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The Effect of Sustained Transparency on Electoral Accountability

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Abstract: *Transparency is expected to strengthen electoral accountability. Yet, initiatives disseminating politician performance information directly prior to elections have reported mixed results. We argue that to be effective, transparency needs to be sustained: The dissemination of politician performance information needs to occur early, regularly, and predictably throughout the term. Using a formal model of electoral accountability under nonprogrammatic and uneven party competition, we study how sustained transparency affects a string of decisions by various actors in advance of elections: incumbents' running choices, parties' nomination strategies, and potential challengers' entry decisions. We show how these effects shape the candidate slate and ultimately electoral outcomes, conditional on incumbent performance and the incumbent party's relative strength. We test our theory using a field experiment involving 354 subnational constituencies in Uganda, and find robust support for the idea that sustained transparency can improve electoral accountability even in weakly institutionalized electoral settings.*

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Electoral accountability hinges on the availability of information about politicians' performance. Yet, in many low-income country settings such information is scarce. Despite a growing number of transparency initiatives, many of which are funded through foreign assistance, the empirical relationship between transparency and electoral accountability remains "uncertain" (Fox 2007), with a recent set of coordinated field experimental studies yielding null results (Dunning et al. 2019). Understanding the conditions under which transparency initiatives can improve electoral accountability thus remains a question of paramount academic and policy importance.

With few exceptions, previous scholarship has focused on one-shot dissemination of politician performance information directly prior to elections (e.g.,

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Chong et al. 2015). In this article, we argue and show that *sustained transparency*—the dissemination of such information early, regularly, and predictably throughout the electoral cycle—can play a role in strengthening electoral accountability. We examine, both theoretically and empirically, how sustained transparency affects a string of pre-election decisions by politicians, potential challengers, and political parties that ultimately affect the slate of candidates presented to voters.

We formally study sustained transparency in a context common in low-income countries, where (i) elections revolve around valence rather than ideology, (ii) politicians are primarily motivated by winning office but may also simply seek visibility per se, and (iii) there is considerable variation in *relative party advantage*—that is, parties' (relative) appeal and organizational capacity, which affects their ability to recruit strong candidates.[1] We model relative party advantage as the perceived ability of the incumbent party's candidates at the start of the electoral term. These perceptions are updated based on incumbent performance signals, and transparency improves their accuracy. This conceptualization allows us to explore the effect of transparency in settings ranging from competitive to considerably asymmetric (where one party enjoys a large advantage).

Our formal analysis shows that the role of transparency in improving electoral accountability is more nuanced than previously considered. Conventional theories of electoral accountability focus solely on incumbents and voters. In those models, reelection depends on whether the voters' perceptions of the incumbent's ability exceed an exogenous standard (the perceived ability of a nonstrategic "reservation challenger"). In our model, sustained transparency also affects parties' nomination decisions and potential challengers' entry choices, and thus the candidate slate prior to vote choice. The anticipation of these electoral forces shapes incumbents' effort choices and their decisions to run for reelection. Hence, transparency not only influences voters' perceptions of incumbents' ability, but also (i) whether they reach the general election and (ii) the standard against which voters will measure incumbents (which depends on of challenger entry).

Second, relative party advantage moderates the effect of sustained transparency on electoral outcomes. For instance, when relative party advantage is low, the running decisions of potential challengers do not respond to changes in voters' perceptions of the incumbents' ability. For this reason, when the relative advantage of the incumbent party is low, we expect transparency to have little effect on the number of challengers facing an incumbent seeking reelection, and a weaker effect on incumbents' election prospects.

We test the empirical implications of our model using data from a field experiment conducted with 354 local government representatives in Uganda (LC5 district councilors), a setting in tune with our formal model. We collaborate with Advocates Coalition for Development and Environment (ACODE), a nonpartisan Ugandan NGO that creates annual performance scorecards for such politicians. ACODE disseminates the scorecards at yearly events attended by local elites. During the 2011–16 cycle, half of the incumbent politicians were randomly selected to have their scorecards disseminated directly to communities in their constituencies. In line with our model, Grossman and Michelitch (2018) find that such dissemination improved incumbents' scorecard performance, but only outside of party strongholds. By fielding a politician survey and culling official electoral returns, this study assesses the subsequent effect of the program on incumbent running decisions, party nominations, challenger entry, and vote choice.

Results are broadly consistent with our theory's predictions. Transparency increases the reelection probability of incumbents with above-median performance by 4.3 percentage points (pp.) and decreases it for incumbents with below-median performance by 15.1 pp. When conditioning on winning the party nomination, and considering incumbents' relative party advantage, these effects are stronger—in line with the model predictions. Citizens' vote choice, potential challengers' entry decisions, and (to a lesser extent) parties' nomination strategies all contribute to these effects. We conclude that sustained transparency has a genuine potential to improve electoral accountability, even in settings with large asymmetries in parties' relative strength.

This study contributes to the theoretical and empirical scholarship on electoral accountability. Theoretically, we formally study how endogenous challenger entry and party nomination decisions shape the relationship between politician performance transparency and electoral accountability.[2] Against a backdrop of null findings from several transparency campaigns undertaken directly prior to elections (e.g., Cruz, Keefer, and Labonne

[1]Of course, these electoral conditions could exist also in higher income settings, especially at the local level.

[2]Recent formal theories (see Ashworth 2012 for a review) generally focus on trade-offs between moral hazard and adverse selection (Duggan and Martinelli 2020), and the effect of identity and bounded rationality (Prato and Wolton 2016). We also join Izzo, Dewan, and Wolton (2022) and Grossman and Slough (2022) in directly responding to conceptual gaps in recent empirical findings.

2021), our study provides a rationale behind the more positive results in studies in which transparency initiatives occurred sufficiently early in the term to trigger improvements in politician performance, for example, in spending on discretionary funds (Ofosu 2019) and tax compliance (Malik 2020).[3]

Second, we contribute to the literature on party nominations and candidate entry (for a review, see Gulzar 2021). Past work has largely focused on rich democracies and generally downplayed (or overlooked) the potential role of information.[4] Instead, we focus on two novel elements—transparency and (relative) party advantage—and situate our study in weakly institutionalized electoral settings.

Finally, our findings are consistent with work suggesting that politician performance can be relevant to electoral outcomes in developing country settings. Alongside public good provision, (e.g., Harding 2015) the introduction of debates (Brierley, Kramon, and Ofosu 2020) and policy platform information (Platas and Raffler 2021), this study suggests that sustained transparency may encourage a more performance-based form of electoral competition in low-income countries.

A Theory of Sustained Transparency and Accountability

We define sustained transparency as early, predictable, and regular dissemination of incumbent performance information throughout their term. As a result of being early and predictable, sustained transparency should influence (i) incumbents' effort choices, (ii) their decision to run for reelection, (iii) their ability to secure their party's (re)nomination, (iv) entry decisions by potential challengers, and (v) constituents' vote choice. Our modeling choices are informed by documented features of electoral politics in weakly institutionalized democracies and hybrid regimes.

First, citizens and parties have limited information about local incumbent performance (Gulzar, Hai, and Paudel 2021), partly due to the narrow reach of independent news media. NGOs can fill this void, especially at the subnational level (Grossman and Michelitch 2018) where transparency is less susceptible to government interference.

Second, party competition revolves around valence issues (e.g., candidate competence) rather than wedge issues (Bleck and Van de Walle 2018). Because parties are generally not ideological, incumbents who lose their party nomination can switch parties at relative ease, or (if allowable) run as independents (Ichino and Nathan 2013). Further, although candidates derive benefits from holding office, they can also derive status ("visibility") merely from candidacy (Weghorst 2022).

Third, there is considerable variation in the strength of political parties, especially at the subnational level (Hiskey and Moseley 2020). In many low-income countries (including Uganda), multiparty competition followed a period of single-party rule. In these cases, there is considerable regional variation in opposition parties' ability to contest power. In certain areas, opposition parties dominate local politics; in other areas, they compete with the nationally dominant party; in other areas, they face an insurmountable gap in name recognition, resources, and organizational capacity. To capture these asymmetries, we allow incumbents to differ in their *relative party advantage*, modeled as politicians' initial perceived ability. Over the cycle, voters update these perceptions based on performance signals whose accuracy increases with transparency.[5] Our notion of party advantage does not include voter intimidation, repression, or election rigging. As such, our model does not apply to authoritarian contexts where the deployment of these tools prevents any meaningful form of electoral accountability.

Model Primitives

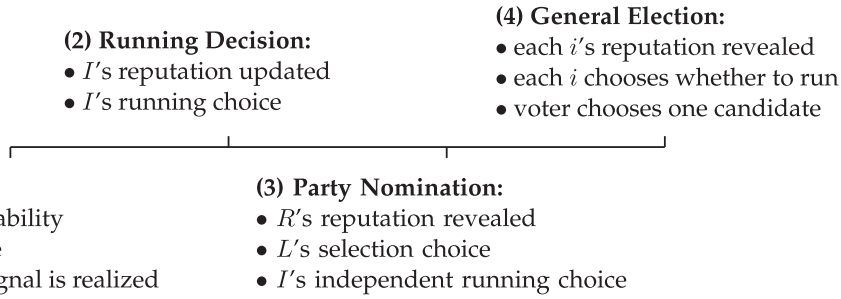
Actors. The model features a representative voter, an incumbent I, her party leader L, and n potential general election challengers (indexed by i). L and I's party also includes a nonstrategic reservation candidate R.

[3]Other barriers to strengthen accountability via transparency regard the potential for politicians to discredit performance information (Humphreys and Weinstein 2012), prevent its dissemination (Sircar and Chauchard 2019), or increase vote-buying to offset its effect (Cruz, Keefer, and Labonne 2021). Scholars also note potential barriers to citizens' use of information, such as uncertainty over attribution (Martin and Raffler 2021), motivated reasoning (Adida et al. 2017), the salience of politician performance indicators (Bhandari, Larraguy, and Marshall 2023), and coordination problems (Arias et al. 2019).

[4]Theoretical scholarship on candidate entry focuses on ideology and competence (Gordon and Landa 2009) and private sector opportunities (Caselli and Morelli 2004). With its focus on rent-seeking, Svolik (2013) represents an exception. Empirical studies of candidacy entry have focused on the role of dynasties (Cruz, Labonne, and Querubin 2017), party leaders' information (Gulzar, Hai, and Paudel 2021), and potential candidates' opportunity costs (Grossman and Hanlon 2014).

[5]From a modeling standpoint, relative party advantage is similar to "partisan bias" in Gordon and Landa (2009) and "partisan advantage" in Prato and Wolton (2018), though in these two studies asymmetries stem from geographic variation in voters' ideology.

FIGURE 1 Sequence of Play



Notes: Figure describes the formal model's play sequence.

Each politician can be high-ability ($\theta = 1$) or low-ability ($\theta = 0$), which is privately observed.[6] $\mu_j \in [0, 1]$ denotes politician *j*'s *reputation*: the public belief that *j* is high-ability. Each potential general election challengers' reputations are independently drawn from the distribution $F(\cdot)$—a truncated normal with parameters $(1/2, \sigma)$ and support [0,1]. The incumbent I begins the term with a reputation of $\mu_0 \in (0, 1)$ and the reputation of the reserve candidate R is drawn from a truncated normal distribution $F_R(\cdot)$ with parameters (μ_0, σ) and support [0,1]. μ_0 captures, in a reduced form, a party's organizational capacity, its ability to recruit candidates, and its local electoral appeal.

The game is divided into four stages, summarized in Figure 1: Governance, Incumbent Running Decision, Party Nomination, and General Election.

Governance. I privately observes her ability $\theta_I \in \{0, 1\}$, then chooses effort $e \in [0, 1]$ at cost $C(e) = \frac{e^{1+\gamma}}{1+\gamma}$, with $\gamma > 1$. Effort and ability jointly improve the realization of *performance* π, which can be high ($\pi = h$), with probability $\Pr(\pi = h|\theta, e) = e\frac{1+\theta}{2}$, or low ($\pi = l$). I's performance cannot be perfectly monitored. All actors, instead, observe a public signal $\mathtt{s} \in \{l, h\}$ with precision $\tau \in [0, 1]$, so that $\Pr(\mathtt{s} = \pi) = \frac{1+\tau}{2}$. NGO transparency initiatives increase the value of τ. Following the performance signal, the public updates I's reputation from μ_0 to $\mu_I(\mathtt{s})$ using Bayes rule.

Incumbent Running Decision. After observing s, I decides whether to run for reelection ($r_I = 1$) or not ($r_I = 0$). Running is associated with a cost $k \in (0, 1)$, capturing the time and resources required for a campaign.

Party Nomination. The reserve candidate's reputation μ_R is drawn from F_R and publicly observed. If I chooses not to run, R becomes the nominee (denoted by N, so $R = N$). If instead I chooses to run, L chooses whether to nominate R and deselect I ($d_L = 1$, resulting in $N = R$) or I ($d_L = 0$, resulting in $N = I$).[7] If L nominates R, I can quit the party ($q_I = 1$) and run as an independent in the general election at an additional cost ε, drawn from a distribution F_ε with mean zero and support $[-\bar{\varepsilon}, \bar{\varepsilon}]$. Negative values of ε capture the gain in status and visibility associated with candidacy.

General Election. Each potential general election challenger i observes her own reputation $\mu_i \in [0, 1]$ and chooses whether to run for election ($r_i \in \{0, 1\}$). After observing the slate of candidates, the voter elects the candidate with the highest reputation among those running. As a result, the party candidate $N \in \{I, R\}$ wins if and only if she has the highest reputation[8]:

$$\mu_N \geq \max\left\{ \max_i \{\mu_i r_i\},\ q_I \mu_I \right\}.$$

Payoffs. We assume that the incumbent party leader L cares about keeping the seat (its value is normalized to one) and experience an additional net payoff $\zeta \in \{-1, 0, 1\}$ from keeping the incumbent, capturing additional considerations that voters do not directly value, such as party loyalty. We assume that the incumbent

[6]The assumption that party leaders and voters have the same information about candidate ability is for expositional simplicity. Our insights go through as long as leaders cannot credibly transmit their private information to voters, which in our empirical context is plausible.

[7]This reduced-form nomination captures the wide spectrum of candidate selection procedures observed in our context (Ichino and Nathan 2013), ranging from well-organized primaries (in which case, L captures the median primary voter) to informal closed-door discussions (in which case, L captures the choice of party elites).

[8]Ties in this model are zero probability events, so we do not specify how they are resolved.

is uncertain about the value of ζ and let $\chi_\zeta = \Pr(\zeta)$. Let W denote the general election winner and $\mathbf{1}\{\cdot\}$ denote the indicator function. We have $u_L = \mathbf{1}\{N = W\} + \zeta\mathbf{1}\{N = I\}$.

Potential general election challengers value being elected and suffer the net cost k if they run. Hence, i's payoff is given by $u_i = \mathbf{1}\{i = W\} - r_i k$. The incumbent similarly values winning the election. She can reach it as the party nominee with probability $1 - d_L$; or as an independent with probability $d_L q_I$, net of the cost of running (with its uncertain component ε) and the cost of effort. Her payoff is then $u_I = r_I(\mathbf{1}\{I = W\} - k - d_L q_I \epsilon) - C(e)$. To ensure tractability, we assume that σ (the variance of F and F_R) is large enough, that $\bar{\varepsilon}$ is small enough, and that τ is not too large.[9]

Equilibrium. We study sequential equilibria with the restriction that politicians' running decisions can only depend on their reputation.[10] An equilibrium specifies a strategy profile $\{e_I, r_I, d_L, q_I, r_i\}$ and a belief system $\{\mu_I(l), \mu_I(h)\}$.

Equilibrium Analysis

We proceed by backward induction: First, we begin with the general election, then the party nomination stage, then the incumbent's running decision, and finally the governance stage.

General Election. A potential challenger runs if and only if her winning probability exceeds the cost of running k. When making her entry decision, i can observe the reputation of the party nominee N and, when he is running as an independent, that of the incumbent I. i can only win if her reputation exceeds them, that is, if $\mu_i > \max\{\mu_N, q_I\mu_I\}$. This is the *outsider hurdle*. This is necessary but not sufficient to win: i's reputation also needs to exceed that of the other general election candidates, whose reputation and behavior i can only conjecture. Given these conjectures, her reputation needs to generate a sufficiently large winning probability to compensate for the cost k. This is the *contestability hurdle*. In SI Section H (p. 21), we show that this is equivalent to: $\mu_i \geq F^{-1}(k^{\frac{1}{n-1}})$. Combining outsider and contestability hurdle yields our first result:

Lemma 1. *A potential challenger* i *runs if and only if her reputation exceeds both outsider and contestability hurdles, that is, when*

$$\mu_i \geq \widehat{\mu} \equiv \max\left\{F^{-1}\left(k^{\frac{1}{n-1}}\right), \mu_N, q_I\mu_I\right\}. \quad (1)$$

Party Nomination. By the same reasoning of Lemma 1, an incumbent who lost the party nomination quits the party and runs as an independent if she is either visibility-motivated ($\varepsilon < 0$) or when her reputation exceeds that of the party nominee R (see Lemma H1 in SI Section H, p. 21). When the incumbent I chooses to run for reelection, the party leader's decision between I and the replacement candidate R depends on (i) his nonelectoral value of keeping the incumbent (captured by the bias ζ) and (ii) the electoral value of keeping I, that is, how nominating R changes the party's likelihood of keeping the seat. Under the assumptions, the party leader confirms the incumbent if (i) the nonelectoral value of the incumbent is high (i.e., the bias favors the incumbent) or (ii) the leader is unbiased and I has a higher reputation.

Lemma 2. *The party leader replaces the incumbent if either he is biased against her ($\zeta = -1$), or if he is unbiased and the replacement candidate has a higher reputation ($\zeta = 1$ and $\mu_I > \mu_R$): $d_L(\mu_I, \mu_R, \zeta) = \mathbf{1}\{\zeta = 1\} + \mathbf{1}\{\zeta = 0\}\mathbf{1}\{\mu_I > \mu_R\}$.*

Incumbent's Running Decision. After observing her performance signal $\mathbf{s}$, an incumbent runs for reelection if and only if the expected payoff of doing so exceeds the running cost k. In SI Section H (p. 22), we show that this expected payoff is strictly increasing in her reputation μ_R.[11] We then obtain that the incumbent runs if and only if her reputation exceeds a threshold μ^*:

Lemma 3. *There exists $\mu^* \in (0, 1)$ such that the incumbent runs for reelection if and only if $\mu_I \geq \mu^*$.*

Combining Lemmas 1–3, we can characterize $V_\mathbf{s}$, the incumbent's expected payoff as a function of her signal realization (see SI Section H, p. 22). The incumbent's optimal effort choice then solves $e(\theta) = \arg\max_{e\in[0,1]} \mathbf{E}\{V_\mathbf{s}|e; \theta\} - C(e)$. Lemma H2 in SI Section H (p. 22) shows that the marginal benefit of effort is proportional to the difference $V_h - V_l$, that is, to

[9] See SI Section H (p. 21) for details and formal statements of these assumptions.

[10] This assumption allows us to focus on symmetric equilibria in the challenger entry subgame and to abstract from situations in which a politician's running decision is itself informative about her ability, and about the incumbent's ability (Gordon and Landa 2009).

[11] I's expected payoff depends on (i) how her reputation compares to μ_R, (ii) the party leader's bias ζ, (iii) her nonelectoral motivation ε, and (iv) how her reputation compares to that of her general election opponents.

TABLE 1 Summary of Testable Hypotheses

Performance Signal	**Low**		**High**	
Relative party advantage:	Low	High	Low	High
Probability that I runs	=	−	+	=
Probability that I wins the party nomination	−	−	+	+
Probability that I wins the general election	=	−	=	+
Number of candidates	=	+	=	−

Notes: Table summarizes our model expectations regarding the effect of increasing sustained transparency on electoral outcomes, conditional on the performance signal of the incumbent and their relative party advantage.

how much the increase reputation of a high performance signal improves the incumbent's chances. We also show that this difference crucially depends on relative party advantage (the prior reputation of the incumbent and the expected reputation of her internal challenger). Specifically, we identify two thresholds for relative party advantage (one for each possible signal realization) above which I runs for reelection:

Lemma 4. *There exist thresholds* $\underline{\mu}, \overline{\mu}$ *for relative party advantage such that an incumbent*

(i) never runs for reelection when $\mu_0 < \underline{\mu}$,
(ii) runs for reelection only after a positive performance signal when $\mu_0 \in [\underline{\mu}, \overline{\mu}]$, *and*
(iii) always runs for reelection when $\mu_0 > \overline{\mu}$.

Intuitively, a higher relative party advantage improves the baseline from which the incumbent performance will be evaluated, thereby improving her electoral prospects, and deterring potential general election challengers. A key implication of this result is that performance information is pivotal for I's running decisions only when party advantage is intermediate.

Governance. A consequence of Lemma 4 is that equilibrium effort depends on party advantage μ_0. When μ_0 is intermediate, effort is most valuable: It increases both the incumbent's probability of running *and* her winning probability conditional on running. Conversely, when μ_0 is large ($\mu_0 > \overline{\mu}$), effort only increases the incumbent's winning probability. When instead μ_0 is low ($\mu_0 < \underline{\mu}$), incumbents choose low effort because they anticipate that they will (likely) not run for reelection. Lemma H4 in SI Section H (p. 35) shows that effort is indeed quasiconcave in party advantage.

The Effect of Transparency

How does sustained transparency affect the choices of incumbents, parties, potential opponents, and voters? Because our outcomes of interest are contingent on one another, the model allows us to formulate hypotheses that take this chain of dependence into account. Table 1 summarizes the empirical implications of our theory.

Governance

Under a benchmark of no transparency ($\tau = 0$), the public signal s is uninformative about performance, and so does not change the incumbent's reputation. As a result, effort is not valuable for the incumbent, who then sets it to zero. As transparency increases, the performance signal becomes increasingly more accurate and the incumbent's reputation increasingly sensitive to s: a larger improvement when the signal is high ($\mathsf{s} = h$) and a larger decline when the signal is low ($\mathsf{s} = l$). This increases equilibrium effort. Because higher effort increases the difference in performance between types, transparency widens the gap between the two posteriors $\mu_I(h)$ and $\mu_I(h)$ both directly and indirectly (through effort).

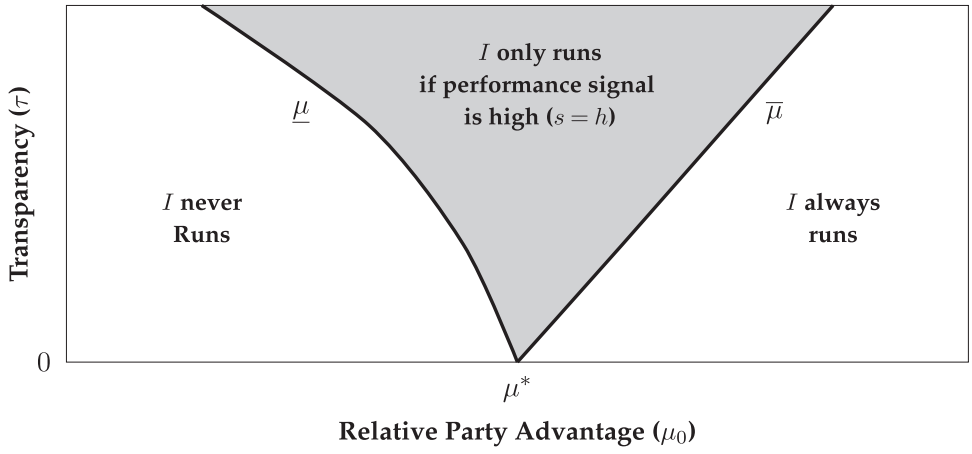
Proposition 1. *An increase in transparency*

(i) increases incumbent effort for all abilities and costs of running,
(ii) increases the incumbent's reputation conditional on a high-performance signal $\mu_I(h)$, *and*
(iii) decreases the incumbent's reputation conditional on a low-performance signal $\mu_I(l)$.

Incumbent's Running Decision

Recall that an office seeking incumbent never runs when $\mu_0 < \underline{\mu}$, always runs when $\mu_0 > \overline{\mu}$, and only runs after a high signal when μ_0 falls in between $\underline{\mu}$ and $\overline{\mu}$. By in-

FIGURE 2 The Running Decision of Incumbents



Notes: The running decision of incumbents with high- and low-performance public signals as a function of both sustained transparency (τ) and relative party advantage (μ_0).

creasing both effort and the posterior gap $\mu_I(h) - \mu_I(l)$, higher transparency widens the gap between the two participation thresholds:

Proposition 2. *$\underline{\mu}$ decreases in transparency and $\overline{\mu}$ increases in transparency.*

By Proposition 2, sustained transparency changes the set of incumbents that choose to run for reelection. Specifically, it increases the range of situations in which performance information is pivotal for the incumbent's running decision, as illustrated in Figure 2.[12]

Figure 2 also illustrates that disregarding the moderating effect of relative party advantage can lead to substantially overstate the effect of transparency on accountability. When the incumbent party has a large advantage (respectively, a disadvantage), greater transparency may be insufficient to deter low-performance incumbents from running for reelection (respectively, to encourage high-performance incumbents to run for reelection). As a result, when party advantage is low ($\mu_0 < \underline{\mu}$), increasing transparency encourages high-performers to run; when it is high ($\mu_0 < \overline{\mu}$), increasing transparency discourages low-performers from running.

Hypothesis 1.

(a) *I*'s running probability weakly decreases in transparency when the signal is low ($\mathsf{s} = l$) and weakly increases in transparency when the signal is high ($\mathsf{s} = h$);

(b) the drop in running probability when $\mathsf{s} = l$ is strict when party advantage is large (at baseline τ, $\mu_0 > \overline{\mu}$);

(c) the rise in running probability when $\mathsf{s} = h$ is strict when party advantage is small (at baseline τ, $\mu_0 < \underline{\mu}$).

Party Nomination

Sustained transparency increases the accuracy of the public signal (s). Therefore, as τ increases, the incumbent's likelihood of winning the nomination conditional on running becomes more sensitive to her performance. This, in turns, enhances high performers' chances to win the party nomination in two ways: First, τ lowers $\underline{\mu}$, the minimum level of party advantage above which high performers run (Proposition 2); second, τ increases their reputation conditional on running, thereby reducing the chances that an unbiased party leader prefers to nominate the replacement candidate *R*.

Hypothesis 2. *I*'s probability of winning the nomination (conditional and unconditional on running) decreases in transparency when the signal is low ($\mathsf{s} = l$) and increases when the signal is high ($\mathsf{s} = h$).

General Election

In equilibrium, an incumbent reaches the general election when she runs for reelection *and* she either wins her party nomination or runs as an independent. The likelihood of running and winning the party nomina-

[12] μ^* is a function of μ_0, but this dependence vanishes as σ, the scale parameter of the distributions F and F_R, grows.

tion is then increasing in τ for high performers and decreasing in τ for low performers. Due to its effect on her reputation, sustained transparency also affects the general election's results. Specifically, transparency increases the likelihood that high performers win (and low performers lose) the general election. The effect, however, is again moderated by relative party advantage.

By Lemma 1, when an incumbent reaches the general election, potential challengers run only if their reputation exceeds $\max\{F^{-1}(k^{\frac{1}{n-1}}), \mu_I, \mu_R\}$. Transparency then affects the expected number of general election candidates only when the outsider hurdle (which depends on the incumbent's reputation) exceeds the contestability hurdle (which is driven on the cost of running k)—that is, when party advantage is large enough. For this reason, we expect that the effect of transparency on the number of challengers and the incumbent's winning probability should be stronger when party advantage is larger.[13]

Hypothesis 3.

(a) I's winning probability conditional on reaching the general election decreases in transparency when the signal is low ($\mathsf{s} = l$) and increases in transparency when the signal is high ($\mathsf{s} = h$);
(b) both the drop (when $\mathsf{s} = l$) and the improvement (when $\mathsf{s} = h$) in winning probability are larger when party advantage is large ($\mu \geq \overline{\mu}$ and $\mu \geq \underline{\mu}$, respectively);
(c) transparency has the opposite effect on the expected number of candidates.

Research Design

We test the model's predictions using data from 20 Ugandan district governments (one level below the national level), where a local NGO (ACODE) assembled and disseminated incumbent performance information during the 2011–16 term. We examine incumbents' choice of running for reelection, parties' nomination decisions, potential challengers' entry choices, and constituents' vote choices in the 2016 elections.

[13]We do not explicitly assume visibility motivation among potential challengers (i.e., no ε term, which we explicitly model for incumbents). As long as visibility motivation was independent of party advantage, Hypothesis 3 would be qualitatively unaffected—though its implied effect dampened.

Study Context

Subnational Ugandan elections in the mid-2010s offer a good testing ground for our theory. Despite the existence of a dominant ruling party, the National Resistance Movement (NRM), Uganda's subnational governments display considerable variation in relative party advantage, which has been leveraged to study other forms of accountability in prior work (e.g., Raffler 2022). The NRM, which has controlled the presidency since 1986 and held about 70% of national and subnational legislative seats in 2011, maintains power through genuine popular support and bureaucratic effectiveness, but also intimidation of opposition and the use of state resources for partisan ends (Golooba-Mutebi and Hickey 2016; Izama and Wilkerson 2011). However, although elections show an uneven playing field (Khisa 2019), the NRM did not engage in systematic election rigging in the study period (Hyde and Marinov 2012).

District elections are more likely to permit genuine participation. Since the (re)introduction of multiparty elections in 2005, opposition parties have made meaningful inroads in some regions, owing to ties to national figures (e.g., the UPC, whose founder, former president Obote, hailed from the north) or to local power brokers, sometimes dating back to the preindependence period (e.g., the DP in the Acholi and Baganda areas). These ties allow opposition parties to compete and sometimes outperform the NRM in candidate recruitment. Consistent with our model, we show in SI Section A (p. 4), that experts consider subnational elections relatively free and fair, broadly contested by multiple parties across Uganda's regions, and based on local collective development goods (i.e., valence goods rather than policy or programmatic ideology).

Second, political parties are neither programmatic nor ethnic based; they compete over valence issues (Platas and Raffler 2021) that strongly depend on representatives' effort and ability in working for their constituents, in line with our model. The Local Government Act (1997) stipulates the following job duties for district politicians: *legislative* (e.g., passing motions), *lower local government participation* (e.g., attending LC3 meetings), *contact with the electorate* (e.g., constituent meetings), and *monitoring public service provision* (e.g., verifying that service delivery standards are met). Using survey data from the study area, Grossman and Michelitch (2018) document that incumbent performance on these tasks is salient for citizens.

Third, citizens have limited information about incumbent performance, especially at the district level (LC5) on which the study focuses (Buntaine et al. 2018).

TABLE 2 ACODE Scorecard Components

Parameter/Indicator	Maximum Score
Legislative role	**25**
Participation in plenary sessions	8
Participation in committees	8
Moved motions in council	5
Provided special skills/knowledge to the council or committees	4
Contact with electorate	**20**
Meeting with electorate	11
Office or coordination center in the constituency	9
Participation in lower local government	**10**
Attendance in subcounty council sessions	10
Monitoring service delivery on national priority program areas	**45**
Monitoring of health service delivery units	7
Monitoring agricultural projects	7
Monitoring education facilities	7
Monitoring road projects	7
Monitoring water facilities	7
Monitoring functional adult literacy programs	5
Monitoring environment and natural resources	5

Notes: Table provides information on the different components that make up ACODE's annual scorecard.

On the one hand, this subnational level does not attract the media attention reserved to national politics. On the other hand, districts are further away from citizens than more local government levels, such as subcounty (LC3) and village (LC1).

Citizens in Uganda's district council elect two representatives to district council in separate but simultaneous single-member plurality elections—a subcounty politician (open gender) and a "special woman" politician (only female) whose constituency encompasses one to three contiguous subcounties. We use this institutional feature in our randomization strategy.

Field Experiment: Local NGO Transparency Initiative

In 2011, ACODE launched the Local Government Councilor Scorecard program in 20 districts, with the goal of strengthening electoral accountability. As part of this initiative, ACODE produces an annual scorecard capturing the performance of all district politicians (on 0–100 scale). Scorecards cover a fiscal year: The first scorecard covered July 2011 to June 2012 (following the February 2011 elections), and the last scorecard covered July 2014 to June 2015. ACODE collects data throughout the fiscal year, vets them every summer, and disseminates them every fall (see SI Section C [pp. 6–7] for field experiment details, and SI Section D [pp. 7–8] for an ethics statement).

ACODE's scorecard is divided into four components, as depicted in Table 2. These components match the four district politician job duties discussed above. ACODE's methodology for collecting data on politicians' performance includes several steps, but they primarily rely on their reviews of the minutes of district council and lower local government sessions, service delivery and infrastructure reports, budgets, and other official records (e.g., ledgers of service providers' visitors). See SI Section B (pp. 5–6) for a more detailed discussion of scorecard methodology and quality control.

ACODE disseminates incumbents' scores online, and at annual events at the district headquarters, which are attended by district politicians, party elites, civil servants, and local media. However, the information disseminated in these events hardly reaches voters: Grossman and Michelitch (2018) report that in 2012, only 9% of survey respondents in the study area had heard "at least something" about the scorecard.

To test whether directly informing voters about their politician performance can improve electoral accountability, ACODE, in collaboration with the research team, randomly selected half of the politicians to participate in the "Intense Dissemination" (ID) program.[14] Treated politicians were informed in advance and invited to attend two rounds of parish-level community dissemination events. The first set of community meetings took place in late 2013 (354 meetings, 12,949 attendees, 2012–13 scores) and the second in late 2014 (339 meetings, 14,520 attendees, 2013–14 scores).[15] In those meetings, ACODE shared information on politicians' scores, and their ranking within the district. Exit surveys show these events were highly effective.

Moreover, ACODE undertook efforts to ensure politicians' performance was widely shared and salient between meetings. Posters were hung in prominent places, and calendars and fliers were given to attendees to further share with neighbors. Given their visual appeal and the scarcity of signage in this context, these items were considered valuable. Further, ACODE signed up meeting attendees to receive periodic text messages about the (absolute and relative) performance of their district politicians.

Importantly, ACODE also created *common knowledge* between treated incumbents, party leaders, and voters regarding the existence of the transparency initiative early in the term, and reminded them when meetings were occurring. The marginal effect of the ID treatment is therefore the effect of creating common knowledge around the transparency initiative to disseminate scores widely to voters above and beyond dissemination among elites alone. Grossman and Michelitch (2018) found that the ID program was sufficiently powerful to change incumbent behavior outside of party strongholds. In this study, we assess the subsequent effect of sustained transparency on electoral outcomes.

We face several challenges in testing our model (itself a stylized representation of more complex decision processes). To study the effects of sustained transparency, we examine a string of mutually dependent behavioral responses. Although the model allows us to specify hypotheses that account for this, nested conditional hypotheses produce thorny estimation challenges. Moreover, while successfully executing a multiyear program across hundreds of constituencies is already a herculean effort for a local NGO in a low-income setting, our sample size yields lower-than-ideal statistical power (see SI Section E, p. 9). For this reason, we consider the evidence in terms of tendencies and patterns, assessing substantive significance and not only statistical significance.

[14] Randomization was blocked at the district level (see SI Section G, Table 2, showing good balance).

[15] Due to the proximity to the February 2016 election, the 2014–15 scores were not disseminated.

Data and Empirical Strategy

Following our study's preanalysis plan (see SI Section I, pp. 27-28, on deviations), we use the following data sources: (1) an original in-person politician survey fielded several months prior to the February 2016 elections ($N = 375$), (2) electoral data from Uganda's Electoral Commission, and (3) ACODE's yearly scorecards. We construct the following variables.

Electoral Outcomes. Our primary outcome of interest is **Won again**, an indicator of whether the incumbent won reelection. Secondary outcomes include: **Vote Share**, a continuous variable [0–1] measuring incumbent's share of total valid votes; **Number of Candidates**, a continuous measure of the number of challengers; **Effective N. of Candidates**, a continuous measure of how concentrated support for different candidates is[16]; **Won nomination**, an indicator of whether an incumbent won (again) her party's nomination; and **Ran again**, an indicator of whether an incumbent chose to run for reelection. Electoral outcomes are derived from official electoral returns, except **Ran again** that is self-reported.

Treatment. An indicator variable that equals zero when ACODE shared the incumbent's performance scores only at district-level annual events. **Treatment** equals one when ACODE additionally disseminated the incumbent's scores at community meetings in 2013 and 2014.

Moderators. As per our model, we construct measures of two key moderating variables. The first is **Performance**, an indicator variable of whether the incumbent had above district median performance using the 2013–14 scorecard. We demonstrate the robustness of our findings using the 2011–12 scorecard (see SI Section G, Table 3). Scores are correlated at 0.39 over the term (see SI Section F, Figure 8). The 2013–14 scorecard was disseminated in October to November 2014, and was the last scorecard before mid-2015, when incumbents and potential challengers had to finalize their running decision and party leaders chose their nominees. Thus, the 2013–14 scorecard is posttreatment. By contrast, the

[16] The Laakso–Taagepera measure is computed as $N = \frac{1}{\sum_{i=1}^{n} p_i^2}$, where n is the number of candidates with at least one vote and p_i^2 is the square of candidates' vote share.

TABLE 3 The Effect of Sustained Transparency on Incumbent's Reelection Victory

	Full				Low PA		High PA	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Unconditional sample								
Treatment	−0.049	−0.049	−0.120	−0.151*	−0.200	−0.183†	−0.088	−0.151
	(0.049)	(0.042)	(0.079)	(0.058)	(0.116)	(0.101)	(0.092)	(0.089)
Performance			0.010	−0.010	0.083	0.044	−0.057	−0.060
			(0.079)	(0.087)	(0.145)	(0.166)	(0.088)	(0.122)
Treatment × Performance			0.136	0.194	0.236	0.286	0.084	0.174
			(0.124)	(0.127)	(0.164)	(0.188)	(0.143)	(0.150)
Covariates	No	Yes	No	Yes	No	Yes	No	Yes
RI Pval (Low Performance)	[0.342]	[0.354]	[0.089]	[0.033]	[0.04]	[0.068]	[0.397]	[0.184]
ME (High Performance)			0.016	0.043	0.036	0.103	−0.004	0.023
SE (High Performance)			(0.076)	(0.089)	(0.104)	(0.14)	(0.115)	(0.126)
N	354	354	354	354	166	166	188	188
R^2	0.07	0.14	0.08	0.16	0.15	0.26	0.15	0.26
Panel B: Sample is conditional on winning party nomination								
Treatment	−0.087	−0.082	−0.250*	−0.307**	−0.339†	−0.436*	−0.112	−0.272
	(0.065)	(0.063)	(0.117)	(0.096)	(0.166)	(0.160)	(0.115)	(0.185)
Performance			−0.072	−0.105	0.070	0.006	−0.167	−0.216
			(0.115)	(0.123)	(0.203)	(0.172)	(0.126)	(0.207)
Treatment × Performance			0.298	0.407*	0.346	0.476*	0.257	0.469
			(0.195)	(0.194)	(0.263)	(0.212)	(0.211)	(0.292)
Covariates	No	Yes	No	Yes	No	Yes	No	Yes
RI Pval (Low Performance)	[0.246]	[0.323]	[0.031]	[0.012]	[0.022]	[0.016]	[0.504]	[0.27]
ME (High Performance)			0.048	0.099	0.006	0.041	0.144	0.198
SE (High Performance)			(0.111)	(0.127)	(0.144)	(0.162)	(0.158)	(0.154)
N	168	168	168	168	92	92	76	76
R^2	0.16	0.25	0.19	0.29	0.37	0.48	0.26	0.48

Notes: Estimates from a series of OLS models in which an indicator of whether the incumbent won reelection in 2016 is regressed on a treatment indicator interacted with a proxy measure of incumbent performance ($s \in \{l, h\}$ in the model). The performance indicator dichotomizes the 2013-2014 scorecard using the district median value as cutoff. In columns 5-8 we split the sample by relative party advantage (PA), which is dichotomized using district median values. Models include district fixed effects; standard errors are clustered at the district level.

†$p < .1$; *$p < .05$; **$p < .01$.

2011–12 scores were produced early in the term and were not disseminated at the community level. We give more weight to the 2013–14 scorecard because elites and citizens pay more attention to, and weigh more heavily, political information that is closer to elections (Michelitch and Utych 2018). Bobonis, Fuertes, and Schwabe (2016) similarly condition on Mayors' behavior that changed in response to prior knowledge of the timing of municipal audits' release.

The second moderator is **Party advantage**, calculated using the median vote margins for the incumbent's party in the following 2011 elections: (i) president, (ii) members of parliament, (iii) district chairperson, and (iv) district councilors. We dichotomize party advantage

using the district median value. See SI Section G, Table 1, for descriptive statistics.

Empirical Strategy

To test the effect of the ID treatment (T), conditional on the performance signal (S), we run the following OLS models for incumbent i in district j:

$$y_{ij} = \beta_1 T_{ij} + \beta_2 S_{ij} + \beta_3 T_{ij} \times S_{ij} + \alpha_j + \epsilon, \qquad (2)$$

where y_{ij} is an outcome of interest, α_j are district indicators (since randomization was blocked on district), and ϵ is the error term. We further weight observation by the inverse of the treatment assignment probability. When the outcome is binary, the model is a linear probability model to ease interpretation.

In some models, we adjust for prespecified politician and constituency covariates. Politician covariates include the following: **SWC mandate** (i.e., special women indicator); **Education** (a three-category variable); **Age** (continuous); **Motor vehicle** (indicator—a proxy for wealth); **NRM** (indicator); **Terms in office** (continuous). Constituency-level covariates (from the 2014 census) include the following: **Population (log)**; **ELF** (Ethnic-linguistic fractionalization); **Literacy rate**, **Share agriculture employment,** and **Poverty index**. These variables help alleviate possible concerns due to the fact that party advantage is not randomly assigned. When we adjust for pretreatment covariates, we set missing covariate values to the mean values of the covariates in the politician's treatment group and include an indicator variable for imputed values. Finally, the covariates are demeaned and interacted with a treatment indicator.

Because our theory considers nested outcomes, we report estimates using the full sample as well as restricted samples defined by previous stages (e.g., winning reelection conditional on running again and winning the party nomination). Although adherence to our theory is closer, restricting to these samples can come at a cost in terms of statistical power (which we estimate and report in SI Section E, pp. 8–9). Figure 6 in SI Section E clearly shows that we were underpowered when estimating treatment effects using the unconditional sample, but well-powered when estimating treatment effects for the restricted sample conditional on winning party nomination (Table 3, Panels A and B, respectively).[17]

[17]For example, we are powered at 0.6 in Model 4 in the unconditional sample, but at 0.88 in the sample conditional on winning party nomination to detect the estimated effect size at $\alpha = 0.05$. To have achieved 0.80 power in the former, we would have needed an estimated sample size of 541, which was unfeasible in our context.

Given our study's relatively small sample size, we replace our parametric estimates of uncertainty with simulation-based randomization inference p-values (see SI Section G.3, pp. 14–16). In addition, we take the view of Gerber and Green (2012, p. 63) that "a parameter falling short of the 0.05 threshold might nevertheless be important and interesting" especially if it is the "first experiment of its kind and we had no prior knowledge of the treatment effect, the estimate…would still be our best guess."

Results

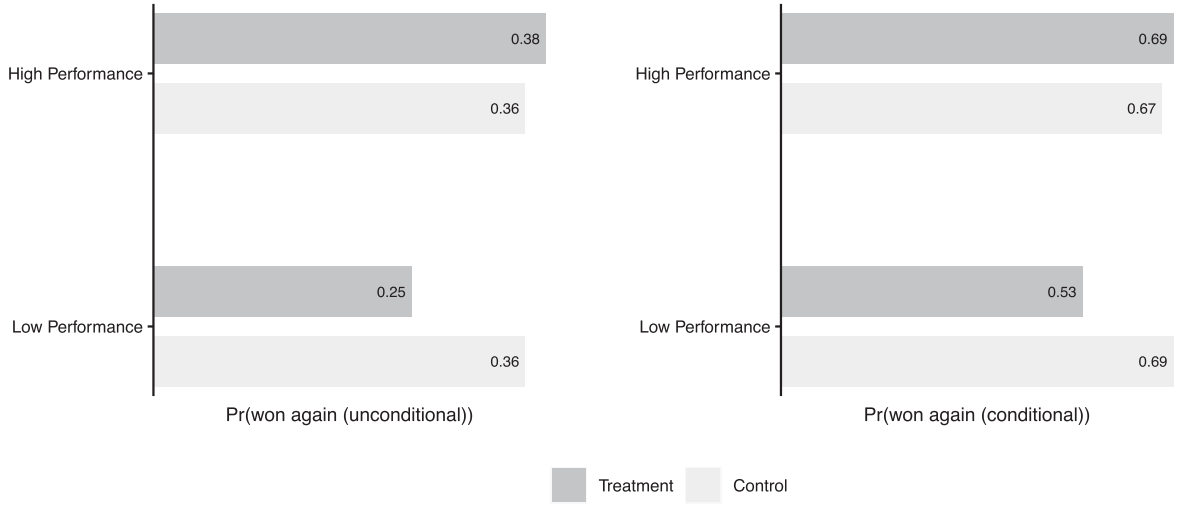
Does sustained transparency to citizens improve the electoral prospects of high-performing incumbents and hurt those of low-performing incumbents? Figure 3 plots the raw data on **Won Again**, our main outcome of interest (Hypothesis H3a), and points to the potential efficacy of sustained transparency to strengthen electoral accountability.

Moving from raw data to a more formal analysis, in Table 3, we report tests for both H3a (where *win again* is conditional only on incumbent's performance signal) and H3b (where we further condition by relative party advantage). The table's panels correspond to two samples: in Panel A, the sample includes all 354 partisan incumbents, irrespective of whether they chose to run for reelection; in Panel B, the sample is restricted to incumbents who won their party nomination.

Reduced-form tests of H3a indicate that in the full sample of incumbents (Panel A, column 4), sustained transparency reduced the winning probability of incumbents with a low-performance signal by 15.1 pp. (RI p-value = 0.033), and increases the winning probability of those with a high-performance signal by 4.3 pp. These effects are in line with H3a, though only the treatment effect for those with a low performance signal is significant at conventional levels. Results are statistically and substantively stronger when we include only incumbents who won their party nomination (Panel B, column 4). Here, the treatment reduced the winning probability of low-performance by 30.7 pp. (RI p-values = 0.012), and increases the winning probability of high-performance incumbents by 9.9 pp. These are substantively large effects sizes that suggest that transparency has a genuine potential to improve electoral accountability.

In Table 3, columns 5–8, we distinguish between high- and low-party advantage. Following our model, we focus on incumbents who won their party nomination (Panel B). Consistent with H3b, the positive effect of sus-

FIGURE 3 Sustained Transparency and Incumbents' Winning Probability



Notes: Figure shows the (un-modeled, descriptive) relationship between sustained transparency and incumbents' winning probability by performance signal. Incumbent's performance signal s is proxied by the 2013–14 score, dichotomized ($\mathbf{s} \in \{l, h\}$) using within-district medians. Left panel sample includes all incumbents whether they stood for reelection ($n = 354$), whereas the sample in the right panel is restricted to incumbents who won their party nomination, excluding independents ($n = 168$).

tained transparency on the winning probability of high performers is lower (4.1 pp.) when relative party advantage is low compared to when it is high (19.8 pp.). Among low performers, instead, the negative effect of sustained transparency on winning probability is somewhat larger when relative party advantage is low (43.6 pp.) compared to when it is high (27.2 pp.), which is not consistent with H3b.

The comparison between Table 3 Panels A and B helps shed light on the relative role of party leaders and voters in the nexus of transparency and accountability. For example, for low performers who nonetheless won their party nomination, the decrease in reelection probability due to greater transparency is estimated to be 30.7 pp. (Panel B, column 4), but it is 15.1 pp. in the unconditional sample (Panel A, column 4). This suggests that voters punish low performers above and beyond the potential weeding out of the party nomination process. We further explore these mechanisms and assess H1 and H2 below.

Robustness

We test the robustness of our results by using alternative measures of both signal and party advantage. First, we condition the effect of the ID program on the pretreatment (2011–12) scorecard. Results reported in SI Section G.3, Table 3, are consistent with our model predictions, though understandably weaker (the signal dates to several years prior to the election, and as mentioned, was not disseminated down to the communities as were the 2013-14 scores). Second, our theory is agnostic about how to operationalize high or low relative party advantage. We thus test the robustness of our results to an alternative cutoff (defining low party advantage as the bottom 60 percentile of our continuous measure, and high party advantage as the top 40 percentile). Results reported in Table 4, SI Section G.4, are stronger than those reported in Table 3. Finally, Figures 14 and 15 in SI Section G.4 report results (consistent with H3) in which the party advantage moderator is continuous.

Mechanisms

Thus far, we have seen that sustained transparency can strengthen accountability by increasing the reelection of high performers and reducing the reelection of low performers. We now explore the extent to which this finding is due to incumbents (via their running choices), parties (via nomination choices), potential challengers (via entry choices), or citizens (via their vote choice).

A key advantage of the current study is the ability to track the effect of an exogenous shock to transparency throughout the accountability chain. Such analysis, however, does not come without challenges. Although the reduced-form effect of greater transparency on incumbents' winning probability is causally identified,

TABLE 4 The Effect of Sustained Transparency on Incumbent's Running Decision

	Full Sample				Low PA		High PA	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	−0.035†	−0.031	−0.060	−0.074†	−0.101*	−0.085†	−0.014	−0.050
	(0.020)	(0.021)	(0.037)	(0.039)	(0.048)	(0.047)	(0.080)	(0.079)
Performance			0.001	−0.003	−0.011	−0.028	0.008	0.004
			(0.035)	(0.035)	(0.030)	(0.043)	(0.077)	(0.073)
Treatment × Performance			0.049	0.083	0.085	0.103	0.014	0.099
			(0.052)	(0.049)	(0.066)	(0.077)	(0.093)	(0.094)
Covariates	No	Yes	No	Yes	No	Yes	No	Yes
RI Pval (Low Performance)	[0.229]	[0.312]	[0.169]	[0.106]	[0.105]	[0.2]	[0.846]	[0.522]
ME (High Performance)			−0.011	0.009	−0.015	0.017	0	0.049
SE (High Performance)			(0.028)	(0.025)	(0.049)	(0.056)	(0.058)	(0.057)
N	335	335	335	335	159	159	176	176
R^2	0.09	0.12	0.09	0.13	0.13	0.23	0.12	0.20

Notes: Table reports a series of OLS models in which an indicator of whether the incumbent reported running for reelection in 2016 is regressed on a treatment indicator interacted with a binary proxy measure of performance (s), as defined in Table 3. In columns 5-8 we split the sample by relative party advantage (PA), which is dichotomized using district median values. All models include district fixed effects; standard errors are clustered at the district level.
$^{\dagger}p < .1$; $^{*}p < .05$; $^{**}p < .01$.

assessing the relative contribution of other actors—party elites, potential challengers, and voters—requires additional assumptions. Readers can consider results in this section as informative, but suggestive.

Incumbents' Running Decision

Our theory predicts that sustained transparency decreases low performers' propensity to run again (H1a), especially when party advantage is high (H1b), and increase high performers' propensity to run again (H1a), especially when party advantage is low (H1c). Table 4 offers evidence that is broadly consistent with H1a: sustained transparency reduces the running choice of a low-performing incumbent by 7.4 pp., while leaving the running probability of high performers virtually unchanged (column 4).

Disaggregating by party advantage confirms these patterns: Sustained transparency encourages running by high performers (an increase of 1.7 pp. under low party advantage and an increase of 4.9 pp. under high party advantage) and discourages running by low performers (a drop of 8.5 pp. under low party advantage and a drop of 5 pp. under high party advantage). Although in line with our theory, the effects are quite noisy. However, the decline in the running propensity of low performers seems somewhat higher under low party advantage than under high party advantage and the increase in the running propensity of high performers seems somewhat higher under high party advantage than under low party advantage. This runs contrary to H1b and H1c.

These estimates suggest that incumbents' running decisions are at best a secondary pathway of accountability and cannot account for the large effects on win probability reported in Table 3. The main reason is that many low performers assigned to the ID program still run (often as independents after losing their party nomination). This is in line with the idea that nonelectoral motivations (e.g., visibility and status, as captured by ε in our model) play a role in incumbent running decision making.

The Behavior of Political Parties

Did parties (via the nomination process) play a role in improving accountability? Our theory implies that transparency should encourage parties to replace poor performers and renominate high performers, irrespective of relative party advantage (H2). In Table 5, we show results both for the full sample (columns 1–4), and for the restricted sample of only those who run for reelection (columns 5–8). Because **Ran again** is

TABLE 5 The Effect of Sustained Transparency on the Nomination Choice of the Incumbent Party

	Unconditional Sample				Conditional on Running for Reelection			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	−0.027	−0.029	−0.051	−0.087	−0.021	−0.034	−0.060	−0.116
	(0.060)	(0.054)	(0.076)	(0.076)	(0.072)	(0.062)	(0.099)	(0.102)
Performance			0.088	0.072			0.076	0.048
			(0.068)	(0.081)			(0.083)	(0.105)
Treatment × Performance			0.040	0.104			0.070	0.151
			(0.117)	(0.140)			(0.135)	(0.175)
Covariates	No	Yes	No	Yes	No	Yes	No	Yes
RI Pval (Low Performance)	[0.618]	[0.61]	[0.504]	[0.286]	[0.721]	[0.58]	[0.479]	[0.195]
ME (High Performance)			−0.011	0.017			0.01	0.034
SE (High Performance)			(0.088)	(0.096)			(0.095)	(0.109)
N	352	352	352	352	305	305	305	305
R^2	0.08	0.14	0.09	0.16	0.07	0.15	0.08	0.19

Notes: Table reports a series of OLS models in which an indicator of whether the incumbent won their party nomination in 2015 is regressed on a treatment indicator interacted with a binary proxy measure of performance (s), as defined in Table 3. Models include district fixed effects; standard errors are clustered at the district level.
$^{\dagger}p < .1$; $^{*}p < .05$; $^{**}p < .01$.

self-reported and given that running for reelection can be endogenous to signals by party elites, these estimates should be taken cautiously.

It is important to recall that ACODE disseminates the scorecard in district events. Party elites thus have had access to incumbents' scores in both treatment and control conditions. To the extent that party elites use an NGO generated performance scorecard (signal) as a metric for effectiveness in advancing the party's agenda, this should not vary by treatment status in our setting. Instead, the ID program could change party elites' expectations of voters' behavior due to the widespread dissemination of the same performance signal that elites have already had access to.

We find some evidence that sustained transparency encourages party elites to remove low performers, but it is less consequential for high performers. The treatment reduced party renomination by 11.6 pp. for low performers, and increased it by 3.4 pp. for high performers (Table 5, column 8). Although the signs of the coefficients are consistent with our theory, their magnitudes are small relative to the estimated overall effect of transparency on incumbent winning probability. Overall, our results suggest that party elites' nomination decisions are only partially responsive to incumbent performance information.

Potential Challengers

Did sustained transparency affect entry decisions by *potential* challengers? We assume that due to random assignment, the underlying number of *potential* challengers (an unobserved population) would be similar across treatment and control constituencies. As summarized in Table 1, we expect that transparency will have little effect on candidates' entry choices when incumbents' party advantage is relatively low. Conversely, when incumbents' party advantage is sufficiently high, we expect sustained transparency to encourage the entry of potential challengers when the signal of incumbent's performance is low, and discourage their entry when the signal of incumbent's performance is high.

Table 6 reports results for both the number of candidates and the effective number of candidates. First, as hypothesized, when party advantage is low, transparency does not encourage the entry of potential challengers, irrespective of performance signal (Table 6, Panel B, column 1). Second, when party advantage is high, sustained transparency increases the number of candidates challenging a low-performing incumbent by one candidate (RI p-value = 0.094, Panel B, column 2). Conversely, the number of candidates challenging a high performer drops by only 0.3 candidates. In sum, when

TABLE 6 The Effect of Sustained Transparency on Electoral Outcomes

	Number of Candidates		Incumbent Vote Share		Effective N. Candidates	
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Unconditional sample						
Treatment	−0.124	0.230	0.019	−0.064	−0.167	0.081
	(0.324)	(0.314)	(0.071)	(0.072)	(0.236)	(0.142)
Performance	−0.175	0.084	0.054	−0.075	0.113	0.042
	(0.279)	(0.347)	(0.065)	(0.087)	(0.143)	(0.199)
Treatment × Performance	−0.396	−0.498	0.117	0.116	−0.441*	−0.296
	(0.332)	(0.378)	(0.092)	(0.112)	(0.202)	(0.249)
Party advantage	Low	High	Low	High	Low	High
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
RI Pval (Low Performance)	[0.716]	[0.619]	[0.787]	[0.477]	[0.447]	[0.753]
ME (High Performance)	−0.520	−0.268	0.136	0.052	−0.609	−0.215
SE (High Performance)	(0.221)	(0.296)	(0.061)	(0.093)	(0.169)	(0.19)
N	114	112	114	112	114	112
R^2	0.59	0.58	0.47	0.53	0.55	0.58
Panel B: sample is conditional on winning party nomination						
Treatment	−0.135	0.990*	−0.059	−0.127	−0.158	0.476
	(0.331)	(0.455)	(0.085)	(0.118)	(0.287)	(0.285)
Performance	−0.080	0.722	0.031	−0.127	0.180	0.269
	(0.309)	(0.428)	(0.057)	(0.103)	(0.189)	(0.200)
Treatment × Performance	−0.366	−1.295†	0.157†	0.171	−0.454†	−0.560
	(0.341)	(0.642)	(0.077)	(0.156)	(0.221)	(0.412)
Party advantage	Low	High	Low	High	Low	High
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
RI Pval (Low Performance)	[0.754]	[0.094]	[0.495]	[0.272]	[0.572]	[0.18]
ME (High Performance)	−0.500	−0.305	0.098	0.044	−0.612	−0.084
SE (High Performance)	(0.306)	(0.581)	(0.061)	(0.092)	(0.235)	(0.377)
R^2	0.644	0.658	0.544	0.670	0.540	0.689
N	92	76	92	76	92	76
R^2	0.64	0.66	0.54	0.67	0.54	0.69

Notes: DVs: number of candidates (columns 1-2); incumbent vote share (columns 3-4); and effective number of candidates (columns 5-6). Outcomes are regressed on a treatment indicator interacted with a binary proxy measure of performance (s). Models include district fixed effects; standard errors are clustered at the district level. In odd (even) columns, we subset the sample such that relative party advantage is low (high). All models adjust for a pre-specified set of politician and constituency-level covariates as discussed above.
$^{\dagger}p < .1$; $^{*}p < .05$; $^{**}p < .01$.

relative party advantage is sufficiently high, some of the effect of sustained transparency on lowering the winning probability of low performers operates through strategic entry of potential challengers.

Voter Behavior

As a final step, we explore the relationship between transparency and citizens' vote choices. Consistent with our

model, sustained transparency reduces the vote share of low performers when party advantage is sufficiently high (Table 6, Panel B, column 4)—when voters are faced with a higher number of alternatives. Although the magnitude of the estimated drop in vote share is considerable (12.7 pp.), the effect falls below significance level (RI p-value = 0.272), and so does the estimated increase in vote share for high performers, which is also smaller (4.4 pp.).

When party advantage is relatively low (Panel B, column 3), the effect of greater transparency on the vote share of low performers is modest (5.9 points), whereas the effect on high performers is larger (9.8 pp.), though these estimates are also noisy. Although suggestive, our results seem to indicate that voters have been responsive to the information they received regarding the performance of their elected representative in the district government.

Discussion

We provide a novel theory of how sustained transparency improves electoral accountability and test its predictions using a field experiment in Uganda. We find that greater transparency strengthens electoral accountability and that its effect is moderated by the relative advantage of the incumbent's party. Sustained transparency (i) reduces the reelection of low performers in both high and low party advantage constituencies and (ii) increases the reelection of high performers, but only in constituencies with relatively high party advantage.

The relative contribution of the mechanisms at play differs across relative high and low party advantage constituencies. Consistent with our model, the effect of transparency on accountability via challenger entry in the general election is stronger when party advantage is relatively high. Here, the "outsider hurdle" of a challenger beating the incumbent exceeds the "contestability hurdle" of beating other potential challengers. By favoring candidate entry and depressing voter support, transparency decreases the electoral security of low-performing incumbents. We also provide some (weaker) evidence that transparency improves accountability through party nominations choices and incumbents' running decisions (especially when party advantage is low).

Our model and findings offer important lessons for both theory and policy. Existing theoretical models of electoral accountability both overstate and oversimplify the ability of transparency to discipline incumbents, leading to the potential omission of additional relevant factors in empirical work. Below, we discuss key implications of our study for future work.

First, scholarship on accountability should not overlook the role of parties' organizational strength. In weakly institutionalized electoral settings (but also in consolidated democracies), party competition at the subnational level is frequently uneven (Hiskey and Moseley 2020). Our theory highlights how relative party advantage moderates the effect of transparency. Transparency expands the range of situations in which performance is pivotal for an incumbent's electoral fortunes and leads to the weeding out of low performers, especially at high levels of party advantage. Although our theory suggests that sustained transparency can weaken local political monopolies, our results suggest that, at least in our context, the empirical relevance of this channel is limited: Internal party nominations are no substitute for voter response.

Second, our study expands existing models of political accountability to include pre-election decisions by incumbents (running), parties (nominations), and potential candidates (entry). In a standard accountability model, prospective voters compare their posterior about the incumbent (which depend on transparency) with an exogenous retention cutoff, implicitly assuming that challenger entry and party nomination decisions do not respond to transparency. By weakening this assumption, our model identifies another channel through which transparency affects accountability—a channel that is crucially moderated by party advantage.

Third, our study underscores the importance of going beyond "putting out politically relevant information in the public domain," to ensure common knowledge of the information dissemination efforts among citizens and political elites well in advance of elections. Here, the control condition is the dissemination of incumbents' performance information to district elites, so our treatment captures the effect of informing voters—and making elites aware that voters are informed—about incumbent performance.

Fourth, although incumbents respond to sustained transparency in ways that strengthen accountability (by exerting more effort and less frequently seeking reelection after a low performance signal), many low performers chose to run despite being considerably less likely to win. This points to the role of nonoffice motivations in candidacy: For some incumbents, visibility and status from candidacy may be as important as retaining office (Weghorst 2022). In our setting, the share of visibility-motivated incumbents was larger than expected—demonstrating the importance of including visibility motivations in formal theory moving forward.

Future research should also consider the role of outside options (Grossman and Hanlon 2014) in pursuit of which incumbents may choose to drop out from politics. Although these instances are rare in our data, they may be more common in other settings. In addition, we do not study whether more top-down approaches would have the same response. The program we study may have been successful, in part, due to the reputation of our local NGO partner and the ongoing long-term engagement between the research team and local stakeholders.

Moreover, similar transparency initiatives at the national level may backfire, especially if political agents feel threatened (Humphreys and Weinstein 2012). At the subnational level, however, party leaders might benefit from greater transparency via its effect on incumbent effort (see Proposition H1, SI Section H.2, p. 26). Perhaps tellingly, ACODE's transparency initiative did not reduce the share of seats held by the NRM. Nevertheless, incentive compatibility of transparency initiatives to political elites remains important future research.

References

Adida, Claire, Jessica Gottlieb, Eric Kramon, Gwyneth McClendon et al. 2017. "Reducing or Reinforcing In-Group Preferences? An Experiment on Information and Ethnic Voting." *Quarterly Journal of Political Science* 12(4): 437–77.

Arias, Eric, Pablo Balán, Horacio Larreguy, John Marshall, and Pablo Querubín. 2019. "Information Provision, Voter Coordination, and Electoral Accountability: Evidence from Mexican Social Networks." *American Political Science Review* 113(2): 475–98.

Ashworth, Scott. 2012. "Electoral Accountability: Recent Theoretical and Empirical Work. " *Annual Review of Political Science* 15: 183–201.

Bhandari, Abhit, Horacio Larraguy, and John Marshall. 2023. "Able and Mostly Willing: An Empirical Anatomy of Information's Effect on Voter-Driven Accountability in Senegal." *American Journal of Political Science* https://doi.org/10.1111/ajps.12591.

Bleck, Jaimie, and Nicolas Van de Walle. 2018. *Electoral Politics in Africa Since 1990: Continuity in Change*. Cambridge: Cambridge University Press.

Bobonis, Gustavo J., Luis Cámara R. Fuertes, and Rainer Schwabe. 2016. "Monitoring Corruptible Politicians." *American Economic Review* 106(8): 2371–405.

Brierley, Sarah, Eric Kramon, and George Kwaku Ofosu. 2020. "The Moderating Effect of Debates on Political Attitudes." *American Journal of Political Science* 64(1): 19–37.

Buntaine, Mark T., Ryan Jablonski, Daniel L. Nielson, and Paula M. Pickering. 2018. "SMS Texts on Corruption Help Ugandan Voters Hold Elected Councillors Accountable at the Polls." *Proceedings of the National Academy of Sciences* 115(26): 6668–73.

Caselli, Francesco, and Massimo Morelli. 2004. "Bad Politicians." *Journal of Public Economics* 88(3-4): 759–82.

Chong, Alberto, Ana L. De La O, Dean Karlan, and Leonard Wantchekon. 2015. "Does Corruption Information Inspire the Fight or Quash the Hope? A Field Experiment in Mexico on Voter Turnout, Choice, and Party Identification." *Journal of Politics* 77(1): 55–71.

Cruz, Cesi, Julien Labonne, and Pablo Querubin. 2017. "Politician Family Networks and Electoral Outcomes: Evidence from the Philippines." *American Economic Review* 107(10): 3006–37.

Cruz, Cesi, Philip Keefer, and Julien Labonne. 2021. "Buying Informed Voters: New Effects of Information on Voters and Candidates." *Economic Journal* 131(635): 1105–34.

Duggan, John, and Cesar Martinelli. 2020. "Electoral Accountability and Responsive Democracy." *Economic Journal* 130(627): 675–715.

Dunning, Thad, Guy Grossman, Macartan Humphreys, Susan D. Hyde, Craig McIntosh, and Gareth Nellis. 2019. *Information and Political Accountability: A New Method for Cumulative Learning*. Cambridge: Cambridge University Press.

Fox, Jonathan. 2007. "The Uncertain Relationship between Transparency and Accountability." *Development in Practice* 17(4-5): 663–71.

Gerber, Alan S., and Donald P. Green. 2012. *Field Experiments: Design, Analysis and Interpretation*. New York: W. W. Norton & Company, Inc.

Golooba-Mutebi, Frederick, and Sam Hickey. 2016. "The Master of Institutional Multiplicity? The Shifting Politics of Regime Survival, State-Building and Democratisation in Museveni's Uganda." *Journal of Eastern African Studies* 10(4): 601–18.

Gordon, Sanford C., and Dimitri Landa. 2009. "Do the Advantages of Incumbency Advantage Incumbents?" *Journal of Politics* 71(4): 1481–98.

Grossman, Guy, and Kristin Michelitch. 2018. "Information Dissemination, Competitive Pressure, and Politician Performance between Elections: A Field Experiment in Uganda." *American Political Science Review* 112(2): 280–301.

Grossman, Guy, and Tara Slough. 2022. "Government Responsiveness in Developing Countries. " *Annual Review of Political Science* 25: 131–53.

Grossman, Guy, and W. Walker Hanlon. 2014. "Do Better Monitoring Institutions Increase Leadership Quality in Community Organizations? Evidence from Uganda." *American Journal of Political Science* 58(3): 669–86.

Gulzar, Saad. 2021. "Political Entry. " *Annual Review of Political Science* 24: 253–75.

Gulzar, Saad, Zuhad Hai, and Binod K. Paudel. 2021. "Information, Candidate Selection, and the Quality of Representation: Evidence from Nepal." *Journal of Politics* 83(4): 1511–28.

Harding, Robin. 2015. "Attribution and Accountability: Voting for Roads in Ghana." *World Politics* 67(4): 656–89.

Hiskey, Jonathan T., and Mason W. Moseley. 2020. *Life in the Political Machine: Dominant-Party Enclaves and the Citizens They Produce*. Oxford: Oxford University Press.

Humphreys, Macartan, and Jeremy M. Weinstein. 2012. "Policing Politicians: Citizen Empowerment and Political Accountability in Uganda." Columbia University.

Available at http://www.columbia.edu/~mh2245/papers1/scorecard2010.pdf.

Hyde, Susan D., and Nikolay Marinov. 2012. "Which Elections Can Be Lost?" *Political Analysis* 20(2): 191–210.

Ichino, Nahomi, and Noah L. Nathan. 2013. "Do Primaries Improve Electoral Performance? Clientelism and Intra-Party Conflict in Ghana." *American Journal of Political Science* 57(2): 428–41.

Izama, Angelo, and Michael Wilkerson. 2011. "Uganda: Museveni's Triumph and Weakness." *Journal of Democracy* 22(3): 64–78.

Izzo, Federica, Torun Dewan, and Stephane Wolton. 2022. "Cumulative Knowledge in the Social Sciences: The Case of Improving Voters' Information." Available at SSRN: https://ssrn.com/abstract=3239047 or http://doi.org/10.2139/ssrn.3239047.

Khisa, Moses. 2019. "Shrinking Democratic Space? Crisis of Consensus and Contentious Politics in Uganda." *Commonwealth & Comparative Politics* 57(3): 343–62.

Malik, Rabia. 2020. "Transparency, Elections, and Pakistani Politicians' Tax Compliance." *Comparative Political Studies* 53(7): 1060–91.

Martin, Lucy, and Pia J. Raffler. 2021. "Fault Lines: The Effects of Bureaucratic Power on Electoral Accountability." *American Journal of Political Science* 65(1): 210–24.

Michelitch, Kristin, and Stephen Utych. 2018. "Electoral Cycle Fluctuations in Partisanship: Global Evidence from Eighty-Six Countries." *Journal of Politics* 80(2): 412–27.

Ofosu, George Kwaku. 2019. "Do Fairer Elections Increase the Responsiveness of Politicians?" *American Political Science Review* 113(4): 963–79.

Platas, Melina R., and Pia J. Raffler. 2021. "Closing the Gap: Information and Mass Support in a Dominant Party Regime." *Journal of Politics* 83(4): 1619–34.

Prato, Carlo, and Stephane Wolton. 2016. "The Voters' Curses: Why We Need Goldilocks Voters." *American Journal of Political Science* 60(3): 726–37.

Prato, Carlo, and Stephane Wolton. 2018. "Electoral Imbalances and Their Consequences." *Journal of Politics* 80(4): 1168–82.

Raffler, Pia J. 2022. "Does Political Oversight of the Bureaucracy Increase Accountability? Field Experimental Evidence from a Dominant Party Regime." *American Political Science Review* 116(4): 1443–59.

Sircar, Neelanjan, and Simon Chauchard. 2019. "Dilemmas and Challenges of Citizen Information Campaigns: Lessons from a Failed Experiment in India." In T. Dunning, G. Grossman, M. Humphreys, S. D. Hyde, C. McIntosh and G. Nellis. (Eds.). *Information, Accountability, and Cumulative Learning: Lessons from Metaketa I.* Cambridge University Press.

Svolik, Milan W. 2013. "Learning to Love Democracy: Electoral Accountability and the Success of Democracy." *American Journal of Political Science* 57(3): 685–702.

Weghorst, Keith. 2022. *Activist Origins of Political Ambition: Opposition Candidacy in Africa's Electoral Authoritarian Regimes.* Cambridge: Cambridge University Press.

Supporting Information

Additional supporting information may be found online in the Supporting Information section at the end of the article.

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Appendix I: Congruence with PAP