Voice Lessons:
Local Government Organizations, Social Organizations, and the Quality of Local Governance

Vivi Alatas
Lant Pritchett
Anna Wetterberg

Abstract: As part the Local Level Institutions study of local life in villages in rural Indonesia information was gathered on sampled household’s participation in social activities. We classified the reported activities into four distinct types of social activity: sociability, networks, social organizations, and village government organizations. Respondents were also asked about questions about their village government: whether they were informed about village funds and projects, if they participated in village decisions, if they expressed voice about village problems, and if they thought the village government was responsive to local problems. Several findings emerge regarding the relationship between the social variables and the governance activities. Not surprisingly, an individual household’s involvement with the village government organizations tends to increase their own reports of positive voice, participation, and information. In contrast, the data suggest a negative spillover on other households. There is a strong “chilling” effect of one household’s participation in village government organizations on the voice, participation, and information of other households in the same village. The net effect of engagement in village government organizations is generally negative, while the net effect of membership in social organizations is more often associated with good governance outcomes. These findings indicate that existing social organizations have a potentially important role to play in enhancing the performance of government institutions in Indonesia and in the evolution of good governance more generally.


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Introduction

Questions about improving the quality of government are more than just academic in Indonesia today; they are pressing, practical questions. Indonesia has long been considered a classic example of a “developmental authoritarian” state— one that fostered economic success and delivered concrete material benefits as a claim to political legitimacy while simultaneously creating institutions through which popular participation in politics was structured, channeled, and thereby marginalized. With a radical decentralization of responsibilities to regional (district) governments underway, continuing economic turmoil, and frequent shifts in national leadership, Indonesia is in the midst of economic, social, and political change. From the national to the local level, the structures and behaviors taken for granted during the Soeharto/New Order era are being challenged and, in many cases, overturned. This paper focuses on the role of villagers’ social activities in creating more participatory and accountable local governments, and aims to contribute an empirically grounded analysis to inform discussions of the reforms of local governance.

Putnam (1992)\(^2\) argued that, even in a “modern” and “developed” country like Italy, the nature and type of social relationships were the most important determinant of

\(^{1}\) We would like to thank many people who helped in the long course of the LLI2 study and this particular paper: Scott Guggenheim, Pieter Evers, Kamala Chandrakirana, Robert Chase, Christiaan Grootaert, Michael Woolcock, Sandy Jencks, Jeffrey Hammer, Deon Filmer, Menno Pradhan, and Chitra Buchori provided valuable comments and input during the course of this research. Leni Dharmawan, Erwin Fahmi, R. Yando Zakaria and their respective regional teams shaped and collected the data. Financial support from the World Bank’s Indonesia Country Team, the Research Support Budget, the Norwegian Trust Fund for Environmentally and Socially Sustainable Development, and the ASEM Trust Fund is gratefully acknowledged.
the efficacy of the newly created regional governments. This bold reinsertion of personal
and particularistic social relationships into discussions of the performance of public
sector bureaucracies resonated powerfully with those battling the dominant approach to
economic development. This approach, which relied primarily on a national civil service
bureaucracy to deliver technically determined services that meet predetermined “needs”
of the population (Pritchett and Woolcock 2002) has been labeled “bureaucratic high
modernism”—the view of development as bringing activities under the control and order
of the state (Scott 1998) – or “institutional monocropping”—the idea that institutional
effectiveness is independent of local conditions (Evans 2002). This backlash against
“state centric” approaches has led to an enthusiasm in development circles for new
approaches (using terms like: “social capital” (Woolcock 1998, Narayan and Woolcock
1999); “beneficiary participation”; “empowerment”; “social funds”; “community
development”; and “deliberative development”) that aim to engage end-users in
decision-making.

But an overly simplistic generalization that more “social capital/participation/
empowerment leads to better local governance” leaves at least three key questions
unanswered. First, which types of social activities are beneficial? Second, for whom
does governance improve? Third, can knowledge of social conditions actually facilitate
deliberate action or design that would bring about improvements in government
performance?

2 Although it should be noted that the book is “with” Robert Leonardi and Raffaella Nanetti.
3 Of course there is by now an extensive ethnographic literature documenting how, even in
authoritarian regimes with no effective formal political opposition, local social organizations and
associations both resisted and structured the reality of government action (e.g. Singerman (1995)
We examine the empirical link between households’ social activities\(^4\) and responses about four elements of the workings of village government: *information* about government activities (two questions), *participation* in decision making (two questions), voice and expression of discontent (three questions), government responsiveness to local problems (three questions). We make two key distinctions. First, we distinguish the *private* impact of social activities—whether households who are more socially active report higher quality village government—from the *community* impact of social activities—whether households who live in communities where other households are more socially active report higher quality village government. Second, we distinguish the impact of social activities (e.g. participation in public meetings) that are directly related to *village government structures* from that of other social activities (that are not explicitly related to *village government*). The “endogenous” social activities are further divided into three types: (i) socializing with friends or neighbors; (ii) participating in group activities within a network (usually organized around a specific event, such as harvest or prayer); and (iii) participating in social activities related to organizations (such as farmers’ groups, formal religious groups, and credit unions that are distinguished by having a permanent leadership). Both of these distinctions prove empirically important—as the estimated associations of private and community and of social organizations and village government organizations with the proxies we use for governance are frequently not even of the same sign.

\(^4\) It should be noted that the general term “social activities” includes all group activities that households reported participating in, not that the activities have a “social” purpose. Some, such as water user groups or credit cooperatives, serve primarily economic functions while others are mixed (e.g. a prayer group that includes a rotating credit scheme as part of its activities).
Generally the private impact\(^5\) of participation in village government activities is positive—households that report more frequent participation in village government organizations also report increased access to information about government activities, greater participation in decision making, and higher assessed quality of government responsiveness. However, the community impact of such activities appears to be largely negative—households living in villages where other households report greater participation in the village organizations report, on average, reduced information, reduced participation, less voice and rate government responsiveness lower. Surprisingly, the net impact of increased participation in village government organizations appears to be negative—so for instance, even though the household that joins the village government organizations is more likely to be informed about the local budget the “crowd out” effects on other households are sufficiently large that fewer people in the village know about the budget.

On the other hand, broadly speaking, participation in social organizations has both positive private and community impacts on governance. To illustrate, we show that for one of the “voice” indicators (whether a household was involved in a protest action about some village issue) households with higher engagement in social organizations were more likely to be involved in a protest. Even more interesting is that households who lived in villages in which other households reported higher engagement in social

\(^5\) One additional caveat, in discussion of the results below we often use terms like “impacts” or “effects.” Since we presently have no technical method that allows us to assert causality—because we cannot rule out reverse causality—this language is not an assertion of causality but merely avoids the pedantic repetition of phrases like “if these partial associations represent causal impacts the effect is …”
organizations also were more likely to be engaged in protest. The net effect of higher engagement in social activities is generally positive.

We are self-consciously avoiding for now the obvious, but loaded and imprecise, term “social capital” and are first just reporting on the empirical outcome of a survey. Households were asked certain specific questions (often with limited possible answers); their answers were recorded; and it is a factual question whether households who reported more engagement in endogenous organizational activities were also more likely to report that they knew about the village budget. What one makes of those empirical facts and how they potentially relate to concepts and theories about the world is another question entirely. Hence the sequence of the paper is: Indonesian context, data, estimation, findings, and then theory, literature review, and implications all together at the end.

I) Indonesian context

Before describing the findings it is necessary to explain certain aspects of the structure of Indonesian government. We only cover the barest basics that are crucial to understanding local governance in Indonesia and to interpreting the findings presented in this paper. This section draws heavily on the qualitative and ethnographic studies done in connection with the Local Level Institutions study. In particular, Evers (2000) is a rich

6 This simple minded approach to method is not naivety: we have read and considered the critiques of household survey methods, the dangers of attempting to impose empirical clarity on social complexity and even the dangers of the survey instrument itself as a tool of repression. The household survey was embedded in a larger study which used a range of qualitative techniques to address many of the same questions (Wetterberg 2002).
and informative study on local governance in rural Indonesia in the immediate pre-crisis period.

First, we need to replace the potentially misleading word “village” with the Indonesian term “desa.” A desa is fundamentally a political and administrative designation, rather than a geographic or social one. Although the term desa is often translated as “village” it needs to be understood as a structure imposed on local communities by the central government. A 1979 law designated the existing boundaries of the desas to create a complete, homogenous structure for local governance. The resulting geographical units of the desa therefore do not necessarily correspond to the definition of a “village” as a cluster of living units or to individuals’ own perceptions of their basic social reality. Rather, especially in less densely populated areas, a desa may contain several widely dispersed clusters of household residences and primary social affiliations may be to these clusters rather than the desa.

Second, the structures of desa government created in the 1979 law did not consolidate existing practice but rather supplanted the existing structures of local leadership. Indonesia, a large and diverse country, has a wide range of ethnic and social groups and a corresponding variety of indigenous forms of governance organizations. Traditional (adat) leaders or structures were not formally recognized in the new laws. The new law on local administration created hierarchical structures ranging from the desa

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7 We draw heavily on Evers (2000) because it is the best study, not only because it is part of the Local Level Institutions study, but also because it is among the few studies of the mechanics of local politics. The New Order Indonesian government banned not just the development of political organizations in rural areas but also research on local politics (which could be easily enforced since all fieldwork required official permission).
head (kepala desa) and local executive council (LKMD) to a designated official for each
group (RT) and sub-group (RW) of households.

Third, in the rhetoric of the 1979 law the new desa organizations were a means of
channeling a “bottom up” expression of the popular will, and the law created mechanisms
whereby villagers would participate in the planning process and express their
development needs. The general perception among villagers and those who worked in
rural areas was that reality did not match the rhetoric: the desa organizations operated
"top down." The desa apparatus were widely perceived as a means of co-opting and
controlling all social forces at both the national and local levels and of delivering the
programs and development priorities determined at the center.

During Soeharto’s New Order era, the leadership of the provincial and district
(kabupaten) governments was appointed by the Ministry of Home Affairs and was
dominated by retired (and active duty) military officers. Even though there were local
elections the desa leaders had to be approved by and reported to this structure. As the
first LLI Study showed, at the local level often a very narrow group controls the desa
government apparatus in a way that does not always reflect a broad community
consensus (Evers 2000).

The resignation of Soeharto in May 1998 put in motion three linked but distinct
changes. First, there were (generally) free and fair general elections for the national and

8 The motivations for creating this structure are well beyond the scope of this paper but: (a) since
its birth Indonesia has experienced centrifugal pressures in various regions and the armed forces
(from which the New Order leadership emerged) has always considered itself a bulwark of
nationalism and stressed the need for central control, (b) without apportioning responsibility, the
New Order (Soeharto) government was unquestionably born in social chaos and brutal local
violence, an experience no one was anxious to repeat, and (c) the government in this period was
“developmentalist authoritarian,” anxious to deliver on the concrete benefits of “economic
regional legislatures. This altered the political landscape from top to bottom, shifting power away from Soeharto’s Golkar party towards now-President Megawati Soekarnoputri’s PDI-P and a host of newly established political groupings that were allowed to organize in rural areas. Second, the legislature passed a set of laws that initiated substantial decentralization of government services from the center to districts (mostly by-passing provinces). Third, as the center weakened there was an expansion in local activity that addressed past and present grievances through both violent (e.g. riots, land seizures, stoning local government offices (and officers)) and more “democratic” means (a free press).

II) Local Level Institutions Study Household Data

We are going to estimate the relationship between social activities and the perceptions of desa government performance using multivariate regressions. To do that we need to specify the (a) the construction of each of the four social variables, (b) the empirical variables used to measure “governance,” (c) the way we propose to distinguish between private and community impacts of social activities, (d) the non-social variables included in the regressions, and (e) the functional form.

The Local Level Institutions study (LLI) is a large, complex research endeavor carried out in 48 desas in three provinces (six districts), first in 1996 (LLI1) and again in 2000/2001 (LLI2). The study combined both qualitative and quantitative work on issues related to local governance, including documenting the array of social activities of development” to citizens as a means of sustaining legitimacy but less concerned with either local or national mechanisms of “voice” from citizens.

9 It should be noted that, as part of the decentralization effort, the 1979 law on village government has been revoked. Change has not been immediate, however, and most of the structures it created still persist throughout the research area (Wetterberg 2002).
households. The first round of the Local Level Institutions study documented that, while
little recognized by officialdom, local activities and spontaneous local organizations have
flourished at the local level alongside the externally imposed desa structures
(Chandrakirana 2000, Grootaert 1999). In addition, analysis of the household data from
the first round found significant positive coefficient of a social capital index (formed as a
function of number of household group activities and their characteristics) in a
multivariate regression on per capita consumption (Grootaert 2000). This analysis also
provided some evidence of contributions of social capital to reported collective action
and evidence of differential effects of different types of groups (Grootaert 1999, 2000).

In the second round of the LLI study a multi-module household questionnaire
collected information from 1200 households (30 households in each of 40 desas)\(^{10}\). The
questionnaire included standard modules on: (a) demographic information, (b) the
SUSENAS “short-form” consumption expenditures, (c) household assets, (d) household
shocks and coping strategies. In addition the survey collected information on two more
unique aspects: household social activities and households participation in, and
perceptions of, desa government.

III.A) Measures of social engagement.

The survey elicited information on all household social activities—from pure
sociability to membership in formal organizations. To capture “sociability”, households
were asked about the frequency with which they visited and were visited by other
households. In addition, each household made a complete list of all its group activities in
the past month and their purpose. For each group activity the household was asked if this
activity was carried out by an organization with a fixed leadership. Group activities that
did not involve an organization we call network activities while all others were
organizational. In addition, the respondent was asked about all groups that any member
of the household belonged to, whether the member was "active" and the frequency of
participation in those groups in the last three months and the purpose of the group (e.g.
religions, production, social service, etc.).

| Table 1: Classification scheme of the four types of social activities |
|--------------------------------|-----------------|-----------------|
| Elements of the questionnaire | Designations of the different social activities: | Examples |
| Visits to and from friends, neighbors, relatives | Sociability | Visits with friends, neighbors |
| Inventory of all group social activities involving members of the household | Network (activities in groups without fixed leadership) | Community work (gotong royong), |
| | Organizational (activities in groups with fixed leadership) | e.g. desa Legislative council (LKMD), desa women’s group (PKK) |
| | Desa Government | Social Organizations |
| | Religious Organizations, Youth Groups, Credit Union, etc |

Finally, the household was prompted about whether any member in the household
participated in the activities of the desa government organizations. For present purposes
the key distinction is between activities in those organizations that were created as an
integral component of desa government and all other social organizations.¹¹

¹⁰ There were eight less desas because one of the districts was in NTT close to East Timor and
was not safe for researchers.
¹¹ This is based on the same information (the roster of all group activities) but is a different
scheme than that used in analysis of the LLI1 data (Grootaert 1999) that divided groups into nine
functional categories by the primary purpose of the group (e.g. production group, religious group,
recreation, etc.).
Participation in (a) the desa legislative council (LMD), (b) the executive council (LKMD), (c) official neighborhood organizations (RT or RW), (d) official women’s organization (PKK or Dasawisma), or (e) official youth organization (Karang Taruna) was counted as engagement in a “desa government organization.” Participation in all other organizations was classified as “endogenous” social organizations—even though some of these groups did have affiliation with the government (e.g. government sponsored cooperatives). The distinction is not therefore between “government” and “non-government” organizations but between organizations that are part of the structure of local government and organizations with other purposes.

We differentiate the impact of the four types of social activities: sociability, network, and desa government organizations, and other social organizations (see Tables 1 and 2). However, within each we simply add either activity or memberships—that is, there is no weighting within the categories to allow for different organizations to have a stronger or weaker impact in creating “social capital” or to have a stronger or weaker association with governance. The problem of how to properly aggregate the observed range of social activities pervades all work on “social capital” and is almost certainly intractable in principle (see annex 1).

<table>
<thead>
<tr>
<th>District (Kabupaten), Province</th>
<th>Sociability (number of visits)</th>
<th>Network activities (activities in the last month)</th>
<th>Social organizations (number of active memberships)</th>
<th>Desa government organizations (participation in the activities)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarko (Jambi)</td>
<td>9.7</td>
<td>4.33</td>
<td>.387</td>
<td>1.80</td>
</tr>
<tr>
<td>Batanghari (Jambi)</td>
<td>10</td>
<td>4.35</td>
<td>.804</td>
<td>1.65</td>
</tr>
<tr>
<td>Banyumas (C. Java)</td>
<td>8.81</td>
<td>8.16</td>
<td>.859</td>
<td>2.17</td>
</tr>
</tbody>
</table>

Other studies of social capital have weighted membership in various organizations by characteristics of the organization thought to contribute to social capital (e.g. horizontal relationships among members, membership inclusive across social categories, frequency of participation)—see Narayan and Pritchett (1996), Grootaert (2000).
II.B) Ten empirical proxies for four dimensions of local governance

The LLI2 instrument also elicited household responses about desa government\(^{13}\). We used ten specific questions about four dimensions of governance: information, participation, voice, and perceived responsiveness to local problems.

Information. Households were asked if they knew about three types of information associated with desa government: the development programs operating in the desa; the use of desa funds; and funds available for development projects. If the household knew about “all three” we count them as informed. On average, information was quite widespread with between 45 and 50 percent of household having heard about any one of desa budgets, use of funds or development projects and 35 percent having heard of all three (Table 3). In addition, all households were asked if information about these desa government activities was “more open” than four years ago. Perhaps surprisingly given the political changes, only 20 percent thought information about all three was “more open” than four years ago.

\(^{13}\) That these are household responses should be stressed as a considerable amount of the variation in reported governance consists of differences across individuals, not just differences across villages.
Table 3: Percent of households informed about various aspects of desa budgets and activity, by region.

<table>
<thead>
<tr>
<th>Region: (kabupaten)</th>
<th>Percent of households informed about:</th>
<th>All three more open than four years ago</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Use of desa funds</td>
<td>Funds for development projects</td>
</tr>
<tr>
<td>Sarko</td>
<td>52.9</td>
<td>48.3</td>
</tr>
<tr>
<td>Batanghari</td>
<td>40.4</td>
<td>47.5</td>
</tr>
<tr>
<td>Banyumas</td>
<td>45.8</td>
<td>57.4</td>
</tr>
<tr>
<td>Wonogiri</td>
<td>36.4</td>
<td>48.5</td>
</tr>
<tr>
<td>Ngada</td>
<td>50.5</td>
<td>41.6</td>
</tr>
<tr>
<td>Sample Average</td>
<td>45.2</td>
<td>48.7</td>
</tr>
</tbody>
</table>

Source: LLI2 data. Average is unweighted.

Participation in desa decision-making was assessed by asking households if they participated in planning desa programs or if they participated in determining sanctions for abuses by desa leaders. In both instances there were three possible responses: no participation, participation by giving an opinion before decision was made, and participation in making the decision. About 63 percent reported no participation in desa planning, with 20 percent providing an opinion and 17 percent reporting that they participated in the decision making. The process of determining sanctions was more closed with 80 percent reporting no participation and only 7.4 percent reporting having participated in the decision (Table 4).

Table 4: Participation in desa decision making

<table>
<thead>
<tr>
<th>District (kabupaten)</th>
<th>Participation in desa planning</th>
<th>Participation in determining sanctions on desa leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>Provided Input</td>
</tr>
<tr>
<td>Sarko</td>
<td>55.8%</td>
<td>29.2%</td>
</tr>
<tr>
<td>Batanghari</td>
<td>66.7%</td>
<td>24.2%</td>
</tr>
<tr>
<td>Banyumas</td>
<td>74.0%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Wonogiri</td>
<td>79.5%</td>
<td>9.6%</td>
</tr>
<tr>
<td>Ngada</td>
<td>37.7%</td>
<td>20.9%</td>
</tr>
<tr>
<td>Sample average</td>
<td>62.7%</td>
<td>20.6%</td>
</tr>
</tbody>
</table>

Source: LLI2 data. Average is unweighted.
Voice. To investigate the expression of “voice” in response to problems with desa government, households were asked whether dissatisfaction was expressed with the desa leadership in the previous year. In 381 cases households reported that there was expression of discontent with the desa leadership. Households that reported an expression of discontent were probed about the outcome: most households reported that there was “not yet” a solution; a third reported a complete or partial solution; and in 4% of the cases there was a solution but then the problem reemerged (Table 5).

Table 5: Reported outcomes for households who report there was an expression of dissatisfaction in their desa

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No solution</td>
<td>222</td>
<td>58.3</td>
</tr>
<tr>
<td>Completely successful</td>
<td>84</td>
<td>22.1</td>
</tr>
<tr>
<td>Some success</td>
<td>43</td>
<td>11.3</td>
</tr>
<tr>
<td>Temporarily successful</td>
<td>16</td>
<td>4.2</td>
</tr>
<tr>
<td>Not recorded</td>
<td>16</td>
<td>4.2</td>
</tr>
</tbody>
</table>

If there was no open expression of disapproval, respondents were queried about why not. For the 818 households that said there was no dissatisfaction expressed with desa leadership, two very different reasons emerged for the lack of expression of discontent. Roughly three quarters said that the reason for no expression of discontent was that there was “no problem” (see Table 6). In the remaining cases respondents thought there was a problem, but reported a variety of reasons why, in spite of the problem, there was no expression of dissatisfaction: that people were afraid to express their dissatisfaction, that expression of dissatisfaction would not result in a change, or that it was difficult to organize.
Table 6: Reasons given by those who report no expression of dissatisfaction with the desa leadership:

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No problem</td>
<td>595</td>
<td>72.9</td>
</tr>
<tr>
<td>Was a problem, but afraid to express discontent</td>
<td>120</td>
<td>14.7</td>
</tr>
<tr>
<td>Was a problem, but protest would be ineffective</td>
<td>62</td>
<td>7.6</td>
</tr>
<tr>
<td>Was a problem, but difficult to organize</td>
<td>17</td>
<td>2.1</td>
</tr>
<tr>
<td>Don’t know</td>
<td>20</td>
<td>2.4</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>.5</td>
</tr>
</tbody>
</table>

From these responses we created three indicators of “voice.” One, which we call “protest,” is whether anyone in the household was involved in “openly expressing dissatisfaction.” The second variable is a dichotomous indicator of lack of effective voice: whether a household reports no expression of discontent in spite of a problem with the desa leadership.

The third “voice” variable combines the information about problems, expression of discontent, and outcomes to approximate effectiveness. For only those households that report a problem we define a variable with three categories: no expression (category A); expression but no solution (category B); and expression with solution (category C). As these are categories, rather than cardinal numbers, we use ordered probit for this third variable.

**Government Responsiveness.** Households were also asked about a variety of problems facing their desa (households were prompted about two “economic” problems, four “social” problems, and four “environmental” problems). If the respondent thought there was a problem they were asked, who, if anyone, had attempted to address those problems and one of the options was the desa government. The frequency with which the government is seen responding to existing problems is a crude indicator of its

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14 The Bahasa Indonesia wording is: *pernah menyatakan ketidakpuasan.*
responsiveness to citizen concerns (see Table 7). Using these data in combination with information on household and community participation in different types of organizations, we can analyze variations in desa government involvement in addressing community problems.

Table 7: Fraction reporting various types of problems, and for those who report problems, the fraction reporting engagement of desa government (pemerintah desa) in addressing the problem.

<table>
<thead>
<tr>
<th>Region: (kabupaten)</th>
<th>Economic</th>
<th>Social</th>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fraction reporting</td>
<td>desa gov’t Responds</td>
<td>Fraction reporting</td>
</tr>
<tr>
<td>Sarko</td>
<td>67.9%</td>
<td>7.9%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Batanghari</td>
<td>62.5%</td>
<td>3.3%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Banyumas</td>
<td>35.5%</td>
<td>16.2%</td>
<td>37.2%</td>
</tr>
<tr>
<td>Wonogiri</td>
<td>19.7%</td>
<td>8.5%</td>
<td>11.7%</td>
</tr>
<tr>
<td>Ngada</td>
<td>70.3%</td>
<td>29.7%</td>
<td>29.3%</td>
</tr>
<tr>
<td>Average</td>
<td>51.2%</td>
<td>13.1%</td>
<td>26.8%</td>
</tr>
</tbody>
</table>

The dependent variables in the regressions will be these ten governance indicators that are measures or proxies for the four concepts: information (two indicators), participation (two indicators), and voice (three indicators), government responsiveness (three indicators).\(^{15}\)

**III.C) Distinguishing private, community, and net impact**

In order to distinguish between the private consequences of engagement in activities (that is, those benefits that accrue to the household) and the community consequences of such involvement (that is, the impacts on other households) we use the fact that the sampling is by desa. We can therefore calculate for each household both their own activity and the social activity of all other households in the desa.

\(^{15}\) See Annex 3 for a summary of variables.
Consider as an example membership in social organizations, for the $i^{th}$ household in the $j^{th}$ desa. We can calculate the number of memberships of the household:

$$O^i = \text{Social organization memberships of the } i^{th} \text{ household}$$

The average level of social organization membership in the $j^{th}$ desa excluding that of the $i^{th}$ household is:

$$O^{-i,j} = \frac{1}{N} \sum_{k=1, k \neq i}^N O^k / (N - 1)$$

Suppose there were a linear, causal, relationship between whether the household reports being informed about the desa budget, and the household’s organizational activities and the organizational activities of all other households in the desa (and other variables in the matrix $Z$):\(^{16}\)

$$\text{Informed}_{i,j} [= 1 \text{ if yes } ] = \alpha + \beta_p * O^i + \beta_s * O^{-i,j} + \theta Z_{i,j}$$

The private impact of the $i^{th}$ household joining one additional social organization on the likelihood that household is informed is $\beta_p$.

The impact of $i^{th}$ household joining one additional social organization on all other households in the desa is to raise the “desa less household” average by $1/N_j$ for each household. The community impact of the $i^{th}$ household’s increased organizational activity is then $\beta_s / N_j$ on each other household in the desa. This could either be zero, if there is no social interaction at all, positive, if the $i^{th}$ household shares information with

\(^{16}\) The major problem with the linear specification (of the "index function" for probit) is the lack of interactive effects between the household’s participation the magnitude of participation of others. Strictly speaking in the form we now estimate the impact of an additional households joining a desa government organization on another household is the same irrespective of the level of the household’s participation in desa activities. In future work we will test for interactive effects.
others, or negative, if the \textit{ith} household gaining information tends to exclude other households and hence reduces the likelihood they are informed.

The total number of people in the \textit{desa} informed about the budget is just the sum of the individuals:

\[ \text{Informed in desa}_j = \sum_i \text{Informed}_{i,j} \]

If we are interested in the net impact on the total number of households in the village who are informed this is the private impact plus the sum of individual impacts:

\[
\frac{d(\text{Informed in desa}_j)}{dO^i} = \frac{d\text{Informed}_{i,j}}{dO^i} + \sum_{k \neq i} \frac{d\text{Informed}_{k,j}}{dO^i}
\]

The sum of \( N_j - 1 \) across those impacts of magnitude \( \beta_s / N_j \) is just \( \beta_s \cdot \left( N_j - \frac{1}{N_j} \right) \).

\[
\frac{d(\text{Informed in desa}_j)}{dO^i} = \beta_p + \beta_s \cdot \left( N_j - \frac{1}{N_j} \right)
\]

The net impact on the number of people in the \textit{desa} informed about the budget associated with the \textit{ith} household’s increased organizational membership is just the sum of the private and community impacts\(^{17}\).

The reasons for distinguishing the private, community, and net impacts of social activities will be discussed further in the section on implications, but for now let us just illustrate some of the possible outcomes.

\[^{17}\text{For simplicity we ignore the N-1/N term—which in our samples of 30 per village is near one in any case.}\]
Table 8: Possible patterns of empirical relationships between organizational activity and perceptions of governance

<table>
<thead>
<tr>
<th></th>
<th>Desa government organization</th>
<th>Social organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Private</td>
<td>Community</td>
</tr>
<tr>
<td>Private effects on governance only for desa government groups, no social linkages</td>
<td>+</td>
<td>0</td>
</tr>
<tr>
<td>Positive private effects of desa and social organizations and…</td>
<td>+</td>
<td>0</td>
</tr>
<tr>
<td>No social linkages (zero linkages or externalities of social activities)</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Zero sum (positive private, negative offsetting community effects)</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>“Crowd-in” (positive externalities of social activities)</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>“Crowd out” (negative externalities of social activities)</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 8 assumes a positive relationship between organizational engagement and perceptions of desa government organizations. We are assuming that households that are more active in social activities are better informed and also participate more in formal decision-making. While it would be unusual if participation in the desa government organizations had no association with household perceptions of governance, it is possible that engagement in non-desa government organizations is unrelated to governance. It is also possible that active engagement in social organizations precludes household participation in desa government groups, if these two types of organizations have overlapping and competing functions.

Even assuming there are positive associations between both desa government and other social activities and the households’ perceptions of local governance, there is the
question of whether there are any effects of these social activities on other households. There are four plausible conjectures, each of which would lead to a different pattern of results:

First, *no externalities*—a household’s perception of “voice” in the desa could depend on their characteristics and social activity only and not be affected by other desa members’ social activity. The community impacts are empirically small and the net effect is determined by the direction of the private effects.

Second, *zero sum*. Perhaps there is a fixed number of people who participate in decision making, or who are informed about activities, or who feel there is “voice” and hence improvements for one household within a desa come at the expense of another. Or, it could be that as the participation of other households rise other households participation falls as the "free ride" on the activities of others. Then, if the private effect is positive, the community effect would be negative of the same magnitude and the net effect zero.

Third, *positive externalities* (“*crowd in*”). It could be that increased information acquired by one household is more likely to be transmitted to another household when the social organizational activity in the desa is high. Or perhaps it is easier to organize villagers to act jointly to express discontent with desa government performance when there are more social connections among them. In this case the community effect would be positive and the net effect would be larger than either the private or community effect along.

Fourth, *exclusion (more than one for one “crowd out”)*. It also possible that members actively exclude non-members and as the number of people involved in an organization gets larger their ability to exclude others becomes stronger. In this case
non-members would feel that they have less information, voice or participation in decision making as more other people become members\textsuperscript{18}. It is possible that the strength of the exclusion effect is stronger than the positive private effect so that the net effect is negative.

\textit{III.D) Control variables.}

To estimate the partial associations we control for other variables that may influence household reports of desa level governance. For instance, more educated households may both be more likely to be involved in organizational activity and may be better informed about government budgets. The household demographic and economic characteristics included in each multivariate regression are: (a) household consumption expenditures (as a proxy for household income), (b) education of the head of the household, (c) age of the household head, (d) whether the head of the household is a government worker, (e) whether the household head works in agriculture, (f) whether the household is headed by a female, and (g) size of the household.

We also include a categorical variable for each of the five districts. These are frequently important as there are substantial differences across the regions. Ngada in NTT province, which is a predominantly Christian province (primarily Catholic), has a markedly different pattern of organizational activity (in table 2 Ngada has more than twice the level of “social organization” activity of any other region). Controlling for this difference in levels implies that the effects are estimated only using the differences across households and desa within a district.

\textit{III.E) Functional form}

\textsuperscript{18} This obviously can only be true over certain ranges of participation--as starting from zero
All of the governance indicators except one are binary variables (yes/no) and a probit estimator is used. The marginal effects—the increase in a household’s probability of answering “yes” (e.g. “are informed”, “did participate”) associated with a unit increase in the independent variable—are reported, along with the p-levels of the test for the index function coefficient being zero. Our indicator of “effective voice” is a categorical variable with three levels and hence ordered probit is used. In that case the marginal effect of moving from the second to the highest category are reported, along with the p-levels of the index function coefficients. (If the preceding two sentences were not obvious, Annex 2 is a brief discussion of probit and ordered probit estimates and results)\textsuperscript{19}.

\textit{IV) Findings}

The raw findings of the regressions are reported in Annex 3. We discuss the findings in three sections, each of which examines the relationships of the governance proxies across the range of independent variables: first, the “control” variables, \textit{sociability} and social \textit{networks}; second, the results for participation in the \textit{desa} government organizations; and finally, the results for social \textit{organizations}.

\textit{IV.A) Household characteristics, sociability, and social networks.}

\textit{Household characteristics}. The household characteristics included in the regressions generally emerged with the “expected” signs. Households with higher schooling (significant and positive in five of ten regressions), households with a participation or nearing 100 percent participation one cannot have the same effect. \textsuperscript{19} One aspect of the results yet to be addressed is that the standard errors are not corrected for the possibility of within cluster correlation of the error terms. This could lead to an overestimate of the precision of estimation and hence an overstatement of levels of statistical significance.
government worker (positive and significant in five of ten regressions), and household with higher expenditures per person (positive and significant only two of ten) reported higher levels of the governance proxies. Agricultural households had mixed results (e.g. more likely to report government responded to environmental problems but less likely to report the government responded to social problems).

Consistent with qualitative evidence about the tendency of existing mechanisms to excluded women (DFID, 2000) female headed households reported statistically significantly less participation (on both proxies), less voice (on two of three proxies) and less responsiveness of government to economic problems. Older households seem to fare somewhat better than female-headed ones. The older the head of the household the less likely the household is to report engagement in protest; however, the household is also more likely to report effective voice (perhaps precluding the need for protest).

Regional controls. There were some patterns across the districts. Households in Ngada were more likely to report government responsiveness (two of three proxies) and more voice (two of three proxies). Wonogiri respondents report less information (one of two proxies), less participation (on both proxies) and less responsiveness to social problems. For present purposes these cross district differences are a “control” and we leave the interpretation of these cross district differences to the qualitative work as part of the larger LLI investigation.

Sociability. For the number of visits each household made or received, we did not attempt to distinguish between private and community effects and record private impacts only. We find that in nine of the ten cases greater sociability was associated with higher levels of the governance proxies—but the magnitude and significance of the
effects was quite weak (statistically significant only twice), and the marginal effects were empirically small.

*Social networks.* The estimated private and community impacts of network activities were quite small. Interestingly, the only case in which participation in social networks is statistically significant for both the private and community variables is for *desa* government response to social problems. Households with greater network activities reported a greater degree of government response and those households living in villages with more activity also reported greater *desa* government responsiveness (this is of course controlling for their own level of social network activity). In villages with more vibrant network activities, such as collective harvesting and other *gotong royong* activities, the government may rely on these networks to mobilize villagers in response to problems.

*IV.B) Desa government organizations*

*Private impacts.* The single strongest result to emerge from the regressions is that household who report higher levels of activity in the *desa* government organizations also report that their household is better informed, more likely to participate, more likely to report effective voice in the *desa* (though the household is less likely to report having engaged in protest), and, for two of the three indicators, more likely to report the government is responsive to local problems. This aspect of the empirical results is more a relief than an inspiration—after all, the *objective* of the *desa* organizations is to provide information and participation in local decisions. It should come as no great surprise that those that participate report they are more likely to be informed about *desa* government activities and participate in decisions. It is reassuring that the data say what we would
have expected to be true: crudely put, people who go to meetings about budgets are more likely to know about budgets.

Community impacts. The most striking and original result to emerge from this empirical exercise is that the community impact of desa government organizations appears to be negative. That is, after statistically controlling for both household characteristics (e.g. education, gender of the head) and the household’s social activities (including the household’s own participation in desa government activities), living in a desa in which other households are more engaged in the desa government activities is associated with a household reporting less information (both level and change), less participation in decision making, less voice, and less government responsiveness to economic and social problems. While only six of the nine coefficients that support this interpretation are statistically significant at the conventional levels, we regard this as an overwhelming preponderance of the evidence.  

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20 Some of the difference is in statistical power and nearly all of the estimates are imprecise--as is to be expected given the nature of the data and the phenomena under investigation. For instance, the summary table reports that “desa less household activity” in desa government organizations reduces participation in desa planning by 19.2 percent (-.066/.344) and the underlying coefficients p-level is .058 and hence is “statistically significant” at the 10 percent level. Participation in determining sanctions, on the other hand, is reduced 28 percent (-.039/.138) based on a coefficient with a p-level of .103, and hence is just barely not statistically significant at the 10 percent level. In our view making too much of these fine distinctions in p-levels--treating these two as qualitatively different because one is modestly below and another barely above some conventional level--is a statistical significance fetish (McCloskey and Zilliak 1995). However, there are also elements of the table in which the p-level is very high—the p-level on “desa less household” for response to social problems is .623 which means even the sign conveys little information.
Table 9: Membership in desa government organizations and ten proxies for governance. (Italicized items are consistent with the hypothesis of positive private effects of desa government and either zero sum or crowd out community effects).

<table>
<thead>
<tr>
<th>Pred. prob.</th>
<th>Marginal effects (p-level)</th>
<th>Percentage change</th>
<th>Marginal effects (p-level)</th>
<th>Percentage change</th>
<th>Sum of marginal effects</th>
<th>Percentage change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private (Household)</td>
<td>Community (Village less Household)</td>
<td>Net (Sum of the two)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HH informed about 3 types</td>
<td>.327</td>
<td>.041 (.001)</td>
<td>12.5%</td>
<td>-.085 (.009)</td>
<td>-26.0%</td>
<td>-.044</td>
</tr>
<tr>
<td>HH reports all 3 “more open”</td>
<td>0.186</td>
<td>.029 (.005)</td>
<td>15.6%</td>
<td>-.036 (.176)</td>
<td>-19.4%</td>
<td>-.007</td>
</tr>
<tr>
<td>Some participation in planning desa programs</td>
<td>0.344</td>
<td>.067 (.000)</td>
<td>19.5%</td>
<td>-.066 (.058)</td>
<td>-19.2%</td>
<td>0.001</td>
</tr>
<tr>
<td>Some participation in determining sanctions</td>
<td>0.138</td>
<td>.031 (.001)</td>
<td>22.7%</td>
<td>-.039 (.103)</td>
<td>-28.3%</td>
<td>-.008</td>
</tr>
<tr>
<td>HH involved in protest</td>
<td>0.089</td>
<td>.0074 (.303)</td>
<td>8.3%</td>
<td>-.045 (.021)</td>
<td>-50.6%</td>
<td>-.0376</td>
</tr>
<tr>
<td>No expression in spite of problem (positive is less voice)</td>
<td>0.174</td>
<td>-.026 (.013)</td>
<td>-14.9%</td>
<td>.094 (.000)</td>
<td>54.0%</td>
<td>0.068</td>
</tr>
<tr>
<td>Most effective expression (problem, voice, solution)</td>
<td>0.236</td>
<td>.0427 (.000)</td>
<td>18.1%</td>
<td>-.047 (.124)</td>
<td>-19.9%</td>
<td>-.0043</td>
</tr>
<tr>
<td>Economic Problems</td>
<td>.076</td>
<td>.013 (.145)</td>
<td>16.6%</td>
<td>-.083 (.001)</td>
<td>-109.5%</td>
<td>-.071</td>
</tr>
<tr>
<td>Social Problems</td>
<td>.389</td>
<td>-.013 (.639)</td>
<td>-3.4%</td>
<td>-.040 (.023)</td>
<td>-10.3%</td>
<td>-.053</td>
</tr>
<tr>
<td>Environmental Problems</td>
<td>.523</td>
<td>.028 (.10)</td>
<td>5.4%</td>
<td>.134 (.004)</td>
<td>25.7%</td>
<td>.163</td>
</tr>
</tbody>
</table>

Notes: Bolded items are based on probit coefficients statistically significant at a p-level of 10% level or lower.
a) see Annex 2 for a description of the reporting of the probit results.

**Net impact.** With positive private and negative community effects the net impact of greater involvement by an additional household could go either way. What is truly striking about the empirical results is that, for eight of the ten indicators, the net impact is negative. For example, the estimates for information awareness suggest that households who are members of one additional desa government organization are 4.1 percent more likely to report knowing all three types of information (and are also more likely to report improvements in transparency). But the community impact is negative,
and even larger—where *desa* (less the household) average membership is higher *each* household is 8.5 percent *less likely* to be aware of local government information. This suggests that one household increasing its participation in the *desa* government organizations (which, at least in rhetoric, were created to channel information) *reduces* the number of households who know about the budget by 4.4 percentage points (13.5 percent). Even though the joining household is much more likely to be aware of the budget, its neighbors are each sufficiently *less* likely to know about the budget that the total number informed is estimated to go down as engagement in *desa* government organizations increases.

Although we do not estimate their precision, the magnitude of the net effects are substantial: increasing average membership in the organizations by one unit reduces the probability of a household being involved in a protest by 42 percent, the likelihood of “effective voice” by 39 percent, of reporting responsiveness to economic problems by 93 percent. What is surprising is that the effect of the *desa* government organizations seems to go beyond a “zero sum” result in which positive private and negative community cancel out. If interpreted causally these estimates of the net impact suggest the seemingly paradoxical conclusion that an individual joining a *desa* government organization *reduces* the number of people who are informed. Rather than being modes of disseminating information broadly the *desa* government organizations appear to have disseminated information down the “chain of command” but *not* outside of that chain. Access to *desa* government information and decision-making mechanisms appear to have been closely guarded with non-members increasingly excluded from these resources.

Figure 1 summarizes the results from table 1 on the private, social, and total associations (measured as the marginal effects) of *desa* governance organization
participation and governance indicators. As can be seen the private effects are consistently positive (9 of 10 cases), the community impacts are consistently negative (9 of 10 cases) and the sum of the two is consistently negative or essentially zero (nine of ten cases).

**Figure 1: Probit regression "marginal effects" of desa organizational activity on governance indicators: Private, Community, Total**

IV.B) Social organizations

The evidence for the impact of social organizations is suggestive, but frankly, damned elusive.

*Private impacts.* There is evidence of positive impact of social organizations, although it is weaker than for desa organizations. For seven of the ten indicators there is a positive association so that households which participate more in social organizations
are more likely to be informed (both indicators), participate in village decisions (both indicators), be involved in a protest, and report the government is responsive to economic and social problems (see Annex 3). However, only four of the seven estimated effects are statistically significant at conventional levels (and in many cases are far from significant). But even though there is no formal connection between social organizations and desa government affairs, there is evidence that more engagement generally is associated with more knowledge and participation in desa decision making.

*Community impact.* The evidence for a *positive* private spillover effect of participation in social organizations is decidedly mixed. For half of the indicators the sign of the coefficient indicates a positive impact. While higher social organization membership of *others in the village* is associated with more expression of voice (the sign is negative because the variable is *not* expressing discontent), it is also associated with less participation in determining sanctions. The coefficients are generally empirically small; while a one unit increase in social organizations is associated with being 30 percent more likely to be involved in a protest and 32 percent less likely to report “no voice”, for most of the other variables the impact is much smaller (e.g. less than ten percent more likely to report “more open”).
Table 10: Membership in social organizations and ten proxies for governance.
*(Italicized items are consistent with the hypothesis of positive private effects of social organizations and positive community effects, items bolded are statistically significant at the 10 percent level).*

<table>
<thead>
<tr>
<th>Pred. prob.</th>
<th>Marginal effects (p-level)</th>
<th>Percentage change</th>
<th>Marginal effects (p-level)</th>
<th>Percentage change</th>
<th>Sum of marginal effects</th>
<th>Percentage change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Private (Household)</td>
<td>Community (Village less Household)</td>
<td>Net (Sum of the two)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HH informed about 3 types</td>
<td>.327</td>
<td>.0099 (.495)</td>
<td>5.3%</td>
<td>-.015 (.651)</td>
<td>8.1%</td>
<td>-.005</td>
</tr>
<tr>
<td>HH reports all 3 “more open”</td>
<td>.185</td>
<td>.021 (.071)</td>
<td>11.4%</td>
<td>.012 (.663)</td>
<td>6.5%</td>
<td>.033</td>
</tr>
<tr>
<td>Some participation in planning desa programs</td>
<td>0.344</td>
<td>.050 (.001)</td>
<td>14.4%</td>
<td>-0.008 (.832)</td>
<td>-2.2%</td>
<td>.04</td>
</tr>
<tr>
<td>Some participation in determining sanctions</td>
<td>0.138</td>
<td>.026 (.011)</td>
<td>18.6%</td>
<td>-0.042 (.088)</td>
<td>-30.1%</td>
<td>-.016</td>
</tr>
<tr>
<td>HH involved in protest</td>
<td>0.089</td>
<td>.012 (.104)</td>
<td>13.5%</td>
<td>.028 (.127)</td>
<td>31.5%</td>
<td>.04</td>
</tr>
<tr>
<td>No expression in spite of problem (positive is less voice)</td>
<td>0.174</td>
<td>.0054 (.643)</td>
<td>3.1%</td>
<td>-0.056 (.037)</td>
<td>-32.2%</td>
<td>-.0506</td>
</tr>
<tr>
<td>Most effective expression (problem, voice, solution)</td>
<td>0.236</td>
<td>-.003 (.763)</td>
<td>-1.3%</td>
<td>.0143 (.629)</td>
<td>6.1%</td>
<td>.011</td>
</tr>
<tr>
<td>Economic Problems</td>
<td>.076</td>
<td>.012 (.172)</td>
<td>15.1%</td>
<td>.011 (.172)</td>
<td>15.8%</td>
<td>.024</td>
</tr>
<tr>
<td>Social Problems</td>
<td>.389</td>
<td>.047 (.064)</td>
<td>12.1%</td>
<td>-.057 (.453)</td>
<td>-14.7%</td>
<td>-.010</td>
</tr>
<tr>
<td>Environmental Problems</td>
<td>.523</td>
<td>-.006 (.753)</td>
<td>-1.1%</td>
<td>-.034 (.456)</td>
<td>-6.5%</td>
<td>-.040</td>
</tr>
</tbody>
</table>

Notes: **Bolded** items are based on probit coefficients statistically significant at a p-level of 10% level or lower.

a) see Annex 2 for a description of the reporting of the probit results.

**Net impact.** Looking across the ten indicators, the *net* effect of social organizations stands in sharp contrast to that of the *desa* government groups. The sum of the private and community impacts indicates that increased activity in social organizations is usually associated with improved governance outcomes. However, for some of the indicators (such as participation in determining sanctions), a negative community impact outweighs the positive private effect. In spite of the mixed results (both in terms of statistical significance and direction of signs), it is worth noting the generally beneficial effects of higher engagement in social organizations. Although they
were created for different purposes (e.g., economic, social, religious, etc.), these groups produce better governance outcomes than desa government organizations, which were explicitly created to channel information and allow for participation in decision-making.

Figure 2 summarizes the results. The private effects are generally positive or very small. The community impacts vary widely both in sign and in magnitude. The net effect is "substantially" positive (greater than a ten percent increase in the indicator) in five cases (more open budgets, more participation in programs, household engagement in protest, expression of voice and responsiveness to economic problems) and only in one (participation in sanctions) is the association substantially negative.

IV.C) Regressions on desa aggregates
If we perform the same regressions as desa averages we roughly reconfirm the above results, but also demonstrate the potential losses from focusing exclusively on desa aggregated data, even in examining community impacts. Table 11 shows OLS regressions of desa averages of the three reported voice variables on desa averages of the social activity and control variables. In each case the sign of average social organizational membership is associated with higher expressions of voice. In contrast, average participation in the desa government organizations is associated with less voice. The magnitudes are roughly comparable with the sum of the two effects reported in tables 9 and 10 (see “Total HH” column in Table 11)—desa government organizations are associated with 51 percent less protest in the averages while the household data suggest a 42 percent decrease. No expression of discontent in spite of problems is 28 percent more likely when estimated with the averages, 39 percent more likely from the household data. While the household data suggest only a modest decline in the probability of being in the most effective voice category, the aggregates suggest an 18 percent reduction in “effective voice” (although aggregating to desa averages requires treating the categories as cardinal).

There are two large advantages of using the household data over the desa averages. First, without the household level data one cannot see that the desa aggregate impact is a combination of private and community effects. For the desa government organizations a strong positive private effects is generally offset by a more than compensating negative community impact. Second, when using desa averages none of

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22 With the two binary variables the average is just the fraction of households answering “yes” but with the “effective voice” variable we have to assume (as we did not before) that the categories can be treated as cardinal numbers so they can be averaged.
the estimates are strongly statistically significant, almost certainly the combination of attenuation from the reduced signal in aggregated data plus the much smaller number of observations.

Table 11: Regression results of voice variables on desa averages (OLS estimation)

<table>
<thead>
<tr>
<th></th>
<th>Protest activity</th>
<th>Exists a problem but no expression (positive sign is less voice)</th>
<th>Effective voice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coeff. (p-level)</td>
<td>% change, one unit</td>
<td>Coeff. (p-level)</td>
</tr>
<tr>
<td></td>
<td>Agg. Total HH</td>
<td></td>
<td>Agg. Total HH</td>
</tr>
<tr>
<td>Sociability</td>
<td>.003 (.813)</td>
<td>2.5</td>
<td>-.027 (.164)</td>
</tr>
<tr>
<td>Network activity</td>
<td>.015 (.434)</td>
<td>12.4</td>
<td>.0024 (.941)</td>
</tr>
<tr>
<td>Desa government</td>
<td>-.062 (.081)*</td>
<td>-51.2</td>
<td>.053 (.350)</td>
</tr>
<tr>
<td>Social organizations</td>
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<td>18.2</td>
<td>-.029 (.704)</td>
</tr>
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<td>F+, A-</td>
<td></td>
</tr>
<tr>
<td>Regions</td>
<td>Ngada+</td>
<td>Included, none significant</td>
<td>Included, none significant</td>
</tr>
<tr>
<td>N</td>
<td>42</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>R2</td>
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<td>.452</td>
<td>.569</td>
</tr>
<tr>
<td>Adjusted R2</td>
<td>.388</td>
<td>.135</td>
<td>.311</td>
</tr>
</tbody>
</table>

Source: LLI 2 data.

V) Interpretation and Implications: Literatures, theory

The desa government organizations imposed by the Indonesian central government, which were ostensibly designed as channels of “participation” to improve local governance, are apparently less effective than social organizations at producing desirable governance outcomes—in fact greater participation appears to worsen aggregate outcomes. Less rigidly structured groups (even if sponsored by government) and those that are locally initiated are better able to facilitate broad participation, information-sharing, responsiveness and accountability measures than the “uniform blueprint” groups introduced in the creation of the official desa structure.
These findings are consistent with an interpretation, based on the LLI fieldwork, that the desa government organizations are used as a mechanism of social control. More participation in these groups allows for more effective control of decision making and does not represent a broadening of information, voice, and participation beyond those directly involved. However, the data are not compelling for this interpretation as we have no way of technically pinning down the direction of causation responsible for the observed empirical associations.\(^{23}\)

These empirical findings raise three important issues that relate both specifically to Indonesia and to literatures on social capital, decentralization and local governance, and project design more generally.

In the Indonesian context there are both issues of project design and of the reform of governance structures. There is a growing, empirically founded, consensus that projects that provide local services are more effective when they incorporate the intended beneficiaries in the project.\(^{24}\) But details matter: how “participation” is structured and through what intermediary organizations makes a difference. Isham and Kähkönen 1999 compared project success in water supply between two types of projects carried out in the same region of Indonesia: the Village Infrastructure Project (VIP) gave the desa legislative council (LKMD) final choice of design while the Water Supply and Sanitation in Low Income Communities (WSSLIC) project facilitated participation through water user associations. Although the WSSLIC user groups may have been predicted as more

\(^{23}\) The difficulty is that to do the procedure of “instrumental variables” one needs valid instruments and we have not found a valid and informative instrument for “village less HH” social activity. We attempted using lagged social activities from the 1996 survey as an instrument but, perhaps surprisingly, the power of the instrument in the first stage was too low and the standard errors on the “social” terms grew very large.
participatory, the final say for these projects rested with the village head and in some cases the village choice was overridden by project staff in the interests of budget and timetable concerns. Even though both projects intended to be “participatory”, the VIP projects in which villagers had greater say operated substantially better, had higher citizen satisfaction (38 percent were “very satisfied” with VIP versus 24 percent in WSSLIC), and had a greater impact on health (54 percent reported improved health in VIP versus 33 percent in WSSLIC).

Qualitative results for the second LLI Study indicate that project designs in the research area have grown increasingly participatory. Before 1998, villagers reported only 12% of projects giving them a direct say in project planning decisions. After 1998, they were given the opportunity to participate directly in planning in 22% of government projects. There has also been a simultaneous shift in satisfaction with project outcomes (37% satisfied or somewhat satisfied with pre-1998 projects vs. 50% for post-1998 projects) (Wetterberg 2002).

In Indonesia it is recognized that for decentralization to lead to better governance the pre-existing desa institutions will have to undergo major changes. Indonesia has embarked on a radical decentralization of power and responsibility to its regions (districts). The success of this decentralization will to a large extent depend on the extent to which changes from top down (creating democratically elected district legislative councils) and bottom up (creating effective desa structures) can be integrated.

The qualitative data from LLI2 show that while some modifications to desa structures are underway, the direction of change is not yet clear. The main innovation

24 The empirical evidence is the strongest for rural water supply (Briscoe and Garn 1995, Narayan
introduced by the decentralization at the village level is an elected council (*Badan Perwakilan Desa* or BPD) that is intended to provide a countervailing force to the often unchecked power of the village head. Although a small number of villages have seen accountability efforts pioneered by the BPD, most villagers report that the councils’ performance has been disappointing and indistinguishable from that of existing *desa* government structures.

These issues in Indonesia reflect more general issues in the literatures on social capital, decentralization, and project design. First, the benefits of decentralization are contingent on being able to structure responsive mechanisms at the local level. As Platteau (2000), Bardhan and Mookerjee (2002) and many others have pointed out, local politics are as much subject to “capture” by elites as those at the national level.\(^{25}\)

Second, these results reinforce the point that it is the nature of social organizations and associational life, not their sheer number or density, that matters. Studies of social capital are often based on the assumption that more ties (or more ties with given characteristics) are inherently better. While denser social organizations of the type that creates relationships of trust among citizens might facilitate collective action and greater efficacy of government\(^{26}\), many political outcomes are a zero sum contest. In these cases, more social organizations can influence the outcome in favor of (or against) a

\(^{25}\) One of the arguments for centralization in the immediate post-colonial era in many locations (Africa, India, Indonesia) was that the power of local leaders was an obstacle and that only through national governments and non-local coalitions (e.g. of peasants, labor) could a socially progressive agenda be implemented.

\(^{26}\) Research in the US has demonstrated connections between ethnic divisions and the quality of public services (Alesina, Baqir, and Easterly 1999). There is also an empirical literature that proposes a link between “trust” and economic performance.
particular group, but not make everyone better off\textsuperscript{27}. Caste associations in India often organize precisely to protect their interests within the village and locality. Wade’s (1988) brilliant study of collective action and irrigation in South India showed how villages with superior organizational abilities were able to be more effective in bribing the government officials to allocate them more water than less well organized neighboring villages. The present results, showing that different kinds of groups have opposite spillover impacts, reinforce the making of sharp distinctions between types of organizations in their effect on governance outcomes.

Third, these results also raise the difficulty of using knowledge about the existing empirical associations between social activities and governance to engineer improvements in local governance through deliberate institutional innovations or policy action. That is, it might seem that the obvious implications of our empirical results are two-fold: (a) to make local decentralization effective, reforms need to reduce the powers of (or eliminate) existing desa organizations and delegate greater powers to, or at least incorporate more in decision making, the social organizations that have positive effects and (b) make project implementation more ‘participatory’ by creating project specific mechanisms for local input and control. However, while these reactions are on the right track, there are two problems that must be faced. First, well meaning efforts to create “beneficiary participation” or “user management” in projects must cope with the fact that these new local organizations and institutions do not arise on a blank slate, but on top of an already complex pattern of local social organization and activity. Second, discussions

\textsuperscript{27} There are of course many examples of the negative effects of social organizations. The Klu Klux Klan was an NGO that attracted millions of members to the cause maintaining the privileges
about changes in the decision making scope of local organizations need to be embedded in a coherent theory of the social behavior of individuals as people and organizations will change as conditions change. That is, attempts to exploit the existing beneficial nature of social organizations may well create pressures for the organizations to change their character—if organizations which have beneficial spillover effects are charged with high stakes decision making tasks then the purposive behavior of individuals with respect to the organizations should be expected to change.

Spontaneous social action frequently arises to address problems of collective action—often in face of government failure and “below the radar” of official notice. For instance, Ostrom (1990) has shown that the “tragedy of the commons” is not inevitable. In the right social conditions collective action can reach stable and sustainable solutions to the problem of “common pool” resources, such as fisheries, water allocations, and irrigation. In Indonesia the practice of gotong royong—common labor to address local problems –long antedates the New Order.

But these type of spontaneous, endogenous solutions are the product of existing physical and economic conditions (e.g. the geographic extent of the “common” pool, the distribution of benefits among users) and social forces. As Fox (1996) illustrates for the case of Mexico, specific constellations of externally imposed government groups and other social organizations have all played roles in shaping current capacities for collective action and particular governance outcomes. Shifts in function in one part of current

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of one social group at the expense of vicious, often lethal, suppression of the rights of other citizens.

28 In a particularly telling example of how the “official” sector is (willfully) ignorant of social realities Ostrom recounts the tale of a delayed irrigation project that planned to provide irrigation to “unirrigated” areas. The delay allowed a closer investigation of the area which found dozens of fully functional irrigation associations in this supposedly “unirrigated” area.
arrangements are likely to cause both intended and unexpected consequences throughout the system. Attempts to deliberately create new local decision making organizations as an integral part of service delivery have met with both successes and failures. There is a great deal of evidence that changing the delivery of localized services from a “top down technocratic” matter for civil servants to incorporating more feedback from citizens is, in general, associated with more successful outcomes. However, attempts to create “project participation” have also met with—or created—disasters. Uphoff’s (1992) account of the Gal Oya irrigation project in Sri Lanka details the ways in which things can go wrong—and, later, right. Creating new institutions with decision-making power will inevitably conflict with existing arrangements.

In proposing specific institutional reforms in the structure of local government organizations or project designs (e.g. decision making on investment projects) both the private and social impacts of social capital need to be considered (Bourdieu 1986, Coleman 1990). That is, there is a branch of the social capital literature that emphasizes the private benefits to the individual/household of their social connections in obtaining jobs, credit, in marketing arrangements, smoothing income shocks, and even in obtaining benefits from the government (Singermann 1995). In this literature the individuals act purposively to create and maintain social connections because of the benefits the connections provide. The other branch of the social capital literature emphasizes the social benefits of social capital and that activities undertaken by individuals perhaps

29 Glaeser, Laibson and Sacerdote (2000) advocate this “economic approach” in which they “analyze the formation of social capital using a model of optimal individual investment decisions” (p. 3).
_exclusively_ because of the benefits of the activity itself have positive impacts on people besides themselves\(^{30}\).

The reason these two have to be considered simultaneously is that changes in the scope of potential benefits of engaging in social activities will change people’s behavior in ways that may change the consequences. Take a crude and entirely hypothetical example. Suppose that the data said that information spillovers from _desa_ (LKMD) meeting were negative and from mosque attendance were positive. Then one might conclude that if the legally required discussion of the _desa_ budget were moved from the LKMD to the mosque (suppose immediately following the weekly service) that this would have enormous spillover effects. But this would not take into account that the people who show up at the LKMD meeting do so (among other reasons) _in order_ to learn about the budget—and perhaps because they have a personal interest in budget information. If the budget discussion is moved to the mosque this changes the incentives of people to attend the mosque—perhaps in ways that reduces the beneficial spillover effects observed from mosque attendance in the existing model.

**Conclusion**

The social realities of rural Indonesia are complex and rapidly changing. The increasing democratization at the national level and the ongoing decentralization will bring about rapid changes in the power dynamics at the local level. The present empirical result is just one small piece of the critically important puzzle of how to create open, effective, and accountable local governance. This work extends the earlier empirical

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\(^{30}\) Of course in every individual motivations are complex and church attendance may well be correlated with some material benefits or other non-religious returns (Glaeser and Sacerdote 2000) and yet still be predominantly motivated by belief.
work demonstrating the “top down” realities of the desa administrative structure (Evers 2000) and the vibrancy of local institutions even before the political changes (Chandrakirana 2000). On a broader level this empirical work extends the literature on “social capital” by demonstrating conclusively that not all local organizations are created equal. Depending on who is doing the organizing, and why, increased participation in local organizations can either be exclusionary and reinforce existing decision making powers and structures (as appears to be the case for the mandatory government organizations) or can widen the base of voice, information, and participation and increase the responsiveness of local government.

Together they demonstrate the dangers of relying solely on the existing administrative structures to broaden the range of participation, disseminate information more broadly, and increasing government responsiveness. As this paper illustrates social organizations have an important role to play in creating effective government institutions in Indonesia and in discussions of local governance more generally.

But this paper also raises a more subtle, troubling, and difficult point. The failures of some attempts to deliver technocratically determined “least cost” or “cost effective” solutions to meet what were perceived to be the population’s uniform “needs” highlighted the importance of local institutions and local variability in conditions. This led in turn to the recognition that successful development required more than just delivering “goods”—it required the social and political conditions out of which the appropriate collective action could emerge and be supported. This very useful course correction leads to more emphasis on individual and community empowerment, on meaningful participation in decisions, on the design not just of the development “project” but the development “process.” However, people who write papers like this (and think
about issues in these abstract ways) face a deep paradox—the trap of discovering and imposing a new universal vision of development on others. Attempts to intervene in the reality of complex historical and social processes are fraught with peril – but so is the alternative.
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Annex 1: Aggregation and “social capital”

Although this paper emerges from a literature about “social capital” (and from a research project on social capital, and at least in part from previous research by one of the authors on social capital (Narayan and Pritchett 1996) we try and avoid the words and instead focus on directly observable behaviors—e.g. memberships and participation in social relationships of various types. Although we do aggregate across types of organizations we do not create an aggregate called “social capital” and a word or two to say why not is in order.

The best way into the problem of creating a meaningful aggregate called social capital is to examine the conditions under which one might believe that a linear weighted aggregate of something called “physical capital” (K) that combined together N different types of objects (e.g. cars, pumps, buildings, hoes, etc.) which are not measured in the same units owned by L different households, firms, and individuals could be meaningful. So a linear aggregate of physical capital in a village of L individuals with N possible objects would use weights w:

\[
A.1 \quad K = \sum_{l=1}^{L} \sum_{n=1}^{N} w_{n,l} \cdot T_{n,l}
\]

Could it be the case that there is some aggregate, say profits (\(\Pi\)), such that the impact on profits of an increase in this linear aggregate of items is exactly the same no matter what caused the aggregate to increase (whether it was trucks or plows)? In order for this to be true:

\[
A.2 \quad \frac{\partial \Pi}{\partial K_{n,l}} = \left(\frac{\partial \Pi}{\partial K}\right) \left(\frac{\partial K}{\partial K_{n,l}}\right)
\]

Why would this ever be true? The first order conditions for profit maximization for each of the l atomistic producers (that is, competitive in both factor and goods markets) with a production function for output Q as a function of N capital inputs with prices \(p_{k_1}, p_{k_2}, \ldots\) are:

\[
A.3 \quad \lambda = \frac{p_{q_1} \frac{\partial Q}{\partial K_{i,l}}}{p_{k_i}} = \frac{p_{q_2} \frac{\partial Q}{\partial K_{j,l}}}{p_{k_j}} \quad \forall \ i, j, l
\]

That is, the marginal value product (output prices times marginal product per dollar of capital input should be equalized across all inputs). Therefore, if one creates a capital aggregate with prices for each of the capital goods as the weights for each of the l producers then combining A.2 and A.3:

\[
\frac{\partial \Pi}{\partial K_{n,l}} = \frac{p_{q_1} \frac{\partial Q}{\partial K_{i,l}}}{p_{k_i}} = \lambda = \left(\frac{\partial \Pi}{\partial K}\right) \quad \forall \ n, l
\]

This is not to persuade that aggregates of physical capital are reliable. Rather, it is to demonstrate that there exist some conditions in which theoretically aggregation could be exact (although perhaps these conditions are empirically impausible). I would argue that these conditions are only rarely met even for the simplest of capital good aggregation problems. But the analogous conditions for social capital can never be met. Let's review briefly put the
conditions for aggregation of physical “capital” and show how none of these conditions are, or can be, met in principle for aggregates of social capital, in the sense of aggregating from household characteristics (which could be either attributes (norms, values, beliefs) or actions (participation in social activities, membership in organizations)).

First, there has to be a single market price for each good faced by all producers over which the aggregation is being made. This implies tradability of the good, which requires transferability across households and mobility in space, neither of which is true for household social characteristics. The social relationships created through associational activity are neither fully transferable across households nor mobile across space (households cannot take it with them).

Second, households have to have the same objective function in a common metric, such as profit maximization. With social capital people’s social behaviors are determined by a variety of considerations, of which household profit maximization in money units is just one, often not the most important.

Third, the household objective function and private incentives have to capture the aggregate incentives or else private behavior will not lead to conditions in which aggregation is meaningful. That is, suppose there are network effects in production so that one additional person joining the network raises the productivity of all existing members of the network—then prices, which are based on private decisions, will not provide the right weights for aggregation. With social capital there is interest in precisely the benefits to governance of social relationships that are created for other reasons (for example, the impact of religious groups in the spread of information for facilitating organizing). But if this is so there is no reason to believe that memberships in religious organizations will have the same impact on cooperation and socializing as memberships in political organizations. Moreover, with social dynamics and network effects the social impact of one household affiliating with an additional group depends on who already belongs to that group, as if the household joins a group whose members the household already has numerous other contacts the increment to “social connectedness” might be very small while if the household is embedded with one social group but joins a group that connects them with another densely connected social group then the addition to social connectedness could be enormous. However, this social benefit may have little or nothing to do with the household’s objective in joining either group.

In this sense any aggregate called “social capital” is prematurely reductionist—in the bad sense—it presupposes all types of conditions necessary for aggregation and hence would be premature in assuming homogeneity in impacts both across types of social relations and outcomes.

31 Another example would be of a set of capital goods which have different pollution properties. If these costs are external to the household then an aggregate of capital for predicting aggregate profits will not be necessarily be a good aggregate of capital for predicting pollution.
Annex 2: Note on reporting the results of probit estimates

A brief note about probit estimation might clear up some language below. Probit estimation assumes that all that is observed in a binary indicator (yes/no, on/off, zero/non-zero) which is arbitrarily assigned the values zero and 1. Moreover, it is assumed that the probability of observing 1 is a linear function of some underlying index function ($y^*$) which itself is a function of the independent (rhs) variables ($x$'s):

$$y^* = \beta' X + \epsilon, \quad y = 1 \text{ only if } y^* > 0.$$

Where $X$ is a $N$ by $K$ matrix (which includes a constant) and $\beta$ is a $K$ by 1 vector. This implies that, if we assume the error terms is distributed normally:

$$\Pr ob(y = 1) = \Pr ob(\beta' X + \epsilon > 0) = \Pr ob(\epsilon < \beta' X) = \Phi(\beta' X).$$

Where $\Phi$ is the cumulative normal distribution. The coefficients of the probit regression are the $\beta$ of the index function. However, the marginal effect of an increase in one of the independent variables—the change in the likelihood of observing a “1” as $x$ changes—is a non-linear function of the coefficients and all of the other variables (since the normal distribution is non-linear). The expression for the marginal effect of one variable, $x_i$, is:

$$\frac{\partial \Pr ob[y = 1]}{\partial x_i} = \phi(\beta' X) \beta_i$$

where $\phi$ is the normal frequency distribution. The impact of $x_i$ depends on where it is evaluated. We will report the impact of each variable evaluated at the means of all the variables (including the variable being evaluated). Standard errors and tests of significance of the coefficients are straightforward while the standard errors of the marginal effects depend on where they are evaluated. Hence we report marginal effects at the means but the p-levels of the test the underlying coefficient in the index function is zero.

**Ordered Probit** is a simple extension of probit to multiple categories and thresholds. Unlike a statistical procedure such as OLS that would assume the dependent variable was a cardinal number so that the difference between 0 and 1 was the same as the difference between 1 and 2 or between 4 and 5, ordered probit assumes that the levels are ordered (e.g. 2 is higher than 1) but does not assume that the difference between the categories has any informational content (the categories could be 1, 2, 3 or 1, 20, 24).

The difficulty with ordered probit is in interpretation as even if the underlying index function is linear and monotonic this does not mean that an increase in the independent variable will be associated with an increased probability for all “higher” categories. The algebra is simple (see Greene (2000)) and the intuition is that if an increase in an independent variable is associated with “better” then it is unambiguous that the propensity to be in the worst category is smaller and the propensity to be in the best larger, but what happens to all categories in the middle is ambiguous—they could go up or down.

We experimented and the marginal effects from probit combining two of the categories were similar. For instance, with probit the marginal effect on “some participation” for household membership in desa government organizations is .067 while the ordered probit marginal effect of moving from “none” to “some” is .07.
### Annex 3: Summary of regression results

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>INFORMATION</th>
<th>PARTICIPATION</th>
<th>VOICE</th>
<th>RESPONSIVENESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HH social organizations (private)</td>
<td>HH informed of 3 types (dev’t fund, use of funds, program availability)</td>
<td>.0099 (.495)</td>
<td>.020 (.071)*</td>
<td>.049 (.001)**</td>
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<td>Desa less HH social organizations (community)</td>
<td>HH reports all 3 &quot;more open&quot; than 4 yrs ago</td>
<td>.015 (.651)</td>
<td>.012 (.663)</td>
<td>-.007 (.832)</td>
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<td>Some participation in determining desa projects</td>
<td>.041 (.001)**</td>
<td>.029 (.005)**</td>
<td>.067 (.000)**</td>
</tr>
<tr>
<td>Desa less HH desa gov’t organizations (community)</td>
<td>Some participation in planning desa projects</td>
<td>-.085 (.009)**</td>
<td>-.036 (.176)</td>
<td>.058* (.103)</td>
</tr>
<tr>
<td>HH Networks (private)</td>
<td>Someone in the HH involved in a &quot;protest&quot;</td>
<td>.016 (.008)**</td>
<td>.008 (.103)</td>
<td>.008 (.228)</td>
</tr>
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<td>Desa less HH Networks (community)</td>
<td>HH reports a problem in desa and no expression of discontent</td>
<td>-.009 (.613)</td>
<td>-.023 (.120)</td>
<td>-.005 (.779)</td>
</tr>
<tr>
<td>N visits HH</td>
<td>Expression effectiveness</td>
<td>-.005 (.166)</td>
<td>-.006 (.093)**</td>
<td>-.006 (.106)</td>
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<tr>
<td>Other controls</td>
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<td>GW+ (.055)</td>
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</tr>
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<td>Batanghari (-), Wonogiri(-), Banyumas(-)</td>
<td>Batanghari (-), Wonogiri(-), Banyumas(-), Ngada(+)</td>
</tr>
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<td>.131 (.052)</td>
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<td>1171</td>
<td>1171</td>
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<td>.372 (.185)</td>
<td>.122 (.186)</td>
</tr>
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<td>.344 (.138)</td>
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<td>Probit</td>
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<td>Marginal effects</td>
<td>Marginal effects</td>
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<tr>
<td>Marginal effects</td>
<td>-</td>
<td>Coefficients</td>
<td>Marginal effects</td>
<td>Marginal effects</td>
</tr>
</tbody>
</table>
| Notes. The p-levels of the hypothesis that the underlying coefficients are zero are reported in parenthesis (note that these are not a test of the marginal effects, which are non-linear). P-levels lower than X percent “reject” the hypothesis the coefficient is zero at that level of statistical significance and the usual level of 10/5/1 are indicated with one two or three asterisks (***/***). Key to control variables: Y—consumption expenditures, F—female headed household, S—years of schooling, GW—HH head works in government, A—HH head works in agriculture, O—age of HH head in years.

32 A—if no expression of discontent; B—if expression but no solution; C—if expression and solution