotheses regarding voters, we will further make adjustment at the hypothesis-level in domain A (as specified below) but will not make adjustments across domains.

2. Domain A: Effects of PC-level Debates on Voters

This domain explores the effects of polling center debate screenings on voter knowledge, behavior and vote choice.

A. Econometric specifications

Analysis of treatment effects will take the form of:

$$Y_{ipc} = \beta_0 + \delta T_{pc} + \mathbf{X}'_{ipc} \boldsymbol{\Pi} + \mathbf{Z}'_{pc} \boldsymbol{\Gamma} + \mathbf{W}'_{ipc} \boldsymbol{\Psi} + \mathbf{c}_p + \varepsilon_{ipc} \quad (1)$$

where outcome Y (i.e. vote choice) is measured for individual i registered in polling center p within Parliamentary constituency c ; T is an indicator variable equal to one if the polling center received the debate video screening treatment; \mathbf{X} is a vector of indicator variables that denote the stratification bin from which exit poll respondents were drawn (where the bins were constructed by age and gender); \mathbf{Z} is a vector of indicator variables that denote the stratification bin from which the polling center was drawn (where the bins were constructed by number of registered voters and distance to nearest neighboring center); \mathbf{W} is a set of additional control variables that will be determined from analysis of the control group data and will vary by hypothesis with an eye toward identifying individual characteristics that do not vary with treatment and that help explain variation in a particular outcome (i.e. education and radio ownership are likely positively correlated with general political knowledge); \mathbf{c} is a set of constituency-specific fixed effects (the level of debate and candidates); and ε is an idiosyncratic error term clustered at the polling center level. Our main specification includes the full set of controls (\mathbf{X} , \mathbf{Z} and \mathbf{W}); we will also show results for the sparser specification that includes only the stratification variables as controls (\mathbf{X} and \mathbf{Z} only) as a robustness check. The coefficient of interest is δ , the average treatment effect. Unless otherwise stated, all tests will be one-sided in the direction indicated below. The primary source of data is the individual-level exit polls.

Additional analysis will use polling-center level voting returns data from the National Electoral Commission (NEC), taking the form:

$$V_{pc} = \beta_0 + \delta T_{pc} + \mathbf{Z}'_{pc} \boldsymbol{\Gamma} + \mathbf{U}'_{pc} \boldsymbol{\Psi} + \mathbf{c}_p + \varepsilon_{pc} \quad (2)$$

where V is the outcome (vote share, turnout rate) measured for the polling center p within Parliamentary constituency c ; \mathbf{U} is a vector of polling center control variables to be determined from analysis of the control group community survey exit poll data; and other terms remain as above. We will run two specifications: (i) the main specification will include the additional “pure” control polling centers that were not treated nor surveyed in the exit poll and will omit any elements of \mathbf{U} that are not available for these centers; and (ii) a robustness check specification that omits the “pure” control centers and includes the full set of polling center characteristics in \mathbf{U} .

We will test for heterogeneous treatment effects at the level of constituency, candidate and voter, adjusting for multiple inference within each level (i.e. grouping together the tests for all of the voter-level

sub-groups when adjusting standard errors). Specifically we will test for differential effects along the following dimensions:

- **Candidate divergence and competitiveness (primary):** the impact of debates should be increasing in the revealed divergence in policy positions and competence of the participating candidates as measured by expert panel and audience rankings from the before/after debate surveys and the interaction of divergence with voting behavior in control polling centers (i.e. if vote shares for the debate winner are already very high in control areas, there is little scope to increase them even if performance in the debate was lopsided). This will involve testing for heterogeneous effects across constituencies (i.e. how the constituency-level ATE varies along key dimensions like ethnic bias) and across two bins of constituencies (i.e. those where one would expect larger versus smaller effects).
- **Lesser known candidates (secondary):** voter response to strong (weak) performance by less well known candidates (including PMDC, female and non-incumbents) may be stronger than that for other better known candidates, as voters may have greater scope for updating their beliefs
- **Subgroup analysis (primary):** the voting literature suggests that the impact of debates could vary by gender, age, and level of political informedness / naïvete. These tests will be two-sided. We further predict weaker effects for people who do not speak Krio well and may have had trouble understanding the debate.

We further plan to conduct descriptive analysis in the following areas:

- **Spillovers:** establish whether controls saw / heard about the debates in the exit polls; test whether the impact of debates is positive and decreasing in distance from nearest treated polling center in voting returns data
- **Dissipation of effects:** test whether the impact of debates weakens as the time between the debate screening and Election Day increases
- **Treatment saturation:** test whether the treatment effect is increasing in treatment saturation at the level of polling center; verify that the TOT effect is greater than ITT at the individual level (if some residents of treated polling centers did not attend the screening)
- **Reaction to polling center results:** test whether responses to the exit poll survey systematically vary between those who were surveyed before versus after preliminary results were posted on polling centers
- **Impacts on competitiveness:** calibrate the expected impact of debates on the competitiveness of races if taken to scale, based on estimated TEs on vote shares. Also use voter ratings of Presidential candidates to link and order ratings of MP candidates across constituencies to estimate the impact of sending the best candidate of a given party to other constituencies

B. Hypotheses and Outcomes

In what follows we organize hypotheses and outcomes into three families: (i) “Vote choice” concerns changes in actual votes cast, which is the ultimate objective yet will be difficult to influence if stronghold candidates that already have significant advantages perform better in the debates; (ii) “Voting knowledge and behavior” reflects the informedness of voting choices and political participation, which are important in their own right and may serve as a necessary but not sufficient step between the status quo and

attaining the ultimate objective of changing votes cast; and (iii) “Secondary outcomes” regarding citizen perceptions of politics that are interesting yet less directly linked to the debate experience. Multiple inference corrections will be implemented across outcomes within hypothesis and across hypotheses within family.

- **Vote choice outcomes**

- a. Hypothesis 1: Exposure to debates increases (reduces) **vote shares** for the candidate that performed the best (worst) in the debates
 - i. TE measured by vote choice in exit poll data (primary test) and in electoral returns (lower power, secondary test)
 - ii. Debate winner / loser measured by audience ratings and expert assessment
- b. Hypothesis 2: Exposure to debates increases the willingness to **vote across party lines**
 - i. TE measured by vote choice and ethnicity in exit polls (primary test, limited to members of affiliated tribes); reduced forecasting power of ethnic census shares on electoral returns (lower power, secondary test)
 - ii. Two additional (primary) measures expand the concept to incorporate non-affiliated tribes: voting for a different party for MP in 2012 than in 2007; and splitting ticket for MP (i.e. party MP different than party Pres or party LC)

- **Voting knowledge and behavior outcomes**

- a. Hypothesis 3: Exposure to debates increases **political knowledge** and leads to more informed voting
 - i. TE measured for general political knowledge as mean index on ability to name MP roles, CFF amount, healthcare entitlement, gender equity percentage
 - ii. TE measured for individual candidate attributes as ability to name candidates (primary), and mean index on distinguish better educated, public office experience, incumbency and more likely to report personal characteristic as primary determinant of voting choice (secondary)
 - iii. TE measured for candidate policy stances by ability to correctly place candidate view on Gender equity, first priority issue, free health care implementation
- b. Hypothesis 4: Exposure to debates mobilizes the public and leads to greater **turnout**
 - i. TE measured by turnout question in exit polls (primary) and electoral returns (lower power, secondary)
- c. Hypothesis 5: Exposure to debates increases **policy alignment**
 - i. TE measured by match between voters position expressed in exit poll question and reported stance of their selected candidate expressed in the debate on gender equity, priority issues, CFF disclosure, and/or free health care implementation. Note that alignment measures will be tailored by constituency to reflect the actual divergence (avoiding a lack thereof) amongst candidates
- d. Hypothesis 6: Exposure to debates **persuades** voters to adapt their preferred candidate’s policy stances
 - i. TE measured by voter opinion on free healthcare implementation and position on Gender Equality Bill that matches their candidates stance presented in the debate. These measures will be tailored by constituency to reflect candidate positions

expressed in the debate, but in most cases we expect APC-(SLPP-)leaning voters to express a more positive (negative) view of FHC implementation compared to their counterparts in control areas, and for treated voters to report greater support of the GEB.

- e. Hypothesis 7: Exposure to debates enhances **voter openness** to other parties
 - i. TE measured by higher likeability ratings for all candidates (i.e. own party, rival party, and third party where applicable) in exit polls
- **Secondary outcomes**
 - a. Hypothesis 8: Exposure to debates increases the perceived **legitimacy** of elections
 - i. TE measured by increasing confidence that elections are free and fair in exit polls, decreased violence at polling centers (exit poll and NEC incident reports)
 - b. Hypothesis 9: Exposure to debates increases **interest in politics**
 - i. TE measured by question on frequency of discussing politics in exit poll
 - c. Hypothesis 10: Exposure to debates **does not increase electoral misconduct**
 - i. Lack of TE documented by questions regarding police presence, inappropriate influence, election officials wearing party colors and election officials verbally encouraging specific vote choices

3. Domains B and C: Effects of PC-level Debates on Candidate and Party Campaigning

These two domains capture potential effects of the polling center-level screenings on the campaign strategies of candidates and political parties. As candidates and party officials are two different sets of actors we treat them as different domains but combine the exposition of the approach here as it is the same for both.

A. *Econometric specification*

Analysis of treatment effects will take the form of:

$$Y_{impc} = \beta_0 + \delta T_{pc} + \mathbf{X}'_{ipc} \boldsymbol{\Pi} + \mathbf{Z}'_{pc} \boldsymbol{\Gamma} + \mathbf{W}'_{ipc} \boldsymbol{\Psi} + \mathbf{c}_p + \varepsilon_{ipc} \quad (3)$$

where outcome Y (i.e. receiving a gift) is measured for individual i in relation to candidate m where the individual is registered in polling center p within Parliamentary constituency c ; T is an indicator variable equal to one if the polling center received the debate video screening treatment; \mathbf{X} is a vector of indicator variables that denote the stratification bin from which exit poll respondents were drawn (where the bins were constructed by age and gender); \mathbf{Z} is a vector of indicator variables that denote the stratification bin from which the polling center was drawn (where the bins were constructed by number of registered voters and distance to nearest neighboring center); \mathbf{W} is a set of additional control variables that will be determined from analysis of the control group data with an eye toward identifying individual characteristics of political gift receipt; \mathbf{c} is a set of constituency-specific fixed effects (the level of debate and candidates); and ε is an idiosyncratic error term clustered at the polling center level. Data concerning candidate expenditure will come from the individual-level exit polls; while exit poll data (and analysis) for party support will come from (and be conducted at) the community-level. Hypotheses here are two

tailed, as candidates and parties could plausibly treat campaign effort/expenditure as a substitute for the screening publicity, or they could compensate for the greater competitiveness of the race by allocating more effort/resources to treatment areas.

We will further test for heterogeneous effects along three dimensions:

- **Debate performance:** As the response of candidates and parties could vary by how well their candidate performed in the debate, we will test for heterogeneous effects by relative debate performance and degree of performance divergence as measured by expert panel and audience rankings in the before/after debate survey.
- **Party:** budget and strategy may vary by party, so we will test for differential response from the incumbent (APC), opposition (SLPP) and third party (PMDC).
- **Competitiveness:** size of response is likely decreasing in the expected vote margin.

B. Hypotheses and Outcomes

In what follows we organize hypotheses and outcomes by domain (candidate versus party).

- **MP Candidate outcomes**
 - a. Hypothesis 1: Candidate allocation of **campaign effort and expenditure** is responsive to debate publicity
 - i. TE measured by receipt of any campaign gift, type and value of the gift, number of candidate visits in the 6 weeks leading up to the Election
- **Party outcomes**
 - a. Hypothesis 1: Party allocation of **campaign support** is responsive to debate publicity
 - i. TE measured by allocation of number of visits by party officials and party candidates for all races, number of political rallies, number of posters and number of gifts distributed in the community in the 6 weeks leading up to the Election¹

¹ Note regarding interpretation: there is some overlap between the information collected for the party and the MP above. The questions on the community survey for party cover gifts from party officials and candidates for any office, where the offices are President, MP, Local Councillor and Council Chair.