The Unintended Effects of Bottom-Up Accountability: Evidence from a Field Experiment in Peru

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Abstract

Past research suggests that increasing citizen political knowledge and coordination can improve government performance via "bottom-up accountability," where mobilized local communities exert pressure on elected officials through democratic processes. A randomized field experiment in Peru demonstrates that interventions to promote bottom-up accountability can sometimes have unintended effects on government performance, among other outcomes. I find that accountability workshops reduce participation in the district's "participatory budgeting" process and increase support for civil unrest as a tool for sanctioning politicians. Although the intervention increases the initiation of recalls for poor-performing mayors, these mayors respond to the recall threat by further reducing their effort. Taken together the evidence suggests that improved information and coordination of local elites is not sufficient to improve government performance where it has previously lagged and can in fact be counterproductive.

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1 Introduction

A key question in the study of democratic politics and the political economy of development is how to improve government performance in developing democracies. One major explanation for why governments perform poorly is that low levels of political information and coordination prevent citizens from participating effectively in politics and this limits their ability to hold government accountable. If these deficiencies are alleviated, greater citizen participation and pressure through institutional channels can motivate officeholders to work harder or risk losing office (Przeworksi, Stokes and Manin 1999; Besley and Burgess 2002; Besley 2006). This, in turn, should improve government performance and reduce citizen reliance on civil unrest to communicate grievances.

Using a randomized field experiment in rural Peru, I examine the effects of improved political information and coordination among village leaders — administered via public training workshops on local democratic processes, electoral accountability, and government transparency. The results reveal evidence contradicting usual expectations: village trainings for bottom-up accountability reduce participation in participatory budgeting, increase the probability of civil unrest and often result in worse performance from local government.

These results contribute to an ongoing debate in political science and development economics regarding the efficacy of bottom-up accountability mechanisms that rely on increased pressure from citizens on politicians.

Existing work suggests that citizen training "stimulates individual participation" in political processes (Finkel 2002; Finkel and Smith 2011), and that better-informed voters enhance the political accountability of politicians (Ferraz and Finan 2008; Paler 2013; Chong et al. 2014; Grossman and Michelitch 2016; Raffler 2016; Gottlieb 2016). Village trainings on democratic practice may also help redirect political grievances from violence to formal democratic institutions (Lipset 1960; Finkel and Smith 2011; Finkel, Horowitz and Rojo-Mendoza

2012). Furthermore, studies from development economics find that increased information and participation can enhance public service delivery (Reinikka and Svensson 2004, 2011; Bjorkman and Svensson 2009; Goncalves 2014; Touchton and Wampler 2014; Diaz-Cayeros, Magaloni and Ruiz-Euler 2014).

However, there are reasons to believe that strategic behavior by voters and politicians may undermine the benefits of information and coordination in bringing about better government performance. In a context with poor quality governance and weak democratic institutions, these voters may actually lose confidence in democratic institutions and choose to disengage or switch to less civil means of contestation, such as civil unrest (e.g. Chong et al. 2014; Croke et al. 2016). Thus, we should not expect that training workshops should necessarily increase engagement in formal democratic processes.

Additionally, greater information about accountability channels and increased bottom-up pressure on poor-performing politicians may not necessarily produce greater effort. Instead, politicians may strategically stop exerting effort in office, seeing that it is too late to improve their performance to a level that will satisfy their more sophisticated and engaged constituents (Ashworth and Bueno de Mesquita 2014). Thus, in the medium term empowering citizens may not have the desired effect of boosting government performance.

In the analysis that follows, I trace the effects of bottom-up accountability trainings for village leaders on individual political knowledge as well as individual and collective political behavior using survey and administrative data. I explore how the effects are conditional on government performance and investigate several potential mechanisms, including political knowledge, confidence in democracy, and community coordination. One silver lining in the analysis is marginal evidence of an increase in performance among those mayors that were already among the top performers.

This study joins recent experimental work, including Olken (2007, 2009), Banerjee et al (2010), Humphreys and Weinstein (2012) and Dunning et al (forthcoming), in questioning the

efficacy of improved information on political behavior and government performance. Indeed, the results suggest that we should revisit whether interventions to improve information and coordination are effective in contexts with poor governance, where increased knowledge may in fact further disillusion citizens while failing to incentivize improved performance by politicians.

The stakes are high: from 2012 to 2015, U.S. Government-assisted civic education programs reached more than 425 million people around the world (USAID 2016; Agency financial report fiscal year 2016). In 2016 alone, USAID spent $1.2 billion (roughly 10% of the agency's budget) on their democracy promotion program, which includes bottom-up accountability and civic education. Non-governmental organizations have long believed that bottom-up accountability in poor governance locations is important for improving government performance and the quality of democracy.

The paper begins with a discussion of the theoretical framework and existing empirical evidence related to information, political participation, politician performance and conflict. The next section provides details of the Peruvian and Piuran context, the nature of the intervention, treatment assignment and data collection. Then, I show the results of the experiment, discuss their implications and conclude.

2 Conceptual Framework

A core question in the study of democracy is how to improve performance from government, especially where it has historically been weak. Training sessions for the public on democratic processes and ideals are an increasingly popular tool that aims improve the performance of democratic governments with "bottom-up" accountability via increased political knowledge and public participation.

Three main mechanisms have been described in the literature. First, public education

programs provide "behavioral cues" from leaders and peers that lead citizens to participate in democratic processes (Finkel 2002).[1] Second, these trainings reduces "barriers to information" about the political process, performance of incumbents, or other relevant information (Finkel and Smith 2011; Lieberman et al. 2014; Mvukiyehe and Samii 2017). Third, the meetings may help overcome "barriers to coordination" that would otherwise make it difficult for voters to engage in collective political action (Chwe 2013; Mvukiyehe and Samii 2017).

In this study, I focus on village leaders, a special case of citizen for whom bottom is particularly relevant. These individuals are like other members of public, but with particular responsibilities to represent their communities in district political processes, and as organizers and thought leaders when it comes to voting or political mobilization.

The expectation is that mobilized, better-informed and coordinated voters will be able to carry out more effective accountability vis-à-vis their elected representatives (Besley and Burgess 2002; Besley 2006). As put by Przeworksi, Stokes and Manin (1999), accountable government is typically thought of as one where citizens "[retain] in office those incumbents who perform well and ousting from office those who do not." With better information about the performance of the incumbent and a lower probability of being tripped up by collective action problems, voters should be more likely to remove poor-performing incumbents and retain those that are performing well enough (Barro 1973; Ferejohn 1986; Kinder and Sears, 1985; Delli Carpini and Keeter, 1996).

Furthermore, if politicians know citizens can better evaluate their performance and believe this information will influence an electorally relevant share of voters they too should change their behavior (Snyder and Stromberg 2010; Grossman and Michelitch 2017). Responding to the increase in accountability pressure, "politicians will increase their efforts," and perform better in office (Grossman and Michelitch 2017, p. 1).

[1] This connects to the large literature on social pressure and political behavior (e.g. Gerber Green and Larimer 2008; Fafchamps et al. 2013).

Lastly, it has been hypothesized that civic education can play a rebuilding role in conflict-affected environments where formal democratic channels have been undermined. On a psychological level, public trainings can help to (re)build democratic norms, reduce support for violence and reinforce voters confidence in formal system functions (Finkel and Smith 2011; Finkel, Horowitz and Rojo-Mendoza 2012).[2] Also, by lowering the cost to access accountability channels (e.g. recall elections) or grievance channels (e.g. town halls), local accountability workshops can help voters coordinate on democratic solutions rather than utilizing violence (Tilly 2003).

However, there are reasons to believe the story is not so simple. The aforementioned theoretical framework presumes that voters update positively about the prospects of using formal democratic channels. The theory also does not adequately account for strategic behavior by politicians, who may not necessarily respond to threats of removal by increasing effort in office.[3]

Although bottom-up accountability programs are typically designed to promote democracy, participants may in fact learn information during workshops that undermines their confidence in democratic processes. At the same time, they are likely to become more sophisticated in their strategic behavior. For example, voters may determine that there are channels for monitoring government performance that are less costly than townhall meetings (such as online portals with project information) or that their input to planning processes is not pivotal for the eventual policy that emerges. In addition, if the information reveals that the government is not performing up to a high standard, this may disillusion voters, especially in new or recently revitalized democracies (Paller 2013).[4]

In the Peruvian case, it turns out that participatory budgeting (PB) votes are non-

[2]Work on mobilization and repression of social movements has debated in which context formal mechanisms and direct mechanisms like protests and riots are substitutes or complements, e.g. Koopmans (1997); chapters by McPhail & McCarthy, Johnson, Koopmans, Tilly in Davenport, Johnson and Mueller (2005).

[3]Although Barro (1973) and Ferejohn (1986) do allow for voters setting their bar for reelection too high and politicians responding by not exerting effort.

[4]In this formulation, the motivation to disengage may include an emotional (possibly even "irrational") component.

binding, and local governments vastly under spend their allocated development budgets, even as they complain of limited resources. Furthermore, even though collectively it makes sense to have robust participation in PB processes in order to monitor the government, with less of an individual benefit to the participant, they make choose not to participate. Improved information about political processes makes it more likely this collective action problem takes hold, with individuals finding it is rational to withdraw. Perversely, the behavioral cues, information and coordination provided by the workshops then make it easier for voters to "deliberately disengage" from political processes in a synchronized manner (Croke, Grossman, Larreguy and Marshall 2016).

Similarly, when considering an environment where violence or protest have become commonplace, negative updating about democracy during workshops has the potential to generate collective backlash. Where citizens, and especially village leaders, become disillusioned with the political process, mobilization can make it easier for them to carry out protests or collective violence (Tilly 2003).[5]

Lastly, a growing theoretical literature that suggests that better-informed voters do not necessarily command higher quality performance from politicians. Ashworth and Bueno de Mesquita (2014) show that when confronted with a better informed citizenry, a low type politician may in fact find it preferable to accept likely removal at the end of her term and reduce her effort to zero, rather than taking costly actions to improve her standing with voters. They demonstrate that "politicians will adjust their behavior in light of the new voting strategies that increased voter information makes possible."[6] Similar results from Fearon (1999), Stasavage (2004), and Klasnja, Little and Tucker (2016) imply that in contentious political circumstances with poor performance (or corruption or lying), improved informa-

[5]This is not to say that protest is a 'bad' thing; indeed, peaceful protest is considered a fundamental right (UN General Assembly 1966). In many developing democracies, however, protests often spiral out of control into violence, or cover for violent actions against government officials or political opponents. For example, in August 2016, the deputy interior minister of Bolivia was kidnapped and eventually beat to death by protesters who took issue with the government's handling of a mining conflict (BBC Mundo 2016). In Peru as well, riots and protests have targeted government offices in addition to private mining firms, such as a 2010 incident in Piura that killed two and injured many more.

[6]See also review by Ashworth (2012)

tion can actually make politician performance worse. Where government performance is poor improved information can deepen a negative accountability trap. Voters observe sub-par performance and threaten removal, but in response politicians do not make costly investments to improve their capacity because they know they are likely to get recalled.

Taken together, we have three potential unintended effects of bottom-up accountability interventions when carried out in locations with poor governance quality. First, the trainings may help mobilize a coordinated disengagement with processes that are seen as ineffective or compromised. Second, the events themselves may make it easier to mobilize protests that can result in collective violence. And third, the accountability efforts may provoke electoral threats that make poor performing politicians further reduce their effort.

2.1 Existing Empirical Literature

Numerous observational and experimental studies that concern bottom-up accountability, voter information and coordination have been published.[7] Pioneering observational works by Reinikka and Svensson (2004, 2011) and Finkel and other (2002, 2011, 2012) provide initial evidence that information and coordination may boost political participation and government performance (see also Gottlieb 2016; Mvukiyehe and Samii 2017).

Some studies suggest that better-informed and coordinated voters have different attitudes regarding accountability and behave differently come election time. Ferraz and Finan (2008) find that in Brazil information about corruption impacts incumbents' electoral performance. Paler (2013) shows that in Indonesia increased information about the municipal budget increases the expressed intention to monitor and sanction incumbents (though not in practice). In India, Banerjee et al. (2011) report that providing voters with newspapers with report cards on politician performance increases turnout, reduces vote buying and increases vote shares for good-performing incumbents. Chong, de la O, Karlan and Wantchekon (2014)

[7] For a review of the development economics worth on this topic see Fox 2015; Dunning et al (forthcoming) provides a unique meta-analysis of seven null results in political science on information and accountability.

show that in Mexico information about corruption does decrease support for the incumbent party, but also decreases vote turnout and support for challenger party. Studying Uganda, Grossman and Michelitch (2017) provide scorecards on politician performance and examine the effects on accountability and subsequent performance, finding increased observable effort when carried out in competitive districts well ahead of the election. Bidwell, Casey and Glennerster (2016) find that candidate debates in Sierra Leone can change vote choices to better performing candidates.[8]

On the other hand, there is a growing set of empirical works that have produced countervailing evidence. In general, these studies find that bottom-up accountability is not powerful enough to generate behavioral changes, concluding that a strong and context-specific bottom-up mechanism may still function in the hypothesized way. Banerjee et al (2010), Keefer and Khemani (2012), Lieberman, Posner, and Tsai (2014), and others conclude that information on its own is not enough to generate significant bottom-up accountability pressure. Olken (2007, 2009) shows that lack of local technical capacity and elite capture can prevent the mechanism from taking hold.[9] Seven recent field experiments carried out under the "Metaketa I: information and accountability" program find that providing voters with information about politician performance produces on average no effects on political behavior (Dunning et al, forthcoming). This fits with results from Humphreys and Weinstein (2012) that find information about politician performance changes attitudes but not behavior.

The present study builds on the existing literature by providing targeted, context-specific information and coordination training that is build around existing political accountability mechanisms. Where the Metaketa and other studies were focused on providing citizens with information about politician performance, this study provides more general information about several local political processes (though this includes information about where citizens can access information about politician performance). In addition, this ex-

[8]Related experimental work by Malesky et al (2012), Timmons and Garfias (2015), De la Cuesta, Milner, Nielson, and Knack (2016), and Martin (2016) show effects on outcomes related to government performance, but not via an accountability channel.

[9]Mansuri and Rao (2013) also find elite capture to undermine efforts to promote this kind of accountability.

periment is focused on village political leaders, rather than citizens at large, with the idea that community leaders in rural developing democracies often take political decisions that their constituents then follow.

Lastly, many existing studies in the literature have focused on one stage of the causal pathway, for example, testing if increased information improves political involvement or the accountability of politicians. The goal of this experiment is to push the literature forward by evaluating the full causal pathway, including the responses of politicians and voters to the strategic behavior that emerges after training takes place. This study aims to show effects on individuals (via survey responses) and collective behavior, as well as teasing out specific mechanisms.

3 Context

In each district or province of Peru, the mayor (alcalde) is ultimately responsible for planning and implementing the municipality's annual budget. However, Peru has two legally required public consultation processes that are intended to give citizens and civil society organizations a voice in the local budgeting process. Each year, municipal governments hold "participatory budgeting" meetings in which the government presents potential projects and policy priorities and assembled communities provide advisory (non-binding) prioritization votes. Similarly, at the close of the fiscal year local governments hold *rendición de cuentas* ("holding to account") meetings where they report back on activities and take questions from the public. Other than quadrennial or recall elections, the participatory budgeting and rendición de cuentas meetings are the most important opportunities for formal political participation and monitoring of the government at the local level in Peru. This experiment focused on the participatory budgeting process of summer 2016, which produced the local budget for fiscal year 2017.

After spending priorities are set, district governments vary substantially in their ability to successfully execute their budgets. In the 64 municipalities of the region of Piura, where this experiment was carried out, annualized budget execution in the four quarters preceding the intervention ranged from 40% to 100%, with an average of 78%. The most consistently under spent category is the "mining canon," which consists of tax revenues from mining, oil and gas that are assigned to local governments for infrastructure projects. Although central government transfers pay for the operating expenses of municipal governments (office costs, municipal employees, some basic services for constituents etc.), discretionary spending on development projects, such as roads, schools, and public parks, is largely dependent on mining taxes and royalties.

Canon expenditures are the most technically challenging for local governments, requiring approval at multiple stages by the Ministry of Economy and Finance in Lima. District governments submit projects through the Sistema Naciónal de Inversion Publica (SNIP), a notoriously difficult platform that was designed to reduce corruption and control the technical quality of infrastructure investments. To get projects through the procurement pipeline, mayors must expend a lot of effort, and have personnel within the local administration that are sufficiently competent to traverse the process.

Mayors are chosen through direct elections every four years, with universal suffrage and typically around 80% turnout.[10] Most executive offices in Peru, including the Presidency, do not allow for immediate reelection, that is incumbents cannot run for a subsequent term in the same office. Until 2015, however, mayors could run for a second term. Because of the widespread nature of the no immediate re-election rule, politicians and voters in Peru have developed a more complicated accountability relationship than the typical incumbent retention model. Executives will often bounce between levels or branches of government. For example, after a term as regional governor the politician can move to the regional council,

[10]Peru has compulsory voting.

and then run for regional governor again. The high rate of turnover also means that every election features open seat elections for higher office; district mayors typically angle for a shot at provincial office, and provincial mayors for regional office. In addition, following the so-called "Putin model," politicians may install a crony as mayor on his off-terms.

At the midpoint of the mandate, however, there is an opportunity for a recall. Given the no-elections model, this recall chance is an important moment to exercise accountability pressure on local incumbents. Proponents may begin the recall process by purchasing a "recall kit" from the National Office of Electoral Processes (ONPE) for 112.40 Peruvian Soles (about $35), which includes all the necessary paperwork. Recall organizers must collect valid signatures equal to 25% registered voters in the district (with a maximum of 400,000). When certified by the ONPE , this will prompt the recall vote. If the removal ballot receives over 50% of valid votes, the mayor is recalled. This experiment focuses on the recall deadline of November 2016, when recalls against mayors elected for the 2014-18 term could be initiated.

Recall attempts are quite common in Peru: between 1993 and the present about 5,800 recall kits have been purchased, and 1,700 mayors have been recalled (Welp 2016). One important contributor to this phenomenon is the weak party structure in many rural parts of Peru; despite mayoral elections being by plurality vote, there are typically many more than two viable candidates. In Piura in the most recent municipal elections cycle the average winning vote share was 35%, with one mayor winning with just 4% of the valid vote (80% of voters instead chose the "null vote").

In addition to formal politics, Peru has a lively tradition of direct action and protest, including demonstrations against government actions, and protests against private firms (especially in the mining sector). Although many protests are non-violent mobilizations, Peru has experienced a growing number of violent riots and outright conflict that has left participants and security service personnel injured and killed. From 2007 to 2014, there were 186 riots and protests against mining, with both private firms and the government targeted

by direct action. Recent research has indicated that these protests tend to emerge where local governments have low budget execution and weak electoral competitiveness (Sexton 2017).

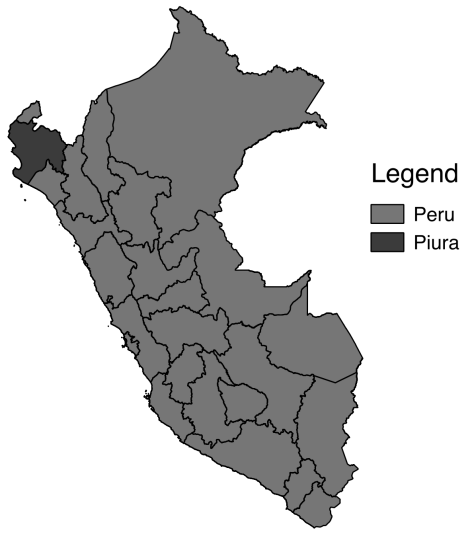
Together, participatory budgeting, recall elections and protest are three of the most important political activities that take place at the local level in Peru. This experiment focuses on how training for bottom-up accountability affects individual village leaders' views of these three activities and aggregate political behavior.

3.1 Piura Region

The region of Piura, located in Peru's far north (Figure 1), was chosen for a few reasons. Although Piura has experienced numerous protests related to the mining industry and government performance, these protests have not turned violent as in other regions, such as Apurimac, Cajamarca, or Cusco. This was important for both the safety of the population and the safety of the partners and enumerators. Relatively accessible, except for some very remote mountainous areas, many of Piura's 64 districts could be accessed for the intervention. The region is primarily mestizo in ethnicity, with Spanish as the home language. Piura is near Peru's median in terms of human development, ranking 14th of 25 departments in UNDP's 2012 Human Development report. In addition, Municipal governments in the region vary broadly in their capacity (from 40% to nearly 100% budget implementation), providing ample variation in government performance.

In terms of politics, Piura tends to lean right; despite losing to Pedro Pablo Kuczynski nationally, right wing candidate Keiko Fujimori earned 61% of the vote in Piura in the second round of the 2016 Presidential election. Nonetheless, local-level politics are more diverse. Among the 64 districts, mayors come from no fewer than 13 parties and local political movements.

Figure 1: Location of Piura region with Peru



3.2 Village Level Politics

The smallest formal political unit in Peru is the village or community, known in Spanish as a *Centro Poblado* ("populated area"). Registered villages can be as small as just a few dozen inhabitants, or as large as a small city. Across the 64 districts of Piura there are more than 2,800 *centros poblados*, and the vast majority have fewer than 1,000 residents. For the purposes of this study, we focus on communities with more than 200 residents and exclude urban areas (more than 10,000 residents).

Small communities have both formal and informal leadership. The person in charge, often called the "president of the community," is elected through local methods. This could be via universal suffrage, one vote per household, or more traditional methods like lines of succession. A local council, who may be elected, appointed or some mixture of the two assists the president; people take on the role of vice president, secretary, or treasurer and may take decisions if the president is away. In addition to the official leadership of the village, there are influential members of the community who play a more informal role in politics. Individuals who are well off, well educated or simply take an interest in politics may be consulted when

decisions need to be made or the community represented.

Local villages interact with the district authorities in various ways. Communities may want to gain access to services at the district level, like notarizing documents, securing small funds for schools, or to convince the mayor to advocate for the area with the higher-level authorities. In political terms, communities may coordinate their votes to impact elections at the district level. Finally, communities must decide whether and how to participate in the annual budgeting process.

4 Intervention

The intervention consists of a set of training workshops carried out with local community leaders on issues of democratic accountability and practice, and local government revenues.[11] It was designed in partnership with the Grupo Propuesta Ciudadana (GPC), a national consortium of ten civil society organizations that, since 2002, have promoted democratic participation in "inclusive development." GPC and its members have carried out civic education, transparency initiatives, public consultation, and policy research on issues related to decentralization and democratic practices at the local level.[12] The GPC affiliate in Piura region, Centro de Investigacin y Promocin del Campesinado (CIPCA), was the primary implementing partner for the community workshops.

In order to insure consistent content across workshops and make the information-sharing process as dynamic as possible, the workshop included a training video that provided participants with information about oil and gas production in Piura, the mining/petrol canon (the main revenue redistribution mechanism), the process of allocating and spending revenues at the local government level, and general information about the amount of funding received by different district governments in Piura. In addition, the video highlighted the

[11] Appendix A.5 contains a detailed account of the intervention, local partner, screen shots from the video and photos of workshop activities.

[12] See Appendix A.5 for details on GPC and CIPCA.

participatory budgeting process used to select projects for funding under the mining canon and related accountability meetings where citizens can request details about the progress of projects. Lastly, the video explained the process for carrying out a recall against a district mayor or departmental president, which is the primary mechanism for democratically removing an elected official from office. Following the video, the CIPCA facilitator teams led a group discussion among the participants, including answering specific questions.

The content of the workshop was carefully designed to avoid a pro or anti-government bias. The use of the video helped to insure neutral content (vetted by the NGO partners and IPA Human Subjects Review Committee) across workshops and the facilitator training emphasized that the workshops should not push participants in favor or against local governments or to appear to be in favor of a recall. Similarly, participation in the participatory budgeting process similarly was not encouraged or discouraged. The training did encourage participants to utilize the informational channels available to them, including the Ministry of Finance's budget transparency website.

In total, 691 people participated in the training workshops in the 37 communities where we were able to collect endline survey data. Among them, 342 were women (49.5%), and 333 were community leaders (358 were general public). Although we made an effort to invite local leaders, the workshops were open to anyone who was interested with the community. The workshops occupied half a day, with the formal information-sharing portion lasting about 30 minutes, followed by on average 57 minutes of facilitated discussion. This was accompanied by a half hour of informal discussions with the larger group before and after, and conversations between senior community leadership and the CIPCA facilitators throughout the day. Several communities made follow-up phone calls to the CIPCA facilitators with clarifying questions. Facilitators reported that in 36 of 37 of the workshops the participants were enthusiastic about the content. On the endline survey, we learned that on average 31% of community leaders attended the workshop; among formal, elected community leaders the

rate was 45%.

Like any democracy promotion program, the intervention is a bundled treatment. In addition to new information and an opportunity for coordination, treated communities were exposed to outsiders with a distinct worldview and may be subject to social desirability considerations. Nonetheless, the workshops reflected the type of content and local focus of many citizen accountability programs around the world.

5 Hypotheses

I now consider the theoretical expectations for the effect of improved citizen information and coordination on political attitudes and behavior in the context of local level governance in Peru. The below hypotheses are contingent on a manipulation check that shows that community leaders acquire new knowledge about political processes and update their beliefs about their mayor.

5.1 Participatory Budgeting

There are a few reasons why community leaders might want to become involved in the participatory budgeting process. This process, like town halls or other similar fora, provide an opportunity for monitoring the mayor's activities in office. They also may be able to ascertain the quality of the mayor, send a signal about the projects they prefer (and perhaps implicitly threaten recall or protest if they are not realized), or they might receive some expressive benefits. The literature hypothesizes that accountability training should "stimulate participation" for the aforementioned instrumental reasons, as well as due to social pressure.

H1a: Accountability workshops should increase local leader engagement with the participatory budgeting process.

On the other hand, the training will help leaders learn about the project approval process, how pivotal their participation is, and that the prioritization vote is non-binding. Second, the intervention may help local leaders independently discover the quality of the mayor, removing a reason to participate. Although they may want a robust collective presence in the PB process to monitor the mayor's behavior, they themselves would rather not be the ones paying the cost to do so. Furthermore, the public nature of the training makes it easier for local leaders to coordinate on disengagement. Each of these factors suggest that accountability workshops may reduce participation.

H1b: Accountability workshops should not increase (and potentially decrease) local leader engagement with the participatory budgeting process.

5.2 Recall of Mayor

A key feature of accountable government, as articulated by Przeworski et al (1999), is that voters retain good performers and remove poor performers. Following this logic, better-informed local leaders should increase their support for recalls against poor performing mayors and decrease support for recalling good performers.

H2: Accountability workshops should increase support for recalling poor performers.

5.3 Public Protest

Why might community leaders support or participate in protest, even though these mobilizations may spiral out of control and potentially expose leaders to legal risks? If leaders want to pressure or remove an elected mayor and do not know about or believe that formal methods such as a recall are sufficient, they may support protests despite their costs. By lowering the costs of carrying a recall relative to protest (by making it easier to complete the steps of the recall process), however, the training should reduce reliance on protest to

carry out accountability.

H3a: Accountability workshops should decrease support for protest, especially against poor performers.

In a weakly institutionalized environment, civic education may also expose inadequacies in local democratic procedures or call into question whether formal processes like recall elections indeed function. Even if the workshops increase support for recalling poor performers, protest may be seen as a complement, even if there is a risk of violence. The coordinating elements of the workshops may make it easier for leaders to organize protests.

H3b: Accountability workshops should increase the incidence of protest against poor performers.

5.4 Mayor Performance

Observing a better-informed and mobilized citizenry, mayors have to decide whether to increase their effort in office to overcome a possible recall or protest threat. Following Bueno de Mesquita and Ashworth (2014), we would expect poor performers to respond to the treatment by reducing their effort to near zero, while relatively good performers - those close to avoiding recall - may increase their effort.

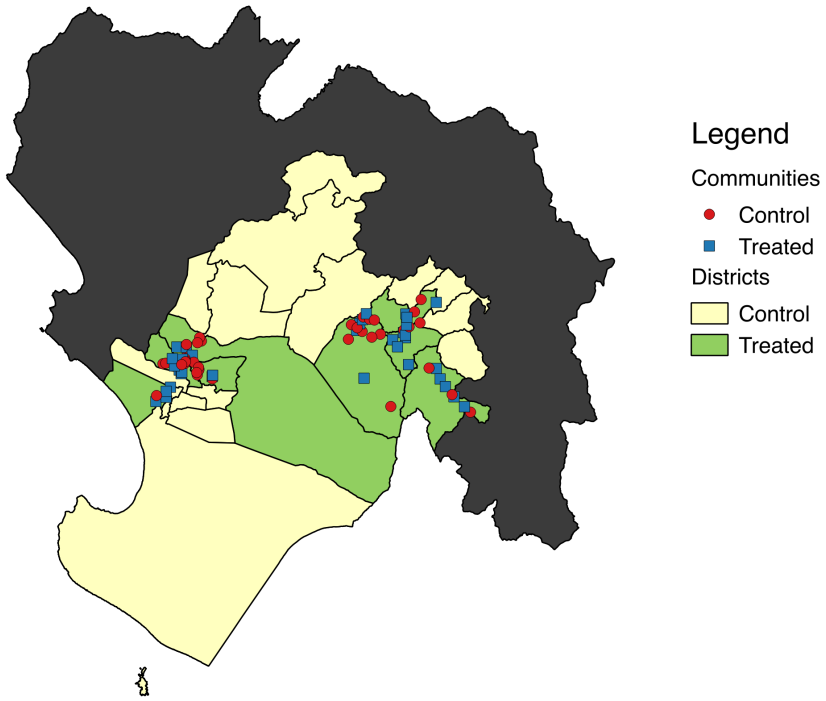
H4: Accountability workshops should not increase the performance of low quality mayors, though high quality mayors improve.

6 Research Design

6.1 Assignment

Treatment assignment was carried out via block randomization. For the initial sampling frame, three of the department's eight provinces were selected based on accessibility: Piura, Sechura and Morropon. Nine districts were randomly drawn (of the 26 districts among the three provinces) to create the sampling frame of villages.[13] Communities with fewer than 200 people were excluded from the sampling frame, as well as two large urban areas with population greater than 10,000. Stratifying on census covariates including education, income, population, and distance to the district capital the communities were grouped into strata, within which half were randomly assigned to receive the intervention and half to control.

Figure 2: Realization of randomized treatment assignment at district and community level



[13]The treated districts are: Buenos Aires, La Matanza, Morropon, Salitral, Santa Catalina de Mossa, Catacaos, La Arena, and Vice. The number of treated districts was limited by the available budget.

Community level covariate information is sourced from the Sistema de Focalización de Hogares (SISFOH), a government survey collected in 2012 to target anti-poverty programming. The SISFOH includes information at the centro poblado level about education, literacy, internet access, household assets, cellphone access, and employment, as well as the number of inhabitants, latitude and longitude (used to compute distance to the district capital). These covariates were used to carry out the block randomization, as well as function as control variables in the analysis.

6.2 Data Collection

Three types of data are used for this study, based on the level of collection: individual, community and district.

Individual community leader outcomes and covariates were collected on an original survey carried out by IPA enumerators with 643 community leaders in 77 of the 80 communities in the sample.[14] Enumerators identified respondents by asking the village president to recommend eight local leaders in the community, noting that they could be formal or informal. The endline survey asked them demographic information, knowledge-based questions regarding participatory budgeting, recall elections, and the mining canon, as well as questions on political attitudes and perceptions.

The knowledge section of the survey first determined if respondents were familiar with and could correctly define each of the main topics of the workshop: participatory budgeting, recall elections and the mining canon. Then, for each topic respondents were asked a series of questions regarding details of the process that were covered in the workshop. For example, for recall elections, respondents could earn points for knowing that a recall kit needed to be purchased, that signatures from a quarter of eligible voters in the district collected (the

[14]Three treated communities had to be dropped between the treatment stage and the collection of outcome data when an enumerator was involved in an alleged theft. The enumerator was dismissed and the three nearby communities dropped from the survey schedule in order to protect the safety of the team.

precise number was not required), or the names of any of the electoral authorities involved in verifying the signatures and approving the ballot measure (ONPE, the Registro Nacional de Identificaión y Estado Civil, and the Jurado Nacional de Elecciones). In addition, there was a question about when during a mayor's mandate a recall can take place (end of the second year).

The key outcomes related to political behavior were self-reported participation in the participatory budgeting process, support for a recall against the mayor, support for protest to sanction the local government and approval of the mayor's performance. Treated units in the appropriate covariate strata have been re-weighted to account for attrition and any difference in the number of leader surveys completed per community. I use the survey to measure participation in the treatment as well as in outcome processes.

District level outcomes and covariates have been collected from a range of administrative sources in Peru, both before and after the intervention took place.

I measure participation in the participatory budgeting at the district level through membership in what is called the "council of neighborhood delegates," which functions as the standing committee for the annual participatory budgeting process. Membership is officially open, but is typically restricted to formal village representatives. Each fiscal year, districts are required to submit standing committee membership to the central government, which reports it publicly via the National Statistics Institute (INEI). The relevant outcome for this study is the number of members in the standing committee for the 2016 participatory budgeting process (which sets the budget for fiscal year 2017).

Electoral information, including the initiation of recalls against mayors, originates with the National Office of Electoral Procedures (ONPE). Specifically, I track the first step in the recall process, which is the purchase of a "recall kit." The kit contains all the paperwork and procedures needed for a recall, including for collecting the requisite number of signatures needed to trigger the recall.

ONPE data also provides information about key electoral covariates, namely, vote shares for 2016 presidential election (focusing on the first round share for conservative candidate Keiko Fujimori), as well as vote share and party of the winners of the 2014 municipal elections, who then were the mayors in power when the experiment took place.

Data about protest and collective action come from the Defensoría del Pueblo (public defender's office), an independent agency of the Peruvian state that tracks social mobilization, conflict and collective violence. Each month, the Defensoría releases a report that details the list of active "social conflicts" in the country, as well as a registry of "collective actions of protest" that took place over the course of the month. I collect the list of protests that took place during the 12 months before the intervention and the twelve months after the intervention, coded to district and province where they took place. I remove protests that took place in the departmental capital of Piura city (which was not included in the study), except where there were details linking the protest back to a home district.

Municipal budget execution, used as a measure of local government and mayor performance, comes from the Ministry of Economy and Finance (MEF). The MEF maintains a database of quarterly budget allocations and expenditures down to the district level that it makes available through a "Transparency Portal." I collect budget execution by municipality during the four quarters before the intervention (July 2015 to June 2016) and the four quarters following the intervention (July 2016 to June 2017).

District level demographic information comes from the INEI, including average family income per month, life expectancy, literacy and population collected in 2007. These figures are used to demonstrate balance in the randomized district sample, to do matching and entropy balancing for broader district sample, and for covariate adjustment.

To summarize, individual level outcomes on political knowledge and attitudes were collected on the endline survey in the treated and control communities within the treated districts. District level outcomes — participatory budgeting standing committee member-

ship, recall initiation (kit purchase), incidence of protest, and post-treatment municipal budget execution — were collected from administrative sources.[15]

6.3 Empirical Approach

The randomized assignment of the accountability workshops intervention allows us to make a simple comparison of outcome means between the treated and control units. The randomization was carried out at two levels, community and district, and different outcomes measured at each level. Thus, the analysis is carried in two sections, first examining the individual effects (clustered at the community level), and then the district-level effects. Covariate balance tables are reported in Appendix A.1.

In each case, I use OLS to estimate the difference in means between the treated and control units, including pre-treatment covariates to improve efficiency (e.g. Gerber and Green 2012).[16] In addition to these baseline estimates, I estimate a "participant average treatment effect" on individual outcomes that accounts for compliance on the part of community leaders. Indeed, not all the interviewed community leaders in treated communities participated in the workshops (about 45% of formal, elected leaders and 31% of leaders overall). This approach uses two stage least squares, instrumenting individual participation with community treatment assignment.[17]

Recognizing that the randomized district-level analysis is underpowered – with just 23 districts – I also present the district analysis using the entire department of Piura (61 districts). I use entropy balancing (Hainmueller 2012) and coarsened exact matching (Iacus, King and Porro 2012) to achieve covariate balance across the broader district sample (covariate balance tables for all specifications in Appendix A.1). Although not as causally well-identified as the results for randomized sample, the broader analysis provides additional

[15]Respectively, the INEI for (1), ONPE for (2), Defensoría del Pueblo for (3) and MEF for (4)

[16]For the randomized district-level analysis, I also use a specification with entropy balancing (Hainmueller 2012).

[17]The IV estimates require that we believe the exclusion restriction: that workshops operated only through participation, and that they did not affect political knowledge, political attitudes and behavior through another channnel.

power under the assumption of identification to the analysis.

Furthermore, to test the hypotheses (H2 and H4) that the effect of the training on political attitudes and behavioral depends in part on government performance, I include a specification that interacts the treatment indicator with pre-treatment district government budget execution (average execution in the four quarters preceding the intervention).

I use the following regression equations to estimate the effects of the accountability treatment on individual (ITT and IV) and district level political outcomes. Throughout the individual analysis, standard errors are clustered at the community level, while for the district analysis I present Huber/White 'robust' errors, as well as bootstrapped errors (presented in the Appendix).

ITT estimates

$$y_{icd} = \alpha + \beta_1 D_c + \gamma_d + \delta X_{cd} + \epsilon_{icd}$$

IV estimates

$$P_{icd} = \alpha + \beta_1 D_c + \gamma_d + \delta X_{cd} + \epsilon_{icd} \quad (1)$$

$$y_{icd} = \alpha + \beta_2 \hat{P}_{ic} + \gamma_d + \delta X_{cd} + \epsilon_{icd} \quad (2)$$

where y_{icd} is the outcome for community leader i in community c and district d, D is the treatment indicator, γ is a vector of district fixed effects, δX is a vector of covariates (including block fixed effects), ϵ_{icd} is the individual error term clustered at the community level, P is an indicator for participation, and $\hat{P}$ is the predicted participation rate.

District estimates

$$y_d = \alpha + \beta_3 D_d + \delta X_d + \epsilon_d$$

where y_d is outcome in district d, D is the treatment indicator, δX is a vector of covariates, and ϵ_d are the district level errors.

7 Results

7.1 Individual Participation and Attitudes

In the following tables, I present the main individual-level results of the study, showing the effect of the bottom-up accountability intervention on community leader participation in PB meetings and political attitudes.[18] As seen in column (1) of Table 1, the intervention caused a large and significant reduction in average reported participation in PB meetings, from 86% in the control group to 53% in treated communities.[19] At the same time, the estimates in column (3) indicate that the treatment caused a statistically significant 21 percentage point increase in support for protest as a means of sanctioning the local government, rising from 68% in the control group to 89% among the treated.

The workshops had no average effect on support for a recall of the mayor, although we see in Table 2 that this depends on the performance of the mayor ex-ante.[20] The marginal average treatment effect of the workshops on recall support for a district government at the 20th percentile (48% execution) is large and significant (49 percentage points), whereas at the median (70% execution) and 80th percentile (82% execution) the workshops have no significant effect. In short, the workshops cause a large increase in support for a recall among poor performing mayors, but not for good performing ones. Support for protest follows a similar trajectory, with the greatest increase in support for protest coming in districts with poor-performing district governments, and where mayors won a relatively small share of

[18] For brevity, I present the IV estimates here and the ITT estimates in Appendix A.3.

[19] Among the surveyed village leaders, a substantial number have missing values for key outcomes, especially participation in PB and support for a recall of the mayor. For many, this is because the survey enumerators did not ask whether respondents participated in or supported a process that they could not correct identify, while others said they did not know. This leaves the analysis open to concerns of bias akin to conditioning on post-treatment variables if there is differential missingness across treated and control units (e.g. Montgomery, Nyhan and Torres 2016). Although it is impossible to completely rule out bias, as their could conceivably be imbalance on unobservables, in Appendices A.1 and A.2 I show that differential missingness is both substantively very small and statistically insignificant, and that for each analyzed sample there remains very good covariate balance. I also present Manski bounds on the effects in Appendix A.3

[20] The marginal effects by mayor performance, although measured pre-treatment, are not themselves identified. I include a battery of district-level covariates, including the party of the mayor, the vote share for Keiko Fujimori, family income per month, protest incidents, and mayor vote share to limit confounding, and posit that these marginal effects are likely conditionally independent.

the vote in the last election (2014).[21] Finally, the disengagement effects for participatory budgeting are in fact strongest for relatively good performers with high win margins.

Table 1: Participation in Accountability Workshops Affects Political Participation and Attitudes

	Participated in Budgeting Meetings (1)	Support for Recall of Mayor (2)	Support for Protest against Government (3)
Participated in Workshop	-.33*	-.00	.21*
	(.15)	(.14)	(.10)
Control Group Mean	0.86	0.58	0.68
Communities	77	77	77
N	397	321	387

*Notes: Standard errors clustered at the community level; * p<0.05. District and strata fixed effects and community covariates are included. IV estimates, instrumenting community leader participation with community treated indicator, with compliance rate 31%. There is substantial missingness in (1) and (2); for comparability the sample (3) is matched to (1). Tests in Appendix A.1 and A.2 show no differential missingness between treated and control communities, and covariate balance for these samples.*

[21] These results are reported in Appendix A.3.

Table 2: Treatment Effect Varies by Government Performance

	Participated in in PB	Support Recall	Support Protest
Marginal effects by District Government Budget Execution			
Low (48%)	-0.02	0.49*	0.32*
	(0.21)	(0.24)	(0.14)
Medium (70%)	-0.37*	0.06	0.18
	(0.15)	(0.18)	(0.12)
High (82%)	-0.59**	-0.20	0.08
	(0.22)	(0.26)	(0.18)
Communities	77	77	77
N	397	321	387

*Notes: Standard errors clustered at the community level; + p<0.1; * p<0.05 ** p<0.01. District and strata fixed effects and community covariates are included. IV estimates, instrumenting community leader participation with community treated indicator, with compliance rate 31%. There is substantial missingness in (1) and (2); for comparability the sample (3) is matched to (1). Tests in Appendix A.1 and A.2 show no differential missingness between treated and control communities, and covariate balance for these samples. Specification is treatment indicator interacted with district level covariate; marginal effects shown are bottom quintile, median and top quintile.*

7.2 District Effects

In the previous set of results, the effects of the accountability intervention were measured on a survey of community leaders. Although quite valuable, we might be concerned that respondents may misremember or incorrectly report their participation in PB, or their support for recalls or protest. Similarly, even if the accountability workshops have effects on individual attitudes, this may not translate into significant changes in collective political action. Lastly, we are interested not only in the responses of citizens to bottom-up accountability training, but also the responses of mayors.

Accordingly, in this section I show the effects of the workshops on district level political outcomes, collected from administrative data. First, I look at the (logged) number of members in the "council of neighborhood delegates," which functions as the standing committee for the participatory budgeting process, as well as for other district-level political discussions.[22] The second outcome is the purchase of a "recall kit," which initiates the recall process against the district or provincial mayor. Third, I consider whether there was a major protest in or associated with the district in the twelve months after the treatment, as reported by the Defensoría del Pueblo. The final outcome is budget execution by the district government in the twelve months after the intervention.

Table 3 displays the effect of a district receiving the accountability workshops on the above four outcomes, using the randomized sample of 23 districts in Piura, Sechura and Morropon provinces, and corroborated with all districts in region of Piura, adjusted with entropy balancing (Hainmueller 2012).

We see that, consistent with the individual results, the workshops greatly reduced the number of members in the participatory budgeting standing committee, with the two specifications indicating a 51 to 70% reduction in the number of members.[23] The rest of the

[22]This measure is thus slightly broader than just "participation in PB," as asked on the survey question. The standing committee membership is reported at the end of the year, so would account for people that joined or left after PB.

[23]This outcome is log transformed, so the effects in real terms are $exp(-1.21)) = 0.30$ and $exp(-.71) = 0.49$

specifications indicate no average differences between treated and control districts.

Table 3: District-level Effects on Political Outcomes

	No. of PB Standing Committee Members		**Recall Process Initiated**		**Protest Occurred**		**Budget Execution Post-Treatment**	
Treated	-1.21*	-.71+	-.31	-.24	-.07	-.04	.03	.01
	(.56)	(.41)	(.35)	(.16)	(.17)	(.08)	(.08)	(.04)
Districts	23	61	23	61	23	61	23	61
Randomized	✓		✓		✓		✓	
Entropy Balanced	✓	✓	✓	✓	✓	✓	✓	✓

*Notes: Standard errors are Huber/White 'robust'; + p<0.1; * p<0.05. District covariates included. PB Standing Committee membership is logged number of members in district, recall and protest outcomes are dummies, budget execution is in percent of budget allocated implemented.*

Tables 4 and 5 show that it is only after accounting for the pre-treatment performance of the mayor that we observe the effect of the workshops on recalls, protest and budget execution. For poor-performing mayors, especially those in the bottom quintile, we see a large and significant decrease in standing committee membership, increase in the probability of a recall initiation, increase in the probability of protest, and decrease in government budget execution in the following year. In concrete terms, for a mayor that is executing 48 percent of their budget (22 percentage points below average, which is the bottom quintile), the treatment caused a 70% increase in the probability of a recall initiation, 54% increase in the probability of protest, and a 9 percentage point (59 % decrease) in quarterly budget execution in the following year. That said, for governments in the top quintile, we do observe, under the randomized specification, a marginally significant 7 percentage point increase in budget execution and 34 percentage point decrease in the probability of protest.

Table 4: District-level Effects on Political Outcomes Vary by Performance

	No. of PB Standing Comte Members		**Recall Process Initiated**		**Protest Occurred**		**Budget Execution Post-Treatment**	
Treated	-1.3*	-1.3+	-0.2	-0.1	0.01	0.1	-0.03	-0.2
	(0.6)	(0.9)	(0.3)	(0.2)	(0.1)	(0.2)	(0.3)	(0.2)
% Budget Executed	12.6	-4.4	-0.02	5.2	5.4	3.7	-7.6	-6.7*
(Mean-centered)	(17.3)	(14.4)	(7.0)	(4.4)	(4.4)	(4.4)	(5.1)	(2.8)
Treated * % Budget Executed	12.8	17.9	-9.9	-16.3**	-13.9*	-8.9+	11.5*	8.9*
(Mean-centered)	(21.0)	(15.1)	(7.6)	(5.6)	(6.3)	(5.1)	(5.0)	(3.9)
Districts	23	61	23	61	23	61	23	61
Randomized	✓		✓		✓		✓	
Entropy Balanced	✓	✓	✓	✓	✓	✓	✓	✓

*Notes: Standard errors are Huber/White 'robust'; + p<0.1; * p<0.05. Budget execution is mean centered. District covariates included. PB Standing Committee membership is logged number of members in district, recall and protest outcomes are dummies, budget execution is in logged percent of budget allocated implemented.*

Table 5: Marginal Effects: Political Outcomes Vary by Performance

	Log # of PB Members	Recall Initiated	Protest Occurred	Budget Execution
Low (48%)	**-2.2***	**0.71***	**0.54****	**-0.09***
	(1.1)	**(0.35)**	**(0.20)**	**(0.04)**
Medium (70%)	-1.3	-0.10	0.10	-0.06+
	(0.86)	(0.19)	(0.16)	(0.03)
High (82%)	-0.43	-0.54+	-0.35	-0.02
	(1.2)	(0.33)	(0.38)	(0.05)
Districts	61	61	61	61
Sig. Different	No	Yes	Yes	Yes
Entropy Balanced	✓	✓	✓	✓

*Notes: Standard errors are Huber/White 'robust'; + p<0.1; * p<0.05. Budget execution is mean centered. District covariates included. PB Standing Committee membership is logged number of members in district, recall and protest outcomes are dummies, budget execution is in logged percent of budget allocated implemented.*

8 Mechanisms

This section examines the potential mechanisms for the effects observed in the results section. I examine how the workshops impact knowledge about political processes, confidence in democratic processes and satisfaction with the mayors themselves before looking at the potential for spillovers of information and coordination between neighboring communities.

8.1 Knowledge

Table 6 shows the effect of the workshops on six key knowledge measures. For each of the three main local democratic political processes, the endline survey first asks respondents if they know of the process, and if so how they would define it. Second, the survey asks a set of questions regarding details of the process, for example, the steps required for an electoral recall, or how the annual process participatory budgeting proceeds.

In columns (1) and (3) of Table 6, we see that the training did not have a significant effect on the share of respondents knowing and correctly defining the participatory budgeting and recall processes, but did have a significant effect on community leaders' knowledge of the details of both processes, as seen in columns (2) and (4). The knowledge test that was administered on the survey was designed to be challenging, in order to avoid ceiling effects, and thus the effect sizes may appear small relative to the learning that was achieved.

For participatory budgeting, the workshop increased the number of correct answers by 5 percentage points, an 11% increase over the control group mean of 0.45. For the recall process, the intervention increased respondents' score on the details by 8 percentage points. The intervention also had a large and significant effect on defining and knowing the details of the revenues process. Accounting for participation using a two stage regression, the effects of the workshops on participants' knowledge are estimated to be about three times as large, with a 15 percentage point increase on the details of participatory budgeting, 25 percentage point

increase on recall details, and 22 percentage point increase for the recall process details.[24]

The results indicate that the intervention indeed affected the level of information that community leaders have about local democratic processes. This serves as a manipulation check for the intervention, providing evidence that the civic education workshops and randomized treatment assignment functioned as designed. Importantly for questions about reported participation, the results indicate that on average there is no significant difference between treated and control communities in terms of knowing of participatory budgeting and the election recall, even as the level of detail of their knowledge differs greatly.

Table 6: Participation in Accountability Workshops Increased Knowledge of Democratic Processes

	Participatory Budgeting		**Recall Process**		**Revenues Process**	
	Know & Define	Details	Know & Define	Details	Know & Define	Details
	(1)	(2)	(3)	(4)	(5)	(6)
Treated	.03	.05*	.01	.08**	.10**	.07***
	(.04)	(.02)	(.05)	(.03)	(.03)	(.02)
Control Group Mean	.62	.45	.54	.30	.37	.27
Communities	77	77	77	77	77	77
N	643	643	643	643	643	643

*Notes: Standard errors clustered at the community level; * p<0.05; ** p<0.01; ** p<0.001. District and strata fixed effects and community covariates are included.*

[24]The IV regression outputs are presented in Appendix A.3

8.2 Confidence in Democratic Processes and Government

Why did community leaders respond to the workshops by disengaging from the participatory budgeting process and increasing support for protest? Columns (1) and (2) in Table 7 indicate that the accountability intervention greatly reduced local leaders' satisfaction with their district mayor, and lowered their trust of the participatory budgeting process. In contrast, the intervention did not affect the level of trust of the recall process, or satisfaction with oil and gas companies, who are a common target of unrest in the region.

Although it is challenging to nail down exactly what pieces of information may have caused increased disillusionment with the participatory budgeting process and mayor, qualitative interviews and details about which areas had the most learning is instructive. Among all the details of the PB process, the largest increase in knowledge was about where to access budgetary allocation and implementation for their district government. In control areas, just 25% of respondents knew that it was available on the Ministry of Economy and Finance's website, whereas in treated areas this increases to 35% (accounting for participation this jumps to 58%). In addition, qualitative interviews suggest that many local leaders overestimated how binding the PB prioritization votes are.

Community leaders repeatedly noted in qualitative interviews that the costs for attending the participatory budgeting process are high for many small communities. Local elected leaders must take at least three day-long journeys over the course of six weeks in order to see the process through. This is in addition to any preparatory activities leaders do within the community to prepare their set of proposals or demands. Anecdotally, many community leaders reported that they often felt "on the fence" about participation, given uneven returns in past years. Access to additional information about the process as well as to the transparency portal for the activities of their local government appears to have soured many on PB.

Table 7: Accountability Workshops Reduced Confidence in Mayors, Participatory Budgeting

	Satisfaction with Mayor (1)	Trust the PB Process (2)	Trust the Recall Process (3)	Satisfaction with Oil/Gas Companies (4)
Participated in Workshop	-.29*	-.23*	-.03	.03
	(.12)	(.10)	(.04)	(.08)
Control Group Mean	0.57	0.81	0.97	0.56
Communities	77	77	77	77
N	385	387	387	370

*Notes: Standard errors clustered at the community level; * p<0.05. District and strata fixed effects and community covariates are included. IV estimates, instrumenting community leader participation with community treated indicator, with compliance rate 31%. Sample in (1-4) is respondents who know/define participatory budgeting. Test in Appendix A.1 shows no differential missingness between treated and control communities.*

8.3 Spillovers, Coordination and Information Sharing

In order to carry out collective political action across a district, such as initiating a recall, organizing a protest or broadly disengaging with the PB process, community leaders need to coordinate. In this subsection, I examine how respondents in control group communities were affected by nearby treated communities, to see if information or political attitudes spill over between neighbors. In Table 8 I show the effect of having at least one treated community within a 3 kilometer radius on respondents in control communities. The 3 kilometer radius was selected because it is the average distance of of community to the district capital, a common distance to travel to visit a major market.[25]

Columns (4), (5), and (6) of Table 8 show that knowledge regarding the political processes covered in the workshops seem not to have spilled over from treated communities to their neighbors. However, as seen in columns (1), (2) and (3), the treatment appears to have had significant political effects on neighboring communities. Control communities that had at least one treated community within 3km were 17 percentage points less likely to have participated in PB, 30 percentage points more likely to support a recall, and 19 percentage points more likely to support protest (though not statistically significant), as compared to

[25]The results are consistent using bandwidths of 1-5 kms.

control communities with no nearby treated community. This suggests a coordination effort between treated local leaders and their neighbors to organize political activities, even without the details of the political information.

Table 8: Effects on Attitudes Spill Over to Control Communities, But Not Knowledge

	Attitudes in Control Communities			*Knowledge in Control Communities*		
	Participated in PB	Support Recall	Support Protest	PB Details	Recall Details	Mining Canon
	(1)	(2)	(3)	(4)	(5)	(6)
Treated community within 3km	-.17+	.30*	.19	-.10	-.11	.03
	(.09)	(.11)	(.15)	(.06)	(.08)	(.05)
Communities	40	40	40	40	40	40
N	197	159	195	320	320	320

Notes: Standard errors clustered at the community level; + p<0.1; p<0.05. District fixed effects and community covariates are included. Sample is respondents in control communities. Community covariates include literacy, assets, internet access, population and distance to the capital to avoid confounding.*

9 Discussion and Conclusion

The results of this study provide evidence that improving government performance through increasing citizen information and coordination is not as straightforward as advertised. After bottom-up accountability workshops that left them better informed and mobilized, village leaders chose to pursue coordinated disengagement from an important political process (participatory budgeting) and increased their support for the use of protests. This was driven by a reduction in trust of the PB process and in satisfaction with the mayor.

Even where the accountability intervention worked as designed — increasing support for the recall of poor performing mayors, and raising the probability that recall is started — some of the downstream effects on government performance were negative. Among districts with pre-treatment government budget execution in the bottom quintile, the intervention actually reduced subsequent budget execution by 14 percentage points relative to control districts. Poor-performing mayors in treated districts were also much more likely to experience protests. The effects were not all bad, however. For districts that already had relatively well functioning local governments (above 82% budget execution), the workshops did produce a modest increase in budget execution and reduction in the probability of protest.

Taken together the evidence suggests that improved information and mobilization of local elites is not sufficient to improve government performance where it has previously lagged, in part because poor-performing politicians often do not respond to increased accountability by improving their efforts in office. Furthermore, community leaders that better understand the political process – especially the low probability that they individually can change local government policy – are more likely to fall victim to collective action problems, and thus, rationally withdraw from political processes like participatory budgeting.

These findings have important implications for the way we think about democracy-building in developing countries, both as scholars and from a policy-making perspective.

First, in areas where there has been extended periods of poor government performance and/or conflict, it appears that upgrading the capacity of government to deliver on the expectations of its constituents is a vital pre-condition for the normal electoral accountability mechanism to boost performance. Second, the potential for disengagement due to free-riding as leaders learn the structure of the political game — a well-documented and debated phenomenon in industrialized democracies — is an important consequence. Although the results of the Metaketa I program suggest that informing voters has no impact on politics, this study indicates that the results can sometimes be worse, though sometimes better.

One challenge in unpacking the results of the this study is how to think about protests by citizens that target local mayors. On the one hand, peaceful assembly is a core democratic right and non-violent demonstrations may be a vital tool for costly signaling of dissatisfaction with the authorities. It is not obvious that increasing this type of protest is a 'bad' thing. On the other hand, protests in Peru, among other places in the developing world, are far more complicated than simple peaceful assembly.

As an example, in 2010 a group of small-scale merchants organized a protest in central Piura to pressure the mayor on a zoning issue that impacted their business. The marchers insisted on meeting with the mayor to discuss their grievances, the mayor refused and sent national police to disperse the protesters (El Comercio 2010). The clashes that followed left two merchants dead and numerous injured. Elsewhere in Peru this dynamic has been even more intense; one reason why this study was conducted in Piura is that the department has tended to be more peaceful than most. Over the last two decades, ostensibly 'peaceful' protests have triggered or been the cover for violent clashes with security forces, private companies or government officials. Injuries and property damage are common, with occasional fatalities. In that context, increasing the number of potential volatile collective actions that target a local government is problematic.

The study has other limitations, including its focus on relatively short run impacts on

government performance. We might imagine that if better informed citizens are superior at retaining good types and removing bad types, long run performance may improve even if it suffers in the short run (Banks and Sundaram 1998). However, the recently instituted rule preventing immediate re-election of mayors in Peru weakens the ability of type sorting to improve performance because citizens cannot simply retain a good performer. Instead, they must remember and then re-elect the good performers in future periods, or to higher office, while again searching for a good type for the mayoral role. Follow up administrative data collection in several years may help to adjudicate this question.

Thinking about where these results might travel, it is worth considering some of the scope conditions that might make accountability workshops function they way it did in rural Peru. The participatory budgeting process, though common in Latin America, is not ubiquitous — this kind of workshop might have slightly different results on political processes that look different from PB. For outcomes like town hall meeting attendance it might look similar, whereas for political rally attendance the mechanism is likely distinct.

Why did rural Peruvians correctly solve the adverse selection problem, whereas citizens in the seven Metaketa studies did not? This is one case where the particularities of the case might have played a role, as Peru has extensive history with recalling incumbents; in control communities a majority of leaders were already familiar with the recall. This likely made it easier for a relatively low intensity intervention to move the needle on political behavior with respect to electoral recalls.

In general, we might expect similar results in developing democracies that have regular town halls and participatory policy making procedures as part of their political culture, such as Bolivia and Brazil. Similar effects could be found in places where there is a history of removing incumbents, even if in the past it has been less related to performance. Lastly, a history of poor-performing government and direct action, like riots or protest, likely make these dynamics more likely to manifest.

From a policy perspective, it is worth noting that there are 70 low and middle income democracies in the world that look similar politically and economically to Peru, many of which have been targeted with accountability training and other democracy promotion activities. Civic education programs sponsored by the United States, for example, reached more than 425 million people around the world from 2012 to 2015 (USAID 2016). Many of these countries have poor functioning local governments, and political processes that in principal provide participatory opportunities to citizens.

Two of the main goals of these democracy promotion activities are to improve government performance and increase political participation.[26] The results of this study suggest that at least on the consequentialist outcomes civic education can sometimes fail quite dramatically and instead produce the opposite results: worse government performance and less participation.

To conclude, the results of this study do not say that bottom-up accountability programming that produces better informed and mobilized community leaders is necessarily a bad thing. Instead, the points to a complicated strategic political environment where information sometimes improves and sometimes undermines participation and ultimately politician performance in office. As with most other topics related to democratic governance, there are no simple answers to improving politicians' behavior or ensuring robust citizen engagement. From a policy perspective, democracy promotion programs could be more judicious in deploying this kind of intervention, recognizing the set of potential unintended consequences.

[26] Although there are typically also normative objectives ("we believe in building democracy as a worthy outcome on its own").

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Appendix: Supplementary Material for Transparency, Accountability and Conflict: Evidence from a Field Experiment in Peru

A.1: Covariate Balance

This subsection evaluates the covariate balance between the treated and control units in the study. To do so, I consider balance at the individual level, community level and district level, considering any substantive averages differences between treated and control, and, by convention, performing a t-test (even though this tends to penalize larger sample sizes). Because there is substantial missingness in two key outcomes (participation in PB and support for recall), I show balance tests for the non-missing samples for each of those variables. Appendix A.2 further shows that there is no significant differential missingness. Of the 27 covariates tested, 2 have substantively small amounts of incidental imbalance (as assessed by a t-test), which are addressed through covariate adjustment and entropy balancing.

Individual-level treatment and control groups (survey responses N=643)

Variable	Control (mean)	Treated (mean)	Difference	p-value
Female	0.55	0.53	0.01	0.69
Age	43.8	45.2	1.52	0.19
Education Level	2.11	2.05	-0.05	0.50
Married	0.49	0.45	-0.04	0.54
Spanish Language	0.99	0.99	-0.002	0.71
JUNTOS (anti-poverty govt program)	0.41	0.40	-0.01	0.75
Vaso de leche (new mothers govt program)	0.43	0.38	-0.05	0.28
Voted in last election	0.78	0.77	-0.01	0.87

Individual level balance for not missing "participated in PB" (N=397)

Variable	Control (mean)	Treated (mean)	Difference	p-value
Female	0.42	0.39	-0.03	0.50
Age	46.3	47.4	1.13	0.38
Education Level	2.2	2.2	-0.01	0.894
Married	0.52	0.49	-0.03	0.64
Spanish Language	1	1	0	undef
JUNTOS (anti-poverty govt program)	0.40	0.37	-0.03	0.63
Vaso de leche (new mothers govt program)	0.32	0.28	-0.04	0.42
Voted in last election	0.82	0.80	-0.02	0.57

Individual level balance for not missing "know and define recall" (N=321)

Variable	Control (mean)	Treated (mean)	Difference	p-value
Female	0.36	0.36	0.006	0.92
Age	46.5	47.0	0.47	0.74
Education Level	2.3	2.3	-0.01	0.89
Married	0.50	0.50	-0.001	0.90
Spanish Language	1	1	0	undef
JUNTOS (anti-poverty govt program)	0.34	0.31	-0.03	0.57
Vaso de leche (new mothers govt program)	0.31	0.25	-0.06	0.28
Voted in last election	0.81	0.78	-0.03	0.56

Community-level treatment and control groups (SISFOH)

Variable	Control (mean)	Treated (mean)	Difference	p-value
% with cellphone	0.45	0.44	0.01	0.92
% with internet	0.01	0.01	0.00	0.998
% with blender	0.18	0.21	0.03	0.35
Telephone signal?	0.68	0.58	-0.10	0.14
Literacy Rate	0.79	0.82	0.022	0.07
% JUNTOS (anti-poverty govt program)	0.40	0.41	0.01	0.73
Population	1164	876	-287	0.31
Distance to district capital (km)	3.8	3.4	-0.4	0.60
Altitude (m above sea level)	103	122	19	0.641
% Employed in mining	0.0017	0.0013	-0.0004	0.54

Community-level among control communities (Spillovers analysis)

Variable	Not Near Treated (mean)	Near Treated (mean)	Difference	p-value
% with cellphone	0.48	0.40	-0.08	0.39
% with internet	0.00	0.01	-0.01	0.26
% with blender	0.11	0.22	-0.12	0.10
Telephone signal?	0.79	0.61	0.18	0.34
Literacy Rate	0.78	0.80	-0.03	0.32
% JUNTOS (anti-poverty govt program)	0.41	0.41	0.001	0.99
Population	760	1432	-672	0.10
Distance to district capital (km)	1.4	5.4	-3.9	0.01
Altitude (m above sea level)	100	104	-4	0.14
% Employed in mining	0.001	0.002	-0.002	0.35

Note: Include district fixed effects (as in the analysis)

District level: Randomized (N=23)

Variable	Control (mean)	Treated (mean)	Difference	p-value
Life Expectancy	71.1	71.0	-0.1	0.78
Literacy Rate	0.86	0.89	-0.03	0.28
Family Income per Month	278	248	-30	0.31
Population	43521	19933	-23587	0.26
Govt Budget Execution (pre)	0.21	0.17	-0.04	0.03
Fujimori First Round Vote Share	41.4	46.4	5	0.23
Mendoza + Kuczynski First Round Share	23	21	-2	0.58
Mayor Vote Share	30.4	35.4	5	0.29
Mayor Win Margin	6.9	8.3	1.4	0.70
Protest incidence (pre)	0.36	0.22	0.13	0.50

District level: Randomized with entropy balancing (N=23)

Variable	Control (mean)	Treated (mean)	Difference	p-value
Life Expectancy	71.0	71.0	-0.03	0.95
Literacy Rate	0.863	0.870	-0.006	0.81
Family Income per Month	259	248	-11	0.63
Population	30482	19933	-10549	0.43
Govt Budget Execution (pre)	0.19	0.17	-0.02	0.29
Fujimori First Round Vote Share	42.5	46.4	3.8	0.39
Mendoza + Kuczynski First Round Share	21.7	21.0	-0.7	0.84
Mayor Vote Share	31.7	35.4	3.7	0.37
Mayor Win Margin	7.1	8.3	1.2	0.69
Protest incidence (pre)	0.225	0.222	-0.003	0.99

District level: All Piura with entropy balancing (N=61)

Variable	Control (mean)	Treated (mean)	Difference	p-value
Life Expectancy	71.0	71.0	0.0005	0.999
Literacy Rate	0.863	0.863	-0.0006	0.999
Family Income per Month	248	248	-0.01	0.999
Population	19938	19933	-5	0.999
Govt Budget Execution (pre)	0.17	0.17	-0.00004	0.998
Fujimori First Round Vote Share	46.4	46.4	0.01	0.999
Mendoza + Kuczynski First Round Share	18.7	20.1	2.3	0.51
Mayor Vote Share	35.4	35.4	-0.002	0.999
Mayor Win Margin	7.7	8.3	0.6	0.83
Protest incidence (pre)	0.177	0.222	0.04	0.777

District level: All Piura with coarsened exact matching (N=40)

Variable	Control (mean)	Treated (mean)	Difference	p-value
Life Expectancy	71.5	71.0	-0.5	0.46
Literacy Rate	0.878	0.863	-0.016	0.47
Family Income per Month	249	248	-1	0.95
Population	17629	19933	2303	0.748
Govt Budget Execution (pre)	0.19	0.17	-0.02	0.29
Fujimori First Round Vote Share	42.8	46.4	3.6	0.365
Mendoza + Kuczynski First Round Share	22.0	21.0	-1	0.73
Mayor Vote Share	34.1	35.4	1.2	0.68
Mayor Win Margin	7.7	8.3	0.53	0.83
Protest incidence (pre)	0.222	0.222	-0.000	0.999

A.2: Testing for Differential Missingness

For two survey outcomes, "participated in PB meetings" and "support for recall of mayor," there is substantial missingness because many respondents were not familiar with the process being discussed. For "participated in PB meetings," responses are missing for 38% of respondents, and for"support for recall of mayor" 49% of respondents. The following table shows that this missingness is consistent across treated and control communities (shown with and without covariate adjustment), and thus does not account for the results.

Table 9.9: No Differential Missingness Between Treated and Control Communities

	Missing "participated in PB meetings"		**Missing "support for recall of mayor"**	
	(1)	(2)	(3)	(4)
Treated	-.01	.01	.00	.01
	(.04)	(.05)	(.05)	(.05)
Communities	77	77	77	77
N	643	643	643	643
Covariates	✓		✓	

Notes: Standard errors clustered at the community level. District and strata fixed effects and community covariates are included where noted.

A.3: Additional Individual Level Results and Robustness

Table 9.10: IV Estimates: Knowledge

	Participatory Budgeting		**Recall Process**		**Revenues Process**	
	Know & Define	Details	Know & Define	Details	Know & Define	Details
	(1)	(2)	(3)	(4)	(5)	(6)
Participated	.08	.15*	.04	.25**	.32**	.22***
	(.12)	(.07)	(.14)	(.09)	(.11)	(.06)
Control Group Mean	.61	.45	.52	.29	.36	.27
Communities	77	77	77	77	77	77
N	643	643	643	643	643	643

*Notes: Standard errors clustered at the community level; * p<0.05; ** p<0.01; ** p<0.001. District and strata fixed effects and community covariates are included. IV estimates, instrumenting community leader participation with community treated indicator, with compliance rate 31%.*

Table 9.11: Effects on Attitudes: ITT (no accounting for compliance)

	Participated in Budgeting Meetings	Support for Recall of Mayor	Support for Protest against Government
	(1)	(2)	(3)
Treated	-.12*	-.00	.08*
Community	(.06)	(.05)	(.04)
Control Group Mean 0.86	0.58	0.68	
Communities	77	77	77
N	397	321	387

*Notes: Standard errors clustered at the community level; * p<0.05. District and strata fixed effects and community covariates are included. ITT estimates. There is substantial missingness in (1) and (2); for comparability the sample (3) is matched to (1). Tests in Appendix A.1 and A.2 show no differential missingness between treated and control communities, and covariate balance for these samples.*

Table 9.12: Effects on Attitudes: IV effects (no covariates)

	Participated in Budgeting Meetings (1)	Support for Recall of Mayor (2)	Support for Protest against Government (3)
Participated	-.28*	.17	.12
	(.14)	(.16)	(.13)
Communities	77	77	77
N	397	321	387

*Notes: Standard errors clustered at the community level; * p<0.05. District and strata fixed effects and community covariates are included. Sample in (1) is respondents who know/define participatory budgeting; (2) is respondents who who know/define recall, (3) is respondents who know/define participatory budgeting. Tests in Table 1 and Appendix A.1 shows no differential missingness between treated and control communities.*

Manski Bounds

In this subsection, for robustness I present Manski bounds on the individual results where there is substantial missingness in the outcomes: participation in PB and support for recall. For each binary outcome, the missing values are first recoded as zero and then recoded as ones; I show the main ITT results, as well as interacted with pre-treatment government budget execution. Substantively the results are shown to be consistent with the main effects even with the quite conservative Manski bounds, although on the low end it loses statistical significance.

Table 9.13: Main effects with Manski bounds

	PB		Recall		PB		Recall	
	zeros	ones	zeros	ones	zeros	ones	zeros	ones
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treated	-.06	-.07*	.01	.02	.05	.13	.23+	.35*
	(.05)	(.03)	(.04)	(.03)	(.18)	(.12)	(.17)	(.14)
Percent Budget					-.42	.46	-.37	.56
Executed					(.76)	(.52)	(.63)	(.74)
Treated ×					-.77	-1.14+	-1.22	-1.90*
% Executed					(1.09)	(.70)	(.98)	(.86)
Communities	77	77	77	77	77	77	77	77
N	643	643	643	643	643	643	643	643

*Notes: Standard errors clustered at the community level; * p<0.05; + p<0.1. District and strata fixed effects and community covariates are included.*

Gender Dynamics

In rural Peru, the vast majority of formal political actors are men, including district mayors and community presidents. Among the 128 current elected local officials that were interviewed on the endline survey, only 11 were women. Instead, it is much more common to find women among the leadership of informal community organizations and civil society groups. Of the 474 informal community leaders, that is, unelected heads of community organizations and committees, 326 (69%) were women. For formal political processes in the district center, such as the participatory budgeting process or beginning a recall, it more likely to be carried out by men.

Indeed, the results in Table 9.14 indicate that the disengagement effects of the civic education intervention on the participatory budgeting process was almost entirely carried out by male leaders, reducing their reported participation by 52 percentage points on average. Across the other outcomes, support for recall and support for protest, there is no difference between women and men.

Table 9.14: Disengagement from Participatory Budgeting Led by Male Participants

	Participated in Budgeting Meetings (1)	Support for Recall of Mayor (2)	Support for Protest against Government (3)
Participated	-.52**	.02	.14
	(.16)	(.16)	(.13)
Participated × female	.58*	-.05	.18
	(.24)	(.31)	(.22)
Female	-.15**	-.06	.05
	(.06)	(.07)	(.05)
Communities	77	77	77
N	397	321	387

*Notes: Standard errors clustered at the community level; * p<0.05. District and strata fixed effects and community covariates are included. IV estimates, instrumenting community leader participation with community treated indicator, with compliance rate 31%. Sample in (1-4) is respondents who know/define participatory budgeting. Test in Appendix A.1 shows no differential missingness between treated and control communities.*

A.4: Additional District Level Results and Robustness

Bootstrapped standard errors

Table 9.15: District-level Effects on Political Outcomes (bootstrapped)

	No. of PB Standing Committee Members	**Recall Process Initiated**	**Protest Occurred**	**Budget Execution Post-Treatment**
Treated	-.71+	-.24+	-.04	.01
	(.55)	(.14)	(.11)	(.03)
Districts	61	61	61	61
Entropy Balanced	✓	✓	✓	✓

Notes: Estimates and standard errors bootstrapped sampling half with replacement. District covariates included. PB Standing Committee membership is logged number of members in district, recall and protest outcomes are dummies, budget execution is in percent of budget allocated implemented.

Table 9.16: District-level Effects on Political Outcomes (bootstrapped)

	No. of PB Standing Committee Members	**Recall Process Initiated**	**Protest Occurred**	**Budget Execution Post-Treatment**
Treated	-4.26*	2.66***	1.59*	-.17
	(1.72)	(.50)	(.75)	(.12)
Percent Budget	-5.99	5.35**	3.93*	-.93***
Implemented	(5.85)	(1.76)	(1.55)	(.23)
Treated *	20.07*	-16.42***	-9.26*	1.06
Pct Budget	(9.65)	(2.70)	(3.90)	(.63)
Districts	61	61	61	61
Entropy Balanced	✓	✓	✓	✓

Notes: Estimates and standard errors bootstrapped sampling half with replacement. District covariates included. PB Standing Committee membership is logged number of members in district, recall and protest outcomes are dummies, budget execution is in percent of budget allocated implemented.

Interacted with Mayor Win Share

Table 9.17: District-level Effects on Political Outcomes Vary by Performance

	No. of PB Standing Comte Members		**Recall Process Initiated**		**Protest Occurred**		**Budget Execution Post-Treatment**	
Treated	-.46	-9.21***	-.13	.63	2.27	1.25*	-.34	-.27*
	(4.30)	(2.60)	(1.31)	(.82)	(1.20)	(.56)	(.16)	(.10)
Win Share	-.07	-.08*	-.01	-.00	.01	.00	.00	-.00
	(.03)	(.03)	(.01)	(.01)	(.01)	(.01)	(.00)	(.00)
Treated * Win Share	-.02	.23**	-.00	-.02	-.06	-.04*	.01*	.01*
	(.11)	(.07)	(.03)	(.02)	(.03)	(.02)	(.00)	(.00)
Districts	23	61	23	61	23	61	23	61
Randomized	✓		✓		✓		✓	
Entropy Balanced	✓	✓	✓	✓	✓	✓	✓	✓

*Notes: Standard errors are Huber/White 'robust'; + p<0.1; * p<0.05. District covariates included. PB Standing Committee membership is logged number of members in district, recall and protest outcomes are dummies, budget execution is in percent of budget allocated implemented.*

A.5: Intervention Details

Implementing Partners

The civic education intervention was developed and implemented in partnership with the Grupo Propuesta Ciudadana (GPC), a national consortium of ten civil society organizations that since 2002 have promoted democratic participation in "inclusive development." GPC and its members have carried out civic education, transparency initiatives, public consultation, and policy research on issues related to decentralization and democratic practices at the local level.[27]

The GPC affiliate in Piura region, Centro de Investigacin y Promocin del Campesinado (CIPCA), was the primary implementing partner for the community civic education workshops ; website: `http://www.cipca.org.pe/`. Initially founded in the 1970s during Peru's military-backed land reform program, CIPCA has since the 2001 return to democracy focused its efforts on rural capacity building and democratization. The organization is associated with the Society of Jesus, but is not engaged in religious proselytization; they characterize themselves as advocating for democracy and political participation by marginalized people in the countryside.[28] The organization has about 35 staff across Piura region, with rural development, democracy and policy research projects supported by international and national donors, and the Peruvian government.

Description of Workshops

The intervention was designed to include a standard set of activities that reflected GPC and CIPCA's experience in the region, as well as information about mining revenues provided under the Extractive Industries Transparency Initiative (EITI). It consisted of two parts, first a coordinating visit by the facilitators to agree on a date with local leaders and

[27] See Appendix A.5 for details on GPC and CIPCA.

[28] Although in industrialized democracies it might appear odd that a religious-affiliated organization were engaging in civic education or development activities, in rural Peru, where 94% of the population is Christian, and 82% Catholic, it is typical for civil society organizations to be associated with the church.

invite members of the community to attend. On a second visit, the workshop itself was held.

The workshops focused around three main topics: 1) oil and gas production in Piura and the petrol canon (the main source of discretionary income for local governments in the region); 2) the annual participatory budgeting process, and 3) the electoral recall process. Workshops included a set of learning activities aimed at both informing community leaders and promoting discussion within the community.

Intervention Process

The key activities of the intervention were in order:

- Contact community leaders in T villages during an initial visit
- Seek community consent to participate in the information sharing workshop at a later date
- If yes (during the experiment 40/40 agreed to participate), agree on a date for the workshop, and determine a recommended group of community leaders who would receive an invitation letter
- On the day of workshop, arrive early to set up and
- Provide small snack and beverage items to the participants
- Screen the video on the mining canon and democratic accountability processes (screenshoots included in this Appendix)
- Facilitate an open discussion about the mining canon spending specifically in the community's district and anything else that community members want to discuss.

In each case, CIPCA representatives coordinated with the community leaders in treated villages beforehand the date and time of the visit, and made invitations to leaders in different organizations. The invitation was a written letter that was the same for all T communities and was handed in to the person or left to someone else in the household. The names of the

leader were obtained from the person holding a position of coordination of all community leaders. In most cases, this was the presidente de la comunidad o teniente gobernador.

The implementing partner team also checked that the room they had available was suitable for screening of a video. Projectors with batteries that needed no electricity were always available for places with frequent black outs or not electricity at all.

The people in charge of conducting the workshop were trained and given a script for all sections of the workshop. Research assistants from IPA attended many of the workshops, but did not participate except to took notes and gave feedback to the facilitators when needed. According to the lead RA: "Overall, I think they did a good job staying on track of the topics and following the sections as they were trained to do."

Timeline of Experiment

- October 2015 to March 2016: Design of experiment, discussions with partners, IRB approvals,
- April 2016: Signed contract with CIPCA, finalized content for workshops, administrative data collection, developed final sampling frame, carried out randomization, training of workshop facilitators
- May 2016: Workshops carried out
- June 1-15 2016: Participatory budgeting meetings held, survey enumerator training
- June 20 - July 15 2016: Survey fieldwork carried out
- June - October 2016: Participatory budgeting standing committee membership open (some members may not have participated in the June meetings)
- November 2016: Final date for purchasing electoral recall kits, data published by ONPE
- July 2016 - July 2017: Budget implementation data by district governments tracked in the MEF transparency portal, Protest tracked in Defensoría monthly reports.

Notes from Implementation Team

The following are notes from the lead Research Assistant on the project.

"*From observations in the field, I realized women had a difficult time participating in the workshops when they attended. I think this may have to be with the fact that the presupuesto participativo is tailored towards infrastructure projects that were, in my opinion, mostly led by men. In the contrary, issues related to children's health, nutrition, and so on had more or only women involved. These projects usually are not related to infrastructure but rather to services such as day care, nutritional supplements, etc.*

Small communities always voice concerns about their bargaining power to win big projects. They said that they needed bigger communities to take a leadership role and in

a way take them along with them. Interestingly, I noticed larger communities complained about coordination issues within the community, which may have had an impact on the actual bargaining power that they have. Of course, this is all observational. The workshops were seen by many communities as a way to get together and talk about community issues they thought were important. In many cases, people just stayed in the room longer and talk among themselves, which may indicate that they workshop facilitated a space they may not easily find.

I don't have much to say that caught my attention during data collection. Overall, people were receptive when asked to participate in the survey. Most people had a lot to say, and a lot to complain about."

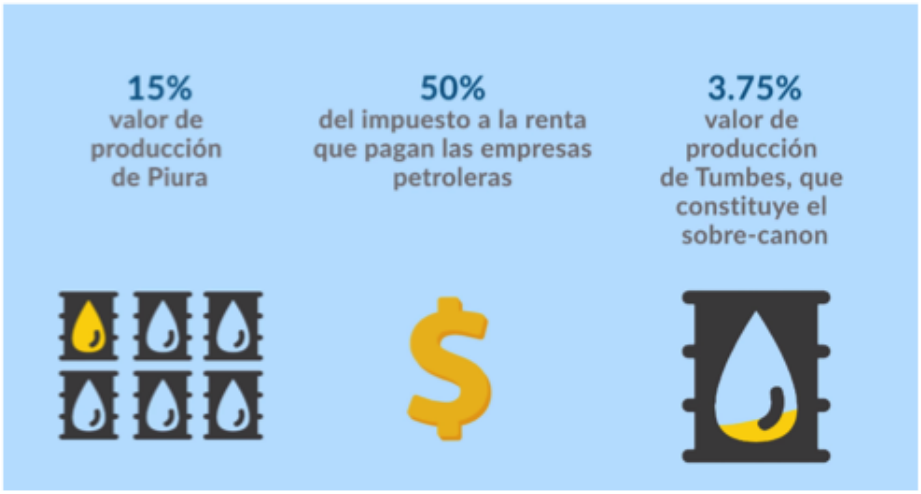
Images from the Intervention

In the following subsection, slides 1-10 are screenshots from the video that was shown to all treated communities, followed by photos in slides 11-16 of the community workshops in rural Piura.

Introduction about the main extractive activities in Piura department.

Learning about what royalties are.

Learning about how the canon petrolero is calculated.



How much governments received the previous year from canon petrolero.

How transfers were used

How can money be spent: Participatory budgeting

Other accountability processes: rendicion de cuentas

Other forms of political participation: elections

Recall

La revocatoria es un proceso de consulta en el cual los ciudadanos deciden con su voto si las autoridades continúan en sus cargos o no

Recall

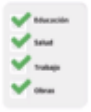
Algunos de los motivos por los cuales se han llevado a cabo revocatorias en el pasado son:

Pérdida de confianza del pueblo

Abuso de poder

Falta de respuesta a la demanda de servicios para la comunidad

Contrato de familiares en el municipio



Incumplimiento de promesas ofrecidas en campaña

No reconocimiento de los acuerdos del Concejo Municipal

No vivir en la localidad

Malversación de fondos municipales