

## Targeting Efficiency:

How well can we identify the poorest of the poor?

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## **Abstract**

In this study, we evaluate how well various systems for identifying and targeting assistance to the poorest of the poor actually identify the poorest. Firstly, we consider the methods used to identify households eligible for participation in assistance programs administered by the Indian government. Secondly, we evaluate Participatory Rural Appraisals (PRAs) as a mechanism to identify exceptionally poor households. Finally, we investigate whether additional verification of information gathered in PRAs improves targeting. For each method of targeting, we examine whether the households identified by that process are more disadvantaged according to several measures of economic well-being than households which were not identified. We conclude that PRAs and PRAs coupled with additional verification successfully identify a population which is measurably poorer in various respects, especially those which are more readily observed. The standard government procedures, however, do not appear to target the very poorest for assistance. Based on this sample, households targeted for government assistance are observationally equivalent to those that are not.

# 1 Introduction

Nearly all poverty alleviation programs target a particular sub-population. This feature is most readily apparent in programs designed to aid those who have suffered a particular tragedy, such as grants to widows of debt-ridden Maharashtra farmers, but is also generally true of large, broad based development interventions. Conditional and unconditional cash transfer programs, for example, are also designed to reach specific households, such as the most impoverished or households with school children. At first blush, this may seem unremarkable and not to warrant particular consideration. But effective identification of the target population is crucial to the success of aid programs which operate with limited resources. If, for instance, households which are adequately nourished are identified as eligible for subsidized food, the program is unlikely to significantly reduce malnutrition. Given that several countries have begun large scale cash transfer programs, the issue of effective targeting has become especially important.

When the targeted population is not distinguished by a well-defined, observable trait, however, identifying members of that population may be complicated. Evidence suggests that the targeting efficiency of aid programs is less than perfect. A report by the Indian National Sample Survey Organization, for example, found that 18% of the wealthiest 20% of the rural population (ranked by monthly per capita expenditure) held Below Poverty Line (BPL) rationing cards.<sup>1</sup> The

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<sup>1</sup>National Sample Survey Organisation (NSSO), Ministry of Statistics and Programme Implementation. Report No. 510 “Public Distribution System and Other Sources of Household Consumption, 2004-05.” Summary at: [http://mospi.nic.in/press\\_note\\_510-Final.htm](http://mospi.nic.in/press_note_510-Final.htm)

imperfect track record of such expansive development projects makes effective targeting not only important but controversial.

Part of the debate about targeting revolves around which methods should be used, in particular whether these methods should rely on administrative data or on information generated through participatory processes. In this study we assess the relative performance of administrative and participatory methods in identifying the poorest of the poor, who may be particularly marginalized and difficult to single out. Importantly, we conduct this analysis on the same sample, allowing us to make a direct comparison between the two methods.

Firstly, we consider the targeting efficiency of various assistance programs operated by the government of India, which are targeted using an administrative census. We find that the methods used to identify eligible households do not particularly target the very poorest. Since our sample is drawn from the lower economic spectrum, we can not evaluate the overall targeting efficiency of these programs, but we find that within this group of households, those who actually receive government assistance do not appear worse off, according to our measures of poverty, than households which do not.

We also evaluate the targeting efficiency, in terms of identifying the very poorest segment of the population, of Participatory Rural Appraisals (PRAs) which are a popular alternative to census methodologies. PRAs are widely practiced by NGOs, both within India and internationally, when conducting development interventions. Increasingly, PRA methodologies are used to identify beneficiaries for assistance programs. Consequently, it is important that the

information collected from a PRA accurately reflects the conditions within the village where it was conducted.

Other studies provide evidence suggesting that certain types of information, such as the presence of village infrastructure (e.g. water systems) or students' needs for scholarships, can accurately be obtained using PRAs (Chattopadhyay and Duflo, 2001; Duflo et al. (2008); Chambers, 1994). In this study we assess whether PRAs reliably rank village residents according to economic status.

Using data generated in PRAs conducted by Bandhan, a Kolkata-based microfinance institution, we evaluate how well measures of poverty collected in a detailed household survey accord with the evaluation of poverty established by the PRA. Since the information collected in the PRA is used to identify households eligible for a program to enable the poorest of the poor to access microcredit, targeting the most poor households is crucial in this context. Along some dimensions of poverty, notably consumption and expenditure, the results are imprecise; it does not appear that per capita consumption among those identified as poor in the PRA is less than among those not so classified. The analysis does reveal, however, that those ranked as most poor in the PRA are in fact poorer than others in terms of observable characteristics such as land and asset ownership. They also have less access to credit.

As Bandhan's process incorporated additional verification of the information collected in the PRA, we also assess the extent to which this verification improves targeting. Our results indicate that further verification successfully narrows in on a group which appears poorer in various respects, particularly

land ownership.

A limitation of this analysis is that, although comprehensive and detailed, our household survey is not an error-free measure of economic well-being. Consumption and expenditure, for example, is not always reliably measured with household interviews (see e.g. Deaton 1997). Moreover, poverty can be defined in various ways; the indicators collected in this survey are only one way of doing so and are not necessarily perfectly aligned with the definition of poverty established in a PRA. Finally poverty is dynamic, low consumption today is not always indicative of long term deprivation. As community members have long-term relationships, it is possible that participatory targeting methods capture more of the dynamic element of poverty than our household survey. Notwithstanding these concerns, we are able to assess how classification as impoverished through various targeting techniques correlates with important indicators of poverty captured in our survey, such as land holdings and credit access. Moreover, this study is able to contrast census and participatory methods by comparing them to an equivalent external benchmark of poverty.

This study is closely related to Alatas et al. (2009) who contrast the targeting performance of census techniques and participatory community wealth rankings in Indonesia. Their findings indicate that participatory methods do not identify a poorer population in terms of consumption and suggest that community members may perceive poverty along other dimensions. The results presented here coincide with those of Alatas et al.; we find that PRAs identify a population which does not appear worse off in terms of consumption but which

is poorer according to other important poverty metrics, suggesting that PRA rankings accord with multiple dimensions of economic well-being and can serve as the basis for targeting.

## 2 Data

In order to improve their targeting process, Bandhan requested that we do a study to assess how effectively they were identifying the poorest households in each village, or the “Ultra Poor.” To accomplish this we conducted a detailed survey among those not identified as Ultra Poor as well as among those identified as Ultra Poor in a sample of villages where Bandhan operates.

Initially, the surveying team conducted a census of all households in the village. Each household was classified on a 1-5 scale along several characteristics, such as land holdings, quality of house, ownership of assets, educational achievement, employment status and access to credit. This census utilized similar classification criteria as the government administered BPL census, which is intended to identify the population living below the poverty line and determine who is eligible for certain government assistance programs.

In line with our objective to understand the feasibility of identifying the very poorest of the poor, the sampling frame was restricted to the poorer population within the village. To be considered for our survey, a household must meet one of the following requirements: own less than 1 acre of irrigated land or less than 2 acres of non-irrigated land, not live in a pucca house (i.e. one made of brick,

stone or concrete), own less than 4 articles of clothing, and own none or only one durable household good.<sup>2</sup>

Of 1,757 households enumerated in the economic census, 605 satisfied the criteria above. From this restricted list, a random sample of households was selected and administered a survey similar to that given to households identified as Ultra Poor by Bandhan. This survey was conducted among 178 households in five villages. Table 1 shows a breakdown of this sampling by village.

Among these surveyed households, 48 were not enumerated in the PRA conducted by Bandhan. That the PRA process fails to enumerate some households which are relatively worse off (as determined by the economic census) is indicative that it may be especially difficult to identify the poorest of the poor within a village. For the purposes of this study, however, we restrict our analysis to the households appearing in the PRA list since we are interested in making comparisons across targeting mechanisms, including the additional verification done by Bandhan, which was only done for those households appearing in the PRA. Our final dataset contains 215 households, 93 were identified as Ultra Poor by Bandhan and 122 were identified as impoverished by the economic census but not classified as Ultra Poor by Bandhan.<sup>3</sup>

Table 2 provides summary statistics for our entire sample as well as separately according to whether households were identified as Ultra Poor by Band-

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<sup>2</sup>The items considered were: computer, telephone, refrigerator, husking machine, color television, electric cooking appliances, costly furniture, LPG (gas) connection, light motor vehicle or commercial vehicle, tractor, two or three wheeler, motor van, power driven tiller.

<sup>3</sup>Eight of the surveyed households from the economic census were under consideration by Bandhan and were subsequently verified as eligible to receive a grant. Thus the number of non Ultra Poor households in the sample is 122 (170-48) rather than 130 (178-48). These households are included in the figure of 93 identified as Ultra Poor.

han or not. As might be expected given the mandate of Bandhan's identification process and the sampling design of the additional survey, this is a relatively poor population. The mean per capita monthly average expenditure is Rs. 425 (Rs. 14 per day or \$1.25 in PPP adjusted 2006 U.S. dollars). Average monthly per capita expenditure on food and fuel is Rs. 302 (Rs. 10 per day or \$0.89 in PPP adjusted 2006 U.S. dollars). For both measures of consumption, approximately half the sample population spends less than one dollar a day and nearly all the population spends less than two dollars a day.

Other variables conform to what one would expect in this sample. Mean land holdings are 5.6 katthas (approximately 0.11 acres). In addition 21% of the sample is landless. While 46% of households have obtained loans, only 8% obtained credit from a formal source.<sup>4</sup> As well as being poor, this population lacks education; average completed years of education per household member is 1.2 years and 25% of households have school aged children (5-14 years old) out of school.

This is also a vulnerable population; only 67% report that everyone in the household regularly eats two meals a day, approximately half of those surveyed report having experienced a medical shock in the last year, 22% suffered a medical shock requiring institutional care and 41% suffered an economic shock.<sup>5</sup>

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<sup>4</sup>A formal source is defined as a commercial bank, government bank, self-help group or a cooperative. Informal sources include family members, friends, neighbors, moneylenders and shopkeepers.

<sup>5</sup>A medical shock is defined as having spent more than Rs. 500 (44 PPP adjusted 2006 \$U.S.) on any one household member's medical care. A medical shock requiring institutional care is defined as having spent more than Rs. 500 (44 PPP adjusted 2006 \$U.S.) on institutional medicine in the last year. An economic shock is defined as any of the following occurring in the past year: house was severely damaged, livestock became ill, livestock died, conflict/dispute/legal case, or theft.

Moreover, to the extent that receipt of assistance is an indication of need, this is a needy population. Two thirds report receiving assistance from one of the government programs listed in the questionnaire (such as Below Poverty Line rationing, subsidized housing or participation in employment generating schemes). Figures for the most common assistance programs are reported separately in Table 2.

## 2.1 Empirical Strategy

In what follows, we are primarily concerned with the difference in some numerical measure of poverty or economic status, denoted  $y$ , between sub-groups. These groups will be households receiving some form of government assistance and those that do not, households identified as poor in the PRA and those that are not or households identified as Ultra Poor by Bandhan and those that are not so identified. Letting  $D_i$  be an indicator variable that household  $i$  receives a certain form of government aid or that the household was identified as poor in the PRA or was identified as Ultra Poor, we estimate the following equation

$$y_{iv} = \beta D_{iv} + \alpha_v + \varepsilon_{iv} \tag{1}$$

where the subscript  $v$  indicates villages. In some specifications we include household covariates,  $X_{iv}$ , in addition to the village fixed effects,  $\alpha_v$ . The parameter of interest is  $\beta$ , which measures the mean difference in  $y$  between those who are somehow identified as poor and those that are not after removing

the effect of common village level determinates of  $y$ .

In addition to assessing whether having been identified as poor coincides with differences in measured indicators of poverty, we are also interested in which particular factors are correlated with a household being classified as impoverished, either by a government program, by their peers in the PRA or by Bandhan. To answer this question we take  $D_{iv}$  as the outcome of interest and investigate how it correlates with various household characteristics. We estimate the following linear probability model

$$D_{iv} = \delta Z_{iv} + \gamma \mathbf{X}_{iv} + \alpha_v + \eta_{iv} \quad (2)$$

where  $Z_{iv}$  is a variable hypothesized to determine the perception of poverty, such as the presence of able bodied earners, receiving official government aid or having suffered a serious health shock, and  $\mathbf{X}_{iv}$  is a vector of household characteristics including per capita average expenditure, land holdings and the number of household members.

### **3 Targeting Efficiency of Government Aid Programs**

Since our survey inquired about receipt of assistance from various government poverty alleviation programs, we are able to assess to what extent this aid reaches the poorest segment of the population. By design, all households in

our sample are drawn from the bottom of India's economic spectrum. While these government programs are not explicitly designed to target the very poorest of the poor, to the extent that they are intended to benefit impoverished households we should expect that either the poorest within our sample overwhelmingly receive this aid or that all households in our sample do. As is evident from Table 2 the latter case does not appear true; for instance only 30% receive BPL rationing and 10% have an Antodaya card (variables which indicate participation in government food assistance programs).

Targeting for many government aid programs is based on the BPL census, conducted by the government to identify those households living below the poverty line. This census, however, has been criticized for systematic exclusion of extremely poor households. Moreover, there are concerns that the final lists of BPL households are directly manipulated to include non-poor households (Mukherjee, 2005). Jalan and Murgai (2007) find that many households who are below the poverty line according to consumption measures are incorrectly classified by the BPL census.

To assess the efficiency of this targeting process in these villages, we contrast the features of those who participate in government programs and those who do not. Specifically, we estimate (1) where  $y_{iv}$  is taken to be per capita expenditure<sup>6</sup>, land holdings, house size, whether members eat two meals a day, access to credit, self-classification of financial condition, an index of asset holdings based on principal component analysis of durable goods and livestock holdings or an

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<sup>6</sup>Replacing the level of expenditure with the logarithm of expenditure does not substantively change the results discussed below.

indicator for the presence of an able bodied male adult in the household.

In particular, we perform this comparison separately for four government aid programs by letting  $D_{iv}$  be an indicator that the household receives BPL rationing, receives Antodaya rationing, participates in the Indira housing program or participates in an employment generating scheme. The BPL and Antodaya programs provide a card which entitles households to purchase subsidized food and fuel at ration shops. BPL cards are intended for those living below the poverty line while Antodaya cards are intended to go to exceptionally poor households. The Indira housing program (Indira Awaas Yojana) evolved into its present form by 1996, the goal of this program is to improve housing for the disadvantaged rural population. To this end grants are distributed to build or repair homes and, in some cases, loans are facilitated for these purposes. Preference for the Indira housing program is supposed to be given to those identified as below the poverty line by the government BPL census (Jalan and Murgai, 2007). Preference may also be given to widows of servicemen.

The National Rural Employment Guarantee Act (NREGA) was launched in 2005. The mission of NREGA is to provide “at least one hundred days of guaranteed wage employment in every financial year to every household whose adult members volunteer to do unskilled manual work and for matters connected therewith or incidental thereto.”<sup>7</sup> Participation in the program requires registration with the Gram Panchayat (local official) to obtain a job card. Holders

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<sup>7</sup>The National Rural Employment Guarantee Act of 2005. Retrieved from: The Gazette of India, New Delhi , Wednesday, September 7 2005 pp:1. <http://rural.nic.in/rajaswa.pdf> [viewed October 2007]

of this card become eligible to apply for jobs allocated under the program.

According to our results, the population which receives assistance from these programs is not statistically different, with respect to our poverty indicators, from the population which does not. Table 3 presents the results. For recipients of BPL rationing we find that these households are slightly more likely to have an able bodied adult male member, which is the opposite of what might be expected if this program targeted particularly disadvantaged households. We are unable to reject that the means between those that receive BPL rationing and those that do not are equal for any other indicator of poverty. Moreover, some of these coefficients take the opposite sign than would be expected. Comparing households which have Antodaya cards with those that do not we can not reject that the means between the groups are equal for any outcome.

There is at least the suggestion that households which have received work from an employment generating scheme are poorer than others. The coefficient on participation in this program enters with the predicted negative sign when any of the expenditure measures are taken as the left hand side variable, although no coefficient is significant at the 10% level. The results also suggest that these households own an average of 4.3 katthas (0.09 acres) less land, a difference which is significant at the 10% level. We also find that these households are more likely to include an able bodied male member. These results may be driven by the fact that there is also a component of self-selection in employment generating programs. Since benefits require work, only households who are poor enough to lack more attractive work opportunities will take up

these programs. Mukherjee (2005) notes the potential of self-selecting programs to overcome barriers, whether political or logistical, to effective targeting.

In terms of consumption, only with respect to per capita non food expenditure do beneficiaries of the Indira housing program appear statistically different (at the 10% confidence level) from their peers. Also, beneficiaries are less likely to have an able bodied male in the household, indicating the targeting of widows was likely effective. No other measure is significantly different between recipients and non-recipients.

Perhaps owing to the failures of censuses to identify poor households, many organizations have turned to other methods. A particularly popular method used for ascertaining the economic status of households is the Participatory Rural Appraisal (PRA). Indeed, Mukherjee (2005) draws on information gathered in PRAs to evaluate the targeting efficiency of the BPL census. The PRA process was pioneered in the 1980's and 90's, largely by government and non-government organizations in Kenya and India. By 1997, the practice had spread globally; PRA activities had been conducted in over 30 countries, both developing and developed, by the end of 1996. In India, PRA methods have been used by numerous NGOs as well as by several government agencies.<sup>8</sup> International organizations, such as USAID, Save the Children and Care International, also employ PRA methods in conducting their operations.<sup>9</sup> In light of the target-

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<sup>8</sup>Chambers, 1997. p.114, 248.

<sup>9</sup>Burde, Dana. Save the Children's Afghan Refugee Education Program in Balochistan, Pakistan, 1995- 2005 2 Report, 2005 <http://www.savethechildren.org/publications/technical-resources/education/pakistan-afghan-refugees-education-project-report-9-26-05.pdf> [viewed October 2007]; [http://www.usaid.gov/regions/afr/success\\_stories/ghana.html](http://www.usaid.gov/regions/afr/success_stories/ghana.html)[viewed October 2007]; <http://www.care.org/careswork/projects/ETH051.asp> [viewed October 2007].

ing process used by Bandhan, we evaluate the accuracy with which PRAs can identify especially poor households. Before proceeding, however, we provide an overview of Bandhan's assistance program and the specifics of the process used to identify beneficiaries.

## **4 Analysis of Bandhan's Identification Process**

### **4.1 Overview of Bandhan's "Targeting the Ultra Poor"**

In light of evidence that microfinance does not reach the poorest of the poor (Morduch 1999, Rabbani, et al. 2006) various initiatives have begun which aim to "graduate" the poorest to microfinance. The intervention operated by Bandhan is intended to ease credit constraints for exceptionally poor individuals by helping them establish a reliable income stream which can be used to service loan payments.<sup>10</sup> To that end, Consultative Group to Assist the Poor (CGAP) provided \$30,000 as grants for the purchase of income generating assets to be distributed to households identified as "Ultra Poor." Grants of \$100 were distributed to 300 beneficiaries residing in rural villages in Murshidabad, India (a district north of Kolkata) by Bandhan. The design of this program was based on the pioneering work of BRAC, a Bangladeshi development organization. For several years, BRAC has been distributing grants through its "Challenging the Frontiers of Poverty Reduction-Targeting the Ultra Poor" (CFPR-TUP) program with the aim of helping the absolute poorest graduate to microfinance.<sup>11</sup>

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<sup>10</sup>The impact of this intervention is the subject of an ongoing study by the authors.

<sup>11</sup>BRAC website <http://www.brac.net/cfpr.htm> [viewed October 2007].

Working in close consultation with BRAC, Bandhan developed the criteria to identify the Ultra Poor.

The initial phase of the intervention consists of Bandhan identifying those eligible for the grants; the poorest of the poor within each village. An average of 17 households were identified as Ultra Poor in each village. Following identification, half of the potential beneficiaries were randomly selected to receive assets. Rather than transferring cash, Bandhan procures assets, such as livestock or inventory, and distributes them to beneficiaries. The grants are also used to finance other inputs, such as fodder and sheds to house the animals. Eighteen months after receipt of the asset, the beneficiaries will be eligible for micro-finance provided by Bandhan.

## **4.2 Details of the Identification Process**

To make the concept of “Ultra Poor” operational and define the targeted population, Bandhan used a set of criteria adapted from those used by BRAC in their CFPR-TUP program. Firstly, an eligible household must have an able-bodied female member. The rationale for this requirement is that the program is intended particularly to benefit women<sup>12</sup> and any benefit accruing from the grant requires that the beneficiary be capable of undertaking some enterprise. The second mandatory requirement is that the household not be associated with any microfinance institution (in keeping with the aim of targeting those who lack

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<sup>12</sup>While the majority of beneficiaries are female, some men were identified as eligible under special circumstances such as physical disability.

credit access) or receive sufficient support through a government aid program.<sup>13</sup>

In addition to these two criteria, eligible households should meet three of the following five criteria: the primary source of income should be informal labor or begging, land holdings below 20 decimals (10 katthas, 0.2 acres), no ownership of productive assets other than land, no able bodied male in the household and having school-aged children working rather than attending school.

To identify those households satisfying this definition of Ultra Poor, Bandhan utilized a multi-phase process. The initial task is to identify the poorer hamlets in the region. Since Bandhan has operations in Murshidabad, this is accomplished by consulting with local branch managers who are familiar with the economic conditions in these villages.

In the second phase, Bandhan conducts Participatory Rural Appraisals (PRAs) in particular hamlets of selected villages to identify the subset of the population most likely to be Ultra Poor. To ensure that the PRA includes a sufficient number of participants, Bandhan employees enter the hamlet on the day prior to the PRA; they meet with teachers and other local figures to build rapport with the residents, announce that the PRA will occur on the following day and encourage participation. Bandhan aims for 12-15 PRA participants, but often the figure is as high as 20. Moreover, they encourage household members from various religions, castes and social groups to attend.

In this particular context, the PRA consists of social mapping and wealth

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<sup>13</sup> “Sufficient support” was determined on a case-by-case basis by Bandhan; while many of the households they identified as Ultra Poor participate in some government aid program, they determined that this assistance was not sufficient to alleviate the poverty of the household.

ranking, following a sophisticated process to identify the poor. At the outset, the main road and any prominent hamlet landmarks (temples, mosques, rivers, etc.) are etched into the ground, usually in front of a central house in the hamlet. Subsequently the participants enumerate each household residing in the hamlet and mark the location of the households on the hamlet map. For each household, the name of the household head is recorded on an index card.

In the wealth ranking stage, the index cards are sorted into piles corresponding to socioeconomic status. To accomplish this, Bandhan's employees select one of the index cards and inquire about that household's occupation, assets, land holdings and general economic well-being. They then take another card and ask how this household compares to the prior household. A third card is selected, classified as similar in wealth to one or the other of the prior households and then whether it is better off or worse off than that household. This process is continued until all the cards have been sorted into piles, usually 5 of them, corresponding to poverty status (the fifth pile representing the poorest group). Often a large percentage of the cards end up in the fifth pile, in which case these households are sorted in a similar manner into two or more piles.

PRA participants are involved in determining what criteria constitute a disadvantaged household, relative to their neighbors, within that particular area. Additionally, the relative socioeconomic status of a given household, which determines into which pile they will be sorted, is established through the discussion of participants. Based on the belief that a lively discussion among many people will generate the most precise definition of (relative) poverty and facilitate accu-

rate wealth ranking, Bandhan attempts to include the voices of many villagers in the discussions. Anecdotally, however, it is sometimes the case that a few prominent voices dominate the PRA process and largely determine the ranking of households. A potential concern is that these persons may misrepresent the socioeconomic status of certain households (for example friends, relatives or households favored by that individual) in the expectation that the households identified as most disadvantaged will receive some assistance. Although Bandhan does not reveal the details of the intervention at the time of the PRA<sup>14</sup> there may be an implicit association between PRAs and future development programs.

Following the PRA, Bandhan selects the households assigned to the lowest few ranks, progressively taking higher categories until they have approximately 30 households. In the second phase of their identification process a Bandhan employee visits these households to conduct a short questionnaire. The questionnaire pertains to the criteria for Ultra Poor classification; inquiring about the presence of an able-bodied woman, the presence and ability to work of a male household head, land holdings, assets, NGO membership and so on. Based on the information collected in this survey, Bandhan narrows its list of potentially Ultra Poor households in that hamlet to 10-15.

In the final stage of the process, the project coordinator, who is primarily responsible for administration of this program, visits the households. He verifies the questionnaire through visual inspection and conversations with the house-

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<sup>14</sup>The stated intent of the PRA is simply to assess the economic situation of the villages for research purposes.

hold members. Final identification as Ultra Poor is determined by the project coordinator, according to the established criteria and his subjective evaluation of the households' economic situation.

### **4.3 Analysis of the PRA Process**

Using data collected from the PRAs carried out by Bandhan, we are able to investigate the extent to which the use of a PRA can improve targeting by identifying the sub-population of interest. For each household in our sample, we observe the wealth rank (corresponding to the pile of index cards into which that household name was sorted) determined by the PRA. These ranks range from 1 to 6, representing categories classified as “very rich”, “rich”, “average”, “poor”, “very poor” and “exceptionally poor.” A lower rank corresponds to richer households. In Panel A of Table 4 we investigate how those identified in the PRA as “very poor” or “exceptionally poor” (PRA rank of 5 or 6) compare to those with a PRA rank below 5. Specifically we regress the indicators of poverty obtained in the household survey on a dummy indicating PRA rank of 5 or 6 and a set of village dummies. From the perspective of targeting, it may be less of a concern if those ranked as “very” or “exceptionally” poor are not especially different from those classified as “average” or “poor” but more concerning if they were not observably poorer than those ranked as rich. Comparing only the highest ranked to the lowest ranked households, however, generates qualitatively similar, but predictably amplified, estimates to those discussed below.<sup>15</sup>

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<sup>15</sup>In particular, comparing those with a PRA rank of 5 or 6 only to those ranked 1,2 or 3 or only those ranked 1 or 2 amplifies the results pertaining to land holdings, assets, self-

Those assigned a high PRA rank appear poorer than others in several important respects. For one thing, these households tend to have substantially less land than others. On average, very or exceptionally poor households own 6.3 katthas (0.13 acres) less land. The coefficient is statistically significant at the 1% confidence level and the magnitude of the point estimate is substantial; this difference represents 75% of mean land holdings among those not identified as Ultra Poor (8.4 katthas).

Figure 1, which plots the cumulative distribution functions (cdfs) of land holdings separately for those ranked very or exceptionally poor in the PRA and those given a lower rank, confirms these results. A statistical test (Abadie, 2002) indicates that the distribution of households ranked 5 or 6 in the PRA stochastically dominates the distribution of those given a lower rank ( $p\text{-value} < 0.01$ ), meaning that for a given level of land holdings a higher percentage of those ranked 5 or 6 own less than that quantity of land than the corresponding percentage for those ranked 1-4. The advantage of this comparison relative to the regression analysis is that it reveals differences between the two groups that are unaffected by a few exceptionally large landowners; focusing on the population with low values of land holdings, the figure reveals that those ranked 5 or 6 tend to own even less than others.

We also find that these households are poorer in terms of asset holdings: when our index of durable goods and livestock is taken as the left hand variable the coefficient on the PRA rank dummy is negative and significant at the 1%

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classification of financial status and credit from a formal source. The results pertaining to other outcomes are generally unchanged.

confidence level. While these households do not appear to be any less likely to have taken loans, they are 11% less likely to have obtained loans from a formal source, a difference which is also significant at the 1% confidence level. The table also indicates that these households are 17% less likely to report regularly eating two meals a day. This coefficient is significant at a 5% confidence level. While not statistically different from zero, our point estimates suggest that this group lives in smaller homes and self-classify their financial situation as worse than their lower ranked neighbors. When we consider our various measures of expenditure, the coefficients take the unexpected, positive, sign; but none of these coefficients are statistically distinguishable from zero.

Differences in per capita expenditure, however, are not entirely informative when the outcome of interest is not expenditure itself but the economic well-being implied by an expenditure level (Olken 2003). One issue is with equivalence scales; certain household members, such as the elderly, may require only a fraction of the expenditure required by others to achieve the same level of well-being (nutritional status for example). Furthermore, per capita variables do not account for economies of scale (it may be cheaper per capita to feed or clothe a large family) and public goods (a radio, for example, benefits all members although the per capita cost is higher in a small household). In light of these considerations, we re-run the regressions while controlling for household size, and present these results in Panel B of Table 4.<sup>16</sup> When considering food and fuel expenditures and total expenditures less institutional medical expendi-

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<sup>16</sup>The results are similar using the equivalence scales reported in Meenakshi and Ray (2002).

tures the coefficient on the PRA rank dummy now takes the expected negative sign, although the estimates are not significant at the 10% confidence level. When total expenditures or non-food expenditures are taken as the left hand side variable, the coefficients remain positive but are drastically smaller. The statistically significant and negative coefficient on the number of household members indicates that expenditure per capita falls as household size increases, which is indicative of economies of scale in household consumption. These results suggest that when averaging across households of all sizes those ranked very or exceptionally poor appear to spend more per capita. When comparing two households with the same number of members, however, the households ranked poorer appear to spend less per capita (with respect to food and fuel expenditures and total expenditures less institutional medical expenditures).

As a robustness check, we also controlled for total household members when considering other indicators of poverty which should not necessarily be impacted by household size (land holdings, credit access, etc.). When considering these other variables the estimated differences between those ranked very or extremely poor and those ranked richer do not change appreciably.

These expenditure patterns are illustrated visually in Figure 2 which shows the cdfs for per capita total expenditure, food expenditure, non-food expenditure and total less institutional medical expenditure for the two groups. The divergence of the cdfs for higher levels of expenditure when considering non-food expenditures suggests that higher expenditure and higher PRA rank could both be driven by an omitted variable. For example, an economic shock to the

household could simultaneously increase expenditures and also cause villagers to view the afflicted household as less fortunate. If that were the case, per capita expenditure would be mis-measuring true household well-being. In Table 5 we investigate this hypothesis.

Using the linear probability model specification from (2), we regress a dummy indicating PRA rank of 5 or 6 on land holdings, per capita consumption and a set of variables which may cause villagers to perceive a household as especially poor.<sup>17</sup> Since PRA rank is relative to other households in the same geographic area, these specifications contain a set of village dummies. Also, in light of the importance of household size, we condition on the number of household members. In all specifications the coefficient on per capita total monthly expenditure is statistically indistinguishable from zero. For land holdings the coefficient takes the predicted negative sign and is statistically significant. The table shows that having suffered a shock is not a significant determinant of high PRA status; the coefficients on having experienced a medical shock in the last year (i.e. having spent more than Rs. 500 on any member's medical care), having experienced a medical shock requiring institutional care (i.e. having spent more than Rs. 500 on institutional medical care) and on having experienced an economic shock (house was severely damaged, livestock became ill, livestock died, conflict/dispute/legal case or theft) are all indistinguishable from zero. Nor are households which have been identified by the government as in need of aid, indicated by participation in some government aid program, more likely to

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<sup>17</sup>We also estimated an OLS specification where the outcome is PRA rank in levels (1-6) rather than a binary variable, the results are similar.

be seen as particularly poor by their neighbors. We do find that education is correlated with PRA status; an additional year of schooling per capita makes households 5% less likely to be ranked very or exceptionally poor and a household with a child out of school is 18% more likely to be so ranked. Both of these coefficients are significant at the 5% confidence level. Another result from this exercise is that the presence of an able bodied adult (older than 14) male makes households 36% less likely to be assigned the highest PRA ranks.<sup>18</sup>

#### 4.4 Comparing PRA and Government Targeting

In addition to considering whether different targeting procedures successfully identify the poorest of the poor, we are also interested in making comparisons across methods. Tables 3 and 4 seem to suggest that the PRA identifies individuals who are relatively more disadvantaged according to various measures than government procedures, but we also test these apparent differences formally. In particular we statistically test for equality of the coefficients on the indicator for receiving a particular form of government aid and the indicator on having been identified as poor in the PRA. These results (which are relegated to Appendix Table A1) demonstrate that there are statistically significant differences between the coefficients for the outcomes which generate statistically significant results in Table 4.

With the exception of participants in employment generating schemes, we can reject equality of the coefficients for land holdings above a 5% confidence

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<sup>18</sup>This coefficient is similar in magnitude using over 18 years as the definition of adult.

level, indicating that the difference in land holdings between those identified as poor in the PRA and others is larger than the difference for individuals participating in government assistance programs and those that are not. We can also reject equality of the coefficients above a 5% level for all government programs when considering having taken a loan from a formal source. With respect to the other outcomes for which we found a significant difference between those identified as poor in the PRA and those not identified (food security, asset ownership and the presence of an able bodied male) the coefficients are statistically different above a 10% confidence level only when compared to 2 or 3 of the 4 government programs.

Another important concern is how potential differences in the objectives of the PRA and government identification affects targeting. The PRA studied here was intended to identify a particularly poor population to participate in a local anti-poverty program. Government programs, on the other hand, reach millions of people and may target at a different poverty threshold. If the threshold for government assistance is set above the level captured in our sample of fairly impoverished households and targeting were perfect, we would expect to see all households in our sample receiving aid, which is not the case empirically. Even so, the threshold for identification may be different for government programs.

While different thresholds for some poverty measure does not necessarily affect the difference in means between households above and below the threshold (even though it affects levels ), it may affect how targeting is done. For example if the aim of the program is to reduce the number of households in poverty,

targeting may focus specifically on households just below the threshold as it is easier to move these households above the poverty line. To investigate this possibility we plot the percentage of households participating in a given government program against quintiles of poverty measures in Figure 3. In some cases, the figure shows that a higher percentage of individuals in the lower quintiles are receiving aid or identified as poor in the PRA, suggesting targeting along this dimension of poverty, but the figure does not suggest an obvious targeting threshold at which the percent receiving aid drops and remains persistently low. Moreover, there does not appear to be a systematically different threshold for identification in the PRA and receiving government assistance.

A related concern is that the concept of poverty used for classification in the PRA is locally defined, thus our analysis includes village level fixed effects. Government programs, however, may be less concerned with targeting those who are relatively disadvantaged vis-à-vis their neighbors than with targeting according to state or national benchmarks. In light of this, we conduct similar analysis without fixed effects which compares targeting across rather than within villages. The estimates from this exercise (shown in Appendix Tables A2 and A3) are quite similar to those including village fixed effects. Comparing across villages, the estimated differences between recipients of BPL, Antodaya rationing or government housing support and non-recipients are striking similar to the within village comparisons; recipient are not notably worse off than non-recipients. For participants in employment generating schemes, the across village comparison with non-participants suggests that participants may be dis-

advantaged in some respects (they have lower monthly food consumption) but it no longer appears that they own less land.

Across villages, it remains the case that PRAs identify households which own less land, have limited credit access and are less likely to have an able bodied male member. The results with respect to food security and assets are somewhat attenuated without village fixed effects, but continue to indicate that households identified as poor in the PRA have greater food insecurity and fewer assets.

#### **4.5 Analysis of Bandhan's Verification Process**

In addition to conducting PRAs, Bandhan visited and interviewed households several times to identify those to be classified as Ultra Poor. In this section, we analyze how the additional verification narrowed the targeted population and how those identified as Ultra Poor differ from those not so identified.

The fourth column in Table 2 offers some insight into this question. It is apparent that households identified as Ultra Poor have less land. On average they have 6.5 katthas (0.13 acres) less and they are 12 percentage points more likely to be landless, differences which are both statistically different from zero at or above a 5% confidence level. In terms of assets, the Ultra Poor are in fact poorer on average; they live in smaller homes and own fewer durable goods and livestock, these differences are also significant at or above a 5% confidence level. Like those classified as poor in the PRA, the Ultra Poor are less likely to have obtained credit from a formal source, by 9 percentage points, but are no less

likely to have obtained loans. They classify themselves as poorer and are less likely to report eating two meals a day, but the difference in unconditional means are not statistically different from zero. The Ultra Poor are also less educated, the average member of an Ultra Poor household has completed 0.7 less years of schooling, significant at the 1% level. Although the differences are not generally statistically different from zero, the table indicates that Ultra Poor households report higher expenditure than other households. Another noteworthy feature of Ultra Poor households is that only 69% include an able bodied adult male member whereas nearly 94% of not Ultra Poor households do, a difference which is statistically significant at the 1% confidence level.

To increase the precision of our comparison, we control for village specific characteristics. The results, shown in Panel A of Table 6, confirm what can be gleaned from the summary statistics. When including village fixed effects, however, it appears that Ultra Poor households spend more per capita than other households (although the difference is not statistically distinguishable from zero when conditioning on households size). We explore this result further in Section 4.5. Other than for expenditure, our analysis of the PRA alone and of Bandhan's identification process as a whole have similar implications. This is not particularly surprising, since Bandhan selects households with a high PRA rank to visit for subsequent verification.

Given the similarity of the results, we assess whether additional verification of the information collected in the PRA, as Bandhan does to identify the Ultra Poor, improves targeting of the poorest households beyond what is achieved by

the PRA. To accomplish this we restrict our sample only to those households which were ranked as very or exceptionally poor in the PRA, leaving us with 111 observations. Of these 111 households Bandhan identified 85 as Ultra Poor and the remaining 26 as not Ultra Poor. Panel A of Table 7 compares the Ultra Poor households to the others. The point estimates, while not statistically significant, suggest that the Ultra Poor have higher expenditure even when compared only to others ranked very or exceptionally poor. In Panel B we control for household size which results in smaller, but still positive coefficients. In terms of assets, credit access, food security and self-classification of financial situation we can not make a clear distinction between the Ultra Poor and others. The most salient result is that Ultra Poor households own less land, 3.1 katthas less on average. The economic magnitude of this coefficient is quite large since it represents 125% of mean land holdings within this very or exceptionally poor group. The Ultra Poor also live in smaller homes on average.

We now turn to directly investigating what determines the likelihood that a household is identified as Ultra Poor via equation (2). When analyzing the full sample, the results reveal that the variables which appear to determine identification as Ultra Poor are generally the same as those which determine PRA rank. Therefore, we restrict to the sample of households ranked as very or exceptionally poor in the PRA for this analysis. Table 8 shows that for these households, the only significant determinates of identification as Ultra Poor are the presence of an able bodied adult male, which makes identification as Ultra Poor 19% less likely, and land holdings.

## 4.6 Revisiting Consumption

A noteworthy difference between the implications of Table 6 and the summary statistics is that the regression framework suggests that the Ultra Poor spend more than others and that these differences are statistically different from zero. In particular, our results suggest that the average Ultra Poor household spends Rs. 68 more per household member per month than not identified households and Rs. 36 more per household member per month on food and fuel. The point estimates are considerable in magnitude since Rs. 36 represent 12% of the mean per capita monthly food and fuel expenditure.

Although consumption and expenditure are notoriously difficult to measure (see e.g. Deaton 1997), making these particular variables imprecise, we are interested in ascertaining what drives these estimates given that per capita consumption is a widely used and important indicator of poverty. One factor which may cause us to observe Ultra Poor households spending more than non Ultra poor households is if Ultra Poor households have experienced economic shocks (e.g. need to repair house damage or pay medical bills). This will be particularly true if having experienced such a shock makes a household more likely to be identified as Ultra Poor. Closer inspection of the expenditures enumerated by the households revealed that this phenomenon may occur; several of the most costly single expenditures were for institutional medical care. Moreover, the largest of these expenditures were reported by those identified as Ultra Poor; the maximum such expenditure reported by a not identified household is Rs. 10,000 ( $\approx$  \$255) whereas identified households reported expenditures of Rs.

10,000, 12,000, 16,000, 35,000 and 60,000 ( $\approx$  \$255 – 1,538).

This concern is what motivated us to look separately at per capita monthly average expenditure less institutional medical expenditure in the preceding analysis. But that we continue to observe a positive point estimate for this outcome in Table 6 and do not find that suffering a medical or economic shock makes a household particularly likely to be identified as Ultra Poor in Table 8 does not provide robust evidence for this hypothesis.

Since they tend to own much less land, it may be that the Ultra Poor spend more on food because they do not produce anything for home consumption and the non Ultra Poor may underestimate the value of what they produce at home. Since we lack complete information on home production we are unable to test this conjecture directly. We do, however, investigate this concern by restricting our sample only to those households with 15 or fewer katthas (0.3 acres) of land (this causes us to drop 21 observations or 10% of our sample). We run the same regressions for the expenditure variables as in Table 6, the results in Table 9 show that the differences in total and non food expenditure between the Ultra Poor and not Ultra Poor are amplified when considering only these households. In terms of food and fuel expenditure, the estimate of the difference between the two groups is essentially the same. This suggests that home production of food is not the primary reason for these differences.

Additionally, although our initial survey is designed to capture all consumption, rather than just expenditure, we created a supplementary survey instrument with more detailed questions pertaining to production for own consump-

tion and returned to the households in this study. Due to migration and absences we were not able to resurvey 11% of the households in the initial dataset. Using the data collected in this secondary survey, we again compared levels of per capita consumption between those households identified as Ultra Poor and other households. Table 10 presents the results from this analysis. Columns 1 and 2 repeat the analysis from Table 6, using the initial data but restricted to the sample which was resurveyed. Columns 3 and 4 use the data from the secondary survey. Again the point estimates suggest that households identified as Ultra Poor consume more per capita than other households, both in terms of food and fuel consumption and total consumption. These differences, however, do not appear statistically significant, as was the case when considering the initial data. That the estimates using the data from this additional, more detailed, survey are similar to those obtained using the initial data suggests that failure to capture production for own consumption is not responsible for the perplexing sign of the coefficients.

Given the potential importance of household economies of scale, we condition on household size in Panel B. When using the data from the detailed consumption resurvey the coefficients on the Ultra Poor indicator take the predicted negative sign in these regressions, but the estimates are not statistically different from zero. That the point estimates, conditional on household size, suggest that Ultra Poor households spend more than others in one survey and less than others in a secondary survey of the same households limits the credibility of the initial results; our analysis can not distinguish clear differences

between the two groups in terms of per capita consumption.

To further explore the hypothesis of household economies of scale, we also ran the expenditure comparison regressions using the disaggregated components of per capita monthly food and fuel expenditure. When considering each item separately the coefficient on having been identified as Ultra Poor generally remains positive, as is shown in Table 11. These coefficients, however, are imprecisely estimated; the only variables for which we can detect a statistically significant difference are “Other food” and “Fuel and Light.” The latter finding in particular, coupled with the observation that Ultra Poor households tend to have fewer members, suggests that there may be economies of scale driving our previous results; if a home is to be lit or a meal cooked regardless of how many people reside in that home, then per capita fuel and light expenditure will appear larger in a smaller household.

## 5 Conclusions

Targeting a sub-population can be challenging, particularly when the target group is designated by a broad, ill-defined characteristic such as “extreme poverty.” Various mechanisms can be employed to learn who the poorest of the poor actually are. Censuses which record household characteristics are one such method. This approach, however, captures only a limited set of poverty metrics and suffers from the fact that many indicators of poverty are not easily observable. Another commonly used targeting method is to conduct group discussions, such

as a PRA, which rely not only on the responses of a specific household but also on the input of their neighbors to ascertain which households are most disadvantaged.

In this paper, we consider the relative performance of each of these mechanisms with respect to identifying the poorest of the poor. In particular, we evaluate how well classification as impoverished according to a particular method accords with statistical measures of poverty collected in a detailed household survey.

We firstly examine various government assistance programs which utilize a census as part of their targeting process. Our results suggest that these programs do not overwhelmingly reach the very poorest, which may be due to deficiencies in the identification process. Subsequently, we evaluate whether PRAs reliably identify the poorest households within a village. We compare characteristics of households ranked as especially poor in the PRA by their neighbors to other disadvantaged households within the village. The comparison indicates that the ranking from the PRA accurately identifies a poorer sub-population in terms of land holdings, assets and credit access.

Finally, since the PRA was part of a more extensive process conducted by Bandhan, a Kolkata-based microfinance institution, to identify the poorest of the poor, we consider what further gains can be made by verifying the information from the PRA with household visits. We find that the additional steps taken by Bandhan narrows the identified population to those who are more disadvantaged in crucial respects, particularly land holdings.

Although our results do not indicate that either the PRA or government procedures particularly target the poorest of the poor in terms of consumption, which is a crucial measure of poverty, we do find that participatory targeting methods, such as a PRA, perform better than census techniques in identifying households which are most disadvantaged according to various other important measures of poverty.

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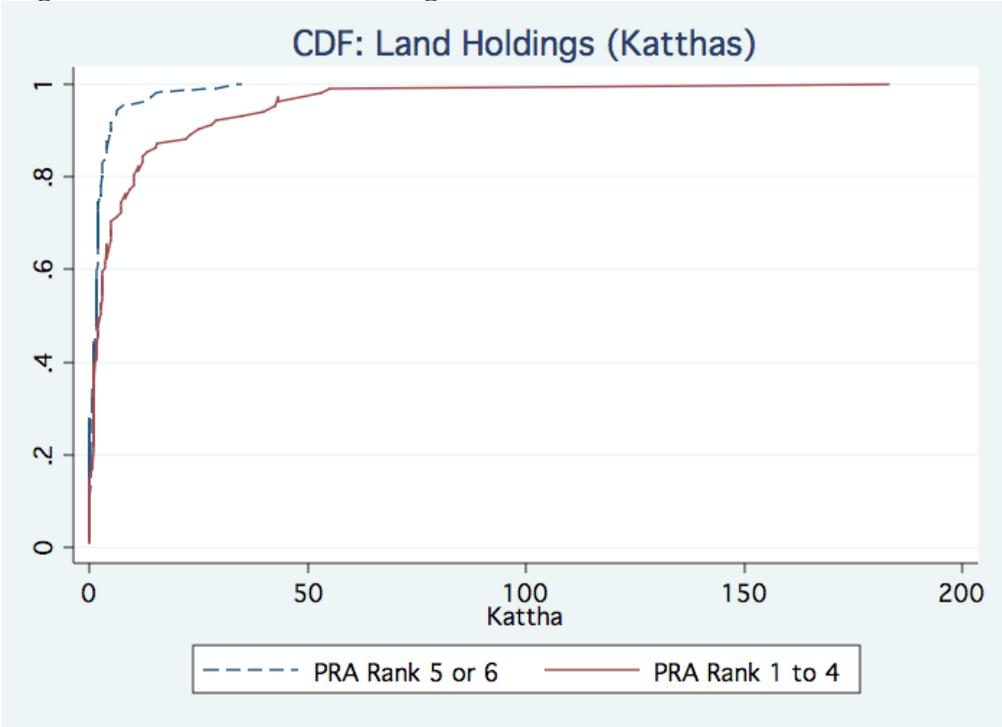
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**Figure 1: CDF of Land Holdings**



**Figure 2: CDFs of Expenditure**

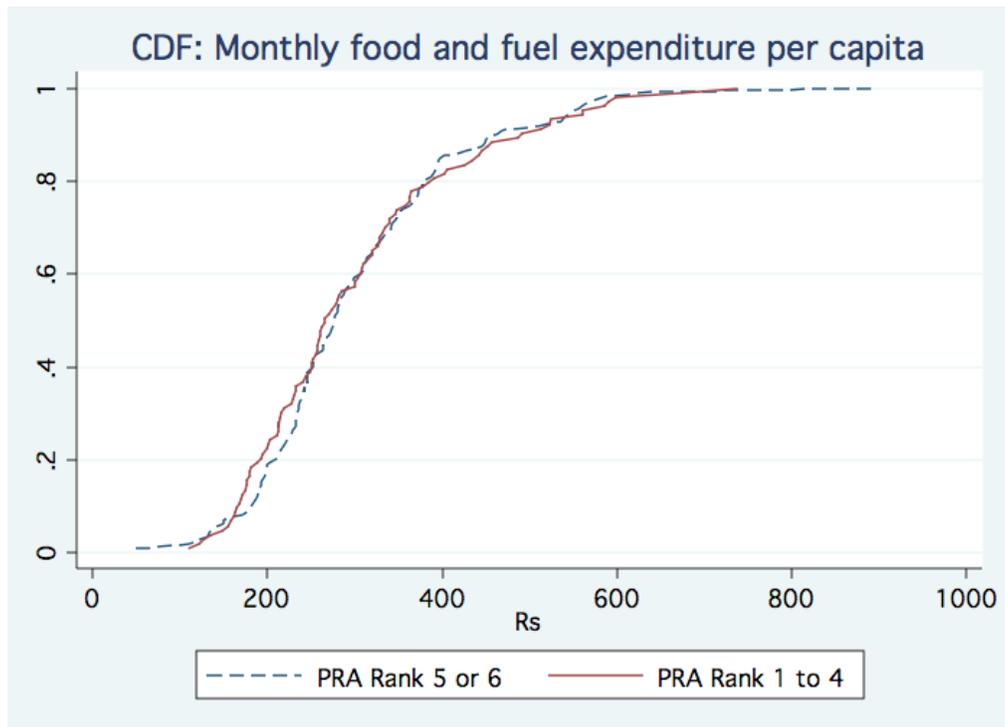
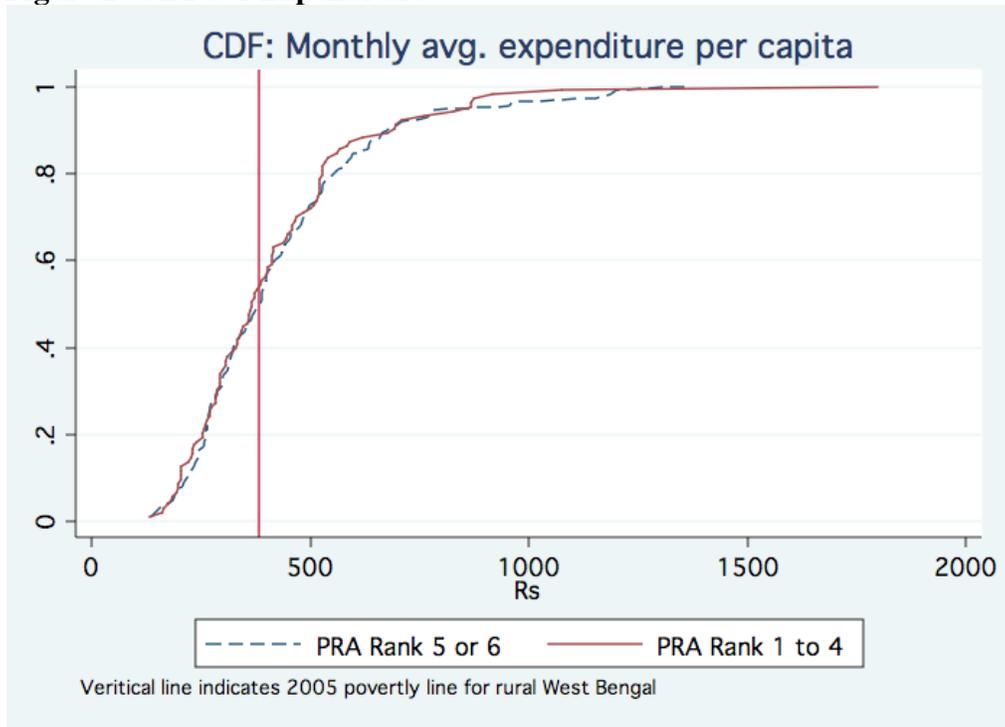
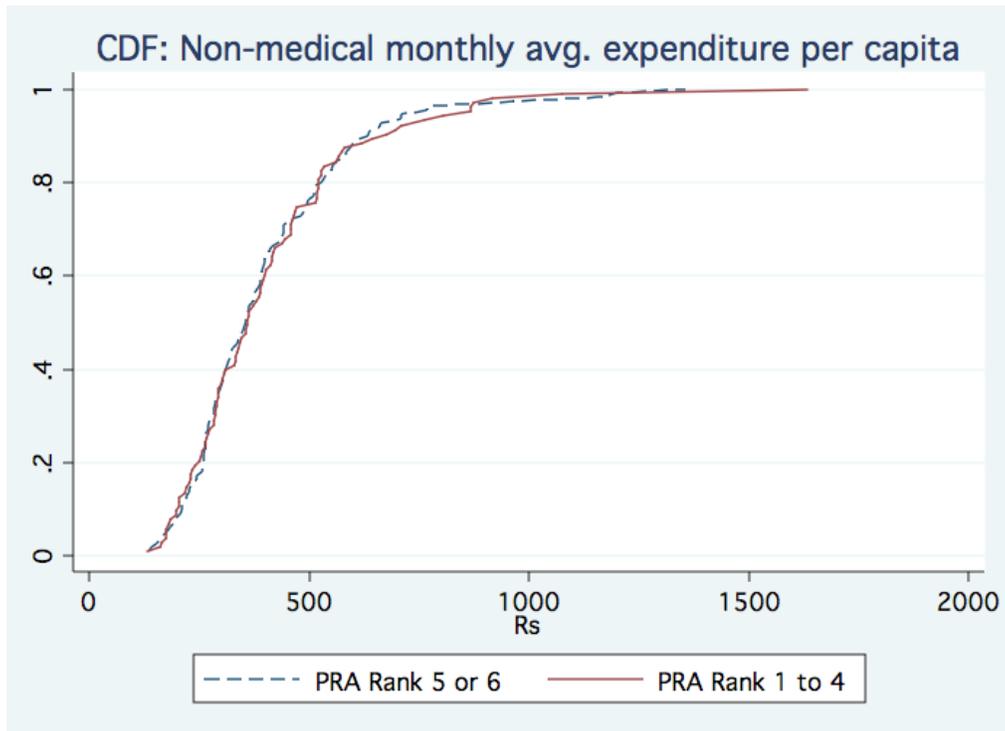
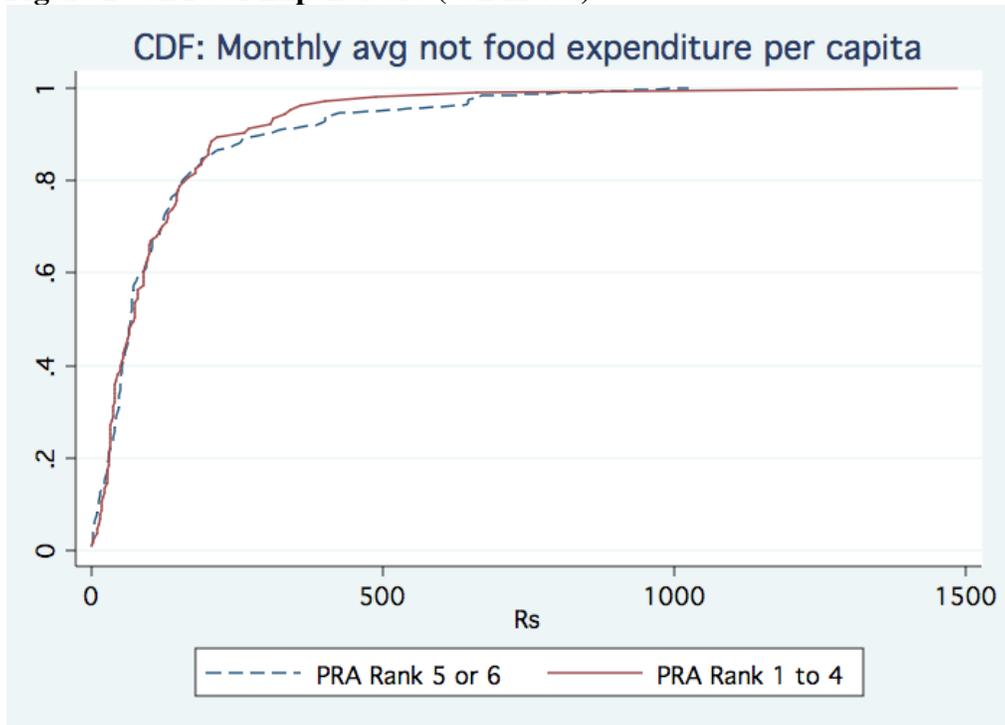
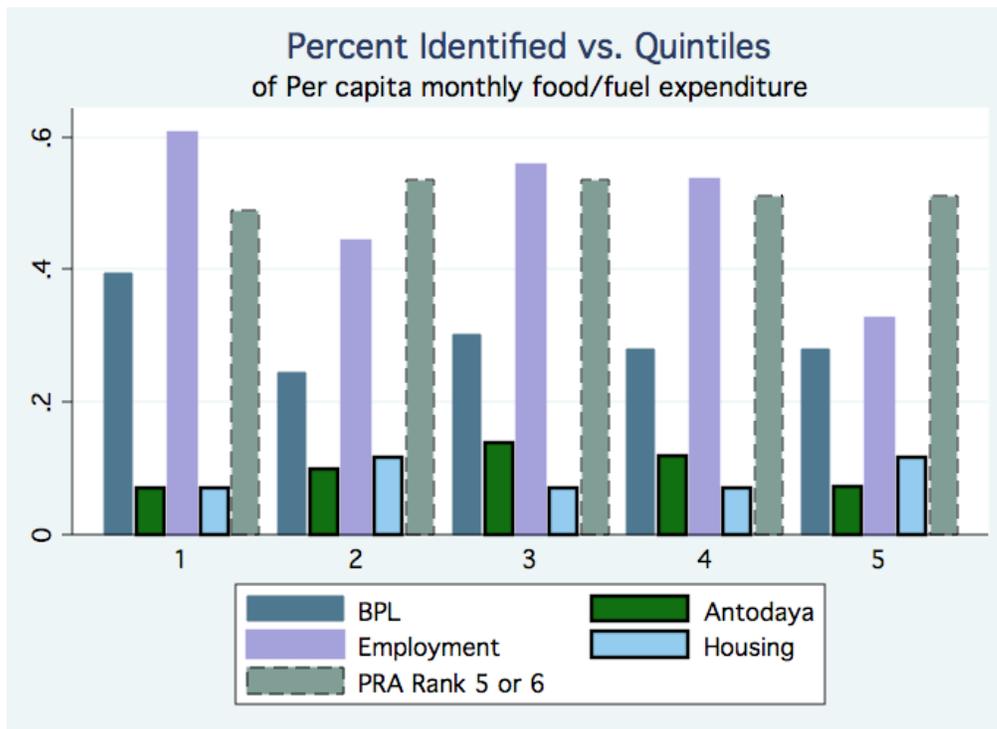
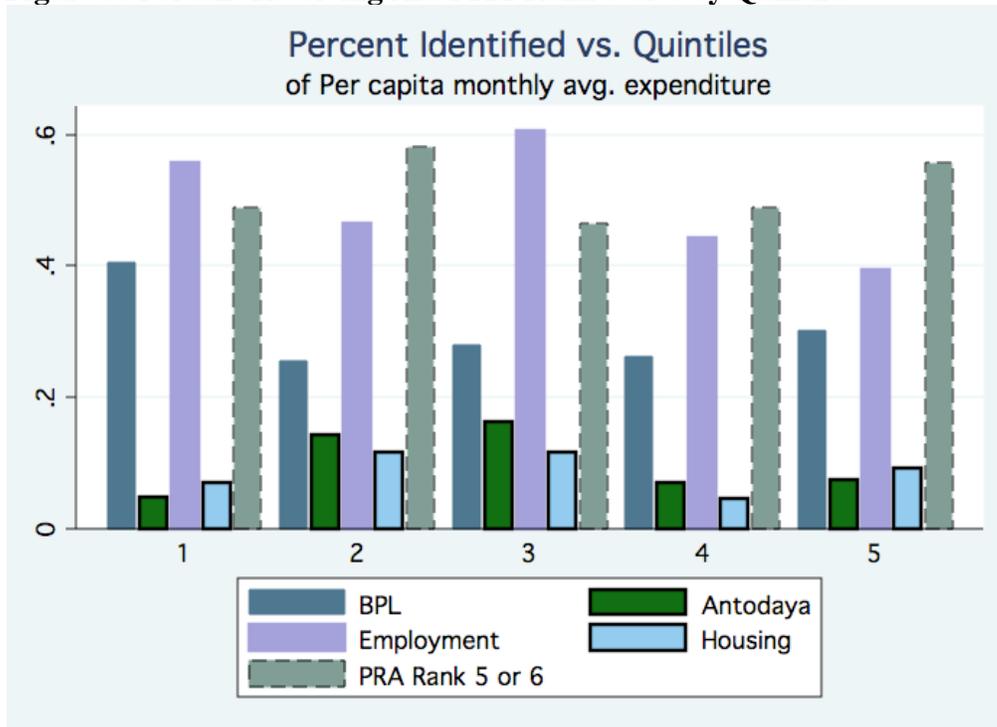


Figure 2: CDFs of Expenditure (continued)

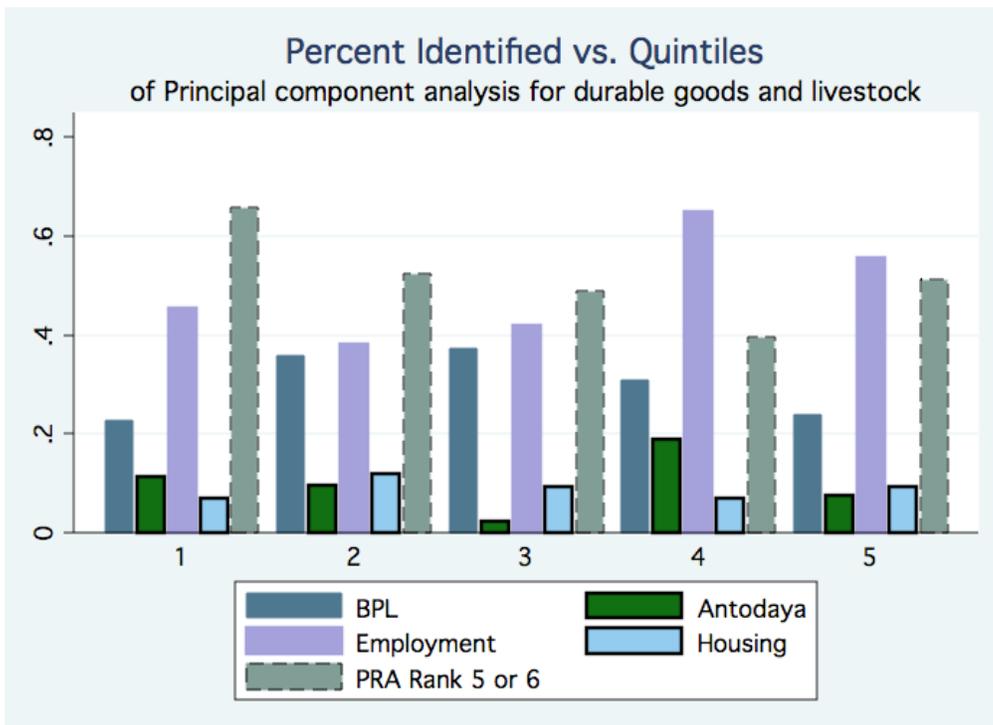
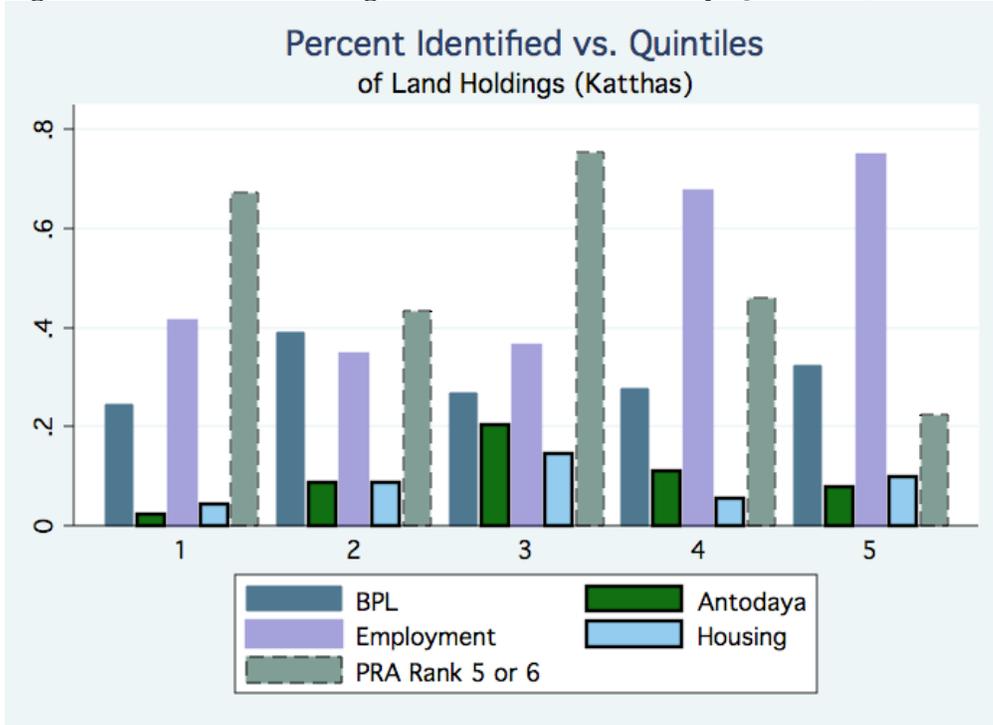


**Figure 3: Percent Receiving Aid/PRA Rank 5 or 6 by Quintiles**



*Notes: The graphs show the percentage of households in the quintile of the variable indicated in the graph title who participate in the indicated government program or were identified as especially poor in the PRA.*

**Figure 3: Percent Receiving Aid/PRA Rank 5 or 6 by Quintiles (continued)**



*Notes: The graphs show the percentage of households in the quintile of the variable indicated in the graph title who participate in the indicated government program or were identified as especially poor in the PRA.*

**Table 1: Village-wise Sample Breakdown**

<b>Village</b>	<b>Number of households found in economic census</b>	<b>Number of households eligible for additional survey</b>	<b>Size of the sample for additional survey</b>	<b>Identified as Ultra Poor by Bandhan</b>
Balarampur	855	254	20	38
Binkar	273	110	40	11
Chardiar	128	65	43	9
Charsungai	137	75	38	17
Khidirpur	364	101	37	18
<b>Total</b>	<b>1757</b>	<b>605</b>	<b>178</b>	<b>93</b>

*Note: Table shows figures pertaining to sample frame and sample selection. Column 1 shown the number of households enumerated in the village census, column 2 indicates how many met the sample selection criteria and column 3 indicates how many were surveyed. Column 4 indicates how many additional households selected by Bandhan were surveyed in each village.*

**Table 2: Selected Characteristics of Sample Households**

	Full Sample (N=213)		Non Ultra Poor		Ultra Poor (N=92)		Ultra Poor - Non Ultra Poor	
	Mean	sd	Mean	sd	Mean	sd	Diff.	sd Diff.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ranking from PRA	4.55	1.39	3.76	1.25	5.59	0.74	1.83	(0.15)***
Number of household members	4.29	1.69	4.69	1.54	3.77	1.76	-0.91	(0.23)***
Per capita monthly avg. expenditure	425	229	404	218	453	241	49	(31.45)
Per capita monthly food/fuel expenditure	302	127	288	111	321	145	32	(17.42)*
Per capita monthly non-food expenditure	123	174	116	167	132	184	17	(24.01)
Per Capita monthly avg. expenditure minus institutional medical expenditure	406	215	393	208	423	223	30	(29.53)
Below official poverty line (for rural West Bengal 2005)	0.51	0.50	0.56	0.50	0.45	0.50	-0.11	(0.07)
Land Holdings (Katthas)	5.63	15.43	8.42	19.85	1.91	2.79	-6.51	(2.11)***
Landless	0.21	0.41	0.16	0.37	0.28	0.45	0.12	(0.06)**
Number of rooms in house	1.29	0.52	1.39	0.60	1.15	0.36	-0.24	(0.07)***
Principal component analysis for durable goods and livestock	1.61	1.12	1.75	1.22	1.41	0.94	-0.34	(0.15)**
Household has outstanding loan	0.46	0.50	0.43	0.50	0.48	0.50	0.05	(0.07)
Household has outstanding loan from formal source	0.08	0.28	0.12	0.33	0.03	0.18	-0.09	(0.04)**
Self classification of financial situation (1-10 scale)	2.38	1.53	2.51	1.54	2.22	1.51	-0.29	(0.21)
Average years of schooling per household member	1.23	1.75	1.54	1.89	0.82	1.45	-0.72	(0.24)***
There is a HH member 5-14 years old not attending school	0.25	0.43	0.23	0.42	0.28	0.45	0.05	(0.06)
Regularly eat two meals a day	0.67	0.47	0.70	0.46	0.62	0.49	-0.07	(0.07)
Household gets BPL rationing	0.30	0.46	0.33	0.47	0.27	0.45	-0.06	(0.06)
Households has Antodaya card	0.10	0.30	0.09	0.29	0.11	0.31	0.02	(0.04)
Received work from employment generating scheme	0.49	0.50	0.56	0.50	0.41	0.49	-0.15	(0.07)**
House from Indira Housing Plan	0.09	0.29	0.05	0.22	0.14	0.35	0.09	(0.04)**
Household suffered health shock	0.52	0.50	0.55	0.50	0.48	0.50	-0.07	(0.07)
Household suffered health shock requiring institutional care	0.22	0.41	0.23	0.42	0.20	0.41	-0.03	(0.06)
Household suffered economic shock	0.41	0.49	0.40	0.49	0.43	0.50	0.03	(0.07)
Able bodied male adult (15+)	0.83	0.37	0.94	0.23	0.69	0.47	-0.25	(0.05)***
Able bodied female adult (15+)	0.98	0.14	0.98	0.16	0.99	0.10	0.01	(0.02)

\* Significant at the 10% confidence level

\*\* Significant at the 5% confidence level

\*\*\* Significant at the 1% confidence level

*Notes: The table shows selected summary statistics for this sample. The unit of observation in the household. Statistics are shown separately for households identified as Ultra Poor by Bandhan's targeting process and household which were not.*

*Below the poverty line for rural West Bengal is defined as having per capita consumption under Rs. 382.82 (Based on estimates in "Poverty Line Estimates in Public Distribution System and Other Sources of Household Consumption, 2004-05." National Sample Survey Organization, Ministry of Statistics and Programme Implementation Report No. 510).*

**Table 3: Characteristics of Recipients of Government Aid**

	Per capita monthly avg. expenditure (1)	Per capita monthly food/fuel expenditure (2)	Per capita monthly non- food expenditure (3)	Per Capita monthly avg. expenditure minus institutional medical expenditure (4)	Land Holdings (Katthas) (5)	Number of rooms in house (6)	Regularly eat two meals a day (7)	Self classification of financial situation (1- 10 scale) (8)	Household has outstanding loan (9)	Household has outstanding loan from formal source (10)	Below official poverty line (for rural West Bengal 2005) (11)	Principal component analysis for durable goods and livestock (12)	Able bodied male adult (15+) (13)
Household gets BPL rationing	-7.23 (34.82)	7.93 (18.85)	-15.16 (26.70)	-1.42 (32.61)	-2.29 (2.31)	0.00 (0.08)	-0.03 (0.07)	-0.08 (0.23)	0.00 (0.08)	0.01 (0.04)	0.01 (0.07)	-0.09 (0.17)	0.11 (0.06)*
Observations	213	213	213	213	208	212	213	213	213	213	213	213	213
R-Squared	0.04	0.08	0.02	0.03	0.08	0.06	0.04	0.03	0.01	0.1	0.07	0.02	0.04
Mean of dependent variable	426	303	123	407	5.66	1.29	0.66	2.38	0.46	0.08	0.51	1.59	0.83
Households has Antodaya card	-17.62 (50.35)	7.13 (28.62)	-24.75 (38.50)	-11.71 (48.47)	-1.79 (3.57)	-0.08 (0.12)	0.16 (0.11)	0.19 (0.35)	-0.15 (0.12)	-0.02 (0.06)	0.14 (0.11)	0.14 (0.26)	-0.09 (0.09)
Observations	208	208	208	208	203	207	208	208	208	208	208	208	208
R-Squared	0.05	0.09	0.03	0.04	0.07	0.06	0.05	0.03	0.02	0.09	0.09	0.02	0.03
Mean of dependent variable	419	302	117	404	5.4	1.29	0.65	2.38	0.46	0.08	0.51	1.58	0.83
Received work from employment generating scheme	-32.54 (38.99)	-27.34 (21.06)	-5.21 (29.96)	-32.68 (36.50)	-4.33 (2.59)*	0.04 (0.09)	0.00 (0.08)	-0.44 (0.26)*	0.08 (0.09)	0.01 (0.05)	0.13 (0.08)	0.18 (0.19)	0.16 (0.06)***
Observations	215	215	215	215	210	214	215	215	215	215	215	215	215
R-Squared	0.04	0.09	0.02	0.04	0.09	0.06	0.04	0.04	0.01	0.09	0.08	0.03	0.06
Mean of dependent variable	425	302	123	406	5.63	1.29	0.67	2.38	0.46	0.08	0.51	1.61	0.83
House from Indira Housing Plan	-41.31 (55.57)	31.78 (30.06)	-73.10 (42.42)*	-19.96 (52.11)	-0.77 (3.77)	-0.05 (0.13)	0.11 (0.11)	0.24 (0.37)	0.19 (0.12)	0.07 (0.06)	-0.03 (0.12)	-0.16 (0.27)	-0.24 (0.09)***
Observations	214	214	214	214	209	213	214	214	214	214	214	214	214
R-Squared	0.04	0.09	0.03	0.03	0.08	0.06	0.04	0.03	0.02	0.09	0.07	0.03	0.06
Mean of dependent variable	426	303	123	407	5.65	1.29	0.67	2.39	0.45	0.08	0.51	1.61	0.83

\* Significant at the 10% confidence level

\*\* Significant at the 5% confidence level

\*\*\* Significant at the 1% confidence level

Notes: Each panel shows a separate set of regressions where the indicator variable specified in the row panel is taken as the independent variable and the variable indicated in the column is the dependent variable.

All regressions include village fixed effects.

**Table 4: Analysis of PRA Identification Process**

	Per capita monthly avg. expenditure (1)	Per capita monthly food/fuel expenditure (2)	Per capita monthly non- food expenditure (3)	Per Capita monthly avg. expenditure minus institutional medical expenditure (4)	Land Holdings (Katthas) (5)	Number of rooms in house (6)	Regularly eat two meals a day (7)	Self classification of financial situation (1- 10 scale) (8)	Household has outstanding loan (9)	Household has outstanding loan from formal source (10)	Below official poverty line (for rural West Bengal 2005) (11)	Principal component analysis for durable goods and livestock (12)	Able bodied male adult (15+) (13)
	<b>Panel A</b>												
PRA Rank of 5 or 6	28.31 (33.27)	9.75 (18.04)	18.56 (25.54)	5.79 (31.22)	-6.32 (2.17)***	-0.05 (0.07)	-0.17 (0.07)**	-0.28 (0.22)	0.09 (0.07)	-0.11 (0.04)***	-0.06 (0.07)	-0.43 (0.16)***	-0.24 (0.05)***
Observations	215	215	215	215	210	214	215	215	215	215	215	215	215
R-Squared	0.04	0.08	0.02	0.03	0.11	0.06	0.06	0.04	0.02	0.13	0.07	0.05	0.12
	<b>Panel B: Conditional on Household Size</b>												
PRA Rank of 5 or 6	0.74 (32.01)	-4.69 (17.42)	5.43 (25.46)	-23.56 (29.51)	-5.80 (2.20)***	-0.01 (0.07)	-0.17 (0.07)**	-0.29 (0.23)	0.10 (0.07)	-0.10 (0.04)***	0.01 (0.07)	-0.26 (0.15)*	-0.19 (0.05)***
Number of household members	-46.01 (9.24)***	-24.09 (5.03)***	-21.92 (7.35)***	-48.98 (8.52)***	0.93 (0.64)	0.07 (0.02)***	0.01 (0.02)	-0.02 (0.07)	0.02 (0.02)	0.02 (0.01)*	0.10 (0.02)***	0.28 (0.04)***	0.09 (0.01)***
Observations	215	215	215	215	210	214	215	215	215	215	215	215	215
R-Squared	0.14	0.17	0.06	0.17	0.12	0.11	0.07	0.04	0.02	0.14	0.19	0.21	0.25
Mean of dependent variable	425	302	123	406	5.63	1.29	0.67	2.38	0.46	0.08	0.51	1.61	0.83

\* Significant at the 10% confidence level

\*\* Significant at the 5% confidence level

\*\*\* Significant at the 1% confidence level

Notes: Each column is a regression where the dependent variable, indicated in the column heading, is regressed on an indicator variable for the household having been assigned a PRA rank equal to 5 or 6 (Panel A) or this indicator and the number of household members (Panel B). Binary outcome variables are estimated via a linear probability model. All regressions include village fixed effects.

**Table 5: Determinates of PRA Rank**

	PRA Rank of 5 or 6						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Per capita monthly avg. expenditure	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Number of household members	-0.04 (0.02)*	-0.04 (0.02)*	-0.04 (0.02)*	-0.03 (0.02)	-0.05 (0.02)**	-0.04 (0.02)*	0 (0.02)
Land Holdings (Katthas)	-0.01 (0.00)**	-0.01 (0.00)**	-0.01 (0.00)**	0.00 (0.00)*	-0.01 (0.00)**	-0.01 (0.00)**	-0.01 (0.00)***
Household suffered health shock	0.06 (0.07)						
Household suffered health shock requiring institutional care		0.04 (0.08)					
Household suffered economic shock			-0.07 (0.07)				
Average years of schooling per household member				-0.05 (0.02)**			
There is a HH member 5-14 years old not attending school					0.18 (0.08)**		
Receives some form of government aid						0.04 (0.08)	
Able bodied male adult (15+)							-0.36 (0.09)***
Observations	210	210	210	210	210	210	210
R-Squared	0.18	0.18	0.18	0.20	0.20	0.18	0.23
Mean of dependent variable	0.51	0.51	0.51	0.51	0.51	0.51	0.51

\* Significant at the 10% confidence level

\*\* Significant at the 5% confidence level

\*\*\* Significant at the 1% confidence level

*Notes: The table shows a linear probability model specification where the dependent variable is an indicator variable that the household was assigned a PRA status equal to 5 or 6.*

*All regressions include village fixed effects.*

**Table 6: Analysis of Bandhan's Identification Process**

	Per capita monthly avg. expenditure (1)	Per capita monthly food/fuel expenditure (2)	Per capita monthly non- food expenditure (3)	Per Capita monthly avg. expenditure minus institutional medical expenditure (4)	Land Holdings (Katthas) (5)	Number of rooms in house (6)	Regularly eat two meals a day (7)	Self classification of financial situation (1- 10 scale) (8)	Household has outstanding loan (9)	Household has outstanding loan from formal source (10)	Below official poverty line (for rural West Bengal 2005) (11)	Principal component analysis for durable goods and livestock (12)	Able bodied male adult (15+) (13)
	<b>Panel A</b>												
Identified as Ultra Poor	68.50 (33.74)**	35.78 (18.29)*	32.72 (26.05)	45.09 (31.76)	-6.15 (2.23)***	-0.21 (0.08)***	-0.13 (0.07)*	-0.26 (0.23)	0.09 (0.08)	-0.07 (0.04)*	-0.13 (0.07)*	-0.46 (0.16)***	-0.26 (0.05)***
Observations	215	215	215	215	210	214	215	215	215	215	215	215	215
R-Squared	0.05	0.1	0.02	0.04	0.11	0.09	0.05	0.04	0.01	0.1	0.08	0.06	0.13
	<b>Panel B: Conditional on Household Size</b>												
Identified as Ultra Poor	36.28 (32.85)	19.1 (17.89)	17.18 (26.18)	10.48 (30.41)	-5.48 (2.28)**	-0.16 (0.08)**	-0.12 (0.07)*	-0.27 (0.23)	0.1 (0.08)	-0.05 (0.04)	-0.05 (0.07)	-0.25 (0.15)	-0.2 (0.05)***
Number of household members	-43.93 (9.27)***	-22.74 (5.05)***	-21.19 (7.39)***	-47.19 (8.59)***	0.86 (0.65)	0.06 (0.02)***	0.01 (0.02)	-0.02 (0.07)	0.02 (0.02)	0.02 (0.01)*	0.10 (0.02)***	0.28 (0.04)***	0.08 (0.01)***
Observations	215	215	215	215	210	214	215	215	215	215	215	215	215
R-Squared	0.15	0.18	0.06	0.16	0.11	0.13	0.05	0.04	0.02	0.12	0.19	0.21	0.25
Mean of dependent variable	425	302	123	406	5.63	1.29	0.67	2.38	0.46	0.08	0.51	1.61	0.83

\* Significant at the 10% confidence level

\*\* Significant at the 5% confidence level

\*\*\* Significant at the 1% confidence level

Notes: Each column is a regression where the dependent variable, indicated in the column heading, is regressed on an indicator variable for the household having been identified as Ultra Poor by Bandhan (Panel A) or this indicator and the number of household members (Panel B). Binary outcome variables are estimated via a linear probability model. All regressions include village fixed effects.

**Table 7: Analysis of Bandhan's Identification Process (Sample restricted to households with PRA rank of 5 or 6)**

	Per capita monthly avg. expenditure (1)	Per capita monthly food/fuel expenditure (2)	Per capita monthly non- food expenditure (3)	Per Capita monthly avg. expenditure minus institutional medical expenditure (4)	Land Holdings (Katthas) (5)	Number of rooms in house (6)	Regularly eat two meals a day (7)	Self classification of financial situation (1-10 scale) (8)	Household has outstanding loan (9)	Household has outstanding loan from formal source (10)	Below official poverty line (for rural West Bengal 2005) (11)	Principal component analysis for durable goods and livestock (12)	Able bodied male adult (15+) (13)
	<b>Panel A</b>												
Identified as Ultra Poor	65.61 (53.42)	20.56 (29.48)	45.04 (41.69)	46.08 (49.62)	-3.08 (1.17)***	-0.35 (0.11)***	-0.01 (0.11)	-0.07 (0.35)	0.04 (0.12)	0.03 (0.04)	-0.15 (0.12)	-0.20 (0.24)	-0.18 (0.10)*
Observations	111	111	111	111	108	110	111	111	111	111	111	111	111
R-Squared	0.09	0.09	0.05	0.06	0.09	0.12	0.08	0.05	0.03	0.05	0.09	0.06	0.12
	<b>Panel B: Conditional on Household Size</b>												
Identified as Ultra Poor	46.1 (50.71)	10.1 (28.09)	36 (41.24)	23.09 (45.16)	-2.98 (1.18)**	-0.32 (0.11)***	-0.01 (0.12)	-0.12 (0.35)	0.06 (0.12)	0.04 (0.04)	-0.09 (0.11)	-0.12 (0.22)	-0.14 (0.10)
Number of household members	-43.55 (11.74)***	-23.35 (6.50)***	-20.20 (9.55)**	-51.33 (10.45)***	0.16 (0.27)	0.06 (0.03)**	0.00 (0.03)	-0.11 (0.08)	0.04 (0.03)	0.01 (0.01)	0.12 (0.02)***	0.19 (0.05)***	0.10 (0.02)***
Observations	111	111	111	111	108	110	111	111	111	111	111	111	111
R-Squared	0.19	0.19	0.09	0.24	0.1	0.16	0.08	0.07	0.04	0.06	0.25	0.17	0.26
Mean of dependent variable	430	303	127	402	2.49	1.25	0.61	2.24	0.49	0.03	0.5	1.46	0.72

\* Significant at the 10% confidence level

\*\* Significant at the 5% confidence level

\*\*\* Significant at the 1% confidence level

Notes: Each column is a regression where the dependent variable, indicated in the column heading, is regressed on an indicator variable for the household having been identified as Ultra Poor by Bandhan (Panel A) or this indicator and the number of household members (Panel B). Binary outcome variables are estimated via a linear probability model.

The sample is restricted to households assigned a PRA status of 5 or 6.

All regressions include village fixed effects.

**Table 8: Determinates of Identification as Ultra Poor (Sample restricted to households with PRA rank of 5 or 6)**

	Identified as Ultra Poor						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Per capita monthly avg. expenditure	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Number of household members	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	-0.02 (0.02)	0 (0.03)	-0.02 (0.02)	0 (0.03)
Land Holdings (Katthas)	-0.02 (0.01)**	-0.02 (0.01)**	-0.02 (0.01)**	-0.02 (0.01)**	-0.02 (0.01)**	-0.02 (0.01)**	-0.02 (0.01)**
Household suffered health shock	-0.02 (0.08)						
Household suffered health shock requiring institutional care		-0.03 (0.10)					
Household suffered economic shock			0.08 (0.08)				
Average years of schooling per household member				-0.02 (0.03)			
There is a HH member 5-14 years old not attending school					-0.15 (0.09)		
Receives some form of government aid						0.02 (0.09)	
Able bodied male adult (15+)							-0.19 (0.10)*
Observations	108	108	108	108	108	108	108
R-Squared	0.19	0.19	0.20	0.20	0.21	0.19	0.22
Mean of dependent variable	0.77	0.77	0.77	0.77	0.77	0.77	0.77

\* Significant at the 10% confidence level

\*\* Significant at the 5% confidence level

\*\*\* Significant at the 1% confidence level

*Notes: The table shows a linear probability model specification where the dependent variable is a zero one indicator for having been identified as Ultra Poor. The sample is restricted to households assigned a PRA status of 5 or 6. All regressions include village fixed effects.*

**Table 9: Analysis of Bandhan's Identification Process**  
**(Sample restricted to households with less than 15 kattas of land)**

	Per capita monthly avg. expenditure (1)	Per capita monthly food/fuel expenditure (2)	Per capita monthly non- food expenditure (3)	Per Capita monthly avg. expenditure minus institutional medical expenditure (4)
<b>Panel A</b>				
Identified as Ultra Poor	80.66 (32.60)**	37.86 (19.26)*	42.80 (23.62)*	57.40 (30.96)*
Observations	194	194	194	194
R-Squared	0.07	0.08	0.03	0.05
<b>Panel B: Conditional on Household Size</b>				
Identified as Ultra Poor	50.22 (31.42)	20.35 (18.63)	29.87 (23.69)	24.28 (29.24)
Number of household members	-43.54 (8.93)***	-25.05 (5.30)***	-18.49 (6.74)***	-47.38 (8.31)***
Observations	194	194	194	194
R-Squared	0.17	0.18	0.06	0.19
Mean of dependent variable	421	303	118	401

\* Significant at the 10% confidence level

\*\* Significant at the 5% confidence level

\*\*\* Significant at the 1% confidence level

*Notes: Each column is a regression where the dependent variable, indicated in the column heading, is regressed on an indicator variable for the household having been identified as Ultra Poor by Bandhan (Panel A) or this indicator and the number of household members (Panel B).*

*The sample is restricted to households owning less than 15 kattas of land.*

*All regressions include village fixed effects.*

**Table 10: Results from Resurvey of Households**

	Per capita monthly avg. expenditure (1)	Per capita monthly food/fuel expenditure (2)	Per capita monthly avg. expenditure (Resurvey) (3)	Per capita monthly food/fuel expenditure (Resurvey) (4)
<b>Panel A</b>				
Identified as Ultra Poor	88.15 (38.34)**	39.48 (20.47)*	92.13 (69.15)	72.32 (53.78)
Observations	190	190	190	190
R-Squared	0.06	0.1	0.03	0.04
<b>Panel B: Conditional on Household Size</b>				
Identified as Ultra Poor	56.38 (37.14)	23.32 (19.94)	-3.28 (60.02)	-5.26 (45.84)
Number of household members	-45.61 (10.11)***	-23.21 (5.43)***	-137.00 (16.34)***	-111.41 (12.48)***
Observations	190	190	190	190
R-Squared	0.15	0.18	0.3	0.33
Mean of dependent variable	434	304	722	563

\* Significant at the 10% confidence level

\*\* Significant at the 5% confidence level

\*\*\* Significant at the 1% confidence level

*Notes: Each column is a regression where the dependent variable, indicated in the column heading, is regressed on an indicator variable for the household having been identified as Ultra Poor by Bandhan (Panel A) or this indicator and the number of household members (Panel B).*

*Columns 1 and 2 utilize data from the initial survey, restricted to households which were resurveyed. Columns 3 and 4 utilize data obtained in the resurvey of households.*

*All regressions include village fixed effects.*

**Table 11: Disaggregated Components of Food and Fuel Consumption**

	Cerials	Pulses	Dairy	Oil	Vegetables	Fruit and Nuts	Egg, Fish, Meat	Other food (sipce, sugar, salt, beverage)	Pan, Tobacco, etc.	Fuel and Light
Identified as Ultra Poor	10.00 (8.77)	0.21 (2.09)	-2.10 (1.45)	5.37 (4.19)	3.18 (5.65)	1.36 (1.05)	4.05 (3.13)	7.46 (3.32)**	1.15 (3.81)	5.09 (1.75)***
Observations	215	215	215	215	215	215	215	215	215	215
R-Squared	0.05	0.04	0.02	0.07	0.06	0.03	0.01	0.08	0.02	0.09
Mean of dependent variable	136	13	3	28	53	1	15	26	15	13

\* Significant at the 10% confidence level

\*\* Significant at the 5% confidence level

\*\*\* Significant at the 1% confidence level

Notes: Each column is a regression where the dependent variable, indicated in the column heading, is regressed on an indicator variable for the household having been identified as Ultra Poor by Bandhan.

All regressions include village fixed effects.

**Table A1: Comparing Government Targeting to PRA Targeting**

	Per capita monthly avg. expenditure	Per capita monthly food/fuel expenditure	Per capita monthly non- food expenditure	Per Capita monthly avg. expenditure minus institutional medical expenditure	Land Holdings (Katthas)	Number of rooms in house	Regularly eat two meals a day	Self classification of financial situation (1- 10 scale)	Household has outstanding loan	Household has outstanding loan from formal source	Below official poverty line (for rural West Bengal 2005)	Principal component analysis for durable goods and livestock	Able bodied male adult (15+)
<b>Household gets BPL rationing</b>													
Difference in coefficients	35.55	1.82	33.73	7.21	-4.02	-0.05	-0.15	-0.20	0.09	-0.12	-0.06	-0.34	-0.35
Chi-squared: Difference	0.64	0.00	1.28	0.03	4.50	0.26	2.23	0.35	0.66	4.89	0.40	2.84	24.09
p-value: Difference	0.42	0.94	0.26	0.86	0.03	0.61	0.14	0.55	0.42	0.03	0.53	0.09	0.00
<b>Households has Antodaya card</b>													
Difference in coefficients	45.94	2.62	43.32	17.50	-4.53	0.03	-0.34	-0.46	0.24	-0.09	-0.19	-0.56	-0.15
Chi-squared: Difference	0.62	0.00	1.61	0.09	5.46	0.05	10.27	1.63	3.88	3.92	2.15	4.00	2.00
p-value: Difference	0.43	0.94	0.20	0.76	0.02	0.82	0.00	0.20	0.05	0.05	0.14	0.05	0.16
<b>Received work from employment generating scheme</b>													
Difference in coefficients	60.86	37.09	23.77	38.47	-1.98	-0.10	-0.17	0.16	0.01	-0.12	-0.18	-0.60	-0.41
Chi-squared: Difference	1.06	1.29	0.35	0.44	0.35	0.62	2.45	0.27	0.01	5.36	2.32	5.98	19.56
p-value: Difference	0.30	0.26	0.56	0.51	0.55	0.43	0.12	0.61	0.93	0.02	0.13	0.01	0.00
<b>House from Indira Housing Plan</b>													
Difference in coefficients	69.63	-22.03	91.66	25.75	-5.54	0.00	-0.28	-0.52	-0.10	-0.19	-0.03	-0.27	0.00
Chi-squared: Difference	1.89	0.45	6.86	0.28	5.25	0.00	5.60	1.96	0.70	5.18	0.04	1.58	0.00
p-value: Difference	0.17	0.50	0.01	0.59	0.02	0.99	0.02	0.16	0.40	0.02	0.84	0.21	1.00

Notes: The table shows, for each government program considered, the difference between the coefficient on an indicator for having been ranked 5 or 6 in the PRA when then outcome indicated in the column heading is taken as the dependent variable (from Table 4) and the corresponding coefficient on an indicator for participating in the government program indicated in the panel headings (from Table 3). The table also shows the test statistic and p-value from a test for equality of the two coefficients.

**Table A2: Characteristics of Recipients of Government Aid**

	Per capita monthly avg. expenditure (1)	Per capita monthly food/fuel expenditure (2)	Per capita monthly non- food expenditure (3)	Per capita monthly expenditure minus institutional medical expenditure (4)	Land Holdings (Katthas) (5)	Number of rooms in house (6)	Regularly eat two meals a day (7)	Self classification of financial situation (1- 10 scale) (8)	Household has outstanding loan (9)	Household has outstanding loan from formal source (10)	Below official poverty line (for rural West Bengal 2005) (11)	Principal component analysis for durable goods and livestock (12)	Able bodied male adult (15+) (13)
Household gets BPL rationing	-11.85 (34.45)	2.39 (19.12)	-14.24 (26.17)	-4.54 (32.24)	-2.12 (2.34)	0.04 (0.08)	-0.05 (0.07)	0.03 (0.23)	0.02 (0.07)	0.01 (0.04)	0.03 (0.08)	-0.12 (0.17)	0.13 (0.06)**
Observations	213	213	213	213	208	212	213	213	213	213	213	213	213
R-Squared	0	0	0	0	0	0	0	0	0	0	0	0	0.03
Mean of dependent variable	426	303	123	407	5.66	1.29	0.66	2.38	0.46	0.08	0.51	1.59	0.83
Households has Antodaya card	-9.09 (50.66)	13.27 (29.28)	-22.36 (38.18)	-4.52 (48.50)	-2.67 (3.61)	-0.06 (0.12)	0.12 (0.11)	0.27 (0.35)	-0.14 (0.11)	-0.04 (0.06)	0.12 (0.12)	0.06 (0.26)	-0.07 (0.09)
Observations	208	208	208	208	203	207	208	208	208	208	208	208	208
R-Squared	0	0	0	0	0	0	0.01	0	0.01	0	0	0	0
Mean of dependent variable	419	302	117	404	5.4	1.29	0.65	2.38	0.46	0.08	0.51	1.58	0.83
Received work from employment generating scheme	-20.34 (31.32)	-38.89 (17.19)**	18.55 (23.78)	-23.19 (29.29)	1.41 (2.13)	0.12 (0.07)*	0.05 (0.06)	-0.36 (0.21)*	0.07 (0.07)	0.10 (0.04)**	0.09 (0.07)	0.24 (0.15)	0.13 (0.05)**
Observations	215	215	215	215	210	214	215	215	215	215	215	215	215
R-Squared	0	0.02	0	0	0	0.01	0	0.01	0	0.03	0.01	0.01	0.03
Mean of dependent variable	425	302	123	406	5.63	1.29	0.67	2.38	0.46	0.08	0.51	1.61	0.83
House from Indira Housing Plan	-27.51 (55.23)	36.25 (30.57)	-63.77 (41.81)	-8.57 (51.71)	0.54 (3.82)	-0.03 (0.13)	0.08 (0.11)	0.27 (0.37)	0.20 (0.12)	0.09 (0.07)	-0.04 (0.12)	-0.21 (0.27)	-0.22 (0.09)**
Observations	214	214	214	214	209	213	214	214	214	214	214	214	214
R-Squared	0	0.01	0.01	0	0	0	0	0	0.01	0.01	0	0	0.03
Mean of dependent variable	426	303	123	407	5.65	1.29	0.67	2.39	0.45	0.08	0.51	1.61	0.83

\* Significant at the 10% confidence level

\*\* Significant at the 5% confidence level

\*\*\* Significant at the 1% confidence level

Notes: Each panel shows a separate set of regressions where the indicator variable specified in the row panel is taken as the independent variable and the variable indicated in the column is the dependent variable. Regressions in this table do not include village fixed effects.

**Table A3: Analysis of PRA Identification Process**

	Per capita monthly avg. expenditure (1)	Per capita monthly food/fuel expenditure (2)	Per capita monthly non- food expenditure (3)	Per Capita monthly avg. expenditure minus institutional medical expenditure (4)	Land Holdings (Katthas) (5)	Number of rooms in house (6)	Regularly eat two meals a day (7)	Self classification of financial situation (1- 10 scale) (8)	Household has outstanding loan (9)	Household has outstanding loan from formal source (10)	Below official poverty line (for rural West Bengal 2005) (11)	Principal component analysis for durable goods and livestock (12)	Able bodied male adult (15+) (13)
	<b>Panel A</b>												
PRA Rank of 5 or 6	9.57 (31.35)	1.35 (17.41)	8.21 (23.82)	-8.19 (29.34)	-6.47 (2.09)***	-0.07 (0.07)	-0.11 (0.06)*	-0.29 (0.21)	0.06 (0.07)	-0.12 (0.04)***	-0.03 (0.07)	-0.3 (0.15)**	-0.23 (0.05)***
Observations	215	215	215	215	210	214	215	215	215	215	215	215	215
R-Squared	0.00	0.00	0.00	0.00	0.04	0.00	0.01	0.01	0.00	0.04	0.00	0.02	0.10
	<b>Panel B: Conditional on Household Size</b>												
PRA Rank of 5 or 6	-22.85 (30.26)	-17.73 (16.67)	-5.12 (24.00)	-42.5 (27.81)	-5.57 (2.11)***	-0.02 (0.07)	-0.1 (0.07)	-0.29 (0.21)	0.08 (0.07)	-0.1 (0.04)**	0.04 (0.07)	-0.12 (0.14)	-0.17 (0.05)***
Number of household members	-46.38 (8.94)***	-27.3 (4.93)***	-19.08 (7.09)***	-49.1 (8.22)***	1.37 (0.62)**	0.08 (0.02)***	0.01 (0.02)	0 (-0.06)	0.02 (-0.02)	0.03 (0.01)***	0.11 (0.02)***	0.26 (0.04)***	0.08 (0.01)***
Observations	215	215	215	215	210	214	215	215	215	215	215	215	215
R-Squared	0.11	0.13	0.03	0.14	0.07	0.07	0.01	0.01	0.01	0.08	0.14	0.17	0.24
Mean of dependent variable	425.24	302.43	122.82	405.92	5.63	1.29	0.67	2.38	0.46	0.08	0.51	1.61	0.83

\* Significant at the 10% confidence level

\*\* Significant at the 5% confidence level

\*\*\* Significant at the 1% confidence level

Notes: Each column is a regression where the dependent variable, indicated in the column heading, is regressed on an indicator variable for the household having been assigned a PRA rank equal to 5 or 6 (Panel A) or this indicator and the number of household members (Panel B). Binary outcome variables are estimated via a linear probability model. Regressions in this table do not include village fixed effects.