Policy evidence and electoral accountability

PRELIMINARY

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Abstract

Electoral accountability for public service improvements requires that politicians and voters be informed about how policies work and who supports them. In this paper, I conduct two interlocking information experiments among candidates and voters in Liberia. The first provided legislative candidates with RCT evidence that a school reform raised test scores. This made candidates who opposed the policy less likely to campaign on it, and less likely to win. The second experiment informed voters – both reform beneficiaries and non-beneficiaries – which candidates backed the school reform. Among beneficiaries, this increased votes for pro-reform candidates; non-beneficiaries shifted towards opponents of the reform. These results highlight the gap in politicians' knowledge about voters' preferences, and underscore that policy effectiveness does not guarantee political feasibility.

Keywords: Electoral returns; Policy feedback; Public service delivery; Policy experimentation; Education; Political economy; Elections; Randomized controlled trial; Liberia; Information
JEL Codes: O10, C93, D72, P16, H41, I25

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1 Introduction

Democratic accountability for public services requires information (Persson and Tabellini, 2002). A large body of literature posits that increasing the information available to voters aids electoral accountability — although evidence is mixed on precisely what matters about that information's content and form (Ferraz and Finan, 2008; Dunning et al., 2019; Pande, 2011; Snyder and Strömberg, 2010). However, imperfect information on the politician side can also impede accountability, potentially interacting with voter information frictions. Candidates must know which policies produce the outcomes they favor, and voters must know which candidates support the policies they want to see implemented. The empirical literature on politician information frictions is much more sparse (Butler and Nickerson, 2011; Liaqat, 2020). Some evidence shows that politicians value rigorous policy evidence (Hjort et al., 2021). But it is also well-established that people frequently ignore information in costly ways, and politicians may be no exception (Handel and Schwartzstein, 2018). Can better access to policy information increase accountability?

Studying the effects of access to information in politics is difficult. Opportunities to survey politicians, and to significantly shock their information sets, are rare. It is often also difficult to measure politicians' policy positions in a uniform way, especially in young democracies where norms of political communication are still evolving. Providing meaningful information on policy is hampered by the fact that most policies are never rigorously evaluated. Some researchers hope that evidence will help governments craft better policy (Banerjee et al., 2017). But while researchers broadly acknowledge the importance of political economy for policy adoption, little research systematically studies the political consequences of making rigorous evidence available.

This paper overcomes these difficulties using two interlocking information experiments with politicians and voters in Liberia, in the context of a controversial education reform implemented and evaluated prior to the 2017 general election. The Partnership Schools for Liberia program offers an attractive context in which to study how policy evidence and policy positions affect elections. Inaugurated in 2016, the reform ceded management of 93 randomly chosen public primary schools to private operators. It was an unusually salient policy experiment, attracting frequent press attention and causing heated controversy in the run-up to the election. Romero et al. (2020) showed that despite its flaws, the policy raised test scores and teacher attendance, and was broadly popular among the parents of students in treated school. Sandholtz (2023), however, showed that the reform reduced vote share for the incumbent government, largely by alienating teachers, a key constituency. The situation is a familiar one for researchers interested

in turning evidence into policy: the program itself appeared successful (at least on certain dimensions), but scaling it up may have seemed politically risky. The two information experiments in the present paper are designed to test how politicians respond to policy evidence in this context.

The first experiment varied the provision of policy evidence to federal legislative candidates. It was embedded in a survey about school policy which reached 69% of all candidates for the House of Representatives, including 32 of the 73 eventual winners. Although the legislature did not create the policy, their support would be necessary to implement it at scale, so their positions on the policy are germane. A random subset of respondents were provided with RCT results about the policy's effectiveness. The survey then elicited the candidates' positions regarding the scale-up of the policy. This elicitation was made incentive compatible: candidates were told that a voter sensitization exercise would be conducted among their constituents, and asked what policy position (if any) they would like to be communicated to voters on their behalf. They were offered three options, corresponding to strong support, caution, or strong opposition; 89% of respondents chose one of these options as the position they wanted their voters to know about. Policy evidence had no significant impact on this immediate measure of candidates' support for the policy.

The second experiment varied the provision of candidate policy positions to voters. In a survey of the households of students from the evaluation sample of the school reform, all respondents were given RCT evidence on the effectiveness of the policy. As a measure of candidates' campaign messaging, households were then asked which legislative candidates had mentioned the school policy on the campaign trail in their district. A random subset of respondents were then provided with the policy positions of all candidates in their district who had provided a statement.

The results of the candidate experiment show that policy evidence affected candidates' campaign messaging, and reduced their likelihood of winning. Candidates who received rigorous evidence about the school reform were about 5 percentage points less likely to mention the program on the campaign trail, as reported by voters. They were also about 5 percentage points less likely to win their races. In both cases, these negative effects were significant only for candidates who did not express strong support the policy when surveyed. This suggests that policy evidence led some opponents of the reform to keep quiet about it — and that they paid an electoral price for doing so. The effects on campaigning and winning were also more negative for candidates in districts with more schools affected by the reform. This may indicate that the information's effect was not concentrated on those with relatively uninformative priors, but instead changed behavior most for those who had already been most exposed to the reform.

The results from the voter experiment show that voters who received candidate information were more likely to vote for candidates who opposed the policy. They were also less likely to vote for candidates who cautiously said the policy merited further study. These findings complement those from the candidate experiment: they suggest the existence of a constituency opposed to the policy, who merely lacked information about which candidates shared their views. The policy evidence provided to candidates may have convinced some of those who opposed the policy that this constituency was smaller than it was in reality.

Among households who experienced the policy, however, information about candidates' positions increased support for those who strongly supported the policy. This is consistent with findings from Romero et al. (2020) showing that the policy was popular among those who experienced it. But this also highlights the heterogeneous impacts of policy reforms, showing that gaining political support through reform entails a delicate political balancing act (Biasi and Sandholtz, 2024).

These results show that both policy information and candidate information can be electorally consequential in a developing democracy. Many researchers crave policy impact, and offer free advice to politicians based on the conclusions of their work. The present paper empirically illustrates two important phenomena in these situations. 1) Politicians have an appetite for policy information, which is often in short supply, and will change their campaign behavior based on it. 2) The information researchers deem relevant may ultimately be counterproductive for politicians if they infer that policy effectiveness implies voter support.

These results do not imply that voters and candidates in Liberia are poorly informed. Indeed, a further contribution of this paper is its descriptive measures of voters' political knowledge in a developing democracy. In Liberia, a relatively young democracy with low levels of education among the electorate, voters are reasonably well-informed, both in general and about the policy; nearly all are able to name their representative, for example. Virtually nobody thinks (incorrectly) that the legislature was responsible for the policy, and a plurality say (correctly) that the president was responsible for it.

The primary contribution of this paper is to the literature on information's role in elections. Most existing work in this literature focuses on informing voters of politicians' malfeasance, with mixed results on exactly when and where voters are swayed by such information (Banerjee et al., 2014; Ferraz and Finan, 2008; Dunning et al., 2019; Banerjee et al., 2011). This paper focuses instead on how the information candidates have about policy effectiveness shapes their policy poisitions and campaign choices.

The paper also contributes to the literature on the relationship between the opinions of voters and elites. One strand of this literature, exemplified by Achen and Bartels (2016), contends that elites shape

public opinion rather than responding to it. In the context I study, however, politicians' campaign choices were affected by information on a policy's effectiveness and popularity. In the absence of reliable public opinion polling, such evidence may potentially be viewed as a proxy for voters' preferences. By inducing politicians to be less publicly critical of a (seemingly) effective policy, the information worsened their electoral outcomes. This was because the policy turned out to be unpopular among important political groups. This presents challenges for researchers who hope that producing policy evidence for policymakers will spur the adoption of evidence-backed policies. Without showing that such policies are also politically incentive-compatible, such policy evidence is unlikely to affect adoption in equilibrium.

Another of this paper's contributions is to field a large-scale survey of candidates for federal office on a salient policy issue — a rarity — and to elicit their support for the policy in an incentive-compatible way. A nascent literature makes the preferences of policymakers the subject of systematic empirical research (Crawfurd et al., 2021; Hjort et al., 2021). This paper builds on evidence showing that policymakers do have an appetite for rigorous policy evidence (Hjort et al., 2021). But politicians' objective functions may differ from those of researchers – or of the social planner researchers attempt to channel. In the absence of credible polling of constituents, policy evidence from researchers may be assumed to be informative of constituents' views (Butler and Nickerson, 2011). This paper shows that such an assumption need not be true. Perhaps the most closely related paper is that of Jablonski and Seim (2023), who show that offering Malawian politicians information about school resources caused spending to shift toward needier schools. Providing information about the politician's own level of local support in the polling station nearest the school had no effect on spending decisions, consistent with politicians believing school spending does not win votes. My paper shows how policy information affected both campaign behavior and electoral outcomes, and is the first to examine in the same context the effect of policy information on candidates and the effect of candidate information on voters.

The rest of this article is structured as follows: Section 2 provides context about Liberia and the policy; Section 3 outlines the candidate experiment; Section 4 presents household experiment; and Section 5 concludes.

2 Context

Liberia emerged from decades of civil war to hold its first national free and fair election in 2005 (Pailey and Harris, 2020). The election was largely peaceful, and since then there have been largely peaceful general

elections in 2011, 2017, and 2023 (the latter two of which featured the transfer of power to a different political party). Liberia is frequently classified as an imperfect democracy – a "hybrid regime," in the parlance of Economist Intelligence Unit (2022), a category which includes Nepal and Kenya and 18% of the world's population. The system is presidential. Voters elect a president every 6 years to head the executive branch (limited to two terms). Presidents win with a majority of the votes; if no candidate clears 50% in the first round, the top two go to a runoff.

The legislative branch is bicameral, consisting of a House of Representatives and a Senate. The House of Representatives includes 73 members, each representing a single-member district, elected every 2 years. The Senate includes 30 members (two from each of Liberia's 15 counties), elected to 9 year terms. Legislative elections are first-past-the-post, requiring only a plurality of the votes to win. While education policy is set by the Ministry of Education, which is part of the executive branch, the legislative branch is responsible for passing a budget, which includes funding for the Ministry of Education. Therefore, while the Partnership Schools for Liberia program was an initiative of the executive branch, legislators' positions on the policy are germane insofar as they could write legislation to scale up, abolish, or otherwise enshrine the policy in law.

Because there are no elections at the local level, the House of Representatives constitutes 70% of all elected officials in Liberia.

2.1 Politics in Liberia

Parties are not strongly institutionalized in Liberia's young democracy, and they lack consistent policy platforms (Pailey and Harris, 2017,0). The partisan landscape is also quite fragmented: 11 different parties won seats in the 2011 election (plus 9 independent candidates). Meanwhile, 12 parties won seats in 2017 election, alongside 13 independent candidates.

A crucial feature of the Liberian political information landscape is that accurately measuring public opinion is extremely difficult. This is true even for questions as basic as presidential candidates' support, to say nothing of more granular issue polling. In the run-up to the 2017 election, the most optimistic polls for Weah gave him 25% support; in reality he won 38% in the first round.

Liberian voters' demand for government action on education is strong. In a nationally representative survey in 2015, a plurality of respondents (49%) listed Education as their number one priority for increased government investment – more than twice as many as listed the next most popular answer, infrastructure (Afrobarometer, 2015).

2.2 Liberia's education system

Schools in Liberia are generally poor. Net enrollment of primary students – the fraction of primary-age children enrolled in primary school – stood at 38% in 2014 (World Bank, 2014b). 55% of youth aged 15-24 were illiterate in 2015 (World Bank, 2014a). Of the 25,000 high school graduates who sat the university entrance exam in 2013, zero passed. This led President Ellen Johnson Sirleaf to lament in the press: "The students' failure did not come from the university, but rather from the schools that prepared them." She declared that "the educational system is a mess" but that education was "priority number one," while her administration described the education crisis a "national emergency" (Reuters, 2013; The New Dawn, 2013; Sayon, 2013).

2.3 The Partnership Schools for Liberia program

In response to the crisis, Liberia's Ministry of Education piloted a school reform called Partnership Schools for Liberia (Ministry of Education, Republic of Liberia, 2016). The program tested the effect of private management in public primary schools, similar to a charter school program in the United States or the academy model in the UK. Schools in the program were assigned to be managed by one of eight different private operators. The school buildings remained government property, and private operators were responsible for day-to-day management and for providing the national curriculum. Operators were not allowed to hire non-government teachers, nor fire teachers (though they were allowed to request that the Ministry reassign teachers). It also included a large infusion of per-pupil funding from outside donors.

2.4 The evaluation

Unusually for public service reforms, the program was allocated to schools randomly so its effects could be measured. From a pool of 185 eligible schools, 93 were randomly selected to participate. The program raised students' test scores in math and English by about 0.2σ, an effect which appeared after one year of the program and persisted until at least the program's third year (Romero et al., 2020; Romero and Sandefur, 2021). It also improved teacher attendance and time-on-task, as well as increasing parents' satisfaction with their children's education. However, some private operators courted controversy by enforcing class size caps and requesting the reassignment of large fractions of the teacher corps.

2.5 Political effects of the program

Research exploiting the randomization of the program to identify its electoral impacts showed that despite improving some dimensions of school quality, the reform reduced vote share for the incumbent government (Sandholtz, 2023). This appears to have been driven by its alienation of an important political constituency: teachers. In the absence of the reform, teachers were strong supporters of the incumbent ruling Unity Party (UP), and many staffed polling booths or otherwise participated in campaigning or administering elections. In treatment schools, teachers were significantly less satisfied with their jobs, less likely to report planning to vote for the UP, and less likely to do electoral work. Places where the treatment effects on vote share were most negative corresponded to the places where the treatment effects on teachers' electoral work were most negative.

3 Candidate experiment

3.1 Design: candidate experiment

The first experiment tests how politicians react to evidence on the policy's effectiveness and popularity. I surveyed 681 candidates for the House of Representatives on their beliefs about the Partnership Schools for Liberia program, varying whether I provided them with evidence about the policy's effects on learning and on voters' attitudes. To raise the stakes and avoid experimenter demand effects, survey enumerators told each candidate that they would soon be conducting a voter sensitization campaign, and offered to communicate the candidate's position on the policy to voters. The candidates' position provided in response to this offer constitutes my primary outcome.

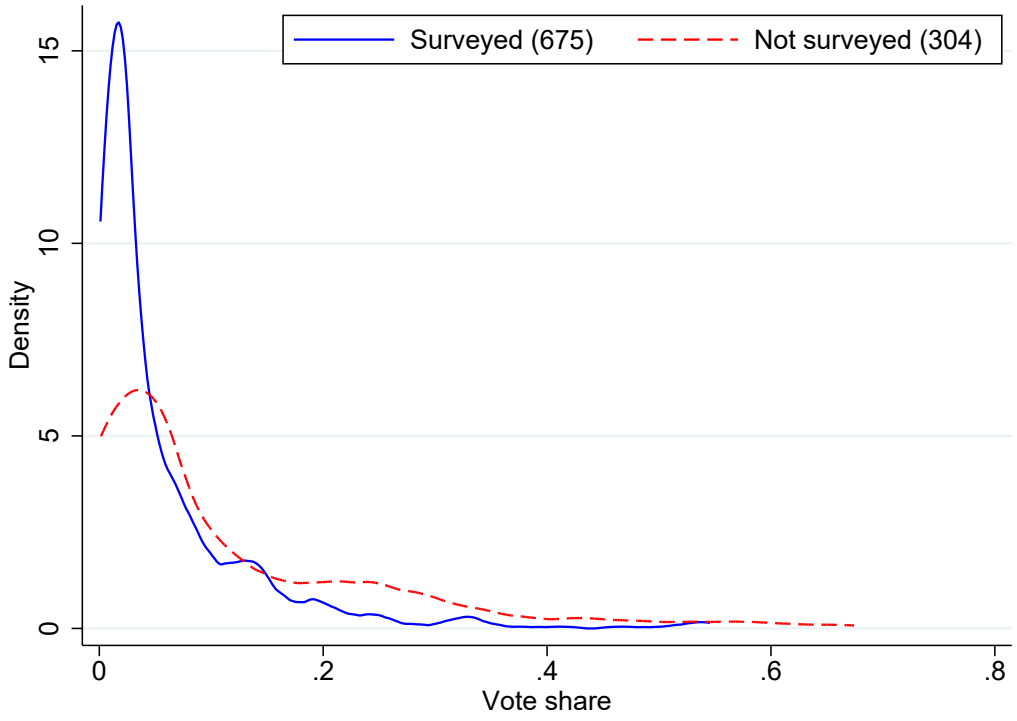
The second experiment tests how voters react to the provision of candidates' positions. I surveyed 489 households of students from treatment and control schools, varying whether I shared the policy positions provided by the legislative candidates running in their district. I also shared positions about the policy expressed by presidential candidates in a public debate. I measured whether this affected households' voting intentions and attitudes.

The candidate information experiment was conducted through a phone survey in which survey enumerators attempted to call all 992 candidates running for seats in the House of Representatives.[1] The sample consists of the 681 candidates reached (69%). These candidates received fewer votes on average

[1] A randomized controlled trial registry entry and the pre-analysis plan for both the candidate and household experiments are available at: https://www.socialscienceregistry.org/trials/2506.

than non-participating candidates, but they were not uniformly inconsequential: the sample includes 112 "veteran" candidates who ran for Congress in the previous election of 2011; 25 of the 73 incumbent House incumbents (of whom 22 were standing for reelection); and 32 of the 73 eventual winners. 13% of the surveyed sample ended up as the winner or the runner-up in their district. Figure 1 plots the density of vote shares for candidates who did and did not participate in the survey.

Figure 1: Distribution of vote shares for surveyed and unsurveyed candidates



Note: Figure excludes 6 surveyed candidates in 6 different districts who dropped out of the race after being surveyed.

The treatment consisted of random provision of the RCT evidence of the program's treatment effects on a) learning outcomes and/or b) the the program's popularity among affected households.[2] Conditional on being reached by phone a candidate was randomized into one of four treatment arms:

1. "Control:" basic description of the school policy, and one sentence about what supporters and opponents of the policy said about it;

2. "Impact information:" control language plus a brief summary of the findings of the independent

[2]Learning outcome RCT evidence took the form of a very concise synthesis of the main results from Romero et al. (2020). Popularity RCT evidence took the form of the results on household attitudes presented in Table 9 of Romero et al. (2017).

evaluation, including positive effects on test scores and teacher attendance, as well as student and teacher dismissals;

3. "Popularity information:" control language plus a brief summary of effects on voters' attitudes

4. "Both:" control condition, impact information, and popularity information.

Treatment was randomized at the individual level, through a random number generator within the survey software SurveyCTO, and not stratified. The exact text of these information interventions is in Appendix B. Table B.1 in the appendix shows balance on candidates' characteristics and pre-treatment survey responses.

It is rare to survey such a large body of politicians; descriptive statistics are illuminating, painting a picture of politicians who are reasonably well-informed about their constituents. Most candidates had heard of the school policy's name ("PSL"), and nearly all had heard of at least one of the operators associated with it. Nearly all supported the idea of public-private partnerships in education, but nearly all also approved of the teachers' union (which officially opposes the PSL program), perhaps evincing ideological flexibility. Although over 80% of candidates themselves agreed that the government should work with private providers of education, and that the PSL program had increased learning, only 57% of candidates said they thought voters supported the program on average – qualitatively consistent with the divergent electoral outcomes measured from the administrative voting data. Candidates estimates' of their voters' support of the program correlated positively with the average treatment effect of the program within their constituency. 72% said their voters (correctly) credited the executive branch with responsibility for the program (compared to only 12% who thought their voters credited the legislative branch with the program).

To truthfully elicit candidates' positions on the PSL policy, survey enumerators offered to communicate the candidate's PSL policy position of choice to voters as part of a sensitization campaign (see next section). Candidates were asked to select the statement that most closely aligned with their view:

- The PSL program should be expanded and paid for with tax revenues;
- The PSL program should be tested before any significant expansion;
- The PSL program should be immediately discontinued;
- No position.

52% of candidates interviewed said the program should be expanded; 30% said it should be tested further first; and 7% said it should be discontinued. The other 11% gave no position.

3.2 Results: candidate experiment

The means of the survey outcomes are illuminating. An overwhelming majority of candidates already believed the policy was successful at improving test scores, and a large majority also thought their constituents supported the policy. Hardly any candidate opposed the idea that governments should work with private companies to provide education. The independent evaluation of the PSL program had become public a few weeks earlier, and was reported in local press; candidates may have read about the results already.

Table 1 shows that the information had little effect on candidates' stated support for, or opinions about, the policy as measured by their survey responses immediately after hearing the information. Column 1's outcome is an indicator for whether the candidate expressed maximum support for the program in the elicitation of positions to be communicated to voters. Candidates who received information about the school policy were, on average, no more likely to tell voters they supported expanding it. Nor did the information change their opinions on the (non-public) survey outcomes in the other columns: whether the program should be funded through tax revenues; whether the government should work with the private sector in education; or whether foreign NGOs have too much control in Liberia. Responses about the aspects of the program most related to the information were also largely unaffected: impact information did not increase candidates' likelihood of saying the program raised test scores (and the popularity info may have decreased it); and neither the impact information nor the popularity information had any effect on candidates' likelihood of thinking that voters support the program. Given that candidates' priors were reasonably in tune with the information provided, however, it is perhaps unsurprising that the policy information failed to shift them much.

Table 1: Policy information's effect on average candidate survey responses

	Expand PSL	Fund PSL w/ taxes	Gov should work w/ pvt. edu.	Too much foreign control	PSL ⇒↑ learning	Voters support PSL
Popularity info	0.075	0.008	0.013	-0.038	-0.079**	-0.077
	(0.056)	(0.052)	(0.035)	(0.055)	(0.035)	(0.054)
Impact info	0.050	0.034	0.013	-0.048	-0.012	0.003
	(0.055)	(0.050)	(0.034)	(0.053)	(0.029)	(0.052)
Popularity info × Impact info	-0.063	-0.014	-0.014	0.065	0.079*	0.086
	(0.077)	(0.071)	(0.047)	(0.075)	(0.046)	(0.074)
N	681	681	681	681	681	681
DV Mean	0.476	0.650	0.883	0.578	0.921	0.614
Controls	N	N	N	N	N	N
District FE	N	N	N	N	N	N

Robust standard errors in parentheses. 'Expand PSL' means the candidate asked us to tell their voters they support expanding the school policy. Other columns are candidate survey outcomes.

* p<0.10, ** p<0.05, *** p<0.01

I cannot reject that the two kinds of information had equal-sized effects on campaigning and electoral outcomes. I also find little evidence of interaction effects. Therefore, in the results that follow, I collapse both information treatment arms into one "Info" treatment arm taking a value of one if the candidate received Impact or Popularity information.

However, candidates' real-world behavior and outcomes shifted dramatically in response to the information. Table 2 shows the effect of information on legislative candidates' likelihood of campaigning on the policy, their vote share, and their likelihood of winning their race. Even columns include fixed effects for electoral districts.

Table 2: Policy information's effect on candidates' vote share (collapsing treatment arms)

	Campaigned on PSL		Vote share		Won race	
Info	-0.058**	-0.049**	-0.006	-0.013*	-0.046**	-0.055**
	(0.026)	(0.024)	(0.007)	(0.007)	(0.023)	(0.023)
N	681	680	675	674	675	674
DV Mean	0.108	0.103	0.063	0.062	0.079	0.080
District FE		✓		✓		✓

Robust standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

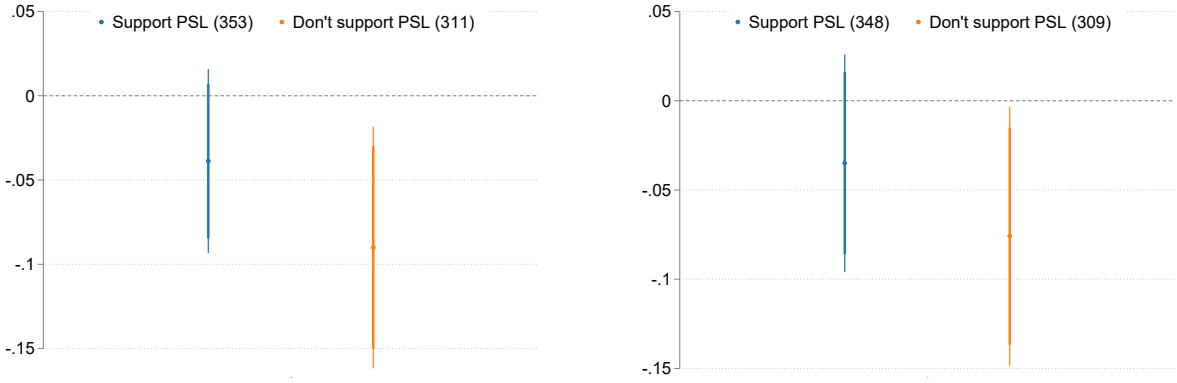
Candidates who received policy evidence about the policy were about 5 percentage points less likely to be reported by households in their district to have mentioned the PSL program in their campaign. They

received lower vote share (though these effects are less precise), and were about 5 percentage points less likely to win their races. These effects are large: the proportion of candidates campaiging on the PSL program in the control group was about 11%, and only 8% of candidates won their race.

3.2.1 Heterogeneity by candidates' support for the policy

It is perhaps surprising that the provision of information would *reduce* candidates' mentions of the program which was the subject of the information. It is also surprising that free-disposal information could affect candidates' electoral fortunes. To illuminate this finding further, I split the sample by whether they supported the expansion of PSL in the position elicitation conducted in the candidate survey.[3]

Figure 2: Effect of policy information, by candidates' support of PSL



(a) Campaigning on the policy (b) Winning

"Support PSL" means the candidate indicated in the candidate survey that their position to be communicated to voters was that PSL should be scaled up and funded by Liberian taxpayers. This was measured after the policy treatment information was administered. The specification used controls for district but not party FE. Many candidates have no party.

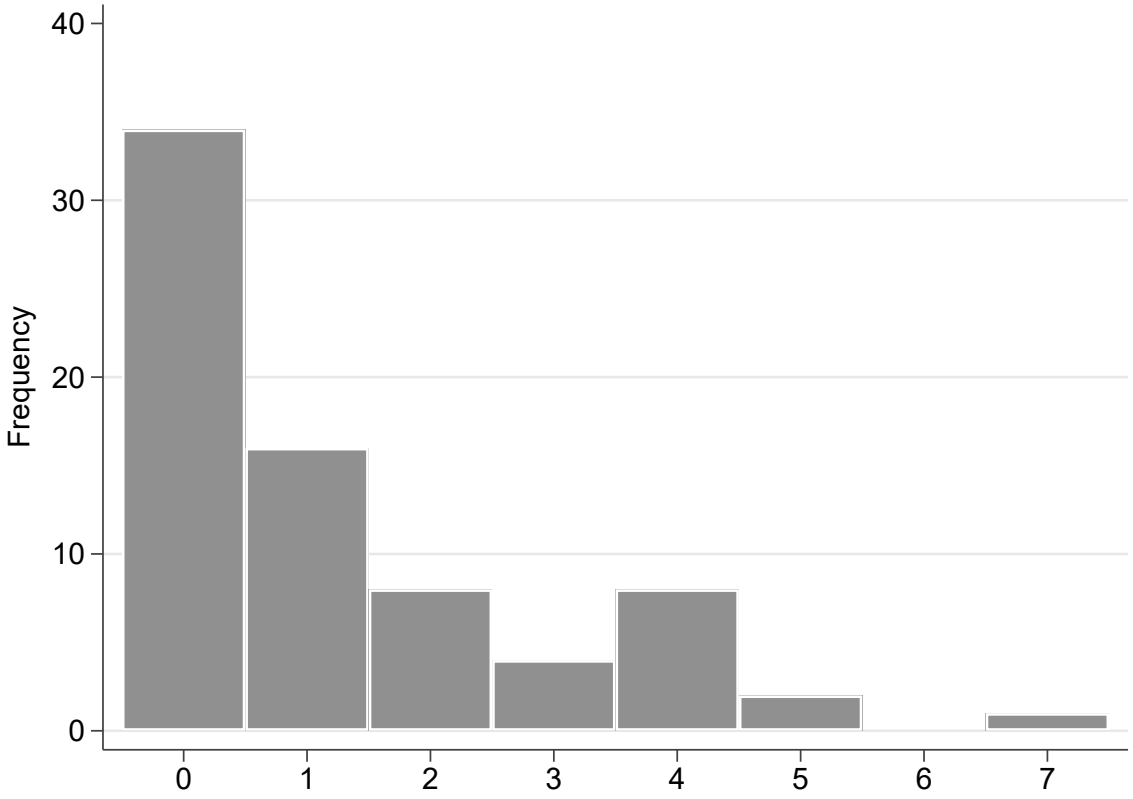
The negative effects of the information on both campaigning and on winning were statistically significant only among candidates who did *not* express the strongest level of support for the PSL policy. I interpret this result with caution, as the difference between the coefficients in these two subsamples of candidates is not itself statistically significant. However, the result is consistent with a mechanism by which candidates who opposed the policy were moved by the information to mention their opposition less frequently or loudly. Insofar as these candidates' support came from voters who shared this opposition to the policy, it led to a decrease in win probability.

[3] I include the caveat that this dimension of heterogeneity is endogenous to treatment, as it was measured after the provision of the information. However, the information had no statistically measurable effect on candidates' elicited policy positions (see Table 1).

3.2.2 Heterogeneity by presence of treated schools

Of the 73 electoral districts in the country, 39 (53%) had at least one PSL school in them. 51% of all legislative candidates were running in one of these districts (also 51% of the candidates who took our survey). The median district had one PSL treatment school, representing 2.5% of all public primary schools. 22% of districts had more than 10% of their public primary schools turned into PSL schools. Only two districts had a higher fraction than one in 3 of their schools which became PSL schools; both of these were districts whose only school was treated.

Figure 3: Histogram: number of PSL schools in electoral district



Histogram displaying number of PSL schools per district. 34 of the country's 73 electoral districts had no PSL schools; 39 had at least one; the district with the most PSL schools had seven.

Table 3 shows the effect of providing information on legislative candidates vote share and their likelihood of winning their race, by the density of PSL schools in their district. These results should be interpreted with caution; districts with a high density of PSL schools could be different along many dimensions. But many of the negative effects of the information seem to be concentrated in places with

more PSL schools.

Table 3: Policy information's effect on candidate outcomes, by density of PSL schools in electoral district

	Campaigned on PSL		Vote share		Won race	
Info	-0.025	-0.013	0.001	-0.006	-0.033	-0.042*
	(0.024)	(0.024)	(0.008)	(0.008)	(0.020)	(0.022)
Density of PSL schools in district	0.445***		0.082**		0.164*	
	(0.117)		(0.038)		(0.099)	
Info × PSL density	-0.443***	-0.461***	-0.096**	-0.092**	-0.176	-0.172
	(0.133)	(0.128)	(0.043)	(0.041)	(0.112)	(0.115)
N	681	680	675	674	675	674
DV Mean	0.108	0.103	0.063	0.062	0.079	0.080
District FE		✓		✓		✓

Robust standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

4 Voter experiment

4.1 Design: voter experiment

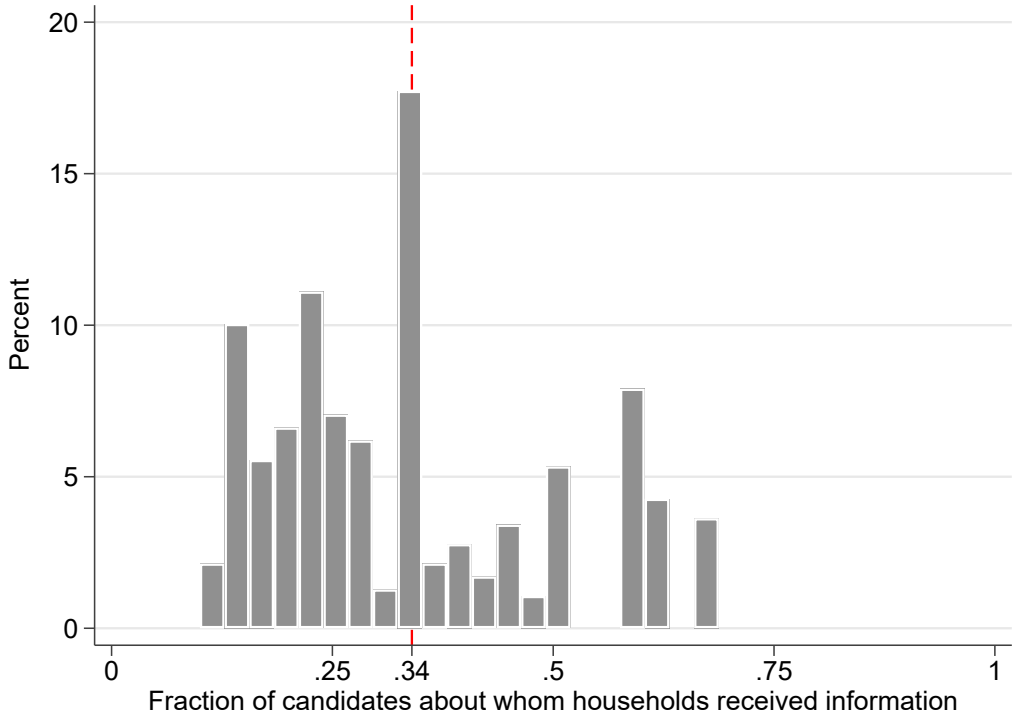
A linked information experiment sought to measure whether voters' voting intentions responded to information about candidates' positions on the PSL program. Conducted in October 2017, this survey re-contacted by phone a subset of the households who had been previously interviewed (in person) as part of the 1-year evaluation of the school policy (Romero et al., 2020). 489 households participated, of the 833 for whom at least one unique phone number was available (59%), from 56 of Liberia's 73 electoral districts. Table B.2 in the appendix shows within-sample balance in terms of the randomization into the information treatment. The assignment of the Candidate Information treatment is mostly balanced in terms of the original PSL treatment. The one measurable difference between the Candidate Information treatment and the control group is that households randomly assigned to receive candidate information also happened to be in districts for which policy position information was available for slightly fewer legislative candidates (35% vs 32% of the total candidates on the ballot). As such, my analyses include electoral district fixed effects.

All participants in this household follow-up survey – information treatment and control – received a brief summary of the PSL program's impacts on test scores. Treatment consisted in informing the household about the stated PSL policy positions of presidential and legislative candidates. Legislative

candidates' positions came from the candidate survey; only the positions of candidates in the household's legislative district were provided. The treatment also provided the positions of some presidential candidates, gleaned from a presidential debate which included a question about the policy. However, because the debate was only attended by relatively minor candidates, I focus here on legislative candidates. The text of the treatment conditions can be found in Appendix B. The treatment was randomized at the individual level and not stratified.

As with the candidate experiment, summary statistics here are highly informative. Households in the sample are reasonably well-informed. Almost all respondents to the household survey could correctly name their current Representative, but only 34% are satisfied with him or her. 36% have attended at least one campaign event for a Representative candidate, and 17% are related to someone running for office. A third are related to a member of the teachers' union, but almost everyone supports the idea of public-private partnerships in education, and 4 in 5 think children learn more in PSL schools and that the policy should be expanded. Nearly everyone (correctly) does *not* credit the legislature with creating the policy. 44% gave an accurate answer about who was responsible for it (either the executive branch, private school companies, or foreign NGOs). Most of the rest said "don't know." 15% said they had heard at least one candidate mention PSL. Because the experiment sought to provide households with information about candidates running in their district, I could only provide information to those who knew which legislative district they were in. Fortunately, 95% of respondents did.

Figure 4: Histogram: fraction of candidates about whom households received information



Histogram showing the fraction of the district's legislative candidates about whom treated households were given information. N = 468 respondents who knew their electoral district (from 56 of 73 total districts). Excludes the 26 who did not. The minimum number (percentage) of candidates about whom a household received information was 1 (10%); maximum was 11 (69%); median was 4 (32%). Red dotted line shows the mean percentage of candidates about whom respondents received information: 34%.

Figure 4 shows the distribution of the fraction of candidates running in a treated voter's district about whom she received policy position information. The median (interquartile range) household in the information experiment received information about the positions of 4 (2,6) legislative candidates, representing 30 (24,46)% of the legislative candidates on the ballot in their district.

4.2 Results: voter experiment

Table 4 shows how information on candidates' policy positions affected voters' choices. Candidate information did not appreciably affect support for candidates who expressed full-throated supported the policy. Instead, it reduced support for candidates who tentatively supported the policy, and increased support for those who opposed it outright. It had no effect on candidates who expressed no opinion. Information had no impact on whether voters were willing to express a voting intention.

Table 4: Candidate information's effect on household voting intentions: Representative

	Vote share for candidates who . . .			
	Support PSL	Cautious on PSL	Oppose PSL	No opinion
Candidate info	0.018	-0.042*	0.031**	-0.006
	(0.025)	(0.023)	(0.013)	(0.021)
N	485	485	485	485
Mean (control)	0.132	0.148	0.008	0.066
District FE	✓	✓	✓	✓

Robust standard errors in parentheses clustered at the school. Sample consists of a subset of households originally contacted as part of PSL evaluation, reached by phone for this follow-up survey about one week before the election on 10 October 2017. Fixed effects included for electoral district. Missing outcome variables replaced with zero; indicators for whether outcome variable is missing included in all regressions. 'Mean (control)' reports the fraction of respondents in the control group who plan to vote for a surveyed with the stated position.

Did the effect of candidate policy position information differ by whether voters experienced the policy themselves? Because the original policy was also randomized, it is possible to answer this question by interacting the two treatments. In these analyses I include fixed effects for the randomization strata of the original policy experiment. Table 5 shows the results.

Table 5: Candidate information's effect on household voting intentions: Representative

	Vote share for candidates who . . .			
	Support PSL	Cautious on PSL	Oppose PSL	No opinion
Candidate info	-0.064	-0.023	0.047*	0.039
	(0.048)	(0.047)	(0.026)	(0.041)
PSL Treatment	-0.003	-0.046	0.021	0.028
	(0.044)	(0.040)	(0.015)	(0.032)
Candidate info × PSL Treatment	0.128**	-0.021	-0.010	-0.097*
	(0.064)	(0.057)	(0.035)	(0.055)
N	481	481	481	481
Mean (control)	0.133	0.177	0.000	0.062
District FE	✓	✓	✓	✓
Strata FE	✓	✓	✓	✓

Robust standard errors in parentheses clustered at the school. Sample consists of a subset of households originally contacted as part of PSL midline evaluation, reached by phone for this follow-up survey about one week before the election on 10 October 2017. Fixed effects included for electoral district and stratification dummies of original PSL experiment. Missing outcome variables replaced with zero; indicators for whether outcome variable is missing included in all regressions. 'Mean (control)' reports the fraction of respondents in the control group of both experiments who plan to vote for a surveyed candidate with the stated position.

Candidate position information significantly increased voting intentions for candidates who supported the PSL policy among households who experienced the PSL policy. Among households who did not, the

effect of candidate position information was negative (though not significant).

5 Conclusion

Researchers often seek policy relevance by getting their findings into the hands of policymakers; however, the effects of these efforts are rarely examined systematically. In this paper, I study how information from a rigorous policy evaluation affects politicians' campaigning on that same policy — and how it affects their electoral fortunes. Politicians correctly understand that the average voter supports the expansion of the policy; as a result, those politicians who oppose the policy appear more likely to hide this opposition on the campaign trail. However, this seems to have deleterious electoral consequences for them: they are less likely to win their races.

Results from a voter experiment reinforce this narrative: providing candidates' positions to voters increases support for candidates who oppose the policy, especially among those who did not themselves experience it. Crucially, however, voters who experienced the policy respond to information on candidate positions by plumping more often for candidates who favor the policy.

These findings highlight the heterogeneous nature of voters' reactions to public policy. Reforms which are more effective in their intended aims may build support for themselves, but appealing to voter constituencies opposed to reform offers a viable alternative path to political success.

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Appendix

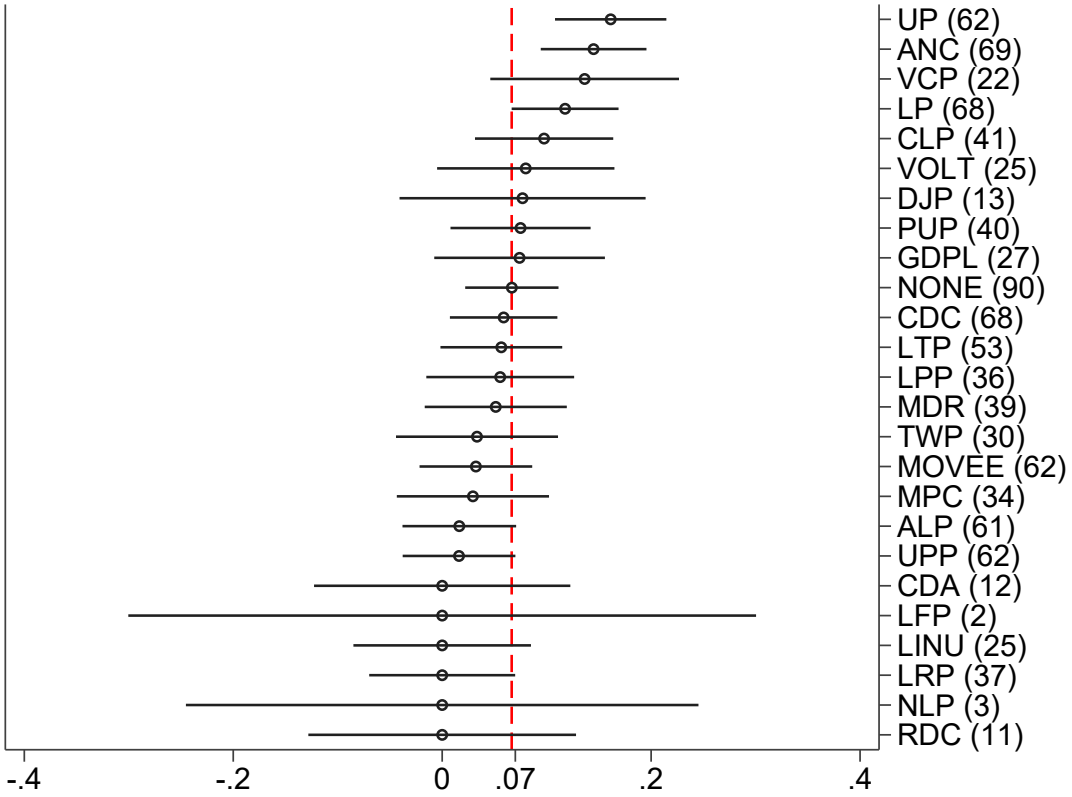
A Additional tables

A.1 Which parties' candidates mentioned the PSL policy?

The household survey asked respondents which candidates they had heard mentioning the PSL policy on the campaign trail. For each candidate, I create a "Mention PSL" dummy equal to 1 if at least one household in the survey said they had heard that candidate mention PSL.

To test whether this measure of PSL mentions is reasonable, I look at the full list of 992 legislative candidates; for each party, I regress the measure of "Mention PSL" on a dummy for the candidate's party. Figure 5 plots the regression coefficients for each party.

Figure 5: Which parties' candidates mentioned the PSL policy?



Dummy for mentioning PSL equals 1 if any household identified that candidate as having mentioned PSL on the campaign trail. Coefficients from 25 individual regressions of MentionPSL on a dummy for party affiliation, with no constant (point estimates are fraction of a party's candidates with MentionPSL == 1). Overall mean MentionPSL: 0.07. N = 992 legislative candidates.

A.2 Extra tables

Table A1 shows the effect of providing different kinds of information on legislative candidates vote share and their likelihood of winning their race.

Table A1: Policy information's effect on candidates' vote share

	Campaigned on PSL			Vote share			Won race		
Popularity info	-0.045*	-0.040	-0.037	0.004	-0.010	-0.015*	-0.047**	-0.063**	-0.079***
	(0.027)	(0.028)	(0.030)	(0.009)	(0.009)	(0.009)	(0.023)	(0.025)	(0.025)
Impact info	-0.068**	-0.057**	-0.047*	-0.008	-0.010	-0.015*	-0.044**	-0.047**	-0.060**
	(0.027)	(0.027)	(0.028)	(0.009)	(0.009)	(0.008)	(0.022)	(0.024)	(0.024)
Popularity × Impact info	0.053	0.048	0.042	-0.011	0.001	0.010	0.045	0.055	0.077**
	(0.038)	(0.038)	(0.040)	(0.012)	(0.012)	(0.012)	(0.032)	(0.034)	(0.034)
N	681	680	631	675	674	627	675	674	627
DV Mean	0.108	0.103	0.097	0.063	0.062	0.062	0.079	0.080	0.084
District FE		✓	✓		✓	✓		✓	✓
Party FE			✓			✓			✓
P-value: Info = Pop.	0.403	0.541	0.748	0.166	0.930	0.967	0.887	0.530	0.443

Robust standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Table A2 shows the effect of providing information on legislative candidates vote share and their likelihood of winning their race, interacted with a dummy for whether *any* PSL schools were in their district.

Table A2: Policy information's effect on candidate outcomes, by density of PSL schools in electoral district

	Campaigned on PSL			Vote share			Won race		
Info	0.024	0.024	0.020	-0.004	-0.011	-0.019*	-0.060**	-0.067**	-0.087***
	(0.031)	(0.031)	(0.034)	(0.010)	(0.010)	(0.010)	(0.026)	(0.028)	(0.029)
Any PSL school in district	0.202***			0.012			-0.016		
	(0.037)			(0.012)			(0.032)		
Info × Any PSL school	-0.150***	-0.134***	-0.119**	-0.004	-0.004	0.004	0.026	0.024	0.040
	(0.043)	(0.043)	(0.046)	(0.014)	(0.014)	(0.013)	(0.037)	(0.039)	(0.040)
N	675	674	627	675	674	627	675	674	627
DV Mean	0.104	0.098	0.097	0.063	0.062	0.062	0.079	0.080	0.084
District FE		✓	✓		✓	✓		✓	✓
Party FE			✓			✓			✓

Robust standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01

B Information experiments - detail

B.1 Text of candidate information treatments

CONTROL CONDITION:

In the Partnership Schools program, 93 government primary schools became Partnership Schools, managed by one of eight private and NGO school providers. [Sentence describing which providers operated in the candidate's county] Teachers in Partnership Schools remain on government payroll, and buildings remain the property of the government and free to students. These schools also received extra resources from foreign donors: 50 US per student.

Supporters of Partnership Schools believe that private management can bring innovation and improvement to Liberia's schools. Opponents of Partnership Schools believe that the resources would be better spent within the public system, without private contractors.

IMPACT INFORMATION CONDITION: [Control condition language, plus:]

The Ministry of Education commissioned an independent scientific evaluation of Partnership Schools using state-of-the-art methodology. The study was carried out by academics at institutions based in the United States: The Center for Global Development and the University of California.

The evaluation showed how the outcomes for students and teachers were different in Partnership Schools. The children in Partnership Schools learned 60% more math and English than children in the traditional public schools. That means that children in a Partnership School learned more in 6 months than children in a traditional public school learned in a whole school year. The evaluation also found that teachers in Partnership Schools were twice as likely to attend school.[4] *The evaluation also identified some problems: in some schools run by Bridge International Academies, some students were kicked out and had to transfer to different schools, and over half of the teachers were removed. The program is also expensive: the partnership schools cost at least twice as much to run as government schools, and in some cases much more.*

POPULARITY INFORMATION CONDITION: [Control condition language, plus:]

[4] This was an inadvertent error. Teachers were in fact 50% more likely to attend, not twice as likely.

The Ministry of Education commissioned an independent scientific evaluation of Partnership Schools using state-of-the-art methodology. The study was carried out by academics at institutions based in the United States: The Center for Global Development and the University of California.

The researchers interviewed voters whose children went to Partnership Schools and traditional government schools, as well as teachers in these schools.

They found that voters whose children went to Partnership Schools were: 10% MORE satisfied with their children's education, 7% MORE likely to say the government's performance on education was good, 11% MORE likely to say education is their top priority for government, and 14% MORE likely to say Liberia is moving forward .

Teachers in Partnership Schools were: 21% LESS likely to be satisfied with the teachers' union (NTAL), and 7% MORE likely to say Liberia is moving forward.

The fourth condition contained the control language, the impact information, and the popularity information.

B.2 Candidate balance and summary statistics

The balance check on candidates' characteristics and pre-treatment survey responses is in Table B.1. For simplicity of comparison, it pools all information treatments into a single "any information" treatment.

Table B.1: Balance – Candidate experiment

Variable	Control	Any info	Difference
Incumbent	0.024	0.041	0.017
	(0.154)	(0.198)	(0.017)
UP (incumbent pres. party)	0.036	0.050	0.014
	(0.187)	(0.219)	(0.019)
CDC (main opposition)	0.072	0.060	-0.012
	(0.260)	(0.238)	(0.022)
Number of attempts necessary to interview	2.554	2.417	-0.137
	(1.949)	(1.813)	(0.165)
Has own children in primary	0.601	0.596	-0.005
	(0.491)	(0.491)	(0.044)
Candidate has Univ. degree	0.789	0.800	0.011
	(0.409)	(0.400)	(0.036)
It's good for gov. to work w/ pvt companies to provide edu.	0.931	0.905	-0.026
	(0.254)	(0.293)	(0.026)
Heard of PSL	0.596	0.642	0.046
	(0.492)	(0.480)	(0.043)
Heard of any PSL operator	0.892	0.882	-0.010
	(0.312)	(0.323)	(0.029)
'Strongly' or 'Somewhat' approve of teachers' union	0.981	0.978	-0.003
	(0.136)	(0.146)	(0.013)
Believes voters hold exec. branch responsible for education	0.842	0.858	0.015
	(0.365)	(0.350)	(0.032)
Believes voters hold exec. branch responsible for PSL	0.722	0.721	-0.001
	(0.450)	(0.449)	(0.044)
Believes more than 'a few' voters have heard of PSL	0.193	0.175	-0.018
	(0.396)	(0.380)	(0.034)
Observations	166	515	681

Candidates were randomized to receive information about PSL's popularity, its effectiveness, or both. For simplicity, this table compares the group who received no information with the pooled group of those who received any information, but comparisons among all interactions are available upon request.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

B.3 Text of household information treatment

The control condition consisted of this brief mention of the three presidential candidates who took part in a debate:

Thank you. We are near the end of the survey. Now I just want to give you some information about the

candidates.

Liberia's last presidential debate was on September 26th. The three candidates who attended the debate were: MacDella Cooper from LRP, Alexander Cummings from ANC, and Mills Jones from MOVEE.

The treatment condition included that prelude as well as the candidate's words regarding the school policy from that debate:

In that debate, each candidate made a statement about Partnership Schools or PSL. I'm going to read you a part of each candidate's statement. Please listen:

MacDella Cooper said: "It's a test project. Maybe at the end of the test, we'll see . . . Putting the Liberian public school in the hands of a private organization, I don't see the benefit yet."

Alexander Cummings said "We should also be open to different solutions. And we can't be fixated on only one traditional way of doing things. We got to be creative. We got to be bold."

Mills Jones said: "We are not going to do it. It suggests to me that we have given up on our own capacity to solve our problems and so we must look outside for help. We're not going to do that."

The treatment condition also included a list of the representative candidates who had participated in the candidate survey, who had asked survey enumerators to let their voters know their position on the school policy:

Some of the candidates for Representative in YOUR district also have made statements about PSL, which they wanted us to share with you. Please listen carefully:

These candidates say PSL should be taken into more schools, and supported by the national budget: [names]

These candidates say PSL needs to be tested more before making a decision: [names]

These candidates say PSL should be stopped immediately, and normal government schools should get that support: [names]

B.4 Household balance and summary statistics

Table B.2 shows balance of the October 2017 household sample on pre-information-treatment characteristics.

Table B.2: Balance – Household experiment (N = 494)

Variable	Control	Candidate Info	Difference	N
In PSL treatment group	0.543	0.514	-0.028	494
	(0.499)	(0.501)	(0.045)	
Heard of PSL	0.644	0.615	-0.028	494
	(0.480)	(0.487)	(0.044)	
Heard of any operator	0.862	0.842	-0.020	494
	(0.345)	(0.365)	(0.032)	
Legislature created PSL	0.008	0.008	-0.000	494
	(0.090)	(0.090)	(0.008)	
Correctly identifies responsible party for PSL	0.940	0.928	-0.012	227
	(0.239)	(0.260)	(0.033)	
It's good for gov to work w/ private companies to provide sch	-1.486	-1.421	0.065	494
	(14.806)	(14.564)	(1.321)	
PSL should be expanded and funded through the national budget.	0.777	0.757	-0.020	494
	(0.417)	(0.430)	(0.038)	
Children learn more in PSL schools	0.827	0.850	0.022	446
	(0.379)	(0.358)	(0.035)	
Knows current Representative's name	0.879	0.907	0.028	467
	(0.327)	(0.291)	(0.029)	
Satisfied with Representative	0.342	0.308	-0.034	477
	(0.475)	(0.463)	(0.043)	
Related to a rep. candidate	0.170	0.182	0.012	494
	(0.376)	(0.387)	(0.034)	
Related to member of teachers' union	0.328	0.271	-0.057	494
	(0.470)	(0.446)	(0.041)	
Attended any campaign event	0.356	0.324	-0.032	494
	(0.480)	(0.469)	(0.043)	
Any candidate has talked about PSL	0.130	0.146	0.016	494
	(0.336)	(0.354)	(0.031)	
Fraction of district's candidates who provided info to candidate survey	0.355	0.317	-0.038***	468
	(0.166)	(0.148)	(0.015)	

Notes
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$