The impact of open government: Assessing the evidence

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EXECUTIVE SUMMARY

This report reviews the empirical and theoretical literature examining the international impact of open government, and offers recommendations for policymakers and an agenda for further research on the subject.

In Section I, we define the scope of our analysis, explaining what we mean by the question, “does open government work?” Here, and throughout the report, we employ a broad definition of open government, focusing on three governance processes that allow the perspectives, needs, and rights of citizens—including the most marginalized—to be addressed. They are (1) initiatives to increase transparency; (2) interventions intended to expand public engagement and participation; and (3) efforts to improve responsiveness and accountability. By whether open government “works” or is “effective,” we mean interventions that the evidence shows cause critical improvement in people’s lives (e.g. by improving health care, reducing corruption, increasing voting rates, and so on).

From an analysis of hundreds of reports, articles, and peer-reviewed academic studies discussing the effectiveness of particular programs, we derive in Section II six features of open government programs that give these reforms the highest likelihood of success. These points can be expressed as a series of questions that we argue proponents of such programs should pose.

1. Have the proponents identified the specific principals (e.g. segments of the public, civil society, media, and other stakeholders) intended to benefit?
2. Is the information revealed by the initiative important to the principals?
3. Is the information accessible and publicized to the principals?
4. Can the principals respond meaningfully as individuals?
5. Are governmental agents supportive of the reform effort?
6. Can the principals coordinate to change their governmental agents’ incentives?
Where open government initiatives have been effective, the answer to each of the first three questions is yes: proponents have clearly identified the principals they were trying to reach, and publicized information that was important and accessible to those principals. In addition, the answer to at least one of questions 4-6 is also yes. That is, principals could respond meaningfully on their own, or they could do so with the support of government officials, or they could do so through a coordinated effort by the principals to change the behavior of their representatives in government.

**STEPS TO A SUCCESSFUL OPEN GOVERNMENT INITIATIVE**

**Open Government Initiative**

**MUST**

- Identify the principals
- Ensure the information is important
- Ensure the information is accessible and publicized

**AND ANSWER YES TO ONE OF THE FOLLOWING**

1. Can the principals respond meaningfully as individuals?
2. Are officials supportive of reform?
3. Can the principals coordinate to change their agents' incentives?

**IMPROVED PUBLIC SERVICES, BROADER AND DEEPER PARTICIPATION, REDUCED CORRUPTION, BUDGETARY SAVINGS**

Turning finally to the agenda for further research, in Section III we find that policy evaluation has become substantially more sophisticated in recent years but that crucial gaps remain. We applaud the increasing rigor of the research, including the use of randomized controlled trials (RCTs) where appropriate, and urge the expansion of those and other research approaches. We find there is a need in the next generation of research to address systemic selection biases that limit the scope of research; to expand research to take account of political mobilizations that allow poor and other traditionally disenfranchised groups to overcome the problem of collective action; and to continue evaluation projects that allow researchers to assess sustainability as well as immediate impact.
I. DEFINING THE QUESTION: DOES OPEN GOVERNMENT WORK?

Open government has in recent years emerged as an area of intense activity and fervent hope for some of our largest societal aspirations.¹ This paper asks the question, does open government work? That is to say, do open government interventions expand public knowledge of governmental processes, encourage participation and inclusion, improve public services, save public money, or help achieve other widely accepted goals of government?² Even the most optimistic conclusions to date have offered a resounding “maybe.”³

We begin by defining the scope of our inquiry. Our view of open government is a broad one. It refers to a core characteristic of democratic systems: “governance relationships and processes…which allow the perspectives, needs, and rights of all citizens to be addressed, including those most marginalized.”⁴ In our review of the literature that follows, we examine three elements of open government: initiatives to increase information transparency, interventions intended to expand public engagement and participation, and efforts to improve responsiveness and accountability.⁵ We consider both “government efforts to expose its inner workings to public scrutiny” as well as “citizen-driven efforts to expose information about government performance.”⁶

Our expansive approach to defining “open government” for purposes of this paper has two limitations, however. First, we focus on the effects of openness as to government operations, rather than transparency imposed by government purely on private actors. There are many such reforms that are likely very valuable for a government to pursue—for instance, food labeling or product safety notifications.⁷ But evaluating them is beyond our scope here. Second, we distinguish between open government and “e-government.” If a government agency adopts digital records, they may indeed see gains in efficiency even if they do not make those records publicly available. But unless the reform increased public access to these records, this would not qualify as open government for the purposes of our study. Even with these two limitations, the scope of our project is large; our survey of existing research comprises everything from evaluations of programs monitoring teacher attendance to analyses of freedom of information laws.

When it comes to defining what we mean by what “works”—that is, the effectiveness or success of open government, we take a stricter approach. In selecting the studies that we discuss below, we are interested in impact, not just output.⁸ Open government initiatives include a wide array of policies with different measurable outputs: documents and data released, websites launched, public consultations held, and so forth. These “process-oriented achievements”⁹ are often the result of a great deal of effort, and are crucial first steps—of which participants and stakeholders can feel rightly proud. But, though these measures are important to track a project’s progress, they are not the results that we believe matter most to gauging the effectiveness of open government. Instead, we focus on studies that demonstrate three broad categories of impact: budgetary savings (including reductions in corruption), improvements to public services, and broader and deeper public participation. We do so not because those are the exclusive list of critical outcomes, by any means, but because they are those that emerged from our review of the literature as the subjects of the most rigorous empirical research to date and that made a real difference in people’s lives.
The first two categories of outcomes, budgetary savings and public service improvements, while sometimes challenging to measure in practice, are relatively clear in principle. In the studies we discuss below, budgetary savings are often assessed by accounting for whether the money top-level officials allocate for a particular purpose is actually spent on that purpose by local officials. Improvements to major public services like schools, health care, and infrastructure are typically measured with outcomes like school attendance, access to perinatal care, or rates of road repair. But effort is not the same as results; schooling is not the same thing as learning. The best scholarship establishes that such programs cause tangible benefits in the community: e.g., higher educational attainment, better community health, or more reliable infrastructure.

Open government can result in higher rates of public participation in civic life, such as higher voter turnout or greater attendance at public meetings. The third outcome addressed in the studies we discuss, public participation, has an additional feature. In assessing policy outcomes, we cannot lose sight of the political processes by which they are achieved. To do so would reflect “a narrow technocratic understanding” of the purposes of governance. As Yu and Robinson note, a government providing “online, machine-readable transit schedules” while it is at the same time “sliding into authoritarianism” is not an open government success story. The process of government is integral to the product.

For this reason, we include in our review below interventions linked to broader and deeper public engagement in the political process—and further downstream, increased confidence in government and a strengthened social contract. Most obviously, open government can result in higher rates of public participation in civic life, such as higher voter turnout or greater attendance at public meetings. In addition, open government initiatives can count as a success greater inclusion, i.e., increased political engagement, specifically among traditionally underrepresented groups. Where increased participation has been demonstrated as a result of open government initiatives, we include those studies as a basis for our conclusions.

We turn now to the studies themselves, and the lessons they suggest for how to make open government work.

II. OPEN GOVERNMENT: SIX CONDITIONS FOR SUCCESS

Open government has benefited from an explosion of activity and experimentation in recent years. The result is a wide array of projects across sectors and countries, with different goals and inconsistent standards of evidence to judge those achievements. For these reasons, it can be challenging to perceive the factors that distinguish success from failure. Our analysis draws both on the extensive theoretical literature regarding transparency and accountability, and a thorough analysis of the most rigorous empirical studies of open government impact.

The following pages trace the key conditions for open government success (Figure 1). The conditions may be articulated as six questions that open-government advocates should consider as they design, promote, and implement their reforms. These questions, we find, apply broadly across open-government
interventions and desired outcomes. As we explain below, advocates should ideally be able to answer “yes” to the first three questions and to at least one of questions 4 through 6. In sum, a successful open government initiative must publicize important and accessible information to a clearly defined set of principals, and those principals must be in a position to respond meaningfully, either as individuals, or through supportive government actors, or by coordinating to change the incentives of their representatives.

Throughout the report, we present specific cases to show how each step in the rubric is crucial to the success or failure of open government initiatives. The best cases demonstrate that open government can substantially improve public health, education, and infrastructure; can increase the efficiency of government spending; and can meaningfully expand public participation in government. But the failed cases, the instances where open government did not achieve the hoped-for results or even had perverse effects on the outcome of interest, are perhaps equally instructive. For this reason, we intersperse an analysis of the successful initiatives with a detailed examination of some common pitfalls for open government efforts.

Figure 1: Steps to a successful open government initiative

[Diagram showing steps to a successful open government initiative]

**Open Government Initiative**

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Ensure the information is important  
Ensure the information is accessible and publicized

AND ANSWER YES TO ONE OF THE FOLLOWING

Can the principals respond meaningfully as individuals?  
Are officials supportive of reform?  
Can the principals coordinate to change their agents’ incentives?

=  

IMPROVED PUBLIC SERVICES, BROADER AND DEEPER PARTICIPATION, REDUCED CORRUPTION, BUDGETARY SAVINGS
1. HAVE THE PRINCIPALS BEEN IDENTIFIED?

Theories of the effect of transparency often use a “principal-agent” model, in which an individual principal, representing the public, is given additional information to oversee his agent, i.e., the government. In reality, of course, the public is made of many individuals, gathered into different groupings and operating within existing institutions, with different and often competing interests, and varying levels of political, economic, and social power.\textsuperscript{15} Thinking in terms of a single principal can therefore be extremely misleading when it comes to real-world transparency initiatives. Instead of imagining a unitary “public,” many of the most effective open governance initiatives identify the specific principals who are expected to respond to and benefit from the new information the initiative is intended to provide.

Identifying the principals is, in general, easier when the open government initiative is intended to make conditions more visible, rather than processes more transparent.\textsuperscript{16} “Visible condition” interventions reveal the outcomes of government action, and the major principals tend to be comparatively obvious. The release of school test results might be primarily directed at parents. An interactive website for reporting local potholes is intended for drivers, bikers, and pedestrians. The principals are less obvious when it comes to transparent processes, which reveal not the outcomes of policy but the mechanisms by which government decisions are made. Who will attend the newly public town council meetings? Who will submit a Freedom of Information request and pursue legal remedies if it is denied?\textsuperscript{17} The answers to these questions are not necessarily obvious ex ante, but the answers will have a substantial effect on the outcomes of the initiative.

One major challenge with respect to consideration of the principals is the power dynamics among them. A very well developed literature demonstrates the ways in which social and economic advantage typically translates into political power.\textsuperscript{18} As Mansuri and Rao conclude,

\begin{quote}
Participants in civic activities tend to be wealthier, more educated, of higher social status (by caste and ethnicity), male and more politically connected than nonparticipants.\textsuperscript{19}
\end{quote}

For this reason, greater oversight of government processes can play into the hands of the already powerful. For example, in Vietnam, increasing the visibility of legislators’ behavior did not embolden them to more forthrightly represent their constituents’ interests. Instead, transparency discouraged these legislators from activities that give the appearance of opposing the regime.\textsuperscript{20} In a host of contexts, transparent processes can lead to more domination by entrenched interests.

This is not to suggest that increasing the transparency of government processes always empowers those with a stake in the status quo. But an examination of the literature on public meetings reveals some of the challenges in turning transparent processes into broad-based participation. In numerous contexts, carefully constructed public meeting initiatives have not only provided civic space for the disadvantaged, but have even disproportionately represented the poor—an achievement that can help offset inequalities of representation in other venues.\textsuperscript{21} Decisions as simple as the timing and location of meetings can include or exclude the disenfranchised.\textsuperscript{22}
All too often, however, participatory processes are captured by the officials themselves or other local elites and fail to target the poor and the disenfranchised. 23 One challenge is the fact that the specific facilitators or discussion leaders play an enormous role in making in-person participatory decision-making effective, 24 but, in many instances, represent elite interests or are simply “poorly trained, particularly in rapidly scaled up projects.” 25 Those who wish to make transparent processes inclusive must not only guard against unintentionally reinforcing structures of inequality, but consider ways to compensate for existing hierarchies.

When efforts are made to ensure that poor people have access to transparency processes, there is clear evidence that these open government initiatives can be used to improve their access to public goods. An experiment in New Delhi tested various methods by which very poor people could speed their receipt of ration cards. A random selection of participants in the study followed up their ration card application with a claim filed under India’s right to information (RTI) law, asking for information about the status of their application, and about average processing times for ration card applications. Those who filed an RTI request received their ration cards almost as fast as those who paid a bribe. The study’s authors argue that the RTI claim sent “a direct signal to the civil servant that [the claimant] has some leverage over the bureaucracy.” As such, the RTI served as a channel by which disenfranchised people could claim authority over their government. 26

Another challenge in turning transparency into broad participation is a tendency to self-selection among those who participate, even among social and economic equals. It is not just the powerful, but the interested, who tend to participate in politics. 27 The views of the highly engaged may be quite different from those held by the average member of the public, and so public forums may come to be polarized, even when most people hold moderate views on a subject. As a result, “extreme voices” can exert a disproportionate influence in civic spaces. 28 In these instances, theorists have suggested that transparency can reduce the possibility for compromise, a prerequisite for governance in a pluralistic society. 29 More research is needed to identify when extremism might be a result of transparency and what institutional forms might mitigate this concern.

Transparent processes need not be just another access point for the already powerful or the highly motivated. But open government proponents must design transparent procedures that take into account who is likely to be in a position to respond to the information made available by transparency, and to offset the existing inequalities of power and engagement. The following items on the rubric will help ensure that open government information reaches its intended principals, and that those principals are in a position to absorb and respond to the information.
2. IS THE INFORMATION IMPORTANT TO THE PRINCIPALS?

One challenge of transparency, as law professor Lawrence Lessig puts it, is the “problem of attention-span.” Members of the public are busy people who cannot spend every waking moment visiting government websites. Open government initiatives need to be “compatible with individuals’ economies of information processing and behavioral limitations,” and in particular, they need to take seriously the priorities of those expected to respond to the information being made available to them.

Sometimes the government has access to information that is vital for citizens’ daily lives. In these contexts, open government initiatives can eliminate opportunities for rent-seeking. In Bangalore, farmers’ access to computerized land record kiosks substantially reduced bribery. Two thirds of farmers seeking land records through the manual system reported paying a bribe compared to only three percent of farmers using the kiosks. In this case, open government immediately curtailed corruption because the information-seeking process itself was corrupt.

But this case is unusual in that the information was extremely and immediately valuable to the farmers, so much so that people were willing to pay a bribe for it. In many instances, the need for information is not so urgent. Open governance proponents should seriously consider whether the information made available is actually of interest to the principals. It is not reasonable to expect citizens to react strongly to information about which they do not much care.

It is possible to make information important to people, even if they do not initially prioritize it. In contexts where the value of schooling is underestimated, initiatives that demonstrate the economic advantage of education have been shown to change parents’ attitudes and improve student test scores.

Theorists have suggested some factors that might affect public judgments of importance: the newness of the information, the respectability of the information’s source, and the frequency with which a problem is drawn to their attention. These factors are discussed below, in the context of publicity.

But it is also important to consider the possibility that local priorities might not align with those of academics, public officials, or civil society organizations. Researchers have noted, for instance, that when rural parents in India “talked about education, it was rarely about learning.” What mattered to these parents, often raising their children in conditions of extreme poverty, was the new school-meals program. A striking example of divergent local and national priorities comes from the persistence of polio vaccine noncompliance in Nigeria. Naively, it might seem that a community would resist polio vaccination only because of fear or ignorance of the vaccine’s effects, and that an information campaign would be the best solution to ensure polio eradication. In reality, however, vaccination noncompliance in Nigeria is part of a “strategic move by citizens to gain the government’s attention” and extract concessions in the form of better infrastructure and
The success of government interventions in this area is dependent on a clear understanding of local priorities.

In sum, open government interventions should consider whether the information received by the principals is likely to be important to them. The manner in which information is delivered can influence perceptions of the information’s importance, but equally or more essential is a respect for the local context in which principals must choose their priorities.

A noteworthy challenge in attempting to assess the significance of information to principals is negativity bias. There is good evidence to suggest that people naturally prioritize bad news over good news. For instance, citizens in the UK reported lower satisfaction when they learned that local recycling services were comparatively bad, but not more satisfaction when they learned that services were especially good. Negativity bias is also well documented in the media, a threat that has long been a source of policymakers’ resistance to transparency. British officials interviewed about the Freedom of Information implementation in their country “referred to some journalists searching for ‘negative’ stories or emphasizing poor behavior or failure.”

Particularly in the developing world, information interventions are often intended to motivate people by informing them of problems. Important news need not be bad news, however; a positive approach can work. A field experimental study of personal Social Security statements, which provided recipients with information about their expected benefits from the U.S. public pension system, found that the statements increased knowledge of and confidence in the program.

The difference between these two examples (recycling in Britain and pensions in the United States) could be a result of the participants’ expectations regarding these services. For most elderly people in the United States, Social Security provides more than half of their income, but it is widely and incorrectly believed that the system is not financially sustainable. Unlike information about local recycling systems, new information about Social Security was likely to be both important and encouraging to the average recipient. By contrast, recycling services are unlikely to be as high a priority for most citizens, and there is a tendency for citizens to imagine that their local services are somewhat better than national average. The role of expectations and perceived importance in negativity biases is a question that merits additional research.
3. IS THE INFORMATION ACCESSIBLE AND PUBLICIZED TO THE PRINCIPALS?

For data to be useful, it needs to be accessible and publicized. Nominally transparent data can often be incomprehensible. To pick one extreme example: while information about farm subsidies in the United States was technically available to the public, it took six years of effort by a public interest watchdog group to actually process the data into a usable form.\textsuperscript{43} In addition, accessible data requires publicity,\textsuperscript{44} usually via an active and independent media.\textsuperscript{45}

Most people rarely go trawling through government data troves, even when they are readily searchable. Moreover, much of the information about government activities is complex; releases of fiscal data, for instance, often require expert interpretation (reader-friendly “citizen budgets” notwithstanding).\textsuperscript{46} Accessibility therefore requires serious consideration of the organizations and institutions likely to make primary use of the information, such as media, government watchdog groups, and academic researchers—those who some have described as “infomediaries.”\textsuperscript{47}

What makes data accessible for these organizations? One measure distinguishes between “inert” and “adaptable” data, based on “how easy or hard it is for new actors to make innovative uses of the data.”\textsuperscript{48} This focus on adaptability can sometimes require new incentives for administrators, or a change of bureaucratic culture that focuses on data security.\textsuperscript{49} In the Philippines, for instance, local officials complying with a new transparency measure “took the initiative to convert files into PDF or picture format in order to ‘secure’ them,” thereby rendering the data far less useable.\textsuperscript{50} A second measure of accessibility is data’s capacity for aggregation to the level (or levels) of official accountability. Local representatives can be more easily made to answer for the quality of schools, roads, health care, or other public services when the quality of local services can be readily compared across electoral districts.

The challenges of accessibility are usually addressed with reference to large-scale government releases of data. But, perhaps counterintuitively, accessibility is an issue both when information is released from above and when it is gathered from below. Direct monitoring projects ask citizens to report their interactions with government, a process sometimes called “crowdsourcing for better governance.”\textsuperscript{51} Often, the outcomes the public is asked to monitor are clear-cut: a pothole, a request for a bribe, a teacher absent from school. In some instances, monitoring has shown a striking effect; in Uganda, monitoring of health care providers reduced infant mortality by 33 percent—the project is estimated to have saved over 500 young children’s lives during the experimental period alone. One reason for the project’s success, the authors of an evaluation study suggest, is having chosen to base the monitoring on information that stemmed from “basic facts… [drawn from] the community’s own experience.”\textsuperscript{52}

A number of successful monitoring interventions conducted by academic researchers have been designed to be replicable by citizen watchdogs. An effort in Afghanistan to prevent election fraud by photographing provisional vote tallies (prior to aggregation, when fraud commonly occurs) cut the rate at which election materials were damaged by more than half. Researchers noted that the photo-based approach was
“well-suited to citizen implementation and viral adoption” and far cheaper than official international election monitoring.\textsuperscript{53}

In other instances, however, individual citizens may simply not be in a position to monitor effectively. Researchers have suggested that it may be easier for parents of limited education to demand tangible entitlements, like school uniforms or midday meals, rather than to “influence the quality of teaching.”\textsuperscript{54} Direct monitoring is also more likely to be effective when a service is used by the principals regularly, rather than occasionally, and when users are not especially “vulnerable to exploitation.”\textsuperscript{55}

Accessibility alone is not enough; information must be publicized for people to respond to it. A consistent finding across many studies is the value of an active and free press in reducing misuse of government funds and holding elected officials to account.\textsuperscript{56} In the early 2000s, 30 percent of Ugandan schools were receiving less than two-thirds of the funds they were entitled to. A campaign to report public funding to schools in local newspapers alerted parents and local communities to the money that should have been spent to educate their children. The result was a dramatic reduction in the misuse of funds and, crucially, increased school enrollment and learning. One additional newspaper reporting on a local school increased enrollment by 20 students.\textsuperscript{57} The average student in Uganda saw a six percent increase in test scores.\textsuperscript{58} Similarly, in Brazil, the release of audit information by the federal government had a significant impact on election outcomes, but especially when local radio was “present to divulge the information.”\textsuperscript{59}

Effective publicity can be the difference between success and failure in an information-based campaign. Two similar information campaigns in rural India, both intended to inform parents of their role in local school oversight committees, produced divergent results. In one case, there were measurable improvements in schooling; in the other, no such results were observed—indeed the second experiment did not even succeed in substantially increasing awareness that school oversight committees existed.\textsuperscript{60} Researchers in the successful experiment concluded that the “intensity” of their campaign may have made the difference:

All information campaigns are not the same just because they are giving information. They differ based on the type and detail of information given, how it is communicated (the medium used) and whether those delivering it are perceived as credible and reliable sources.\textsuperscript{61}

The impact of the factors hypothesized by these authors has not been rigorously demonstrated in the transparency literature, but the intuitions are in line with scholarly work on the role of media in shaping public attitudes.\textsuperscript{62}

Open government proponents must ensure that their interventions actually reach their intended audience. Accessibility concerns confront both top-down and bottom-up approaches to open government. Open data projects should be adaptable for use not only by individuals but by media, academics, and civil society organizations. They should also be amenable to aggregation to the level of official accountability. Those considering direct monitoring as an approach to transparency should ensure that the information in question is truly accessible to the monitors. In addition, there is a critical role for a free and active press in reporting open government information. Here, as throughout our analysis, open government works best when the institutions and mechanisms of democracy are strong.
4. CAN THE PRINCIPALS RESPOND MEANINGFULLY AS INDIVIDUALS?

Open government initiatives have often been designed based on the assumption that information alone would move people to action. As Avila et al. put it:

The theory of change driving pull projects is that ‘the public’ would demand better performance from government and service providers if only they understood the true extent and details of government deficits facing them.\(^{63}\)

But not all information is actionable, even when it is important and reaches its intended audience.\(^{64}\) For open government initiatives to be effective, they need to take account of what response would be necessary for the information they provide to provoke change.

We can begin by distinguishing actions that can be taken by an individual versus actions that require coordination. In some instances, individuals can readily respond to the new information they receive from an open government initiative. For instance, in Pakistan, providing school report cards allowed parents to select better schools for their children or to demand improvements from their own school with a credible threat to remove their students. The results were improved test scores, increased enrollment, and lowered private school fees.\(^{65}\) Report cards issued for schools in the United States showed a similar impact; parents chose better-performing schools, and their children benefited.\(^{66}\) In another study conducted in India, communities responded to learning about the educational limitations of their local schools, not by choosing other schools or working with the school system, but by participating in a volunteer program which substantially increased children’s reading skills.\(^{67}\) The key in each of these cases is that recipients of the open government information could respond meaningfully to the information they were given because they had real alternatives to choose between, and a societal space in which they were free to make those choices.

In other cases, however, individual-level solutions may not be enough. In that event, open government programs need the support of either local service providers or officials to be effective.\(^{68}\) Thus the long-term effectiveness of an open government intervention often hangs on the relationship between the citizen principals and their government agents.

5. ARE OFFICIALS SUPPORTIVE OF REFORM?

A comparison of two efforts to reduce absenteeism among civil servants in India demonstrates the importance of supportive officials to the success of open government initiatives. In one experiment, tamper-proof cameras were used to monitor teachers’ attendance in classrooms and teachers’ salaries were linked to their attendance rates. The teacher absence rate in schools with cameras dropped by fifty percent, and students in these schools performed...
markedly better on standardized tests.\textsuperscript{69} A similar effort to increase monitoring of nurses in Indian public health facilities initially showed success as well—until local health administrators started offering an increasing number of “exempt days” to the nurses. By underlining the program’s incentives, local administrators made the monitoring program entirely ineffective.\textsuperscript{70}

Unfortunately, additional monitoring of government agents is no guarantee that their incentives will come to align with those of the principals. In fact, there is substantial evidence that monitoring government processes can result in perverse effects. Transparency can sometimes distort agents’ incentives, encouraging them to put on a good show rather than actually improve performance. Transparency can also interact with representatives’ tendency to “blame avoidance,” and result in unintended and negative consequences.\textsuperscript{71} These perverse effects can come in at least three forms.

- **ATTENTION TO PROCESSES OVER OUTCOMES:** When principals have information about their agents’ actions, rather than just their results, the incentive can be for the agent to behave according to their principals’ expectations, rather than in the principals’ best interest.\textsuperscript{72} Some have questioned, for example, whether certain transparency reforms in the U.S. Congress have had adverse effects that affected the ability of political insiders to horse-trade and negotiate.\textsuperscript{73}

- **DISPLACEMENT:** Sunlight in one area can simply displace corruption to another less-observed arena. A study of electoral processes in Ghana found that the presence of independent observers reduced apparently fraudulent voter registrations in a constituency, but increased questionable voter registrations in neighboring constituencies that did not have observers. The researchers concluded that “observers may displace rather than deter irregularities.”\textsuperscript{74}

- **STRATEGIC “IMPROVEMENT”:** Civil servants and politicians can engage in strategic behavior that gives the impression of compliance with new rules but does not result in actual improvements to services.\textsuperscript{75} For instance, one project to monitor teachers in India resulted in greater teacher effort but not improved student performance; the researchers concluded that this paradox was the result of teachers changing their behavior only while being observed.\textsuperscript{76} However, laboratory experiments suggest that the tendency to shirk is not universal; instead, feelings of respect and fairness between agent and principal mediate the agent’s tendency to shirk when not monitored.\textsuperscript{77}

While some of these issues can be mitigated by better monitoring strategies, the solution in an ideal world is surely to “get policymakers to care in the first place.”\textsuperscript{78} That brings us to the final, and perhaps the hardest, of our six questions. Where officials are not interested improving public services, how can citizens change their minds? Some of the most innovative research in open government engages directly with this question.
6. CAN THE PRINCIPALS COORDINATE TO CHANGE THEIR AGENTS’ INCENTIVES?

The research discussed above shows the importance of principals having the power to act on the information made available by open government, whether individually or with the help of supportive agents. We turn now to cases when individual action is not available and agents are less than supportive. Can open government shift the preferences of government representatives? Some of the most compelling research in open government assesses this question.

It is a truism of democracy that the willingness of officials to support reform is not independent of the mobilization of informed citizens. Representatives respond not only to active political campaigns, but also attempt to anticipate the threat of potential activism. And yet, even where there are robust mechanisms of democracy, one letter of complaint is unlikely to change bureaucratic policy. A single voter has little chance of altering the outcome of even the fairest election. And, of course, in far too many less free political contexts, an individual seeking information about or expressing discontent with government faces not merely apathy but harassment, intimidation, and even violence. For citizens to shape the preferences of their representatives, they often have to work together. Here, of course, individuals encounter the problem of collective action: it is only worth participating if enough others do for the project to succeed.

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The collective action problem can be overcome, but only under certain conditions:

- **CONDITION 1: POLITICAL AGENCY.** An individual needs to believe that he or she can and should participate in the political sphere.

- **CONDITION 2: QUORUM.** An individual needs to have confidence that enough others will also participate to have an impact. This assurance is particularly important when participants face a risk of punishment.

- **CONDITION 3: GROUP EFFICACY.** An individual must believe that if the group acts, meaningful change will occur.

While many theorists of open government and political activism have discussed these conditions, relatively little empirical work has isolated when and why these conditions are met.

Several research teams have tested one approach to increasing citizens’ sense of agency: simply informing citizens of their nominal points of authority over local public service providers. A number of these campaigns have shown some success in increasing engagement and improving public services. In one experiment, community members in three states in India were informed about school oversight committees in which they could participate and were given an assessment tool to help measure their children’s learning. In
those communities, teachers’ attendance improved and students were more likely to receive benefits to which they were entitled, such as school uniforms. A second study, also conducted in rural India, found that learning about health care services to which residents were entitled increased vaccination rates and prenatal examinations, while information about school fees and school oversight institutions reduced the rate at which parents were overcharged school fees. In Mali, providing a civics course to citizens “effectively raised voter expectations of what local governments can and should do,” changed voting patterns, and encouraged villagers to challenge local leaders at town hall meetings. Simple as it sounds, being told of one’s rights and one’s points of authority can increase the extent to which people exert their power.

The quorum and group efficacy conditions are central to collective action analyses, but have rarely been rigorously assessed in the context of transparency/accountability initiatives. Collective action research suggests that trust between individuals, and therefore existing institutions that build and maintain that trust, play a crucial role in overcoming the collective action problem. There is also evidence that adopting all-or-nothing tactics, such as boycotts or nonviolent resistance, in which a single free-rider is understood to substantially damage or undermine the likelihood of success, can be effective in discouraging defection. But far more research is needed in this area.

One context that often meets all three of these conditions is a competitive election, and there is a substantial body of research on the interaction between open government and elections. In a number of instances, voter guides based on open government data have educated and engaged voters and changed electoral outcomes. A report card on legislators distributed in slums in India increased turnout, reduced vote-buying, and increased support for better incumbents. A voter guide in Mozambique, combined with an SMS campaign, was also shown to increase turnout.

Of course, not every election is competitive, and in non-competitive contexts, scorecard interventions have been less effective. Humphreys and Weinstein find that, though Ugandan voters were receptive to a scorecard rating their members of Parliament, the experiment provided “no evidence that MPs respond to a higher level of transparency with improved performance or that their prospects for reelection are threatened by it.” The authors explain this failure in part as a result of the not-very-competitive nature of those particular elections—as they note, there were “large margins of victory in most constituencies.”

Interestingly, competitive elections can also have an impact on the behavior of unelected public servants. In Pakistan, doctors were more than three times more likely to be present in clinics where local elections were competitive, and efforts to monitor and sanction doctors who do not show up for work are more effective in these districts. In uncompetitive districts, the researchers concluded, politicians could more easily provide public sector jobs as a kind of patronage and were more likely to interfere with health administrators’ efforts to enforce the attendance rules.

Not all examples of election-linked open government have shown such success, however. There is an ongoing debate about the electoral effect of providing information about incumbents’ corruption. On the one
hand, voters in Brazil punished incumbents who performed poorly on government audits; in municipalities where two or more violations were reported, incumbents were 17 percent less likely to be re-elected. By contrast, in a field experiment in Mexico, voters responded to similar audit information “by withdrawing from the political process,” leading to a reduction in overall voter turnout. Corruption information may work differently from other kinds of open government data because it can decrease voters’ confidence in the processes by which they might effect change, and thereby make an effort at collective action less appealing. More research is needed to determine when and why corruption information has this discouraging effect, and if so, how to counteract it.

Like competitive elections, grassroots civil society organizations can also encourage citizens to coordinate a response to open government information. In the United States, for example, such groups on behalf of their membership regularly resort to the courts to compel compliance by the government to their Freedom of Information Act requests. Elsewhere in the world, “autonomous poor people’s organizations” have been effective in reorienting government priorities when they work to gain “monitoring capacity and bargaining power.”

One well known example is the success of the MKSS movement in Rajastan, India, in conducting social audits of the local government’s infrastructure spending. By all accounts, MKSS has been an exceptionally powerful force, conducting “painstaking” and “meticulous research” via teams of trained auditors who interview workers, contractors, and other residents and procure documentation from local officials, and leading the fight to pass a Right to Information Act. But the recipe for successful grassroots auditing of public budgets is far from clear; in Indonesia, official audits were found to be substantially more successful than local monitoring. We recognize that the findings in this section pose a daunting challenge for open government proponents who wish to change elected officials’ incentives in the absence of competitive elections and powerful grassroots organizations. And yet these are situations in which government reforms are often most urgent. In these circumstances, effective open government initiatives must have embedded within them new channels of influence, so that the intended principals have the power to respond to transparency by enforcing accountability. Testing how to construct these channels is a cutting edge of open government research. The findings are not yet conclusive, but several approaches have shown promise:

**RECOGNIZE THE SOCIAL COMPONENT OF COLLECTIVE ACTION.**

Social pressure can play a key role in encouraging people to participate in collective action. Voters turn out at higher rates when they believe their participation (or lack thereof) will be publicized to their neighbors. More sustained forms of engagement are also reinforced by social ties. A study of participation in the U.S. Civil Rights movement of the 1960s identified the desire to “gain or sustain friendships, maintain one’s social standing, and avoid ridicule and ostracism” as an important motivator for participation. Recent research has shown substantial increases in activism when an organization invests in relational, rather than transactional, interactions with their members.
SEEK COMMUNICATIONS MECHANISMS THAT RESIST CAPTURE.

Open government interventions that have been successful in other contexts have failed when powerful interests have successfully hijacked the processes by which open government information reaches the public or by which citizens can seek answers from their representatives. Members of Parliament in Uganda may have managed to reduce the impact of a legislator scorecard because they were present at meetings where the scorecards were disseminated, and were perhaps able to “interpret” their scores for constituents and thereby “counteract the scorecard or obfuscate understandings.” Similarly, anonymous comment forms reduced corrupt road repair expenditures in Indonesia only if those comment cards were distributed through non-government means. Where village elites were involved in distribution, they could “disproportionately channel the forms to their supporters.” There are methods of communication that can help reach people who otherwise rarely participate in the public sphere, however. When a representative sample of Ugandan voters were given the opportunity to text message their representatives, a “greater share of marginalized populations” participated in this campaign than more traditional forms of political communication—even when the cost of sending a text message was not subsidized.

PRIVILEGE LOCAL KNOWLEDGE.

In Indonesia, the One Map initiative is transforming forest governance, allowing for greater oversight of how a crucial natural resource is being used. In particular, the participatory mapping program empowers Indigenous people by creating a venue for their unique spatial knowledge, and thereby creating new opportunities to “politicize forest governance,” and increase public discussion of resource decisions previously made by an elite few, with little public scrutiny.

BUILD NEW POINTS OF ACCESS TO DECISION MAKERS.

Several compelling studies provide encouraging evidence about open government initiatives that increase the opportunities citizens have to influence local decision-making. One recent study in Indonesia compared treatments that “reinforce existing school committees,” such as grants and additional training, with measures that “foster ties between school committees and other parties.” Most effective were the reforms that built stronger connections to the community, including facilitated meetings with the village council and democratic election of school committee members. A similar result was found in Kenya; involving parents in schools was a far more effective reform than reducing student-teacher ratios. Counterintuitively, the process of decision-making appears to matter even when it does not change outcomes very much. A study of development projects in Indonesian villages suggests that plebiscites, rather than representative-based meetings, produced “dramatically higher satisfaction among villagers,” along with other intrinsic benefits of participation—even though the projects selected were largely similar to those chosen by representative meetings.

DELEGATE ACTUAL DECISION-MAKING POWER.

Participatory budgeting has been shown to engage the poor and other often disenfranchised groups, and improve service delivery. In that connection, note that the rules by which decisions are made can be designed to increase inclusion; for instance, relying on consensus rather than majority-rule has been proven to increase the authority of women in decision-making.
In sum, there is clear evidence that open government initiatives thrive when recipients of new information about government have access to channels of influence, such as competitive elections and robust grassroots organizations. Where these avenues do not yet exist, there is some suggestive evidence that channels of influence can be built within an open government framework.

III. PROMISING AVENUES FOR OPEN GOVERNMENT RESEARCH

Having assessed what we know about where and when open government works, we suggest some avenues for future study. We begin by highlighting the need for more rigorous evaluation, drawing on both qualitative and quantitative methods of analysis. Then, we offer three primary recommendations for the next generation of research: to confront selection bias in open government research, to increase attention to the political mobilizations that make open government possible, and to ensure that research addresses both the initial implementation and the sustainability of open government successes.

BALANCING QUANTITATIVE AND QUALITATIVE EVALUATION

Open government initiatives have in recent years benefitted from increasingly rigorous evaluation, and especially the spread of randomized controlled trials (RCTs) of policy interventions. Simply put, randomized controlled trials are the most reliable way to establish causation and to quantitatively measure results. As the reader will have noticed, we rely heavily on RCTs in this report precisely because of their capacity to identify the effects of specific open government initiatives. The value of RCTs is evident in comparison with cross-country correlational studies. National-level correlations do not tell us why certain outcomes tend to go together. For instance, the fact that disclosure laws are positively correlated with lower levels of corruption does not tell us whether disclosure laws caused corruption to go down, or whether, perhaps, governments with lower levels of corruption are simply more inclined to accept disclosure. Similarly, the fact that non-transparency is associated with lower levels of foreign direct investment might mean that economies benefit from open government, or it might mean that other aspects of a society encourage both transparency and investment. RCTs, by contrast, can identify causal effects by randomly assigning a particular intervention and comparing treatment to control groups.

But while RCTs have tremendous capacity for testing hypotheses, they are less suited to generating hypotheses in the first place. Qualitative research, including case studies, histories, and interviews, is critical to develop new ideas and intuitions about what makes open government succeed or fail. Qualitative research is also necessary to tease out the mechanisms by which a particular policy may lead to particular results. Moreover, the long time horizon for success in many open government endeavors requires a more historically oriented approach that goes beyond the relatively short causal chains that can be identified by experimental research. This is especially true given the critical role of local context in shaping the outcome of openness efforts. The emphasis we urge on RCTs should not, therefore, be to the exclusion of other methods of evaluation.

Whatever the form of evaluation, we note the importance of researcher engagement as early as possible in the program design process. Where possible, researchers should seek to engage from the outset of interventions, working with stakeholders through an intentional and deliberate “learning cycle.” This starts with observational inputs into the design of open government programs, goes through iterative piloting,
refinement of program components, and ends with a process evaluation that validates or rejects the plausibility of the theory of change. Where the theory of change has been validated, researchers should scale up and evaluate that theory, using RCTs and other quantitative methods where appropriate, but integrating other tools as well. Ideally, researchers would identify priority partners and issues and build “from scratch” co-design and testing processes. Alternatively, and perhaps more realistically, researchers can seek partners who have an open government program that the partners think works already, and cooperate with them to design an evaluation straight away.117

CONFRONTING SELECTION BIAS

In several significant ways, selection biases and incentives embedded in research and evaluation institutions limit what we know about transparency and accountability.

First, there are substantial geographic limitations in open government research. A striking percentage of the most well regarded transparency/accountability RCTs occur in India or Uganda. As many researchers have noted, the broader political and economic landscape is crucial for open government projects. When a few countries serve as the dominant locale for open government research, it becomes harder to extrapolate beyond a study’s narrow findings.

Even more important, researchers, in academia and elsewhere, have an incentive to find measurable effects. In the aggregate, research is therefore likely to over-represent successes, and especially predictable successes. Evaluations of failures are crucial to understanding success, but null results are less likely to be published and therefore less likely to be taken into account in future endeavors. Publishers, funders, and research consortia working in open government should consider how incentives could be shifted to encourage a broader range of transparency and accountability research, and to create channels that allow for the publication of null result findings.

Finally, analyses in an academic context do not always interpret the substance of their results in a way that would make sense to practitioners. To take one example, it is not uncommon for academics to report improvements in terms of a fraction of a standard deviation, rather than a substantively meaningful measure. In addition, it is quite rare for studies to directly confront the question of budgetary costs. In particular, relatively few evaluations compare the impact of open government approaches to other fiscally equivalent public investments.118 Given that elected officials, even those supportive of reform, are obliged to make difficult trade-offs in allotting their time and resources, assessments that provide outcomes that are readily comprehensible to policymakers are a crucial component of making open government research useful.

BRINGING POLITICS BACK IN

Research into the impact of open government initiatives would benefit from closer attention to the political contestation that creates the will for open government in the first place. The political fights to initiate an
open government policy play a crucial role in shaping the implementation process, and there is much to be learned about where and why citizens can effectively mobilize to push for reform. There are several strains of research that should be brought into more complete conversation with research on open government impact, including analyses of the origin of political movements that call for open government reforms, studies of the impact of different methods of contestation within participatory projects, and research into citizen empowerment and the mechanisms of accountability in non-democratic contexts.

Greater focus on the politics of open government would mark a change in the patterns of field experimental research. In many empirical tests of increased transparency, the intervention is “information-based;” for instance, people in one district might receive a voter guide, while those in another district do not. As Jonathan Fox notes,

Field experiments study bounded, tactical interventions based on optimistic assumptions about the power of information alone, both to motivate collective action and influence the state. Enabling environments for collective action combined with bolstering state capacity to respond to citizen voice are more promising.

It is understandable that a large amount of field experimental work has focused on information interventions; it is relatively easy to imagine the random assignment of information, and it is harder to imagine the random assignment of empowerment.

But some of the most innovative open government research aims to apply the power of the randomized trial to questions of civic engagement and mobilization. Field experiments have been successfully used to assess, for example, how civic organizations can increase their members’ political activity, and which reforms to local school committees actually improve community engagement. (See also the research outlined earlier in this report, in the section “Can the principals coordinate to change their agents’ incentives?”) This avenue of research is a very promising one if we are to better our understanding not only of the impact of open government, but also the conditions under which robust open government initiatives are even attempted in the first place.

Many of the most interesting and promising outcomes of open government are systemic, cultural shifts—for instance, a broad based increase in citizens’ sense of agency, or a culture of transparency and responsiveness in bureaucratic agencies.

immediate success run the risk of losing steam over time. One of the most important questions for open government advocates is what happens after the transitional period in which nongovernment actors play an enabling or even adversarial role in increasing transparency, engagement, and accountability. Ideally,
open government becomes the status quo. In the coming years, we look forward to more research that examines not only where open government initiatives show early success, but where open government becomes institutionalized.

**CONCLUSION**

In this report, we address the question, “does open government work?” We develop a rubric that organizes what we know about the impact of open government and identifies the contexts in which open government efforts are likely to be successful. We emphasize that even accessible, important, well-publicized information is not enough to create change if people do not have channels of influence: the power to act individually, or with the help of government agents, or through collective action. We identify a burgeoning body of research that examines how open government initiatives can strengthen the channels of influence necessary to their success, and we make suggestions for research that would further improve our understanding of the potential of open government to achieve its ambitious goals.
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Of course, the report itself, and any errors, are solely the responsibility of the authors.

ENDNOTES


16 Andrea Prat distinguishes transparency about consequences from transparency about action, and argues the second can have negative effects for the principal in a principal-agent model. The implication is that transparent processes are, theoretically, sometimes counterproductive. Prat, Andrea. “The Wrong Kind of Transparency.” The American Economic Review 95, no. 3 (2005): 862-77.

17 For instance, there has been an immense gender imbalance in who files a Right to Information request in India. Nationally, only 8% of applicants are female. Peoples’ Monitoring of the RTI Regime in India: 2011-2013, RTI Assessment and Advocacy Group, Samya-Centre for Equality Studies: New Delhi, October 2014.


76 Muralidharan, Karthik, and Venkatesh Sundararaman. “The impact of diagnostic feedback to teachers on student learning: Experimental evidence from India.” The Economic Journal 120, no. 546 (2010): F187-F203. Other studies have also found larger effects for observed effort than for learning, though the timeline of this intervention was perhaps too short to expect large learning effects. Pandey, Priyanka, Sangeeta Goyal, and Venkatesh Sundararaman. “Community participation in public schools: impact of information campaigns in three Indian states.” Education Economics 17, no. 3 (2009): 355-375. There is also a large literature on schools engaging in gaming of standardized tests, e.g. Figlio, David N., and Joshua Winicki. “Food for thought: the effects of school accountability plans on school nutrition.” Journal of Public Economics 89, no. 2 (2005): 381-394.


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112 Because of this focus, certain areas of open government less susceptible to our methodology may receive less attention herein. For example, given the importance of access to information laws, we are struck by “the absence of research on impact and outcomes associated with access to information laws in the developing world.” World Bank Open Government Global Solutions Group, *Open Government Impact & Outcomes*, World Bank Group, 2016: 27.


117 One promising example of this approach is the Transparency for Development Initiative, a joint project of the Harvard Kennedy School and Results for Development Institute. See Transparency for Development, [http://t4d.ash.harvard.edu/](http://t4d.ash.harvard.edu/).


This paper is distributed in the expectation that it may elicit useful comments and is subject to subsequent revision.

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