

Short-run impact assessment of SKS ultra poor program

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Introduction and background

Most microfinance institutions serve poor and lower-income customers, but not the poorest. For the sake of concreteness, we define the “poorest” as households living on under \$1.25 a day per person (in purchasing-power parity adjusted dollars). The World Bank counted roughly 1.4 billion people living below that line in 2005 (World Bank 2010). The number of unbanked adults living on under \$1 a day per person is hard to pin down, but rough estimates from Peru, Kazakhstan and Uganda count that only 15% of all microfinance clients earn less than \$1 per day (Zeller et al. 2005; Zeller and Alcaez 2005a and 2005b). If we turn the question around and ask the percentage of adults below \$1/day poverty lines with access to banks or microfinance, the result will be very low, especially outside of South Asia.

Can the poorest be reached with finance, and how? If yes, there are two main routes. The first path is for institutions to extend existing products and services to even poorer customers. But the microcredit movement, with its emphasis on delivering business loans, has been slow to embrace the creditworthiness of the poorest. The second path is to design independent approaches that target the particular challenges faced by the poorest families and individuals. While the first path has potential to reach massive scale, the second route holds greater promise to reach very poor and marginalized households, including widows and members of historically excluded ethnic groups. These vulnerable individuals and households might require training first or may need time and resources to build enterprises that reach a minimum scale.

The best-known program in this line was developed by BRAC in Bangladesh. The NGO Trickle Up has also made its mark by focusing on delivering grants to poorer people than the typical microfinance customers. BRAC’s program, “Challenging the Frontiers of Poverty Reduction - Targeting the Ultra Poor” (CFPR-TUP) attacks the challenge of extreme poverty on three levels: economic, social and health; it aims to graduate members to traditional microfinance after a period of two years. Swayam Krishi Sangam Ultra poor Program (SKS-UPP) is a replication of this program in India with a few modifications to suit local conditions – and with a broader vision of “graduation.” We describe the program in more details in the next section.¹

Evaluations of the impact of BRAC’s CFPR-TUP rely on quasi-experiments and panel data approaches, comparing households selected to participate in the program to households that failed to meet some of the selection criteria. Rabbani et al (2006) found that, over a period of three years, ownership of assets, social integration, and likelihood to hold savings and credit increased, and food security improved for households participating in CFPR-TUP, over and beyond the achievements of non-

¹ The SKS evaluation is funded by the Ford Foundation’s Delhi office, and is being completed in parallel with evaluations of other TUP replications, coordinated by Ford and CGAP.

selected households. These impacts were mostly sustained over time, and the difference in income between participating and non-participating households grew even larger over time (Das and Misha 2010). These studies, however, remain susceptible to selection bias, notably due to their construction of the treatment (participating households) and control (non-participating households who failed to meet the selection criteria) groups. More rigorous evidence must be obtained by randomly assigning participation in the program, which ensures that participants and non-participants have similar characteristics before the program, and that the differences between them after the program are indeed due to the program itself (Bauchet and Morduch 2010).

This study precisely uses this design to assess the impact of SKS's ultra poor program on social and economic outcomes, including income, asset ownership, reliance on government social safety nets, use of financial instruments, health, and school attendance of children. Overall, we find that the program shifts participants away from subsistence livelihoods, which depend largely on finding agricultural day labor and use of government social safety net systems, toward a more self-sustained but still modest livelihood based on income from livestock. These are short-term results, measured shortly after the intervention by SKS was completed. Ongoing work will evaluate impacts one year after the intervention ended.

SKS's Ultra Poor program

The SKS-UPP program is targeted at ultra poor households, which are defined along five dimensions: housing condition, land ownership, asset ownership, access to microfinance and presence of male working member in the household. Access to microfinance and the presence of a male working household member automatically ruled out a household from participating in the program. For the remaining three dimensions, an individual score was allotted to each household. For example, a score for the housing condition was based on the size of house, condition of the house, material of the roof, material of the walls, whether electricity and water is available and if yes, whether it was shared with other households. Eligibility for participation in the UPP required an aggregate score of less than equal to seven.

The program is an 18-month program, which consists of three main components: (1) special investment for employment and enterprise development, (2) essential health-care, and (3) social development. The first component of the program – a special economic package for enterprise development – involves a one-time asset transfer, enterprise related training, cash stipend for large enterprise related expenses and collection of minimum mandatory savings. It starts with selection of an income generating activity which is chosen from a menu of local activities such as buffalo rearing, goat rearing, chicken shop and horticulture nursery. There are also non-farm activities such as tea shops and telephone booths. Once the household has selected an activity, they undergo training sessions where they are taught skills pertaining to the specific enterprise they have chosen. After the training is completed, the specific asset, for example, the buffalo or tea shop is procured and transferred to the household. There is a mandatory minimum weekly savings that is required of all households, once the asset begins to generate cash flow.

The second component of the program is provision of essential health-care techniques. This is a combination of preventive techniques and on-the-spot coverage. The health program is divided into the following: a) monthly visits by a field health assistant to each member, documenting the health status of the family and providing care or referrals as needed; b) health screening and information awareness camp hosted with support from government doctors and health focused NGOs; c) monthly information session conducted by the field health assistant on topics such as contraception, pre and post natal care, sanitation, immunization, tuberculosis and anemia; and d) one or two UPP member in each selected

village is trained by a doctor on basic health services. This member is equipped with basic medicines (available free of cost from the government) to serve as the touch- point for other members.

The third component of the program is social development. This involves measures aimed at building social safety nets such as a solidarity group and a rice bank. Group solidarity is encouraged through weekly meetings where members discuss common concerns and solutions. The rice bank is created by members depositing a handful of rice every day which can be drawn upon by member household at no interest. After 18 months, SKS stops conducting the weekly meetings, collecting the minimum required savings from members and organizing health camps in the treatment villages. The asset becomes a complete responsibility of the household with no stipend or advisory support from SKS.

Impact evaluation design

The impact assessment of the SKS UPP is done through a randomized controlled experiment, where the level of randomization is the village. Households across 197 villages in the Medak district of Andhra Pradesh, India, were selected to participate in the program. Medak is one of the poorest districts of Andhra Pradesh and therefore a natural catchment area for a program aimed at reducing poverty. In the first step, SKS selected over 2,000 households based on Participatory Rural Appraisals (PRAs) and village surveys. 1,065 households were then selected from this group based on the eligibility criteria through the score method described earlier.

As Bloom (2005) highlights, when analyzing individual data from programs randomized at a group (village) level, it is important to take into account that the error term may not be independent across individuals. Outcomes of interest such as income and consumption maybe correlated. Since the treatment status across individuals within a group is also identical, it is difficult to tease out the impact of the program from the correlated outcomes. Bloom (2005) shows that the design effect increases with both the intra-village correlation and the number of member households per village. This effect can be potentially very large even for small increase in intra-village correlation. Bloom shows that for a given sample size, an increase in the number of individuals sampled per cluster increases the precision much less than increasing the number of clusters being randomized. Intuitively this means that the larger the level of randomization, the larger the total sample size needed to achieve a given power.

For the SKS UPP impact study, 102 villages were randomly selected to receive the 'Ultra Poor Program' treatment and 95 villages as comparison group. This division assigned 576 households to participate in the program, and 489 to constitute the control group. We chose to randomize at the village level, although it required a larger sample size. The main reason for doing so was the fear of resentment towards the implementing organization if individual-level randomization was carried out, because some households would be selected not to participate while some of their friends would be. In addition, it was easier for the research team to ensure that villages were treated according to the initial random assignment than to monitor individual households. Finally, randomizing at the village level greatly helped limit spillovers from treatment to control households.

To measure the impact of the program, we use a difference-in-difference technique to compare participating and non-participating household before and after the program. This technique relies on the random assignment to rigorously attribute observed differences between groups to the program, but provides more precise estimates of the impact by comparing the *change* in outcomes for each group. We implement this approach in a regression framework. The impact of the program is given by the coefficient β in the following regression

where:

- indexes households;

- indexes villages;
- indexes survey waves;
- is a village-level fixed effect;
- is the outcome of interest;
- is a binary variable equal to 1 if the household was assigned to treatment and 0 if the household was assigned to the control group;
- is a binary variable equal to 1 for post-program data and 0 for pre-program data;
- is the set of five variables highlighted above, controlling for pre-program differences between treatment and control groups; and
- is the error term.

Data

The baseline survey was conducted for all the 1,065 selected households in 2007. Information was collected on socio-demographic details of the household, including religion, caste, family type, size of household, age, marital status, disability, education, occupation and migration details. Information was also collected on living conditions, which included description of house, source of drinking water, sanitation and source of fuel. We measured households' participation in government schemes such as National Rural Employment Guarantee Scheme (NREGS), pension scheme, housing scheme, credit programs such as Self Help Group (SHG) and public distribution system (PDS). The baseline survey also collected data on asset ownership details, use of time, women's mobility measures, political awareness and access. Detailed information was also collected on physical health, hygiene habits and mental health conditions of household members. We asked about details of household monthly consumption expenditure, income and other financial transactions of the household. Finally, we collected details on social standing of the household within the community and future aspirations of the households.

The "first endline" survey, which we use in this paper, was conducted in 2009, 18 months after treatment households received the asset of their choice. The survey was administered to households across treatment and control villages, reaching 1,015 of the initial 1,065 households. The "second endline" is scheduled for the end of 2010, three years after the baseline survey.

Table 1 describes the sample at the time of the baseline and the results of the randomization. On average, program participants are middle-aged, illiterate, single women in charge of more than three household members. Households own less than half an acre of land on average, but 63 percent of them do not own any land (data not shown), and principally rely on finding work on other farmer's property to generate income. The average household income at the time of the baseline was Rs945 per month, which translates into US\$0.58 per person and per day on average (on a purchasing power parity basis). Total household expenditures reached Rs1,627 per month on average (just under PPP\$100, equivalent to PPP\$1.23 per household member per day). It is not unusual for average expenditures to be higher than average income in surveys of poor households in developing countries, as discussed notably by Deaton (1997). The results presented in this paper are preliminary, and we will continue to take action to improve the quality of our data. Reflecting the low levels of income and expenditures, living conditions are particularly hard. While the majority of households own their house, more than 98 percent of them live in straw or mud houses ("kuccha" and thatched) and almost all of them do not have private latrines.

Despite their low income and poor condition, more than half of all households have outstanding loans and savings. In the endline data, self-help groups (SHG) were the most common source of loans for the households in our sample: more than 40 percent of treatment and control households that have outstanding loans borrow from SHGs (Table 7). Unfortunately, the percentages of households having

outstanding loans and savings vary significantly in treatment and control groups. Households that were assigned to participate in the program are more likely to have outstanding loans (75 percent of them do, versus 69 percent of households in the control group) and more likely to have savings (63 percent of households in the treatment group have savings, versus 55 percent of households in the control group).

The randomization also created groups that differ in their access or use of government safety nets. The proportion of households that sought or received work from the public Employment Generating Scheme (EGS), a pension, or grains from the “Below the Poverty Line” (BPL) rations in the 12 months prior to the survey was larger in the treatment group than in the control group (Table 1).

To address these differences between treatment and control groups, we include in all our regressions a series of five binary variables indicating whether the household had outstanding loans, savings, EGS work, a pension, or grains from the BPL rations at the time of the baseline survey. The randomization, however, did create treatment and control groups that are not statistically significantly different in terms of asset ownership, living conditions, income, and participation in most public safety net schemes.

Short-run impact of SKS’s ultra poor program

We measured the short-run impact of the program on social and economic outcomes, including consumption, income, asset ownership, reliance on government social safety nets, use of financial instruments, health, and school attendance of children. We do not have results on household food security at this time, and continue preparing the data for further analyses.

Household consumption

The program did not significantly increase participating households’ consumption, as measured by expenditures on various goods (Table 2). Total consumption increased significantly for all households at the time when the program was being implemented, but less so for households that participated in the program: participants increased their total consumption by almost Rs700 less than non-participants, although the difference is not statistically significant.

Analyzing detailed components of consumption suggests that the program helped households increase their food consumption, while post-program overall food consumption may have decreased, although none of the coefficients are statistically significant at a 95 percent confidence level or more.

Household income

Table 3 shows the impact of the program on total income as well as sources of income. Participating in the ultra poor program did not statistically significantly increase households’ total income, although the point estimate is positive.

The UPP program, however, created an important shift in the composition of households’ income. Agricultural labor income, which for the target households represents daily agricultural labor (planting, weeding, harvesting on other farmers’ fields) decreased significantly, while income from livestock (sale of milk from cows and buffaloes and sales of kids from goats) increased dramatically and statistically significantly. The Rs172 decrease in monthly agricultural labor income represents a 35 percent decrease from the average baseline level, but the Rs64 increase in monthly livestock income is an eightfold increase from the average baseline level.

The increase in livestock income is a logical consequence of the transfer of a productive asset as part of the program. The question of interest will be the sustainability of this increase over the longer

term, and the possible increase in total income due to the program, as was observed in BRAC's CFPR-TUP (Das and Misha 2010).

This change in the composition of income has major implications for the type of livelihood that households have. Livestock income is a self-generated, relatively stable income. Cows and buffaloes produce milk most of the year, and provide daily income. Agricultural labor, on the opposite, is dependent upon finding an employer, in competition with many other daily laborers. As Collins et al (2009) highlighted, living in poverty often means having an *irregular* income in addition to a low average income. Reducing fluctuations will help households smooth consumption, as well as reduce the risks and costs associated with the use of informal financial instruments needed to deal with irregular incomes.

Assets

The impact of the UPP program on households' assets ownership is similar to the impact of income. Land ownership and ownership of durable assets did not change significantly as a result of a program, with the exception of ownership of livestock, which is a direct consequence of participation in the program. The point estimate for the change in land ownership is positive, but small (Table 4, column (2)). The change in ownership of various household assets, as measured by an index based on the ownership of items such as television, radio, furniture, means of transportation, and jewelry, was larger for households that participated in the program than for households that did not, but this difference is not statistically significant.

Table 4 indicates that the UPP program significantly increased the ownership of agricultural assets: household that participated in the program were 46 percentage points more likely to own livestock than households that were assigned to not participate, a tenfold increase in the likelihood to own livestock compared to the baseline average. This result, however, is entirely driven by the increased ownership of livestock, as evidenced by the coefficient on the interacted term Post*Treatment in columns (6) and (7). Running the regression reported in table (4) with the dependent variable being an agricultural asset index that excludes livestock produces a statistically non-significant coefficient on the interaction variable (result not shown).

Use of government safety nets

Households that participated in SKS's UPP program decreased their use of the public safety net system (Table 5). This finding is consistent with the finding that households participating in the program generate a larger share of their income from livestock – a relatively stable form of self-employment income. A notable result is the 8 percentage point decrease in the likelihood that households sought or received “below the poverty line” rations (column 8). This coefficient represents an eight percent decrease from the average at the time of the baseline survey. Households that participated in UPP also were less likely to seek or receive government pensions, housing, and assets.

It is notable that households that were assigned to the treatment group, however, were not less likely to have obtained goods from the public distribution system (PDS). The small magnitude of this coefficient (Table 5) indicates that treatment and control households were equally likely to keep receiving products from this government scheme. This finding is not surprising, given that the UPP program is not aimed at directly lifting participating households out of poverty before the end of the program. The ultra poor program recognizes that time is needed to build sustainable livelihoods and slowly increase income and assets.

Use of financial instruments

As mentioned above, the percentage of households, both in the treatment and control groups, that had outstanding loans and active savings mechanisms was remarkably high at the time of the baseline (72 percent and 61 percent, respectively). The impacts of the program on the use of credit and savings instruments must be put in the context of this situation.

Participating in the UPP program did not affect the likelihood that a household had one or more outstanding loans, but decreased the amounts outstanding by a large amount. Table 6 shows that households that participated in the program decreased their total amount of loans outstanding by more than Rs5,900, which represents 84 percent of the initial average amount outstanding. The composition of households' creditors also changed: the proportion of households borrowing from moneylenders was 32 percent in the control group and 20 percent in the treatment group. The likelihood of borrowing from a microfinance institution, however, was not statistically significantly higher in the treatment group than in the control group (Table 7).

Households in the treatment group were significantly more likely to have borrowed from "other sources," which is somewhat puzzling; further analysis of the data is needed to make this answer more explicit. Globally, these results suggest that households are reducing their indebtedness, which could prepare them to better take advantage of microcredit to support and expand their business but could also signal an aversion to debt. Longer-term results will speak more directly to the question of the participation of graduates of the ultra poor program into mainstream microfinance.

The impact of the program on the use of savings mirrors that of the use of credit: households that participated in the program were significantly more likely to be saving money, but the impact on the amount saved is uncertain. Table 6 shows that households in the treatment group were 13 percentage points more likely to save than households in the control group, holding all other variables in the model constant. This difference is large, representing 22 percent of the baseline average likelihood to save.

The average amount saved increased more for households who participated in the program than for households that did not (by Rs288 on average), and the difference is large when compared to the baseline average amount of savings. This difference is not statistically significant, however, and must be interpreted with caution. The next wave of the survey, providing a second follow-up to the baseline, will allow for further analysis.

Health

The impacts of the UPP program on participants' health are mixed. Households in the treatment group reported being less sick than households in the control group: the former lost 2 fewer work days (in the month prior to the interview) to sickness than the latter, which represents 56 percent of the baseline number of days lost to sickness. In addition, households in the treatment group were 12 percentage points less likely to have gone to the doctor or to a hospital in the last year than households in the control group on average, holding other variables in the model fixed.

At the same time, self-reported changes in general health were not only marginally statistically significantly different for households that participated in the program and households that did not (Table 8, column 1). Nor did the program appear to affect participants' mental health. None of the regressions coefficients on various indicators of stress and worry are large and statistically significant (Table 8).

Children's schooling

The final outcome that we report is the schooling of children (Table 9). As with BRAC's CFPR-TUP program, the SKS UPP program did not have a significant short-run impact on the likelihood that

children aged 8 to 14 in the household attend school, nor on the amount of time that children spend at school or studying.

We measured the schooling of children aged 8 to 14 with three indicators: the amount of time that they spent learning (in school or studying out of school) in the 24 hours prior to the interview, whether any child of that age in the household is schooled, and the number of days that children spent at school in the week prior to the interview. The coefficients reporting the impact of the are small in magnitude and not statistically significant. The overall impact of the program on children schooling therefore appears to be negligible in the short term.

Conclusion

The SKS UPP program works with marginalized and very poor villagers in Andhra Pradesh, India. Its overall objective is to lift households out of extreme poverty, provide them with a sustainable livelihood, and prepare them to become successful microfinance clients. We used a randomized controlled trial approach to rigorously measure the causal impact of the program on a variety of socio-economic outcomes.

These short-run results are encouraging, but they do not point to a dramatic positive impact of the program on households' life. Total household income and ownership of household assets did not statistically significantly increase as a result of participation in the program, although participating households were able to generate more income from livestock and less income from agricultural labor than households in the control group. This shift suggests that the program helps households build a sustainable self-employment-based livelihood, with more regular income. This program also helped households reduce their indebtedness, and increased the likelihood that households save regularly, although savings balances were not significantly higher for participating households than for non-participating households. The program also had small positive effects on health, as measured by the number of sick days and visits to the doctor, but participating households did not report feeling in better health than non-participating households. Finally, the program did not significantly impact the schooling of the children of ultra poor households, at least in the short term.

The short-term nature of the results is important to bear in mind. Ongoing work is evaluating these same outcomes roughly one year later.

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Table 1. Sample description and randomization results.

| | No. of obs. | Control group | Treatment group | p-value |
|---|-------------|---------------|-----------------|---------|
| Age | 1,065 | 37.4 | 37.5 | 0.867 |
| Can write (%) | 1,062 | 3.7 | 5.4 | 0.190 |
| Can read (%) | 1,041 | 3.6 | 5.5 | 0.139 |
| Marital status | | | | |
| Married | 1,065 | 8.0 | 5.9 | |
| Unmarried | 1,065 | 2.3 | 1.4 | |
| Divorced | 1,065 | 23.8 | 26.0 | 0.380 |
| Widow | 1,065 | 66.0 | 66.7 | |
| Number of household members | 1,065 | 3.2 | 3.3 | 0.203 |
| Own their house (%) | 1,061 | 72.3 | 70.0 | 0.422 |
| House material (%) | | | | |
| Pucca (bricks) | 1,060 | 2.5 | 1.2 | |
| Kuccha (mud or hay, tin roof) | 1,060 | 78.6 | 81.4 | 0.238 |
| Thatched (mud or hay, straw roof) | 1,060 | 18.9 | 17.4 | |
| Source of drinking water (%) | | | | |
| Tap | 1,038 | 53.0 | 50.1 | |
| Well | 1,038 | 3.4 | 4.3 | |
| Tube well/hand pump | 1,038 | 43.2 | 43.7 | 0.116 |
| Tank/reservoir | 1,038 | 0.4 | 2.0 | |
| Latrine is open air (%) | 1,051 | 98.3 | 98.9 | 0.390 |
| Total land owned by hh (acres) | 1,064 | 0.39 | 0.42 | 0.616 |
| Total monthly household income (Rs) | 1,054 | 903.9 | 979.2 | 0.278 |
| Total monthly household expenditures (Rs) | 1,065 | 1,635.0 | 1,620.9 | 0.933 |
| Household has outstanding loan(s) (%) | 1,054 | 68.7 | 74.5 | 0.039 |
| Household saves (%) | 979 | 54.8 | 63.3 | 0.007 |
| Household sought or received work from EGS in last 12 months (%) | 1,057 | 30.3 | 37.1 | 0.021 |
| Household sought or received a pension in last 12 months (%) | 1,059 | 60.1 | 67.9 | 0.008 |
| Household sought or received housing from a public scheme in last 12 months (%) | 1,056 | 14.8 | 17.9 | 0.188 |
| Household sought or received asset(s) from a public scheme in last 12 months (%) | 1,058 | 3.7 | 4.0 | 0.800 |
| Household sought or received vocational training from a public scheme in last 12 months (%) | 1,059 | 0.4 | 0.5 | 0.795 |
| Household sought or received government-subsidized loans in last 12 months (%) | 1,057 | 2.7 | 2.1 | 0.529 |
| Household has Antodaya, pink or white card (%) | 1,057 | 93.0 | 93.0 | 0.978 |
| Household receives BPL rationing (%) | 1,007 | 94.4 | 96.9 | 0.048 |

All data are from the baseline survey. The column titled “p-value” provides the results of t-tests for continuous and binary variables, and chi-square tests for categorical variables.

Table 2. Impact on monthly household consumption.

| | Total consumption | Food | Tobacco & Alcohol | Medical | Educational | Other |
|--|----------------------|-----------------|----------------------|-----------------|---------------|-------------------|
| Mean(dep. var.) in baseline, in Rs: | 1645 | 925 | 90 | 174 | 53 | 196 |
| Post*Treatment | -696 (451) | 57 (194) | -31 (66) | -31 (70) | -13 (17) | -703* (371) |
| Post | 1,191*** (335) | -177 (144) | 40 (49) | 41 (52) | -1 (13) | 1,445*** (276) |
| Hh had outstanding loan (baseline) | 330 (270) | -56 (116) | -19 (39) | 34 (42) | 29*** (10) | 264 (222) |
| Hh saved (baseline) | 208 (259) | 182 (112) | 22 (38) | 6 (40) | 5 (10) | -44 (213) |
| Hh sought/received EGS work (baseline) | 235 (262) | 111 (113) | 44 (38) | -20 (41) | -1 (10) | 138 (216) |
| Hh sought/received pension (baseline) | -169 (254) | -213* (109) | -9 (37) | -2 (39) | 6 (10) | 67 (209) |
| Hh sought/received BPL ration (baseline) | 57 (582) | 159 (250) | -4 (85) | -296*** (90) | 4 (22) | 178 (479) |
| Constant | 1,234** (617) | 842*** (266) | 71 (90) | 443*** (96) | 25 (24) | -290 (509) |
| Observations | 1,744 | 1,744 | 1,744 | 1,744 | 1,744 | 1,744 |
| R-squared | 0.013 | 0.006 | 0.002 | 0.008 | 0.008 | 0.025 |

*** p<0.01, ** p<0.05, * p<0.1. All regressions include village-level fixed effects.

Table 3. Impact on monthly household income.

| | Total income | Ag. self-employment | Ag. labor | Non-ag. labor | Salaried employment | Livestock | Non-ag. self-employment |
|--|-----------------|---------------------|-----------------|---------------|---------------------|--------------|-------------------------|
| Mean(dep. var.) in baseline, in Rs: | 954 | 6 | 491 | 210 | 28 | 8 | 79 |
| Post*Treatment | 41 (140) | 16 (39) | -172** (69) | 20 (69) | 3 (56) | 64** (32) | 33 (69) |
| Post | 697*** (104) | 78*** (29) | 408*** (51) | 94* (51) | 101** (42) | 6 (24) | -59 (51) |
| Hh had outstanding loan (baseline) | 59 (84) | 2 (23) | 5 (41) | 47 (41) | 36 (33) | -20 (19) | -43 (41) |
| Hh saved (baseline) | -12 (80) | 5 (22) | 42 (39) | -3 (39) | -5 (32) | -9 (18) | -2 (39) |
| Hh sought/received EGS work (baseline) | 205** (81) | 9 (23) | 124*** (40) | 62 (40) | 4 (33) | 24 (18) | -21 (40) |
| Hh sought/received pension (baseline) | -21 (79) | 30 (22) | -131*** (39) | -19 (39) | 8 (32) | 17 (18) | 2 (39) |
| Hh sought/received BPL ration (baseline) | -80 (181) | 9 (50) | 9 (89) | 62 (89) | -201*** (72) | 16 (41) | 12 (89) |
| Constant | 983*** (193) | -27 (53) | 485*** (94) | 133 (95) | 195** (77) | -3 (44) | 117 (94) |
| Observations | 1,734 | 1,710 | 1,727 | 1,731 | 1,733 | 1,734 | 1,644 |
| R-squared | 0.071 | 0.015 | 0.070 | 0.009 | 0.015 | 0.010 | 0.002 |

*** p<0.01, ** p<0.05, * p<0.1. All regressions include village-level fixed effects.

Table 4. Impact on asset ownership.

| | Household owns house | Acres of land owned | Assets index | Ag. assets index | Ownership of ag. assets: | | |
|--|-------------------------|------------------------|---------------------|----------------------|--------------------------|-------------------|---------------------|
| | | | | | livestock | poultry | plough |
| Mean(dep. var.) in baseline: | 0.709 (1) | 0.412 (2) | 0.126 (3) | 0.009 (4) | 0.045 (5) | 0.042 (6) | 0.013 (7) |
| Post*Treatment | 0.032 (0.043) | 0.036 (0.117) | 0.092 (0.191) | 0.395*** (0.145) | 0.457*** (0.035) | 0.005 (0.025) | -0.003 (0.013) |
| Post | 0.099*** (0.032) | 0.208** (0.087) | -0.203 (0.142) | -0.225** (0.109) | 0.058** (0.026) | 0.014 (0.018) | 0.014 (0.010) |
| Hh had outstanding loan (baseline) | 0.114*** (0.026) | -0.017 (0.070) | 0.088 (0.114) | 0.111 (0.087) | 0.013 (0.021) | 0.011 (0.015) | 0.013 (0.008) |
| Hh saved (baseline) | -0.019 (0.025) | -0.032 (0.067) | 0.345*** (0.109) | 0.165** (0.083) | 0.033* (0.020) | 0.013 (0.014) | 0.004 (0.008) |
| Hh sought/received EGS work (baseline) | -0.032 (0.025) | 0.013 (0.068) | -0.086 (0.110) | 0.022 (0.083) | 0.049** (0.020) | 0.007 (0.014) | -0.008 (0.008) |
| Hh sought/received pension (baseline) | 0.059** (0.024) | 0.015 (0.066) | 0.402*** (0.107) | 0.032 (0.081) | -0.011 (0.020) | 0.013 (0.014) | -0.018** (0.007) |
| Hh sought/received BPL ration (baseline) | 0.056 (0.055) | 0.394*** (0.150) | 0.022 (0.244) | -0.493*** (0.185) | -0.030 (0.045) | -0.016 (0.032) | -0.005 (0.017) |
| Constant | 0.578*** (0.059) | 0.065 (0.159) | -0.351 (0.259) | 0.277 (0.197) | 0.044 (0.048) | 0.033 (0.034) | 0.015 (0.018) |
| Observations | 1,740 | 1,727 | 1,706 | 1,583 | 1,738 | 1,737 | 1,741 |
| R-squared | 0.038 | 0.015 | 0.022 | 0.017 | 0.249 | 0.004 | 0.010 |

*** p<0.01, ** p<0.05, * p<0.1. All regressions include village-level fixed effects. The asset index is the first principal component of the binary variables indicating ownership of: television, telephone, electric fan, fridge, motorcycle, rickshaw, bull cart, bicycle, stereo radio, lpg gas, sewing machine, chair/stool, cot, table, watch/clock, gold, silver, utensils, other assets. The agriculture asset index is the first principal component of the binary variables indicating ownership of: plough, tractor, pump set, trolley, fodder machine, livestock, poultry, other agricultural assets.

Table 5. Impact on the use of government safety nets.

| | Household sought or received... | | | | | | Received | Received |
|--|---------------------------------|----------------------|---------------------|---------------------|--------------------------------|---------------------|---------------------|--------------------------------|
| | work from EGS | pension | gov. housing | gov. assets | gov. vocational training | subsidized loans | goods from PDS | goods from BPL rationing |
| Mean(dep. var.) in baseline: | 0.338 | 0.644 | 0.169 | 0.040 | 0.004 | 0.024 | 0.931 | 0.956 |
| Post*Treatment | -0.060 (0.039) | -0.096*** (0.037) | -0.086** (0.042) | -0.053** (0.024) | -0.006 (0.011) | -0.011 (0.033) | -0.005 (0.018) | -0.077*** (0.029) |
| Post | 0.385*** (0.029) | 0.227*** (0.027) | 0.078** (0.031) | 0.047*** (0.018) | 0.017** (0.008) | 0.202*** (0.024) | 0.000 (0.013) | -0.098*** (0.022) |
| Hh had outstanding loan (baseline) | 0.023 (0.023) | 0.054** (0.022) | 0.042* (0.025) | 0.034** (0.014) | 0.009 (0.006) | 0.025 (0.020) | 0.011 (0.011) | 0.015 (0.017) |
| Hh saved (baseline) | 0.049** (0.022) | -0.021 (0.021) | 0.029 (0.024) | -0.002 (0.014) | 0.006 (0.006) | 0.044** (0.019) | 0.011 (0.010) | 0.005 (0.017) |
| Hh sought/received EGS work (baseline) | 0.585*** (0.023) | -0.004 (0.021) | 0.009 (0.024) | 0.004 (0.014) | -0.007 (0.006) | 0.019 (0.019) | 0.001 (0.010) | 0.013 (0.017) |
| Hh sought/received pension (baseline) | -0.002 (0.022) | 0.533*** (0.021) | 0.025 (0.023) | 0.021 (0.013) | 0.002 (0.006) | -0.026 (0.018) | 0.001 (0.010) | 0.002 (0.016) |
| Hh sought/received BPL ration (baseline) | 0.051 (0.050) | 0.030 (0.047) | 0.125** (0.054) | -0.008 (0.031) | -0.018 (0.014) | 0.069 (0.042) | 0.381*** (0.023) | 0.534*** (0.037) |
| Constant | 0.051 (0.053) | 0.262*** (0.050) | -0.009 (0.057) | 0.009 (0.033) | 0.011 (0.015) | -0.082* (0.045) | 0.588*** (0.024) | 0.421*** (0.040) |
| Observations | 1,744 | 1,744 | 1,742 | 1,744 | 1,744 | 1,744 | 1,744 | 1,744 |
| R-squared | 0.415 | 0.345 | 0.014 | 0.011 | 0.009 | 0.098 | 0.163 | 0.172 |

*** p<0.01, ** p<0.05, * p<0.1. All regressions include village-level fixed effects.

Table 6. Impact on use of financial instruments.

| | Any outstanding loan? | Total amount of loan outstanding (Rs) | Does the household save? | Total savings balance (Rs) |
|--|-----------------------|---------------------------------------|--------------------------|----------------------------|
| Mean(dep. var.) in baseline: | 0.719 (1) | 7,029 (2) | 0.610 (3) | 112 (4) |
| Post*Treatment | -0.032 (0.040) | -5,922*** (1,695) | 0.133*** (0.037) | 288 (302) |
| Post | -0.011 (0.030) | 5,248*** (1,261) | 0.116*** (0.027) | 1,681*** (225) |
| Hh had outstanding loan (baseline) | 0.575*** (0.024) | 7,127*** (1,012) | 0.032 (0.022) | -277 (181) |
| Hh saved (baseline) | 0.036 (0.023) | -429 (974) | 0.562*** (0.021) | 570*** (174) |
| Hh sought/received EGS work (baseline) | 0.041* (0.023) | 775 (986) | 0.031 (0.021) | 181 (176) |
| Hh sought/received pension (baseline) | 0.014 (0.023) | -678 (952) | 0.033 (0.021) | 15 (171) |
| Hh sought/received BPL ration (baseline) | -0.025 (0.052) | 2,724 (2,174) | -0.003 (0.047) | 300 (390) |
| Constant | 0.291*** (0.055) | -346 (2,309) | 0.222*** (0.050) | -426 (414) |
| Observations | 1,743 | 1,729 | 1,744 | 1,741 |
| R-squared | 0.315 | 0.048 | 0.403 | 0.099 |

*** p<0.01, ** p<0.05, * p<0.1. All regressions include village-level fixed effects. All amounts are in Rupees.

Table 7. Sources of loans taken by the household (post-treatment data only).

| (In %) | No. of obs. | Control group | Treatment group | p-value |
|--------------------------|-------------|---------------|-----------------|---------|
| Family member/relative | 701 | 4.5 | 5.6 | 0.498 |
| Commercial bank | 701 | 7.1 | 5.4 | 0.355 |
| Grameen bank (RRB) | 701 | 3.9 | 2.1 | 0.154 |
| SHG | 701 | 42.4 | 46.4 | 0.295 |
| Moneylender | 701 | 32.5 | 19.2 | 0.000 |
| Friend | 701 | 0.3 | 1.3 | 0.171 |
| Neighbor | 701 | 12.9 | 3.8 | <0.001 |
| Cooperative | 701 | 5.8 | 11.8 | 0.006 |
| Other source | 701 | 6.4 | 33.8 | <0.001 |
| Microfinance institution | 701 | 0.3 | 1.0 | 0.272 |

Data is from the endline survey only, conditional on having one or more outstanding loan(s).
Percentages add up to more than 100% because households take loans from several sources.

Table 8. Impact on physical and mental health.

| | Health improved in last year | Days unable to work b/c sickness | Went to doctor or hospital in last year | Worried for one month in last year | Worry interfered with normal activities | Expect better life in next year |
|--|------------------------------|----------------------------------|---|------------------------------------|---|---------------------------------|
| Mean(dep. var.) in baseline: | 0.237 (1) | 3.6 (2) | 0.506 (3) | 0.320 (4) | 0.790 (5) | 0.447 (6) |
| Post*Treatment | 0.084* (0.046) | -2.019** (0.805) | -0.121** (0.053) | 0.062 (0.050) | -0.013 (0.074) | -0.019 (0.040) |
| Post | 0.409*** (0.034) | 0.585 (0.599) | 0.091** (0.039) | 0.189*** (0.037) | 0.057 (0.055) | 0.047 (0.030) |
| Hh had outstanding loan (baseline) | 0.012 (0.028) | 0.422 (0.481) | 0.018 (0.031) | 0.002 (0.030) | 0.045 (0.041) | 0.025 (0.024) |
| Hh saved (baseline) | 0.139*** (0.027) | -0.589 (0.463) | -0.000 (0.030) | -0.002 (0.029) | -0.045 (0.040) | 0.031 (0.023) |
| Hh sought/received EGS work (baseline) | 0.011 (0.027) | -0.346 (0.468) | 0.012 (0.031) | -0.066** (0.029) | -0.075* (0.042) | 0.038 (0.023) |
| Hh sought/received pension (baseline) | -0.030 (0.026) | -0.425 (0.453) | -0.034 (0.030) | 0.028 (0.028) | 0.074* (0.040) | -0.007 (0.023) |
| Hh sought/received BPL ration (baseline) | -0.001 (0.059) | 0.704 (1.038) | -0.048 (0.067) | -0.005 (0.064) | -0.075 (0.083) | 0.052 (0.051) |
| Constant | 0.149** (0.063) | 2.937*** (1.103) | 0.567*** (0.071) | 0.305*** (0.068) | 0.843*** (0.088) | 0.027 (0.054) |
| Observations | 1,732 | 1,721 | 1,697 | 1,729 | 690 | 1,607 |
| R-squared | 0.225 | 0.008 | 0.006 | 0.057 | 0.019 | 0.009 |

*** p<0.01, ** p<0.05, * p<0.1. All regressions include village-level fixed effects. The sample in column (5) is households who reported being worried.

Table 9. Children's use of time and schooling.

| | Time spent ... in the last 24 hours (in minutes) | | | | Any child attends school | Days at school in last week |
|--|--|------------------|--------------------|--------------------|--------------------------|-----------------------------|
| | working | in leisure | doing chores | learning | | |
| Mean(dep. var.) in baseline: | 55.7 (1) | 24.5 (2) | 60.2 (3) | 247.5 (4) | 0.700 (5) | 5.6 (6) |
| Post*Treatment | -3.3 (23.5) | -8.1 (11.7) | -38.6*** (14.4) | -20.2 (32.9) | 0.017 (0.074) | -0.3 (0.5) |
| Post | -11.4 (17.2) | 50.6*** (8.5) | 23.2** (10.5) | 92.3*** (24.2) | 0.114** (0.054) | 0.3 (0.4) |
| Hh had outstanding loan (baseline) | -28.5* (14.7) | 2.7 (7.3) | 3.1 (9.0) | 34.5* (20.7) | 0.085* (0.046) | 0.7** (0.3) |
| Hh saved (baseline) | -9.6 (14.5) | -16.6** (7.2) | 2.0 (8.9) | 15.3 (20.3) | 0.036 (0.046) | 0.4 (0.3) |
| Hh sought/received EGS work (baseline) | 12.8 (14.6) | 6.0 (7.2) | 6.7 (8.9) | -15.2 (20.4) | -0.006 (0.046) | -0.1 (0.3) |
| Hh sought/received pension (baseline) | 4.1 (14.2) | 7.9 (7.1) | -8.0 (8.7) | -25.1 (19.9) | 0.002 (0.045) | -0.3 (0.3) |
| Hh sought/received BPL ration (baseline) | -64.0 (40.6) | -22.1 (20.2) | 25.1 (24.3) | 16.0 (56.7) | 0.044 (0.127) | 0.3 (0.8) |
| Constant | 139.9*** (42.0) | 44.8** (20.8) | 33.3 (25.1) | 212.8*** (58.5) | 0.549*** (0.132) | 3.2*** (0.8) |
| Observations | 766 | 766 | 767 | 759 | 761 | 700 |
| R-squared | 0.018 | 0.111 | 0.018 | 0.054 | 0.029 | 0.023 |

*** p<0.01, ** p<0.05, * p<0.1. All regressions include village-level fixed effects. The sample includes all households in which child(ren) ages 8 to 14 live. The activity "learning" includes being at school and studying outside of school.