

Who Debates, Who Wins? At-Scale Experimental Evidence on the Supply of Policy Information in a Liberian Election

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Abstract

We examine how the effects of initiatives intended to promote programmatic competition are conditioned by candidates' often mixed incentives to participate in them. In a nationwide debate initiative designed to solicit and widely rebroadcast policy promises from Liberian legislative candidates, we analyze the randomized encouragement of debate participation across districts. The intervention substantially increased the debate participation of leading candidates but had uneven electoral consequences, with incumbents benefiting at the expense of their challengers. These results are driven by differences in compliance: complying incumbents, but not challengers, positively selected into participation based on the alignment of their policy priorities with voters'. The results underscore wide variation in candidates' suitability for programmatic politics and highlight important challenges in transitioning away from clientelistic political equilibria.

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The prevalence of clientelistic, or more broadly nonprogrammatic, political competition constrains economic and political development (Hicken, 2011; Kitschelt and Wilkinson, 2007). Such political equilibria, in which politicians provide private, or highly targeted, benefits to voters in exchange for their votes, affect the selection of politicians, voters' ability to hold them to account, and distort the allocation of public resources (Baland and Robinson, 2008; Fergusson et al., 2022; Keefer, 2007; Khemani, 2015). Augmenting its structural roots in voters' poverty and the state's limited capacity (Bobonis et al., 2022; Gottlieb, 2022; Robinson and Verdier, 2013; Weitz-Shapiro, 2012), one potential reason for the persistence of nonprogrammatic competition is that election candidates face high costs to supply broad-based policy information while voters face high costs of access (Cruz et al., 2022; Fujiwara and Wantchekon, 2013; Hicken and Nathan, 2020).

Initiatives that promote the flow of policy information from candidates to voters might then induce electoral turnover and the selection of candidates better equipped for programmatic politics. A large literature, in turn, has studied the effects of easing voters' access to policy information on their support for their incumbents, who were elected under the pre-existing clientelistic equilibrium (Bidwell et al., 2020; Ferraz and Finan, 2008; Fujiwara and Wantchekon, 2013; Dunning et al., 2019). This work has typically found reductions in voters' support for incumbents, though the effects are importantly conditioned by the mode of dissemination, candidates' campaigning responses, and voters' prior beliefs (Arias et al., 2022; Cruz et al., 2021; Enríquez et al., 2022). Overall, voters' demand does not seemingly *hinder* the transition to more programmatic political equilibria (Weghorst and Lindberg, 2013).

If the challenge is not evidently voters' demand, we instead consider candidates' supply of policy information. Even when the costs of reaching broad swathes of the electorate are low (Casey and Glennerster, 2023; Cruz et al., 2022), the effects of initiatives intended to promote

the flow of policy information are likely to be conditioned by candidates' incentives to use them. Especially given that participation might imply electoral costs, candidates' participation in such initiatives then cannot be assumed. We focus on election debates, which have spread rapidly across developing democracies to disseminate policy information to voters. But, as one leading debate organizer notes, "the greatest universal challenge that [debate] sponsors face, regardless of country or culture, is convincing candidates to take part" (National Democratic Institute, 2014). Illustratively, incumbent candidates in sub-Saharan Africa have refused to participate in nearly half of all presidential debates, with similar challenges observed in developed democracies (Juárez-Gámiz et al., 2020).¹

We study a legislative debates initiative held during Liberia's 2017 election, a highly clientelistic setting, and which held debates in every electoral district for the first time. These standardized debates solicited policy promises from participating candidates which were then rebroadcast multiple times, shortly prior to the election, by reputable community radio stations with signals covering 90% of the electorate. In partnership with the organizers, we study a nationwide field experiment that randomly encouraged the debate participation of candidates across electoral districts, which the organizers were concerned would be low. The intervention, which sought to inform and persuade candidates to participate, increased the participation of incumbents from 35% to 50%; that of their most prominent challengers from 50% to 65%; and had no effect on more marginal candidates who participated at high rates absent the encouragement intervention.

Conditional on participation, whether incumbents or challengers benefit from the supply of policy information is likely to be ambiguous. On the one hand, incumbents selected under the pre-existing clientelistic equilibrium might lack the skills for policy-based campaigning

¹Prominent examples include Jimmy Carter in the 1980 U.S. election, Yoweri Museveni in the 2016 Ugandan election, Theresa May in the 2017 U.K. election, and Uhuru Kenyatta in the 2017 Kenyan election. Revealingly, President Kenyatta argued, "I decided that he [main challenger Raila Odinga] will debate alone because I have nothing to debate with him. I will not waste my time there."

(Fujiwara and Wantchekon, 2013). On the other, their office-holding experience could render them well equipped to supply such information, especially where voters' pessimism is high (Fowler, 2016; Hirano and Snyder, 2009). But, when candidates face a strategic decision to select into such initiatives, incumbents enjoy two advantages. First, they are more likely to know their own quality, with respect to supplying policy information, than relatively more inexperienced challengers (Holmstrom, 1999). Second, whether voters pay attention to such initiatives is likely conditioned by whether the incumbent participates, insofar as this renders the information supplied more salient and persuasive for voters (Adida et al., 2020; López-Moctezuma et al., 2022).

Consistent with the relevance of these twin advantages, our experimental results point to uneven electoral consequences for those candidates selecting into debate participation as a result of the encouragement intervention. Using an original panel survey of 4,060 voters across every electoral district before and after the election, as well as administrative polling station data, we find that incumbents benefited at the expense of their challengers: voters in treated districts became around 4 percentage points more likely to vote for them. These changes in electoral outcomes occurred particularly in districts where we predicted incumbents to perform well in the debates, or where incumbents had policy priorities well-aligned with their voters'. Remarkably, 50% of incumbents in treated districts won reelection compared to 43% in control.

Three sets of analyses help parse these results. First, we find important differences in compliance: those incumbents induced to participate by the intervention had policy priorities much better aligned with their voters relative to their challengers. Incumbents were seemingly much better at understanding the extent of their alignment with voters, and participating accordingly, relative to a less experienced pool of challengers. Second, as a result of increased candidate participation, voters in treated districts paid more attention to the debates. Voters in treated

districts then updated positively, albeit weakly, about incumbents' competence and policy priorities, becoming much more certain in the process, but updated *negatively* about their challengers. Third, aided by an increase in demand, incumbents increased their radio campaigning in treated districts while challengers, seemingly deterred by incumbents' debate participation, reduced their on-the-ground campaigning.

Variation in candidates' ability to evaluate the returns to participation then critically determined the electoral consequences of the debate initiative. This selection issue is likely to condition the effects of many programmatic interventions when scaled. For example, prior field experimental studies on debates and town hall discussions (in which candidates' participation was ensured by their more limited scale) find that less well-known challenger candidates tend to benefit (Bidwell et al., 2020; Brierley et al., 2020; Fujiwara and Wantchekon, 2013; Platas and Raffler, 2021). We find that most *non*-participating incumbents had priorities poorly aligned with voters'; had they participated, our results could well have matched prior studies. But absent such enforcement—which becomes implausible as the potential electoral impact of initiatives increase—incumbents can have it both ways. For one, relatively higher-quality incumbents take advantage of the opportunity to supply policy information compared to a more mixed challenger group. For another, the extent to which voters punish failure to supply such information is dampened by is dampened by the fact that fewer voters pay attention absent their involvement.

In so doing, our work contributes to two literatures. First, to the large literature on the electoral consequences of voters' exposure to policy information. This literature shows that electoral accountability is enhanced through revelations of past incumbent performance via broadcast and social media (Ferraz and Finan, 2008; Enríquez et al., 2022; Larreguy et al., 2019), but not necessarily via localized information campaigns (Banerjee et al., 2011; de Figueiredo et al., 2013; Chong et al., 2015; Dunning et al., 2019). Experimental studies on debates, in which

all candidates participated, find broad effects on informing and persuading voters (Bidwell et al., 2020; Brierley et al., 2020; Platas and Raffler, 2021). Our findings suggest that the effects of nominally similar interventions vary as they are scaled—due not just to differences in the mode of dissemination (as in studies of incumbent malfeasance), but also due to candidates’ incentives to engage. Such incentives are not necessarily well-aligned, especially when candidates often benefit from the pre-existing clientelistic equilibrium (Casey and Glennerster, 2023). Understanding candidates’ compliance decisions then becomes an important factor in understanding the impact of informational interventions administered at scale.

Second, the literature on the development of programmatic competition. A substantial literature suggests that interventions undercutting the roots of clientelist politics disadvantage incumbent candidates on average. These include the promotion of policy promises, which have been found to either disadvantage locally-dominant candidates (Fujiwara and Wantchekon, 2013) or be prohibitively expensive (Cruz et al., 2022); interventions to reduce voters’ vulnerability (Bobonis et al., 2022); or anti-vote buying campaigns (Blattman et al., 2022; Schechter and Vasudevan, 2023). Our results highlight important variation in candidates’ suitability for programmatic competition, with the relative weakness of the challenger field in articulating policy platforms contributing to their reduced electoral support. Identifying high quality challengers suitable for policy-based competition, and ensuring parties select them effectively, could then be an important lever in shifting towards more programmatic political equilibria (Dal Bó and Finan, 2018; Gulzar, 2021).

Candidates’ supply of policy information

While shocks to the structural underpinnings of clientelism, such as voters’ poverty or informality (Bobonis et al., 2022; Gottlieb, 2022), are largely out of candidates’ control, supplying policy

information represents a potentially strategic decision to compete on more programmatic grounds. Focusing on the example of debate participation, we provide a simple framework to understand how candidates' supply-side decisions are then likely to condition the effects of initiatives intended to promote programmatic competition.

Debate participation and policy information

Candidate debates have become increasingly common in developing country election periods, with 24 sub-Saharan African countries holding debates in recent years ([Debates International, 2023](#)). Experimentally varying voters' exposure to policy-centered debates has been found to improve their knowledge about the candidates' policy priorities, induce cross-party voting, reduce the favorability of incumbents, and increase accountability ([Bidwell et al., 2020](#); [Brierley et al., 2020](#); [Platas and Raffler, 2021](#)). Given these effects, participation represents a consequential decision for candidates and, accordingly, a ubiquitous challenge for organizers ([Juárez-Gámiz et al., 2020](#); [National Democratic Institute, 2014](#)). This is especially likely to be the case in developing country settings where voters have less access to policy information absent debates and when such events are broadly disseminated to voters, such as through mass media, to amplify their impact ([Fujiwara and Wantchekon, 2013](#); [Le Pennec and Pons, 2023](#)).

Candidates then consider the benefits and costs of participation, and hence selecting into the broad supply of policy information. Most obviously, candidates stand to electorally benefit if they perform well in a debate and reveal their policy priorities to be well aligned with those of their electorate, or suffer if not. There are two other indirect costs. First, the dissemination of policy information at scale might limit candidates' ability to deviate and narrowly target voters with transfers during the campaign ([Aragonès et al., 2007](#); [Opalo, 2022](#)). Second, conditional on getting elected, participation could incur accountability costs by limiting politicians' ability to

shirk or extract rents (Bidwell et al., 2020; Casey and Glennerster, 2023).

Candidates' varied returns to participation

These returns vary by the status of the candidate. When elections work well, incumbents should generally perform better in a policy-focused debate than their challengers. First, reflecting a *selection* channel, the fact that incumbents were previously selected by the electorate can imply both that their policy positions are well-aligned and that strong challengers may have been deterred from competing again (Ashworth and Bueno de Mesquita, 2008; Eggers, 2017; Fowler, 2016). Second, reflecting a *treatment* channel, incumbents' experience in government might have increased their ability to discuss key policy issues, akin to the benefits of office-holding frequently estimated in the literature (Ashworth et al., 2019; Hirano and Snyder, 2009).

When elections are instead typically contested on nonprogrammatic grounds, whether incumbents benefit from the broad supply of policy information becomes ambiguous. The *treatment* channel is still likely to hold, especially where less experienced challengers make implausible promises of what they can provide (Opalo, 2022). The *selection* channel, however, is less clear. Locally dominant incumbents instead risk revealing their priorities to be disconnected from their constituents', especially when clientelistic modes of campaigning remain highly effective and have proven fruitful in the past (Cruz et al., 2022; Fujiwara and Wantchekon, 2013). Further, they risk incurring larger accountability costs of supplying such information to the extent that their probability of being elected is higher than for most of their challengers (Bidwell et al., 2020; Casey and Glennerster, 2023).

Beyond this variation, there is also likely to be heterogeneity in candidates' *uncertainty* around the returns to participation. While the impact of debates in developed democracies is potentially limited by candidates' strong preparations (Finkel, 1993), in clientelistic settings

candidates might not *know* their own competence for programmatic competition on the basis of policy information. In the extreme, they might have no information about their own type (Ashworth et al., 2017; Holmstrom, 1999). More intuitively for this setting, incumbents are likely *better informed* about their own capacity for programmatic competition due to their prior experience in office (regardless of whether this capacity is higher than challengers' overall). Challengers, on the other hand, are likely to have a greater degree of uncertainty, especially when parties' candidate selection processes are weak or dysfunctional (Dal Bó and Finan, 2018).

Whether voters actually pay attention to the supply of policy information is conditioned by the composition of candidates who take part. Debates are particularly useful in judging multiple candidates simultaneously, with a reference point naturally provided by the incumbent (Bidwell et al., 2020; Martel, 1983). Absent this reference point, the effects of such initiatives on voters' attention, context-dependent updating, and discussions with others are likely to be muted (Callander and Wilson, 2006; Cho and Ha, 2012; López-Moctezuma et al., 2022). Consistent with this idea, recent work has shown how the effects of disseminating incumbent performance information depend on its salience and effective benchmarking (Adida et al., 2020; Bhandari et al., 2021). Voters' lack of attention when key candidates fail to participate is likely to then dampen the extent to which *non*-participation induces electoral sanctioning.

Implications of participation decisions in clientelistic settings

When candidates' participation *can* be enforced, initiatives that lower the costs of disseminating policy information to voters might lead incumbents—previously selected according to their comparative advantage in clientelism—to suffer electoral costs relative to their challengers if the selection channel (revelation of poorly-aligned policy platforms) outweighs the treatment channel (experience in government). This trade-off being negative on average is consistent with the

results in prior studies on town hall discussions and debates which ensured the full participation of candidates (Bidwell et al., 2020; Fujiwara and Wantchekon, 2013; Platas and Raffler, 2021) as well as work on the revelation of incumbents' performance in office (Ferraz and Finan, 2008; Larreguy et al., 2019).

But, when candidates' participation *cannot* be enforced, we should then expect quite different electoral consequences. Among incumbents, better informed about their own expected returns to participation, those selecting into participation are likely to be those reasonably anticipating to do well. Among challengers, participation is likely to be a relatively noisier function of their expected returns. In principle, separation among incumbents could then signal to voters that non-participating incumbents are lower quality, or at least less equipped for programmatic competition. But if voters' attention is conditioned by candidates' participation decision, non-participation induces limited punishment because fewer voters are likely to have paid attention in the first place.

Lowering the costs of supplying policy information then only facilitates transitioning to more programmatic competition to the extent that key candidates' incentives are aligned. Absent this alignment, which is unlikely to the extent that some candidates benefit from the pre-existing clientelistic equilibrium, such initiatives might act to entrench, rather than threaten, incumbency on average. This might enhance voters' welfare where incumbents select into the supply of policy information, to the extent that high quality incumbents are then retained, while limiting it by rendering voters' updating more challenging where they fail to do so.

Liberian electoral context

We study Liberia's 2017 House of Representatives elections in which each of 73 electoral districts elected a single representative for a six-year term. House members are responsible for shaping

legislation and control access to development funds used for the allocation and implementation of local public goods. Representatives are rewarded with an annual salary over \$200,000 USD in a country with annual per capita income around \$900 (IREDD, 2016). Low barriers to candidacy combined with a fragmented and weak party environment mean that many candidates run for office. 984 candidates from 26 different political parties ran, with as many as 28 candidates in a district. Out of this total, there exists a long tail of more marginal candidates who run primarily to enhance their profiles and secure post-electoral favors (Spatz and Thaler, 2018).

Once in office, legislator performance is highly varied. Dissatisfaction with incumbent performance is widespread, with two-thirds of citizens mistrusting their representative (Afrobarometer, 2015) and more than half report seeing their representatives only at election time (USAID, 2018). This dissatisfaction is not the result of citizens being unaware of their legislator—92% of our voter survey correctly named their legislator. While incumbents sought reelection in nearly 90% of districts, less than half were reelected.

Who runs for office?

We draw on an original survey of 612 candidates to provide descriptive evidence regarding candidacy.² Throughout, we distinguish between three *predicted leading candidates* per district and *other candidates*, and further divide *predicted leading candidates* into *incumbents* and *predicted challengers* (see more on this categorization in Appendix A.1). Our aim was to facilitate measurement and analysis by identifying three candidates per district who had genuine chances of success. Moreover, the definition of *actual leading candidates*, those whose vote share ranked in the top three of their district, might be endogenous to our intervention.

Table 1 provides descriptive statistics. Candidates generally come from Liberia's elite, with far more education than an average citizen, and are overwhelmingly male. Incumbents are older

²The 62% response rate is balanced across treatment groups both overall and within candidate categories.

1. Candidate characteristics

	Age (1)	University educated (2)	Ran before (3)	Govt. job before (4)	NGO job before (5)	Advocacy experience (6)	Campaign expenditure (7)	Radio station (8)
Incumbent	55.8	0.68	1.00	0.48	0.35	0.87	\$61,458	0.16
Challenger	48.9	0.64	0.43	0.30	0.38	0.88	\$41,282	0.06
Other	47.7	0.53	0.22	0.32	0.42	0.85	\$30,083	0.03

Mean values for incumbents, challengers, and other candidates according to our survey. ‘Age:’ age in years. ‘University educated:’ completed university. ‘Ran before:’ ran for office at least once before. ‘Govt. job before:’ held non-elected government job before. ‘NGO job before:’ worked for an NGO before. ‘Advocacy experience:’ worked on an advocacy campaign before. ‘Campaign expenditure:’ self-reported campaign spending in USD. ‘Radio station:’ either owns or manages a radio station.

and better educated than challengers, with more prior experience in a non-elected government job. Almost a third of all candidates have previously run for office, and most report experience in local advocacy campaigns. Candidates report spending substantial amounts—on average above \$30,000—on their campaigns. Incumbents, however, report spending 50% more than predicted challengers and 100% more than other candidates.

Campaigning and policy promises

Candidates primarily organize their own campaigns, with little coordination by weak national parties. Campaigns center on local rallies where candidates distribute gifts in cash or kind to generate support. Nearly 80% of surveyed candidates reported visiting most or all communities in their district, while nearly half reported distributing gifts in most or all communities. During campaign season, incumbents in particular organize the trucking of voters to polling stations (Bowles et al., 2020), with as many as 35% of voters receiving money in exchange for their vote (USAID, 2018).

In this clientelistic context, candidates face few incentives to widely disseminate policy promises. Candidates are well aware of differences in the *types* and *credibility* of policy promises delivered at local rallies versus over the radio, as Table 2 shows. Candidates believe that promises

made on the radio are more credible than those made at rallies, but they acknowledge the low likelihood of any campaign promise being kept. Relevant to our later results, incumbents appear to be more sophisticated in this regard.

2. Candidate attitudes towards policy promises

Candidate type	Different promises (1)	Rally credibility (2)	Radio credibility (3)
Incumbent	0.73	0.19	0.26
Challenger	0.70	0.12	0.14
Other	0.67	0.16	0.15

Mean values of variables for incumbent, challenger, and other candidate respondents based on our surveys. ‘Different promises:’ believes that candidates make different promises on radio versus on-the-ground campaigning. ‘Rally credibility:’ believes that promises made by candidates at rallies are very likely to be fulfilled. ‘Radio credibility:’ believes that promises made by candidates on radio are very likely to be fulfilled.

Because candidates lack incentives to publicize policy promises, the wide dissemination of policy promises is extremely rare. For example, one of the country’s most prominent newspapers, the *Daily Observer*, built a “promises tracker” ahead of the election where candidates could outline their policy platforms, with no incumbents electing to do this. Candidate campaigns then generally lack policy platforms and instead target particularistic transfers through on-the-ground campaigning. The absence of programmatic information is facilitated by a fractured media landscape. Radio stations are a potentially important source of access to political information: radio ownership is high at 83%, and 62% of Liberian respondents report listening to news on the radio every day (Afrobarometer, 2015). However, because the radio industry lacks regulation, the market is fragmented, access to electricity is sporadic, and sources of commercial revenue are scarce, radio stations frequently become the mouthpieces of particular political figures and local firms (Kamara, 2017). Indeed, as Table 1 shows, many incumbents actually own their own radio stations.

Candidate debates

During the campaign season, the international NGO Internews coordinated a nationwide debate initiative to encourage candidates to supply policy information and hence compete on more programmatic grounds. In each district, one of three local journalist associations was responsible for conducting research about the issues relevant to constituents and moderating the debate. In total, 129 debates were held across all 73 districts between August and September 2017.³

Debate venues were mostly town halls and schools. Every debate followed a uniform structure. First, candidates were asked to outline their campaign policy promises. The moderator then posed the same questions to each candidate in turn, and each candidate was allowed three minutes to respond. The first question in each debate was related to the management of the County Social Development Fund (CSDF), which is poorly managed, with little oversight or input from citizens. Second, candidates were asked about how they would spend their Legislative Support Project (LSP) discretionary funds on local public goods. After these standardized questions, candidates were asked about local issues based on the moderator's research. Moderators intervened to prevent candidates from making personal attacks.

The debates were then disseminated by at least one prominent community radio station per district that would broadcast the debate in full on average six times, with contracted rebroadcasting concentrated in the 10 days before the election.⁴ 43 radio stations were selected, on the basis of their reach and political neutrality, to rebroadcast the debates.⁵ Around 90% of the electorate was covered by a signal from the station broadcasting that district's debate.

³In districts with a large number of candidates, multiple debates were held, generally on the same day, with candidates randomly assigned to a debate.

⁴The audience in attendance at each debate was around 100 people. Election-related violence is a concern in Liberia and so, to minimize the risk of conflict, in-person audiences for the debates were purposefully kept small.

⁵The debates were broadcast by fewer than 73 radio stations since some had the ability to broadcast debates in more than one district. A few stations were discarded due to their political affiliations, primarily because they could not be relied upon to replay the debates in full with no editing.

Invitation intervention

Many candidates expressed hesitation regarding debate participation. Candidates, who had typically emerged under the pre-existing highly clientelistic system, were often untested in terms of their ability to compete on programmatic grounds. The returns to participation—both through debate performance and by potentially restricting their ability to subsequently deviate—were then deeply uncertain, and perhaps negative, for many candidates.

These risks of debate participation were particularly acute for the leading candidates, especially incumbents. Such candidates expressed fears that participation would entail being attacked by challenger candidates and biased moderators. Participation also involved non-trivial direct costs given the difficulties of travel in Liberia’s rainy season. Leading candidates, possessing more resources for on-the-ground campaigning, then faced potentially greater opportunity costs of participation. For marginal candidates, debate participation offered a much clearer positive expected return: they lacked the resources to buy votes or hold rallies, so debate participation would provide them with free publicity.

To evaluate the impact of candidates’ selection into the supply of policy information, we analyze the randomized level of effort associated with informing candidates about the debates and persuading them to participate. Since candidate-level experimental variation raised ethical concerns, the *intensity* of debate invitation efforts administered to all candidates was randomly varied at the district-level. Appendix A.2 provides a discussion of relevant ethical considerations.

Candidates in control districts were contacted by the relevant organizing Liberian journalist association who invited them to the debate. In treatment districts, this was augmented in three ways by the implementing partner. First, candidates were sent more detailed logistical information about the debates through multiple forms of communication, to ensure that every candidate was reliably informed about their debate. Second, candidates were persistently followed up with

via SMS messaging to remind them of the debate during the busy campaign period. Third, phone calls were made by a high-profile Liberian radio journalist widely known and respected by politician to all candidates around two days before each debate to persuade them to attend. These calls were designed to address any concerns candidates had about the debates and to clarify the objectives, structure, and unbiasedness of the debates.⁶

While the intervention was administered to all candidates in treated districts, our pre-registered expectation was that this would particularly induce the participation of incumbents and their most credible challengers who (ex ante) faced a more serious strategic decision in electing whether to participate. By emphasizing the credibility of the debates and providing information about their structure, these additional invitation efforts served to reduce uncertainty about the returns to debate participation, reminded candidates to participate during a busy campaign season, and mitigated fears that they would be subjected to attacks from other participants.

The intensity of debate rebroadcasting was also cross-randomized. However, it ultimately had no effect because (as discussed below) voters were likely to hear their district's debate even in districts without intensive rebroadcasting. Because candidates were unaware of any differences in future rebroadcasting efforts, we present results where we pool over rebroadcasting intensity for clarity of exposition.

Descriptive evidence on the debates

Overall 59% of candidates participated, comprising 48% of incumbents and 60% of challengers and other candidates. As shown in Table 3, candidates' cited reasons for participation varied.⁷

Consistent with variation in their political sophistication, non-incumbent candidates mostly cited

⁶Candidates were informed that questions would be asked about relevant local policy issues but were not provided specific questions.

⁷Since legislative campaigns are only loosely overseen by the relatively weak national parties, we found no evidence of parties coordinating the debate decisions of their candidates across districts or in response to the intervention.

their democratic duty, while incumbents cited the opportunity to showcase their policy platforms to voters. Only a small share of candidates pointed to radio broadcasting as a reason for their participation or admitted to attending in order to attack other candidates.

3. Reasons cited for debate participation

Candidate type	Duty (1)	Policies (2)	Competence (3)	Publicity (4)	Radio (5)	Attack (6)
Incumbent	0.40	0.80	0.27	0.40	0.07	0.07
Challenger	0.61	0.48	0.37	0.35	0.02	0.07
Other	0.54	0.52	0.25	0.43	0.01	0.09

Mean values of variables among incumbents, challengers and other candidates based on our surveys. Candidates were allowed to cite more than one reason for participation. ‘Duty:’ cited democratic duty. ‘Policies:’ cited opportunity to present policy platform. ‘Competence:’ cited opportunity to show off competence. ‘Publicity:’ cited opportunity for free campaign publicity. ‘Radio:’ cited the benefits of radio broadcasting reaching a large audience. ‘Attack:’ cited opportunity to attack other candidates.

We also asked candidates why they did *not* participate, although candidates perhaps predictably cited logistical issues rather than any electoral concerns. Over 50% of non-participating candidates cited late or inadequate notice, while 30% claimed that they did not receive any invitation. Consistent with the non-trivial direct costs of participation, nearly 20% mentioned road conditions.

Leveraging transcripts of every debate, we find that the unbiased rules of debate moderation were kept and candidates were given equal time to outline their policy priorities (see Table 4). During these introductions, incumbents focused on their experience while challengers and other candidates highlighted their educational achievements. The most commonly cited policy priorities related to district primary schools, health facilities, and the quality and extent of roads. However, incumbents spoke at greater length about both the County Social Development Fund (CSDF) and the Legislative Support Project (LSP) funds, reflecting their first-hand experience. Finally, incumbents were much more likely to both be attacked by other candidates and attack others, as their attendance seemed to act as a focal point for the debate.

4. Transcript descriptive statistics

Candidate type	Intro words (1)	Education emphasis (2)	Experience emphasis (3)	CSDF words (4)	LSP words (5)	Attacked (6)	Attacker (7)
Incumbent	340.3	0.22	0.33	398.2	224.0	0.19	0.15
Challenger	352.0	0.30	0.26	284.7	218.0	0.04	0.04
Other	345.9	0.27	0.19	269.8	203.7	0.03	0.03

Mean values of variables among incumbents, challengers and other candidates based on our surveys ‘Intro words’: number of words spoken in debate introduction. ‘Education emphasis’: candidate highlighted their education in introduction. ‘Experience emphasis’: candidate highlighted their experience in introduction. ‘CSDF words’: number of words spoken about ways to improve management of County Social Development Funds. ‘LSP words’: number of words spoken about priorities for spending Legislative Support Projects funds. ‘Attacked’: candidate was verbally attacked by another candidate. ‘Attacker’: candidate verbally attacked another candidate.

Focus group evidence underscores the novelty of the debates’ policy focus. As one participant said, “Before the debate, the word ‘platform’ was a strange word to me” (Vai Town, 26 September 2017). Many commented that the debates increased information available about candidates, noting that “in the past, there was no opportunity created for voters to engage candidates in understanding their platforms” (Foya, 20 September 2017). As a result, it is not surprising that citizens took note of participation decisions, highlighting that “we wanted to see all the six candidates at this debate but only two appeared, which is not good because we are not hearing from [the] other four candidates” (Massabolahun, 21 September 2017). Some even wanted debate participation to be mandatory: “There should be a law binding all candidates to attend the debate... You can’t be somebody who wants to represent me if you don’t turn up” (Vai Town, 26 September 2017).

Our qualitative evidence also suggests that the debates caused voters to change their voting intentions. One participant stated, “The debate changed my attitude toward candidates and helped me discover the hidden secret of some candidates” (Kolahun, 18 September 2017). Several focus groups pointed to the varied quality of policy platforms: “some of the candidates were not detailed in their explanation on how they going to tackle these sectors” (Voinjama, 12 September

2017). Notably, some respondents suggested that challengers' promises were often weak: "I did not hear anything new from candidates contesting against the incumbent because the incumbent was already doing most of these things" (Kolahun, 18 September 2017).

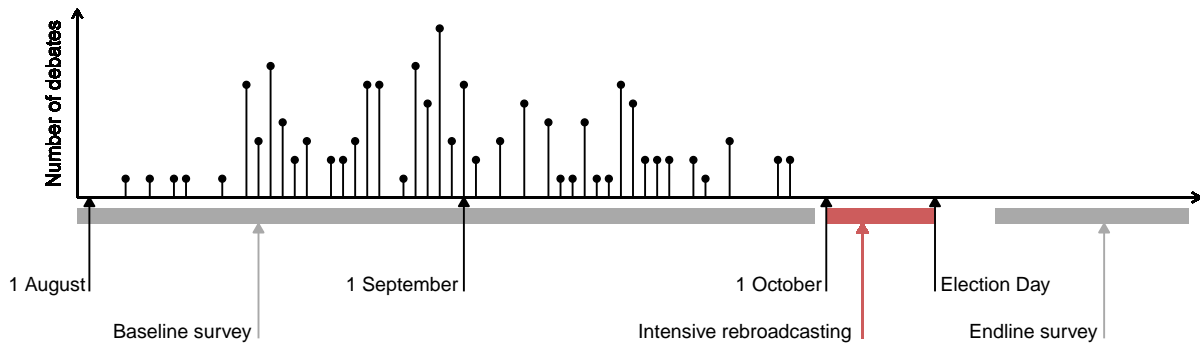
Data

Our primary data source is a panel survey of 4,060 registered voters conducted in all 73 electoral districts in the country. These phone-based interviews were sampled from the universe of active phone numbers on the country's largest network. The distribution of observations per electoral district naturally reflects phone penetration and rurality, with the sample being older, more male, and better educated than the average Liberian (see Table A1). We use several other original data sources to validate the intervention and parse channels, as introduced below.

Figure 1 provides a timeline of the debates and our voter survey data collection. Our baseline survey began prior to the first debates. Most data collection was completed by early September but concluding the baseline survey in all electoral districts took several more weeks.⁸ The overlap of the baseline survey and the debates is not a significant concern. First, we control for any potential baseline debate exposure using the date on which respondents were interviewed. Second, for variables that were collected only for the endline survey, the timing of the baseline survey is irrelevant. Third, the intensive rebroadcasting of debates began in October, when essentially all baseline data had been collected.

⁸Since the phone number sample was stratified at the county-level, sampling in some districts proved difficult when the same county contained both urban and rural districts. In these cases, most numbers were associated with citizens in urban areas, and so achieving a sufficient sample in the rural districts took longer.

Figure 1. Timeline of debates initiative and data collection



Outcome variables

To assess whether the invitation intervention, the debates themselves, and their rebroadcasting were properly implemented, we use multiple sources. For candidate debate participation, we use administrative debate reports as well as debate transcripts. For radio rebroadcasting, we use data from the rebroadcast schedules contracted with each of the radio stations and monitoring data from an organization contracted to tune into each scheduled debate broadcast and ensure it was played unedited and on schedule. We complement this with an original survey of radio stations to understand whether contracted (and non-contracted) stations rebroadcast the debates or related content at other times.

To evaluate the ultimate electoral consequences of the intervention, we use respondents' self-reported vote choices and validate these results using administrative polling station-level electoral data. To measure debate exposure and information acquisition, we asked respondents about the debates, policy issues discussed within the debates, and about discussions they held with others. To assess beliefs about the policy priorities and competence of candidates, we asked respondents about both such perceptions and their associated uncertainty, but only about three *predicted leading candidates* in their district, as described above (also see Appendix A.1).⁹ Last,

⁹This is both because of feasibility reasons and since theoretically we expected that the invitation intervention

we asked respondents about their exposure to the campaign efforts of each of these candidates.

For all respondent-candidate dyads, we split the analysis into the incumbent and a pooling of the predicted challengers. We provide descriptive statistics for all respondent-level outcome variables in Table A2 and for all respondent-candidate level outcomes in Table A3. For all outcome variables, we provide general descriptions in the relevant regression tables while details on their construction are in Appendix A.5. Whenever relevant, we aggregate related outcome variables using standardized z-scores.

Interaction and selection variables

Our pre-registered expectation was that voting outcomes would be affected by (1) candidates' overall performance in their debate; (2) the extent of alignment between voters' and candidates' policy priorities. In our survey analysis, we asked citizens about who they thought won their district debate. Since this measure is naturally correlated with treatment assignment, in the main analysis we construct a *predicted* candidate-level measure of debate performance, which is defined for the full sample of candidates.¹⁰

We measure the extent of policy alignment between respondents and candidates using data from our baseline survey in which we asked respondents to name their top three policy priorities in their district as well as to name what they believe are the top three policy priorities for each of the three predicted leading candidates. We aggregate this latter measure across respondents to the district-level to create a measure of each candidate's policy priorities. We then calculate the share of a given respondent's top issues that are shared with each candidate to create a measure

should particularly affect the participation of the most prominent candidates. Because we had no control over the local issues that would be discussed in the debates, all questions about policy priorities were open-ended and coded by independent coders with no knowledge of treatment assignment.

¹⁰We do this by flexibly estimating a LASSO model of the debate performance outcomes of participating candidates on pre-determined covariates including their gender, incumbency status, party, baseline citizen assessments of their competence, policy priorities, and certainty regarding both competence and policy priorities.

of preference alignment. We also create a version where we calculate the average of this variable at the district-level.

To assess patterns of candidate selection into debate participation, we also use this district-level measure of preference alignment, along with a secondary measure where we instead base candidates' priorities on their own responses to our candidate survey. This alternative measure, as we discuss below, suffers from the post-election timing of the enumeration as well as only being observed for the 62% of candidates who responded to our survey. Lastly, we consider citizens' certainty about candidates' policy priorities, also aggregated to the district-level.

Estimation

Out of all 73 electoral districts, 35 were randomly assigned to receive low invitation effort (control) and 38 to receive high invitation effort (treatment). We stratified based on which of the journalist association partners was running that district's debate, and blocked on a set of district-level covariates (as described in Panel A of Table A1). Pre-treatment covariates at the district, individual, polling station, and candidate levels are well-balanced across treatment conditions (see Appendix A.3).

Taking the case where the respondent-candidate is the unit of observation,¹¹ we estimate:

$$y_{icdeb} = \beta T_{db} + \mathbf{X}_{icdb} + \mathbf{Z}_{db} + \theta_e + \eta_b + \epsilon_{icdeb}, \quad (1)$$

where y_{icdeb} is the outcome for respondent i regarding candidate c in district d interviewed by enumerator e in block b . T_{db} is an indicator for districts assigned to treatment. η_b are randomization block fixed effects and θ_e are survey enumerator fixed effects. Throughout,

¹¹This estimation approach extends to cases where the respondent is the unit of observation, y_{ideb} , and where the candidate is the unit of observation, y_{cdb} .

we include both district-level covariates \mathbf{Z}_{db} and individual-level covariates \mathbf{X}_{icdb} to improve precision (see Panels A and B of Table A1 for descriptive statistics). Standard errors are clustered at the district-level. Our coefficient of interest in Equation (1) is β , which recovers the intent-to-treat effect of the invitation intervention.¹²

At the individual-level, we report pre-registered specifications varying the weighting of observations to account for variation in the number of respondents by district. We report unweighted specifications; specifications weighted by the inverse of the number of respondents in that district (1/Obs); and specifications weighted by the number of registered voters in that district divided by the number of respondents in that district (Reg/Obs). The ‘1/Obs’ weights imply that each district overall is equally weighted in the estimation, while the ‘Reg/Obs’ weights imply that districts are weighted in proportion to their share of the electorate. In the Appendix, we provide additional results where we instead weight observations to be representative of district-level demographics (Tables A12-A16).

We consider an analogous specification for polling station-level electoral outcomes, instead controlling for polling station-level variables (see Panel C of Table A1). At this level, we report unweighted specifications; specifications weighted by the inverse of the number of polling stations in that district (1/PS); and specifications weighted by the number of registered voters at that polling station (Reg). The weights account for variation in the number of polling stations by district.

Whenever we have a panel for a given question where the outcome is continuous, we consider the continuous change in that variable between baseline and endline as an outcome Δy_{icdeb} . When the outcome is binary, we construct an indicator for whether the coded response changed between

¹²While the treatment effect of candidates’ debate participation itself (i.e. the instrumental variable estimate), is of significant theoretical interest, some of our estimates below suggest that the exclusion restriction is unlikely to hold.

waves.¹³ Lastly, we also make use of specifications where we interact treatment assignment with candidate-level covariates X_{cdb} , which applies to the interaction variables discussed above.

Our analysis is well-aligned with our pre-analysis plan. Appendix A.4 details and justifies divergences, including that our descriptive analysis of candidates' compliance with the intervention, which we use to parse our electoral results, was not pre-registered.

Effects on electoral outcomes

In this section we establish our two main results. First, we show that the intervention increased the likelihood that leading candidates, whether incumbents or key challengers, attended their debates. Second, we show that incumbents, especially those with well-aligned policy priorities or predicted to perform well at their debates, electorally benefited in treated districts at the expense of their challengers.

Effects on debate participation

Table 5 reports treatment effects on candidates' debate participation. The invitation intervention led to a 7.7 percentage point (pp) (14% relative to the control mean) increase in the share of total candidates attending the debates in treated districts (Panel A). Incumbents were 21.2 pp (76%) more likely to attend in treated districts (Panel B), and predicted challenger candidates were 21.2 pp (43%) more likely to attend (Panel D). There are no treatment effects on other candidates (Panel D), reinforcing our expectation that the intervention would mainly affect the participation of more prominent candidates. Similar results hold if we consider *actual* election winners and challengers, which is potentially endogenous to the intervention (Table A19), or aggregate to the

¹³The estimating equation remains the same aside from controlling for whether respondents were interviewed at baseline before or after the first broadcast of their district debate (and its interaction with treatment assignment).

5. Effects on candidate debate participation

	(1)	(2)	(3)
A. Share of candidates			
<i>Invite</i>	0.077** (0.034)	0.065** (0.030)	0.092*** (0.033)
Control Mean	0.542	0.573	0.557
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs
B. Incumbent			
<i>Invite</i>	0.212** (0.083)	0.177** (0.073)	0.234*** (0.083)
Control Mean	0.280	0.372	0.299
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs
C. Share of challengers			
<i>Invite</i>	0.212*** (0.074)	0.144** (0.063)	0.220*** (0.067)
Control Mean	0.492	0.554	0.528
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs
D. Share of other candidates			
<i>Invite</i>	0.003 (0.030)	0.008 (0.028)	0.009 (0.029)
Control Mean	0.562	0.583	0.575
Observations	3991	3991	3991
Weight	No	1/Obs	Reg/Obs

Outcomes: share of candidate types (all, incumbent, predicted challenger, other candidate) who attended a debate out of all candidates in that district. Panel D has fewer observations due to only three candidates running in two districts (and hence no ‘other candidates’ defined). See Table A24 for all control coefficients.

Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: ‘Obs’: number of observations in that district; ‘Reg’: number of registered voters in that district. Standard errors clustered at district-level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

district-level (Table A20). Using our monitoring data and radio station surveys, we also rule out that the intervention affected how frequently the debates were rebroadcast (Table A21).

Effects on electoral outcomes

Table 6 establishes that the intervention ultimately affected voting outcomes, as measured either using either our voter survey (Panel 1) or polling station data (Panel 2). Panel 1 tests for effects on vote choice, defined as whether the respondent reported voting for a given candidate at endline. Columns 1-3 present the main effects of treatment assignment. In columns 4-9 we interact treatment assignment with standardized measures of either candidates' predicted debate performance (4-6) or respondents' policy alignment with a given candidate (7-9), both described above.

In Panel 1.A., focusing on the incumbent, we find that incumbents were 4.5 pp more likely to receive the votes of our respondents in treated districts compared to control. Moreover, this effect is greater among incumbents who were predicted to perform well in the debates or whose policy priorities aligned with respondents'. In contrast, focusing on challengers in Panel 1.B., there are broadly negative main effects and little evidence of interactive effects. Challengers experienced a significant 4.8 pp drop among respondents' vote choice in treated districts (which is not mechanically implied by the positive effects for incumbents, since our categorization of *predicted challengers* excludes more marginal other candidates).

Instead using polling station data in Panel 2 reinforces these results. In Panel 2.A., we find that incumbent vote share in treated districts was 4.2 pp higher than in control districts, albeit somewhat more noisily estimated. Incumbent vote share was also higher in districts where their predicted performance was higher, although it was not conditioned by the district-level measure of policy alignment (perhaps since our sample is not representative at the district-level, and

6. Effects on voting outcomes

	Main effect			Interaction term:					
	(1)	(2)	(3)	Performance			Policy alignment		
1. Respondent-level	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A. Incumbent									
<i>Invite</i>	0.045**	0.051**	0.035*	0.049**	0.054**	0.039*	0.041**	0.045**	0.032
	(0.020)	(0.023)	(0.020)	(0.020)	(0.023)	(0.020)	(0.019)	(0.023)	(0.019)
<i>Invite</i> × Std. performance				0.067*	0.059	0.039			
				(0.038)	(0.036)	(0.031)			
<i>Invite</i> × Std. policy alignment							0.042***	0.051***	0.052***
							(0.016)	(0.017)	(0.018)
Control Mean	0.278	0.282	0.288	0.278	0.282	0.288	0.278	0.282	0.288
Observations	3496	3496	3496	3496	3496	3496	3496	3496	3496
B. Challengers									
<i>Invite</i>	-0.048***	-0.039***	-0.036**	-0.051***	-0.039**	-0.039**	-0.048***	-0.039***	-0.036**
	(0.014)	(0.013)	(0.014)	(0.017)	(0.015)	(0.016)	(0.014)	(0.013)	(0.014)
<i>Invite</i> × Std. performance				-0.015	-0.002	-0.026			
				(0.046)	(0.039)	(0.043)			
<i>Invite</i> × Std. policy alignment							-0.006	-0.004	-0.003
							(0.007)	(0.008)	(0.008)
Control Mean	0.156	0.156	0.156	0.156	0.156	0.156	0.156	0.156	0.156
Observations	8684	8684	8684	8684	8684	8684	8684	8684	8684
Weight	No	1/Obs	Reg/Obs	No	1/Obs	Reg/Obs	No	1/Obs	Reg/Obs
2. Polling station-level									
A. Incumbent									
<i>Invite</i>	0.042*	0.037	0.041*	0.044*	0.036*	0.044*	0.044*	0.041*	0.043*
	(0.024)	(0.023)	(0.024)	(0.023)	(0.021)	(0.023)	(0.023)	(0.022)	(0.023)
<i>Invite</i> × Std. performance				0.082***	0.099***	0.081***			
				(0.027)	(0.030)	(0.026)			
<i>Invite</i> × Std. policy alignment							-0.016	-0.017	-0.017
							(0.028)	(0.029)	(0.029)
Control Mean	0.246	0.250	0.250	0.246	0.250	0.250	0.246	0.250	0.250
Observations	4618	4618	4618	4618	4618	4618	4618	4618	4618
B. Challengers									
<i>Invite</i>	-0.029**	-0.031**	-0.028**	-0.033**	-0.036***	-0.031**	-0.029**	-0.029**	-0.029**
	(0.012)	(0.012)	(0.012)	(0.013)	(0.012)	(0.013)	(0.012)	(0.013)	(0.012)
<i>Invite</i> × Std. performance				-0.034	-0.031	-0.037			
				(0.027)	(0.029)	(0.026)			
<i>Invite</i> × Std. policy alignment							-0.000	-0.009	0.005
							(0.019)	(0.017)	(0.019)
Control Mean	0.113	0.112	0.112	0.113	0.112	0.112	0.113	0.112	0.112
Observations	11385	11385	11385	11385	11385	11385	11385	11385	11385
Weight	No	1/PS	Reg	No	1/PS	Reg	No	1/PS	Reg

Panels 1.A. and 1.B: Outcome: indicator that respondent reported voting for incumbent (Panel A) or a predicted challenger (Panel B) at endline. Columns 4-6 interact treatment assignment with standardized candidate-level measures of predicted debate performance; 7-9 interact treatment with standardized respondent-candidate-level measures of policy alignment (measured at baseline). Panels 2.A. and 2.B: Outcome: votes over the number of registered voters for the incumbent (Panel A) or predicted challengers (Panel B) using polling station-level data. Columns 4-9 use district-level analogs of interaction terms (see Data section). See Tables A25-A28 for all control coefficients.

All specifications estimated using OLS including block FE. Panel 1 adds enumerator FE, district-level and individual-level controls. Weights: ‘Obs’: number of observations in that district; ‘Reg’: number of registered voters in that district. Panel 2 adds district-level and polling station-level controls. Weights: ‘PS’: number of polling stations in that district; ‘Reg’: number of registered voters at that polling station. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

hence this measure might poorly capture the *overall* alignment of candidates with all voters). In Panel 2.B., we find that challenger vote share in treated districts was 2.9 pp lower than in control districts, again with no evidence of interactive effects.

Explaining the results

These results suggest that electoral gains accrued to incumbents in treated districts. This is backed up by actual election outcomes: 50% of incumbents in treated districts won re-election compared to 43% in control.¹⁴ In a context where approval of incumbent performance is generally low, and given the results of prior experimental interventions, these results might seem surprising. In this section, we establish three sets of results to help explain these electoral effects: variation in candidates' selection into debate participation; voters' attention to the debates; and how candidates' campaigns responded.

Differential selection into debate participation

Understanding the electoral results demands an analysis of compliance with the invitation treatment and hence candidates' selection into attending the debates. Few incumbents attended in control districts—just 35%—and many failed to attend even with additional invitation effort. We show that incumbents selected into debate participation, in terms of the degree of their policy alignment with voters, more strategically than challengers did.

We consider standardized candidate-level measures of (1) policy alignment with local voters; (2) citizens' certainty about candidates' policy priorities. We follow [Abadie \(2003\)](#) and [Angrist and Fernandez-Val \(2013\)](#) to compute the kappa-weighted means of these variables for

¹⁴This difference is not surprising given that more than 35% of races were decided by winning margins of less than five percentage points, which approximates the treatment effects on voting outcomes in Table 6.

always-takers (candidates who would have participated even absent the intervention), compliers (candidates induced to participate due to the intervention), and never-takers (who would not have participated even with the intervention). Table 7 presents these estimates when employing the baseline citizen survey to construct the variables in Panel A, and when employing the candidate survey to construct the policy alignment variable in Panel B.¹⁵ We focus on the voter survey estimates because our candidate survey is missing a substantial share of responses, differentially across candidate type, and was conducted after the election.¹⁶ Nonetheless, either source provides similar results.

7. Characterizing compliers

	A. Citizen survey				B. Candidate survey			
	All	C	AT	NT	All	C	AT	NT
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Policy alignment								
Incumbent	-0.08	-0.31	0.57	-0.58	0.07	1.06	0.86	-0.47
Challengers	0.03	-1.31	0.19	0.16	-0.02	-1.72	0.08	0.10
Policy certainty								
Incumbent	0.36	-0.76	0.52	0.43				
Challengers	-0.14	-1.23	-0.04	-0.06				

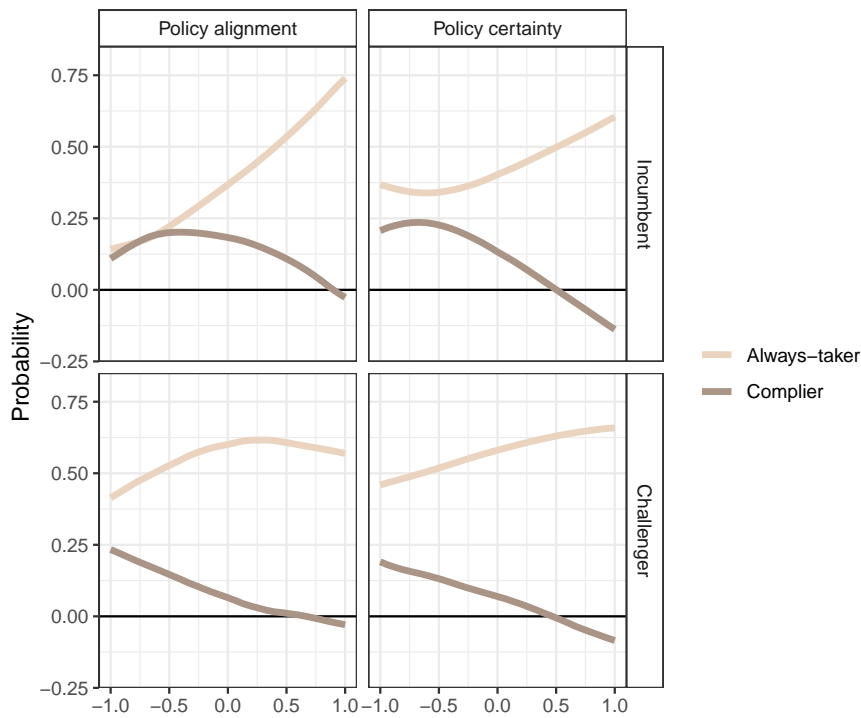
Each variable is standardized. Panel A uses citizen survey to construct variables; Panel B uses candidate survey to construct policy alignment variable. Mean of each variable presented for all candidates (All); compliers (C); always-takers (AT); never-takers (NT). Calculations follow [Abadie \(2003\)](#) and [Angrist and Fernandez-Val \(2013\)](#).

Considering policy alignment, *on average* incumbents are very similarly aligned with voters compared to their challengers. However, we only find a positive pattern of self-selection into debate participation among incumbents. Always-taker incumbents were very well aligned with the policy priorities of citizens in their districts, while complier incumbents were aligned better than never-taker incumbents. Among challengers, we find a much more mixed pattern. While

¹⁵There is no analog of the citizens' certainty measure when using the candidate survey.

¹⁶Overall response rates are 47% among incumbents, with compliers responding 50% of the time. Overall response rates are 65% among challengers, with compliers responding only 47% of the time.

Figure 2. Complier status by baseline candidate characteristics



Note: Nonparametric regression of compliance status across standardized values of baseline characteristics for incumbents (top) and challengers (bottom). At a given value of each baseline characteristic, the fitted value indicates the probability of a candidate type being an always-taker or complier.

always-takers do not seem to self-select relative to never-takers based on their policy alignment with citizens, compliers *negatively* do. Considering certainty about policy priorities, on average citizens were much more certain about incumbents' priorities than challengers'. Consistent with the idea that the intervention allayed concerns about the risk of debate attendance, there was less certainty about the policy priorities of complier candidates than other compliance groups.

In Figure 2 we nonparametrically estimate the probability of a given candidate being an always-taker or complier across different values of these variables. The top panels corroborate a strongly positive self-selection among always-taker incumbents. Always-taker incumbents with policy alignment 1 sd above the mean participated at rates of around 75%. Those with policy alignment 1 sd below mean participated less than 20% of the time. Consistent with Table 7, the plots suggest that the intervention induced the participation of incumbents at *intermediate*

levels of policy alignment. The plots in the bottom panel, in turn, confirm a substantially weaker self-selection among always-taker challengers, while compliers seemingly negatively selected into participation. As with complier incumbents, voters were substantially less certain about the policy priorities of complier challengers.

Voters paid more attention to the initiative

Next, we assess how voters' debate exposure was affected by treatment assignment. In Panel A of Table 8, we use a standardized index of our measures of direct exposure to the debates, including whether respondents heard the debate and how often they heard them. Respondents in treated districts had exposure 0.30 standard deviations (sd) higher than those in control districts.

In Panel B, we find treatment effects of 0.13 sd on an index of factual questions about the debates themselves. Given that our endline survey began around a month after the election, this persistence suggests meaningful differences in debate exposure. In Panel C we use an index reflecting factual knowledge about a national policy issue, the management of County Social Development Funds, which was asked about in every debate. We find treatment effects of 0.16 sd on correctly learning about management issues of these poorly-understood funds. In Panel D we find treatment effects of 0.25 sd on an index reflecting broader political information acquisition relating to discussion about the debates and listening to the radio. These results suggest that variation in candidates' participation decisions substantially affected voters' exposure to, and learning about, information through the debates.¹⁷

Next, in Table 9 we show that the intervention led voters to update about candidates' competence and policy priorities. We first assess treatment effects on the standardized change in respondents' certainty about the competence (columns 1-3) and priorities (columns 4-6) of

¹⁷We provide results disaggregating the components of these indices in Table A17. We additionally show in Table A23 that treatment assignment increased how much voters discussed the debates with others and coordinated their vote choices on this basis.

8. Effects on debate exposure and information acquisition

	(1)	(2)	(3)
A. Debate listening index			
<i>Invite</i>	0.304*** (0.102)	0.341*** (0.105)	0.424*** (0.107)
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs
B. Debate knowledge index			
<i>Invite</i>	0.125** (0.063)	0.126** (0.058)	0.165*** (0.059)
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs
C. Policy knowledge index			
<i>Invite</i>	0.156* (0.089)	0.230* (0.121)	0.189* (0.100)
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs
D. Political information acquisition			
<i>Invite</i>	0.251*** (0.078)	0.313*** (0.090)	0.300*** (0.091)
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs

Outcomes are standardized. Outcomes: Panel A: index of (1) indicator for respondent had not heard debate at baseline but had at endline (2) number of times the respondent heard debate by endline. Panel B: index of (1) indicator for respondent's stated debate winner attended the debate (2) share of candidates respondent claims participated (3) share of predicted leading candidates respondent claims participated. Panel C: change in how many factual questions about CSDF management respondents answered correctly between baseline and endline. Panel D: index of (1) change in how much respondents listened to the radio (2) change in how much they discussed politics with their friends (3) how much they accessed other sources of political information. See Tables A29-A30 for all control coefficients.

Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: 'Obs': number of observations in that district; 'Reg': number of registered voters in that district. Standard errors clustered at district-level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

incumbents, shown in Panel 1.A. Respondents in treated districts became significantly more certain about incumbent competence (0.18 sd) and priority issues (0.17 sd). In Panel 1.B. there is little evidence that respondents became more certain about the competence of challengers, and some evidence that those citizens became more certain about their priority issues.

We then assess treatment effects on the citizens' beliefs about the competence (columns 1-3) and priority issues (columns 4-6) of predicted leading candidates, shown in Panel 2. These estimates suggest positive updating regarding incumbents and negative updating for their challengers, but the estimates are imprecise. Panel 2.A. reports sizable, but statistically insignificant, treatment effects on respondents' perceptions of their incumbent's competence and learning about their policy priorities (around 0.1 sd). In contrast, Panel 2.B. suggests that respondents updated negatively about challengers' competence and did not learn about their policy priorities, though again these estimates are imprecise.

Campaigning response by candidates

Finally, we consider effects on candidates' campaign efforts along more clientelistic and programmatic dimensions. In Table 10, we report results on standardized indices of survey responses regarding "on-the-ground" campaigning by candidates in respondents' towns (columns 1-3), comprising candidates' visits, distribution of leaflets, and vote-buying; and "radio" campaigning (4-6), capturing their presence on the radio. In Panel A, there is a significant increase in respondents' exposure to their incumbent on the radio in treated districts (0.08 sd) and a negative, albeit insignificant, decrease in exposure to their on-the-ground campaigning. In contrast, Panel B reports evidence of negative treatment effects on challengers' on-the-ground campaigning (0.06 sd) but no treatment effect on radio exposure.¹⁸

¹⁸We provide results disaggregating the on-the-ground campaigning index in Table A18.

9. Effects on updating about candidates

1. Uncertainty	Certainty about competence			Certainty about policy		
	(1)	(2)	(3)	(4)	(5)	(6)
A. Incumbent						
<i>Invite</i>	0.178*	0.186*	0.179**	0.169**	0.195**	0.192**
	(0.105)	(0.107)	(0.084)	(0.074)	(0.080)	(0.074)
Observations	3496	3496	3496	3496	3496	3496
Weight	No	1/Obs	Reg/Obs	No	1/Obs	Reg/Obs
B. Challengers						
<i>Invite</i>	0.037	0.046	0.025	0.139**	0.118	0.098
	(0.066)	(0.074)	(0.070)	(0.061)	(0.073)	(0.067)
Observations	8684	8684	8684	8684	8684	8684
Weight	No	1/Obs	Reg/Obs	No	1/Obs	Reg/Obs
2. Levels	Beliefs about competence			Learning about policy		
	(1)	(2)	(3)	(4)	(5)	(6)
A. Incumbent						
<i>Invite</i>	0.098	0.066	0.093	0.089	0.125	0.091
	(0.075)	(0.089)	(0.082)	(0.065)	(0.089)	(0.073)
Observations	3496	3496	3496	3496	3496	3496
Weight	No	1/Obs	Reg/Obs	No	1/Obs	Reg/Obs
B. Challengers						
<i>Invite</i>	-0.078	-0.147*	-0.096	0.038	0.027	0.063
	(0.075)	(0.088)	(0.077)	(0.065)	(0.086)	(0.080)
Observations	8684	8684	8684	8684	8684	8684
Weight	No	1/Obs	Reg/Obs	No	1/Obs	Reg/Obs

Outcomes are standardized. Outcomes: Panel 1: Columns 1-3: change in certainty about candidates' competence; 4-6: change in certainty about candidates' policy priorities; Panel 2: Columns 1-3: change in perceptions of candidates' competence; 4-6: change in correctly learning candidates' policy priorities. See Tables A31-A32 for all control coefficients.

Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: 'Obs': number of observations in that district; 'Reg': number of registered voters in that district. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

10. Effects on campaigning

	Ground			Radio		
	(1)	(2)	(3)	(4)	(5)	(6)
A. Incumbent						
<i>Invite</i>	-0.055 (0.043)	-0.075 (0.050)	-0.052 (0.051)	0.082** (0.037)	0.087** (0.040)	0.092** (0.042)
Observations	3492	3492	3492	3496	3496	3496
Weight	No	1/Obs	Reg/Obs	No	1/Obs	Reg/Obs
B. Challengers						
<i>Invite</i>	-0.060* (0.031)	-0.073** (0.029)	-0.076** (0.032)	-0.025 (0.028)	-0.004 (0.027)	-0.018 (0.028)
Observations	8676	8676	8676	8684	8684	8684
Weight	No	1/Obs	Reg/Obs	No	1/Obs	Reg/Obs

Outcomes are standardized. Columns 1-3: index of how often candidates (1) visited (2) distributed leaflets (3) bought votes in respondents' communities; 4-6: index of how often respondents heard candidates on radio in two weeks before election. See Table A33 for all control coefficients. Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: 'Obs': number of observations in that district; 'Reg': number of registered voters in that district. Standard errors clustered at district-level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Discussion

The results are consistent with incumbents generally correctly assessing the returns to debate participation, and hence the broad supply of policy information, even when the cost of this supply substantially decreased (Cruz et al., 2022). Incumbents were better at recognizing when their policy priorities aligned with those of their voters, and when voters were uncertain of this alignment, compared to their less sophisticated challengers. While we cannot fully separate the *selection* from *treatment* channels discussed in our theoretical framework, incumbents' experience in office likely aided both their ability to strategically participate as well as their performance when they did. Since non-participating incumbents had poorly aligned priorities, enforcing incumbents' universal participation might instead have led to their worsened electoral performance (Fujiwara and Wantchekon, 2013).

When leading candidates were induced to participate, consistent with prior work on deliberative initiatives (López-Moctezuma et al., 2022), citizens paid more attention. Voters then became more certain about their incumbent, who spoke much more on policy-related questions, rather than being persuaded by exposure to new candidates (Brierley et al., 2020; Platas and Raffler, 2021). Participating incumbents then benefited in terms of increased voter information about their (relatively well-aligned) priorities while, in control districts, the reduced salience and relevance of the debate likely mitigated the extent to which non-participation was sanctioned by voters (Adida et al., 2020; Bhandari et al., 2021).

Amplifying this, the debate performance of relatively sophisticated incumbents deterred challengers' campaigning efforts. Moreover, incumbents increased their use of radio campaigning to complement the rebroadcasting of the debates. In our candidate survey, 77% (63%) of incumbents (challengers) believed that the debates led radio stations to issue invitations for interviews more frequently, while 68% (52%) of incumbents (challengers) reported that the debate led them to change their campaigning strategy. Among those who changed their strategy, 60% (40%) of incumbents said it affected their radio (on-the-ground) campaigning. By contrast, 27% (73%) of challengers said the debates affected their radio (on-the-ground) campaigning.

Conclusion

In Liberia's weakly institutionalized democracy, a nationwide legislative debates initiative substantially reduced candidates' costs of broadly disseminating policy information. Encouraging the debate participation of incumbents and their key challengers ultimately led to uneven electoral consequences across different candidate types. The results of the intervention underscore broad variation in candidates' ability to compete on more programmatic grounds in clientelistic settings.

Precisely because such initiatives have electoral consequences when scaled, ensuring can-

didates' participation is impossible to assume and hard to enforce. Given this, the experience of incumbency potentially confers two important benefits. First, a better understanding of their own ability to supply policy information to voters. Second, the indirect capacity to condition the extent to which any such initiative affects voters' decisions. The initiative was then only partially successful in inducing a shift towards more programmatic competition. On the one hand, well-aligned incumbents were induced to participate and electorally benefited when they did, and they somewhat reduced their more clientelistic on-the-ground campaigning activities. On the other, well-aligned challengers were not induced to participate, and the reduced salience of the debate in districts where fewer leading candidates participated implies that non-participating incumbents were likely not particularly electorally punished.

These results point to the challenges of transitioning away from the clientelistic equilibrium characterizing many developing democracies. If such democratic initiatives are to more durably enhance programmatic competition, they must then tackle at least two key constraints. First, the experiential deficit between incumbents and their challengers, which is likely to be especially large where parties fail to select their candidates on programmatic grounds or where the barriers to candidacy are otherwise low. Identifying and training potentially high quality challengers might then level the playing field. Second, the alignment of candidates' incentives with consistent participation in such initiatives—most naturally, through the imposition of electoral sanctions for non-participation. Either shifting voters' beliefs about the signal sent by candidates' non-participation, or enhancing the ability of the media to punish candidates for failing to engage, might offer promising avenues for future research.

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A Online Appendix

A.1	Classifying candidates as leading candidates	A2
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A.1 Classifying candidates as leading candidates

For every candidate running for office we constructed an indicator variable for whether the candidate was a *predicted leading candidate*. We constructed this indicator as follows, in a sequential fashion until there were three per district: (1) if a candidate was the incumbent; (2) if the candidate ran in the 2011 election and placed 2nd or 3rd; and (3) if the candidate was from a top party. We defined top parties as, sequentially, the incumbent Unity Party (UP), Coalition for Democratic Change (CDC), Liberty Party (LP), the Alternative National Congress (ANC) and the All Liberia Party (ALP). This process resulted in three selected candidates in all districts. These *predicted leading candidates* are then split into two groups: whether the candidate is the *incumbent* or whether they are a *predicted challenger*, i.e., a non-incumbent predicted leading candidate. The incumbent ran in 64/73 (88%) of races, and so in the remaining 9 districts all three of these candidates are coded as challengers. One additional incumbent ran in a new district and is consequently coded as a challenger. Validating our indicator for top candidates with actual electoral results, we find that in 50% of cases our predicted leading candidates came in the top three in their district, and in 71% of cases came in the top five. Given our aim to identify a set of relevant candidates who had plausible chances at electoral success and voters would be interested in, we consider the exercise to be successful.

We show in Table A19 that, using the ‘actual’ leading candidates who placed in the top three in the election—whether *actual leading candidates*, *winner* or *actual challengers*—generates a similarly strong first stage on debate participation. Using this alternative categorization generates a set of qualitatively similar results, albeit with a more restricted sample of only those candidates who were both *predicted* and *actual* leading candidates in the citizen-candidate level analysis. However, given the effects we find on voting outcomes, we consider it likely that the definition of *actual leading candidates* is endogenous to our intervention. These additional results are available on request.

A.2 Research ethics

The design of our intervention reflected careful attention to the ethics of field experimentation and associated data collection consistent with APSA’s *Principles and Guidance for Human Subjects Research* (2020).

With regard to the intervention, which sought to increase the share of candidates attending their district’s debate, we make three comments. First, the ‘control’ condition constituted fully delegating debate invitations to the partner journalist associations. The coordinating NGO expressed significant concerns that candidates might not be responsive to these invitation efforts, which would then undermine the broader expected benefits of the debates initiative. However, the coordinating NGO also lacked the capacity to fully manage the process of inviting candidates to the debates. Randomization of such *additional* invitation efforts, which were ultimately designed and implemented by the coordinating NGO, therefore represented an equitable way to leverage their limited additional resources. Our involvement then influenced the randomized targeting of these efforts, which would have otherwise been more ad hoc and selective, but not their existence.

Second, further in line with equity considerations, this randomization took place at the *district-level*, being applied to all candidates in a race, rather than at the candidate-level. Candidate-level randomization could have provided a ‘cleaner’ research design, to some extent. However if, in the control condition, the partner journalist associations failed to contact all candidates

(as some candidates ultimately claimed, see the discussion of Table 3), then candidate-level randomization could have unfairly advantaged some candidates over others. As a result, the randomized assignment of *additional* effort to *all* candidates in a given race was viewed as a fair way to increase the overall intensity of the debates initiative (see below).

Third, while we did pre-register an expectation that the partner-implemented intervention would differentially induce the debate participation of the leading candidates, we did not anticipate *average* electoral effects benefiting incumbents at the expense of their challengers, either among our survey respondents or using administrative data. However, we consider that these average effects are consistent with overall improvements in voters' welfare even *ex post*. Since the debates focused squarely on policy issues, and were carefully designed to minimize any pre-electoral risks, we anticipated they would facilitate political selection on a more informed basis than typically possible. This is indeed what we find, with particularly high quality candidates benefiting (which were more likely to be incumbents). The average effects we find underscore both the potential impact of such initiatives when scaled and have important implications (given how common such initiatives are) for designing them more effectively.

With regard to our associated survey data collection, we anticipated few ethical concerns and complied with all local norms and guidelines relating to data collection. Since no local ethics review board existed at the time of the study, all data collection protocols were approved by our institutional IRBs and discussed intensively with our local partners and area specialists. As per our IRB protocols, survey participants were fully informed about the purpose of the study, no deception was used, their responses were anonymized, and respondents were not paid for their participation in the study nor incentivized in any way to provide particular responses. Liberia is an open democratic system and we anticipated that participants would not face any retaliation or repercussions from participating in our study.

A.3 Balance

We report balance on pre-treatment covariates at the district, individual, polling station and candidate levels. Balance is assessed by estimating Equation (1) for each covariate as an outcome, but omitting the individual-level \mathbf{X}_i and district-level \mathbf{Z}_d controls. For district-level specifications, we instead use heteroskedasticity-robust standard errors. For individual-level specifications, we restrict to the the endline survey sample and consider two types of outcomes. First, we assign district-level outcomes to individuals in this sample. Second, we use individual-level covariates collected in the survey itself. For the polling station-level specifications, first we assign district-level outcomes to each polling station in that district and second we use polling station-level variables using the fact that 90% of polling places in 2017 were also used in the 2011 election. For all new polling places we assign district-level averages. Lastly, for the candidate-level specification we assess balance on characteristics drawn from our candidate survey. We refer throughout to imbalance on unweighted specifications since patterns of limited imbalance are generally shared irrespective of weighting schemes.

At the district-level, 0 (0) out of 18 covariates are imbalanced at the 5% (10%) level (Table A4). Considering district-level covariates applied to our respondents, 2 (2) out of 18 covariates are imbalanced (Table A5). Considering respondents' individual-level covariates, 1 (1) out of 4 covariates are imbalanced (Table A6). Considering district-level covariates applied to polling stations, 0 (1) out of 18 covariates exhibit imbalance (Table A7). Considering covariates defined at the polling station-level, 0 (0) out of 8 covariates are imbalanced. Considering measures of

incumbent performance, we find 0 (0) of 3 covariates are imbalanced (Table A9). Considering candidate-level measures of balance, we find 0 (0) of 9 covariates are imbalanced whether we consider all candidates, just incumbents, or just challengers (Table A10).

A.4 Divergences from Pre-Analysis Plan

This study was pre-registered with both EGAP and AEA. Pre-registration took place before endline data collection and any data analysis. In this section we describe the differences between our PAP and the final paper, as well as the logic behind them.

A.4.1 Data and estimation

We reorganized some of categorizations of variables from the PAP to fit into more coherent groupings. This comprised combining ‘Knowledge about candidates’ and ‘Beliefs over candidate competence’ into ‘Effects on beliefs about candidates’ and ‘Voter coordination’ and relevant parts of ‘Debate exposure’ into ‘Effects on political engagement’.

As we discuss in the paper, we cross-randomized a separate intervention to vary the intensity of debate rebroadcasting (with either two or ten rebroadcasts) which ultimately had little effect. Since this additional intervention had no effect and candidates were unaware of rebroadcasting plans, we pool over rebroadcasting intensity for clarity of exposition. Importantly, however, we made no multiplicative hypotheses—rather, all our hypotheses were with respect to the overall *intensity* of the debates initiative and focused on those districts assigned to both high invitation intensity and high rebroadcasting intensity. In Table A22 we show that the rebroadcasting intervention did not lead to significantly positive effects on debate exposure in either the full sample or the sample restricted to respondents in those districts assigned to the invitation intervention, in spite of being correctly implemented. As discussed, this lack of effects stems from the high share of citizens who heard their district debates when they were only broadcast a few times.

The estimating equation we use in the paper is closest to what we called our ‘base specification’ in our PAP (Equation 5). We additionally pre-registered the possibility of constructing an individual-level instrument for the debate attendance of candidates, leveraging random assignment of candidates to debates with the incumbent and at different times of day in districts where more than one debate was held. We found such an instrument to be underpowered due to the number of districts which only ended up holding one debate and so do not report results using it. We also pre-registered a local regression discontinuity design (Equation 8) leveraging quasi-random assignment to respondents being interviewed before or after the live debate in their district at baseline, but lacked sufficient within-district variation to pursue this. Finally, we pre-registered the use of one-tailed tests but report two-tailed tests throughout to be conservative.

We did not pre-register outcomes relating to ‘on-the-ground’ and ‘radio’ campaigning by candidates. Additionally, in our PAP we pre-registered the use of a jackknife measure of debate performance; given that actual debate performance is a function of treatment assignment we instead use the predicted measure of performance described in the Data section. Further, while our pre-registered hypotheses make reference to the distinction between incumbents and challenger candidates, particularly differential treatment effects of the intervention on their participation, we did not pre-register the descriptive analysis we perform regarding their intervention compliance behavior. Finally, for the voting outcomes we pre-registered using an outcome variable defined as

vote switching towards a given candidate. However, since few respondents indicated a concrete vote choice at baseline, using either measure produces qualitatively identical results. Focusing on endline responses allows us to directly compare voter responses to polling station outcomes.

A.4.2 Hypotheses

We reorganized and grouped many of our pre-registered hypotheses, which were generally made with reference to individual outcome variables, into more coherent aggregated clusters. Out of the 27 hypotheses we pre-registered, results directly testing 19 of them are presented in the final paper.¹⁹ The eight missing hypotheses fall into two categories. First, we do not report results relating to the hypotheses using within-district variation in whether citizens at baseline were interviewed before or after their district debate had been broadcast for the first time due to the lack of variation mentioned above.

Second, we do not report results for our pre-registered set of hypotheses relating to citizen attitudes towards the media and the electoral process. We anticipated that citizens in districts assigned to more intensive debates would update positively about the neutrality and contribution of the media to the electoral process due to the novelty and unbiasedness of the debate structure. We found little systematic evidence of this happening, potentially due to the campaigning response of incumbent candidates campaigning more aggressively on the radio in these districts. The final paper therefore contains substantially less emphasis on the intervention affecting perceived media credibility than our PAP.

A.5 Variable construction

Unless otherwise noted, all variables come from our panel survey of citizens where we refer to specific items in our baseline and endline survey instruments using the format *wave-question*, where *wave* is represented by *B* (baseline) or *E* (endline) and *question* is simply the question on the relevant instrument.

As described in the Data section, whenever we asked the same question in both baseline and endline we use the difference as an outcome. We preserve whether variables are discrete or continuous. For indices, we standardize each component such that units in the control group have zero mean and standard deviation of one then sum and standardize again.

Table 5:

- *Share of candidates*: share of the total candidates in that district who participated in their district debate.
- *Incumbent*: indicator for whether incumbent participated in their district debate.
- *Share of challengers*: share of the predicted challengers in that district (see Appendix A.1) who participated in their district debate.
- *Share of other candidates*: share of non-predicted challengers in that district (see Appendix A.1) who participated in their district debate.

¹⁹Broadly we aggregated hypotheses from ‘Debate exposure and knowledge about candidates’ and ‘Beliefs about candidates’ into the results on voter response; hypotheses from ‘Preferences and voting behavior’ into the results on voting outcomes; ‘Media consumption, attitudes, and institutions’ and ‘Debate exposure and knowledge about candidates’ into the results on voter response.

Table 6:

- Panel 1:
 - *Main effect*: indicator for whether a respondent named a specific predicted leading candidate as their vote choice at endline (E-Q45).
 - *Interaction: Performance*: measure of predicted debate performance of a specific predicted leading candidate, generated by flexibly estimating observed measure of debate performance and predicting out-of-sample on candidates who did not participate.
 - *Interaction: Policy alignment*: measure of preference alignment between respondent and a specific predicted leading candidate. Defined as the share of the three priority issues the respondents name in their districts at baseline (B-Q13) that are shared with the priorities of a given candidate based on aggregating citizen perceptions of that candidates' priorities at baseline (B-Q15, B-Q17, B-Q19).

- Panel 2:
 - *Main effect*: Vote share of candidate at polling station-level.
 - *Interaction: Performance*: District-level analogue of respondent-level interaction.
 - *Interaction: Policy alignment*: District-level analogue of respondent-level interaction.

Table 8:

- *Debate listening index*: standardized index of:
 - *Change in heard debate*: indicator variable for whether the respondent heard their district debate between baseline (B-Q7) and endline (E-Q14) surveys.
 - *Heard debate*: indicator variable for whether the respondent heard their district debate at endline (E-Q14).
 - *Number of times heard*: continuous variable for the number of times respondents reported hearing their district debate at endline (E-Q15).

- *Debate knowledge index*: standardized index of:
 - *Debate winner attended debate*: indicator for whether respondent's named debate winner actually attended the debate (E-Q17).
 - *Stated share of participating candidates*: continuous variable for the share of candidates in respondent's district they recall participating in debate (E-Q16).
 - *Stated share of participating leading candidate*: continuous variable for the share of leading candidates in respondent's district they recall participating in debate (E-Q39.2, E-Q39.4, E-Q39.6).

- *Policy knowledge index*: standardized index of:
 - *Manager of CSDF*: change in whether respondents switch towards correctly identifying Representatives as the primary controller of CSDF (B-Q9, E-Q9).

- *CSDF reporting requirement*: change in whether respondents correctly switch towards believing that it is a legal obligation to report CSDF allocation (B-Q10, E-Q10).
- *CSDF citizen involvement requirement*: change in whether respondents correctly switch towards believing that it is a legal obligation to involve citizens in CSDF allocation decisions (B-Q11, E-Q11).
- *Political information demand index*: standardized index of:
 - *Change in radio listening*: Respondents’ change in listening to radio between baseline (B-Q6, E-Q6).
 - *Demand for non-radio information sources*: How frequently respondents sought political information from non-radio sources such as newspapers, television and the internet (E-Q7).
 - *Change in political discussion with friends*: Change in how frequently respondents discussed political issues with friends, family, neighbors and other members of the community (B-Q8, E-Q8).

Table 9:

- *Certainty about competence*: standardized change in how sure respondents were about the competence of specific predicted leading candidates between baseline (B-Q22, B-Q24, B-Q26) and endline (E-Q34, E-Q36, E-Q38).
- *Certainty about issues*: standardized change in how sure respondents were about the priority issues of specific predicted leading candidates between baseline (B-Q16, B-Q18, B-Q20) and endline (E-Q28, E-Q30, E-Q32).
- *Beliefs about competence*: standardized change in how competent respondents believe specific predicted leading candidates were between baseline (B-Q21, B-Q23, B-Q25) and endline (E-Q33, E-Q35, E-Q37).
- *Learning about policy*: standardized change in the share of candidate priority issues that citizens name between baseline (B-Q15, B-Q17, B-Q19) and endline (E-27, E-29, E-31). We define candidate priorities using the aggregate of citizen beliefs over a given candidate’s priorities measured in the baseline survey.

Table 10:

- *Ground*: standardized index of:
 - Whether candidate distributed leaflets or posters in respondent’s community (E-Q41.1, E-Q41.2, E-Q41.3).
 - Whether candidate made campaign visits to respondent’s community (E-Q41.1, E-Q41.2, E-Q41.3).
 - How frequently other people in their community voted for a given candidate in exchange for money, food or other gifts (E-Q40.1, E-Q40.2, E-Q40.3).
- *Radio*: standardized measure how frequently respondents heard candidates on the radio in the two weeks before the election (E-Q39.1, E-Q39.3, E-Q39.5).

A.6 Tables

Descriptive statistics

A1. Descriptive statistics

	Mean	SD	Min	Max
A. District-level variables ($n = 73$)				
Scheduled debate week	4.18	1.39	1.00	8.00
Number of debates in district	2.08	0.66	1.00	4.00
Number of candidates (2017)	13.55	4.81	3.00	28.00
Incumbent ran in election (2017)	0.84	0.37	0.00	1.00
Share of repeat candidates (2017)	0.26	0.11	0.06	0.53
Log registered voters (2017)	10.23	0.40	9.27	11.06
1st voteshare (2011)	0.31	0.13	0.12	0.82
2nd voteshare (2011)	0.18	0.05	0.10	0.36
3rd voteshare (2011)	0.13	0.03	0.05	0.25
Voteshare HHI (2011)	0.19	0.11	0.07	0.69
Turnout (2011)	0.66	0.05	0.56	0.75
Log population density (2008)	-9.51	1.76	-11.91	-5.21
Share over 18 (2008)	0.48	0.02	0.43	0.54
Share with secondary education (2008)	0.15	0.05	0.04	0.28
Share with GSM coverage (2015)	0.71	0.30	0.01	1.00
Share owns a radio (2016)	0.74	0.12	0.38	1.00
Share gets radio news often (2016)	0.76	0.12	0.50	1.00
Avg. N radio stations covering each town (2016)	10.98	7.60	0.00	23.36
B. Individual-level variables ($n = 4060$)				
Male	0.75	0.43	0.00	1.00
Age	31.73	9.27	18.00	99.00
Highest education: primary school	0.07	0.26	0.00	1.00
Highest education: secondary school	0.29	0.46	0.00	1.00
Highest education: university	0.14	0.34	0.00	1.00
C. Polling station-level variables ($n = 5386$)				
Number of registered voters in PS (2017)	405.12	74.87	12.00	505.00
Number of PS in VRC	3.57	1.89	1.00	9.00
VRC added in 2017	0.10	0.31	0.00	1.00
Number of registered voters in VRC (2011)	1422.96	770.45	45.00	3995.00
Number of PS in VRC (2011)	3.36	1.59	1.00	9.00
Turnout (2011)	0.63	0.09	0.14	1.01
Share of invalid votes (2011)	0.07	0.03	0.00	0.35
PS covered by partner radio station	0.85	0.36	0.00	1.00
1/N radio stations covering PS	0.05	0.03	0.00	0.11
Urban PS	0.33	0.47	0.00	1.00

Table presents descriptive statistics relating to all control variables used in the regression analyses. *Sources:* **District-level variables:** Debate variables from Internews. All 2017 and 2011 variables come from National Elections Commission (NEC). All 2008 variables come from 2008 Population and Housing Census. 'Share with GSM coverage' comes from Collins Mobile Coverage Explorer. 'Share owns a radio' and 'Share gets radio news often' come from Afrobarometer. 'Avg. N radio stations covering each town' comes from Internews. **Individual-level variables:** All come from researchers' panel survey. **Polling station-level variables:** Radio station variables come from Internews. All other variables come from NEC. 90% of polling stations were in locations where a polling place (Voter Registration Center, VRC) existed in 2011. For new polling stations we assign district-level averages.

A2. Descriptive statistics (respondent level outcomes)

	Mean	SD	Min	Max
Table 5				
Share of candidates attended debate	0.59	0.22	0.11	1.00
Incumbent attended debate	0.35	0.48	0.00	1.00
Share of challengers attended debate	0.60	0.37	0.00	1.00
Table 8				
Heard debate between baseline and endline	0.09	0.29	0.00	1.00
Heard debate at endline	0.21	0.41	0.00	1.00
Number of times heard debate	0.46	1.06	0.00	24.00
Debate winner attended debate	0.32	0.47	0.00	1.00
Stated share of participating candidates	0.12	0.29	0.00	2.53
Stated incumbent debate participation	0.16	0.34	0.00	1.00
Switches to correct CSDF controller	0.25	0.43	0.00	1.00
Switches to correct requirement for CSDF reporting	0.25	0.43	0.00	1.00
Switches to correct requirement for CSDF citizen engagement	0.25	0.43	0.00	1.00
Change in radio listening	0.26	2.17	-6.00	6.00
Demand for non-radio information sources	5.01	2.15	0.00	7.00
Change in political discussion with friends	-0.07	2.30	-6.00	6.00

Table presents descriptive statistics relating to all unstandardized, disaggregated outcomes variables used in the respondent-level regressions as outcome variables.

A3. Descriptive statistics (respondent-candidate level outcomes)

	Incumbent				Challengers			
	Mean	SD	Min	Max	Mean	SD	Min	Max
Table 6								
Switches to voting for candidate	0.16	0.51	-1.00	1.00	0.09	0.37	-1.00	1.00
Measure of debate performance	0.27	0.18	0.00	0.70	0.12	0.15	0.00	0.83
Measure of policy match	0.42	0.27	0.00	1.00	0.42	0.28	0.00	1.00
Table 9								
Change in certainty of candidate competence	0.08	1.40	-4.00	4.00	0.36	1.53	-4.00	4.00
Change in certainty of candidate priority issues	-0.03	1.63	-4.00	4.00	-0.02	1.58	-4.00	4.00
Change in assessment of candidate competence	0.28	1.44	-4.00	4.00	0.12	1.23	-4.00	4.00
Change in share of candidate priorities named	0.02	0.41	-1.00	1.00	0.03	0.42	-1.00	1.00
Table 10								
Frequency of hearing candidate on radio	2.95	1.14	0.00	5.00	2.67	1.13	0.00	5.00
Candidate distributed leaflets in locality	0.93	0.25	0.00	1.00	0.90	0.30	0.00	1.00
Candidate visited locality	0.81	0.39	0.00	1.00	0.74	0.44	0.00	1.00
Frequency of candidate vote buying	2.28	1.39	1.00	5.00	2.10	1.28	1.00	5.00
Table 6 (PS-level)								
Vote share	0.26	0.22	0.00	0.99	0.11	0.16	0.00	0.99
Measure of debate performance	0.25	0.19	0.00	0.68	0.12	0.13	0.00	0.75
Measure of policy alignment	0.43	0.09	0.16	0.59	0.43	0.09	0.00	0.64

Table presents descriptive statistics relating to all unstandardized, disaggregated outcomes variables used in the respondent-candidate level regressions as outcome variables.

Balance on pre-treatment covariates

A4. District-level balance

	VS of 1st place (2011)		VS of 1st place (2011)		VS of 3rd place (2011)	
<i>Invite</i>	-0.011 (0.024)	-0.015 (0.025)	-0.005 (0.010)	-0.008 (0.010)	-0.000 (0.007)	-0.001 (0.006)
Control Mean	0.322	0.309	0.178	0.183	0.129	0.129
	Turnout (2011)		Share ran in 2011		VS HHI (2011)	
<i>Invite</i>	-0.004 (0.009)	-0.004 (0.008)	-0.012 (0.024)	-0.019 (0.024)	-0.006 (0.020)	-0.009 (0.020)
Control Mean	0.661	0.667	0.258	0.266	0.198	0.189
	N. candidates (2017)		Incumbent ran (2017)		Number of debates	
<i>Invite</i>	-0.509 (0.833)	-0.670 (0.928)	-0.019 (0.082)	-0.052 (0.078)	-0.083 (0.126)	-0.131 (0.140)
Control Mean	13.634	14.780	0.831	0.886	2.115	2.256
	Log pop. dens. (2008)		Log reg. voters (2017)		GSM coverage (2016)	
<i>Invite</i>	0.254 (0.365)	0.160 (0.370)	0.056 (0.061)	0.060 (0.055)	0.032 (0.062)	0.005 (0.055)
Control Mean	-9.847	-9.108	10.214	10.351	0.645	0.773
	Share owns radio (2015)		Share radio news (2015)		Radio coverage (2016)	
<i>Invite</i>	-0.019 (0.025)	-0.034 (0.022)	-0.017 (0.026)	-0.038 (0.025)	-0.109 (1.347)	0.024 (1.384)
Control Mean	0.755	0.773	0.767	0.780	10.051	12.830
	Debate week		Share sec. ed. (2008)		Share 18+ (2008)	
<i>Invite</i>	0.028 (0.215)	-0.030 (0.209)	0.004 (0.010)	0.003 (0.010)	0.000 (0.004)	0.001 (0.004)
Control Mean	3.980	3.979	0.137	0.154	0.483	0.487
Observations	73	73	73	73	73	73
Weight	None	Reg	None	Reg	None	Reg

Descriptions of all variables can be found in Table A1.

All specifications are estimated using OLS and include block FE. Standard errors clustered at the district-level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

A5. Individual-level balance (district covariates)

	VS of 1st place (2011)			VS of 1st place (2011)			VS of 3rd place (2011)		
<i>Invite</i>	0.007 (0.025)	-0.009 (0.021)	-0.014 (0.021)	-0.011 (0.009)	-0.005 (0.008)	-0.008 (0.009)	-0.000 (0.007)	-0.000 (0.006)	-0.001 (0.005)
Control Mean	0.298	0.308	0.308	0.185	0.182	0.183	0.129	0.128	0.129
	Turnout (2011)			Share ran in 2011			VS HHI (2011)		
<i>Invite</i>	0.001 (0.007)	-0.004 (0.007)	-0.004 (0.007)	-0.043** (0.019)	-0.012 (0.021)	-0.019 (0.020)	0.007 (0.021)	-0.005 (0.017)	-0.007 (0.017)
Control Mean	0.665	0.659	0.667	0.275	0.270	0.266	0.181	0.189	0.188
	N. candidates (2017)			Incumbent ran (2017)			Number of debates		
<i>Invite</i>	-0.642 (0.757)	-0.549 (0.709)	-0.710 (0.795)	-0.072 (0.074)	-0.024 (0.070)	-0.057 (0.067)	-0.117 (0.108)	-0.091 (0.108)	-0.139 (0.120)
Control Mean	15.084	13.963	14.833	0.912	0.860	0.889	2.291	2.152	2.265
	Log pop. dens. (2008)			Log reg. voters (2017)			GSM coverage (2016)		
<i>Invite</i>	0.207 (0.317)	0.246 (0.312)	0.149 (0.317)	0.072 (0.052)	0.055 (0.052)	0.059 (0.047)	0.029 (0.050)	0.032 (0.053)	0.004 (0.047)
Control Mean	-8.975	-9.611	-9.096	10.342	10.215	10.354	0.795	0.695	0.774
	Share owns radio (2015)			Share radio news (2015)			Radio coverage (2016)		
<i>Invite</i>	-0.041** (0.020)	-0.020 (0.022)	-0.035* (0.019)	-0.035 (0.025)	-0.017 (0.022)	-0.039* (0.022)	-0.172 (1.222)	-0.138 (1.159)	-0.010 (1.190)
Control Mean	0.771	0.750	0.774	0.778	0.767	0.780	13.552	11.275	12.895
	Debate week			Share sec. ed. (2008)			Share 18+ (2008)		
<i>Invite</i>	-0.035 (0.193)	0.031 (0.184)	-0.026 (0.179)	0.006 (0.008)	0.004 (0.009)	0.002 (0.009)	-0.001 (0.004)	0.000 (0.004)	0.001 (0.003)
Control Mean	4.162	4.148	3.980	0.160	0.146	0.154	0.488	0.485	0.487
Observations	4061	4061	4061	4061	4061	4061	4061	4061	4061
Weight	No	1/Obs	Reg/Obs	No	1/Obs	Reg/Obs	No	1/Obs	Reg/Obs

Descriptions of all variables can be found in Table A1.

All specifications are estimated using OLS and include block FE. Standard errors clustered at the district-level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

A6. Individual-level balance (individual covariates)

	Survey date			Education		
<i>Invite</i>	-1.063** (0.523)	-0.796 (0.572)	-1.006* (0.573)	0.067 (0.086)	0.102 (0.084)	0.081 (0.075)
Control Mean	71.801	71.153	71.422	6.586	6.447	6.534
	Age			Male		
<i>Invite</i>	0.163 (0.439)	0.359 (0.464)	0.225 (0.437)	0.011 (0.015)	0.025 (0.016)	0.021 (0.016)
Control Mean	31.728	32.103	31.877	0.746	0.744	0.740
Observations	4061	4061	4061	4061	4061	4061
Weight	No	1/Obs	Reg/Obs	No	1/Obs	Reg/Obs

All specifications are estimated using OLS and include block FE. Standard errors clustered at the district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

A7. Polling station-level balance (district covariates)

	VS of 1st place (2011)			VS of 1st place (2011)			VS of 3rd place (2011)		
<i>Invite</i>	-0.015 (0.021)	-0.010 (0.021)	-0.015 (0.021)	-0.009 (0.009)	-0.005 (0.008)	-0.009 (0.009)	-0.001 (0.005)	-0.000 (0.006)	-0.001 (0.005)
Control Mean	0.308	0.309	0.309	0.183	0.184	0.184	0.129	0.129	0.129
	Turnout (2011)			Share ran in 2011			VS HHI (2011)		
<i>Invite</i>	-0.004 (0.007)	-0.004 (0.007)	-0.004 (0.007)	-0.016 (0.020)	-0.012 (0.021)	-0.018 (0.020)	-0.008 (0.017)	-0.006 (0.017)	-0.008 (0.018)
Control Mean	0.665	0.667	0.667	0.266	0.266	0.266	0.188	0.188	0.188
	N. candidates (2017)			Incumbent ran (2017)			Number of debates		
<i>Invite</i>	-0.648 (0.771)	-0.506 (0.715)	-0.677 (0.798)	-0.050 (0.067)	-0.019 (0.070)	-0.053 (0.066)	-0.124 (0.118)	-0.083 (0.109)	-0.130 (0.121)
Control Mean	14.651	14.794	14.794	0.883	0.890	0.890	2.239	2.256	2.256
	Log pop. dens. (2008)			Log reg. voters (2017)			GSM coverage (2016)		
<i>Invite</i>	0.178 (0.322)	0.255 (0.314)	0.154 (0.320)	0.062 (0.048)	0.056 (0.052)	0.060 (0.047)	0.010 (0.048)	0.032 (0.053)	0.005 (0.047)
Control Mean	-9.223	-9.097	-9.097	10.325	10.352	10.352	0.753	0.775	0.775
	Share owns radio (2015)			Share radio news (2015)			Radio coverage (2016)		
<i>Invite</i>	-0.031 (0.019)	-0.019 (0.022)	-0.033* (0.019)	-0.037* (0.021)	-0.017 (0.022)	-0.038* (0.022)	-0.001 (1.201)	-0.100 (1.157)	-0.065 (1.199)
Control Mean	0.770	0.773	0.773	0.778	0.780	0.780	12.485	12.919	12.919
	Debate week			Share sec. ed. (2008)			Share 18+ (2008)		
<i>Invite</i>	-0.041 (0.176)	0.029 (0.185)	-0.046 (0.178)	0.003 (0.009)	0.004 (0.009)	0.002 (0.009)	0.002 (0.003)	0.000 (0.004)	0.001 (0.003)
Control Mean	4.007	3.987	3.987	0.152	0.154	0.154	0.486	0.487	0.487
Observations	5383	5383	5383	5383	5383	5383	5383	5383	5383
Weight	No	1/PS	Reg	No	1/PS	Reg	No	1/PS	Reg

Descriptions of all variables can be found in Table A1.

All specifications are estimated using OLS and include block FE. Standard errors clustered at the district-level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

A8. Polling station-level balance (PS covariates)

	N. PS in VRC (2017)			N. PS in VRC (2011)		
<i>Invite</i>	-0.099 (0.247)	0.008 (0.226)	-0.121 (0.249)	-0.114 (0.185)	-0.011 (0.183)	-0.142 (0.186)
Control Mean	3.605	3.807	3.807	3.399	3.571	3.571
	New VRC			Urban		
<i>Invite</i>	-0.014 (0.014)	-0.008 (0.016)	-0.015 (0.013)	0.067 (0.058)	0.079 (0.056)	0.063 (0.059)
Control Mean	0.111	0.101	0.101	0.299	0.326	0.326
	Reg. Voters (2017)			Reg. Voters (2011)		
<i>Invite</i>	2.247 (6.170)	4.668 (6.416)	0.686 (4.775)	-53.204 (90.770)	0.239 (89.758)	-67.706 (90.943)
Control Mean	403.792	418.480	418.480	1439.977	1526.086	1526.086
	Turnout (2011)			Invalid votes (2011)		
<i>Invite</i>	0.014 (0.009)	0.011 (0.009)	0.015* (0.009)	0.002 (0.003)	0.004 (0.003)	0.002 (0.003)
Control Mean	0.620	0.620	0.620	0.066	0.066	0.066
	Radio covered			Radio intensity		
<i>Invite</i>	-0.016 (0.054)	0.012 (0.052)	-0.025 (0.054)	0.001 (0.004)	0.003 (0.004)	-0.000 (0.004)
Control Mean	0.848	0.858	0.858	0.046	0.045	0.045
Observations	5383	5383	5383	5383	5383	5383
Weight	No	1/PS	Reg	No	1/PS	Reg

Descriptions of all variables can be found in Table A1. Analysis throughout is at the polling station-level, where multiple polling stations exist within a single location called a VRC. 1780/2080 VRCs existed in the 2011 election; for these 300 new VRCs we assign district-level averages.

All specifications are estimated using OLS and include block FE. Standard errors clustered at the district-level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

A9. Incumbent balance

	Attendance		Absent		Distant	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Invite</i>	0.034 (0.032)	0.019 (0.030)	-0.003 (0.020)	0.013 (0.024)	-0.025 (0.028)	-0.023 (0.024)
Mean	0.791	0.807	0.117	0.114	0.079	0.066
Observations	73	73	73	73	73	73
Weight	None	Reg	None	Reg	None	Reg

Outcome variables are plenary session attendance measures taken from legislator scorecards for 2016. Legislators either attend, are absent, or are away from Monrovia for each plenary session.

All specifications are estimated using OLS and include block FE. Standard errors clustered at the district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

A10. Candidate-level balance

	Response (1)	Age (2)	Univ. ed. (3)	Radio (4)	Male (5)	Ran before (6)	Gov job (7)	Advocacy (8)	NGO (9)
A. All candidates									
<i>Invite</i>	-0.028 (0.031)	-0.379 (1.064)	0.012 (0.049)	0.020 (0.013)	0.009 (0.027)	-0.024 (0.032)	-0.028 (0.030)	0.064 (0.025)	0.065 (0.036)
Control Mean	0.63	48.48	0.55	0.03	0.85	0.30	0.34	0.83	0.38
Observations	984	608	612	612	612	612	612	612	612
B. Incumbents									
<i>Invite</i>	0.139 (0.131)	2.394 (4.085)	0.061 (0.210)	-0.030 (0.200)	0.121 (0.174)	0.000 (.)	-0.394 (0.212)	-0.121 (0.174)	0.061 (0.255)
Control Mean	0.42	55.31	0.69	0.15	0.77	1.00	0.69	0.92	0.23
Observations	64	31	31	31	31	31	31	31	31
C. Challengers									
<i>Invite</i>	0.010 (0.083)	3.875 (1.655)	-0.005 (0.106)	-0.002 (0.052)	0.027 (0.067)	0.134 (0.102)	0.036 (0.086)	0.155 (0.065)	0.175 (0.103)
Control Mean	0.64	47.31	0.65	0.06	0.90	0.35	0.31	0.81	0.29
Observations	155	99	102	102	102	102	102	102	102

Panel A presents unweighted balance tests for the full set of candidates in survey, Panel B restricts to incumbent candidates, Panel C restricts to predicted challenger candidates. Outcome variables are: response rate to survey; age in years; indicator for whether candidate completed university; indicator for whether they own or manage a radio station; indicator for candidate being male; indicator for candidate having run for office before; indicator for candidate having a government job before; indicator for candidate having advocacy experience; indicator for candidate working for an NGO before.

All specifications are estimated using OLS and include block FE. Standard errors clustered at the district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

A11. Candidate-level balance (weighted)

	Response (1)	Age (2)	Univ ed (3)	Radio (4)	Male (5)	Ran before (6)	Gov job (7)	Advocacy (8)	NGO (9)
A. All candidates									
<i>Invite</i>	-0.045 (0.033)	-0.171 (0.899)	-0.013 (0.056)	0.030 (0.017)	0.025 (0.031)	-0.031 (0.036)	-0.018 (0.039)	0.043 (0.027)	0.057 (0.037)
Mean	0.63	48.48	0.55	0.03	0.85	0.30	0.34	0.83	0.38
Observations	984	608	612	612	612	612	612	612	612
B. Challengers									
<i>Invite</i>	-0.037 (0.064)	4.918 (1.815)	0.042 (0.105)	0.008 (0.064)	0.008 (0.068)	0.153 (0.106)	0.054 (0.094)	0.144 (0.068)	0.165 (0.101)
Mean	0.78	47.31	0.65	0.06	0.90	0.35	0.31	0.81	0.29
Observations	155	99	102	102	102	102	102	102	102

In this table we weight observations by the inverse of the number of responding candidate types in a given district. Since there is one incumbent per district, for incumbents this would be identical to Panel B of Table A10 and thus we omit it. Panel A presents balance tests for the full set of candidates in survey, Panel B restricts predicted challenger candidates. Outcome variables are: response rate to survey; age in years; indicator for whether candidate completed university; indicator for whether they own or manage a radio station; indicator for candidate being male; indicator for candidate having run for office before; indicator for candidate having a government job before; indicator for candidate having advocacy experience; indicator for candidate working for an NGO before.

All specifications are estimated using OLS and include block FE. Standard errors clustered at the district-level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Demography-weighted specifications

A12. Candidate debate participation (demography-weighted)

	(1)	(2)
A. Share of candidates		
<i>Invite</i>	0.077** (0.034)	0.077** (0.033)
Control Mean	0.542	0.557
Observations	4060	4060
Weight	No	Dem
B. Incumbent		
<i>Invite</i>	0.212** (0.083)	0.213** (0.082)
Control Mean	0.280	0.299
Observations	4060	4060
Weight	No	Dem
C. Share of challengers		
<i>Invite</i>	0.212*** (0.074)	0.214*** (0.073)
Control Mean	0.492	0.528
Observations	4060	4060
Weight	No	Dem
D. Share of other candidates		
<i>Invite</i>	0.003 (0.030)	0.002 (0.029)
Control Mean	0.562	0.575
Observations	3991	3991
Weight	No	Dem

Outcome variables are the share of the respective set of candidates (winner, actual challenger) who attended a debate out of all candidates in that district. Actual challengers are defined as candidates who ranked in the top three in their race in the election but were not the incumbent. Actual other candidates are those who did not rank in the top three. Panels A and B have 4060 observations; Panel C has fewer due to only three candidates running in two districts (and hence no ‘actual other candidates’ defined).

Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: ‘Dem’ weights observations to be representative at the district-level with respect to gender and education. Standard errors clustered at district-level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

A13. Voting outcomes (demography-weighted)

1. Respondent-level	Main effect		Interaction term:			
	(1)	(2)	Std. Performance	(4)	Std. Policy alignment	(6)
A. Incumbent						
<i>Invite</i>	0.045**	0.042*	0.049**	0.046**	0.041**	0.038*
	(0.020)	(0.022)	(0.020)	(0.023)	(0.019)	(0.022)
<i>Invite</i> × Std. performance			0.067*	0.063		
			(0.038)	(0.040)		
<i>Invite</i> × Std. policy alignment					0.042***	0.051**
					(0.016)	(0.021)
Control Mean	0.278	0.278	0.278	0.278	0.278	0.278
Observations	3496	3496	3496	3496	3496	3496
B. Challengers						
<i>Invite</i>	-0.048***	-0.052***	-0.051***	-0.056***	-0.048***	-0.052***
	(0.014)	(0.016)	(0.017)	(0.019)	(0.014)	(0.016)
<i>Invite</i> × Std. performance			-0.015	-0.026		
			(0.046)	(0.051)		
<i>Invite</i> × Std. policy alignment					-0.006	-0.004
					(0.007)	(0.008)
Control Mean	0.156	0.160	0.156	0.160	0.156	0.160
Observations	8684	8684	8684	8684	8684	8684
Weight	No	Dem	No	Dem	No	Dem

Panel 1: Outcome variable is an indicator for whether respondent expressed voting for the leading candidate at endline. Columns 1-3 report the main effects, Columns 4-6 include interactions of treatment assignment with standardized candidate-level measures of predicted debate performance, and Columns 7-9 include interactions with standardized respondent-candidate-level measures of preference alignment measured at baseline. Data section explains these interaction terms further.

Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: 'Dem' weights observations to be representative at the district-level with respect to gender and education. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

A14. Debate exposure (demography-weighted)

	(1)	(2)
A. Debate listening index		
<i>Invite</i>	0.304***	0.294**
	(0.102)	(0.113)
Observations	4060	4060
Weight	No	Dem
B. Debate knowledge index		
<i>Invite</i>	0.125**	0.120**
	(0.063)	(0.056)
Observations	4060	4060
Weight	No	Dem
C. Policy knowledge index		
<i>Invite</i>	0.156*	0.110
	(0.089)	(0.098)
Observations	4060	4060
Weight	No	Dem
D. Political information acquisition		
<i>Invite</i>	0.251***	0.230**
	(0.078)	(0.114)
Observations	4060	4060
Weight	No	Dem

Outcome variables: Panel A: a standardized index of (1) indicator for whether the respondent had not heard their district debate at baseline but had at endline (2) indicator for whether the respondent had heard the debate at endline (3) the number of times the respondent had heard the debate at endline. Panel B: a standardized index of (1) indicator for whether the respondent's stated debate winner actually attended the debate (2) share of candidates respondent claims participated (3) share of predicted leading candidates respondent claims participated. Panel C: a standardized index of the change in how many factual questions about CSDF management respondents answered correctly between baseline and endline. Panel D: a standardized index of (1) change in how much respondents listened to the radio (2) change in how much they discussed politics with their friends (3) how much they accessed other sources of political information.

Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: 'Dem' weights observations to be representative at the district-level with respect to gender and education. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

A15. Updating about candidates (demography-weighted)

	Certainty about competence		Certainty about policy	
1. Uncertainty	(1)	(2)	(3)	(4)
A. Incumbent				
<i>Invite</i>	0.178*	0.162	0.169**	0.211***
	(0.105)	(0.107)	(0.074)	(0.078)
Observations	3496	3496	3496	3496
Weight	No	Dem	No	Dem
B. Challengers				
<i>Invite</i>	0.037	0.047	0.139**	0.072
	(0.066)	(0.078)	(0.061)	(0.070)
Observations	8684	8684	8684	8684
Weight	No	Dem	No	Dem
	Beliefs about competence		Learning about policy	
2. Levels	(1)	(2)	(3)	(4)
A. Incumbent				
<i>Invite</i>	0.098	0.134	0.089	0.054
	(0.075)	(0.099)	(0.065)	(0.067)
Observations	3496	3496	3496	3496
Weight	No	Dem	No	Dem
B. Challengers				
<i>Invite</i>	-0.078	-0.055	0.038	0.012
	(0.075)	(0.083)	(0.065)	(0.084)
Observations	8684	8684	8684	8684
Weight	No	Dem	No	Dem

Panels 1.A and 1.B: the outcome variable in columns 1-3 is the standardized change in certainty respondents express about candidate competence between baseline and endline, and in columns 4-6 is the standardized change in certainty respondents express about candidate priority issues between baseline and endline. Panels 2.A and 2.B: the outcome variable in columns 1-3 is the standardized change in respondent perception about candidate competence between baseline and endline, and in columns 4-6 is the standardized learning that respondents reflect about candidate priority issues between baseline and endline.

Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: 'Dem' weights observations to be representative at the district-level with respect to gender and education. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

A16. Candidate campaigning (demography-weighted)

	Ground		Radio	
	(1)	(2)	(3)	(4)
A. Incumbent				
<i>Invite</i>	-0.055 (0.043)	-0.106** (0.044)	0.082** (0.037)	0.083** (0.038)
Observations	3492	3492	3496	3496
Weight	No	Dem	No	Dem
B. Challengers				
<i>Invite</i>	-0.060* (0.031)	-0.089*** (0.032)	-0.025 (0.028)	0.003 (0.032)
Observations	8676	8676	8684	8684
Weight	No	Dem	No	Dem

Outcome variable in columns 1-3 is a standardized index of how often candidates (1) visited (2) distributed leaflets (3) bought votes in respondents' communities during campaigning. Outcome variable in columns 4-6 is a standardized measure of how often respondents heard candidates on the radio in the two weeks before the election. Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: 'Dem' weights observations to be representative at the district-level with respect to gender and education. Standard errors clustered at district-level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Effects on individual outcomes

A17. Debate exposure (supplementary)

	(1)	(2)	(3)
A. Debate listening index			
(1) Change in heard debate			
<i>Invite</i>	0.080*** (0.029)	0.080*** (0.026)	0.102*** (0.027)
Control Mean	0.084	0.082	0.082
(2) Heard debate			
<i>Invite</i>	0.038* (0.022)	0.035* (0.020)	0.050** (0.021)
Control Mean	0.195	0.202	0.193
(3) Number of times heard			
<i>Invite</i>	0.085* (0.045)	0.104** (0.046)	0.120*** (0.045)
Control Mean	0.420	0.440	0.420
B. Debate knowledge index			
(1) Debate winner attended debate			
<i>Invite</i>	0.075** (0.031)	0.078*** (0.029)	0.096*** (0.029)
Control Mean	0.291	0.297	0.283
(2) Stated share of participating candidates			
<i>Invite</i>	0.023 (0.015)	0.024 (0.015)	0.031** (0.014)
Control Mean	0.111	0.115	0.111
(3) Stated share of participating leading candidates			
<i>Invite</i>	0.030* (0.017)	0.026* (0.016)	0.039** (0.016)
Control Mean	0.145	0.153	0.148
C. Policy knowledge index			
(1) Manager of CSDF			
<i>Invite</i>	0.041 (0.029)	0.053 (0.038)	0.044 (0.032)
Control Mean	0.237	0.231	0.243
(2) CSDF reporting requirement			
<i>Invite</i>	-0.011 (0.032)	0.018 (0.035)	-0.008 (0.033)
Control Mean	0.247	0.249	0.247
(3) CSDF citizen involvement requirement			
<i>Invite</i>	0.094** (0.040)	0.113** (0.051)	0.114** (0.045)
Control Mean	0.246	0.246	0.244
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs
D. Political information demand index			
(1) Change in radio listening			
<i>Invite</i>	0.285** (0.134)	0.451*** (0.164)	0.370** (0.160)
Control Mean	0.233	0.213	0.232
(2) Demand for non-radio information sources			
<i>Invite</i>	0.143* (0.075)	0.168* (0.085)	0.179** (0.083)
Control Mean	4.970	4.800	4.932
(3) Change in political discussion with friends			
<i>Invite</i>	0.510*** (0.189)	0.516** (0.226)	0.491** (0.193)
Control Mean	-0.124	-0.106	-0.117

All outcome variables are described in Section A.5. Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: 'Obs': number of observations in that district; 'Reg': number of registered voters in that district. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

A18. Candidate campaigning (supplementary)

	(1)	(2)	(3)
A. Incumbent			
(1) Candidate visited community			
<i>Invite</i>	-0.041** (0.016)	-0.050** (0.023)	-0.048** (0.021)
Control Mean	0.823	0.824	0.820
(2) Candidate distributed leaflets			
<i>Invite</i>	-0.014 (0.009)	-0.013 (0.013)	-0.014 (0.011)
Control Mean	0.935	0.933	0.932
(3) Vote buying for candidate			
<i>Invite</i>	0.008 (0.053)	0.056 (0.052)	0.073 (0.050)
Control Mean	2.258	2.223	2.231
Observations	3493	3493	3493
B. Challenger			
(1) Candidate visited community			
<i>Invite</i>	-0.036*** (0.012)	-0.029** (0.011)	-0.036*** (0.012)
Control Mean	0.756	0.753	0.753
(2) Candidate distributed leaflets			
<i>Invite</i>	-0.021*** (0.007)	-0.019** (0.008)	-0.022** (0.008)
Control Mean	0.905	0.908	0.907
(3) Vote buying for candidate			
<i>Invite</i>	-0.014 (0.037)	-0.030 (0.041)	-0.007 (0.040)
Control Mean	2.109	2.145	2.132
Observations	8678	8678	8678
Weight	No	1/Obs	Reg/Obs

All outcome variables are described in Section A.5. Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: 'Obs': number of observations in that district; 'Reg': number of registered voters in that district. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

Other tables

A19. Candidate debate participation (supplementary)

	(1)	(2)	
A. Election winner			
<i>Invite</i>	0.253** (0.097)	0.202** (0.089)	0.275*** (0.093)
Control Mean	0.501	0.520	0.474
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs
B. Share of actual challengers			
<i>Invite</i>	0.267*** (0.068)	0.176** (0.068)	0.237*** (0.068)
Control Mean	0.488	0.572	0.525
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs
C. Share of actual other candidates			
<i>Invite</i>	0.018 (0.039)	0.029 (0.037)	0.036 (0.038)
Control Mean	0.563	0.584	0.584
Observations	3991	3991	3991
Weight	No	1/Obs	Reg/Obs

Outcome variables are the share of the respective set of candidates (winner, actual challenger) who attended a debate out of all candidates in that district. Actual challengers are defined as candidates who ranked in the top three in their race in the election but were not the incumbent. Actual other candidates are those who did not rank in the top three. Panels A and B have 4060 observations; Panel C has fewer due to only three candidates running in two districts (and hence no ‘actual other candidates’ defined).

Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: ‘Obs’: number of observations in that district; ‘Reg’: number of registered voters in that district. Standard errors clustered at district-level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

A20. Candidate debate participation
(district-level)

	(1)	(2)
A. Share of candidates		
<i>Invite</i>	0.087 (0.056)	0.111* (0.056)
Control Mean	0.572	0.557
Observations	73	73
Weight	No	Reg
B. Incumbent		
<i>Invite</i>	0.275** (0.127)	0.312** (0.127)
Control Mean	0.371	0.300
Observations	73	73
Weight	No	Reg
C. Share of challengers		
<i>Invite</i>	0.164 (0.122)	0.233* (0.117)
Control Mean	0.552	0.528
Observations	73	73
Weight	No	Reg
D. Share of other candidates		
<i>Invite</i>	0.014 (0.055)	0.011 (0.056)
Control Mean	0.583	0.575
Observations	71	71
Weight	No	Reg

Outcome variables are the share of the respective set of candidates (all, incumbent, predicted challenger, other candidate) who attended a debate out of all candidates in that district. Panels A-C have 73 observations; Panel D has fewer due to only three candidates running in two districts (and hence no 'other candidates' defined). For weighted specifications, 'Reg' is the number of registered voters in that district.

All specifications are estimated using OLS and include block FE. Standard errors clustered at the district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

A21. Debate rebroadcasting

	(1)	(2)	(3)
A. Radio monitors			
<i>Invite</i>	0.387 (0.998)	-0.700 (0.860)	-0.206 (0.974)
Control Mean	5.230	5.618	5.466
B. Radio survey			
<i>Invite</i>	1.055 (1.044)	0.326 (0.906)	0.746 (0.954)
Control Mean	7.473	7.702	7.698
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs

Outcome variables are, in Panel A, the number of contracted rebroadcasts confirmed by radio monitors and, in panel B, Number of rebroadcasts based on survey of radio stations, including those not contracted to rebroadcast but recorded as being present in the debate venue.

Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: 'Obs': number of observations in that district; 'Reg': number of registered voters in that district. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

A22. Rebroadcasting intervention

	(1)	(2)	(3)
A. Full sample			
<i>Rebroadcast</i>	0.177 (0.112)	0.139 (0.108)	0.178 (0.126)
Observations	4060	4060	4060
Weight	No (1)	1/Obs (2)	Reg/Obs (3)
B. Respondents in intensive-invite districts			
<i>Rebroadcast</i>	-0.025 (0.186)	-0.026 (0.157)	0.026 (0.191)
Observations	2252	2252	2252
Weight	No	1/Obs	Reg/Obs

Outcome variable is our standardized index of debate exposure. In Panel A, we show no overall effects on debate exposure. In Panel B, we show no effects on debate exposure if we restrict to respondents in those districts assigned to high invitation intensity.

Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: ‘Obs’: number of observations in that district; ‘Reg’: number of registered voters in that district. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

A23. Effects on coordination and political engagement

	(1)	(2)	(3)
A. Debate coordination index			
(1) Discussed debate with friends			
<i>Invite</i>	0.207** (0.102)	0.222** (0.095)	0.275*** (0.095)
Control Mean	0.936	0.953	0.908
(2) Discussion led to coordination			
<i>Invite</i>	0.282** (0.107)	0.285*** (0.101)	0.343*** (0.103)
Control Mean	0.956	0.974	0.928
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs

Outcome variables: Panel A: how much respondents discussed the debate with friends; how much this discussion led to coordinating their vote choices.

Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: ‘Obs’: number of observations in that district; ‘Reg’: number of registered voters in that district. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

Tables with control coefficients

A24. Candidate debate participation (Table 5)

	(1)	(2)	(3)
A. Share of candidates			
<i>Invite</i>	0.077** (0.034)	0.065** (0.030)	0.092*** (0.033)
Scheduled debate week	-0.057** (0.027)	-0.075*** (0.022)	-0.046* (0.026)
Number of candidates (2017)	-0.009 (0.014)	-0.000 (0.012)	-0.007 (0.013)
Incumbent ran in election (2017)	0.098* (0.051)	0.135*** (0.047)	0.131** (0.055)
Log registered voters (2017)	-0.178** (0.079)	-0.163** (0.071)	-0.181** (0.075)
Number of debates in district	-0.005 (0.075)	-0.008 (0.065)	-0.003 (0.067)
1st voteshare (2011)	-0.352 (0.662)	-0.166 (0.507)	-0.392 (0.589)
2nd voteshare (2011)	-1.158* (0.583)	-0.530 (0.523)	-0.892 (0.598)
3rd voteshare (2011)	1.679** (0.726)	1.859** (0.740)	1.287 (0.826)
Voteshare HHI (2011)	0.738 (0.846)	0.201 (0.657)	0.608 (0.787)
Turnout (2011)	1.920** (0.866)	2.650*** (0.801)	2.930*** (0.848)
Share of repeat candidates (2017)	-0.591*** (0.193)	-0.672*** (0.193)	-0.737*** (0.198)
Log population density (2008)	-0.057** (0.026)	-0.058** (0.026)	-0.065** (0.026)
Share with GSM coverage (2015)	0.426*** (0.109)	0.432*** (0.097)	0.378*** (0.107)
Share owns a radio (2016)	0.981*** (0.265)	0.708*** (0.205)	0.906*** (0.245)
Share gets radio news often (2016)	-0.680*** (0.222)	-0.485** (0.206)	-0.618*** (0.219)
Share over 18 (2008)	2.534 (1.562)	3.128** (1.272)	2.354 (1.472)
Share with secondary education (2008)	-0.117 (0.644)	0.071 (0.578)	0.142 (0.623)
Avg. N radio stations covering each town (2016)	-0.003 (0.006)	-0.010* (0.006)	-0.006 (0.006)
Control Mean	0.542	0.573	0.557
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs
B. Incumbent			
<i>Invite</i>	0.212** (0.083)	0.177** (0.073)	0.234*** (0.083)
Scheduled debate week	-0.323*** (0.075)	-0.316*** (0.073)	-0.272*** (0.079)
Number of candidates (2017)	0.014 (0.029)	0.044* (0.026)	0.038 (0.027)
Incumbent ran in election (2017)	0.280** (0.119)	0.318*** (0.115)	0.317** (0.123)
Log registered voters (2017)	-0.676** (0.295)	-0.321 (0.245)	-0.551* (0.291)
Number of debates in district	0.002 (0.168)	-0.175 (0.146)	-0.112 (0.147)
1st voteshare (2011)	-1.228 (1.535)	-0.205 (1.353)	-0.644 (1.372)
2nd voteshare (2011)	-0.122 (1.835)	1.800 (1.716)	-0.190 (1.751)
3rd voteshare (2011)	1.275 (2.130)	0.834 (1.859)	1.650 (2.043)
Voteshare HHI (2011)	2.105 (1.876)	0.564 (1.633)	1.356 (1.698)
Turnout (2011)	-3.065 (2.306)	-2.152 (1.928)	-0.960 (1.960)
Share of repeat candidates (2017)	0.434 (0.541)	0.721 (0.522)	0.676 (0.556)
Log population density (2008)	0.019 (0.078)	-0.029 (0.064)	-0.021 (0.063)
Share with GSM coverage (2015)	-0.726** (0.355)	-0.715** (0.301)	-0.824** (0.315)
Share owns a radio (2016)	0.256 (0.611)	0.158 (0.580)	0.452 (0.573)
Share gets radio news often (2016)	-1.160** (0.509)	-1.069** (0.513)	-1.074** (0.497)
Share over 18 (2008)	-9.140** (4.198)	-9.559*** (3.519)	-10.652*** (3.693)
Share with secondary education (2008)	3.223** (1.542)	2.989** (1.340)	3.483** (1.472)
Avg. N radio stations covering each town (2016)	0.018 (0.014)	0.006 (0.013)	0.012 (0.013)
Control Mean	0.280	0.372	0.299
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs
C. Share of challengers			
<i>Invite</i>	0.212*** (0.074)	0.144** (0.063)	0.220*** (0.067)
Scheduled debate week	-0.048 (0.051)	-0.087* (0.046)	-0.059 (0.046)
Number of candidates (2017)	-0.036 (0.024)	-0.024 (0.022)	-0.042* (0.023)
Incumbent ran in election (2017)	0.198** (0.096)	0.213** (0.091)	0.218** (0.097)
Log registered voters (2017)	-0.373* (0.203)	-0.331* (0.197)	-0.420** (0.200)
Number of debates in district	0.136 (0.138)	0.106 (0.131)	0.156 (0.129)
1st voteshare (2011)	2.613** (1.219)	2.796** (1.108)	2.776** (1.189)
2nd voteshare (2011)	0.027 (0.998)	0.546 (1.006)	-0.081 (1.032)
3rd voteshare (2011)	2.602* (1.351)	3.116** (1.314)	2.456 (1.487)
Voteshare HHI (2011)	-3.214** (1.424)	-3.482*** (1.290)	-3.381** (1.431)
Turnout (2011)	5.441*** (1.670)	4.423*** (1.530)	5.699*** (1.545)
Share of repeat candidates (2017)	-0.985** (0.432)	-1.228*** (0.397)	-1.198*** (0.412)
Log population density (2008)	-0.137** (0.054)	-0.111** (0.052)	-0.169*** (0.054)
Share with GSM coverage (2015)	0.749*** (0.222)	0.888*** (0.201)	0.883*** (0.208)
Share owns a radio (2016)	1.665*** (0.610)	1.404*** (0.524)	1.698*** (0.587)
Share gets radio news often (2016)	-0.587 (0.512)	-0.647 (0.445)	-0.717 (0.485)
Share over 18 (2008)	8.293*** (2.924)	9.844*** (2.413)	9.475*** (2.631)
Share with secondary education (2008)	1.180 (1.320)	0.406 (1.255)	1.602 (1.172)
Avg. N radio stations covering each town (2016)	-0.022* (0.013)	-0.027** (0.012)	-0.020 (0.013)
Control Mean	0.492	0.554	0.528
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs
D. Share of other candidates			
<i>Invite</i>	0.003 (0.030)	0.008 (0.028)	0.009 (0.029)
Scheduled debate week	0.015 (0.030)	-0.010 (0.028)	0.032 (0.029)
Number of candidates (2017)	-0.022** (0.011)	-0.014 (0.011)	-0.021* (0.011)
Incumbent ran in election (2017)	0.017 (0.048)	0.061 (0.046)	0.049 (0.049)
Log registered voters (2017)	-0.108 (0.097)	-0.123 (0.086)	-0.112 (0.095)
Number of debates in district	-0.021 (0.058)	-0.008 (0.056)	-0.008 (0.052)
1st voteshare (2011)	-1.888*** (0.587)	-1.595*** (0.509)	-1.974*** (0.529)
2nd voteshare (2011)	-2.470*** (0.516)	-1.936*** (0.507)	-2.282*** (0.513)
3rd voteshare (2011)	1.005 (0.685)	1.341* (0.718)	0.616 (0.787)
Voteshare HHI (2011)	2.897*** (0.758)	2.205*** (0.682)	2.845*** (0.713)
Turnout (2011)	1.639* (0.871)	2.641*** (0.733)	2.766*** (0.790)
Share of repeat candidates (2017)	-0.455** (0.189)	-0.557*** (0.203)	-0.657*** (0.209)
Log population density (2008)	-0.035 (0.029)	-0.038 (0.028)	-0.035 (0.027)
Share with GSM coverage (2015)	0.466*** (0.113)	0.414*** (0.106)	0.375*** (0.119)
Share owns a radio (2016)	0.914*** (0.215)	0.646*** (0.185)	0.807*** (0.206)
Share gets radio news often (2016)	-0.606*** (0.205)	-0.382* (0.204)	-0.583*** (0.205)
Share over 18 (2008)	1.930 (1.412)	2.261* (1.262)	1.874 (1.372)
Share with secondary education (2008)	-0.833 (0.785)	-0.297 (0.657)	-0.572 (0.698)
Avg. N radio stations covering each town (2016)	0.0632 (0.006)	-0.002 (0.005)	0.003 (0.006)
Control Mean	0.562	0.583	0.575
Observations	3991	3991	3991
Weight	No	1/Obs	Reg/Obs

Outcomes: share of candidate types (all, incumbent, predicted challenger, other candidate) who attended a debate out of all candidates in that district. Panel D has fewer observations due to only three candidates running in two districts (and hence no 'other candidates' defined).

Specifications estimated using OLS including block FE, enumerator FE, district-level and

A25. Voting outcomes (Table 6, Panel 1.A.)

	Main effect				Interaction term: Std. Performance				Std. Policy alignment			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)			
I. Respondent-level												
A. Incumbent												
<i>Invite</i>	0.045*** (0.020)	0.051** (0.023)	0.035* (0.020)	0.049** (0.020)	0.054** (0.023)	0.039* (0.020)	0.041** (0.019)	0.045** (0.023)	0.032 (0.019)			
<i>Invite</i> × <i>Std. performance</i>	0.003*** (0.001)	0.002* (0.001)	0.002*** (0.001)	0.003*** (0.001)	0.002** (0.001)	0.002*** (0.001)	0.042*** (0.016)	0.051*** (0.017)	0.052*** (0.018)			
<i>Invite</i> × <i>Std. policy alignment</i>	-0.093 (0.098)	0.002 (0.113)	-0.031 (0.094)	-0.100 (0.098)	-0.012 (0.113)	-0.040 (0.093)	0.003*** (0.001)	0.002* (0.001)	0.002*** (0.001)			
Days since 1 Sept	0.118 (0.074)	0.147** (0.071)	0.143* (0.074)	0.109 (0.073)	0.132* (0.069)	0.132* (0.072)	0.118 (0.074)	0.147** (0.070)	0.142* (0.074)			
Informal schooling only	0.011 (0.070)	0.061 (0.078)	0.063 (0.077)	0.003 (0.070)	0.051 (0.077)	0.056 (0.076)	0.011 (0.070)	0.062 (0.076)	0.063 (0.076)			
Some primary schooling	0.045 (0.066)	0.128* (0.071)	0.104 (0.075)	0.037 (0.066)	0.116 (0.072)	0.096 (0.074)	0.045 (0.066)	0.126* (0.070)	0.101 (0.073)			
Primary school completed	0.043 (0.063)	0.120* (0.064)	0.100 (0.067)	0.035 (0.063)	0.108* (0.063)	0.092 (0.066)	0.043 (0.063)	0.122* (0.063)	0.101 (0.067)			
Some secondary school	0.013 (0.065)	0.109 (0.072)	0.066 (0.068)	0.004 (0.064)	0.097 (0.071)	0.058 (0.067)	0.012 (0.066)	0.110 (0.073)	0.066 (0.068)			
Post-secondary school/high school completed	0.000 (0.065)	0.085 (0.064)	0.077 (0.068)	-0.007 (0.065)	0.075 (0.063)	0.070 (0.067)	0.001 (0.066)	0.088 (0.063)	0.078 (0.068)			
Post-secondary qualifications (non-uni)	-0.032 (0.068)	0.065 (0.072)	0.042 (0.074)	-0.041 (0.067)	0.053 (0.072)	0.034 (0.072)	-0.032 (0.068)	0.066 (0.072)	0.042 (0.073)			
University completed	-0.020 (0.089)	0.069 (0.082)	0.057 (0.088)	-0.030 (0.089)	0.055 (0.081)	0.048 (0.086)	-0.021 (0.089)	0.071 (0.080)	0.057 (0.087)			
Post-graduate	0.001 (0.019)	0.001 (0.021)	-0.005 (0.019)	-0.000 (0.019)	0.001 (0.021)	0.005 (0.019)	0.000 (0.019)	0.000 (0.021)	-0.006 (0.019)			
Male	-0.042*** (0.017)	-0.037* (0.020)	-0.031* (0.017)	-0.039** (0.015)	-0.040** (0.020)	-0.034* (0.017)	-0.041** (0.016)	-0.036* (0.020)	-0.029* (0.017)			
Scheduled debate week	-0.004 (0.008)	0.002 (0.011)	0.003 (0.008)	-0.002 (0.008)	0.001 (0.010)	0.004 (0.008)	-0.005 (0.008)	0.001 (0.011)	-0.005 (0.008)			
Number of candidates (2017)	-0.151** (0.064)	-0.146** (0.069)	-0.119* (0.061)	-0.187*** (0.068)	-0.172** (0.071)	-0.135** (0.065)	-0.151** (0.063)	-0.150** (0.068)	-0.120** (0.059)			
Incumbent ran in election (2017)	0.065 (0.095)	-0.033 (0.089)	-0.001 (0.089)	0.127 (0.093)	0.007 (0.088)	0.016 (0.090)	0.061 (0.091)	-0.034 (0.088)	-0.009 (0.088)			
Log registered voters (2017)	0.006 (0.041)	-0.009 (0.047)	0.014 (0.042)	-0.007 (0.042)	0.009 (0.046)	0.015 (0.039)	0.012 (0.040)	-0.007 (0.047)	0.019 (0.041)			
Number of debates in district	0.356 (0.410)	0.242 (0.387)	0.168 (0.387)	-0.223 (0.534)	-0.099 (0.473)	-0.077 (0.449)	0.322 (0.406)	-0.007 (0.384)	0.170 (0.385)			
1st voteshare (2011)	0.653*** (0.301)	0.634* (0.347)	0.486 (0.315)	0.475 (0.307)	0.469 (0.356)	0.353 (0.319)	0.583* (0.295)	0.547 (0.344)	0.393 (0.309)			
2nd voteshare (2011)	-0.272 (0.576)	-0.385 (0.658)	-0.312 (0.573)	-0.336 (0.547)	-0.286 (0.611)	-0.323 (0.566)	-0.298 (0.578)	-0.388 (0.664)	-0.327 (0.583)			
3rd voteshare (2011)	-0.730 (0.501)	-0.571 (0.493)	-0.506 (0.468)	0.105 (0.708)	-0.016 (0.656)	-0.126 (0.584)	-0.692 (0.495)	-0.567 (0.486)	-0.507 (0.462)			
Voteshare HHI (2011)	-1.667* (0.942)	-0.568 (1.019)	-0.792 (0.957)	-2.233** (0.887)	-0.901 (0.954)	-1.080 (0.907)	-1.608* (0.935)	-0.484 (1.007)	-0.667 (0.949)			
Turnout (2011)	0.008 (0.231)	0.044 (0.249)	0.014 (0.230)	0.171 (0.221)	0.164 (0.231)	0.083 (0.219)	-0.012 (0.232)	0.016 (0.250)	-0.019 (0.232)			
Share of repeat candidates (2017)	0.012 (0.024)	-0.029 (0.026)	-0.020 (0.024)	0.032 (0.026)	-0.013 (0.029)	-0.009 (0.025)	0.013 (0.023)	-0.030 (0.027)	-0.022 (0.024)			
Log population density (2008)	-0.030 (0.168)	0.175 (0.164)	0.189 (0.161)	-0.118 (0.184)	0.078 (0.185)	0.124 (0.174)	-0.027 (0.168)	0.183 (0.166)	0.202 (0.163)			
Share with GSM coverage (2015)	-0.239 (0.202)	-0.045 (0.214)	-0.057 (0.192)	-0.225 (0.201)	-0.064 (0.217)	-0.055 (0.195)	-0.246 (0.202)	-0.047 (0.214)	-0.054 (0.192)			
Share owns a radio (2016)	0.455* (0.229)	0.241 (0.239)	0.250 (0.218)	0.548** (0.249)	0.389 (0.275)	0.322 (0.240)	0.464** (0.225)	0.246 (0.237)	0.255 (0.214)			
Share gets radio news often (2016)	-1.129 (1.264)	0.183 (1.180)	0.060 (1.211)	-1.852 (1.333)	-0.154 (1.224)	-0.361 (1.242)	-0.991 (1.255)	0.394 (1.170)	0.294 (1.212)			
Share over 18 (2008)	-0.192 (0.418)	0.320 (0.531)	0.022 (0.442)	-0.656 (0.439)	0.131 (0.536)	-0.076 (0.457)	-0.216 (0.410)	0.329 (0.536)	0.038 (0.446)			
Share with secondary education (2008)	0.006 (0.004)	0.006* (0.004)	0.005 (0.004)	0.007* (0.004)	0.007* (0.004)	0.006* (0.004)	0.006 (0.004)	0.006* (0.004)	0.006 (0.004)			
Avg. N radio stations covering each town (2016)												
Control Mean	0.278	0.282	0.288	0.278	0.282	0.288	0.278	0.282	0.288			
Observations	3496	3496	3496	3496	3496	3496	3496	3496	3496			
Weight	No	I/Obs	Reg/Obs	No	I/Obs	Reg/Obs	No	I/Obs	Reg/Obs			

Panel 1.A. and 1.B: Outcome: indicator that respondent reported voting for incumbent (Panel A) or a predicted challenger (Panel B) at endline. Columns 4-6 interact treatment with standardized candidate-level measures of predicted debate performance; 7-9 interact treatment with standardized respondent-candidate-level measures of policy alignment (measured at baseline). Panels 2.A. and 2.B: Outcome: votes over the number of registered voters for the incumbent (Panel A) or predicted challengers (Panel B) using polling station-level data. Columns 4-9 use district-level analogues of interaction terms (see Data section).

All specifications estimated using OLS including block FE. Panel 1 adds enumerator FE, district-level and individual-level controls. Weights: 'Obs': number of observations in that district; 'Reg': number of registered voters in that district. Panel 2 adds district-level and polling station-level controls. Weights: 'PS': number of polling stations in that district; 'Reg': number of registered voters at that polling station. Standard errors clustered at district-level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

A26. Voting outcomes (Table 6, Panel 1.B.)

	Main effect				Interaction term: Std. Performance				Std. Policy alignment			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)			
I. Respondent-level												
B. Challengers												
<i>Invite</i>	-0.048*** (0.014)	-0.039*** (0.013)	-0.036** (0.014)	-0.051*** (0.017)	-0.039** (0.015)	-0.039** (0.016)	-0.048*** (0.014)	-0.039*** (0.013)	-0.036** (0.014)			
<i>Invite</i> × Std. performance	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)			
<i>Invite</i> × Std. policy alignment	0.029 (0.044)	0.077 (0.072)	0.070 (0.067)	0.029 (0.044)	0.077 (0.072)	0.069 (0.067)	0.029 (0.044)	0.077 (0.072)	0.069 (0.067)			
Days since 1 Sept	-0.017 (0.031)	-0.015 (0.033)	-0.019 (0.033)	-0.017 (0.031)	-0.015 (0.032)	-0.020 (0.033)	-0.017 (0.031)	-0.015 (0.032)	-0.019 (0.033)			
Informal schooling only	-0.001 (0.031)	0.013 (0.034)	0.001 (0.032)	-0.002 (0.031)	0.002 (0.034)	0.001 (0.032)	-0.001 (0.031)	0.002 (0.034)	0.001 (0.032)			
Some primary schooling	-0.001 (0.031)	0.013 (0.034)	0.001 (0.032)	-0.002 (0.031)	0.002 (0.034)	0.001 (0.032)	-0.001 (0.031)	0.002 (0.034)	0.001 (0.032)			
Primary school completed	0.009 (0.028)	0.002 (0.032)	0.005 (0.031)	0.009 (0.029)	0.002 (0.032)	0.005 (0.031)	0.008 (0.028)	0.002 (0.032)	0.005 (0.031)			
Some secondary school	-0.010 (0.027)	-0.019 (0.031)	-0.016 (0.029)	-0.010 (0.027)	-0.019 (0.031)	-0.017 (0.028)	-0.010 (0.027)	-0.019 (0.031)	-0.016 (0.028)			
Secondary school/high school completed	-0.018 (0.031)	-0.016 (0.035)	-0.011 (0.031)	-0.018 (0.031)	-0.016 (0.035)	-0.012 (0.031)	-0.018 (0.031)	-0.016 (0.035)	-0.011 (0.031)			
Post-secondary qualifications (non-uni)	-0.002 (0.029)	-0.009 (0.031)	-0.008 (0.030)	-0.002 (0.029)	-0.009 (0.031)	-0.008 (0.029)	-0.003 (0.029)	-0.009 (0.031)	-0.008 (0.029)			
Some university	0.005 (0.031)	0.009 (0.035)	0.006 (0.032)	0.005 (0.031)	0.009 (0.035)	0.005 (0.032)	0.005 (0.031)	0.009 (0.035)	0.006 (0.032)			
University completed	-0.003 (0.063)	-0.032 (0.055)	-0.018 (0.059)	-0.004 (0.062)	-0.032 (0.055)	-0.020 (0.058)	-0.003 (0.063)	-0.032 (0.055)	-0.018 (0.059)			
Post-graduate	0.001 (0.101)	0.001 (0.111)	0.002 (0.110)	0.001 (0.101)	0.001 (0.111)	0.002 (0.110)	0.001 (0.101)	0.001 (0.111)	0.002 (0.110)			
Male	0.019* (0.011)	0.014 (0.010)	0.018 (0.011)	0.022 (0.014)	0.014 (0.011)	0.021 (0.013)	0.019* (0.011)	0.014 (0.010)	0.018 (0.011)			
Scheduled debate week	-0.003 (0.005)	-0.004 (0.005)	-0.003 (0.005)	-0.003 (0.005)	-0.004 (0.005)	-0.004 (0.005)	-0.003 (0.005)	-0.004 (0.005)	-0.003 (0.005)			
Number of candidates (2017)	-0.029 (0.019)	-0.031* (0.016)	-0.032* (0.017)	-0.026 (0.020)	-0.030* (0.017)	-0.026 (0.018)	-0.029 (0.019)	-0.031* (0.016)	-0.032* (0.017)			
Incumbent ran in election (2017)	0.064* (0.036)	0.071* (0.036)	0.045 (0.038)	0.069* (0.036)	0.072** (0.034)	0.051 (0.037)	0.066* (0.036)	0.072** (0.036)	0.046 (0.038)			
Log registered voters (2017)	-0.032 (0.031)	-0.015 (0.026)	-0.018 (0.028)	-0.031 (0.031)	-0.015 (0.026)	-0.019 (0.027)	-0.033 (0.031)	-0.015 (0.026)	-0.018 (0.028)			
Number of debates in district	-0.314 (0.248)	-0.437* (0.242)	-0.400 (0.265)	-0.329 (0.247)	-0.437* (0.242)	-0.417 (0.260)	-0.306 (0.249)	-0.433* (0.242)	-0.398 (0.266)			
1st voteshare (2011)	-0.259 (0.222)	-0.096 (0.207)	-0.165 (0.225)	-0.265 (0.228)	-0.097 (0.210)	-0.163 (0.229)	-0.251 (0.220)	-0.091 (0.206)	-0.160 (0.224)			
2nd voteshare (2011)	-0.128 (0.275)	-0.203 (0.296)	-0.157 (0.323)	-0.134 (0.281)	-0.204 (0.296)	-0.156 (0.327)	-0.126 (0.275)	-0.204 (0.296)	-0.156 (0.324)			
3rd voteshare (2011)	0.492* (0.286)	0.575** (0.272)	0.546* (0.298)	0.511* (0.293)	0.576** (0.275)	0.567* (0.300)	0.483* (0.287)	0.571** (0.273)	0.543* (0.299)			
Voteshare HHI (2011)	-0.111 (0.284)	-0.276 (0.284)	-0.126 (0.301)	-0.105 (0.286)	-0.276 (0.284)	-0.117 (0.303)	-0.114 (0.283)	-0.278 (0.283)	-0.128 (0.300)			
Turnout (2011)	-0.062 (0.074)	-0.043 (0.079)	-0.054 (0.088)	-0.068 (0.077)	-0.043 (0.079)	-0.066 (0.090)	-0.062 (0.074)	-0.042 (0.079)	-0.054 (0.088)			
Share of repeat candidates (2017)	0.000 (0.103)	0.009 (0.103)	0.009 (0.103)	-0.000 (0.103)	0.009 (0.103)	0.009 (0.103)	-0.000 (0.103)	0.009 (0.103)	0.009 (0.103)			
Log population density (2008)	0.077* (0.041)	0.037 (0.048)	0.035 (0.050)	0.076* (0.041)	0.037 (0.048)	0.033 (0.049)	0.077* (0.041)	0.037 (0.048)	0.035 (0.050)			
Share with GSM coverage (2015)	0.209** (0.103)	0.084 (0.092)	0.116 (0.101)	0.206* (0.103)	0.083 (0.095)	0.112 (0.103)	0.210** (0.103)	0.085 (0.093)	0.116 (0.102)			
Share owns a radio (2016)	-0.188** (0.084)	-0.100 (0.083)	-0.103 (0.087)	-0.186** (0.085)	-0.100 (0.084)	-0.098 (0.088)	-0.188** (0.084)	-0.100 (0.083)	-0.103 (0.087)			
Share gets radio news often (2016)	0.555 (0.479)	0.035 (0.446)	0.283 (0.494)	0.516 (0.489)	0.029 (0.451)	0.212 (0.489)	0.544 (0.475)	0.025 (0.441)	0.275 (0.490)			
Share over 18 (2008)	-0.396 (0.276)	-0.721** (0.277)	-0.615** (0.288)	-0.424 (0.299)	-0.723** (0.283)	-0.642** (0.297)	-0.397 (0.275)	-0.725** (0.276)	-0.618** (0.287)			
Share with secondary education (2008)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)			
Avg. N radio stations covering each town (2016)												
Control Mean	0.156	0.156	0.156	0.156	0.156	0.156	0.156	0.156	0.156			
Observations	8684	8684	8684	8684	8684	8684	8684	8684	8684			
Weight	No	I/Obs	Reg/Obs	No	I/Obs	Reg/Obs	No	I/Obs	Reg/Obs			

Panel 1.A. and 1.B: Outcome: indicator that respondent reported voting for incumbent (Panel A) or a predicted challenger (Panel B) at endline. Columns 4-6 interact treatment assignment with standardized candidate-level measures of predicted debate performance; 7-9 interact treatment with standardized respondent-candidate-level measures of policy alignment (measured at baseline). Panels 2.A. and 2.B: Outcome: votes over the number of registered voters for the incumbent (Panel A) or predicted challengers (Panel B) using polling station-level data. Columns 4-9 use district-level analogues of interaction terms (see Data section).

All specifications estimated using OLS including block FE. Panel 1 adds enumerator FE, district-level and individual-level controls. Weights: 'Obs': number of observations in that district; 'Reg': number of registered voters in that district. Panel 2 adds district-level and polling station-level controls. Weights: 'PS': number of polling stations in that district; 'Reg': number of registered voters at that polling station. Standard errors clustered at district-level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

A27. Voting outcomes (Table 6, Panel 2.A.)

	Main effect			Interaction term: Std. Performance			Std. Policy alignment		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2. Polling station-level									
A. Incumbent									
<i>Invite</i> × Std. performance	0.042* (0.024)	0.037 (0.023)	0.041* (0.024)	0.045* (0.023)	0.036* (0.021)	0.044* (0.023)	0.045* (0.023)	0.041* (0.022)	0.043* (0.023)
<i>Invite</i> × Std. policy alignment					0.099*** (0.030)	0.081*** (0.026)			
Std. performance	0.109*** (0.026)	0.093*** (0.027)	0.110*** (0.025)	0.067*** (0.023)	0.047* (0.024)	0.068*** (0.022)	-0.016 (0.028)	-0.017 (0.029)	-0.017 (0.029)
Std. policy alignment	0.048* (0.024)	0.049* (0.025)	0.050** (0.024)	0.031 (0.020)	0.028 (0.020)	0.033* (0.019)	0.110*** (0.026)	0.095*** (0.028)	0.111*** (0.026)
Voteshare in 2011	0.550*** (0.034)	0.554*** (0.034)	0.558*** (0.034)	0.548*** (0.034)	0.552*** (0.034)	0.556*** (0.034)	0.550*** (0.033)	0.554*** (0.033)	0.568*** (0.033)
ED: scheduled debate week	0.009 (0.017)	0.008 (0.020)	0.007 (0.016)	0.001 (0.018)	0.001 (0.020)	-0.001 (0.017)	0.008 (0.017)	0.006 (0.021)	0.005 (0.016)
ED: N candidates	-0.008 (0.009)	-0.010 (0.011)	-0.008 (0.009)	-0.011 (0.008)	-0.012 (0.009)	-0.011 (0.008)	-0.006 (0.009)	-0.010 (0.011)	-0.007 (0.009)
ED: incumbent running	-0.198*** (0.050)	-0.216*** (0.061)	-0.204*** (0.048)	-0.225*** (0.054)	-0.255*** (0.063)	-0.234*** (0.053)	-0.196*** (0.050)	-0.212*** (0.061)	-0.203*** (0.048)
ED: log reg voters	0.116 (0.096)	0.186* (0.098)	0.116 (0.094)	0.145 (0.103)	0.238** (0.102)	0.147 (0.099)	0.119 (0.092)	0.184* (0.095)	0.120 (0.089)
ED: N debates	-0.007 (0.046)	-0.006 (0.051)	-0.001 (0.044)	-0.001 (0.045)	-0.005 (0.046)	0.000 (0.042)	-0.009 (0.046)	-0.005 (0.051)	-0.004 (0.044)
ED: 2011 1st voteshare	-1.476*** (0.412)	-1.358*** (0.421)	-1.471*** (0.414)	-2.006*** (0.431)	-1.998*** (0.434)	-2.037*** (0.433)	-1.474*** (0.413)	-1.355*** (0.420)	-1.469*** (0.416)
ED: 2011 2nd voteshare	0.585 (0.386)	0.599 (0.417)	0.562 (0.368)	0.236 (0.373)	0.238 (0.384)	0.225 (0.356)	0.678 (0.411)	0.688 (0.451)	0.655* (0.390)
ED: 2011 3rd voteshare	-0.883* (0.496)	-1.051* (0.580)	-0.886* (0.479)	-0.809* (0.463)	-0.832* (0.490)	-0.834* (0.448)	-0.872* (0.504)	-1.048* (0.586)	-0.875* (0.486)
ED: 2011 HHI	1.321*** (0.493)	1.147*** (0.522)	1.292*** (0.488)	2.158*** (0.558)	2.187*** (0.586)	2.169*** (0.555)	1.313*** (0.495)	1.132*** (0.523)	1.283*** (0.491)
ED: 2011 turnout	-2.141*** (0.714)	-2.311*** (0.767)	-2.344*** (0.718)	-2.737*** (0.676)	-2.900*** (0.700)	-2.978*** (0.679)	-2.221*** (0.774)	-2.368*** (0.812)	-2.432*** (0.779)
ED: share candidates who ran before in 2011	0.062 (0.188)	0.039 (0.206)	0.096 (0.188)	0.199 (0.166)	0.239 (0.172)	0.235 (0.167)	0.095 (0.191)	0.069 (0.207)	0.128 (0.189)
ED: log pop density	0.058*** (0.020)	0.062*** (0.022)	0.059*** (0.020)	0.084*** (0.020)	0.093*** (0.021)	0.086*** (0.020)	0.057*** (0.020)	0.062*** (0.021)	0.059*** (0.020)
ED: share with GSM coverage	-0.119 (0.107)	-0.176 (0.115)	-0.117 (0.107)	-0.287** (0.119)	-0.371*** (0.135)	-0.282** (0.116)	-0.124 (0.104)	-0.178 (0.110)	-0.122 (0.104)
ED: share own radio	-0.108 (0.192)	-0.202 (0.191)	-0.117 (0.195)	-0.175 (0.188)	-0.296 (0.186)	-0.182 (0.192)	-0.099 (0.190)	-0.189 (0.190)	-0.108 (0.194)
ED: share get radio news often	0.408** (0.189)	0.420** (0.204)	0.423** (0.188)	0.627*** (0.221)	0.730** (0.240)	0.638*** (0.217)	0.391** (0.193)	0.404* (0.207)	0.407** (0.192)
ED: share over 18	-0.906 (1.101)	-0.992 (1.115)	-0.981 (1.108)	-2.034 (1.239)	-1.935 (1.179)	-2.169* (1.232)	-1.090 (1.156)	-1.184 (1.170)	-1.172 (1.159)
ED: share have secondary ed	-1.383*** (0.477)	-1.470*** (0.526)	-1.322*** (0.472)	-1.691*** (0.423)	-1.909*** (0.447)	-1.650*** (0.421)	-1.356*** (0.468)	-1.435*** (0.513)	-1.298*** (0.466)
ED: average N radio stations covering each locality	0.011*** (0.004)	0.012*** (0.004)	0.011*** (0.004)	0.013*** (0.004)	0.013*** (0.005)	0.013*** (0.004)	0.011*** (0.004)	0.012*** (0.004)	0.011*** (0.004)
PS: Number of stations	0.003 (0.005)	0.005 (0.005)	0.002 (0.005)	0.002 (0.005)	0.005 (0.005)	0.002 (0.005)	0.003 (0.005)	0.005 (0.005)	0.002 (0.005)
PS: Added in 2017	0.016 (0.014)	0.025* (0.015)	0.016 (0.014)	0.017 (0.014)	0.025* (0.015)	0.018 (0.014)	0.016 (0.014)	0.025* (0.015)	0.016 (0.015)
PS: Number of stations in 2011	-0.015 (0.014)	-0.023 (0.015)	-0.014 (0.015)	-0.014 (0.014)	-0.022 (0.015)	-0.013 (0.015)	-0.016 (0.014)	-0.023 (0.015)	-0.014 (0.015)
PS: Registered voters in 2011	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
PS: Turnout in 2011	0.013 (0.088)	0.016 (0.096)	0.027 (0.087)	0.003 (0.085)	-0.005 (0.092)	0.017 (0.083)	0.005 (0.084)	0.006 (0.090)	0.019 (0.083)
PS: Invalid votes in 2011	-0.152 (0.186)	-0.254 (0.199)	-0.119 (0.182)	-0.266 (0.190)	-0.388* (0.203)	-0.235 (0.185)	-0.145 (0.188)	-0.249 (0.202)	-0.110 (0.185)
PS: Registered voters in 2017	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)	0.000** (0.000)	0.000** (0.000)	0.000** (0.000)	0.000** (0.000)	0.000** (0.000)	0.000* (0.000)
VRC covered by partner radio	-0.016 (0.040)	-0.019 (0.045)	-0.012 (0.040)	-0.023 (0.039)	-0.022 (0.044)	-0.019 (0.039)	-0.014 (0.040)	-0.019 (0.045)	-0.011 (0.040)
1/number of radios covering VRC	0.674 (0.847)	0.899 (0.923)	0.510 (0.868)	0.747 (0.807)	0.878 (0.877)	0.596 (0.818)	0.638 (0.855)	0.899 (0.925)	0.471 (0.872)
PS: Urban	-0.014 (0.011)	-0.019 (0.013)	-0.013 (0.012)	-0.007 (0.011)	-0.009 (0.013)	-0.006 (0.011)	-0.013 (0.011)	-0.017 (0.013)	-0.012 (0.011)
Control Mean	0.246	0.250	0.250	0.246	0.250	0.250	0.246	0.250	0.250
Observations	No	4618	4618	No	4618	4618	No	4618	4618
Weight		I/PS	Reg		I/PS	Reg		I/PS	Reg

Panel 1.A. and 1.B: Outcome: indicator that respondent reported voting for incumbent (Panel A) or a predicted challenger (Panel B) at the endline. Columns 4-6 interact treatment assignment with standardized candidate-level measures of predicted debate performance; 7-9 interact treatment with standardized respondent-candidate-level measures of policy alignment (measured at baseline). Panels 2.A. and 2.B: Outcome: votes over the number of registered voters for the incumbent (Panel A) or predicted challengers (Panel B) using polling station-level data. Columns 4-9 use district-level analogues of interaction terms (see Data section).

All specifications estimated using OLS including block FE. Panel 1 adds enumerator FE, district-level and individual-level controls. Weights: 'Obs': number of observations in that district; 'Reg': number of registered voters in that district. Panel 2 adds district-level and polling station-level controls. Weights: 'PS': number of polling stations in that district; 'Reg': number of registered voters at that polling station. Standard errors clustered at district-level in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

A28. Voting outcomes (Table 6, Panel 2.B.)

	Main effect			Interaction term: Std. Performance			Std. Policy alignment		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2. Polling station-level									
B. Challengers									
<i>Invite</i> × Std. performance	-0.029** (0.012)	-0.031** (0.012)	-0.028** (0.012)	-0.033** (0.013)	-0.036*** (0.012)	-0.031** (0.013)	-0.029** (0.012)	-0.029** (0.013)	-0.029** (0.012)
<i>Invite</i> × Std. policy alignment									
Std. performance	0.037*** (0.014)	0.034** (0.015)	0.038*** (0.014)	0.063*** (0.020)	0.058** (0.022)	0.067*** (0.019)	0.037** (0.014)	0.034** (0.015)	0.038*** (0.014)
Std. policy alignment	-0.036*** (0.010)	-0.038*** (0.010)	-0.036*** (0.010)	-0.038*** (0.010)	-0.040*** (0.010)	-0.038*** (0.010)	-0.036*** (0.010)	-0.038*** (0.010)	-0.036*** (0.010)
Voteshare in 2011	0.277*** (0.055)	0.267*** (0.054)	0.278*** (0.057)	0.283*** (0.055)	0.273*** (0.053)	0.285*** (0.057)	0.277*** (0.055)	0.267*** (0.055)	0.277*** (0.055)
ED: scheduled debate week	0.027*** (0.009)	0.022*** (0.008)	0.029*** (0.009)	0.031*** (0.010)	0.027*** (0.009)	0.034*** (0.010)	0.027*** (0.009)	0.027*** (0.009)	0.029*** (0.009)
ED: N candidates	-0.010*** (0.004)	-0.011*** (0.004)	-0.010*** (0.004)	-0.011*** (0.004)	-0.012*** (0.004)	-0.011*** (0.004)	-0.010*** (0.004)	-0.011*** (0.004)	-0.011*** (0.004)
ED: incumbent running	0.027* (0.016)	0.023 (0.016)	0.026 (0.016)	0.035** (0.016)	0.030* (0.016)	0.035** (0.016)	0.027* (0.016)	0.023 (0.016)	0.026 (0.016)
ED: log reg voters	-0.007 (0.041)	0.003 (0.038)	-0.007 (0.042)	0.001 (0.041)	0.011 (0.037)	0.001 (0.042)	-0.007 (0.041)	0.008 (0.038)	-0.011 (0.043)
ED: N debates	-0.007 (0.024)	-0.000 (0.024)	-0.008 (0.025)	-0.010 (0.024)	-0.003 (0.024)	-0.010 (0.024)	-0.007 (0.024)	-0.001 (0.024)	-0.007 (0.025)
ED: 2011 1st voteshare	0.249 (0.214)	0.299 (0.215)	0.166 (0.215)	0.229 (0.214)	0.287 (0.215)	0.141 (0.215)	0.250 (0.234)	0.333 (0.235)	0.146 (0.237)
ED: 2011 2nd voteshare	-0.044 (0.170)	0.015 (0.167)	-0.041 (0.169)	-0.042 (0.177)	0.003 (0.172)	-0.037 (0.178)	-0.042 (0.167)	0.057 (0.166)	-0.071 (0.167)
ED: 2011 3rd voteshare	-0.067 (0.292)	-0.042 (0.279)	-0.132 (0.292)	-0.082 (0.307)	-0.064 (0.292)	-0.152 (0.306)	-0.067 (0.305)	-0.031 (0.287)	-0.140 (0.305)
ED: 2011 HHI	-0.459* (0.251)	-0.535** (0.249)	-0.358 (0.252)	-0.430* (0.253)	-0.514** (0.253)	-0.324 (0.254)	-0.461 (0.282)	-0.578** (0.277)	-0.333 (0.284)
ED: 2011 turnout	0.761** (0.290)	0.648** (0.279)	0.789*** (0.288)	0.754** (0.304)	0.637** (0.291)	0.784** (0.302)	0.760** (0.288)	0.652** (0.277)	0.793*** (0.287)
ED: share candidates who ran before in 2011	-0.188** (0.082)	-0.169** (0.080)	-0.194** (0.084)	-0.200** (0.086)	-0.172** (0.083)	-0.209** (0.089)	-0.188** (0.081)	-0.170** (0.080)	-0.193** (0.084)
ED: log pop density	0.013 (0.009)	0.016* (0.009)	0.012 (0.010)	0.012 (0.009)	0.015* (0.009)	0.011 (0.009)	0.013 (0.010)	0.015 (0.010)	0.012 (0.010)
ED: share with GSM coverage	-0.031 (0.045)	-0.035 (0.042)	-0.034 (0.046)	-0.042 (0.045)	-0.045 (0.043)	-0.046 (0.045)	-0.031 (0.046)	-0.032 (0.043)	-0.036 (0.047)
ED: share own radio	0.110 (0.071)	0.096 (0.068)	0.117 (0.071)	0.098 (0.073)	0.080 (0.071)	0.105 (0.074)	0.110 (0.068)	0.105 (0.067)	0.112 (0.068)
ED: share get radio news often	0.058 (0.059)	0.060 (0.061)	0.064 (0.060)	0.070 (0.060)	0.071 (0.062)	0.077 (0.060)	0.058 (0.059)	0.055 (0.061)	0.068 (0.059)
ED: share over 18	1.858*** (0.393)	1.709*** (0.392)	1.801*** (0.386)	1.690*** (0.414)	1.547*** (0.423)	1.621*** (0.403)	1.857*** (0.385)	1.686*** (0.377)	1.817*** (0.382)
ED: share have secondary ed	-0.542** (0.261)	-0.569** (0.253)	-0.564** (0.268)	-0.577** (0.266)	-0.603** (0.258)	-0.609** (0.271)	-0.542** (0.256)	-0.577** (0.246)	-0.560** (0.265)
ED: average N radio stations covering each locality	-0.005*** (0.002)	-0.006*** (0.002)	-0.005*** (0.002)	-0.005** (0.002)	-0.006*** (0.002)	-0.004** (0.002)	-0.005** (0.002)	-0.007*** (0.002)	-0.005** (0.002)
PS: Number of stations	-0.005* (0.003)	-0.005* (0.003)	-0.005* (0.003)	-0.005* (0.003)	-0.005* (0.003)	-0.005* (0.003)	-0.005* (0.003)	-0.005* (0.003)	-0.005* (0.003)
PS: Added in 2017	-0.006 (0.006)	-0.005 (0.007)	-0.006 (0.006)	-0.007 (0.006)	-0.005 (0.006)	-0.006 (0.006)	-0.006 (0.006)	-0.005 (0.006)	-0.006 (0.006)
PS: Number of stations in 2011	0.002 (0.006)	0.001 (0.007)	0.002 (0.006)	0.002 (0.007)	0.001 (0.007)	0.002 (0.006)	0.002 (0.006)	0.001 (0.007)	0.002 (0.006)
PS: Registered voters in 2011	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
PS: Turnout in 2011	0.075* (0.042)	0.073* (0.040)	0.078* (0.044)	0.079* (0.043)	0.076* (0.041)	0.082* (0.045)	0.075* (0.044)	0.070* (0.041)	0.079* (0.046)
PS: Invalid votes in 2011	-0.089 (0.080)	-0.061 (0.077)	-0.111 (0.086)	-0.082 (0.082)	-0.054 (0.079)	-0.103 (0.088)	-0.089 (0.079)	-0.060 (0.077)	-0.113 (0.085)
PS: Registered voters in 2017	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
VRC covered by partner radio	0.015 (0.023)	0.008 (0.024)	0.016 (0.024)	0.013 (0.023)	0.007 (0.024)	0.014 (0.023)	0.015 (0.023)	0.008 (0.024)	0.015 (0.023)
1/number of radios covering VRC	-0.756* (0.409)	-0.726* (0.381)	-0.730* (0.422)	-0.640 (0.411)	-0.639* (0.382)	-0.598 (0.423)	-0.756* (0.410)	-0.723* (0.377)	-0.722* (0.425)
PS: Urban	0.004 (0.008)	0.006 (0.009)	0.004 (0.008)	0.004 (0.008)	0.007 (0.009)	0.004 (0.008)	0.004 (0.008)	0.006 (0.009)	0.004 (0.008)
Control Mean	0.113	0.112	0.112	0.113	0.112	0.112	0.113	0.112	0.112
Observations	11385	11385	11385	11385	11385	11385	11385	11385	11385
Weight	No	I/PS	Reg	No	I/PS	Reg	No	I/PS	Reg

Panel 1.A. and 1.B: Outcome: indicator that respondent reported voting for incumbent (Panel A) or a predicted challenger (Panel B) at endline. Columns 4-6 interact treatment assignment with standardized candidate-level measures of predicted debate performance; 7-9 interact treatment with standardized respondent-candidate-level measures of policy alignment (measured at baseline). Panels 2.A. and 2.B: Outcome: votes over the number of registered voters for the incumbent (Panel A) or predicted challengers (Panel B) using polling station-level data. Columns 4-9 use district-level analogues of interaction terms (see Data section).

All specifications estimated using OLS including block FE. Panel 1 adds enumerator FE, district-level and individual-level controls. Weights: 'Obs': number of observations in that district; 'Reg': number of registered voters in that district. Panel 2 adds district-level and polling station-level controls. Weights: 'PS': number of polling stations in that district; 'Reg': number of registered voters at that polling station. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

A29. Debate exposure and information acquisition (Table 8, Panels A-B)

	(1)	(2)	(3)
A. Debate listening index			
<i>Invite</i>	0.304*** (0.102)	0.341*** (0.105)	0.424*** (0.107)
Days since 1 Sept	-0.005*** (0.002)	-0.005*** (0.002)	-0.003* (0.002)
Informal schooling only	0.086 (0.245)	0.047 (0.238)	0.238 (0.297)
Some primary schooling	-0.003 (0.156)	0.007 (0.171)	0.106 (0.149)
Primary school completed	-0.082 (0.144)	-0.122 (0.148)	-0.025 (0.132)
Some secondary school	0.027 (0.146)	0.025 (0.160)	0.111 (0.140)
Secondary school/high school completed	0.059 (0.140)	0.037 (0.157)	0.140 (0.137)
Post-secondary qualifications (non-uni)	0.081 (0.143)	0.033 (0.158)	0.117 (0.137)
Some university	0.073 (0.137)	0.048 (0.164)	0.135 (0.139)
University completed	0.126 (0.130)	0.075 (0.149)	0.168 (0.127)
Post-graduate	0.246 (0.372)	0.579 (0.688)	0.752 (0.726)
Male	0.211*** (0.036)	0.226*** (0.040)	0.226*** (0.041)
Scheduled debate week	-0.028 (0.050)	-0.035 (0.045)	-0.047 (0.040)
Number of candidates (2017)	0.006 (0.017)	0.020 (0.017)	0.016 (0.016)
Incumbent ran in election (2017)	0.183** (0.085)	0.246*** (0.088)	0.218** (0.083)
Log registered voters (2017)	-0.373** (0.174)	-0.282* (0.156)	-0.401** (0.158)
Number of debates in district	-0.123 (0.085)	-0.173** (0.085)	-0.140* (0.080)
1st voteshare (2011)	0.198 (0.910)	0.955 (0.746)	0.893 (0.790)
2nd voteshare (2011)	-1.282 (0.904)	-0.803 (0.837)	-0.865 (0.808)
3rd voteshare (2011)	1.677* (0.928)	2.193** (0.951)	2.355** (0.990)
Voteshare HHI (2011)	0.121 (1.246)	-0.977 (1.051)	-0.816 (1.100)
Turnout (2011)	3.689*** (1.076)	3.919*** (0.959)	3.922*** (0.958)
Share of repeat candidates (2017)	-0.034 (0.280)	0.065 (0.295)	0.005 (0.286)
Log population density (2008)	-0.107** (0.044)	-0.118*** (0.042)	-0.117*** (0.038)
Share with GSM coverage (2015)	0.969*** (0.198)	0.887*** (0.193)	0.857*** (0.179)
Share owns a radio (2016)	0.903*** (0.330)	0.628** (0.299)	0.751** (0.292)
Share gets radio news often (2016)	-1.314*** (0.255)	-1.149*** (0.266)	-1.128*** (0.238)
Share over 18 (2008)	7.772*** (2.422)	7.331*** (2.131)	6.629*** (2.207)
Share with secondary education (2008)	0.568 (1.144)	0.943 (1.073)	1.132 (0.958)
Avg. N radio stations covering each town (2016)	-0.016** (0.008)	-0.023*** (0.007)	-0.021*** (0.008)
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs
B. Debate knowledge index			
<i>Invite</i>	0.125** (0.063)	0.126** (0.058)	0.165*** (0.059)
Days since 1 Sept	-0.002 (0.002)	-0.003 (0.002)	-0.001 (0.002)
Informal schooling only	0.026 (0.128)	0.026 (0.127)	0.091 (0.124)
Some primary schooling	0.065 (0.109)	0.079 (0.117)	0.142 (0.114)
Primary school completed	0.103 (0.108)	0.061 (0.100)	0.130 (0.098)
Some secondary school	0.181* (0.106)	0.199* (0.117)	0.238** (0.109)
Secondary school/high school completed	0.200* (0.105)	0.196* (0.113)	0.261** (0.104)
Post-secondary qualifications (non-uni)	0.232** (0.108)	0.175 (0.121)	0.239** (0.108)
Some university	0.226** (0.105)	0.206* (0.118)	0.262** (0.106)
University completed	0.278*** (0.098)	0.239** (0.108)	0.304*** (0.097)
Post-graduate	0.066 (0.151)	0.038 (0.147)	0.125 (0.145)
Male	0.268*** (0.034)	0.282*** (0.038)	0.269*** (0.038)
Scheduled debate week	-0.096 (0.063)	-0.101* (0.057)	-0.107* (0.054)
Number of candidates (2017)	0.011 (0.022)	0.029 (0.021)	0.023 (0.021)
Incumbent ran in election (2017)	0.238** (0.113)	0.297** (0.116)	0.281** (0.115)
Log registered voters (2017)	-0.604*** (0.212)	-0.487** (0.186)	-0.650*** (0.192)
Number of debates in district	-0.235** (0.107)	-0.268** (0.102)	-0.233** (0.102)
1st voteshare (2011)	0.599 (1.196)	1.030 (1.047)	0.863 (1.154)
2nd voteshare (2011)	-1.575 (1.154)	-0.686 (1.102)	-1.086 (1.128)
3rd voteshare (2011)	2.829** (1.266)	2.961** (1.342)	3.264** (1.409)
Voteshare HHI (2011)	-0.489 (1.632)	-1.294 (1.434)	-0.941 (1.573)
Turnout (2011)	5.397*** (1.475)	5.624*** (1.299)	5.775*** (1.351)
Share of repeat candidates (2017)	-0.214 (0.372)	-0.094 (0.393)	-0.107 (0.398)
Log population density (2008)	-0.164** (0.062)	-0.177*** (0.061)	-0.187*** (0.056)
Share with GSM coverage (2015)	1.195*** (0.266)	1.116*** (0.277)	1.088*** (0.269)
Share owns a radio (2016)	1.377*** (0.443)	0.984** (0.396)	1.096*** (0.394)
Share gets radio news often (2016)	-1.279*** (0.348)	-1.047*** (0.371)	-0.994*** (0.350)
Share over 18 (2008)	9.428*** (2.996)	8.434*** (2.634)	7.879*** (2.750)
Share with secondary education (2008)	2.062 (1.441)	2.257* (1.294)	2.729** (1.224)
Avg. N radio stations covering each town (2016)	-0.017 (0.011)	-0.023** (0.010)	-0.018* (0.011)
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs

Outcomes are standardized. Outcomes: Panel A: index of (1) indicator for respondent had not heard debate at baseline but had at endline (2) number of times the respondent heard debate by endline. Panel B: index of (1) indicator for respondent's stated debate winner attended the debate (2) share of candidates respondent claims participated (3) share of predicted leading candidates respondent claims participated. Panel C: change in how many factual questions about CSDF management respondents answered correctly between baseline and endline. Panel D: index of (1) change in how much respondents listened to the radio (2) change in how much they discussed politics with their friends (3) how much they accessed other sources of political information.

Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: 'Obs': number of observations in that district; 'Reg': number of registered voters in that district. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

A30. Debate exposure and information acquisition (Table 8, Panels C-D)

	(1)	(2)	(3)
C. Policy knowledge index			
<i>Invite</i>	0.156* (0.089)	0.230* (0.121)	0.189* (0.100)
Days since 1 Sept	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)
Informal schooling only	0.358* (0.185)	0.110 (0.191)	0.174 (0.186)
Some primary schooling	0.202 (0.126)	0.219 (0.138)	0.241* (0.143)
Primary school completed	0.391*** (0.117)	0.347*** (0.113)	0.366*** (0.114)
Some secondary school	0.319*** (0.107)	0.267** (0.116)	0.301*** (0.104)
Secondary school/high school completed	0.282*** (0.093)	0.222** (0.090)	0.225** (0.087)
Post-secondary qualifications (non-uni)	0.273** (0.114)	0.198* (0.115)	0.207* (0.113)
Some university	0.354*** (0.098)	0.297*** (0.094)	0.297*** (0.093)
University completed	0.184* (0.099)	0.104 (0.100)	0.108 (0.095)
Post-graduate	0.186 (0.170)	0.215 (0.201)	0.176 (0.184)
Male	-0.092** (0.038)	-0.073* (0.038)	-0.084** (0.039)
Scheduled debate week	-0.061** (0.028)	-0.080*** (0.030)	-0.085*** (0.029)
Number of candidates (2017)	0.028** (0.012)	0.027** (0.012)	0.030*** (0.011)
Incumbent ran in election (2017)	0.041 (0.045)	0.049 (0.050)	0.042 (0.047)
Log registered voters (2017)	-0.025 (0.128)	0.014 (0.134)	-0.051 (0.137)
Number of debates in district	-0.108 (0.070)	-0.109 (0.070)	-0.094 (0.066)
1st voteshare (2011)	0.905 (0.753)	0.912 (0.763)	1.045 (0.741)
2nd voteshare (2011)	0.606 (0.530)	0.744 (0.638)	0.695 (0.540)
3rd voteshare (2011)	1.167 (0.718)	1.426* (0.805)	1.677** (0.823)
Voteshare HHI (2011)	-1.198 (0.853)	-1.252 (0.882)	-1.498* (0.852)
Turnout (2011)	1.093 (0.951)	0.609 (1.057)	1.159 (0.996)
Share of repeat candidates (2017)	0.285 (0.233)	0.340 (0.250)	0.321 (0.246)
Log population density (2008)	-0.125*** (0.031)	-0.131*** (0.035)	-0.133*** (0.032)
Share with GSM coverage (2015)	0.242 (0.156)	0.148 (0.175)	0.179 (0.169)
Share owns a radio (2016)	-0.022 (0.240)	-0.262 (0.247)	-0.173 (0.242)
Share gets radio news often (2016)	-0.073 (0.200)	0.023 (0.214)	0.076 (0.201)
Share over 18 (2008)	-0.221 (1.679)	-0.438 (2.070)	-0.146 (1.959)
Share with secondary education (2008)	2.453*** (0.751)	2.510*** (0.752)	2.707*** (0.734)
Avg. N radio stations covering each town (2016)	-0.007 (0.005)	-0.001 (0.006)	-0.004 (0.006)
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs
D. Political information acquisition			
<i>Invite</i>	0.251*** (0.078)	0.313*** (0.090)	0.300*** (0.091)
Days since 1 Sept	-0.004** (0.002)	-0.006*** (0.002)	-0.005** (0.002)
Informal schooling only	0.126 (0.204)	0.115 (0.228)	0.205 (0.214)
Some primary schooling	0.275 (0.167)	0.199 (0.190)	0.187 (0.178)
Primary school completed	0.436*** (0.156)	0.367** (0.178)	0.452*** (0.165)
Some secondary school	0.339** (0.152)	0.265 (0.161)	0.314** (0.150)
Secondary school/high school completed	0.530*** (0.147)	0.484*** (0.157)	0.512*** (0.154)
Post-secondary qualifications (non-uni)	0.663*** (0.131)	0.646*** (0.139)	0.669*** (0.131)
Some university	0.733*** (0.141)	0.712*** (0.150)	0.713*** (0.140)
University completed	0.721*** (0.134)	0.644*** (0.154)	0.649*** (0.142)
Post-graduate	0.780*** (0.237)	0.826*** (0.218)	0.745*** (0.235)
Male	0.051 (0.044)	0.071* (0.040)	0.041 (0.039)
Scheduled debate week	-0.022 (0.028)	-0.052* (0.028)	-0.037 (0.027)
Number of candidates (2017)	-0.006 (0.011)	0.007 (0.011)	-0.001 (0.010)
Incumbent ran in election (2017)	-0.114** (0.052)	-0.104* (0.057)	-0.089* (0.053)
Log registered voters (2017)	0.152 (0.093)	0.091 (0.093)	0.133 (0.093)
Number of debates in district	0.129** (0.054)	0.097* (0.055)	0.138*** (0.049)
1st voteshare (2011)	0.534 (0.702)	0.992* (0.593)	0.975 (0.587)
2nd voteshare (2011)	1.153* (0.630)	1.093* (0.645)	1.191* (0.638)
3rd voteshare (2011)	-1.564** (0.657)	-0.959 (0.674)	-0.794 (0.622)
Voteshare HHI (2011)	-0.969 (0.880)	-1.561** (0.754)	-1.516** (0.745)
Turnout (2011)	0.042 (0.820)	0.334 (0.807)	0.507 (0.781)
Share of repeat candidates (2017)	0.304 (0.193)	0.501** (0.191)	0.385* (0.194)
Log population density (2008)	-0.024 (0.026)	-0.029 (0.027)	-0.033 (0.026)
Share with GSM coverage (2015)	0.105 (0.122)	-0.012 (0.132)	0.035 (0.127)
Share owns a radio (2016)	0.158 (0.242)	0.023 (0.231)	0.073 (0.227)
Share gets radio news often (2016)	-0.136 (0.197)	-0.020 (0.198)	-0.079 (0.189)
Share over 18 (2008)	-1.969 (1.337)	-2.260* (1.264)	-2.190* (1.296)
Share with secondary education (2008)	0.033 (0.637)	0.646 (0.635)	0.327 (0.627)
Avg. N radio stations covering each town (2016)	0.002 (0.006)	0.002 (0.006)	0.001 (0.006)
Observations	4060	4060	4060
Weight	No	1/Obs	Reg/Obs

Outcomes are standardized. Outcomes: Panel A: index of (1) indicator for respondent had not heard debate at baseline but had at endline (2) number of times the respondent heard debate by endline. Panel B: index of (1) indicator for respondent's stated debate winner attended the debate (2) share of candidates respondent claims participated (3) share of predicted leading candidates respondent claims participated. Panel C: change in how many factual questions about CSDF management respondents answered correctly between baseline and endline. Panel D: index of (1) change in how much respondents listened to the radio (2) change in how much they discussed politics with their friends (3) how much they accessed other sources of political information.

Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: 'Obs': number of observations in that district; 'Reg': number of registered voters in that district. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

A31. Updating about candidates (Table 9, Panel 1)

I. Uncertainty	Certainty about competence			Certainty about policy		
	(1)	(2)	(3)	(4)	(5)	(6)
A. Incumbent						
<i>Invite</i>	0.178* (0.105)	0.186* (0.107)	0.179** (0.084)	0.169** (0.074)	0.195** (0.080)	0.192** (0.074)
Days since 1 Sept	-0.000 (0.002)	-0.000 (0.003)	0.001 (0.003)	0.007*** (0.002)	0.006** (0.002)	0.006** (0.002)
Informal schooling only	-0.111 (0.250)	-0.187 (0.249)	-0.098 (0.287)	-0.110 (0.252)	-0.239 (0.231)	-0.118 (0.241)
Some primary schooling	-0.343** (0.165)	-0.417** (0.196)	-0.335* (0.174)	-0.156 (0.141)	-0.229 (0.152)	-0.188 (0.155)
Primary school completed	-0.351** (0.147)	-0.486** (0.188)	-0.367** (0.163)	-0.212 (0.138)	-0.244* (0.135)	-0.255* (0.139)
Some secondary school	-0.364** (0.163)	-0.445** (0.191)	-0.336* (0.181)	-0.107 (0.144)	-0.200 (0.156)	-0.216 (0.156)
Secondary school/high school completed	-0.314** (0.147)	-0.453*** (0.161)	-0.346** (0.141)	-0.134 (0.126)	-0.241* (0.137)	-0.221 (0.139)
Post-secondary qualifications (non-uni)	-0.341** (0.142)	-0.450** (0.174)	-0.371** (0.151)	-0.172 (0.132)	-0.214 (0.148)	-0.215 (0.146)
Some university	-0.296** (0.143)	-0.398** (0.170)	-0.305** (0.145)	-0.149 (0.129)	-0.231 (0.141)	-0.230 (0.144)
University completed	-0.295* (0.155)	-0.459** (0.190)	-0.352** (0.159)	-0.083 (0.135)	-0.215 (0.154)	-0.177 (0.152)
Post-graduate	-0.141 (0.212)	-0.448* (0.244)	-0.355 (0.242)	-0.049 (0.247)	0.059 (0.234)	-0.077 (0.234)
Male	-0.073* (0.042)	-0.081* (0.047)	-0.065 (0.044)	-0.068* (0.038)	-0.048 (0.054)	-0.041 (0.045)
Scheduled debate week	-0.046* (0.026)	-0.029 (0.034)	-0.023 (0.035)	-0.019 (0.019)	-0.004 (0.025)	0.006 (0.023)
Number of candidates (2017)	0.031** (0.012)	0.031* (0.016)	0.024* (0.013)	-0.002 (0.013)	0.013 (0.016)	0.002 (0.015)
Incumbent ran in election (2017)	-0.184** (0.081)	-0.196** (0.092)	-0.193** (0.092)	-0.213*** (0.052)	-0.253*** (0.065)	-0.246*** (0.067)
Log registered voters (2017)	0.358** (0.179)	0.347* (0.185)	0.324 (0.211)	0.133 (0.130)	0.191 (0.134)	0.151 (0.146)
Number of debates in district	-0.132* (0.069)	-0.138 (0.091)	-0.094 (0.075)	0.084 (0.076)	-0.005 (0.091)	0.061 (0.084)
1st voteshare (2011)	0.695 (0.698)	0.333 (0.886)	0.377 (0.889)	0.546 (0.687)	0.341 (0.821)	0.544 (0.767)
2nd voteshare (2011)	2.134*** (0.478)	2.149*** (0.513)	1.948*** (0.499)	1.281*** (0.362)	1.519*** (0.431)	1.380*** (0.400)
3rd voteshare (2011)	-0.338 (0.816)	-0.651 (1.085)	-1.162 (1.096)	-2.143*** (0.599)	-2.400*** (0.673)	-2.655*** (0.719)
Voteshare HHI (2011)	-1.046 (0.757)	-0.675 (0.980)	-0.712 (0.983)	-1.355* (0.764)	-1.170 (0.926)	-1.344 (0.875)
Turnout (2011)	-1.320 (1.287)	-1.478 (1.428)	-1.548 (1.461)	1.401 (1.106)	1.435 (1.345)	1.557 (1.240)
Share of repeat candidates (2017)	0.316 (0.350)	0.378 (0.359)	0.293 (0.372)	0.045 (0.266)	0.332 (0.312)	0.183 (0.302)
Log population density (2008)	-0.055 (0.034)	-0.011 (0.050)	-0.016 (0.048)	-0.042 (0.028)	-0.044 (0.036)	-0.039 (0.033)
Share with GSM coverage (2015)	0.204 (0.231)	0.145 (0.290)	0.125 (0.277)	0.309 (0.188)	0.322 (0.232)	0.361 (0.218)
Share owns a radio (2016)	0.459 (0.291)	0.197 (0.392)	0.348 (0.349)	0.273 (0.284)	0.369 (0.328)	0.482 (0.302)
Share gets radio news often (2016)	-0.014 (0.272)	0.192 (0.401)	0.068 (0.363)	-0.137 (0.316)	-0.227 (0.378)	-0.304 (0.350)
Share over 18 (2008)	0.874 (1.711)	1.054 (1.905)	0.872 (1.894)	0.001 (1.129)	0.445 (1.469)	0.587 (1.322)
Share with secondary education (2008)	0.842 (0.845)	-0.197 (1.218)	0.139 (1.189)	1.156** (0.557)	0.924 (0.727)	0.741 (0.677)
Avg. N radio stations covering each town (2016)	-0.004 (0.005)	-0.005 (0.006)	-0.004 (0.006)	-0.013*** (0.005)	-0.016*** (0.006)	-0.016*** (0.005)
Observations	3496	3496	3496	3496	3496	3496
Weight	No	1/Obs	Reg/Obs	No	1/Obs	Reg/Obs
B. Challengers						
<i>Invite</i>	0.037 (0.066)	0.046 (0.074)	0.025 (0.070)	0.139** (0.061)	0.118 (0.073)	0.098 (0.067)
Days since 1 Sept	0.001 (0.001)	0.001 (0.002)	0.001 (0.002)	0.006*** (0.001)	0.005*** (0.001)	0.006*** (0.001)
Informal schooling only	0.239 (0.154)	0.296 (0.197)	0.187 (0.168)	0.280 (0.171)	0.260 (0.187)	0.244 (0.184)
Some primary schooling	0.041 (0.145)	0.107 (0.195)	0.005 (0.168)	0.004 (0.122)	0.013 (0.147)	-0.007 (0.127)
Primary school completed	0.100 (0.123)	0.142 (0.149)	0.066 (0.129)	0.087 (0.111)	0.100 (0.140)	0.061 (0.121)
Some secondary school	0.089 (0.128)	0.169 (0.178)	0.076 (0.149)	0.123 (0.120)	0.145 (0.167)	0.096 (0.128)
Secondary school/high school completed	0.080 (0.126)	0.120 (0.167)	0.022 (0.140)	0.098 (0.111)	0.149 (0.142)	0.095 (0.115)
Post-secondary qualifications (non-uni)	0.148 (0.127)	0.170 (0.167)	0.068 (0.143)	0.093 (0.124)	0.196 (0.168)	0.097 (0.132)
Some university	0.129 (0.128)	0.169 (0.163)	0.064 (0.139)	0.117 (0.112)	0.172 (0.148)	0.096 (0.122)
University completed	0.125 (0.128)	0.153 (0.172)	0.069 (0.143)	0.151 (0.106)	0.182 (0.132)	0.134 (0.112)
Post-graduate	0.035 (0.189)	0.033 (0.202)	-0.093 (0.192)	-0.193 (0.180)	-0.004 (0.240)	-0.219 (0.208)
Male	-0.081*** (0.030)	-0.043 (0.036)	-0.045 (0.035)	-0.050* (0.026)	-0.019 (0.032)	-0.012 (0.031)
Scheduled debate week	-0.048*** (0.016)	-0.049*** (0.018)	-0.047*** (0.017)	-0.045** (0.020)	-0.059** (0.023)	-0.040* (0.020)
Number of candidates (2017)	0.006 (0.006)	0.006 (0.007)	0.002 (0.006)	-0.003 (0.008)	-0.003 (0.009)	-0.007 (0.008)
Incumbent ran in election (2017)	0.000 (0.032)	-0.006 (0.034)	-0.007 (0.036)	-0.027 (0.043)	-0.027 (0.040)	-0.031 (0.041)
Log registered voters (2017)	0.136* (0.071)	0.125* (0.069)	0.175** (0.080)	0.055 (0.095)	0.063 (0.097)	0.087 (0.095)
Number of debates in district	0.021 (0.045)	0.027 (0.051)	0.039 (0.045)	0.126** (0.054)	0.139** (0.055)	0.154*** (0.050)
1st voteshare (2011)	-0.185 (0.516)	-0.177 (0.488)	-0.286 (0.539)	0.771 (0.487)	0.626 (0.505)	0.601 (0.485)
2nd voteshare (2011)	0.719** (0.327)	0.776* (0.401)	1.052*** (0.380)	0.784* (0.412)	0.926** (0.451)	1.076** (0.422)
3rd voteshare (2011)	-0.973** (0.459)	-0.869 (0.579)	-1.171* (0.593)	-1.040* (0.539)	-0.827 (0.616)	-1.233** (0.615)
Voteshare HHI (2011)	0.219 (0.577)	0.250 (0.559)	0.287 (0.609)	-1.103* (0.572)	-0.970 (0.613)	-0.915 (0.608)
Turnout (2011)	-0.914 (0.557)	-1.466** (0.587)	-1.466** (0.570)	0.460 (0.686)	0.051 (0.668)	0.128 (0.640)
Share of repeat candidates (2017)	0.022 (0.161)	0.058 (0.169)	-0.008 (0.187)	0.157 (0.194)	0.169 (0.192)	0.112 (0.194)
Log population density (2008)	-0.014 (0.023)	0.028 (0.024)	0.024 (0.024)	-0.027 (0.025)	0.007 (0.027)	0.012 (0.025)
Share with GSM coverage (2015)	-0.072 (0.092)	-0.161* (0.093)	-0.148 (0.100)	0.096 (0.105)	0.042 (0.106)	0.023 (0.104)
Share owns a radio (2016)	-0.258 (0.195)	-0.301 (0.197)	-0.277 (0.192)	0.144 (0.227)	0.004 (0.234)	0.170 (0.201)
Share gets radio news often (2016)	0.029 (0.142)	0.068 (0.154)	0.017 (0.153)	-0.005 (0.141)	0.049 (0.165)	-0.047 (0.147)
Share over 18 (2008)	-1.441 (0.993)	-1.678 (1.072)	-1.442 (1.100)	1.233 (1.226)	1.480 (1.264)	1.646 (1.267)
Share with secondary education (2008)	0.161 (0.567)	-0.648 (0.565)	-0.609 (0.531)	1.396** (0.562)	0.835 (0.586)	0.581 (0.536)
Avg. N radio stations covering each town (2016)	0.007 (0.005)	0.006 (0.005)	0.004 (0.005)	-0.007 (0.005)	-0.011* (0.006)	-0.011* (0.006)
Observations	8684	8684	8684	8684	8684	8684
Weight	No	1/Obs	Reg/Obs	No	1/Obs	Reg/Obs

Outcomes are standardized. Panel 1: Columns 1-3: change in certainty about candidates' competence; 4-6: change in certainty about candidates' policy priorities; Panel 2: Columns 1-3: change in perceptions of candidates' competence; 4-6: change in correctly learning candidates' policy priorities. Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: 'Obs': number of observations in that district; 'Reg': number of registered voters in that district. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

A32. Updating about candidates (Table 9, Panel 2)

2. Levels	Beliefs about competence						Learning about policy					
	(1)		(2)		(3)		(4)		(5)		(6)	
A. Incumbent												
<i>Invite</i>	0.098	(0.075)	0.066	(0.089)	0.093	(0.082)	0.089	(0.065)	0.125	(0.089)	0.091	(0.073)
Days since 1 Sept	0.005***	(0.002)	0.004	(0.002)	0.004*	(0.002)	-0.009***	(0.002)	-0.008***	(0.002)	-0.008***	(0.002)
Informal schooling only	-0.146	(0.184)	-0.039	(0.245)	0.012	(0.221)	0.169	(0.249)	0.087	(0.248)	0.306	(0.267)
Some primary schooling	0.023	(0.141)	0.020	(0.152)	0.078	(0.153)	-0.237	(0.168)	-0.198	(0.176)	-0.175	(0.176)
Primary school completed	-0.184	(0.155)	-0.107	(0.175)	-0.042	(0.186)	-0.006	(0.150)	0.052	(0.167)	0.053	(0.169)
Some secondary school	0.030	(0.146)	0.130	(0.174)	0.233	(0.180)	-0.034	(0.159)	-0.024	(0.168)	0.006	(0.171)
Secondary school/high school completed	-0.105	(0.133)	-0.077	(0.152)	-0.018	(0.163)	-0.068	(0.143)	-0.049	(0.158)	-0.026	(0.162)
Post-secondary qualifications (non-uni)	-0.078	(0.142)	-0.030	(0.161)	0.007	(0.164)	-0.026	(0.155)	-0.014	(0.175)	0.030	(0.177)
Some university	-0.010	(0.133)	-0.001	(0.158)	0.051	(0.162)	0.019	(0.138)	0.029	(0.150)	0.061	(0.150)
University completed	-0.081	(0.139)	-0.083	(0.163)	-0.023	(0.168)	0.015	(0.140)	-0.000	(0.161)	0.001	(0.157)
Post-graduate	-0.201	(0.240)	-0.226	(0.266)	-0.167	(0.268)	-0.052	(0.218)	0.143	(0.239)	0.093	(0.245)
Male	-0.015	(0.035)	0.003	(0.040)	-0.017	(0.038)	-0.003	(0.034)	-0.010	(0.043)	-0.017	(0.038)
Scheduled debate week	0.062***	(0.021)	0.051*	(0.027)	0.072***	(0.023)	0.059**	(0.025)	0.080***	(0.029)	0.074**	(0.030)
Number of candidates (2017)	0.019*	(0.011)	0.039***	(0.014)	0.031**	(0.012)	0.002	(0.014)	0.005	(0.014)	0.004	(0.013)
Incumbent ran in election (2017)	0.236***	(0.056)	0.227***	(0.075)	0.264***	(0.067)	-0.117	(0.093)	-0.050	(0.103)	-0.067	(0.101)
Log registered voters (2017)	-0.609***	(0.119)	-0.612***	(0.139)	-0.676***	(0.132)	0.546***	(0.166)	0.409**	(0.162)	0.415**	(0.168)
Number of debates in district	0.013	(0.064)	-0.099	(0.081)	-0.050	(0.075)	-0.120	(0.080)	-0.130	(0.078)	-0.112	(0.073)
1st voteshare (2011)	-0.561	(0.645)	0.105	(0.716)	-0.270	(0.628)	-0.229	(0.772)	-0.704	(0.616)	-0.694	(0.678)
2nd voteshare (2011)	-0.528	(0.418)	-0.487	(0.592)	-0.733	(0.473)	-1.217***	(0.373)	-1.168***	(0.493)	-1.134**	(0.466)
3rd voteshare (2011)	0.896	(0.707)	1.443* (0.827)		1.561** (0.727)		0.957	(0.766)	0.635	(0.888)	0.858	(0.895)
Voteshare HHI (2011)	0.365	(0.737)	-0.344 (0.818)		0.153 (0.724)		0.562	(0.912)	1.127	(0.751)	1.086	(0.824)
Turnout (2011)	5.247***	(1.008)	5.833*** (1.119)		6.119*** (0.956)		1.205	(1.456)	1.224	(1.301)	1.378	(1.371)
Share of repeat candidates (2017)	-0.126	(0.251)	-0.016 (0.269)		-0.067 (0.232)		-0.609* (0.356)		-0.414 (0.338)		-0.421 (0.362)	
Log population density (2008)	-0.054*	(0.027)	-0.095*** (0.033)		-0.088*** (0.026)		0.008	(0.028)	0.007	(0.032)	0.001	(0.031)
Share with GSM coverage (2015)	0.581***	(0.181)	0.692*** (0.184)		0.722*** (0.153)		0.054	(0.269)	0.243	(0.273)	0.231	(0.282)
Share owns a radio (2016)	-0.280	(0.294)	-0.208 (0.300)		-0.127 (0.272)		-1.197*** (0.289)		-1.105*** (0.310)		-1.174*** (0.292)	
Share gets radio news often (2016)	-0.099	(0.280)	-0.293 (0.283)		-0.290 (0.233)		1.169** (0.441)		1.033** (0.478)		1.077** (0.456)	
Share over 18 (2008)	4.005***	(1.461)	4.447** (1.854)		4.954*** (1.539)		1.400	(1.196)	2.601** (1.246)		2.903** (1.249)	
Share with secondary education (2008)	-0.332	(0.600)	0.224 (0.625)		-0.176 (0.522)		-1.279* (0.733)		-1.988*** (0.746)		-1.558** (0.761)	
Avg. N radio stations covering each town (2016)	-0.008	(0.005)	-0.010* (0.005)		-0.008* (0.005)		-0.003 (0.006)		-0.001 (0.006)		-0.002 (0.006)	
Observations	3496		3496		3496		3496		3496		3496	
Weight	No		1/Obs		Reg/Obs		No		1/Obs		Reg/Obs	
B. Challengers												
<i>Invite</i>	-0.078	(0.075)	-0.147* (0.088)		-0.096 (0.077)		0.038 (0.065)		0.027 (0.086)		0.063 (0.080)	
Days since 1 Sept	0.002	(0.001)	0.002 (0.002)		0.002 (0.001)		-0.008*** (0.001)		-0.008*** (0.002)		-0.009*** (0.001)	
Informal schooling only	0.281*	(0.141)	0.334** (0.151)		0.368** (0.158)		-0.049 (0.184)		0.096 (0.300)		0.137 (0.264)	
Some primary schooling	0.084	(0.113)	0.043 (0.150)		0.094 (0.150)		-0.309** (0.120)		-0.433*** (0.139)		-0.371*** (0.135)	
Primary school completed	0.122	(0.087)	0.098 (0.095)		0.083 (0.098)		-0.120 (0.117)		-0.173 (0.118)		-0.129 (0.119)	
Some secondary school	0.141	(0.091)	0.052 (0.119)		0.057 (0.118)		-0.112 (0.104)		-0.218* (0.121)		-0.159 (0.122)	
Secondary school/high school completed	0.092	(0.078)	0.012 (0.084)		0.028 (0.090)		-0.142 (0.106)		-0.223* (0.128)		-0.192 (0.124)	
Post-secondary qualifications (non-uni)	0.183**	(0.088)	0.150 (0.092)		0.147 (0.098)		-0.181 (0.113)		-0.286** (0.133)		-0.252** (0.122)	
Some university	0.123	(0.077)	0.064 (0.093)		0.055 (0.095)		-0.132 (0.108)		-0.189 (0.127)		-0.156 (0.123)	
University completed	0.136*	(0.080)	0.030 (0.086)		0.058 (0.091)		-0.135 (0.103)		-0.227* (0.122)		-0.179 (0.118)	
Post-graduate	0.055	(0.157)	-0.163 (0.150)		-0.074 (0.156)		-0.118 (0.142)		-0.033 (0.188)		-0.063 (0.182)	
Male	0.018	(0.030)	0.011 (0.032)		0.016 (0.031)		-0.007 (0.028)		-0.003 (0.033)		-0.007 (0.032)	
Scheduled debate week	-0.005	(0.020)	-0.029 (0.022)		-0.023 (0.019)		0.015 (0.020)		0.039* (0.020)		0.025 (0.020)	
Number of candidates (2017)	-0.003	(0.008)	-0.004 (0.008)		-0.000 (0.008)		0.004 (0.007)		-0.005 (0.008)		-0.006 (0.008)	
Incumbent ran in election (2017)	0.097***	(0.028)	0.088*** (0.030)		0.090*** (0.030)		0.018 (0.037)		0.020 (0.038)		-0.006 (0.042)	
Log registered voters (2017)	-0.191**	(0.072)	-0.143** (0.070)		-0.190** (0.078)		0.117 (0.088)		0.102 (0.076)		0.125 (0.084)	
Number of debates in district	0.050	(0.056)	0.057 (0.049)		0.044 (0.050)		0.044 (0.046)		0.104** (0.050)		0.107** (0.048)	
1st voteshare (2011)	0.022	(0.491)	-0.115 (0.441)		-0.200 (0.497)		0.446 (0.553)		-0.238 (0.448)		-0.005 (0.473)	
2nd voteshare (2011)	-0.378	(0.365)	-0.187 (0.428)		-0.172 (0.375)		0.418 (0.409)		0.431 (0.457)		0.820* (0.464)	
3rd voteshare (2011)	-0.525	(0.432)	-0.425 (0.500)		-0.428 (0.489)		0.047 (0.579)		-0.186 (0.636)		-0.719 (0.677)	
Voteshare HHI (2011)	-0.147	(0.577)	-0.074 (0.531)		0.069 (0.573)		-0.728 (0.625)		0.021 (0.532)		-0.310 (0.570)	
Turnout (2011)	0.853	(0.540)	0.133 (0.604)		0.397 (0.588)		0.054 (0.652)		0.233 (0.547)		-0.132 (0.609)	
Share of repeat candidates (2017)	-0.066	(0.129)	-0.040 (0.137)		-0.058 (0.149)		0.235* (0.138)		0.185 (0.132)		0.188 (0.135)	
Log population density (2008)	0.008	(0.024)	0.018 (0.025)		0.017 (0.024)		0.017 (0.022)		0.046** (0.021)		0.036 (0.022)	
Share with GSM coverage (2015)	0.086	(0.087)	0.038 (0.081)		0.048 (0.086)		-0.032 (0.095)		-0.047 (0.084)		-0.041 (0.096)	
Share owns a radio (2016)	0.277	(0.175)	0.224 (0.185)		0.350* (0.183)		-0.212 (0.181)		-0.263 (0.162)		-0.317* (0.166)	
Share gets radio news often (2016)	-0.223	(0.139)	-0.203 (0.155)		-0.179 (0.149)		0.253 (0.160)		0.323** (0.148)		0.278* (0.157)	
Share over 18 (2008)	1.576	(1.003)	0.491 (0.934)		0.732 (0.953)		-0.722 (1.230)		0.745 (1.127)		0.245 (1.223)	
Share with secondary education (2008)	0.657	(0.648)	0.196 (0.636)		0.349 (0.590)		0.085 (0.511)		-0.631 (0.476)		-0.306 (0.482)	
Avg. N radio stations covering each town (2016)	-0.007	(0.004)	-0.004 (0.005)		-0.005 (0.004)		-0.003 (0.005)		-0.004 (0.005)		-0.004 (0.005)	
Observations	8684		8684		8684		8684		8684		8684	
Weight	No		1/Obs		Reg/Obs		No		1/Obs		Reg/Obs	

Outcomes are standardized. Outcomes: Panel 1: Columns 1-3: change in certainty about candidates' competence; 4-6: change in certainty about candidates' policy priorities; Panel 2: Columns 1-3: change in perceptions of candidates' competence; 4-6: change in correctly learning candidates' policy priorities. Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: 'Obs': number of observations in that district; 'Reg': number of registered voters in that district. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

A33. Campaigning responses (Table 10)

	Ground			Radio		
	(1)	(2)	(3)	(4)	(5)	(6)
A. Incumbent						
<i>Invite</i>	-0.055 (0.043)	-0.075 (0.050)	-0.052 (0.051)	0.082** (0.037)	0.087** (0.040)	0.092** (0.042)
Days since 1 Sept	0.010*** (0.002)	0.008*** (0.002)	0.010*** (0.002)	0.007*** (0.002)	0.006*** (0.002)	0.006** (0.002)
Informal schooling only	0.509** (0.209)	0.833** (0.344)	0.755** (0.299)	0.196 (0.188)	0.236 (0.216)	0.285 (0.215)
Some primary schooling	0.336* (0.172)	0.308 (0.233)	0.248 (0.192)	0.216 (0.145)	0.172 (0.187)	0.144 (0.180)
Primary school completed	0.383*** (0.143)	0.450** (0.211)	0.368** (0.162)	0.219 (0.157)	0.147 (0.179)	0.136 (0.175)
Some secondary school	0.333** (0.154)	0.355 (0.219)	0.283 (0.180)	0.113 (0.142)	0.127 (0.177)	0.128 (0.168)
Secondary school/high school completed	0.344** (0.151)	0.372 (0.234)	0.275 (0.183)	0.219* (0.126)	0.223 (0.154)	0.209 (0.145)
Post-secondary qualifications (non-uni)	0.449*** (0.154)	0.467** (0.223)	0.366** (0.179)	0.305** (0.144)	0.258 (0.188)	0.248 (0.176)
Some university	0.334** (0.147)	0.400* (0.217)	0.310* (0.169)	0.297** (0.140)	0.287* (0.165)	0.278* (0.159)
University completed	0.341** (0.149)	0.362* (0.215)	0.300* (0.174)	0.299** (0.148)	0.239 (0.169)	0.268 (0.165)
Post-graduate	0.462* (0.234)	0.629* (0.316)	0.543* (0.273)	0.345 (0.253)	0.352 (0.223)	0.353 (0.255)
Male	0.020 (0.040)	0.024 (0.045)	0.012 (0.039)	0.201*** (0.038)	0.219*** (0.042)	0.186*** (0.040)
Scheduled debate week	-0.027 (0.038)	-0.065 (0.051)	-0.065 (0.053)	-0.061** (0.027)	-0.078** (0.034)	-0.063* (0.032)
Number of candidates (2017)	0.002 (0.016)	0.005 (0.017)	0.003 (0.016)	-0.010 (0.017)	0.006 (0.020)	-0.013 (0.017)
Incumbent ran in election (2017)	0.206** (0.092)	0.148 (0.109)	0.175 (0.120)	-0.231** (0.095)	-0.335*** (0.120)	-0.262** (0.100)
Log registered voters (2017)	-0.391* (0.210)	-0.322 (0.229)	-0.435* (0.247)	0.018 (0.168)	0.137 (0.184)	0.121 (0.187)
Number of debates in district	-0.047 (0.098)	-0.071 (0.096)	-0.056 (0.096)	0.112 (0.101)	0.052 (0.104)	0.128 (0.100)
1st voteshare (2011)	-0.676 (0.734)	0.631 (0.990)	0.426 (1.043)	2.494** (1.044)	2.252** (1.003)	2.442** (1.063)
2nd voteshare (2011)	-0.550 (0.653)	-0.089 (0.744)	-0.390 (0.745)	0.234 (0.598)	0.718 (0.693)	0.355 (0.619)
3rd voteshare (2011)	0.752 (1.066)	0.890 (1.397)	1.564 (1.505)	-1.294 (0.930)	-1.416 (1.056)	-1.714 (1.044)
Voteshare HHI (2011)	0.783 (0.892)	-0.718 (1.099)	-0.525 (1.164)	-2.902** (1.225)	-2.719** (1.164)	-2.878** (1.190)
Turnout (2011)	-1.994 (1.772)	-1.344 (1.764)	-0.775 (1.884)	-0.661 (1.866)	-0.577 (2.065)	-1.100 (2.073)
Share of repeat candidates (2017)	0.553 (0.460)	0.670 (0.533)	0.450 (0.511)	0.207 (0.398)	0.550 (0.399)	0.435 (0.392)
Log population density (2008)	0.029 (0.049)	-0.047 (0.071)	-0.030 (0.068)	0.010 (0.044)	-0.016 (0.047)	-0.011 (0.045)
Share with GSM coverage (2015)	0.429 (0.324)	0.426 (0.404)	0.541 (0.406)	-0.033 (0.278)	0.004 (0.267)	0.050 (0.276)
Share owns a radio (2016)	0.017 (0.411)	0.379 (0.459)	0.357 (0.436)	0.246 (0.369)	0.341 (0.334)	0.357 (0.354)
Share gets radio news often (2016)	-0.290 (0.488)	-0.537 (0.580)	-0.416 (0.563)	-0.155 (0.371)	-0.274 (0.370)	-0.240 (0.362)
Share over 18 (2008)	-0.171 (2.049)	0.815 (2.231)	1.178 (2.491)	-5.755*** (2.085)	-5.495*** (2.165)	-5.934*** (2.262)
Share with secondary education (2008)	0.126 (1.092)	2.360 (1.779)	1.794 (1.634)	1.911** (0.809)	2.443** (0.987)	2.172** (0.892)
Avg. N radio stations covering each town (2016)	-0.002 (0.009)	-0.004 (0.009)	-0.007 (0.010)	-0.004 (0.006)	-0.005 (0.007)	-0.003 (0.007)
Observations	3492	3492	3492	3496	3496	3496
Weight	No	1/Obs	Reg/Obs	No	1/Obs	Reg/Obs
B. Challengers						
<i>Invite</i>	-0.060* (0.031)	-0.073** (0.029)	-0.076** (0.032)	-0.025 (0.028)	-0.004 (0.027)	-0.018 (0.028)
Days since 1 Sept	0.012*** (0.002)	0.011*** (0.002)	0.012*** (0.002)	0.012*** (0.001)	0.011*** (0.002)	0.012*** (0.001)
Informal schooling only	0.061 (0.170)	0.278 (0.207)	0.278 (0.215)	-0.113 (0.169)	0.081 (0.233)	0.170 (0.210)
Some primary schooling	-0.060 (0.111)	-0.118 (0.105)	-0.119 (0.112)	0.013 (0.122)	0.011 (0.121)	0.043 (0.113)
Primary school completed	0.010 (0.097)	0.043 (0.080)	0.042 (0.093)	0.006 (0.127)	0.035 (0.132)	0.072 (0.130)
Some secondary school	-0.052 (0.110)	-0.034 (0.101)	-0.046 (0.120)	-0.061 (0.126)	-0.045 (0.140)	0.027 (0.124)
Secondary school/high school completed	-0.007 (0.093)	0.038 (0.087)	0.017 (0.098)	0.014 (0.118)	0.060 (0.129)	0.113 (0.123)
Post-secondary qualifications (non-uni)	-0.004 (0.102)	0.078 (0.096)	0.052 (0.102)	0.087 (0.123)	0.142 (0.134)	0.175 (0.130)
Some university	0.003 (0.094)	0.047 (0.090)	0.020 (0.097)	0.118 (0.115)	0.164 (0.119)	0.202* (0.114)
University completed	-0.014 (0.099)	0.041 (0.088)	0.017 (0.096)	0.080 (0.121)	0.120 (0.131)	0.166 (0.123)
Post-graduate	0.189 (0.119)	0.237* (0.126)	0.226* (0.123)	0.253 (0.223)	0.384* (0.229)	0.388* (0.227)
Male	0.085*** (0.031)	0.057* (0.033)	0.078** (0.030)	0.200*** (0.027)	0.207*** (0.034)	0.185*** (0.032)
Scheduled debate week	0.060** (0.025)	0.047* (0.024)	0.051** (0.024)	0.076*** (0.026)	0.061** (0.024)	0.060** (0.024)
Number of candidates (2017)	-0.013 (0.012)	-0.026** (0.010)	-0.013 (0.011)	-0.023** (0.010)	-0.023** (0.010)	-0.021* (0.011)
Incumbent ran in election (2017)	-0.062 (0.051)	-0.052 (0.046)	-0.074 (0.053)	-0.092** (0.045)	-0.073* (0.042)	-0.100** (0.045)
Log registered voters (2017)	0.130 (0.086)	0.133 (0.088)	0.109 (0.092)	0.138* (0.082)	0.115 (0.077)	0.095 (0.072)
Number of debates in district	0.053 (0.070)	0.102* (0.058)	0.042 (0.064)	0.090 (0.064)	0.101 (0.067)	0.096 (0.065)
1st voteshare (2011)	-0.340 (0.489)	-0.018 (0.490)	-0.341 (0.481)	-0.360 (0.641)	-0.087 (0.613)	-0.033 (0.651)
2nd voteshare (2011)	0.170 (0.576)	0.197 (0.557)	-0.036 (0.541)	0.104 (0.392)	-0.007 (0.417)	-0.148 (0.417)
3rd voteshare (2011)	-0.377 (0.778)	0.431 (0.634)	0.321 (0.824)	-1.690** (0.769)	-0.684 (0.797)	-0.990 (0.830)
Voteshare HHI (2011)	0.760 (0.617)	0.395 (0.616)	0.771 (0.600)	0.526 (0.730)	0.303 (0.678)	0.164 (0.727)
Turnout (2011)	0.342 (0.756)	-0.185 (0.714)	0.127 (0.722)	1.178 (0.882)	0.418 (0.770)	0.316 (0.778)
Share of repeat candidates (2017)	0.009 (0.177)	-0.138 (0.157)	-0.123 (0.182)	-0.355* (0.187)	-0.268 (0.197)	-0.289 (0.213)
Log population density (2008)	-0.006 (0.031)	-0.012 (0.028)	-0.003 (0.030)	0.013 (0.033)	0.040 (0.033)	0.041 (0.031)
Share with GSM coverage (2015)	0.003 (0.114)	0.051 (0.097)	0.014 (0.101)	0.211 (0.142)	0.107 (0.132)	0.111 (0.133)
Share owns a radio (2016)	0.473** (0.218)	0.410** (0.193)	0.441** (0.188)	0.582** (0.289)	0.309 (0.266)	0.329 (0.257)
Share gets radio news often (2016)	-0.184 (0.173)	-0.176 (0.165)	-0.211 (0.170)	-0.432** (0.193)	-0.269 (0.204)	-0.335* (0.192)
Share over 18 (2008)	0.091 (1.274)	0.798 (1.084)	0.505 (1.179)	-0.706 (1.310)	-1.135 (1.182)	-0.961 (1.308)
Share with secondary education (2008)	-0.737 (0.665)	-0.626 (0.681)	-0.456 (0.689)	-1.047 (0.714)	-1.343* (0.684)	-1.102 (0.665)
Avg. N radio stations covering each town (2016)	-0.003 (0.004)	-0.004 (0.004)	-0.004 (0.004)	-0.009* (0.004)	-0.008* (0.005)	-0.010* (0.005)
Observations	8676	8676	8676	8684	8684	8684
Weight	No	1/Obs	Reg/Obs	No	1/Obs	Reg/Obs

Outcomes are standardized. Columns 1-3: index of how often candidates (1) visited (2) distributed leaflets (3) bought votes in respondents' communities; 4-6: index of how often respondents heard candidates on radio in two weeks before election.

Specifications estimated using OLS including block FE, enumerator FE, district-level and individual-level controls. Weights: 'Obs': number of observations in that district; 'Reg': number of registered voters in that district. Standard errors clustered at district-level in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.