

Voice Lessons:
Evidence on Organizations, Government Mandated Groups, and
Governance from Indonesia's Local Level Institutions Study

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Abstract: The New Order government of Indonesia created “villages” and a set of uniform organizations in those villages as a means of administering the countryside. While the rhetoric was that these organizations were a means of receiving a “bottom up” expression of the popular will, the general perception was that the reality was that these were “top down” organizations (Evers 2000). At the same time, while little recognized by officialdom, endogenous local organizations and capacity flourished (Chandrakirana 2000). A household survey that was part of a larger study (Local Level Institutions) collected data on household and village average activity in four social dimensions: pure sociability, networks, organizations, and government mandated groups, as well as on the expression of *voice*, the extent of *participation* in village decisions, and *information* about village funds and projects. Several findings emerge. Not surprisingly, an individual household's involvement with the government mandated organizations tends to increase their own reports of positive voice, participation, and information. Surprisingly the data suggest a negative spillover on other households. There is a strong “chilling” effect of one household's participation in government mandated organizations on the voice, participation, and information of all other households in the village. For instance, if the participation by *other* villagers increases by membership in one additional government mandated organization the households whose membership does not increase are 50 percent less likely to protest, 54 percent more likely to report village problems with no expression of discontent, 20 percent less likely to report effective voice in the village, 26 percent less likely to be informed about village budgets, and 20 percent less likely to participate in planning village programs. These have obvious implications for the design of mechanisms within programs to elicit village decisions that truly represent the “village.”

Voice Lessons

Introduction

Concerns about “quality of governance” and “social capital” are pressing issues in Indonesia. The New Order government attempted to actively co-opt, channel, and control all social forces at the national and local levels. At the local level the government has actively supplanted traditional forms of local authority within the 1979 basic law which created formal “village” (*desa*) institutions and organizations that followed neither natural geographic or social contours. The political shift begun with the resignation of Soeharto in May 1998, followed by general elections in June 1999 and the selection of President Abdurrahman Wahid in October 1999 has altered the political landscape from top to bottom. With an ambitious decentralization program started in 2001, the question remains as to how Indonesia’s basic local governments and the services and functions they provide can be made more effective. How does citizen voice become effective in creating good governance?

The Local Level Institutions study can provide a glimpse into these questions because it has data about social relationships, governance, and economic outcomes for a 1000 panel households in 40 villages that span this period. This empirical examination is just one small part of a much larger effort that combines this type of quantitative analysis with qualitative studies of various kinds.

In the present paper we focus in the impacts of social activities and structures on voice, information, participation, and village government responsiveness. The household data demonstrate two things:

- The *private* impact of social activity on the households own voice can be very different from the impacts on other households of these same *social*

actions. Some social activities by one households are associated with positive *benefits* for other households in the same village, but others appear to have a “chilling” effect on the social and political participation of their fellow villagers.

- The social impact of *government mandated administrative* organizations created to channel political activity appear to be largely negative—increased village participation in these organizations is associated with reduced voice, information disseminations and participation. In contrast the social impact of other local organizations is mixed.

The implications of these empirical findings for using the existing structures at the local level to elicit representative voice are obvious and critical. The political opening at the national scale needs to be followed by changes at the local level so that new, more authentic organizations can emerge.

I. Local Level Institutions Study, hypotheses and measurement

I.A) Literature review

In 1959 Edward Banfield wrote a book to explain why Southern Italy was a poor region—and he called the book *The Moral Basis of a Backward Society*. In 1993 Robert Putnam returned to Italy to write a book examining the question of why, after an ambitious decentralization beginning in the 1970s government services were effectively provided in some states while in others government was ineffective in carrying out even basic tasks. In both cases the authors ultimately turned for explanation to the nature and

grounding of the social relationships among the citizens as the root determining cause of the quality of governance.

Although the words “social capital” have a long history, Putnam’s research in Italy and subsequently in the USA (Putnam 2000) has kicked off a new round of empirical studies examining the relationship between the quality of local governance and social characteristics¹. Narayan and Pritchett (1997) using household data in Tanzania find strong *social* impacts of associational activity—and some evidence that schools are more effective (or at least perceived as such) in villages with greater associational activity. Alesina, Baqir, and Easterly (2000) find evidence in the USA that municipalities with less ethnic diversity have better patterns of local expenditures.

At the same time the mainstream development literature has increasingly turned to issues of *governance*—not just *what* the government does, but *how well* governments do what they do. This in turn has led to large, and sometimes empirical, literatures that address governance at several levels. At the project level both issues of project design, such as the incorporation of beneficiary participation (see Isham, Narayan, and Pritchett) and the conditions of accountability (Tendler 1997) have been shown to influence government performance. At the aggregate level the literature on economic growth has expanded to incorporate a variety of indices of government “quality” in explaining economic growth (). Rodrik (1999) has shown that the social characteristics are associated with country’s ability to respond effectively to economic shocks.

¹ There are also large literatures examining the private impacts of social capital—such as the impact of social relationships and trust in credit markets (Fafchamps), in business relationships (Barr), in labor markets (). There is also an aggregate literature relating aggregate measures of trust to country performance (Knack and Keefer).

I.B) Description of the LLI study

The Local Level Institutions (LLI) study is a large complex study that has now had two rounds, one in 1996 (LLI1) and one in 2000/2001 (LLI2). In both rounds there was a mix of qualitative and quantitative research undertaken in an attempt to give a complete picture of the existence and operation of local level institutions of all types (social, religious, economic, etc.) and especially interested in questions of how local level informal institutions interacted with and affected the operation and efficacy of governments.

In each period there was a multi-module household survey that collected standard demographic information, detailed all of the households social activities, and recorded the households assets and consumption expenditures (though not income). For LLI2 modules were added on shock and coping strategies, collective efforts at problem solving, land and natural resources use and conflicts, transparency and participation in local government.

Sampling. In LLI1 there were three provinces, six *kabupaten*, and 48 villages. Due to violence in one of the districts in NTT the study was not repeated in those villages during LLI2. This means we had a second-round sample from five *kabupaten*², 40 villages, with 30 households³ interviewed in each village for a total of 1200 households.

I.C) Measuring four types of social associational activity

The survey attempted to elicit from households all of their social activities. Households were asked about their activity in visiting other households and being visited

² One of the *kabupaten* in Jambi province had been split into two by 2000, but to maintain consistency with LLI1 data, we continue to use the boundaries that applied in 1996.

³ Twenty-five panel households and five new households in each village.

by other households to capture pure “sociability”. In addition, a complete inventory of all group social activities was made. Then, households were asked if any of these group social activities were carried out by organizations with a fixed membership, leadership and structure. This two-stage inventory generated a list of networks and more formal organizations in which respondents participated in any given village, with distinctions by purpose (e.g. religious, educational, economic).

A critical distinction for present purposes is to separate out participation in any of a small group of *government-mandated organizations*. These are organizations created by government, either for direct involvement in village governance or for representation of specific groups, such as women and youth, in village affairs. For specifically administrative purposes, the government created a common, nominally homogenous set of organizations in each village with the implementation of the 1979 Village Government Law. These government-mandated organizations include:

- (a) neighborhood organizations (RT/RW): These are the lowest levels of administrative structures and are officially charged with population administration (Rohdewohld 1995). In practice, the RT/RW functions “as an implementing unit for government initiated programs.” (Evers 2000).
- (b) hamlet organizations (dusun): Although these are generally naturally formed settlements, they were given official status as sub-units and clumped into villages under the 1979 law. The heads of these organizations serve under the village head.
- (c) village legislative and executive councils (LMD/LKMD): While only the LMD is an official part of the village government, the LKMD participates in planning of projects and budget allocations.⁴

In addition to these administrative organizations, we also include (d) a women’s organization (PKK/Dasawisma)⁵ and (e) a youth organization (Karang Taruna) in the same category of government-mandated organizations. Like the administrative

⁴ For more details on village administrative structures, see Evers (2000) and Rohdewohld (1995).

⁵ The chairwoman of the PKK has, until recently, held an official administrative position as second deputy of the LKMD.

organizations, these groups have a uniform structure and are supposed to exist in every village in Indonesia.

Participation in the government-mandated organizations is technically mandatory, although actual affiliation and engagement varies widely. One of the main reasons for this outcome is that these imposed structures were often created alongside existing governance mechanisms and organizations that had evolved locally. Previous research shows that the existing organizations have often been more effective than externally imposed groups in meeting community needs (Chandrakirana 2000). In many places, however, the persistence and access to resources of the top-down structures have undermined local organizations and weakened existing mechanisms.

Based on these data we examine the impacts of four possible types of social relationships:

Sociability: the number of visits per week from other households.

Network group activities: the participation in the last 1 month in group social activities that were not part of any formal organization.

Organizational activities. Participation in the last 3 months in group social activities that were part of “organizations” defined as groups with a fixed leadership. Some of these were locally initiated (e.g. mosques, churches, self-help groups) and some of these were government initiated but not part of the administrative structure (i.e. the government-mandated organizations).

Government mandated organizational activities. Participation in activities of the six government-mandated organizations in which the household participated in the last 3 months.

Table I.1: Average engagement in a variety of social activities

Regency: (<i>Kabupaten</i>)	Sociability (number visits)	Network Activities	Organizations ⁶	Government mandated org.
S. Bangko	9.7	4.33	.387	1.80
Batanghari	10	4.35	.804	1.65
Banyumas	8.81	8.16	.859	2.17
Wonogiri	7.85	6.51	.92	2.72
Ngada	8.85	4.68	2.06	2.87
Source: LLI2 data				

I.D) Measuring voice, information, participation, and responsiveness

While each reader has an intuitive notion of what “voice” “participation” and “information” mean, the problem is how to elicit measures of those from households, with dangers at both extremes. Open ended questions about opinions or attitudes may allow the individual to express their views, but are difficult to categorize and analyze statistically. In contrast, narrow questions about behaviors and factual responses run the risk of missing important contextual dimensions of social realities. In this work, we based measures on concrete questions about each household’s involvement in, or reports of, various concrete activities. Therefore, while we use terms like “voice” and “participation” these are merely hopes--in practice households were asked certain specific questions, with limited possible answers, their choices from among answers were recorded, and we are analyzing those answers.

Voice. A series of questions were asked about whether dissatisfaction was expressed with the village leadership has been expressed in the previous year. In 381 cases households reported that there was expression of discontent with the village leadership. Households that reported an expression of discontent were probed about the outcome. 222 of 381 of households reported that there was “not yet” a solution, in 84 cases

⁶ The term “organizations” refers to all groups with a formal leadership in which respondents reported participation, but that are *not* part of the sub-set of government-mandated organizations.

households reported a complete solution, in 43 cases a partial solution, and in 16 case there was a solution but then the problem reemerged.

	Frequency	Percent
No solution	222	58.3
All successful	84	22.05
Some successful	43	11.29
Temporarily successful	16	4.2
Not recorded	16	4.2

In the 818 households that said there was no dissatisfaction expressed with village leadership there was probing as to their view of the reason there was no dissatisfaction expressed and two very different reasons emerged. Three quarters (595/818) said the reason was that there was “no problem.” However in the other cases people thought there was in fact a problem but that there was no expression of dissatisfaction. The reasons for the lack of expression when there was a problem was that people were afraid to express their dissatisfaction (120), felt that expression of dissatisfaction would not result in a change (62) or it was difficult to organize (17) (table I.3).

	Frequency	Percent
No problem	595	72.9
Problem, but afraid	120	14.7
Problem, but protest would be ineffective	62	7.6
Problem, but difficult to organize	17	2.08
“Don’t know”	20	2.4
“Other”	5	.5

Participation. We asked households about three types of participation. First, we asked if they participated in planning for the village programs. The second type of

participation was in determining sanctions on village leaders if there had been violations. In both cases there were three possible responses: no participation at all, participation by providing input, and participated in the decision.

Regency: (<i>kabupaten</i>)	Participation in village planning			Participation in determining sanctions		
	None	Provided Input	Decision making	None	Provided Input	Decision making
S. Bangko	55.8%	29.2%	15.0%	72.5%	18.8%	8.8%
Batanghari	66.7%	24.2%	9.2%	80.0%	16.3%	3.8%
Banyumas	74.0%	19.0%	7.0%	90.9%	7.4%	1.7%
Wonogiri	79.5%	9.6%	10.9%	94.1%	2.9%	2.9%
Ngada	37.7%	20.9%	41.4%	69.5%	10.9%	19.7%

Source: LLI2 data.

Information. We asked households if they knew about three types of village information. First, had they heard about what programs were available in the village. Second, had they heard about the use of village funds. Third, had they heard about funds for development projects. In addition, all households were asked if these were “more open” than four years ago.

Regency: (<i>kabupaten</i>)	Informed about:				All three more open than four years ago
	Use of village funds	Funds for development projects	Programs available	All three	
S. Bangko	52.9	48.3	48.3	35.8	20.8
Batanghari	40.4	47.5	44.1	32.5	19.6
Banyumas	45.8	57.4	69.0	39.6	20.6
Wonogiri	36.4	48.5	52.7	20.9	11.7
Ngada	50.5	41.6	41.3	41.0	26.3

Government responsiveness. Households were also asked about a variety of problems in their village (two “economic” problems, four “social” problems, and four “environmental” problems). There were also asked who, if anyone, had attempted to address those problems. One of the options was the local village government (*pemerintah desa*). The frequency with which the government is seen responding to existing problems is a crude indicator of the responsiveness of village governments.

Table I.6: Fraction reporting various types of problems, and for those who report problems fraction reporting engagement of village government (*pemerintah desa*) in addressing the problem.

Regency: (<i>kabupaten</i>)	Economic		Social		Environmental	
	Fraction reporting	Village gov't Responds	Fraction reporting	Village gov't Responds	Fraction reporting	Village gov't Responds
S. Bangko	67.9%	7.9%	5.8%	50.0%	50.4%	27.2%
Batanghari	62.5%	3.3%	50.0%	36.6%	55.4%	49.6%
Banyumas	35.5%	16.2%	37.2%	45.5%	59.1%	44.0%
Wonogiri	19.7%	8.5%	11.7%	21.4%	52.3%	45.6%
Ngada	70.3%	29.7%	29.3%	48.5%	94.1%	74.6%

I.E) Distinguishing “private” and “social” impacts of social activities

Once we have the data for each household we attempt to distinguish between the private consequences of social activities—that accrue to the household and the social consequences—impacts that may accrue to others living in the same village, even if they themselves do not participate. We take advantage of the stratified sampling so that we can calculate for each household both their private social activity and the social activity of all other households in the village but excluding that household.

So, for memberships in organizations of the *i*th household in the *j*th village we can calculate the number of memberships of the household:

$$O_{2001}^i = \text{Number of organizations household is a member.}$$

The village level is:

$$O_{2001}^{-i,j} = \sum_{j=1, j \neq i}^{N_j} O_{2001}^i / N_j$$

By including both of these variables we are able to distinguish between the impact of the household itself joining an additional group versus the aggregate impact of a household joining an additional group, and the effects may be reinforcing or offsetting. So, suppose there were a linear relationship between a governance indicator as reported by the *i*th household and the household's organizational activities and the organizational activities of all other households in the village (and K other variables in the matrix Z):

$$GI_{i,j} = \mathbf{a} + \mathbf{b}_p * O^i + \mathbf{b}_s * O^{-i,j} + \Theta \mathbf{Z}_{i,j}$$

Suppose a household joins one additional group. The impact on the governance indicator reported by the household joining the group (the private impact of social activity) would just be \mathbf{b}_p because there would be no change in the “village less household” average for that household. For every other household in the village the impact is to raise the “village less household” average by $1/N_j$ so the impact is \mathbf{b}_s / N_j for each household (the social impact). Since there are N_j households the total village wide impact is just \mathbf{b}_s . This means that the total impact on the governance indicator of increased social activity is just the sum of the private and social impacts:

$$dGI_j / dO^i = \mathbf{b}_p + \mathbf{b}_s$$

In order to estimate the partial associations we want to control for each household for other variables that may influence both social activity of the household or village level governance (\mathbf{Z} 's). For instance, more educated households may both be more likely to be involved in organizational activity and may be better informed about government budgets

and hence the simple bivariate association between participation in organizational activity and information about local government may be confounded by other characteristics of the household.

The governance indicators will be voice (three indicators), information (two indicators), participation (two indicators), and government response (three indicators). For each of the ten governance outcome regressions below we include a set of household control variables and a set of kabupaten dummies (controlling for each of the five *kabupaten*—more on this below). So each regression will have the structure:

$$GI_{i,j} = f(O^i, O^{-i,j}, N^i, N^{-i,j}, M^i, M^{-i,j}, S^i, Z^i, R^j, \mathbf{e}_{i,j})$$

The regressions are not necessarily linear—in many cases the governance indicators are either binary variables (yes/no), in which case probit estimator will be used, or categorical variables, in which case ordered probit will be used. When probit estimation is used the marginal effects at the means will be reported, which mean the increase in the probability of the answer of “yes” by a household associated with a unit increase in the independent variable for the households along with the p-levels of the test the index function coefficient is zero.⁸

The household demographic and economic characteristics included in each regression are: (1) household consumption expenditures (as a proxy for household income), (2) education of the head of the household, (3) age of the household head, (4) whether the head of the household is a government employee, (5) whether the household head works in agriculture, (6) whether the household is headed by a female, and (7) size of the household (since many questions are “did any member of the household ...” the number in the HH could matter). To conserve on space the full results will only be reported for

the social variables and each table will only indicate which of the control variables are significant and the sign.

The dummy variables for regency are frequently important as there are substantial differences across the regencies. Ngada in NTT province, which is a predominantly Christian province (primarily Catholic), has a markedly different pattern of organizational activity (in table I.1 Ngada has more than twice the level of “organization” activity of any other regency). Controlling for this difference in levels implies that the effects are estimated only using the differences across households and villages within a regency—so that the explanation of impacts of the variables reported below cannot be because this or that regency is of some special social character. In the tables below Sarolangun Bangko is the default *kabupaten* and tables will only report when the regency average is significantly above or below Sarolangun Bangko.

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 avoids the pedantic repetition of phrases like “if these associations are causal the impact(effect) is ...”

II) Why not social capital?

Although this paper emerges from a literature about “social capital” we avoid the phrase in the analysis and instead focus on directly observable behaviors—e.g. memberships and participation in social relationships of various types. Although we do

⁸ See the endnote for a brief explanation of probit estimation.

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 objects (e.g. cars, pumps, buildings, hoes, etc.) which are not even in the same units owned by L different households, firms, and individuals could be meaningful. So aggregate capital in a village of L individuals with N possible objects is:

$$A.1 \quad K = \sum_{l=1}^L \sum_{n=1}^N w_{n,l} * T_{n,l}$$

Could it be the case that there is some aggregate, say profits, such that the impact on profits of an increase in the aggregate is exactly the same no matter which of the underlying items or persons. 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 $p_{k_1} \dots p_{k_n}$ are:

$$A.3 \quad I = \frac{p_q * \frac{\partial Q}{\partial K_{i,l}}}{p_{k_i}} = \frac{p_q * \frac{\partial Q}{\partial K_{j,l}}}{p_{k_j}} \quad \forall i, j, l$$

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

$$\frac{\partial \Pi / \partial K_{n,l}}{\partial K_{n,l}} = \frac{p_q * \partial Q / \partial K_{i,l}}{p_{k_i}} = \left(\partial \Pi / \partial K \right)$$

This is not to persuade that aggregates of physical capital are reliable. Rather, it is to demonstrate that there are some conditions in which *theoretically* aggregation *could be* exact. 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 the conditions for aggregation of physical "capital" and show how none of these conditions are met 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 are 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 behaviors are determined by a variety of considerations, of which household profit maximization in money units is just one, and 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 aggregation⁹. 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 with 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 an aggregate called “social capital” is prematurely reductionist—in the bad sense—it presupposes all types of conditions necessary for aggregation and hence

⁹ 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.

would be premature in assuming homogeneity in impacts both across types of social relations and outcomes.

In our case in particular there are good reasons to believe that organizations created by the government and those that arise from local initiative—even of the same type, such as women’s organizations—are unlikely to have the same impact on local outcomes. Since the government mandated groups were seen by many as a way of subverting local organization and control one could easily expect very different relationships between these and other types of organizations. Aggregating to “social capital” would forgo the possibility of examining that distinction.

III) Expression of discontent

Table III.1 presents the regression results between the indicators of social connections (sociability, membership in networks, organizations, government-mandated organizations) and the household’s views on village problems and their resolution.

The first column reports the regression that predicts whether someone in that household was involved in a “protest” (*pernah menyatakan ketidakpuasan – ever showing dissatisfaction*). The results on the non-social control variables suggest that households that are wealthier, younger, and work in agriculture or live in *kabupaten* Ngada are more likely to protest. The social variables tell an interesting story.

The strongest effect is that, all else equal, households living in a village where more people are members of the government-mandated organizations are substantially *less* likely to be engaged in a protest. The coefficient suggests that if the village average membership in these groups increased by one then the household would be 4.5 percentage points less likely to participate in a protest. Since the household with average

characteristics is predicted to have only an 8.9 percent chance of being involved in a protest this means that having more participation in government-mandated organizations *by all other* village members is associated with *halving* the odds the household will engage in any protest activity. The estimated effect of the household itself having membership in one additional governmental group is very small. The net effect of the small positive private effect and the large “chilling” social effect is that villages with larger activity in the government mandated organizations are substantially less likely to have protest activity.

This is in contrast to the pattern for membership in non-mandated organizations, in which the household being a member of more organizations *raises* the likelihood of being involved in protest activity (1.26 percentage points) *and* the impact of more people in the village being members of organizations is to raise the households likelihood of protest activity (2.83 percentage points)—although neither of these impacts are statistically significant. In this case the private social and social social associations move in the same direction: they raise the likelihood of protest.

Table III.1: Relationship between household and village social activities and “voice”—expression of discontent when there are problems.			
Independent variables	Someone in the HH involved in a “protest”	Household reports there was a problem in the village but there was no expression of discontent	Expression effectiveness—of those who report there was a problem with village leadership— A—if no expression of discontent B—if expression but no solution, C—if expression and solution
HH Organizations	.012 (.104)	.0054 (.643)	-.014 (.763)
Village (less HH) Organizations	.028 (.127)	-.056 (.037)**	.053 (.629)
HH Networks	.0017 (.629)	.0083 (.102)	-.033 (.133)
Village (less HH) Networks	.0032 (.754)	-.0004 (.971)	-.048 (.366)
HH gov’t-mandated	.0074 (.303)	-.026 (.013)**	.159 (.000)***
Village (less HH) Gov’t-mandated	-.045 (.021)**	.094 (.000)***	-.174 (.124)
N visits HH	.0046 (.032)**	-.004 (.103)	.0079 (.516)
Other controls (listed only if p-level<.10)	Y+ O- A+	F+ O- A+	S+ F- A-
Regency	Ngada(+)	Banyumas(-), Wonogiri(-)	Banyumas(+),Ngada(+)
R2 (or equiv)	.131	.052	.0585
N	1171	1171	587
Observed P	.122	.186	A--.368 B—.368 C--.262
Predicted P	.089	.174	A--.403 B--.359 C--.236
Estimation	Probit	Probit	Ordered probit
Reported	Marginal effects	Marginal Effects	Coefficients
<p><i>Notes.</i> 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 (*/**/***).</p> <p>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.</p>			

The second column predicts whether or not a household reports that there was a problem with the village leadership but there was no expression of discontent, which could be taken as an indicator of a lack of effective voice. Again, this variable shows the pattern of membership in the government mandated organizations between those who are

members themselves and the impact of others in the village. The estimates show that households who themselves were members of one additional government–mandated group were *less* likely (2.6 percentage points) to report there was a problem and no expression of discontent. In contrast, when a household lived in a village in which *other* households were more likely to be members of these groups, it was much *more* likely (9.4 percentage points) to report a lack of voice--that there were problems but no expression of discontent about those problems. The next effect of one additional person being a member of the government organizations in the village is an increase in the likelihood villagers will report a lack of voice by 6.8 percentage points, which means this outcome is 40 percent *more* likely (6.8/17.4) when there is *more* membership in government-mandated organizations.

The third column is somewhat trickier because we want to combine the information about problems, expression of discontent, and outcomes. In this case we use the responses of only those households that report there was a problem. For those households we define a variable that is in category A if there was no expression, category B if there was an expression but there was not a solution, and category C if there was a problem, discontent was expressed, and there was a solution. These are categories, not cardinal numbers, so we use an estimation technique called *ordered probit* that assumes only that categories are ordered (higher are “better”) but does not assume anything about the “distance” between categories¹⁰. Table III.1 shows that the private effect is positive—those households that are members of more government mandated

¹⁰ Unlike 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 does not assume that category 1 is higher than category zero by the same amount category 2 is higher than category 1.

organizations are more likely to report effective voice. However, the social impact is negative and larger in magnitude (although statistically insignificant). The marginal effects are even trickier for ordered probit, as because there are multiple categories the relationship between coefficients and changes across categories is not necessarily monotonic but table III.2 summarizes the impact by looking at the marginal effects for being in the highest category of effective voice¹¹.

Table III.2 summarizes the associations with voice for two of the social variables— participation in government-mandated organizations and in other organizations. The results are striking¹². Participation in government-mandated organizations in each case has strong effects of *reducing* the effective expression of voice by other villagers—a one unit increase in village less household membership in these groups reduces the likelihood of being involved in a protest by half (50.6%), increases the likelihood of reporting a problem and no expression of discontent by 54% and reduced the likelihood of reporting effective voice in the village by 20 percent. At the same time, a household’s participation in other organizations *raises* the expression of voice by both themselves and by others in the village. A one unit increase in village participation in such groups by other households *raises* the likelihood of being involved in a protest by 31 percent, reduced the likelihood of reporting problems with no expression by 32 percent, and raises the likelihood of reporting most effective voice by 6 percent.

What is striking is that not only are we able to establish a statistical association between social activity and voice, we can establish differences both between private and

¹¹ 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.

¹² We focus on these two because sociability was only once, and network activity never important.

spillover impacts and across types of groups to distinguish between government-mandated and other types of organizations.

Table III.2: Summary of effects of membership in government mandated organizations and other organizations on expression of voice in the village.							
	Predicted Probability	Marginal	% change	Marginal	% change	Marginal	% change
		Village (less HH) membership in gov't mandated		Household membership gov't mandated		Sum of the two effects for gov't mandated	
Involved in protest	0.089	-0.045	-50.6%	0.0074	8.3%	-0.0376	-42.2%
No expression, yes problem	0.174	0.094	54.0%	-0.026	-14.9%	0.068	39.1%
Most effective expression (problem, voice, solution)	0.236	-0.047	-19.9%	0.0427	18.1%	-0.0043	-1.8%
		Village (less HH) Membership in other organizations		Household membership in other organizations		Sum of the two effects for other organizations	
Involved in protest	0.089	0.028	31.5%	0.012	13.5%	0.04	44.9%
No expression, yes problem	0.174	-0.056	-32.2%	0.0054	3.1%	-0.0506	-29.1%
Most effective expression (problem, voice, solution)	0.236	0.0143	6.1%	-0.003	-1.3%	0.0113	4.8%
Notes: Marginal effects based on coefficients from regressions in table III.1.							

If we perform the same regressions as village averages we roughly reconfirm the above results, but also demonstrate the potential losses from focusing exclusively on village aggregated data, even in examining “social” impacts. Table III.3 shows OLS regression of village averages of the three reported voice variables on village averages of

the social and control variables¹³. In each case the sign of village average organizational activity is associated with higher expressions of voice. In contrast, village average participation in the government mandated organizations is associated with *less* voice. The magnitudes are roughly comparable with the sum of the two effects in table III.2-- government organizations are associated with 51 percent less protest in the averages while the household suggests 42 percent less. 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 for the effective voice variable suggest only a modest decline in the probability of being in the most effective category, the aggregates suggest an 18 percent reduction in “effective voice” (although this requires treating the categories as cardinal).

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

	Protest activity		Exists a problem but no expression		Effective voice	
	Coeff. (p-level)	% change, one unit	Coeff. (p-level)	% change, one unit	Coeff. (p-level)	% change, one unit
Organizations	.022	18.2%	-.029	-15.7%	.094	10.5%

¹³ 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.

	(.642)		(.704)		(.524)	
Network activity	.015 (.434)	12.4%	.0024 (.941)	1.3%	.026 (.685)	2.9%
Government mandated	-.062 (.081)*	-51.2%	.053 (.350)	28.6%	-.162 (.150)	-18.1%
Sociability	.003 (.813)	2.5%	-.027 (.164)	-14.6%	.0039 (.924)	0.4%
Control variables	None significant		F+, A-		Y-,F-,	
Regency	Ngada+		none significant		Included, none significant	
N	42		42		41	
R2	.612		.452		.569	
Adjusted R2	.388		.135		.311	
Note: N is greater than 40 because some of the villages had split since 1996.						

IV. Dissemination of information

The second dimension to examine is the relationship between household social activity and whether or not the household is informed about village activities and budgets. There are many reasons to suppose that all types of social activity could lead to larger information flows as more and increasingly varied contacts raise the chances of receiving information.

Table IV.1: Relationship between information dissemination and social activity		
	HH informed about all three (funds for development, use of village funds, program availability,	HH reports that all three are “more open” than four years ago
HH Organizations	.0099 (.495)	.020 (.071)*
Village less HH Organizations	-.015 (.651)	.012 (.663)
HH Networks	.016 (.008)***	.0083 (.103)
Village less HH Networks	.009 (.613)	-.023 (.120)
HH gov’t mandated	.041 (.001)***	.029 (.005)***
Village less HH gov’t mandated	-.085 (.009)***	-.036 (.176)
N visits HH	.005 (.166)	.006 (.039)**
Other controls	S+	GW+
Regency	Wonogiri(-)	None
R2 (or equiv)	.057	.058
N	1171	1171
Observed P	.338	.200
Predicted P	.327	.185
Estimation technique	Probit	Probit
Reported	Marginal effects	Marginal Effects
<p><i>Notes.</i> 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 (*/**/***).</p> <p>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.</p>		

Unlike with voice we do find modest evidence for impacts on household information of network activity at the household level and of sociability (especially in being “more open”). Both of these are consistent with “word of mouth” transmission of information among social friends and acquaintances.

Again, household participation in the government mandated organizations has the curious pattern of raising information for those who are members but “crowding out” information for others in the village. Households who are members of one additional government mandated organization are 4.1 percent more likely to report being informed.

But the spillover impact is even larger—households in villages where village (less HH) average membership is higher are 8.5 percent less likely. If interpreted causally this has the seemingly paradoxical conclusion that an individual joining a government mandated organization *reduces* the number of people in the village who are informed. So, rather than being modes of disseminating information broadly the government mandated organizations appear to have been a mode of disseminating information down but not necessarily out.

Table IV.2: Summary of effects of membership in government mandated organizations and other organizations on dissemination of information in the village.							
	Predicted Probability	Marginal	% change	Marginal	% change	Marginal	% change
		Village (less HH) membership in gov't mandated		Household membership in gov't mandated		Sum of the two effects for gov't mandated	
HH informed about all three	.327	-.085	-26.0%	.041	12.5%	-.044	-13.5%
HH reports all three "more open"	0.186	-.036	-19.4%	.029	15.6	-.007	-3.8%
		Village (less HH) Membership in other organizations		Household membership in other organizations		Sum of the two effects for other organizations	
HH informed about all three	.327	-.015	-4.6%	.021	6.3%	.0057	1.7%
HH reports all three "more open"	.186	.012	6.5%	.0099	5.3%	.022	11.8%
Notes:							

In contrast, the information on non-mandated organizations is somewhat more ambiguous. With regard to information being "more open," these organizations have both direct private and "crowd in" impacts—others joining organizations is associated with non-joining households reporting that information is now "more open." With the

level of information there appear to be positive private effects and modest “crowd out” effects with the net effect being a slight positive.

V. Participation in village decisions

In the survey participation in village decision-making was assessed in two activities. First, households were asked if they participated in planning village programs. Second, they were asked if they participated in determining the sanctions for violations at the village level. In both instances there were three responses: no participation, participation via giving opinion, and participation in making the decision. For the present results we combine the latter two categories as “some participation.”¹⁴

Table V.1 presents the probit regressions. Some of the covariates are significant, with household with higher schooling and government workers more likely to participate and female-headed households less likely to participate.

¹⁴ We also did ordered probit estimation with all three categories and the calculated marginal effects were quite similar. For instance, with probit the marginal effect on “some participation” for membership in government mandated organizations is .067 (see table IV.1) while the ordered probit marginal effect is .073.

Table V.1: Relationship between participation and social activity		
	Some participation in planning village projects	Some participation in determining sanctions
HH Organizations	.049 (.001)***	.025 (.011)**
Village less HH Organizations	-.007 (.832)	-.041 (.088)*
HH Networks	.008 (.228)	.005 (.249)
Village less HH Networks	-.005 (.779)	.0015 (.902)
HH Gov't mandated	.067 (.000)***	.031 (.001)***
Village less HH Gov't mandated	-.066 (.058)*	-.039 (.103)
N visits HH	.006 (.106)	.002 (.335)
Other controls	S+ F- GW+	S+ F- A+ GW+
Regency	Batanghari(-),Banyumas(-),Wonogiri(-)	Batanghari(-),Banyumas(-),Wonogiri(-)
R2 (or equiv)	.192	.172
N	1171	1171
Observed	.372	.185
Predicted	.344	.138
Estimation technique	Probit	Probit
Reported	Marginal effects	Marginal Effects
<p><i>Notes.</i> 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 (*/**/***).</p> <p>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.</p>		

In both cases, not surprisingly, household participation in the government mandated organizations raises the likelihood of participation. But again, there are important “crowd out” effects such that the likelihood of others in the village decreases. With non-mandated organizations the household effects are similar—belonging to organizations raises the likelihood of participation. In the case of village projects there are no “crowd out” effects while in the case of determining sanctions there appear to be some crowd out effects of organizational membership.

Table V.2 summarizes the impact in the same format as the results for voice and information—and the patterns are the same. Increasing membership in the government-mandated organizations does not raise total participation because the exclusion effects are as large as, or larger than, the direct effects. With determining sanctions, raising this type of membership is associated with a *reduction* in the number of people who participate in decision making. For membership in non-mandated organizations, both measures show a positive effect of households with more memberships also participating more in village decisions, but the spillover effects are of opposite signs for the two decisions. While for participation in planning the net effect is positive (the negative spillover effect is weak), the net effect is negative for participation in sanctions.

Table V.2: Summary of effects of membership in government mandated organizations and other organizations on participation in village decision making.							
	Predicted Probability	Marginal	% change	Marginal	% change	Marginal	% change
		Village (less HH) membership in gov't mandated		Household membership in gov't mandated		Sum of the two effects for gov't mandated	
Some participation in planning village programs	0.344	-0.066	-19.2%	0.067	19.5%	0.001	0.3%
Some participation in determining sanctions	0.138	-0.039	-28.3%	0.031	22.7%	-0.008	-5.6%
		Village (less HH) Membership in other organizations		Household membership in other organizations		Sum of the two effects for other organizations	
Some participation in planning village programs	0.344	-0.008	-2.2%	0.050	14.4%	0.042	12.2%
Some participation in determining sanctions	0.138	-0.042	-30.1%	0.026	18.6%	-0.016	-11.5%
Notes:							

Part of the explanation for the crowding out effects of household memberships on village participation in decisions is probably due to the method of decision-making. Rather than direct voting, which could theoretically accommodate the participation of all villagers in decisions, a consensus-based process (*musyawarah dan mufakat*) is often used. This method of discussion and consensus effectively puts an upper limit on the number of people that can be involved in decisions, as too much input and accommodation makes it impossible to reach closure on any matter. Therefore, higher participation by certain households in organizations that give them access to decision reduces the likelihood that others will get a chance to sit in the limited number of spaces at the decision-making table.¹⁵

VI. Government engagement in problem solving

Household survey respondents were asked whether a lot of villagers had recently experienced economic, social, or environmental problems. Households that reported such incidents in their community were asked about any response to these problems, and the involvement of different parties in any response. Using these data in combination with information on household and community participation in different types of organizations, we can analyze variations in village government involvement in addressing community problems.

¹⁵ This effect may also play a role in information dissemination, as the types of information used to measure awareness in the LLI study is likely to be shared at the same meetings at which decisions of government matters are made.

Table VI.1: Relationship between household and village social activities and government responsiveness.			
Independent variables	Village gov't responded to economic problems	Village gov't responded to social problems	Village gov't responded to environmental problems
HH Organizations	.012 (.172)	.047 (.064)*	-.005 (.753)
Village (less HH) Organizations	.011 (.616)	-.057 (.423)	-.033 (.456)
HH Networks	.003 (.452)	.025 (.045)**	.002 (.844)
Village (less HH) Networks	.015 (.283)	.077 (.074)*	.011 (.670)
HH Gov't mandated	.012 (.145)	-.013 (.639)	.028 (.100)*
Village (less HH) Gov't mandated	-.083 (.001)***	-.016 (.032)**	.134 (.004)***
N visits HH	.002 (.386)	-.016 (.032)**	.001 (.846)
Other controls (listed only if p-level<.10)	Y+ F- GW+	A-	S+ A+ GW+
Regency	Batanghari(-),Ngada(+)	Banyumas(-), Wonogiri(-)	Batanghari(+),Ngada(+)
R2 (or equiv)	.225	.104	.116
N	597	314	733
Observed P	.139	.401	.518
Predicted P	.076	.388	.523
Estimation	Probit	Probit	Probit
Reported	Marginal Effects	Marginal Effects	Marginal Effects
<i>Notes.</i> 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.			

The above table suggests government does not always get involved in addressing community problems and there are differences in how government involvement is perceived depending on the type of problem. For economic issues, the data indicate that households in communities where other people join government mandated organizations (but the household itself is not a member) did not perceive the village government as involved in addressing problems. In other words, community-members that are excluded from government-mandated organizations think village officers are unresponsive when economic issues emerge.

Table VI.2: Summary of effects of membership in government-mandated organizations and other organizations on perceptions of government responsiveness.							
	Predicted Probability	Marginal	% change	Marginal	% change	Marginal	% change
		Village (less HH) membership in gov't mandated		Household membership gov't mandated		Sum of the two effects gov't mandated	
Economic Problems	.076	-.083	-109.5%	.013	16.6%	-.071	-92.9%
Social Problems	.389	-.040	10.3%	-.013	-3.4%	-.053	-13.7%
Environmental Problems	.523	.134	25.7%	.028	5.4%	.163	31.1%
		Village (less HH) Membership in other organizations		Household membership in other organizations		Sum of the two effects for other organizations	
Economic Problems	.076	.012	15.8%	.012	15.1%	.024	30.9%
Social Problems	.389	.077	19.8%	.025	6.4%	.102	26.2%
Environmental Problems	.523	-.034	-6.5%	-.006	-1.1%	-.040	-7.6%

Notes: Marginal effects based on coefficients from regressions in table VI.1.

On the other hand, higher community membership in government mandated organizations leads to higher reports of government involvement in addressing environmental problems. For social problems, such as gambling, drugs, and crime, the level of participation in government mandated organizations does not affect the level of government involvement. Households that participate in other organizations, as well as those who are network members, believe government to be addressing these issues. Even community-members who are not themselves involved in networks, are likely to report a government response if other villagers participate in networks.

VII. Summary of the results

What are the results the data seem to support across the range of indicators?

Government mandated organizations. Household involvement with the government mandated organizations created as part of the village administrative apparatus has clear associations with the governance indicators.

- Households more deeply involved with the government mandated organizations report higher levels of voice, information access, participation and, not surprisingly, more responsive government. The *private* impact of engagement in that type of organizational activity is positive.
- The impact on their neighbors of greater involvement in the government mandated organizations is exclusionary—on nine of the ten indicators the estimated impact is negative. Households that live in villages where their *neighbors* report *higher* levels of engagement report *less* voice, *less* information, *less* participation, and *less* responsiveness of government. The *social* impact of activity in the government mandated organizations is negative—the “chilling” effect is consistent across the range of indicators.
- With positive private and negative social 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. The estimates of awareness of the village budget suggest that one household in the village *increasing* their participation in the government mandated organizations (which, at least in rhetoric, were created to channel information) *reduces the number of households in the village who know about the budget*. Even though the household is much more likely to know about the budget themselves their neighbors are each sufficiently *less* likely to know about the budget that the total number informed is estimated to go down as activity levels increase.

Other Organizations. The evidence on the impact of the non-mandated organizations—which cover all other social activities which have a membership and

leadership structure including both locally initiated and some government initiated groups—is more mixed.

- The private effect seems mostly positive—in seven of the ten indicators greater organizational activity is associated with higher reported levels of these indicators. The magnitude of these associations is more modest, the magnitude of engagement in one additional organization is smaller than of government mandated organizations in all cases by one, and is often less than half as large. This is not surprising, as the direct private impact on information and participation of those involved through the government organizations is by design.
- The evidence on the spillover impact of the non-mandated organizations is mixed. In about half the cases there is a positive social impact—so that participation by one household increases the likelihood that other households in the same village will protest, have effective voice, and makes it less likely that there will be problems with no expression of discontent. On the other hand, the impact on information dissemination is mixed and increased participation is associated with decreased participation by others.
- The sum of the private and social impacts of increased activity in non-mandated organizations is nearly always associated with better outcomes.

Table VII.1: Summary: The percentage change in the probability of various governance outcomes from unit changes in social activity showing social (village less household) and private (household's own) effects.

		Gov't mandated organizations			Other organizations		
		Social	Private	Net	Social	Private	Net
Voice	HH involved in protest	-50.3	8.3	-42.2	31.5	13.5	44.9
	No expression existing problem (positive sign means less voice)	<i>54</i>	<i>-14.9</i>	39.1	<i>-32.2</i>	3.1	-29.1
	Most effective voice	-19.9	<i>18.1</i>	-1.8	6.1	-1.3	4.8
Information	HH informed about budget	-26.0	<i>12.5</i>	-13.5	-4.6	6.3	1.7
	HH reports budget information "more open"	-19.4	<i>15.6</i>	-3.8	6.5	<i>5.3</i>	11.8
Participation	Some participation in village programs	<i>-19.2</i>	<i>19.5</i>	0.3	-2.2	<i>14.4</i>	12.2
	Some participation in determining sanctions	-28.3	<i>22.7</i>	-5.6	<i>-30.1</i>	<i>18.6</i>	-11.5
Gov't response	Economic Problems	-109.5	16.6	-92.9	15.8	15.1	30.9
	Social Problems*	-10.3	-3.4	-13.7	<i>19.8</i>	6.4	26.2
	Environmental problems	25.7	<i>5.4</i>	31.1	-6.5	-1.1	-7.6

Notes: derived from tables III.2, IV.2, V.2, VI.2.

Bolded items are estimates in which the direction of the effect is consistent with the hypothesis in the text.

Italics items are based on coefficients which are statistically significant.

* this is for network social activity.

Of course a caveat on the above summary is that this is just a summary of the point estimates and their magnitudes avoids the issue of statistical significance about which there are three points. First, we did not correct for possible within cluster correlation due to stratified sampling and hence the standard errors are potentially biased. Second, while the "cluster less household" is household specific there is substantially reduced variation (essentially one observation per village) and hence the standard errors

are typically much larger for those estimates than for private effects for which there are effectively many more observations. Third, in the table above we indicate which estimates are based on statistically significant coefficients, but most 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 phenomena under investigation and the data. For instance, the summary table reports that village less household activity in government mandated organizations reduces participation in village planning by 19 percent (-.066/.344) and the underlying coefficients p-level is .058 and hence is “statistically significant” at the 10 percent level while participation in determining sanctions 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.

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 piece is just one small part of the critically important puzzle of how to create open, effective, and accountable local governance. This work extends the earlier empirical work demonstrating the “top down” realities of the village administrative structure (Evers 2000) and previous empirical work from the first round of the LLI demonstrating the vibrancy of the local endogenous institutions even before the political changes (Chandrakirana 2000). Together they demonstrate the dangers of relying solely on the

existing administrative structures without efforts to broaden the range of participation, disseminate information more broadly, and raise the ability of existing groups to have effective voice in local decision making.

The on-going decentralization is a change from past practice, in that it allows room for the development of local governance structures, without imposing a uniform set of administrative organizations. The data presented here support the principles of this approach, by showing that the government-mandated structures of the past did not represent the community, as intended, but instead limited voice, information, and participation in government affairs.

The empirical findings would, however, predict the same outcome for the new, more open, but still mandated structures that were created as part of decentralization. The Village Representative Councils (*Badan Perwakilan Desa*, or BPD) that were designed to replace the LMD are likely to be as exclusionary as their predecessors, as these organizations are still externally imposed. The qualitative data from the LLI2 study support this prediction – in many of the villages where these councils have been elected and begun work, villagers report members as secretive and uninvolved in other village activities.¹⁶

On a broader level this empirical work extends the literature on “social capital” by demonstrating 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.

¹⁶ For more on the qualitative results of the LLI2 research, see

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[to be completed]

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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):
 $y^* = \mathbf{b}' * X + \mathbf{e}$, $y = 1$ only if $y^* > 0$.

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

$$\text{Pr ob}(y = 1) = \text{Pr ob}(\mathbf{b}'X + \mathbf{e} > 0) = \text{Pr ob}(\mathbf{e} < \mathbf{b}'X) = \Phi(\mathbf{b}'X)$$

Where F is the cumulative normal distribution. The coefficients of the probit regression are the β 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_1 is:

$$\frac{\partial \text{Pr ob}[y = 1]}{\partial x_1} = \mathbf{f}(\mathbf{b}'X) * \mathbf{b}_1$$

where \mathbf{f} is the normal frequency distribution. The impact of x_1 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.