

THE SHORT-TERM IMPACT OF
UNCONDITIONAL CASH TRANSFERS TO THE
POOR: EXPERIMENTAL EVIDENCE FROM
KENYA

Online Appendix

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1 Variables collected

1.1 Household and individual level

1. Assets

(a) Movable assets

i. Livestock: Sum of all livestock assets owned by respondents in KES (later converted to USD PPP), including cows, small livestock, and birds.

ii. Furniture: Value of cupboards, sofas, chairs, tables, clocks, stoves, and beds as self reported in KES (later converted to USD PPP).

iii. Agricultural tools: Value of farming tools, wheelbarrows, and hand carts, in KES (later converted to USD PPP).

iv. Radio or TV: Value of radio and television assets in KES (later converted to USD PPP)

v. Other assets: Value of bicycles, motorbikes, solar panels, cellphones, and any other assets that respondents reported when asked if they owned any additional assets apart from those listed, in KES (later converted to USD PPP).

(b) Savings: Value of savings, in KES (later converted to USD PPP), in all savings accounts for the household (including mobile money accounts).

(c) Land owned: Land owned in acres.

(d) House has non-thatch roof: Dummy variable indicating that responding has a non-thatch roof (i.e. iron sheets, wood, etc.)

(e) House has non-mud floor: Dummy variable indicating that respondent has floor consisting of materials other than mud (i.e. tiles, wood, stones, concrete, etc.)

(f) House has non-mud walls: Dummy variable indicating that respondent has wall constructed from materials other than mud (i.e. wood, bricks/stones, plaster/cement).

(g) House has electricity: Dummy variable indicating that respondent has electricity

(h) House has toilet or pit latrine: Dummy variable indicating that the respondent has a pit latrine or mobile / portable toilet.

2. Consumption

(a) Food

i. Food own production: Value of milk consumed, other animal products consumed (cattle, small livestock, birds), meat consumed (cattle, small livestock, birds), eggs consumed, as well as the value of the crops consumed both for the long rains and short rains seasons, on average per week in KES (later converted to USD PPP).

ii. Food bought: Value of cereals, vegetables, fruit, meat, fish, dairy, fats, sugars, drinks, spices, and prep food purchased in the past week in KES (later converted to USD PPP).

iii. Meat & fish: Value of meat and fish purchased in the past week in KES (later converted to USD PPP).

iv. Fruit & vegetables: Value of fruits and vegetables purchased in the past week in KES (later converted to USD PPP).

v. Other food: Value of cereals, dairy products, fats, prep foods, drinks, and spices purchased in the past week in KES (later converted to USD PPP).

(b) Temptation good expenditure: Value of expenditure on alcohol, tobacco, and lottery tickets in the past week in KES (later converted to USD PPP).

(c) Medical expenditure: Value of medical expenditure (consultation fees, medicines, hospitalizations) for the respondent, spouse, and children of the respondent in the past 1 month, in KES (later converted to USD PPP).

i. Medical expenditure (respondent): Value of medical expenditures (consultation fees, medicines, hospitalizations) in the past 1 month in KES (later converted to USD PPP) for the respondent.

ii. Medical expenditure (spouse): Value of medical expenditures (consultation fees, medicines, hospitalizations) in the past 1 month in KES (later converted to USD PPP) for the spouse of the respondent.

iii. Medical expenditure (children): Value of medical expenditures (consultation fees, medicines, hospitalizations) in the past 1 month in KES (later converted to USD PPP) for the children of the respondent.

(d) Education expenditure: Value of education costs consumed (school fees, uniforms, etc.) in the past 12 months in KES (later converted to USD PPP).

(e) Durables expenditure: Value of household durables (cutlery, pots/pans, light bulbs, curtains, carpets, etc.) in the past 12 months in KES (later converted to USD PPP).

(f) House expenditure: Value of expenditure on house/land rent and repair in the past 12 months in KES (later converted to USD PPP).

(g) Social expenditure: Value of expenditure on ceremonies, weddings, funerals, dowry, village elders, and any other recreation (cinema tickets, music/CDs, books/magazines, etc.) in the past 12 months in KES (later converted to USD PPP).

(h) Other expenditure: Value of expenditure on airtime, traveling (petrol, bus fare, hotel stays), clothing, personal items (haircut, hair oil, cosmetics, etc.), household items (soap, toilet paper, candles, etc.), firewood, electricity bill, and water bills in the past 1 month in KES (later converted to USD PPP).

3. Food security

(a) Meals skipped (adults): Frequency of adults having to cut the size of meals or skip them entirely in the past 1 month.

(b) Whole days without food (adults): Frequency that adults have gone without any meals by in the past month.

(c) Meals skipped (children): Frequency of children (<14 years of age) having to cut the size of meals or skip them entirely in the past 1 month.

- (d) **Whole days without food (children):** Frequency that children (<14 years of age) have gone without any meals by in the past month.
- (e) **Eat less preferred / cheaper foods:** Frequency that household members have had to eat less preferred or less expensive foods in the past month.
- (f) **Rely on help from others for food:** Frequency that household members have had to borrow food or rely on help from a friend or relative in the past month.
- (g) **Purchase food on credit:** Frequency that household members have had to purchase food on credit.
- (h) **Hunt, gather wild food, harvest prematurely:** Frequency that household members have had to gather wild food, hunt, or harvest immature crops in the past month.
- (i) **Beg because not enough food in the house:** Frequency of household members having to beg because there was not enough food in the household in the past month.
- (j) **All members eat two meals:** Dummy variable indicating whether all members of the household regularly eat at least 2 meals a day.
- (k) **All members eat until content:** Dummy variable indicating whether all members usually eat until they are content each day.
- (l) **Number of times ate meat or fish:** Frequency of respondent eating meat, eggs, or fish in the last week.
- (m) **Enough food in the house for tomorrow?:** Dummy variable indicating whether the respondent believes that the household has enough food for tomorrow.
- (n) **Respondent slept hungry:** Dummy variable indicating whether the respondent has gone to sleep hungry in the past week.
- (o) **Respondent ate protein:** Dummy variable indicating whether the respondent ate protein in the past week.

(p) Proportion of household who ate protein: Number of people listed by respondent as having eaten protein in the past week divided by the total number of members in the household.

(q) Proportion of children who ate protein: Number of children listed by respondent (including own children and stepchildren) who ate protein divided by the total number of children in the household.

4. Psychological and neurobiological outcomes

(a) Depression (CES-D)

(b) Worries

(c) Stress (Cohen)

(d) Happiness (WVS)

(e) Life satisfaction (WVS)

(f) Cortisol

(g) Trust (WVS)

(h) Locus of control (Rotter and WVS)

(i) Optimism (Scheier)

(j) Self-esteem (Rosenberg)

5. Female empowerment

(a) Physical violence dummy: Dummy indicating if any physical violence occurred, including if the spouse pushed, twisted the arm of, punched, kicked, chokes, or pulled a knife on the respondent in the past six months.

(b) Sexual violence dummy: Dummy indicating if any sexual violence occurred, including if the spouse raped or performed non-consensual sexual acts on the respondent in the past six months.

(c) Emotional violence dummy: Dummy indicating if any emotional violence occurred, including if the spouse was jealous or angry if you talked to other men/women, accused you of being unfaithful, did not permit you to meet your friends of the same gender, tried to limit your contact with your family, or did not trust you with any money.

(d) Justifiability of violence score: Dummy indicating if the respondent feels that the spouse is justified in beating their spouse in the following situations: can beat if he/she goes out without telling her, if he/she neglects the children, he/she argues with her, he/she refused to have sex with him/her, he/she burns the food.

(e) Male-focused attitudes score: Sum of all dummy variables indicating whether the respondent agree with the following male oriented statements: men should make the important decisions in the family, the wife has the right to express her opinion even when she disagrees with her husband (reverse coded), wife should tolerate getting beaten to keep family together, husband has the right to beat his wife, it is more important to send a son to school than to send a daughter.

(f) Male makes decisions dummy: Sum of dummy variables indicating whether the respondent believes the male should have the final say in using contraception, matters of kids schooling, and whether the couple should have another kid.

(g) Proportion choosing money for spouse vs. self: Number of respondents choosing to give their spouse 130 KES vs. keeping 100 KES (later converted to USD PPP) for themselves divided by total number of married respondents.

6. Health

(a) Medical expenses per episode (entire household): Sum of all treatment costs (direct and indirect) in KES (later converted to USD PPP) for any episodes in the past month among all household members divided by the total number of incidents in the household.

(b) Medical expenses per episode (spouse): Sum of all treatment costs (direct and indirect) in KES (later converted to USD PPP) for any episodes in the past month among spouses in the household divided by the total number of incidents among spouses in the household.

(c) Medical expenses per episode (children): Sum of all treatment costs (direct and indirect) in KES (later converted to USD PPP) for any episodes in the past month among spouses in the household divided by the total number of incidents among children in the household.

(d) Proportion of household sick / injured: Total number of household members who were sick or injured in the past month divided by the total number of household members.

(e) Proportion of children sick / injured: Total number of children in the household who were sick or injured in the past month divided by the total number of children in the household.

(f) Proportion of sick / injured who could afford treatment: Total number of household members who were sick / injured who reported being able to pay for treatments divided by the total number of people who reported being sick/injured in the past month.

(g) Average number of sick days per household member: Total number of sick days among household members divided by the number of household members in the past month.

(h) Proportion of illnesses where doctor was consulted: Total number of illness/injury episodes where a doctor was consulted divided by the total number of illnesses and injuries in the household in the past month.

(i) Proportion of newborns vaccinated: Total number of children under one years of age who have been vaccinated divided by the total number of children under one years of age in the household.

(j) Proportion of children <14 getting checkup: Total number of children under the age of 14 reporting having a regular checkup in the past six months divided by the total number of children under the age of 14.

(k) Proportion of children <5 who died: Total number of children in the household who have died in the past twelve months divided by the total number of children under 5 (living and passed) in the household.

(l) Children's anthropometric measures:

i. BMI: For all children under the age of five years, calculate their personal BMI (weight (in kgs) divided by height squared (in meters)) and then compute it as a z-score of the WHO's average measures for children of the same age in months.

ii. Height for age: For all children under the age of five years, measured their height (in meters) and then compute it as a z-score of the WHO's average measures for children of the same age in months.

iii. Weight for age: For all children under the age of five years, measured their weight (in kgs) and then compute it as a z-score of the WHO's average measures for children of the same age in months.

iv. Upper arm circumference: For all children under the age of five years, measured their upper arm circumference (in cms) and then compute it as a z-score of the WHO's average measures for children of the same age in months.

7. Education

(a) Total education expenditure: Value spend on education goods (school fees, uniforms, books, or other supplies, in KES (later converted to USD PPP) for the household in the past 12 months.

(b) Education expenditure per child: Value spent on education goods (school fees, uniforms, books, or other supplies, in KES (later converted to USD PPP) for the household in the past 12 months divided by the number of school age children (aged 3-18) in the household.

(c) Proportion of school-aged children in school: Number of school age children (aged 3-18) currently attending school divided by the total number of school age children in the household.

(d) School days missed for economic reasons, per child: Sum of total number of days per child reported as missed for economic reasons (No breakfast / food, can't pay fees, needs to work for money, needed for household, child or elder care) divided by the total number of school aged children in the past month.

(e) Income generating activities per school-aged child >6: Sum of total number of income generating activities per child 6-18 years of age in the household divided by the number of children 6-18 in the household engaged in the past twelve months.

8. Enterprise

(a) Agricultural income (total)

i. Agricultural income (own consumption, total): Sum of consumed harvest income and consumed animal income in KES (later converted to USD PPP) per month.

ii. Agricultural income (sales, total): Sum of harvest sales, animal product sales, and livestock sales to create a monthly agricultural income average.

(b) Enterprise profits (6 months): Value in KES (later converted to USD PPP) of profits (or losses if negative) of all non-agricultural, non-livestock income generating enterprises owned and operated (partially or fully) by the respondent in the past six months.

(c) Enterprise revenue (1 month): Value in KES (later converted to USD PPP) of all money received from all non-agricultural, non-livestock income generating enterprises owned and operated (partially or fully) by the respondent in the past one month.

(d) Enterprise revenue (typical month): Value in KES (later converted to USD PPP) of the sales of all non-agricultural, non-livestock income generating enterprises owned and operated (partially or fully) by the respondent in an average month.

(e) New non-agricultural business owner (dummy): Dummy variable indicating whether a respondent did not have a non-agricultural business at baseline but now does at endline.

(f) Non-agricultural business owner (dummy): Dummy variable indicating whether a respondent owns and operates a non-agricultural business.

(g) Number of employees: Number of non-household member employees in all entrepreneurial activities owned and operated by the respondent (partially or fully owned).

(h) Value of investment in non-agricultural income (total): Costs of electricity, wages, water, transport ,inputs, and any other expenses for all enterprises owned and operated (partially or fully) by the respondent for the past three months in KES (later converted to USD PPP).

9. Financial variables

(a) Value of outstanding loans: Amount in KES (later converted to USD PPP) outstanding from any loan taken by a member of the household, including debts to local shops and kiosks.

(b) Unable to pay loans (12 months): Dummy variable indicating that household was unable to make payments on at least one loan in the past 12 months

(c) Value of remittance sent: Value of all cash and goods sent as remittances to non-household members or members outside of their compound in the past month in KES (later converted to USD PPP).

(d) Value of remittances received: Value of all cash and goods received as remittances from non-household members or members outside of their compound in the past month in KES (later converted to USD PPP).

(e) Net remittances: Value of remittances sent less value of remittances received in KES (later converted to USD PPP).

10. Preferences

(a) Impatience: Sum of dummy variables (22) indicating preference for sooner amount between amounts KES 0-100 immediately and a guaranteed KES 100 after six months or amounts between KES 0-100 immediately and a guaranteed KES 100 after twelve months.

(b) Decreasing impatience: Difference in sum of dummy variables (11) indicating preference for sooner amount between amounts KES 0-100 in six months and a guaranteed KES 100 after twelve months and the sum of dummy variables (11) indicating preference for sooner amount between amounts ranging KES 0-100 immediately and a guaranteed KES 100 after six months.

(c) Risk aversion: Sum of dummy variables (21 baseline, 16 endline) indicating that respondent selected the risky option as opposed to the sure option when given options between a sure option and flipping a coin where KES 50 would be given if Heads and KES 100 would be given if Tails.

(d) Other-regarding preferences: Weighted standardized average of the amount respondent offered in KES (later converted to USD PPP) to give to a poor household in their village from the earnings they have received in the risk preference game.

(e) Favors cash transfers from NGOs or government: Weighted standardized average of dummy variables indicating the respondent believed that the government should distribute resources equally among Kenyans and that NGOs should prioritize cash transfers.

(f) Random allocation is fair: Weighted standardized average of measure asking how much the respondent agrees that flipping a coin to allocate resources is a fair method of distribution (higher numbers meaning strongly agree, lower strongly disagree).

(g) I am likely to receive benefit if random allocation is used: Weighted standardized average of measure asking respondent how likely they feel they will receive a benefit if they were chosen to receive it by flipping a coin.

11. Temptation goods

(a) List method: Estimated number of alcohol and tobacco users in treatment and control groups.

11. Labor Variables:

(a) Salaried jobs:

i. Salaried labor is the household's primary source of income: Indicator for answering that a salaried job is household's primary source of income

ii. Proportion of household members working in a salaried job: Proportion of adults in the household for who were reported as having worked in a salaried job at any point in the last 12 months.

(b) Casual labor: Proportion of working-age household members who spent any time in the last 12 months doing casual labor.

(c) Extensive margin: Number of income generating activities done by all member of the household in the last 12 months.

12. Political Variables

(a) Will vote in the next election: Indicator for answering yes to “will you be voting in the upcoming national elections that will be held next year?”

(b) Political knowledge: Indicator for knowing the names of the candidates running for Prime Minister and President in the next election.

(c) Attitudes towards voting: Indicator for responding that it is very Kenyan citizen's responsibility to vote when asked about responsibility to vote.

(d) Trust in government institutions: Indicator for answering “let the Kenyan government decide how to spend it” when asked the how foreign aid should be spent to reduce poverty.

13. Investment

(a) Durable investment: Total current value in KES of assets owned in each of the following categories.

i. Livestock: Total current value in KES of all cows / bulls, sheep, goats, pigs, and birds owned by the household.

ii. Machinery and durable goods: Total current value in KES of machinery and durables needed for household run enterprises.

iii. Farm implements: Total current value in KES of all tools, wheelbarrows, cars, etc. used for farm work owned by the household.

iv. Home investment: Total value in KES of components of the house including roof, building materials, pit latrines, etc.

v. Transportation Total value in KES of all motorbikes, bicycles, etc. owned by the household.

(b) Non-durable investment: Total current value in KES of assets owned in each of the following categories.

i. Agricultural inputs: Total spending in KES on seed, fertilizer, water, hired labor, livestock feed, livestock medicine etc. in the last 12 months.

ii. Enterprise expenses: Total spending in KES on wages, electricity, water, transport, inventory, and other inputs into household owned enterprises in the past 12 months.

iii. Educational expenses: Total spending in KES on school and college fees, books, and uniforms.

iv. Savings Total value in KES of all savings held in formal and informal vehicles by household members

1.2 Village level

1. Prices

(a) Prices of individual standard items: Average price in KES (later converted to USD PPP) by village and on aggregate for common goods.

2. Wages

(a) Likelihood of working for another villager in same village (spillover vs. pure control group only): Portion of people working for another villager in spillover villages less portion of people working for another villager in pure control villages.

(b) Average daily wage for working for another villager in the same village (spillover vs. pure control group only): Average wage in KES (later converted to USD PPP) per day of people working for another villager in spillover villages less average wage of people working for another villager in pure control villages.

3. Conflict

(a) Number of conflict episodes in the village in the past year: Average number of murders, robberies, rapes, vandalism, assault, drug abuse, and other crimes reported in the village in the past year.

(b) Multinomial dummy for having less, the same, or more conflict in the village compared to a year ago Dummy variable which indicates whether the average number of murders, robberies, rapes, vandalism, assault, drug abuse, and other crimes is higher, the same, or lower than as reported a year ago.

2 Components of indices

2.1 Household and individual level

Total assets: Total value in 2012 PPP adjusted dollars of all household assets:

1. Moveable assets

(a) Livestock

i. Cows

ii. Small livestock

iii. Birds

(b) Furniture

(c) Agricultural tools

(d) Radio or TV

(e) Other assets

2. Savings
3. Value of roof (inclusion not pre-specified)
4. Omitted: Value of land (omission not pre-specified)

Total consumption: Total spending per month in 2012 PPP adjusted dollars:

1. Food
 - (a) Food own production
 - (b) Food bought
 - (c) Meat & fish
 - (d) Fruit & vegetables
 - (e) Other food
2. Temptation good expenditure
3. Medical expenditure
 - (a) Medical expenditure (respondent)
 - (b) Medical expenditure (spouse)
 - (c) Medical expenditure (children)
4. Education expenditure
5. Social expenditure
6. Omitted: Durables expenditure, house expenditure (omission not pre-specified)
7. Other expenditure

Agricultural and business income: Total household enterprise revenue per month in 2012 PPP adjusted dollars:

1. Agricultural income
 - (a) Agricultural income (own consumption, total)
 - i. Agricultural income (own consumption, harvest)
 - ii. Agricultural income (own consumption, animals)

- (b) Agricultural income (sales, total)
 - i. Agricultural income (sales, harvest)
 - ii. Agricultural income (sales, animal products)
 - iii. Agricultural income (sales, animals)

2. Non-farm enterprise revenue

Psychological variables index: Standardized weighted average of psychological and neurobiological measures:

- 1. Depression (CESD) - negatively coded
- 2. Worries - negatively coded
- 3. Stress (Cohen) - negatively coded
- 4. Happiness (WVS)
- 5. Life satisfaction (WVS)
- 6. Cortisol (in log nm/l adjusted for confounds) - negatively coded

Food security index (household): Weighted average of measures of food security and hunger:

- 1. Meals skipped in the last month (adults) - negatively coded
- 2. Whole days without food in the last month (adults) - negatively coded
- 3. Meals skipped in the last month (children) - negatively coded
- 4. Whole days without food in the last month (children) - negatively coded
- 5. Household ate less preferred/cheaper foods in the last month (# of times) - negatively coded
- 6. Household relied on help from others for food in the last month (# of times) - negatively coded
- 7. Household purchased food on credit in the last month (# of times) - negatively coded
- 8. Household had to hunt, gather wild food, harvest prematurely in the last month (# of times) - negatively coded

9. Household begged because not enough food in the house in the last month (# of times)
- negatively coded
10. All members usually eat two meals (dummy)
11. All members usually eat until content (dummy)
12. Number of times ate meat or fish (last week)
13. Enough food in the house for tomorrow (dummy)
14. Respondent slept hungry in the last week (dummy) - negatively coded
15. Respondent ate protein in the last 24 hours (dummy)
16. Proportion of HH who ate protein in the last 24 hours
17. Proportion of children who ate protein in the last 24 hours

Health index: Standardized weighted average:

1. Proportion of household sick/injured - negatively coded
2. Proportion of children sick/injured - negatively coded
3. Proportion of sick/injured who could afford treatment
4. Proportion of illnesses where doctor was consulted
5. Proportion of newborns vaccinated
6. Proportion of children < 14 getting checkup in the last 6 months
7. Proportion of children < 5 who died in the past 12 months - negatively coded
8. Children's anthropometrics index (standardized weighted average of the sum of the following)
 - (a) BMI
 - (b) Height for age
 - (c) Weight for age
 - (d) Upper-arm circumference

Education index: Standardized weighted average:

1. Education expenditure per child
2. Proportion of school-aged children in school

Female empowerment index: Standardized weighted average of attitude index and violence index:

1. Violence index (standardized weighted average):
 - (a) Female report of number of instances of physical violence - negatively coded (prespecified as dummy)
 - (b) Female report of number of instances of sexual violence - negatively coded (prespecified as dummy)
 - (c) Female report of number of instances of emotional violence - negatively coded (prespecified as dummy)
2. Attitudes index (standardized weighted average):
 - (a) Justifiability of violence score - negatively coded
 - (b) Male-focused attitudes score - negatively coded

2.2 Village level

Food index: Weighted standardized average of reported village cost of avocado, guava, large banana, mango, orange, passion fruit, paw-paw, pineapple, small banana, watermelon, beans, cabbage, cowpea, eggplant, kale, onion, pumpkin, spinach, tomato, traditional vegetables, arrowroot, cassava, plantain, maize, potato, sweet potato, mudfish, omena fish, tilapia, dairy, eggs, pili-pili, and sugar.

Non-food index: Weighted standardized average of reported village cost of an iron roof, repairs to an iron roof, thatch roof, firewood, a haircut, parafin wax, and soap.

Wages index (not pre-specified): Weighted standardized average of reported daily wages for farm work, livestock work, and other work.

Crime frequency index (not pre-specified): Weighted standardized average of the reported frequency of assault, drug abuse, murder, rape, robbery, vandalism, and other crimes in the village over the prior 12 months.

3 Accounting for Multiple Inference

As cash transfers are likely to impact a large number of economic behaviors and dimensions of welfare, and given that our survey instrument often included several questions related to a single behavior or dimension, we account for multiple hypotheses by using outcome variable indices and family-wise p -value adjustment.

We have catalogued in Section 2 the primary indices that we consider in the analysis. For each of these indices, we will report both unadjusted p -values as well as p -values corrected for multiple comparisons using the Family-Wise Error Rate.

3.1 Construction of indices

To keep the number of outcome variables low and thus allow for greater statistical power even after adjusting p -values for multiple inference, we construct indices for several of our groups of outcome variables. To this end, we follow the procedure proposed by Anderson (2008), which is reproduced below:

First, for each outcome variable y_{jk} , where j indexes the outcome group and k indexes variables within outcome groups, we re-code the variable such that high values correspond to positive outcomes.

We then compute the covariance matrix $\hat{\Sigma}_j$ for outcomes in outcome group j , which consists of elements:

$$\hat{\Sigma}_{jmn} = \sum_{i=1}^{N_{jmn}} \frac{y_{ijm} - \bar{y}_{jm}}{\sigma_{jm}^y} \frac{y_{ijn} - \bar{y}_{jn}}{\sigma_{jn}^y} \quad (1)$$

Here, N_{jmn} is the number of non-missing observations for outcomes m and n in outcome group j , \bar{y}_{jm} and \bar{y}_{jn} are the means for outcomes m and n , respectively, in outcome group j , and σ_{jm}^y and σ_{jn}^y are the standard deviations in the pure control group for the same outcomes.

Next, we invert the covariance matrix, and define weight w_{jk} for each outcome k in outcome group j by summing the entries in the row of the inverted covariance matrix corresponding to that outcome:

$$\hat{\Sigma}_j^{-1} = \begin{bmatrix} c_{j11} & c_{j12} & \cdots & c_{j1K} \\ c_{j21} & c_{j22} & \cdots & \cdots \\ \vdots & \vdots & \ddots & \vdots \\ c_{jK1} & \vdots & \ddots & c_{jKK} \end{bmatrix} \quad (2)$$

$$w_{jk} = \sum_{l=1}^{K_j} c_{jkl} \quad (3)$$

Here, K_j is the total number of outcome variables in outcome group j . Finally, we transform each outcome variable by subtracting its mean and dividing by the control group standard deviation, and then weighting it with the weights obtained as described above. We denote the result \hat{y}_{ij} because this transformation yields a generalized least squares estimator (Anderson 2008).

$$\hat{y}_{ij} = \left(\sum_{k \in \mathbb{K}_{ij}} w_{jk} \right)^{-1} \sum_{k \in \mathbb{K}_{ij}} w_{jk} \frac{y_{ijk} - \bar{y}_{jk}}{\sigma_{jk}^y} \quad (4)$$

Here, \mathbb{K}_{ij} denotes the set of non-missing outcomes for observation i in outcome group j .

3.2 Family-wise Error Rate

Because combining individual outcome variables in indices as described above still leaves us with multiple outcome variables (viz. separate index variables for health, education, etc.), we additionally adjust the p -values of our coefficients of interest for multiple statistical inference. These coefficients are those on the treatment dummies in the basic specifications, or those on the dummies for individual treatment arms. To this end, we proceed as follows, reproduced again from Anderson (2008). A similar procedure is described in Lee & Shaikh (2013) and Romano & Wolf (2005).

First, we compute naïve p -values for all index variables \hat{y}_j of our j main outcome groups, and sort these p -values in ascending order, i.e. such that $p_1 < p_2 < \cdots < p_J$.

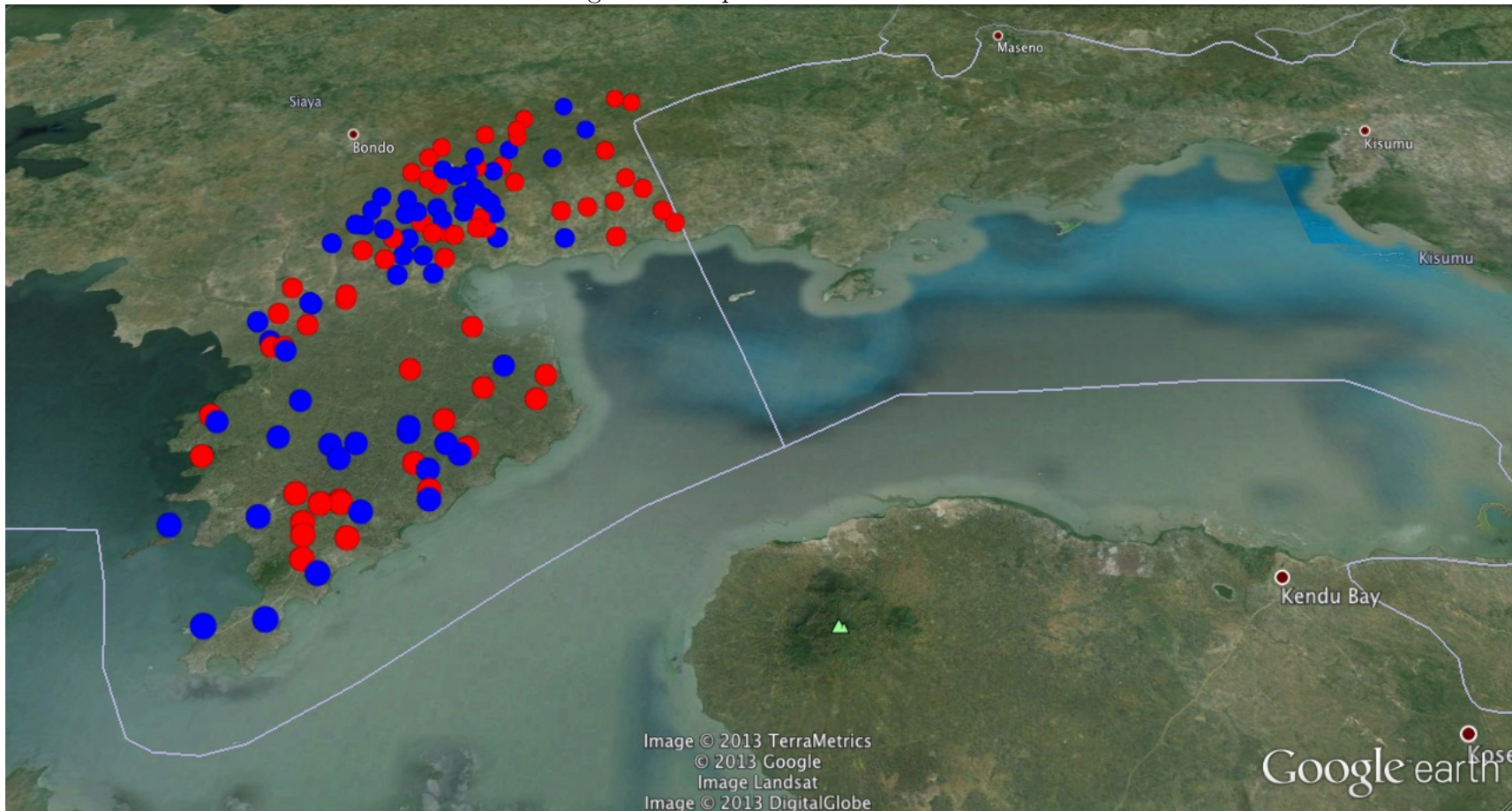
Second, we follow Anderson's (2008) variant of Efron & Tibshirani's (1993) non-parametric permutation test: for each index variable \hat{y}_j of our j main outcome groups, we randomly permute the treatment assignments across the entire sample, and estimate the model of interest to obtain the p -value for the coefficient of interest. We enforce monotonicity in the resulting vector of p -values $[p_1^*, p_2^*, \cdots p_J^*]'$ by computing $p_r^{**} = \min\{p_r^*, p_{r+1}^*, \cdots p_J^*\}$, where r is the position of the outcome in the vector of naïve p -values.

We then repeat this procedure 1,000 times. The non-parametric p -value, p_r^{fwer*} , for each outcome is the fraction of iterations on which the simulated p -value is smaller than the ob-

served p -value. Finally we enforce monotonicity again: $p_r^{fwer} = \min\{p_r^{fwer*}, p_{r+1}^{fwer*}, \dots, p_J^{fwer*}\}$. This yields the final vector of family-wise error-rate corrected p -values. We will report both these p -values and the naïve p -values. Within outcome groups, we report naïve p -values for individual outcome variables other than the indices.

4 Map of treatment and control villages

Figure 1: Map of treatment area



Notes: Map of treatment area. Blue dots designate the location of pure control villages, red dots designate the location of treatment villages.

5 Description of Censusing and Recruitment

5.1 Treatment Villages

Eligibility for the unconditional cash transfer program was based on a household having a thatched (rather than metal) roof. Using estimates received from phone calls with village elders on the proportion of thatched-roof households by village in the Rarieda province of Western Kenya, we selected 120 villages into the evaluation. In the first stage, 60 of these villages were randomly selected as treatment villages and 60 were randomly selected as control villages. Once a village had been assigned to the treatment condition, the project team would meet with the village elder who would guide the team around the village to point out all thatched-roof households, at which point households were censused. Based on the census, eligible households were then revisited by the project team, and the baseline survey was administered. The first 4 villages were selected for census and surveying based on geographic convenience (those nearest the team headquarters in Kamito). However, after these villages, the order of the remaining 56 was randomized. Censusing and baseline surveys took place from March to November of 2011. 26 households refused to participate in the baseline survey and thus were excluded from the sample and were not eligible for the GD program.

Two to three weeks after being visited by the project team, a team from GiveDirectly would revisit the treatment village and conduct a census in the same manner, led by the village elder. The two organizations did not communicate during this process, and they presented themselves as independent groups to the respondents. After both censuses had been conducted, the project team matched the data from both censuses, keeping only overlapping households. 89 households identified in the first census were omitted because they were not identified by the second census. The project team randomly assigned 503 of the remaining households into the treatment condition and 505 into the control condition.

5.2 Pure Control Villages

The 60 pure control villages were censused starting in May 2012, using the same approach as with treatment villages (i.e., a village elder guided the census team around the village to point out thatched roof households). In each village, the team randomly selected 8 households to participate in the endline survey. If there were fewer than 8 eligible households, all eligible households were surveyed. 32 households refused to participate.

We initially designated 60 villages as pure control households, and censused all households believed to be a part of these villages. However, upon returning for the endline survey, we

found that ~5 households initially included in the census may have belonged to neighboring villages, although in many cases the boundaries between villages are not well defined. Thus, we include 63 pure control villages in our results.

5.3 Unmatched Households

To understand whether the 89 households which were surveyed at baseline but were not identified by the GiveDirectly census differed from the rest of the sample, we estimate the following model:

$$y_{vhiB} = \alpha_v + \beta_0 + \beta_1 notfound_{vh} + \varepsilon_{vhiB}$$

Here, y_{vhiB} is the outcome of interest for household h in village v , measured at baseline, of individual i (subscript i is included for outcomes measured at the level of the individual respondent, and omitted for outcomes measured at the household level). We restrict the sample to treatment and control households in treatment villages. Village-level fixed effects are captured by α_v . $notfound_{vh}$ is an indicator that takes value 1 for households that were baselined but not found in the *GD* census. ε_{vhiB} is an idiosyncratic error term. Standard errors are clustered at the level of the unit of randomization, i.e. the household. Results are shown below.

Table 1: Unmatched Households: Baseline Indices

	(1) Sample mean (SD)	(2) Unmatched Household	(3) N
Value of non-land assets (USD)	383.38 (391.35)	−33.00 (42.77)	1097
Non-durable expenditure (USD)	178.98 (131.78)	−7.85 (12.15)	1097
Total revenue, monthly (USD)	68.35 (298.17)	28.40 (35.59)	1097
Food security index	−0.00 (0.98)	0.25** (0.10)	1097
Health index	0.02 (1.00)	0.11 (0.11)	1097
Education index	−0.03 (0.90)	−0.11 (0.10)	929
Psychological well-being index	0.01 (1.01)	−0.03 (0.08)	1706
Female empowerment index	−0.03 (1.02)	0.02 (0.15)	810
Joint test (p -value)		0.14	

Notes: Comparison of baseline outcome indices between sample households living in treatment villages and the 89 households surveyed at baseline that were not identified by the GiveDirectly census and thus excluded from the sample. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological wellbeing, where it is the individual. The sample includes all households and individuals living in treatment villages, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Sample households living in pure control villages are excluded from this analysis because they were not surveyed at baseline. Column (1) reports the mean and SD of the baseline outcome of interest taken among control households living in treatment villages. Column (2) reports the coefficient estimate and standard error from a regression of the baseline outcome of interest on an indicator variable for whether a given household or individual was one of the 89 unmatched households. Column (3) reports the number of observations. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 2: Unmatched Households: Household Characteristics

	(1) Sample mean (SD)	(2) Unmatched Household	(3) N
Respondent Age	34.76 (13.88)	−1.44 (1.56)	1096
Respondent Married at Time of Baseline	0.78 (0.41)	0.00 (0.05)	1097
Years of Education at Time of Baseline	8.67 (2.90)	0.42 (0.32)	1097
HH Children at Time of Baseline	2.90 (1.85)	0.05 (0.19)	1097
Number of HH Members at Time of Baseline	4.95 (2.13)	−0.03 (0.21)	1097
Total Assets	383.38 (391.35)	−33.00 (42.77)	1097
Total Consumption	182.07 (133.37)	−7.18 (12.41)	1097
Participation in Wage Labor	0.25 (0.44)	0.01 (0.05)	1097
Household owns Farm	0.36 (0.48)	−0.07 (0.05)	1097
Non-ag business primary income (dummy)	0.15 (0.36)	0.04 (0.04)	1097
Household owns Non-Agricultural Business	0.37 (0.48)	0.01 (0.05)	1097
Joint test (p -value)		0.81	

Notes: Comparison of baseline characteristics between sample households living in treatment villages and the 89 households surveyed at baseline that were not identified by the GiveDirectly census and thus excluded from the sample. Characteristics are listed on the left. The unit of observation is the household for all variables. Sample households living in pure control villages are excluded from this analysis because they were not surveyed at baseline. Column (1) reports the mean and SD of the baseline outcome of interest taken among control households living in treatment villages. Column (2) reports the coefficient estimate and standard error from a regression of the baseline characteristic of interest on an indicator variable for whether a given household or individual was one of the 89 unmatched households. Column (3) reports the number of observations. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

6 Village Summary Statistics

6.1 Village Summary Statistics

Table 3: Village Summary Statistics

	Mean	SD	Median	Minimum	Maximum
Total number of households	99.97	40.85	90.00	33.00	244.00
Proportion of households surveyed	0.19	0.10	0.17	0.06	0.56
Proportion of households receiving transfers	0.09	0.05	0.08	0.02	0.28
Transfers as percent of total village wealth	0.09	0.09	0.06	0.00	0.43

Notes: Summary statistics on village population and proportion treated. Characteristics are listed on the left. Village populations are from estimates given by village elders. Total village wealth was calculated as a weighted average of the mean baseline total assets among sample households (thatched roof) and the mean among metal roof households. As weights, we use estimates of the percentage of the village with thatched roofs and metal roofs at baseline. An average of two metal roof households were randomly selected per village, and we use these households to calculate the metal roof household mean. Mean, sd, median, minimum and maximum values are displayed in the columns. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

6.2 Comparison of Thatched and Metal Roof Household Baseline Assets and Consumption

To determine whether the thatched roof targeting criterion was a useful indicator of poverty, we surveyed 2 metal roof households per treatment village at baseline. These household were not treated and were excluded from the endline survey. We report comparisons of the mean household consumption and assets between these households and the (thatched roof) households selected for the study, using the following model:

$$y_{vhiB} = \beta_0 + \beta_1 metalroof_{vh} + \varepsilon_{vhiB}$$

Here, $metalroof_{vh}$ is an indicator that takes value 1 for households with a metal roof at baseline. Results are reported below.

Table 4: Comparison of Baseline Wealth between Thatched and Metal Roof Households

	Thatched Roof Mean (SD)	Metal Roof Mean (SD)	Difference
Value of non-land assets (USD)	381.68 (388.53)	1134.35 (1472.70)	752.67*** (91.43)
Non-durable expenditure (USD)	178.98 (131.74)	260.22 (216.39)	81.24*** (13.69)

Notes: Comparison of total assets and consumption measured at baseline between all sample treatment village households (thatched roof) and 2 metal roof households selected randomly per treatment village. Total assets excludes the value of a household's roof. Column (1) reports the mean and SD taken among all treatment village households (thatched roof) in our sample. Column (2) reports the mean and SD taken among metal roof households randomly sampled at baseline but excluded from other analyses. Column (3) reports the result of an OLS regression of consumption and assets on an indicator variable taking the value of 1 if a given household owned a metal roof at baseline. Standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

7 Baseline Balance

In this section we report baseline balance across several additional baseline variables for treatment and control households in treatment villages, following the approach described in Section 3.4.1 of the main paper.

Table 5: Baseline covariates

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Age (respondent)	35.35 (14.13)	−1.15 (0.86)	0.76 (1.14)	−0.73 (1.41)	−0.03 (1.44)	1007
Marital status (respondent)	0.78 (0.41)	−0.00 (0.03)	−0.00 (0.01)	0.02 (0.05)	0.03 (0.04)	1008
Years of education completed (respondent)	8.53 (2.95)	0.27 (0.18)	0.17 (0.25)	0.21 (0.31)	−0.22 (0.27)	1008
Number of children	2.88 (1.91)	0.04 (0.12)	0.11 (0.18)	0.02 (0.19)	−0.07 (0.19)	1008
Household size	4.94 (2.16)	0.02 (0.13)	0.10 (0.20)	0.07 (0.22)	−0.09 (0.22)	1008
Value of non-land assets (USD)	383.36 (374.15)	−1.15 (24.74)	15.53 (43.62)	25.16 (39.33)	13.76 (42.77)	1008
Total expenditure (USD)	184.82 (128.29)	−5.65 (8.41)	−28.73* (15.33)	−8.54 (13.38)	−3.02 (14.67)	1008
Wage labor primary income (dummy)	0.25 (0.43)	0.02 (0.03)	−0.01 (0.04)	0.01 (0.04)	0.00 (0.04)	1008
Own farm primary income (dummy)	0.37 (0.48)	−0.02 (0.03)	0.02 (0.05)	−0.01 (0.05)	−0.05 (0.05)	1008
Non-ag business primary income (dummy)	0.16 (0.37)	−0.01 (0.02)	−0.01 (0.04)	−0.01 (0.04)	−0.02 (0.03)	1008
Non-agricultural business owner (dummy)	0.36 (0.48)	0.02 (0.03)	−0.01 (0.05)	0.05 (0.05)	−0.07 (0.05)	1008
Joint test (p -value)		0.85	0.78	0.95	0.80	

Notes: OLS estimates of baseline differences between treatment and control groups, and treatment arms. Outcome variables are listed on the left. For each outcome variable, we report the coefficients of interest and their standard errors in parentheses. Column (1) reports the mean and standard deviation of the control group for a given outcome variable. Column (2) compares treatment households to control households within villages. Column (3) reports the differences between male and female recipient households; column (4) the difference between monthly compared to lump-sum recipient households; and column (5) that of large compared to small transfers. The unit of observation is the household for all outcome variables except for the psychological variables index, where it is the individual. The sample is restricted to co-habiting couples for the female empowerment index, and households with school-age children for the education index. All columns include village-level fixed effects and cluster standard errors at the household level. The last row shows joint significance of the coefficients in the corresponding column from SUR estimation. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

8 Attrition analysis

8.1 Evaluating attrition levels

In this section we analyze attrition between baseline and endline to determine whether it is correlated with treatment status. Note that the analyses to follow exclude pure control households, as they were only surveyed at endline. First, we define the dummy variable $attrit_{vh}$ that indicates whether household h was surveyed at baseline but not at endline. We then calculate overall attrition by treatment group.

In Table 6 we assess whether the probability of attrition is different for treatment and control households:

$$attrit_{vh} = \alpha_v + \beta_0 + \beta_1 T_{vh} + \varepsilon_{vh}$$

Second, in Table 7 we assess whether attrition households are different in terms of baseline values of our primary outcome variables:

$$y_{vhB} = \alpha_v + \beta_0 + \beta_1 attrit_{vh} + \varepsilon_{vhB}$$

Third, in Table 8, we evaluate whether the baseline characteristics of attrition households in the treatment group are significantly different from those in the control group. The sample for this regression is restricted to attrition households:

$$(y_{vhB} \mid attrit_{vh} = 1) = \beta_0 + \beta_1 T_{vh} + \varepsilon_{vhB}$$

In all analyses, standard errors are clustered at the household level.

Table 6: Attrition: Difference in attrition probability in treatment vs. control groups

	Control mean (SD)	Treatment	N
Attrition	0.071 (0.258)	−0.01 (0.02)	1008

Notes: Difference in attrition probability in treatment vs. control groups, estimated with an OLS regression of the attrition dummy on the treatment dummy and village-level fixed effects. We report the coefficient on the treatment dummy and its standard error in parentheses, clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 7: Attrition: Baseline difference in index variables between attriters and non-attriters

	Non-attrition mean (SD)	Attrition	N
Total Assets	385.875 (391.004)	−35.51 (43.42)	1008
Non-durable expenditure (USD)	178.953 (124.308)	10.72 (26.11)	1008
Total revenue, monthly (USD)	70.870 (308.303)	−21.67* (11.32)	1008
Food security index	0.001 (0.987)	0.09 (0.12)	1008
Health index	0.028 (1.014)	−0.09 (0.14)	1008
Education index	−0.032 (0.904)	0.03 (0.14)	853
Psychological well-being index	0.005 (1.013)	0.15 (0.10)	1569
Female empowerment index	−0.029 (1.020)	−0.07 (0.17)	751

Notes: Difference in terms of index variables between attriting and non-attriting households at baseline, estimated with an OLS regression of the index variables on the attrition dummy. Outcome variables are listed on the left. Column (1) reports the mean of the non-attrition group for a given outcome variable at baseline. Column (2) reports the coefficient on the attrition dummy in an OLS regression of the outcome variable on this dummy (and village-level fixed effects), thus testing the baseline difference between attrition and non-attrition groups within villages at baseline. The unit of observation is the household for all outcome variables, except the psychological variables index, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Standard errors are listed in parentheses and are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 8: Attrition: Baseline difference in index variables between treated and non-treated attriters

	Treatment mean (SD)	Treatment	N
Total Assets	323.664 (351.698)	−83.10 (169.93)	68
Non-durable expenditure (USD)	179.407 (210.775)	−54.49 (44.14)	68
Total revenue, monthly (USD)	33.522 (52.379)	−15.48 (12.75)	68
Food security index	−0.023 (0.898)	−0.57 (0.44)	68
Health index	0.030 (1.136)	−0.40 (0.59)	68
Education index	0.006 (0.913)	−0.25 (0.53)	51
Psychological well-being index	0.145 (0.926)	−0.08 (0.30)	87
Female empowerment index	−0.072 (0.973)	−0.62 (0.84)	42

Notes: Difference in terms of index variables between treated and non-treated attriters at baseline, estimated with an OLS regression of baseline index variables on the treatment dummy for attriting households only. Outcome variables are listed on the left. Column (1) reports the mean of the control group conditional on attrition for a given outcome variable at baseline. Column (2) reports the baseline difference between treatment and control groups within villages conditional on attrition. The unit of observation is the household for all outcome variables, except the psychological variables index, where it is the individual. The sample includes all attriting households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Standard errors are reported in parentheses and clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

8.2 Lee Bounds

In Section 8.1, we detect little evidence of differential attrition between treatment and control and few differences between attriters and non-attriters. However, as a final adjustment for attrition, we also report treatment effects bounds given worst case assumptions about attriting households using the bounding method outlined by Lee (2009). Table 9 below reports lower and upper bounds on treatment effects for each of our primary outcome indices.

Table 9: Lee Bounds for index variables

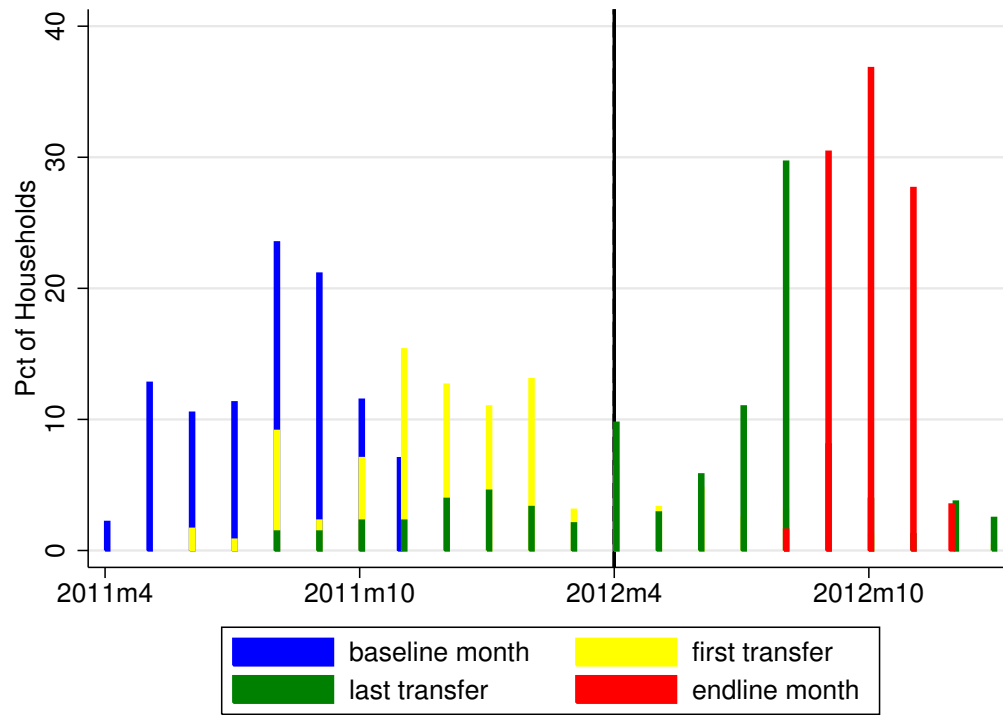
	Lower bound	Upper bound
Value of non-land assets (USD)	283.39*** (38.82)	302.19*** (32.54)
Non-durable expenditure (USD)	30.58*** (8.64)	35.01*** (6.72)
Total revenue, monthly (USD)	8.72 (10.78)	13.71** (6.23)
Food security index	0.23*** (0.07)	0.28*** (0.09)
Health index	−0.05 (0.08)	0.00 (0.08)
Education index	−0.10 (0.08)	0.10 (0.08)
Psychological well-being index	0.20*** (0.07)	0.30*** (0.07)
Female empowerment index	−0.03 (0.09)	0.02 (0.12)

Notes: Lee treatment effect bounds for sample selection. Outcome variables are listed on the left. Column (1) reports the lower bound. Column (2) reports the upper bound. The unit of observation is the household for all outcome variables, except the psychological variables index, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

9 Detailed Timing Analysis

9.1 Transfer and survey timeline

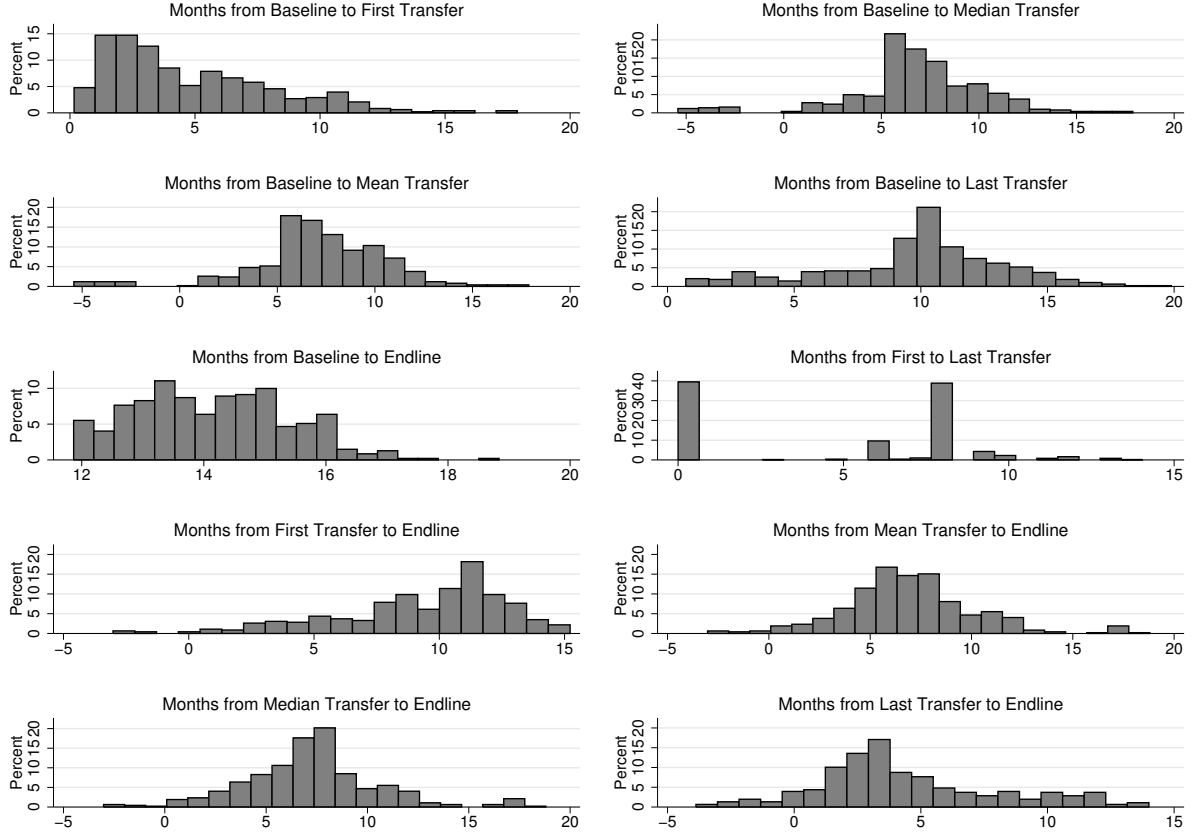
Figure 2: Household-level Timeline



Notes: Histogram showing the month and year of baseline survey, endline survey, first transfer, and last transfer by household. Each bin is a given month. The proportion of households out of the total sample is on the y-axis.

9.2 Timing summary statistics

Figure 3: Household-level Timing Statistics



Notes: Histograms of treatment household level timing statistics. In each graph, the x-axis is the number of months, and the y-axis is the proportion of treatment households. Survey dates refer to the date of the household survey. Mean transfer date is defined as the month in which 50 percent of the total transfer amount had been received by the household. Median transfer date is defined as the month in which 50 percent of the number of transfers had been completed.

Table 10: Treatment Household Timing Summary Statistics

	Mean	SD	Median	Min	Max
Months elapsed from baseline to first HH transfer	4.83	3.36	3.76	0.16	17.88
Months elapsed from from baseline to last HH transfer	9.79	3.47	10.16	0.72	19.89
Months elapsed from from baseline to median HH transfer	6.78	3.49	6.67	-5.42	17.88
Months elapsed from from baseline to mean HH transfer	7.11	3.48	7.03	-5.42	17.88
Months elapsed from baseline to endline	14.14	1.24	14.00	11.87	18.84
Months elapsed from first to last HH transfer	4.85	4.08	7.00	0.00	14.04
Months elapsed from first HH transfer to endline	9.32	3.43	10.26	-3.02	15.22
Months elapsed from median HH transfer to endline	7.22	3.30	7.30	-3.02	18.80
Months elapsed from mean HH transfer to endline	6.91	3.25	6.64	-3.02	18.80
Months elapsed from last HH transfer to endline	4.41	3.56	3.58	-3.88	14.00

Notes: Summary statistics for various timing variables calculated among treatment households. Timing variables are listed on the left. Survey dates refer to the date of the household survey. Mean transfer date is defined as the month in which 50 percent of the total transfer amount had been received by the household. Median transfer date is defined as the month in which 50 percent of the number of transfers had been completed. Columns represent the mean, SD, median, minimum and maximum of each variable.

Table 11: Treatment Household Timing Summary Statistics: Large vs. Small

	Large Transfer					Small Transfer				
	Mean	SD	Median	Min	Max	Mean	SD	Median	Min	Max
Months elapsed from baseline to first HH transfer	3.98	2.24	3.71	0.26	9.17	5.17	3.66	3.94	0.16	17.88
Months elapsed from from baseline to last HH transfer	12.05	1.87	11.77	8.68	16.73	8.88	3.55	9.60	0.72	19.89
Months elapsed from from baseline to median HH transfer	7.89	1.83	7.66	3.06	12.72	6.37	3.86	6.26	-5.42	17.88
Months elapsed from from baseline to mean HH transfer	8.61	1.73	8.61	4.77	12.72	6.54	3.79	6.36	-5.42	17.88
Months elapsed from baseline to endline	14.07	1.21	13.95	11.93	17.19	14.17	1.25	14.20	11.87	18.84
Months elapsed from first to last HH transfer	8.08	2.06	8.02	2.99	14.04	3.60	3.98	0.00	0.00	11.01
Months elapsed from first HH transfer to endline	10.02	2.28	9.93	3.75	15.15	9.05	3.75	10.32	-3.02	15.22
Months elapsed from median HH transfer to endline	6.13	1.67	6.53	0.72	9.37	7.63	3.64	7.63	-3.02	18.80
Months elapsed from mean HH transfer to endline	5.48	1.33	5.51	0.62	8.38	7.45	3.58	7.56	-3.02	18.80
Months elapsed from last HH transfer to endline	2.02	1.48	2.27	-3.29	5.39	5.34	3.70	5.00	-3.88	14.00

Notes: Summary statistics for various timing variables calculated for large and small transfer arms households. Timing variables are listed on the left. Survey dates refer to the date of the household survey. Mean transfer date is defined as the month in which 50 percent of the total transfer amount had been received by the household. Median transfer date is defined as the month in which 50 percent of the number of transfers had been completed. Columns represent the mean, SD, median, minimum and maximum of each variable for large and small transfer households respectively.

Table 12: Treatment Household Timing Summary Statistics: Male vs. Female

	Female Recipient					Male Recipient				
	Mean	SD	Median	Min	Max	Mean	SD	Median	Min	Max
Months elapsed from baseline to first HH transfer	5.13	3.57	4.03	0.16	17.78	4.67	3.29	3.62	0.26	15.35
Months elapsed from from baseline to last HH transfer	10.47	3.56	10.52	0.95	19.89	9.35	3.21	9.96	0.72	16.73
Months elapsed from from baseline to median HH transfer	7.19	3.78	7.12	-5.42	17.78	6.64	3.15	6.44	-5.06	15.35
Months elapsed from from baseline to mean HH transfer	7.50	3.79	7.51	-5.42	17.78	6.89	3.12	6.84	-5.06	15.35
Months elapsed from baseline to endline	14.10	1.22	13.91	11.87	17.00	14.16	1.30	14.05	11.97	18.84
Months elapsed from first to last HH transfer	5.20	4.01	7.99	0.00	13.05	4.65	4.11	5.98	0.00	12.03
Months elapsed from first HH transfer to endline	9.05	3.72	10.26	-2.30	15.19	9.45	3.15	10.03	-2.30	15.22
Months elapsed from median HH transfer to endline	6.93	3.74	7.10	-2.30	18.80	7.34	2.84	7.26	-2.30	17.06
Months elapsed from mean HH transfer to endline	6.61	3.72	6.25	-2.30	18.80	7.10	2.82	6.85	-2.30	17.06
Months elapsed from last HH transfer to endline	3.67	3.56	3.29	-3.88	13.71	4.87	3.39	3.78	-2.30	14.00

Notes: Summary statistics for various timing variables calculated for female and male recipient treatment arms households. Timing variables are listed on the left. Survey dates refer to the date of the household survey. Mean transfer date is defined as the month in which 50 percent of the total transfer amount had been received by the household. Median transfer date is defined as the month in which 50 percent of the number of transfers had been completed. Columns represent the mean, SD, median, minimum and maximum of each variable for households in which the primary female and primary male received the transfer respectively.

Table 13: Treatment Household Timing Summary Statistics: Lump-sum vs. Monthly

	Monthly					Lump Sum				
	Mean	SD	Median	Min	Max	Mean	SD	Median	Min	Max
Months elapsed from baseline to first HH transfer	3.00	2.22	2.24	0.16	11.83	7.02	3.64	6.77	0.30	17.88
Months elapsed from from baseline to last HH transfer	10.96	2.07	10.26	8.19	19.89	7.11	3.60	6.89	0.72	17.88
Months elapsed from from baseline to median HH transfer	6.08	3.55	6.08	-5.29	15.88	6.63	4.10	6.64	-5.42	17.88
Months elapsed from from baseline to mean HH transfer	6.09	3.57	6.08	-5.29	15.88	6.95	3.93	6.87	-5.42	17.88
Months elapsed from baseline to endline	14.09	1.24	13.87	11.93	16.96	14.24	1.26	14.38	11.87	18.84
Months elapsed from first to last HH transfer	7.96	0.44	8.02	5.03	11.01	0.00	0.00	0.00	0.00	0.00
Months elapsed from first HH transfer to endline	11.15	2.36	11.47	2.76	15.22	7.26	3.79	7.69	-3.02	14.37
Months elapsed from median HH transfer to endline	7.70	3.05	7.56	0.13	18.80	7.57	4.10	7.99	-3.02	17.59
Months elapsed from mean HH transfer to endline	7.69	3.07	7.56	-0.33	18.80	7.24	3.96	7.64	-3.02	17.59
Months elapsed from last HH transfer to endline	3.19	2.19	3.48	-3.88	7.17	7.17	3.74	7.64	-3.02	14.00

Notes: Summary statistics for various timing variables calculated for lump-sum and monthly transfer arms. Timing variables are listed on the left. Survey dates refer to the date of the household survey. Mean transfer date is defined as the month in which 50 percent of the total transfer amount had been received by the household. Median transfer date is defined as the month in which 50 percent of the number of transfers had been completed. Columns represent the mean, SD, median, minimum and maximum of each variable for households in receiving monthly and lump-sum transfers respectively.

9.3 Transfer and survey timing by treatment status

We test whether treatment status predicts when a household completed endline using the following specification:

$$SM_{vhi}^E = \beta_0 + \beta_1 T_{vh} + \beta_2 Sp_{vh} + \varepsilon_{vhi}$$

SM_{vhi}^E is the number of months from the date that the first endline survey was conducted to the date for which the endline survey was administered to individual i (omitted for measures from the household survey) in household h in village v . Sp_{vh} is a dummy for the spillover group. Standard errors are clustered at the village level when making comparisons across villages and at the household level otherwise. β_1 captures the difference between treatment and pure control households in survey month date. β_2 captures the difference in endline month between spillover and pure control households. Results are presented below.

Table 14: Endline Timing by Treatment Status

	(1) Treatment Within Village	(2) Treatment Between Village	(3) Spillover	(4) Female Recipient	(5) Monthly Transfer	(6) Large Transfer
Timing of Household Endline Survey	0.03 (0.06)	-0.54 (0.16)***	-0.57 (0.16)***	-0.11 (0.09)	0.13 (0.10)	0.09 (0.09)

Notes: OLS estimates of the relationship between the timing of the household endline survey and treatment status. Endline survey timing (listed on the left) is the left-hand side variable and is measured as the number of months from the start of endline surveying until a given household was surveyed. Column (1) reports the difference in endline timing between treatment households and control households in treatment villages (spillover). Column (2) reports the difference in endline timing between treatment households and control households in control villages (pure control). Column (3) reports the difference in endline timing between spillover households and pure control households. Column (4) reports the difference in endline timing between treated households in which the primary female received the transfer and households in which the primary male received the transfer. Column (5) reports the difference in endline timing between treated households in which the transfer was made on a monthly basis vs. transfers that were lump-sum. Column (6) reports the difference in endline timing between treated households in which the transfer was large vs. small. All columns report standard errors in parentheses clustered at the household level, except for columns (2) and (3), where they are clustered at the village level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

9.4 Transfer and survey timing: correlation with baseline characteristics

To assess whether households which completed the survey early differed from those which completed it late, we compare the endline date to baseline village and household characteristics, separately for treatment and spillover households:

$$SM_{vhi}^E = \alpha_v + \beta_0 + \beta_1 x_{vhiB} + \varepsilon_{vhi}$$

x_{vhiB} is on of a number of baseline household and individual characteristics for individual i in household h of village v . ε_{vhi} is an idiosyncratic error term. α_v captures village level fixed effects. Thus the vector β_1 captures any correlation between a given baseline characteristics and the timing of the endline survey.

Table 15: Correlation of Endline Timing with Baseline Characteristics

	(1) Endline Timing
Respondent Age	−0.00 (0.00)
Respondent Married at Time of Baseline	−0.04 (0.03)
Years of Education at Time of Baseline	0.00 (0.00)
HH Children at Time of Baseline	0.00 (0.01)
Number of HH Members at Time of Baseline	−0.00 (0.01)
Total Assets	0.00 (0.00)
Total Consumption	0.00 (0.00)
Participation in Wage Labor	−0.03 (0.03)
Household owns Farm	−0.02 (0.03)
Non-ag business primary income (dummy)	0.03 (0.04)
Household owns Non-Agricultural Business	0.04 (0.03)

Notes: OLS estimates of the relationship between the timing of each household’s endline survey and household baseline characteristics. Endline survey timing (listed at the top) is the left-hand side variable and is measured as the number of months from the start of endline surveying to a given household’s endline. Baseline characteristics are listed on the left. Each row is a separate regression. Control households in control villages are excluded from this analysis. Standard errors are listed in parentheses and are clustered at the household level. Each regression includes village fixed-effects. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

9.5 Controlling for survey timing in treatment effect calculations

Here we re-analyze treatment effects in the primary outcome indices controlling for each household's endline survey date, using the following specification, in which τ_{vh} is the number of months between the date at which half of the individual transfers to a household had been made and the endline:

$$y_{vhi} = \alpha_v + \beta_0 + \beta_1 T_{vh} + \delta_1 y_{vhiB} + \delta_2 M_{vhiB} + \tau_{vh} + \varepsilon_{vhi}$$

Table 16: Indices: Main Treatment Arms: Controls for Endline Date

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Value of non-land assets (USD)	494.80 (415.32)	301.18*** (27.22) [0.00]***	−81.38 (50.41) [0.51]	−90.42** (45.87) [0.27]	278.58*** (48.94) [0.00]***	940
Non-durable expenditure (USD)	157.61 (82.18)	35.66*** (5.86) [0.00]***	−1.91 (10.30) [0.92]	−4.24 (10.75) [0.99]	21.26** (10.48) [0.21]	940
Total revenue, monthly (USD)	48.98 (90.52)	16.13*** (5.89) [0.02]**	5.33 (10.66) [0.92]	16.45 (11.06) [0.59]	−2.48 (8.87) [0.84]	940
Food security index	0.00 (1.00)	0.26*** (0.06) [0.00]***	0.06 (0.09) [0.92]	0.26** (0.11) [0.12]	0.18* (0.10) [0.24]	940
Health index	−0.00 (1.00)	−0.03 (0.06) [0.82]	0.11 (0.09) [0.72]	0.01 (0.10) [0.99]	−0.08 (0.09) [0.70]	940
Education index	0.00 (1.00)	0.08 (0.06) [0.43]	0.07 (0.09) [0.92]	−0.05 (0.10) [0.99]	0.05 (0.09) [0.84]	823
Psychological well-being index	−0.00 (1.00)	0.25*** (0.05) [0.00]***	0.13* (0.08) [0.43]	0.02 (0.08) [0.99]	0.26*** (0.08) [0.00]***	1474
Female empowerment index	−0.00 (1.00)	−0.01 (0.07) [0.89]	0.18* (0.10) [0.50]	0.05 (0.12) [0.99]	0.22** (0.11) [0.21]	698
Joint test (p -value)		0.00***	0.10	0.04**	0.00***	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological wellbeing, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. For each outcome variable, we report the coefficient of interest and its standard error in parentheses, and FWER-corrected p -value in brackets. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump-sum transfers. Column (5) reports the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

9.6 Controlling for transfer and survey timing in treatment arm comparisons

9.6.1 Large vs. small transfers

To determine whether survey timing had an impact on outcomes in the comparison of large vs. small transfer recipient households, we re-estimate the analysis that distinguishes these treatment arms while controlling for the number of months between receipt of half of the transfers and endline, restricting the sample to treatment households:

$$y_{vhi} = \alpha_v + \beta_0 + \beta_1 T_{vh}^L + \delta_1 y_{vhiB} + \delta_2 M_{vhiB} + \tau_{vh} + \varepsilon_{vhi}$$

Table 17: Effect of Large vs. Small Transfers controlling for Transfer Timing

	(1) Large Transfer (No Controls)	(2) Large Transfer (Timing Controls)
Value of non-land assets (USD)	279.18 (49.09)***	278.58 (48.94)***
Non-durable expenditure (USD)	21.25 (10.49)**	21.26 (10.48)**
Total revenue, monthly (USD)	−2.44 (8.87)	−2.48 (8.87)
Food security index	0.18 (0.10)*	0.18 (0.10)*
Health index	−0.09 (0.09)	−0.08 (0.09)
Education index	0.05 (0.09)	0.05 (0.09)
Psychological well-being index	0.26 (0.08)***	0.26 (0.08)***
Female empowerment index	0.22 (0.11)**	0.22 (0.11)**
Joint test (p -value)	0.00***	0.00***

Notes: OLS estimates of the difference in outcome indices between households that received large transfers and households that received small transfers. All spillover and pure control households are excluded from the analysis. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological wellbeing, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the difference between households that received large transfers and households that received small transfers with no controls for timing. Column (2) reports the difference between households that received large transfers and households that received small transfers with controls for the time elapsed between the date at which a household had received half of its transfers and the date of the household's endline survey. P -values from a joint test after SUR are reported in the last row. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

9.6.2 Female vs. Male recipients

To determine whether survey timing had an impact on outcomes in the comparison of female vs. male recipient households, we re-estimate the analysis that distinguishes these treatment arms while controlling for the number of months between receipt of half of the transfers and endline, restricting the sample to treatment households:

$$y_{vhi} = \alpha_v + \beta_0 + \beta_1 T_{vh}^F + \beta_2 T_{vh}^W + \delta_1 y_{vhiB} + \delta_2 M_{vhiB} + \tau_{hv} + \varepsilon_{vhi} \quad (5)$$

Table 18: Effect of Female vs. Male Recipient controlling for Transfer Timing

	(1) Female Recipient (No Controls)	(2) Female Recipient (Timing Controls)
Value of non-land assets (USD)	−79.46 (50.38)	−81.38 (50.41)
Non-durable expenditure (USD)	−2.00 (10.28)	−1.91 (10.30)
Total revenue, monthly (USD)	5.41 (10.61)	5.33 (10.66)
Food security index	0.06 (0.09)	0.06 (0.09)
Health index	0.10 (0.09)	0.11 (0.09)
Education index	0.06 (0.09)	0.07 (0.09)
Psychological well-being index	0.14 (0.08)*	0.13 (0.08)*
Female empowerment index	0.17 (0.10)*	0.18 (0.10)*
Joint test (p -value)	0.11	0.10

Notes: OLS estimates of the difference in outcome indices between households in which the primary female received the transfer vs. household in which the primary male received the transfer. All spillover and pure control households are excluded from the analysis. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological wellbeing, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the difference between households in which the primary female received the transfer and household in which the primary male received the transfer with no controls for timing. Column (2) reports the difference between in which the primary female received the transfer and household in which the primary male received the transfer with controls for the time elapsed between the date at which a household had received half of its transfers and the date of the household's endline survey. P -values from a joint test after SUR are reported in the last row. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

9.6.3 Monthly vs. lump-sum transfers

To determine whether survey timing had an impact on outcomes in the comparison of monthly vs. lump-sum transfer recipient households, we re-estimate the analysis that distinguishes these treatment arms while controlling for the number of months between receipt of half of the transfers and endline, restricting the sample to treatment households:

$$y_{vhi} = \alpha_v + \beta_0 + \beta_1 T_{vh}^{\text{MTH}} \times T_{vh}^{\text{S}} + \beta_2 T_{vh}^{\text{L}} + \delta_1 y_{vhiB} + \delta_2 M_{vhiB} + \tau_{hv} + \varepsilon_{vhi}$$

Note that the date of the lump-sum transfer is considered the median transfer in the case of lump-sum payments.

Table 19: Effect of Monthly vs. Lump-sum Transfer Controlling for Transfer Timing

	(1) Monthly Transfer (No Controls)	(2) Monthly Transfer (Timing Controls)
Value of non-land assets (USD)	−91.85 (45.92)**	−90.42 (45.87)**
Non-durable expenditure (USD)	−4.20 (10.71)	−4.24 (10.75)
Total revenue, monthly (USD)	16.33 (11.07)	16.45 (11.06)
Food security index	0.26 (0.11)**	0.26 (0.11)**
Health index	0.01 (0.10)	0.01 (0.10)
Education index	−0.05 (0.10)	−0.05 (0.10)
Psychological well-being index	0.01 (0.08)	0.02 (0.08)
Female empowerment index	0.05 (0.12)	0.05 (0.12)
Joint test (p -value)	0.04**	0.04**

Notes: OLS estimates of the difference in outcome indices between treatment households that received monthly transfers vs. household that received lump-sum transfers. All spillover and pure control households are excluded from the analysis. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological wellbeing, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the difference between households that received monthly transfers and households that received lump-sum transfer with no controls for timing. Column (2) reports the difference between households that received monthly transfers and households that received lump-sum transfer with controls for the time elapsed between the date at which a household had received half of its transfers and the date of the household's endline survey. Note that the date of the lump-sum transfer is considered the median transfer in the case of lump-sum payments. P -values from a joint test after SUR are reported in the last row. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

9.7 Temporal Evolution of Effects

Our data includes a moderate degree of temporal variation in the end date of the transfers, enabling us to ask whether the treatment effects outlasted the period during which households received transfers. We stress, however, that the current study was not designed to investigate long-term effects; further endline surveys will be required to obtain a more complete understanding of long term impacts.

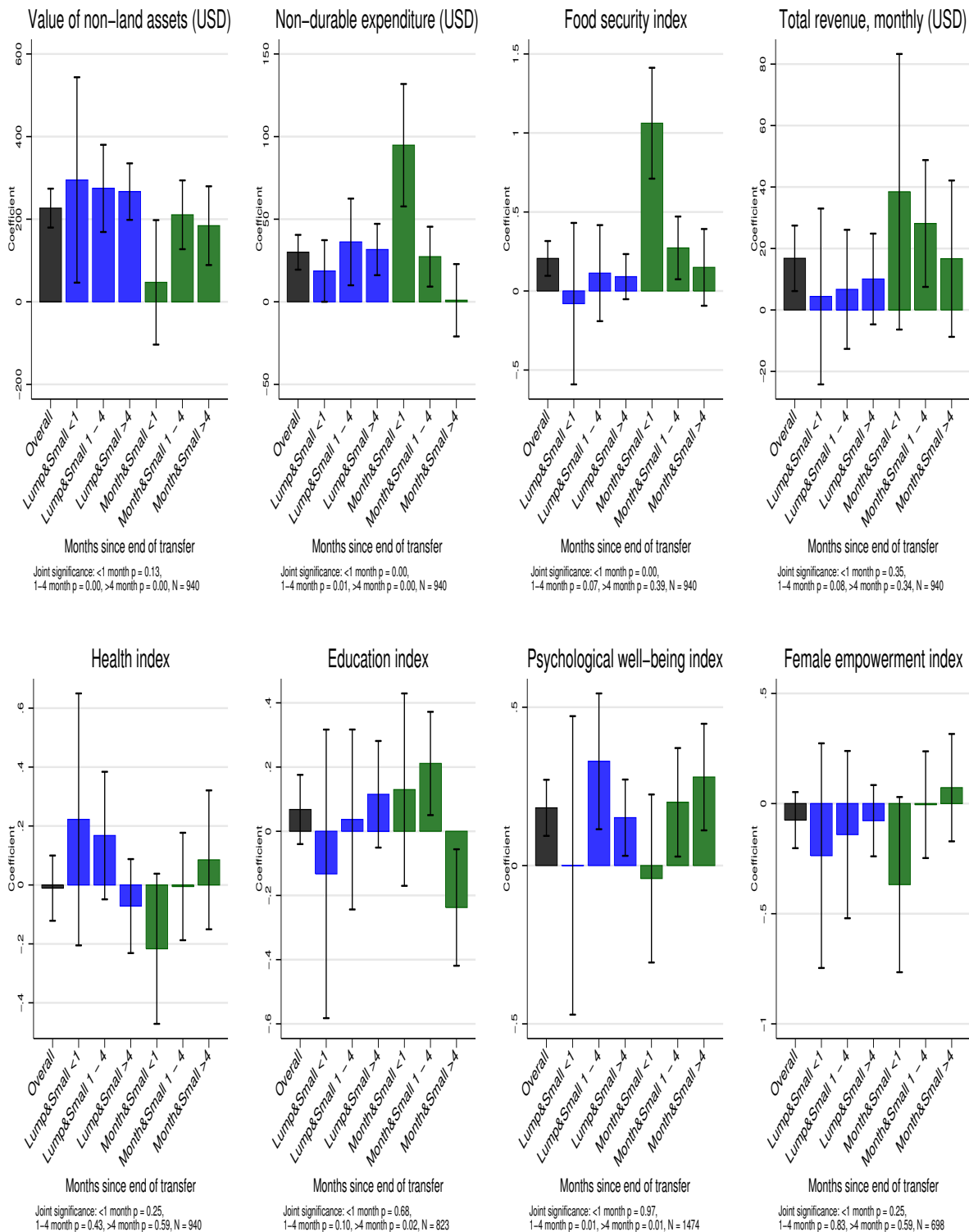
We begin by creating separate indicators for the transfer having been completed a specific number of month before the endline survey. In doing so, we allow the temporal dynamics to vary based on whether the household received a lump-sum or monthly transfer, since we might expect that the impacts of the large lump-sum transfers to unfold differently over time than that of the smaller monthly transfers. Further, since there is limited variation in the time since the end of the transfer for households receiving large transfers, we restrict the sample to households receiving a small transfer.

We then create indicator variables for time elapsed since the end of transfers. Specifically, we first define a dummy for households that receive transfers contemporaneously, i.e. within the last month. Second, we perform a median split on the delay since the last transfer for the remaining households, which results in one group of households which received their last transfer 1 to 4 months ago, and another group which received their last transfer more than 4 months ago. We then estimate the following model:

$$y_{vhiE} = \alpha_v + \beta_0 + \beta_2 T_{vh}^{LS:<1} + \beta_3 T_{vh}^{LS:1-4} + \beta_4 T_{vh}^{LS:4+} + \beta_5 T_{vh}^{MTH:<1} + \beta_6 T_{vh}^{MTH:1-4} + \beta_7 T_{vh}^{MTH:4+} + \delta_1 y_{vhiB} + \delta_2 M_{vhiB} + \varepsilon_{vhiE} \quad (6)$$

The sample is restricted to treatment and control households in treatment villages. In this specification, T^{x-y} takes value 1 if the transfer was completed between x and y months prior to the survey.

Figure 4: Treatment effects on index variables over time



Notes: Treatment effects on index variables over time. Shown are coefficient estimates and error bars representing 95 percent confidence intervals, separately for the treatment effect of transfers ending less than 1 month ago, 1–4 months ago, and more than 4 months ago. Results are shown separately for the monthly and lump-sum transfer groups; Wald tests of joint significance across these groups are presented below each panel. Assets, consumption, and income are coded in USD; the other variables are indices in z-score units, with higher values corresponding to "positive" outcomes.

Table 20: Treatment effects on index variables over time

	Control mean	Overall	Monthly <1 Month	Lump Sum <1 Month	Monthly 1 - 4 Months	Lump Sum 1 - 4 Months	Monthly >4 Months	Lump Sum >4 Months
Value of non-land assets (USD)	494.80 (415.10)	220.96*** (32.31)	47.01 (91.94)	294.95* (151.60)	210.61*** (50.83)	274.51*** (64.37)	184.20*** (58.14)	266.72*** (41.73)
Non-durable expenditure (USD)	157.61 (82.14)	28.21*** (6.68)	94.77*** (22.59)	18.65 (11.37)	27.31** (11.05)	36.21** (15.99)	0.92 (13.36)	31.63*** (9.47)
Total revenue, monthly (USD)	48.98 (90.47)	13.98** (6.78)	38.46 (27.34)	4.39 (17.44)	28.14** (12.58)	6.70 (11.81)	16.69 (15.51)	10.07 (9.01)
Food security index	0.00 (1.00)	0.21*** (0.07)	1.06*** (0.21)	-0.08 (0.31)	0.27** (0.12)	0.11 (0.19)	0.15 (0.15)	0.09 (0.09)
Health index	-0.00 (1.00)	-0.01 (0.07)	-0.22 (0.16)	0.22 (0.26)	-0.01 (0.11)	0.17 (0.13)	0.09 (0.14)	-0.07 (0.10)
Education index	0.00 (1.00)	0.03 (0.08)	0.13 (0.18)	-0.13 (0.27)	0.21** (0.10)	0.04 (0.17)	-0.24** (0.11)	0.12 (0.10)
Psychological well-being index	-0.00 (1.00)	0.17*** (0.06)	-0.04 (0.16)	0.00 (0.29)	0.20* (0.10)	0.33** (0.13)	0.28*** (0.10)	0.15** (0.07)
Female empowerment index	-0.00 (1.00)	-0.09 (0.08)	-0.37 (0.24)	-0.24 (0.31)	-0.01 (0.15)	-0.14 (0.23)	0.07 (0.15)	-0.08 (0.10)

Notes: Treatment effects on index variables over time. Outcome variables are on the left. Assets, consumption, and income are coded in USD; the other variables are indices in z-score units, with higher values corresponding to "positive" outcomes. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. The first column shows the mean taken among control households in treatment villages (spillover). Columns 2 - 4 show coefficient estimates and standard errors for the treatment effect of transfers ending less than 1 month ago, 1-4 months ago, and more than 4 months ago. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

10 *Ex post* minimum detectable effect sizes (*MDEs*)

To assess how much statistical power each comparison in the main outcome tables had *ex post*, we report in the following table the minimum detectable effect sizes (80 percent power, 5 percent significance level) based on the standard error of the treatment coefficients.

Table 21: *Ex post* minimum detectable effect sizes (MDEs): Consumption

	Treatment Effect			Female Recipient		Monthly Transfer		Large Transfer	
	(1) Control Mean	(2) MDE	(3) Percent of Control Mean	(4) MDE	(5) Percent of Control Mean	(6) MDE	(7) Percent of Control Mean	(8) MDE	(9) Percent of Control Mean
Food total (USD)	104.46 (58.50)	11.72	0.11	20.64	0.20	20.77	0.20	21.24	0.20
Food own production (USD)	13.64 (14.79)	2.66	0.20	4.80	0.35	4.91	0.36	4.16	0.31
Food bought (USD)	90.82 (52.77)	10.57	0.12	18.38	0.20	18.61	0.20	19.07	0.21
Cereals (USD)	22.55 (17.18)	3.17	0.14	5.23	0.23	5.21	0.23	5.80	0.26
Meat & fish (USD)	12.97 (13.75)	2.83	0.22	5.09	0.39	5.38	0.41	4.57	0.35
Fruit & vegetables (USD)	23.50 (17.06)	3.22	0.14	5.46	0.23	5.67	0.24	5.57	0.24
Dairy (USD)	7.26 (9.43)	1.79	0.25	3.09	0.43	3.03	0.42	3.07	0.42
Fats (USD)	6.84 (5.51)	1.02	0.15	1.73	0.25	1.77	0.26	1.63	0.24
Sugars (USD)	11.25 (7.18)	1.32	0.12	2.26	0.20	2.33	0.21	2.18	0.19
Other food (USD)	42.42 (28.28)	5.38	0.13	9.04	0.21	8.98	0.21	9.59	0.23
Alcohol (USD)	6.38 (16.56)	2.78	0.44	4.55	0.71	4.58	0.72	3.73	0.58
Tobacco (USD)	1.52 (4.13)	0.61	0.40	0.95	0.63	0.93	0.61	0.84	0.55
Medical expenditure past month (USD)	6.78 (13.53)	2.78	0.41	5.20	0.77	5.21	0.77	4.88	0.72
Medical expenditure, children (USD)	3.67 (8.96)	1.73	0.47	3.00	0.82	3.11	0.85	2.73	0.74
Education expenditure (USD)	4.71 (8.68)	1.43	0.30	2.46	0.52	2.43	0.52	2.56	0.54
Social expenditure (USD)	4.36 (5.38)	1.35	0.31	2.71	0.62	2.78	0.64	2.51	0.57
Other expenditure (USD)	34.36 (24.62)	4.83	0.14	8.49	0.25	8.80	0.26	8.40	0.24
Non-durable expenditure (USD)	157.61 (82.18)	16.39	0.10	28.77	0.18	29.98	0.19	29.36	0.19

Notes: Ex post power calculations and minimum detectable effect sizes for consumption. Outcome variables are listed on the left. The unit of observation is the household for all variables. The sample includes all households in treatment villages. For each outcome variable, we report the control group mean and standard deviation in column (1). In columns (2), (4), (6), and (8), we report the minimum detectable effects (MDEs) for the main treatment effect and the comparison between treatment arms, respectively, calculated ex post using a significance level of 0.05 and power of 80 percent. In columns (3), (5), (7), and (9), we report, for monetary outcome variables, the MDE as a proportion of the control group mean for the main treatment effect and the treatment arms, respectively. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 22: *Ex post* minimum detectable effect sizes (*MDEs*): Psychological Wellbeing

	Treatment Effect			Female Recipient		Monthly Transfer		Large Transfer	
	(1) Control Mean	(2) MDE	(3) Percent of Control Mean	(4) MDE	(5) Percent of Control Mean	(6) MDE	(7) Percent of Control Mean	(8) MDE	(9) Percent of Control Mean
Log cortisol (no controls)	2.46 (0.89)	0.13	0.05	0.20	0.08	0.23	0.09	0.20	0.08
Log cortisol (with controls)	2.46 (0.88)	0.13	0.05	0.20	0.08	0.23	0.09	0.20	0.08
Depression (CESD)	26.48 (9.31)	1.23	0.05	1.86	0.07	2.04	0.08	1.91	0.07
Worries	0.00 (1.00)	0.13		0.20		0.22		0.21	
Stress (Cohen)	0.00 (1.00)	0.14		0.23		0.24		0.23	
Happiness (WVS)	0.00 (1.00)	0.14		0.22		0.24		0.22	
Life satisfaction (WVS)	0.00 (1.00)	0.13		0.20		0.22		0.22	
Trust (WVS)	0.00 (1.00)	0.14		0.22		0.23		0.22	
Locus of control	0.00 (1.00)	0.14		0.23		0.24		0.23	
Optimism (Scheier)	0.00 (1.00)	0.15		0.23		0.25		0.25	
Self-esteem (Rosenberg)	0.00 (1.00)	0.15		0.25		0.26		0.27	
Psychological well-being index	0.00 (1.00)	0.14		0.21		0.24		0.22	

Notes: Ex post power calculations and minimum detectable effect sizes for psychological wellbeing. Outcome variables are listed on the left. The unit of observation is the individual for all variables. The sample includes all individuals in treatment villages. For each outcome variable, we report the control group mean and standard deviation in column (1). In columns (2), (4), (6), and (8), we report the minimum detectable effects (MDEs) for the main treatment effect and the comparison between treatment arms, respectively, calculated ex post using a significance level of 0.05 and power of 80 percent. In columns (3), (5), (7), and (9), we report the MDE as a proportion of the control group mean for the main treatment effect and the treatment arms, respectively. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 23: *Ex post* minimum detectable effect sizes (*MDEs*): Assets

		Treatment Effect		Female Recipient		Monthly Transfer		Large Transfer	
	(1) Control Mean	(2) MDE	(3) Percent of Control Mean	(4) MDE	(5) Percent of Control Mean	(6) MDE	(7) Percent of Control Mean	(8) MDE	(9) Percent of Control Mean
Value of non-land assets excluding roof (USD)	385.05 (300.02)	55.55	0.14	105.59	0.27	94.75	0.25	106.31	0.28
Value of livestock (USD)	166.82 (240.59)	42.62	0.26	82.09	0.49	76.62	0.46	79.83	0.48
Value of cows (USD)	101.78 (211.82)	38.82	0.38	75.36	0.74	70.92	0.70	72.96	0.72
Value of small livestock (USD)	25.30 (49.67)	9.21	0.36	17.43	0.69	16.28	0.64	16.42	0.65
Value of birds (USD)	39.74 (40.80)	7.74	0.19	13.65	0.34	14.36	0.36	12.60	0.32
Value of durable goods (USD)	207.30 (130.60)	24.12	0.12	40.31	0.19	39.64	0.19	43.95	0.21
Value of furniture (USD)	138.11 (89.29)	16.86	0.12	28.45	0.21	28.12	0.20	31.87	0.23
Value of agricultural tools (USD)	10.77 (14.08)	2.78	0.26	5.14	0.48	4.38	0.41	5.77	0.54
Value of radio/TV (USD)	9.73 (17.09)	3.11	0.32	5.63	0.58	5.73	0.59	5.04	0.52
Value of bike/motorbike (USD)	21.06 (35.01)	6.32	0.30	11.72	0.56	10.60	0.50	10.80	0.51
Value of appliances (USD)	3.78 (5.22)	1.00	0.27	1.60	0.42	1.61	0.43	1.88	0.50
Value of cell phone (USD)	23.86 (24.85)	4.26	0.18	6.68	0.28	7.02	0.29	6.94	0.29
Value of savings (USD)	10.93 (29.09)	6.90	0.63	14.09	1.29	12.81	1.17	14.10	1.29
Land owned (acres)	1.31 (1.88)	0.38	0.29	0.49	0.37	0.49	0.37	0.89	0.68
Has non-thatched roof (dummy)	0.16 (0.37)	0.08	0.49	0.14	0.87	0.14	0.85	0.14	0.89

Notes: Ex post power calculations and minimum detectable effect sizes for assets. Outcome variables are listed on the left. The unit of observation is the household for all variables. The sample includes all households in treatment villages. For each outcome variable, we report the control group mean and standard deviation in column (1). In columns (2), (4), (6), and (8), we report the minimum detectable effects (MDEs) for the main treatment effect and the comparison between treatment arms, respectively, calculated ex post using a significance level of 0.05 and power of 80 percent. In columns (3), (5), (7), and (9), we report the MDE as a proportion of the control group mean for the main treatment effect and the treatment arms, respectively. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 24: *Ex post* minimum detectable effect sizes (*MDEs*): Enterprise

		Treatment Effect		Female Recipient		Monthly Transfer		Large Transfer	
	(1) Control Mean	(2) MDE	(3) Percent of Control Mean	(4) MDE	(5) Percent of Control Mean	(6) MDE	(7) Percent of Control Mean	(8) MDE	(9) Percent of Control Mean
Wage labor primary income (dummy)	0.16 (0.37)	0.07	0.41	0.11	0.68	0.11	0.70	0.11	0.67
Own farm primary income (dummy)	0.56 (0.50)	0.09	0.15	0.14	0.25	0.14	0.26	0.14	0.25
Non-ag business primary income (dummy)	0.12 (0.32)	0.06	0.50	0.10	0.85	0.10	0.87	0.10	0.82
Non-agricultural business owner (dummy)	0.32 (0.47)	0.08	0.25	0.14	0.43	0.14	0.44	0.13	0.41
Non-ag business investment in durables, monthly (KES)	10.59 (45.95)	13.33	1.26	30.04	2.84	30.37	2.87	22.59	2.13
Number of employees working in non-ag business	0.00 (0.00)	0.03		0.07		0.06		0.07	
Non-ag business revenue, monthly (USD)	28.62 (86.25)	15.83	0.55	28.65	1.00	30.01	1.05	23.86	0.83
Non-ag business flow expenses, monthly (USD)	16.61 (60.12)	11.60	0.70	20.53	1.24	21.45	1.29	16.95	1.02
Non-ag business profit imputed, monthly (USD)	12.01 (44.10)	10.07	0.84	18.47	1.54	21.87	1.82	14.94	1.24
Non-ag business profit self-reported, monthly (USD)	8.26 (24.73)	4.83	0.58	8.97	1.09	8.61	1.04	7.77	0.94
Non-ag business investment in durables, monthly (USD)	0.17 (0.74)	0.21	1.26	0.48	2.83	0.49	2.86	0.36	2.13
Farm revenue, monthly (USD)	9.66 (8.89)	1.50	0.16	2.50	0.26	2.51	0.26	2.31	0.24
Farm flow expenses, monthly (USD)	5.01 (5.84)	0.99	0.20	1.74	0.35	1.65	0.33	1.86	0.37
Farm profit, monthly (USD)	4.65 (7.47)	1.30	0.28	2.23	0.48	2.19	0.47	2.16	0.47
Livestock flow revenue, monthly (USD)	6.44 (14.04)	2.74	0.43	5.22	0.81	5.34	0.83	4.23	0.66
Livestock flow expenses, monthly (USD)	2.33 (4.64)	0.92	0.39	1.75	0.75	1.45	0.62	1.85	0.79
Livestock flow profit, monthly (USD)	4.11 (13.21)	2.61	0.64	4.98	1.21	5.13	1.25	3.84	0.93
Livestock sales and meat revenue, monthly (USD)	4.25 (8.40)	1.71	0.40	3.36	0.79	3.22	0.76	2.99	0.70
Total revenue, monthly (USD)	48.98 (90.52)	16.46	0.34	29.71	0.61	31.01	0.63	24.84	0.51
Total expenses, monthly (USD)	23.95 (61.71)	11.80	0.49	20.87	0.87	21.69	0.91	17.45	0.73
Total profit, monthly (USD)	20.78 (46.22)	10.30	0.50	18.69	0.90	22.16	1.07	14.90	0.72

Notes: Ex post power calculations and minimum detectable effect sizes for enterprise activities. Outcome variables are listed on the left. The unit of observation is the household for all variables. The sample includes all households in treatment villages. For each outcome variable, we report the control group mean and standard deviation in column (1). In columns (2), (4), (6), and (8), we report the minimum detectable effects (MDEs) for the main treatment effect and the comparison between treatment arms, respectively, calculated ex post using a significance level of 0.05 and power of 80 percent. In columns (3), (5), (7), and (9), we report the MDE as a proportion of the control group mean for the main treatment effect and the treatment arms, respectively. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

11 Adjusting for thatched roof selection criterion

A potential weakness in conducting a spillover analysis in the present study is that the thatched-roof selection criterion for participation was applied to households in control villages one year after it was applied to households in treatment villages. As a result, there is endogenous selection into the pure control condition, as some proportion of households in pure control villages are likely to have upgraded to a metal roof over this time period, and these households are excluded from endline in the pure control villages. These households are potentially different both from households that did not upgrade, and different from households in treatment villages that only upgraded in response to their neighbors receiving transfers. Thus, the fact that no metal roof households are included in the endline survey of control villages potentially biases the spillover analysis. In the following, we describe the selection problem formally, and outline the analyses we perform to bound any resulting bias.

11.1 Basic Selection Problem

We treat the bias introduced by the time lag in the application of the thatched roof criterion as selection bias. Consider the following sample selection model (cf. ? and ?):

D = Assignment to treatment village

S = Household takes the endline survey

S_1 = Household would take the endline survey if assigned to spillover status

S_0 = Household would take the endline survey if assigned to pure control status

Y = Outcome of interest

Y_1 = Outcome of interest if assigned to spillover status

Y_0 = Outcome of interest if assigned to pure control status

Note that the sample is restricted to *control* households (in both treatment and pure control villages), and the treatment dummy D identifies *spillover* households, i.e. control households in treatment villages. For now we abstract away from selection bias through attrition and consider only bias from differential application of the thatched roof eligibility criterion. For each individual, we only observe one of the sample selection indicators S_1 , S_0 . Similarly, Y_0 and Y_1 are latent potential outcomes that we only observe if an individual takes the endline survey. Thus:

$$\begin{aligned}
S &= S_1 D + S_0(1 - D) \\
Y &= S [Y_1 D + Y_0(1 - D)]
\end{aligned}$$

Randomization gives us $Y_0, Y_1, S_0, S_1 \perp D$. Calculating the spillover effect from the observed sample gives us $E[Y | S = 1, D = 1] - E[Y | S = 1, D = 0]$. However, this is a biased measure of the average effect of living in a treatment village for individuals who were observed:

$$\begin{aligned}
&E[Y | S = 1, D = 1] - E[Y | S = 1, D = 0] \\
&= E[Y_1 | S_1 = 1, D = 1] - E[Y_0 | S_0 = 1, D = 0] \\
&= E[Y_1 | S_1 = 1] - E[Y_0 | S_0 = 1] \\
&= E[Y_1 | S_1 = 1] + E[Y_1 | S_0 = 1] - E[Y_1 | S_0 = 1] - E[Y_0 | S_0 = 1] \\
&= E[Y_1 - Y_0 | S_0 = 1] + E[Y_1 | S_1 = 1] - E[Y_1 | S_0 = 1] \\
&= E[Y_1 - Y_0 | S_0 = 1] + E[Y_1] - E[Y_1 | S_0 = 1]
\end{aligned}$$

The term $E[Y_1] - E[Y_1 | S_0 = 1]$ identifies any bias arising from the fact that individuals who did not upgrade their roofs (and thus were eligible to be surveyed) in pure control villages may have different outcomes from those who do. Also note that we use $E[Y_1 | S_1 = 1] = E[Y_1]$, since all households in treatment villages are observed. We perform the following analyses to bound this selection effect.

11.2 Spillover effect including metal roof households

Identifying assumption 1: Random selection into roof upgrade We begin by assuming that selection into roof upgrade (and hence out of the endline survey in the pure control villages) is random, i.e. $Y \perp S_0$, and therefore

$$E[Y_1] = E[Y_1 | S_1 = 1] = E[Y_1 | S_0 = 1].$$

This assumption allows us to identify the treatment effect through the simple comparison of all households that took the endline survey, i.e. $E[Y_1 - Y_0 | S_0 = 1] = E[Y | S = 1, D = 1] - E[Y | S = 1, D = 0]$. We refer to this as the “naïve” analysis. Results are given Table III and Section 4.2 of the paper.

One source of evidence for the comparability of the spillover and pure control samples is to compare them on baseline characteristics. However, no baseline survey was administered to pure control households. Nevertheless, there some individual and household characteristics are either immutable or calculable from endline values. We compare the two types of households on these characteristics in Section 12.1.

As a further source of evidence in support of this assumption, we would ideally ask whether selection into upgrade can be predicted from baseline observables in the pure control group; however, we do not have data on the metal roof households. A second-best option is to ask whether selection into upgrade can be predicted from baseline observables in the spillover group. We present this analysis and its results in Section 12.2.

11.3 Controlling for baseline characteristics

Identifying assumption 2: Random selection into roof upgrade conditional on observables We next assume that selection of spillover and pure control households into upgrade (and hence the endline survey) is random conditional on a set of observable household characteristics X . In this case, the conditional independence assumption holds, i.e. $Y \perp S_0 \mid X$. Thus, if we control for these covariates in our specification, we can identify the treatment effect:

$$\begin{aligned} & E[Y_1 - Y_0 \mid S_0 = 1, X] + E[Y_1 \mid S_1 = 1, X] - E[Y_1 \mid S_0 = 1, X] \\ &= E[Y_1 - Y_0 \mid S_0 = 1, X] + E[Y_1 \mid X] - E[Y_1 \mid X] \\ &= E[Y_1 - Y_0 \mid S_0 = 1, X] \\ &= E[Y_1 - Y_0 \mid S_0 = 1] \end{aligned}$$

The last equality is true because $Y \perp S_0 \mid X$ by assumption. Thus, we can recalculate the spillover effect using baseline characteristics as control variables. The specification and results are given in Section 4.2 of the paper.

11.4 Restricting the sample to households with thatched roofs at endline

We now consider improvements in identification resulting from restricting the sample to households which still have thatched roofs at endline. To begin, we define notation for never-takers, always-takers, compliers, and defiers of metal roof upgrade between baseline and endline. Note that again the sample is restricted to households in the spillover and

pure control groups, and therefore a complier household is one that upgrades to a metal roof as the result of a spillover effect from neighboring households receiving a transfer; a defier household is one that does not upgrade for this reason. We denote actual and potential roof status at endline as follows:

R = Household upgrades to metal roof between baseline and endline

R_1 = Household would upgrade to metal roof if assigned to spillover status

R_0 = Household would upgrade to metal roof if assigned to pure control status

We further denote the proportions of always-takers, compliers, defiers, and never-takers as follows:

Always-takers: $Pr(R_0 = 1, R_1 = 1) = \alpha$

Compliers: $Pr(R_0 = 0, R_1 = 1) = \gamma$

Defiers: $Pr(R_0 = 1, R_1 = 0) = \phi$

Never-takers: $Pr(R_0 = 0, R_1 = 0) = \nu$

Now consider the comparison of spillover and pure control households which still have thatched roofs at endline. In treatment villages, the households with thatched roofs at endline are either defiers or never-takers. In pure control villages, they are either compliers or never-takers. The difference between the observed and potential outcomes can therefore be written and rearranged as follows:

$$\begin{aligned}
& \nu E[Y_N|S = 1, D = 1] + \phi E[Y_F|S = 1, D = 1] - \nu E[Y_N|S = 1, D = 0] - \gamma E[Y_C|S = 1, D = 0] \\
&= \nu E[Y_{N,1}|S_1 = 1, D = 1] + \phi E[Y_{F,1}|S_1 = 1, D = 1] - \nu E[Y_{N,0}|S_0 = 1, D = 0] - \gamma E[Y_{C,0}|S_0 = 1, D = 0] \\
&= \nu E[Y_{N,1}|S_1 = 1] + \phi E[Y_{F,1}|S_1 = 1] - \nu E[Y_{N,0}|S_0 = 1] - \gamma E[Y_{C,0}|S_0 = 1] \\
&= \nu E[Y_{N,1}|S_1 = 1] + \phi E[Y_{F,1}|S_1 = 1] - \nu E[Y_{N,0}|S_0 = 1] - \gamma E[Y_{C,0}|S_0 = 1] \\
&\quad + \nu E[Y_{N,1}|S_0 = 1] - \nu E[Y_{N,1}|S_0 = 1] \\
&= \nu E[Y_{N,1} - Y_{N,0}|S_0 = 1] + \phi E[Y_{F,1}|S_1 = 1] - \gamma E[Y_{C,1}|S_0 = 1]
\end{aligned}$$

Thus, the difference between households with thatched roofs at endline is identified for never-takers, except for the difference between the proportion and potential outcomes of households that are compliers or defiers in terms of upgrading to metal roofs. We next outline under which assumptions this bias is zero or can be bounded.

Identifying assumption 3: Monotonicity (“no defiers”) We first make the classic monotonicity or “no defiers” assumption that is at the foundation of many randomized field experiments (Angrist, Imbens, and Rubin 1996). In our framework, the assumption states that $\phi = 0$. Could there be defiers in our sample? In our view, the only plausible reason for control households to refrain from upgrading their thatched roofs to metal is to remain eligible for possible future transfers from *GiveDirectly*. However, control households in treatment villages were credibly told by *GiveDirectly* that they would not receive cash transfers. The no-defier assumption is therefore reasonable in our setting.

With this assumption, the only bias arises from compliers, which are included in the pure control thatched-roof sample but not in the spillover thatched-roof sample because they upgraded to metal roofs. Importantly, we can find out how many such households there are by obtaining a precise estimate of the magnitude of the spillover effect of the cash transfers on metal roof ownership. In September 2015, we returned to households with metal roofs in pure control villages to ascertain when they upgraded to a metal roof. Households that upgraded between April 2011 and June 2012 should originally have been eligible for participation in the study, but were excluded because of the late application of the thatched roof criterion. We identified 170 such households. We then used the same algorithm originally used to select pure control households to calculate the probability that each of these households would have been included in the study had they been identified as eligible at the time. The original sampling method required us to select 8 households from the pool of eligible households in each village (those with thatched roofs). When there were 8 or fewer eligible households in a given village, we selected all households. When there more than 8 eligible households, we selected 8 with equal probability for each. We were thus able to calculate the exact probability that a given household would be selected in each village. In villages with 8 or fewer eligible households, the probability of selection was 1. In villages with more than 8 eligible households, the probability was 8 divided by the total number of eligible households. To determine how many of the 170 “recall” households should have been selected for the survey, we multiply this probability by the number of recall households in each village, resulting in a total of 78 households. Since there were 432 pure control households in the original study, this gives us an upgrade rate from baseline to endline of $78/(432 + 78) = 0.153$ for pure control villages. Similarly, since there were a total of 469 spillover households at endline, of which 77 had metal roofs, the upgrade rate among spillover households was $77/469 = 0.164$. Applying the upgrade rate of 0.153 in pure control village to these spillover households, we would predict $0.153 \cdot 469 = 72$ metal roofs in the spillover group at endline. In actuality we observe 77 metal roof households. The treatment therefore had a spillover effect on metal roof ownership of $77 - 72 = 5$ households.

We take two approaches to the bias arising from these five households. The first is to ignore it: with 5 households out of 469, i.e. 1.1 percent, the spillover effect of transfers on metal roof ownership is negligible. We can therefore consider the spillover analysis that restricts the sample to households that still have thatched roof at endline as nearly uncontaminated by spillover effects on metal roof ownership. In this case, restricting the sample to households that still have thatch roofs at endline identifies the spillover effect. The second approach is to bound the spillover effect using worst-case assumptions. We therefore report Lee and Manski bounds in Table III of the paper.

Identifying assumption 4A: Same proportion and potential outcomes for compliers and defiers We now relax the monotonicity assumption and ask under which alternative assumptions the comparison of thatch-at-endline households in treatment and control villages identifies the spillover effect. One such assumption is that the proportion and potential outcomes of compliers and defiers are the same, i.e.

$$\phi E[Y_{F,1}|S_1 = 1] = \gamma E[Y_{C,1}|S_0 = 1].$$

This assumption says that the proportion and outcome distribution of households which are induced to upgrade to metal roofs when their neighbors receive transfers are identical to those of households which are induced to keep their thatched roofs by treatment. That the outcome distribution of these two types is similar is plausible because both types are marginal, i.e. they are “ready to upgrade” before transfers.

Identifying assumption 4B: Same potential outcomes for compliers and $\frac{\gamma}{\phi}$ of the defiers A weaker assumption is that only $\frac{\gamma}{\phi}$ of the defiers have the same potential outcomes as the compliers. This leaves a proportion of $\phi - \gamma$ of the sample whose outcome distribution we don’t know and who therefore contaminate the spillover effect estimate. However, from the exercise described above, we know that $\phi - \gamma = 0.011$. Again, this is negligible and can either be ignored, or bounded as described above. The details of this approach have been described by [Angrist, Imbens, and Rubin \(1996\)](#) and [de Chaisemartin \(2013\)](#).

Identifying assumption 4C: Same potential outcomes for compliers, never-takers, and defiers Finally, we can relax the assumption that the proportion of compliers and defiers are the same if we instead assume that their distribution of potential outcomes is the same as that of the never-takers, i.e. $E[Y_{F,1}|S_1 = 1] = E[Y_{C,1}|S_0 = 1] = E[Y_{N,1}|S_0 = 1]$. This assumption says that the spillover group, which consists of never-takers and defiers, has

the same outcome distribution as the pure control group, which consists of never-takers and defiers.

11.4.1 Testing whether inclusion vs. exclusion of metal roof households affects results

We next ask whether including vs. excluding households with metal roofs at endline from the spillover analysis affects results. To this end, we analyze the difference in spillover effects when calculated across all spillover households and when excluding spillover households that upgraded. If we find that the results are similar whether or not we exclude metal roof households, this suggests that the differential application of the thatched roof criterion introduced only minimal bias. We estimate a series of models of the form:

$$y_{vhiE,m} = \beta_m Sp_{vh} + \varepsilon_{vhiE,m}$$

where m denotes the model number and $\varepsilon_{vhiE,m}$ is an idiosyncratic error term. Note that h (or i for individual measures) indexes either the total number of spillover households or the number of spillover households that did not upgrade:

1. If $m = 1$, then $h = 1...H_1$ where H_1 is the total number of spillover households and pure control households.
2. If $m = 2$, then $h = 1...H_2$ where H_2 is the total number of spillover households that did not upgrade and pure control households

Writing each specification in vector form and stacking, we get the seemingly unrelated regression model:

$$\begin{pmatrix} Y_1 \\ Y_2 \end{pmatrix} = \begin{pmatrix} Sp_1 & 0 \\ 0 & Sp_2 \end{pmatrix} \begin{pmatrix} \beta_1 \\ \beta_2 \end{pmatrix} + \begin{pmatrix} \varepsilon_1 \\ \varepsilon_2 \end{pmatrix}$$

Standard errors are clustered at the village level. Thus, β_m identifies the spillover effect in model m . After estimating this specification, we test for the equality of each β_1 and β_2 . If we cannot reject $H_0 : \beta_1 = \beta_2$, this again suggests that spillover households that upgraded are not significantly different in terms of the outcome variable to those that did not upgrade, and that the late application of the exclusion restriction introduced minimal bias into our calculation of the spillover effect. The results are presented in Table III and Section 4.2 of the paper.

12 Evaluating Metal Roof Household Characteristics

12.1 Baseline Balance on Immutable Characteristics

One source of evidence for the comparability of the spillover and pure control samples is to compare them on baseline characteristics. However, no baseline survey was administered to pure control households. Nevertheless, there some individual and household characteristics are either immutable or calculable from endline values. We determine whether these characteristics are balanced between spillover and pure control households using the following specification:

$$y_{vhiB} = \beta_0 + \beta_1 Sp_{vh} + \varepsilon_{vhiB}$$

Here, y_{vhiB} is a characteristic of respondent i (if measured at the individual level) in household h in village v at baseline ($t = B$). Sp_{vh} is an indicator variable taking the value of 1 if household h is a spillover household and 0 if it is a pure control household. Note that we will exclude treatment households from this analysis. ε_{vhiB} is an idiosyncratic error term. Standard errors are clustered at the village level. β_1 identifies differences in immutable characteristics between spillover and pure control households.

We use the following characteristics as comparison variables:

1. Age of primary respondent
2. Marital status of primary respondent at baseline
3. Highest level of education attained by primary respondent
4. Number of children, excluding those born between baseline and endline
5. Household size at baseline

Results are presented below.

Table 25: Baseline Balance on Immutable Characteristics

	(1) Treatment Village Mean (SD)	(2) Control Village Mean (SD)	(3) Difference
Age (respondent)	35.35 (14.13)	34.84 (14.31)	−0.51 (0.95)
Marital status (respondent)	0.78 (0.41)	0.75 (0.44)	−0.04 (0.03)
Number of children	2.88 (1.91)	2.84 (1.92)	−0.04 (0.15)
Household size	4.94 (2.16)	4.75 (2.23)	−0.19 (0.17)
Years of education completed (respondent)	8.53 (2.95)	8.73 (3.00)	0.19 (0.20)
Joint test (p -value)			0.08*

Notes: Estimates of the mean of immutable baseline characteristics calculated among households in treatment villages and control villages. Baseline characteristics are listed on the left. Column (1) reports the mean (sd) taken among households in treatment villages. Column (2) reports the mean (sd) taken among households in control villages. Column (3) reports the difference in means calculated using an OLS regression of the baseline characteristic on an indicator variable for living in a treatment village. Village-level clustered standard errors are reported in parentheses. The last row reports a test of joint significance after estimation using SUR. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

12.2 Determinants of Metal Roof Upgrade

To assess whether selection of households into metal roof upgrade is random, we would ideally ask whether selection into upgrade can be predicted from baseline observables in the pure control group; however, we do not have data on the metal roof households. A second-best option is to ask whether selection into upgrade can be predicted from baseline observables in the spillover group. We do this using the following specification:

$$U_{vh} = \beta_0 + \beta_1 X_{vhiB} + \varepsilon_{vhi}$$

Here, X_{vhiB} is a vector of baseline characteristics of respondent i (if measured at the individual level) in household h in village v at baseline ($t = B$). U_{vh} is an indicator variable taking the value of 1 if household h upgraded to a metal roof between baseline and endline and 0 otherwise. Note that we will exclude treatment and pure control households from this analysis. ε_{vhi} is an idiosyncratic error term. Standard errors are clustered at the household level. β_1 identifies the extent to which baseline characteristics predict upgrade to metal roof, and thus whether selection into upgrade can be considered random with respect to outcome variables. We use the eight index variables as predictors of upgrade. Results are presented below.

Table 26: Predictors of Metal Roof Upgrade

	(1) Upgrade Likelihood Independent Estimate	(2) R-squared	(3) Upgrade Likelihood Joint Estimate
Panel A: Baseline Demographics			
Age (respondent)	0.0005 (0.0011)	0.0003	0.0012 (0.0013)
Marital status (respondent)	0.0190 (0.0378)	0.0005	0.0355 (0.0458)
Number of children	−0.0010 (0.0079)	0.0000	0.0057 (0.0259)
Household size	−0.0007 (0.0069)	0.0000	−0.0079 (0.0232)
Years of education completed (respondent)	0.0027 (0.0052)	0.0005	0.0042 (0.0056)
Joint Significance (p -value)			0.90
Joint Estimation R-squared			0.0025
Panel B: Baseline Outcome Variables			
Value of non-land assets (USD)	0.0002 (0.0000)***	0.0324	0.0002 (0.0001)***
Non-durable expenditure (USD)	0.0001 (0.0001)	0.0014	0.0001 (0.0002)
Total revenue, monthly (USD)	−0.0000 (0.0000)	0.0003	−0.0001 (0.0000)**
Food security index	−0.0088 (0.0153)	0.0006	−0.0062 (0.0205)
Health index	−0.0039 (0.0134)	0.0001	−0.0178 (0.0187)
Education index	0.0180 (0.0171)	0.0025	0.0027 (0.0220)
Psychological well-being index	0.0015 (0.0140)	0.0000	−0.0215 (0.0209)
Female empowerment index	0.0365 (0.0180)**	0.0102	0.0337 (0.0188)*
Joint Significance (p -value)			0.04**
Joint Estimation R-squared			0.0589

Notes: Panel A reports the coefficients from OLS estimation of the probability of upgrading to a metal roof between baseline and endline regressed on baseline values of our main outcome indices. Panel B reports the coefficients from regressions on baseline characteristics. Baseline outcome indices and baseline characteristics are listed on the left. All estimates are restricted to control households in treatment villages (spillovers). The unit of observation is the household for all variables except psychological wellbeing, where it is the individual. Estimation on the intrahousehold index is restricted to co-habiting couples, and for the education index, is restricted to households with school-age children. Column (1) reports the coefficient and standard errors of independent OLS regressions of an indicator variable taking value 1 for households upgrading to a metal roof between baseline and endline on each of the baseline outcomes and characteristics listed on the left. Column (2) reports the R^2 from each of these regressions. Column (3) reports the coefficient and standard errors of a single OLS regressions of an indicator variable taking value 1 for households upgrading to a metal roof between baseline and endline on all of the baseline outcomes jointly (panel A) and all baseline characteristics jointly (panel B). The last lines of each panel report the p -values from an F -test of joint significance across all right-hand side variables and of the R^2 from the joint estimation. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

13 Within-village Spillovers

In this analysis, we exploit differences in the treatment intensity across villages, resulting from variation in the proportion of large vs. small transfers, to further examine the possibility of within-village spillovers. We calculate the change in the mean wealth of the eligible households in each village as follows:

$$\Delta\bar{T}_v = \frac{\sum_{h=1}^H \Delta T_{vh}}{H_v}$$

Here, ΔT_{vh} is the assigned transfer amount for household h in village v (taking a value of USD 0, USD 404, or USD 1525), and H_v is the total number of eligible households (those assigned to either treatment or control conditions) in village v . We divide levels by 100 so that all results are per USD 100 increase in village mean wealth.

Restricting the sample to spillover households, we then analyze

$$y_{vhiE} = \beta_0 + \beta_1 \Delta\bar{T}_v + \delta y_{vhiB} + \varepsilon_{vhiE} \quad (7)$$

where y_{vhiE} is the outcome of interest for individual i (where index i is excluded for measures taken at the household level) in household h in village v taken at endline ($t = E$). $\Delta\bar{T}_v$ is the change in village mean wealth. We condition on baseline values of outcome variables y_{vhiB} where available. ε_{vhiE} is an idiosyncratic error term. Standard errors are clustered at the village level since we exploit village-level variation to identify these effects. Thus, β_1 identifies the effect of a USD 100 increase in the mean wealth of a village on the outcome of interest at endline among spillover households. Results are reported below.

Table 27: Within-Village Spillovers

	(1) Village Mean Change	(2) N
Value of non-land assets (USD)	−16.62 (20.63)	469
Non-durable expenditure (USD)	0.56 (5.42)	469
Total revenue, monthly (USD)	3.36 (4.34)	469
Food security index	−0.08 (0.08)	469
Health index	0.04 (0.07)	469
Education index	−0.05 (0.04)	399
Psychological well-being index	−0.04 (0.09)	730
Female empowerment index	0.12* (0.06)	349
Joint test (p -value)	0.32	

Notes: OLS estimates of the effect of a USD 100 increase in the mean wealth calculated among the households eligible to receive transfers in each treatment village (thatched roof). Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological wellbeing, where it is the individual. We restrict the sample to untreated (spillover) households and individuals in treatment villages. For the intrahousehold index, we restrict to co-habiting couples, and for the education index, we restrict to households with school-age children. Column (1) reports the coefficient and standard error on the change in mean wealth. Column (2) reports the number of households or individuals included in each analysis. Standard errors are clustered at the village level, as we exploit village-level variation for identification. The last row reports the p -value from a test of joint significance after estimation using SUR. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

14 Distributional effects

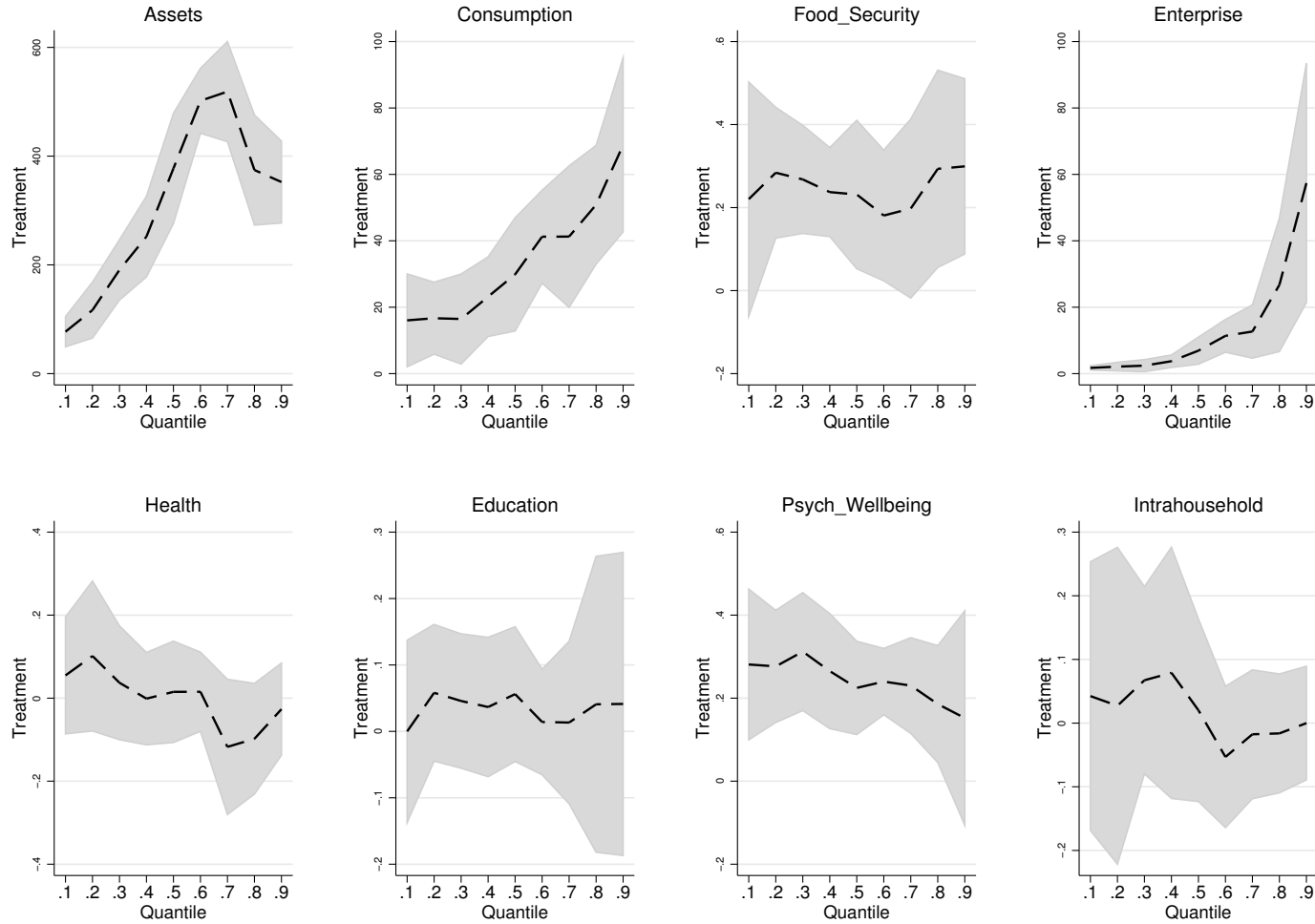
In this section, we are concerned with the distributional impact of the transfers. In particular, we consider whether the average impacts described in the main paper are the result of shifting particular portions of the distribution of that outcome, and, where no average impact is observed, whether the lack of an average impact may mask shifts in specific portions of the distribution for outcomes. To this end, we run quantile regressions for the outcomes of interest. In particular, we estimate the parameter β_q that minimizes the following expression:

$$\sum_{i:y_{vhi} \geq T_{vh}\beta_q} q|y_{vhi} - T_{vh}\beta_q| + \sum_{i:y_{vhi} \leq T_{vh}\beta_q} (1-q)|y_{vhi} - T_{vh}\beta_q| \quad (8)$$

In estimating β_q we again restrict the sample to treatment and control households within treatment villages. The parameter β_q thus estimates the within-village treatment effect on quantile q of the distribution. In the results below, we present results for each decile in the outcome distribution.

These results are shown in Figure 5, where we plot the parameter estimates for all deciles and their 95 percent confidence intervals. We note three patterns. First, the plots for assets, consumption, and cash flows from self-employment are strongly upward-sloping, suggesting that the treatment effects on these outcomes are strongest for wealthier households. Second, the plots for food security and psychological wellbeing show a treatment effect throughout the distribution, suggesting that cash transfers impact households at all levels of those particular measures of welfare. Finally, the plots for health, education, and female empowerment show no treatment effects anywhere in the distribution.

Figure 5: Quantile regression plots for index variables



Notes: Quantile regression plots of primary index variables. The lines represent point estimates for each quantile, and the grey bands are the corresponding 95 pct. confidence intervals. Assets, expenditure, and income are coded in USD (PPP); the other variables are indices in z-score units, with higher values corresponding to "positive" outcomes.

Table 28: Quantile Regressions: Index Variables

	.1	.2	.3	.4	.5	.6	.7	.8	.9
Value of non-land assets (USD)	77.08*** (14.17)	116.84*** (26.20)	190.76*** (28.28)	252.07*** (37.81)	377.43*** (51.66)	501.79*** (30.43)	518.66*** (46.90)	374.43*** (51.57)	352.34*** (38.41)
Non-durable expenditure (USD)	16.04** (6.29)	16.69*** (4.52)	16.45*** (5.08)	23.17*** (6.07)	29.88*** (6.33)	41.23*** (6.89)	41.27*** (9.26)	50.84*** (7.18)	68.86*** (13.81)
Total revenue, monthly (USD)	1.72*** (0.47)	2.11*** (0.73)	2.40* (1.44)	3.73** (1.78)	6.91*** (2.59)	11.37*** (3.69)	12.68** (5.21)	26.73*** (10.21)	57.39** (24.58)
Food security index	0.22 (0.15)	0.28*** (0.10)	0.27*** (0.08)	0.24*** (0.08)	0.23** (0.09)	0.18*** (0.06)	0.20** (0.08)	0.29*** (0.09)	0.30** (0.13)
Health index	0.05 (0.08)	0.10 (0.10)	0.04 (0.08)	−0.00 (0.07)	0.02 (0.06)	0.02 (0.05)	−0.12 (0.07)	−0.10* (0.06)	−0.03 (0.07)
Education index	−0.00 (0.06)	0.06 (0.06)	0.05 (0.08)	0.04 (0.07)	0.06 (0.06)	0.01 (0.05)	0.01 (0.06)	0.04 (0.10)	0.04 (0.12)
Psychological well-being index	0.28*** (0.06)	0.28*** (0.06)	0.31*** (0.06)	0.27*** (0.07)	0.22*** (0.05)	0.24*** (0.06)	0.23*** (0.06)	0.19*** (0.07)	0.15** (0.07)
Female empowerment index	0.04 (0.16)	0.03 (0.16)	0.07 (0.10)	0.08 (0.11)	0.02 (0.09)	−0.05 (0.06)	−0.02 (0.06)	−0.02 (0.05)	0.00 (0.03)

Notes: Outcome variables are listed on the left. The unit of observation is the household for all outcome variables, except the psychological variables index, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. For each outcome variable, we report the quantile estimates and their standard errors in parentheses. Standard errors are bootstrapped. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

15 List Randomization for Alcohol and Tobacco Consumption

In this section, we report an analysis designed to account for any reporting bias in rates of socially undesirable behaviors – specifically alcohol and tobacco consumption. Individuals were presented with a list of common activities and asked how many of these activities they had participated in during the preceding week. Individuals were randomly assigned to one of three conditions. In one condition, individuals were presented with 5 activities that would generally be considered neutral (e.g. used a phone, ate ugali). In a second condition, individuals were given a list including the same 5 activities, but with the addition of a 6th: smoking at least one cigarette in the last week. Similarly, in the third condition, individuals were given a list with the basic 5 activities, plus drinking alcohol in the last week. Individuals were clearly instructed to provide only the total number of activities in which they had participated, not *which* of the activities, and were told that the enumerator was not supposed to know in *which* of the activities they had participated. Thus, this method should not be vulnerable to underreporting because of reputational concerns. Randomization of the lists was stratified such that 1/3 of treatment households and 1/3 of spillover households was presented with each type of list to allow us to identify the effect of treatment on smoking and alcohol consumption.

The treatment effect on tobacco and alcohol consumption can be found by comparing the mean number of activities in each of the three groups using the following specification. Note that we analyze the specification separately, by comparing the list including alcohol to the basic list, and by comparing the list including cigarettes to the basic list.

$$Activities_{vhiE} = \beta_0 + \beta_1 list_{vhi} + \beta_2 list_{vhi} \times T_{vh} + \alpha_v + \varepsilon_{vhiE}$$

where $Activities_{vhiE}$ is the number of activities reported by individual i in household h of village v at time $t = \text{endline}$. $list_{ihv}$ is an indicator variable taking the value of 1 if an individual was presented with the long list (either including alcohol or cigarettes depending on the analysis) and a 0 if the individual was presented with the basic list. T_{vh} is an indicator variable taking the value of 1 if household h was treated. Thus $list_{vhi} \times T_{vh}$ is an indicator variable taking the value of 1 if individual i lives in a treatment household and was presented with the long list. α_v is a village-level fixed effect. ε_{vhiE} is an idiosyncratic error term. Note that pure control households are excluded from this analysis. We calculate heteroskedasticity-robust standard errors.

β_1 represents the difference in means between the longer list and the basic lists, which

can be interpreted as the overall prevalence of smoking tobacco or drinking alcohol in the sample population. Likewise, β_2 identifies any effect of treatment status on the likelihood of smoking or drinking.

Table 29: List method

	(1) Number of Activities	(2) Number of Activities
Alcohol	0.19 (0.14)	
Alcohol x Treatment	0.24 (0.20)	
Tobacco		0.08 (0.14)
Tobacco x Treatment		-0.05 (0.23)
Constant	2.92*** (0.07)	2.97*** (0.07)
Observations	300	314

Notes: Estimates of alcohol and tobacco use from the list method at endline. Heteroskedasticity-robust standard errors are reported in parentheses. The "Alcohol" and "Smoking" coefficients indicate the effect of having been presented the "long" list that included either the alcohol or the smoking item in the mean number of activities performed in the past week. The interactions of these terms with the treatment dummy indicate whether the treatment group was differentially likely to have consumed alcohol or tobacco. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

16 Assessing the validity of measures of psychological wellbeing

16.1 Predictors of psychological wellbeing and cortisol

In this section we report the relationships i. between our psychological wellbeing index and each of our other seven outcome indices (Table 30), and ii. between cortisol levels and each of nine measures of psychological wellbeing (Table 31). We analyze both relationships both contemporaneously and across time. For each of the contemporaneous analyses, we report the following specification:

$$\Psi_{vhit} = \beta_0 + \beta_1 y_{vhit} + X_{vhit} \delta + \alpha_v + \varepsilon_{vhit}$$

where Ψ_{vhit} is alternatively our psychological wellbeing index or log cortisol levels for individual i in household h of village v at time t where $t = \text{baseline}$ or $t = \text{endline}$. Note that this analysis includes all treatment, spillover and pure control households but that pure control households are only observed at $t = \text{endline}$. In the analysis of the psychological wellbeing index, y_{vhit} is one of the seven other outcome variables (in 7 separate regressions), where the index i is excluded for outcomes measured at the household level. In the cortisol analysis, y_{vhit} is one of nine self-reported measures of psychological wellbeing (in 9 separate regressions), all measured at the individual level. X_{vhit} is a vector of individual level covariates including age, sex, education level, and marital status. α_v denotes village-level fixed effects. ε_{vhit} is an idiosyncratic error term. Thus β_1 identifies i. the contemporaneous relationship between the psychological wellbeing index and each of the 7 of other outcome indices in turn (reported in each of the 7 columns of row one of table 30 below), or ii. between log cortisol levels and the 9 measures of self-reported psychological wellbeing (reported in each of the 9 columns of row one of table 31 below) .

To determine the relationship between these variables across time, we analyze the following specification:

$$\Psi_{vhiE} = \beta_0 + \beta_1 y_{vhiB} + X_{vhiE} \delta + \alpha_v + \varepsilon_{vhiE}$$

where Ψ_{vhiE} is either our psychological wellbeing index or log cortisol levels for individual i in household h of village v at time $t = \text{endline}$. Note that this analysis excludes pure control household because they were not observed at baseline. y_{vhiB} is one of the seven other outcome variables at at time $t = \text{baseline}$, where the index i is excluded for outcomes measured at the household level. Thus β_1 identifies i. the inter-temporal relationship between the

psychological wellbeing index and each of the 7 of other outcome indices in turn (reported in each of the 7 columns of row two of table 30 below), and ii. between log cortisol levels and the 9 measures of self-reported psychological wellbeing (reported in each of the 9 columns of row two of table 31 below).

Table 30: Predictors of psychological wellbeing

	Assets	Expenditure	Income	Food Security	Health	Education	Female Empowerment
Contemporaneous	0.00*** (0.00)	0.00*** (0.00)	0.00 (0.00)	0.16*** (0.02)	0.05** (0.02)	−0.04 (0.03)	0.09*** (0.02)
Across time	−0.00 (0.00)	−0.00 (0.00)	0.00** (0.00)	0.07** (0.03)	−0.00 (0.03)	−0.04 (0.04)	0.08** (0.04)

Notes: Relationship between psychological wellbeing and other welfare outcomes, contemporaneously and across time. Each column represents an OLS regression of the index of psychological wellbeing on one of the other outcome indices. In the top row, the relationship is contemporaneous, i.e. measured in the same survey, and thus shows the cross-sectional relationship between psychological wellbeing and other outcomes. In the bottom row, the relationship is across time, i.e. psychological wellbeing at endline is regressed on other outcome variables at baseline. We report the coefficients and standard errors (clustered at the village level) on the variables of interest, which are the other welfare outcomes; however, each regression also includes village fixed effects and a vector of control variables (indicator variables for being female and married, age, and years of education). The sample is at the level of the individual rather than the household, since the psychological wellbeing variables were collected individually for each respondent. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 31: Predictors of cortisol levels

	Depression	Worries	Stress	Happiness	Satisfaction	Trust	Locus of control	Optimism	Self-esteem	Index
Contemporaneous	0.00*** (0.00)	0.02 (0.02)	0.01 (0.02)	-0.03** (0.01)	-0.02 (0.01)	0.02 (0.02)	-0.02 (0.01)	-0.01 (0.02)	0.00 (0.02)	-0.47*** (0.02)
Across time	0.00* (0.00)	0.06** (0.03)	0.07** (0.03)	-0.03 (0.03)	-0.01 (0.03)	0.01 (0.03)	0.00 (0.03)	-0.03 (0.02)	0.01 (0.03)	-0.06** (0.03)

Notes: Contemporaneous relationship between cortisol levels and self-reported measures of psychological wellbeing. Each column represents an OLS regression between cortisol levels and one of the self-reported measures of psychological wellbeing. In the top row, the relationship is contemporaneous, i.e. measured in the same survey, and thus shows the cross-sectional relationship between cortisol levels and different measures of psychological wellbeing. In the bottom row, the relationship is across time, i.e. cortisol at endline is regressed on measures of psychological wellbeing at baseline. We report the coefficients and standard errors (clustered at the village level) on the independent variables of interest, which are the other welfare outcomes; however, each regression also includes village fixed effects and a vector of control variables (indicator variables for being female and married, age, and years of education). The sample is at the level of the individual rather than the household, since the cortisol and psychological wellbeing variables were collected individually for each respondent. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

16.2 Cronbach’s alpha for psychological scales

In this section, we report the internal consistency of the psychological scales used in the questionnaire. Specifically, Table 32 reports Cronbach’s alpha for each psychological measure that consisted of more than one question. We use the following formula:

$$\alpha = \frac{K}{K+1} \left(1 - \frac{\sum_{i=1}^K \sigma_{Y_i}^2}{\sigma_X^2} \right)$$

Here, σ_X^2 is the variance of the composite score (taken across all components), and $\sigma_{Y_i}^2$ is the variance of component i . K is the number of observations. Note that we report this value for male and female subpopulations separately.

Table 32: Cronbach’s alpha for psychological measures

	Male respondents	Female respondents	Number of items in scale
Depression (CESD)	0.838	0.825	20
Optimism (Scheier)	0.452	0.417	6
Self-esteem (Rosenberg)	0.678	0.656	10
Stress (Cohnen)	0.360	0.347	4
Locus of Control	0.290	0.375	10

Notes: Cronbach’s alpha measure of internal consistency for psychological wellbeing scales.

17 *M-Pesa* Use

In this section, we analyze the effect of treatment on the use of the mobile payment system *M-Pesa* along both the extensive and intensive margins. We use three questions from the savings and remittances module of our household questionnaire to analyze use on the extensive margin:

1. The household sent any money to an individual outside the household using *M-Pesa* in the last month.
2. The household received any money from an individual outside the household using *M-Pesa* in the last month.
3. The household saved any money using *M-Pesa* in the last month.

We also analyze *M-Pesa* usage along the intensive margin:

1. Total amount sent to individuals outside the household using *M-Pesa* in the last month.
2. Total amount received from individuals outside the household using *M-Pesa* in the last month.
3. Total amount saved using *M-Pesa* in the last month.

Column (2) of Table [33](#) below reports the effect of treatment on these 6 variables using the following specification:

$$y_{vhE} = \alpha_v + \beta_0 + \beta_1 T_{vh} + \varepsilon_{vhE}$$

where y_{vh} is the outcome of interest for household h in village v , measured at endline ($t = E$). T_{hv} is the treatment indicator. ε_{vht} is an idiosyncratic error term. Standard errors are clustered at the household level. The omitted category is control households in treatment villages. Pure control households are excluded from this analysis. α_v are village-level fixed effects. Note that we do not control for baseline values, as we did not collect these results at baseline. Thus β_1 identifies the effect of treatment using a within-village comparison.

Column (3) of Table [33](#) below reports the naïve spillover effect on these 6 variables using the following specification:

$$y_{vhE} = \beta_0 + \beta_1 S_{vh} + \varepsilon_{vhE}$$

Here, y_{vh} is the outcome of interest for household h in village v , measured at endline ($t = E$). S_{vh} is a spillover group indicator. ε_{vht} is an idiosyncratic error term. Standard

errors are clustered at the village level. The omitted category is control households in control villages. Treatment households are excluded from this analysis. Thus β_1 identifies the effect for an untreated household of living in a treatment village.

Table 33: Remittances and savings using *M-Pesa*

	Control mean (SD)	Treatment	Spillover	N
Sent money using M-Pesa	0.01 (0.12)	0.00 (0.01)	0.00 (0.01)	1372
Amount sent using M-Pesa	0.41 (3.82)	0.47 (0.47)	0.25 (0.18)	1372
Received money using M-Pesa	0.04 (0.21)	0.08*** (0.02)	−0.01 (0.02)	1372
Amount received using M-Pesa	1.33 (11.08)	8.99*** (2.21)	0.58 (0.55)	1372
Net Remittances using M-Pesa	0.92 (11.75)	8.51*** (2.27)	0.33 (0.59)	1372
Saved money using M-Pesa	0.15 (0.36)	0.10*** (0.03)	−0.04 (0.03)	1372
Amount saved using M-Pesa	0.88 (7.32)	2.95** (1.22)	−0.86 (0.80)	1372

Notes: OLS estimates of treatment and spillover effects on remittances sent and received using *M-Pesa*, and savings using *M-Pesa*. Outcome variables are listed on the left, and are either dummy variables (top three rows) or coded in USD PPP (bottom three rows). For each outcome variable, we report the coefficients of interest and cluster-robust standard errors in parentheses. The unit of observation is the household. Column (1) reports the mean and standard deviation of the control group for each outcome variable. Column (2) reports the basic treatment effect comparing treatment households to spillover households with controls for village fixed effects. Standard errors are clustered at the household level. Column (3) reports the spillover effect; comparing spillover households to pure control households. Standard errors are clustered at the village level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18 Detailed Findings

18.1 Description of analyses and econometric specifications

In this section we provide detailed results for the constituent elements of each of our primary outcome indices. Each of the following sections proceeds as follows:

Primary treatment effects

The first table provides an overview of the primary treatment effects, as well as differential effects in each treatment arm. In each of these tables, column (1) reports the mean of a given outcome variable taken among control households in treatment villages. Column (2) reports the primary treatment within-village treatment effect, using the specification detailed in Equation 2 of the main paper. Column (3) reports the differential effect for households in which the primary female received the transfer compared to households in which the primary male received the transfer, evaluated using the specification in Equation 3 of the main paper. Column (4) reports the differential effect for households receiving a monthly transfers compared to households receiving a lump-sum payment, evaluated using the specification in Equation 4 of the main paper. Column (5) reports the differential effect for households receiving large transfers compared to households receiving small transfers. Column (6) reports the sample size.

Primary treatment effects with baseline controls

The second table in each section adds additional controls for various baseline covariates:

$$y_{vh\{i\}E} = \alpha_v + \beta_0 + \beta_1 T_{vh} + \delta_1 y_{vh\{i\}B} + \delta_2 M_{vh\{i\}B} + X\gamma' + \varepsilon_{vh\{i\}t} \quad (9)$$

where X is a vector of individual and household baseline characteristics.

We use two sets of controls. First, we use demographic and baseline economic characteristics:

1. Demographic

- (a) Age of primary respondent at baseline
- (b) Marital status / household type (single vs. married) at baseline
- (c) Highest level of education attained by primary respondent at baseline
- (d) Number of children at baseline
- (e) Household size at baseline

2. Economic

- (a) Baseline consumption, asset levels, and land holdings at baseline
- (b) Ownership of non-agricultural enterprise at baseline
- (c) Ownership of agricultural enterprise at baseline
- (d) Participation in wage labor at baseline

Across-village treatment effects

In this table, we detail treatment effects using an across-village comparison (rather than a within village comparison). Column (1) reports the mean of a given outcome variable taken among control households in treatment villages. Column (2) reports the within-village treatment effect using the specification reported in Equation 5 of the main paper:

$$y_{vh\{i\}E} = \alpha_v + \beta_0 + \beta_1 T_{vh} + \delta_1 y_{vh\{i\}B} + \delta_2 M_{vh\{i\}B} + \varepsilon_{vh\{i\}t} \quad (10)$$

restricting the analysis to treatment villages only. where $y_{vh\{i\}E}$ is the outcome of interest for household h in village v , measured at endline ($t = E$); index i is included for outcomes measured at the level of the individual respondent, and omitted for outcomes measured at the household level. T_{vh} is a treatment indicator that takes value 1 for households which received a cash transfer (“treatment households”) and 0 otherwise. We condition on the baseline level of the outcome variable when available, $y_{vh\{i\}B}$, to improve statistical power. To include observations where the baseline outcome is missing, we code missing values as zero and include a dummy indicator that the variable is missing (M_{vhiB}). α_v is a village-level fixed effect. Standard errors are clustered at the household level. Thus β_1 (column 2) identifies the treatment effect from the within-village comparisons.

In Column (3), we report the across-village treatment effect, and in column (4) we report the spillover effect, both measured using the following specification:

$$y_{vh\{i\}E} = \beta_0 + \beta_1 T_{vh} + \beta_2 S_{vh} + \varepsilon_{vh\{i\}E} \quad (11)$$

S_{vh} is a dummy variable that takes value 1 for control households in treatment villages (“spillover households”) and 0 otherwise. $\varepsilon_{vh\{i\}E}$ is an idiosyncratic error term. The omitted category is control households in pure control villages (“control households”). Thus, β_1 identifies the treatment effect for treated households relative to control households in control villages (column 3), and β_2 identifies within-village spillover effects by comparing control households in treatment villages to control households in pure control villages (column 4).

To account for possible correlation in outcomes within villages, the error term is clustered at the village level. Column (5) reports the sample size.

Male vs. female recipients

In this table, we report various measures of the effects for treatment arms in which the primary male vs. the primary female received the transfer. In column (1), we report the mean of a given outcome variable among control households in treatment village. In Column (2) and (3) we report the effects for households in which the primary female and primary male received the transfer respectively. We exclude pure control households and evaluate:

$$y_{vh\{i\}E} = \alpha_v + \beta_0 + \beta_1 T_{vh}^F + \beta_2 T_{vh}^M + \beta_3 T_{vh}^W + \delta_1 y_{vh\{i\}B} + \delta_2 M_{vh\{i\}B} + \varepsilon_{vh\{i\}E} \quad (12)$$

Here, the variables T_{vh}^x are indicator functions that specify the branch of the different treatment arms. Specifically, they indicate whether the transfer recipient is female (T_{vh}^F), male (T_{vh}^M), or that the gender of the recipient could not be randomized because the household only had one head (most commonly in the case of widows/widowers) (T_{vh}^W). Spillover households are the omitted category. Thus β_1 (column 2) identifies the effect of transfers to the primary female in comparison to spillover households. β_2 (column 3) identifies the effect of a transfer to the primary male in comparison to spillover households. In this specification, standard errors are clustered at the household level.

In Column (4), we report the comparison between treatment households in which the transfer was received by the primary female and households in which the treatment was received by the primary male. Again excluding pure control households, we evaluate

$$y_{vh\{i\}E} = \alpha_v + \beta_0 + \beta_1 T_{vh}^F + \beta_2 T_{vh}^W + \beta_3 S_{vh} + \delta_1 y_{vh\{i\}B} + \delta_2 M_{vh\{i\}B} + \varepsilon_{vh\{i\}E} \quad (13)$$

where S_{vh} is an indicator variable taking the value of 1 if household h is a spillover household. Here the omitted category is treatment households in which the primary male received the transfers. Thus, β_1 (reported in column 4) is the difference in the outcome for households in which the primary female received the transfer and households in which the primary female received the transfer.

In Columns (5) and (6), we report the across-village treatment effect for households in which the transfer was received by the primary female and households in which the treatment was received by the primary male. In this analysis, we include pure control households and

evaluate:

$$y_{vh\{i\}E} = \beta_0 + \beta_1 T_{vh}^F + \beta_2 T_{vh}^M + \beta_3 T_{vh}^W + \beta_4 S_{vh} + \beta_5 PC_{vh}^{\text{SINGLE}} + \varepsilon_{vh\{i\}E} \quad (14)$$

where PC_{vh}^{SINGLE} is an indicator for pure control households with a single head. Thus, the omitted category is cohabiting pure control households. β_1 (column 5) identifies the treatment effect when the primary female in the household receives the transfer. β_2 (column 6) identifies the treatment effect when the primary male in the household receives the transfer. Note that standard errors are clustered at the village level in this analysis.

Monthly vs. lump-sum recipients

In this table, we report various measures of the effects for monthly and lump-sum treatment arms. In column (1), we report the mean of a given outcome variable among control households in treatment village. In Column (2) and (3) we report the effect of receiving a monthly transfer and a lump-sum transfer respectively. We exclude pure control households and evaluate:

$$y_{vh\{i\}E} = \alpha_v + \beta_0 + \beta_1 T_{vh}^{\text{MTH}} + \beta_2 T_{vh}^{\text{LS}} + \beta_3 T_{vh}^{\text{Lg}} + \delta_1 y_{vh\{i\}B} + \delta_2 M_{vh\{i\}B} + \varepsilon_{vh\{i\}E} \quad (15)$$

Here, the variables T_{vh}^x are indicator functions that specify the branch of the different treatment arms. Specifically, they indicate whether the transfer recipient is monthly (T_{vh}^{MTH}), lump-sum (T_{vh}^{LS}), or that the household could not be categorized as either monthly or lump-sum because it received a large transfer (T_{vh}^{Lg}). Spillover households are the omitted category. Thus β_1 (column 2) identifies the effect of monthly transfers in comparison to spillover households. β_2 (column 3) identifies the effect of a lump-sum transfer in comparison to spillover households. In this specification, standard errors are clustered at the household level.

In Column (4), we report the comparison between treatment households that received the transfer via a series of monthly payments versus those that received the transfer as a lump sum. Again excluding pure control households, we evaluate

$$y_{vh\{i\}E} = \alpha_v + \beta_0 + \beta_1 T_{vh}^{\text{MTH}} + \beta_2 T_{vh}^{\text{Lg}} + \beta_3 S_{vh} + \delta_1 y_{vh\{i\}B} + \delta_2 M_{vh\{i\}B} + \varepsilon_{vh\{i\}E} \quad (16)$$

where S_{vh} is an indicator variable taking the value of 1 if household h is a spillover household. Here the omitted category is households that received lump-sum transfers. Thus, β_1 (reported in column 4) is the difference in the outcome for households that received

monthly transfers versus those that received lump-sum transfers.

In Columns (5) and (6), we report the across-village treatment effect for monthly and lump-sum transfer. In this analysis, we include pure control households and evaluate:

$$y_{vh\{i\}E} = \beta_0 + \beta_1 T_{vh}^{\text{MTH}} + \beta_2 T_{vh}^{\text{LS}} + \beta_3 T_{vh}^{\text{Lg}} + \beta_4 S_{vh} + \varepsilon_{vh\{i\}E} \quad (17)$$

Thus, the omitted category is pure control households. β_1 (column 5) identifies the effect of a monthly transfer using an across-village comparison. β_2 (column 6) identifies the effect of a lump-sum transfer using an across-village comparison. Note that standard errors are clustered at the village level in this analysis.

Large vs. small transfer recipients

In this table, we report the effects for treatment arms in which households received large versus small transfers. In column (1), we report the mean of a given outcome variable among control households in treatment village. In Column (2) and (3) we report the effect of receiving a large transfer and a small sum transfer respectively. We exclude pure control households and evaluate:

$$y_{vh\{i\}E} = \alpha_v + \beta_0 + \beta_1 T_{vh}^{\text{Lg}} + \beta_2 T_{vh}^{\text{S}} + \delta_1 y_{vh\{i\}B} + \delta_2 M_{vh\{i\}B} + \varepsilon_{vh\{i\}E} \quad (18)$$

Here, the variables T_{vh}^x are indicator functions that specify the branch of the different treatment arms. Specifically, they indicate whether the transfer recipient is large (T_{vh}^{Lg}) or small (T_{vh}^{S}) transfer. Note that small transfers encompasses both monthly and lump-sum conditions. Spillover households are the omitted category. Thus β_1 (column 2) identifies the effect of receiving a large transfers in comparison to spillover households. β_2 (column 3) identifies the effect of receiving a small transfer in comparison to spillover households. In this specification, standard errors are clustered at the household level.

In Column (4), we report the comparison between treatment households that received a large transfer and those that received a small transfer. Again excluding pure control households, we evaluate

$$y_{vh\{i\}E} = \alpha_v + \beta_0 + \beta_1 T_{vh}^{\text{Lg}} + \beta_2 S_{vh} + \delta_1 y_{vh\{i\}B} + \delta_2 M_{vh\{i\}B} + \varepsilon_{vh\{i\}E} \quad (19)$$

where S_{vh} is an indicator variable taking the value of 1 if household h is a spillover household. Here the omitted category is households that received small transfers. Thus, β_1 (reported in column 4) is the difference in the outcome for households that received large transfers versus those that received small transfers.

In Columns (5) and (6), we report the across-village treatment effect for large and small transfers. In this analysis, we include pure control households and evaluate:

$$y_{vh\{i\}E} = \beta_0 + \beta_1 T_{vh}^{\text{Lg}} + \beta_2 T_{vh}^{\text{S}} + \beta_3 S_v h + \varepsilon_{vh\{i\}E} \quad (20)$$

Thus, the omitted category is pure control households. β_1 (column 5) identifies the effect of a monthly transfer using an across-village comparison. β_2 (column 6) identifies the effect of a lump-sum transfer using an across-village comparison. Note that standard errors are clustered at the village level in this analysis.

Self vs. spouse recipients

In most analyses, we consider the individuals within a household to be “treated” if that household received a transfer. However, there may be differences in effect when an individual receives the transfer himself or herself and when an individual’s spouse receives the transfer. In this case, we restrict the regression in equations 12 to 14 first to male respondents and then to female respondents. Thus, we will be able to determine whether the treatment effect differs by the gender of the recipient for male and female respondents.

18.2 Indices

18.2.1 Outcomes in levels

Table 34: Indices: Main Treatment Arms

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Value of non-land assets (USD)	494.80 (415.32)	301.51*** (27.25) [0.00]***	−79.46 (50.38) [0.52]	−91.85** (45.92) [0.28]	279.18*** (49.09) [0.00]***	940
Non-durable expenditure (USD)	157.61 (82.18)	35.66*** (5.85) [0.00]***	−2.00 (10.28) [0.92]	−4.20 (10.71) [0.99]	21.25** (10.49) [0.22]	940
Total revenue, monthly (USD)	48.98 (90.52)	16.15*** (5.88) [0.02]**	5.41 (10.61) [0.92]	16.33 (11.07) [0.59]	−2.44 (8.87) [0.84]	940
Food security index	0.00 (1.00)	0.26*** (0.06) [0.00]***	0.06 (0.09) [0.92]	0.26** (0.11) [0.13]	0.18* (0.10) [0.25]	940
Health index	−0.00 (1.00)	−0.03 (0.06) [0.82]	0.10 (0.09) [0.72]	0.01 (0.10) [0.99]	−0.09 (0.09) [0.72]	940
Education index	0.00 (1.00)	0.08 (0.06) [0.43]	0.06 (0.09) [0.92]	−0.05 (0.10) [0.99]	0.05 (0.09) [0.84]	823
Psychological well-being index	−0.00 (1.00)	0.26*** (0.05) [0.00]***	0.14* (0.08) [0.43]	0.01 (0.08) [0.99]	0.26*** (0.08) [0.00]***	1474
Female empowerment index	−0.00 (1.00)	−0.01 (0.07) [0.88]	0.17* (0.10) [0.51]	0.05 (0.12) [0.99]	0.22** (0.11) [0.22]	698
Joint test (p -value)		0.00***	0.11	0.04**	0.00***	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. For each outcome variable, we report the coefficient of interest and its standard error in parentheses, and FWER-corrected p -value in brackets. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 35: Indices: Main Treatment Arms with Baseline Controls

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Value of non-land assets (USD)	494.80 (415.32)	310.34*** (27.15)	−76.45 (49.78)	−85.06* (45.74)	285.69*** (48.78)	940
Non-durable expenditure (USD)	157.61 (82.18)	[0.00]*** 34.91*** (5.60)	[0.51] −6.13 (9.98)	[0.28] −5.17 (10.35)	[0.00]*** 21.66** (9.80)	940
Total revenue, monthly (USD)	48.98 (90.52)	[0.00]*** 16.38*** (5.86)	[0.92] 4.68 (10.21)	[0.99] 15.43 (10.61)	[0.21] −0.88 (8.92)	940
Food security index	0.00 (1.00)	[0.02]** 0.26*** (0.06)	[0.92] 0.06 (0.09)	[0.60] 0.25** (0.10)	[0.82] 0.21** (0.09)	940
Health index	−0.00 (1.00)	[0.00]*** −0.03 (0.06)	[0.92] 0.10 (0.09)	[0.13] 0.01 (0.10)	[0.24] −0.06 (0.09)	940
Education index	0.00 (1.00)	[0.82] 0.08 (0.06)	[0.72] 0.03 (0.09)	[0.99] −0.03 (0.09)	[0.70] 0.06 (0.08)	823
Psychological well-being index	−0.00 (1.00)	[0.43] 0.26*** (0.05)	[0.92] 0.13* (0.08)	[0.99] 0.02 (0.08)	[0.82] 0.28*** (0.08)	1474
Female empowerment index	−0.00 (1.00)	[0.00]*** −0.01 (0.07)	[0.44] 0.18* (0.10)	[0.99] 0.07 (0.12)	[0.00]*** 0.24** (0.11)	698
		[0.88] [0.51]	[0.51] [0.99]	[0.99] [0.21]	[0.21]	
Joint test (p -value)		0.00***	0.13	0.04**	0.00***	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. For each outcome variable, we report the coefficient of interest and its standard error in parentheses, and FWER-corrected p -value in brackets. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 36: Indices: Main Treatment Arms using Inverse Probability Weights for Individual-level Outcomes

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Value of non-land assets (USD)	494.80 (415.32)	301.51*** (27.25)	−79.46 (50.38)	−91.85** (45.92)	279.18*** (49.09)	940
Non-durable expenditure (USD)	157.61 (82.18)	35.66*** (5.85)	−2.00 (10.28)	−4.20 (10.71)	21.25** (10.49)	940
Total revenue, monthly (USD)	48.98 (90.52)	16.15*** (5.88)	5.41 (10.61)	16.33 (11.07)	−2.44 (8.87)	940
Food security index	0.00 (1.00)	0.26*** (0.06)	0.06 (0.09)	0.26** (0.11)	0.18* (0.10)	940
Health index	−0.00 (1.00)	−0.03 (0.06)	0.10 (0.09)	0.01 (0.10)	−0.09 (0.09)	940
Education index	0.00 (1.00)	0.08 (0.06)	0.06 (0.09)	−0.05 (0.10)	0.05 (0.09)	823
Psychological well-being index	−0.00 (1.00)	0.21*** (0.05)	0.12 (0.08)	−0.01 (0.09)	0.29*** (0.08)	1474
Female empowerment index	−0.00 (1.00)	−0.01 (0.07)	0.17* (0.10)	0.05 (0.12)	0.22** (0.11)	698
Joint test (<i>p</i> -value)		0.00***	0.06*	0.00***	0.00***	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. For individual-level outcomes, observations are weighted using inverse probability weights using the number of respondents per household. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. For each outcome variable, we report the coefficient of interest and its standard error in parentheses, and FWER-corrected *p*-value in brackets. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 37: Indices: Spillover Analysis

	Spillover Effects						Lee Bounds		Horowitz-Manski Bounds	
	(1) All HH Estimate	(2) All HH estimate	(3) Thatched estimate	(4) Thatched estimate	(5) Test (1)=(3) <i>p</i> -value	(6) Test (2)=(4) <i>p</i> -value	(7) Lower	(8) Upper	(9) Lower	(10) Upper
Includes controls	No	Yes	No	Yes	No	Yes	No	No	No	No
Value of non-land assets (USD)	1.00 (21.44)	-11.99 (19.98)	-18.73 (21.14)	-32.61 (19.76)	0.01***	0.00***	-3.38 (17.62)	12.84 (18.68)	-2.38 (19.92)	7.39 (20.06)
Non-durable expenditure (USD)	-7.77 (7.20)	-11.89* (6.50)	-7.31 (7.27)	-12.21* (6.67)	0.82	0.88	-9.47 (6.36)	-4.08 (6.37)	-8.93 (5.79)	-5.86 (5.83)
Total revenue, monthly (USD)	-3.68 (6.18)	-3.64 (6.35)	-5.23 (5.84)	-5.78 (6.01)	0.56	0.45	-4.29 (5.67)	2.32 (5.60)	-4.18 (6.18)	-1.91 (6.22)
Food security index	0.06 (0.09)	0.05 (0.09)	0.06 (0.10)	0.05 (0.10)	0.93	0.90	-0.01 (0.08)	0.08 (0.08)	0.03 (0.08)	0.07 (0.08)
Health index	-0.06 (0.08)	-0.07 (0.08)	-0.06 (0.08)	-0.08 (0.08)	0.80	0.66	-0.10 (0.07)	-0.03 (0.07)	-0.07 (0.07)	-0.04 (0.07)
Education index	0.01 (0.07)	-0.01 (0.06)	-0.00 (0.08)	-0.03 (0.07)	0.36	0.29	-0.16** (0.08)	0.06 (0.08)	-0.01 (0.07)	0.03 (0.07)
Psychological well-being index	0.11 (0.07)	0.10 (0.07)	0.11 (0.07)	0.10 (0.07)	0.92	0.95	-0.01 (0.05)	0.07 (0.05)	0.01 (0.05)	0.05 (0.05)
Female empowerment index	0.21** (0.09)	0.21** (0.08)	0.23** (0.09)	0.22** (0.09)	0.50	0.50	0.15* (0.08)	0.25*** (0.08)	0.18** (0.08)	0.23*** (0.08)
Joint test (<i>p</i> -value)	0.38	0.25	0.23	0.11						

Notes: OLS estimates of spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Columns (1) and (2) report the "naive" estimate of spillover effects, including spillover households that upgraded to metal roofs between baseline and endline. Column (3) and (4) report estimate of the spillover effect excluding metal roof households. Columns (1) and (3) exclude baseline covariates. Columns (2) and (4) include baseline covariates. Column (5) reports the *p*-value of the equality for the coefficient estimates in (1) and (3) after joint-estimation of the two models using SUR. Column (6) reports the *p*-value of the equality for the coefficient estimates in (2) and (4) after joint-estimation of the two models using SUR. The last row reports *p*-values on the joint-significance of all coefficients in a given column after joint-estimation using SUR. Columns (7) and (8) report the lower and upper Lee effect-size bounds adjusting for differential attrition generated by restricting to thatched roof households. This attrition is due to the higher rate of upgrade to metal roofs among spillover households and represents approximately 5 households or 10 individuals. Columns (9) and (10) report lower and upper Manski-Horowitz bounds, imputing outcomes for the 5 attriting households using the 95th and 5th percentile of observed outcomes respectively. In columns (1) through (4), standard errors clustered at the village level are reported in parentheses. In columns (7) through (10), bootstrapped standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 38: Indices: Across Village Comparison

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Value of non-land assets (USD)	494.80 (415.32)	301.51*** (27.25) [0.00]***	400.69*** (29.68) [0.00]***	104.56*** (24.47) [0.00]***	1372
Non-durable expenditure (USD)	157.61 (82.18)	35.66*** (5.85) [0.00]***	25.83*** (8.10) [0.01]***	-7.77 (7.20) [0.85]	1372
Total revenue, monthly (USD)	48.98 (90.52)	16.15*** (5.88) [0.02]**	9.37 (6.71) [0.43]	-3.68 (6.18) [0.96]	1372
Food security index	0.00 (1.00)	0.26*** (0.06) [0.00]***	0.30*** (0.09) [0.01]***	0.06 (0.09) [0.96]	1372
Health index	-0.00 (1.00)	-0.03 (0.06) [0.82]	-0.08 (0.08) [0.47]	-0.06 (0.08) [0.95]	1372
Education index	0.00 (1.00)	0.08 (0.06) [0.42]	0.04 (0.08) [0.62]	0.01 (0.07) [0.96]	1174
Psychological well-being index	-0.00 (1.00)	0.26*** (0.05) [0.00]***	0.28*** (0.07) [0.00]***	0.03 (0.07) [0.96]	2140
Female empowerment index	-0.00 (1.00)	-0.01 (0.07) [0.88]	0.20** (0.08) [0.08]*	0.21** (0.09) [0.10]*	1010
Joint test (p -value)		0.00***	0.00***	0.00***	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses, and FWER-corrected p -value in brackets. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 39: Indices: Female vs. Male

	(1) Control mean (SD)	(2) Female recipient (within villages)	(3) Male recipient (within villages)	(4) Female vs. male recipient (within villages)	(5) Female recipient (across villages)	(6) Male recipient (across villages)	(7) N
Value of non-land assets (USD)	494.80 (415.32)	254.92*** (40.01) [0.00]***	334.17*** (40.44) [0.00]***	−79.46 (50.38) [0.50]	367.66*** (41.78) [0.00]***	431.61*** (44.17) [0.00]***	1372
Non-durable expenditure (USD)	157.61 (82.18)	37.39*** (8.27) [0.00]***	39.57*** (8.49) [0.00]***	−2.00 (10.28) [0.92]	19.79** (9.39) [0.14]	26.49** (11.95) [0.17]	1372
Total revenue, monthly (USD)	48.98 (90.52)	23.47*** (8.66) [0.03]**	18.06** (8.56) [0.13]	5.41 (10.61) [0.92]	8.33 (9.52) [0.62]	9.56 (8.57) [0.61]	1372
Food security index	0.00 (1.00)	0.39*** (0.08) [0.00]***	0.33*** (0.08) [0.00]***	0.06 (0.09) [0.92]	0.27*** (0.09) [0.02]**	0.23*** (0.09) [0.07]*	1372
Health index	−0.00 (1.00)	0.07 (0.08) [0.63]	−0.04 (0.08) [0.63]	0.10 (0.09) [0.72]	−0.00 (0.09) [0.96]	−0.13 (0.09) [0.48]	1372
Education index	0.00 (1.00)	0.13* (0.07) [0.23]	0.07 (0.08) [0.61]	0.06 (0.09) [0.92]	0.16* (0.08) [0.17]	0.05 (0.10) [0.62]	1174
Psychological well-being index	−0.00 (1.00)	0.39*** (0.06) [0.00]***	0.25*** (0.07) [0.00]***	0.14* (0.08) [0.43]	0.33*** (0.08) [0.00]***	0.19** (0.09) [0.17]	2140
Female empowerment index	−0.00 (1.00)	0.07 (0.09) [0.63]	−0.10 (0.09) [0.61]	0.17* (0.10) [0.49]	0.29*** (0.10) [0.02]**	0.10 (0.11) [0.62]	1010
Joint test (<i>p</i> -value)		0.00***	0.00***	0.11	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses, and FWER-corrected *p*-value in brackets. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 40: Indices: Monthly vs. Lump-sum

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Value of non-land assets (USD)	494.80 (415.32)	177.46*** (36.84) [0.00]***	269.30*** (36.47) [0.00]***	−91.85** (45.92) [0.27]	279.13*** (39.33) [0.00]***	365.77*** (39.57) [0.00]***	1244
Non-durable expenditure (USD)	157.61 (82.18)	27.71*** (8.51) [0.01]***	31.91*** (8.21) [0.00]***	−4.20 (10.71) [0.99]	17.40* (8.98) [0.20]	22.98** (10.55) [0.18]	1244
Total revenue, monthly (USD)	48.98 (90.52)	25.58*** (9.53) [0.04]**	9.25 (7.55) [0.70]	16.33 (11.07) [0.58]	20.81** (10.10) [0.19]	2.52 (7.62) [0.98]	1244
Food security index	0.00 (1.00)	0.34*** (0.09) [0.00]***	0.09 (0.08) [0.73]	0.26** (0.11) [0.12]	0.40*** (0.12) [0.01]***	0.14 (0.11) [0.68]	1244
Health index	−0.00 (1.00)	−0.00 (0.08) [0.96]	−0.02 (0.08) [0.84]	0.01 (0.10) [0.99]	−0.07 (0.09) [0.67]	−0.08 (0.10) [0.91]	1244
Education index	0.00 (1.00)	0.04 (0.07) [0.91]	0.09 (0.09) [0.73]	−0.05 (0.10) [0.99]	0.07 (0.11) [0.67]	0.00 (0.09) [0.98]	1058
Psychological well-being index	−0.00 (1.00)	0.19*** (0.07) [0.04]**	0.18*** (0.07) [0.04]**	0.01 (0.08) [0.99]	0.21** (0.10) [0.19]	0.20** (0.08) [0.08]*	1931
Female empowerment index	−0.00 (1.00)	−0.05 (0.10) [0.91]	−0.10 (0.09) [0.73]	0.05 (0.12) [0.99]	0.19* (0.11) [0.20]	0.03 (0.12) [0.98]	908
Joint test (<i>p</i> -value)		0.00***	0.00***	0.04**	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses, and FWER-corrected *p*-value in brackets. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 41: Indices: Large vs. Small

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Value of non-land assets (USD)	494.80 (415.32)	505.94*** (46.56) [0.00]***	226.75*** (28.73) [0.00]***	279.18*** (49.09) [0.00]***	601.88*** (50.87) [0.00]***	325.61*** (31.66) [0.00]***	1372
Non-durable expenditure (USD)	157.61 (82.18)	51.22*** (9.76) [0.00]***	29.97*** (6.42) [0.00]***	21.25** (10.49) [0.22]	40.39*** (10.30) [0.00]***	20.40** (8.55) [0.09]*	1372
Total revenue, monthly (USD)	48.98 (90.52)	14.36* (8.44) [0.32]	16.81*** (6.50) [0.04]**	-2.44 (8.87) [0.84]	5.01 (9.25) [0.83]	11.00 (7.93) [0.52]	1372
Food security index	0.00 (1.00)	0.39*** (0.10) [0.00]***	0.21*** (0.07) [0.01]**	0.18* (0.10) [0.25]	0.43*** (0.12) [0.00]***	0.26*** (0.09) [0.05]**	1372
Health index	-0.00 (1.00)	-0.10 (0.09) [0.40]	-0.01 (0.07) [0.87]	-0.09 (0.09) [0.70]	-0.12 (0.10) [0.55]	-0.07 (0.08) [0.62]	1372
Education index	0.00 (1.00)	0.11 (0.08) [0.40]	0.07 (0.07) [0.66]	0.05 (0.09) [0.84]	0.05 (0.10) [0.83]	0.03 (0.08) [0.69]	1174
Psychological well-being index	-0.00 (1.00)	0.45*** (0.07) [0.00]***	0.18*** (0.05) [0.00]***	0.26*** (0.08) [0.01]***	0.47*** (0.11) [0.00]***	0.20*** (0.08) [0.05]*	2140
Female empowerment index	-0.00 (1.00)	0.15 (0.10) [0.40]	-0.08 (0.08) [0.66]	0.22** (0.11) [0.22]	0.44*** (0.11) [0.00]***	0.10 (0.09) [0.62]	1010
Joint test (p -value)		0.00***	0.00***	0.00***	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.2.2 Outcomes in logs

Table 42: Indices in Logs: Main Treatment Arms

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Value of non-land assets (USD)	6.52 (0.95)	0.63*** (0.05)	−0.09 (0.07)	−0.16** (0.08)	0.46*** (0.07)	940
Non-durable expenditure	5.61 (0.55)	0.20*** (0.03)	−0.00 (0.05)	0.00 (0.06)	0.16*** (0.06)	940
Total revenue, monthly (USD)	3.66 (1.37)	0.32*** (0.08)	0.08 (0.13)	0.20 (0.14)	0.11 (0.13)	940
Joint test (<i>p</i> -value)		0.00***	0.50	0.03**	0.00***	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses, and FWER-corrected *p*-value in brackets. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 43: Indices in Logs: Main Treatment Arms with Baseline Controls

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Value of non-land assets (USD)	6.52 (0.95)	0.64*** (0.05)	−0.08 (0.07)	−0.15* (0.08)	0.46*** (0.07)	940
Non-durable expenditure	5.61 (0.55)	0.20*** (0.03)	−0.03 (0.05)	−0.01 (0.05)	0.18*** (0.05)	940
Total revenue, monthly (USD)	3.66 (1.37)	0.32*** (0.08)	0.04 (0.13)	0.18 (0.13)	0.11 (0.13)	940
Joint test (p -value)		0.00***	0.54	0.04**	0.00***	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses, and FWER-corrected p -value in brackets. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 44: Indices in Logs: Spillover Analysis

	Spillover Effects						Lee Bounds		Horowitz-Manski Bounds	
	(1) All HH Estimate	(2) All HH estimate	(3) Thatched estimate	(4) Thatched estimate	(5) Test (1)=(3) p-value	(6) Test (2)=(4) p-value	(7) Lower	(8) Upper	(9) Lower	(10) Upper
Includes controls	No	Yes	No	Yes	No	Yes	No	No	No	No
Value of non-land assets (USD)	0.01 (0.07)	-0.03 (0.06)	-0.05 (0.07)	-0.09 (0.06)	0.00***	0.00***	-0.03 (0.05)	0.03 (0.06)	-0.01 (0.06)	0.02 (0.06)
Non-durable expenditure	-0.04 (0.05)	-0.07 (0.04)	-0.04 (0.05)	-0.07 (0.04)	0.92	0.78	-0.06 (0.04)	-0.02 (0.04)	-0.05 (0.04)	-0.03 (0.04)
Total revenue, monthly (USD)	-0.01 (0.10)	-0.04 (0.10)	-0.08 (0.11)	-0.12 (0.10)	0.03**	0.02**	-0.04 (0.09)	0.03 (0.09)	-0.04 (0.09)	0.01 (0.09)
Joint test (<i>p</i> -value)	0.85	0.46	0.83	0.23						

Notes: OLS estimates of spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Columns (1) and (2) report the "naive" estimate of spillover effects, including spillover households that upgraded to metal roofs between baseline and endline. Column (3) and (4) report estimate of the spillover effect excluding metal roof households. Columns (1) and (3) exclude baseline covariates. Columns (2) and (4) include baseline covariates. Column (5) reports the p-value of the equality for the coefficient estimates in (1) and (3) after joint-estimation of the two models using SUR. Column (6) reports the p-value of the equality for the coefficient estimates in (2) and (4) after joint-estimation of the two models using SUR. The last row reports p-values on the joint-significance of all coefficients in a given column after joint-estimation using SUR. Columns (7) and (8) report the lower and upper Lee effect-size bounds adjusting for differential attrition generated by restricting to thatched roof households. This attrition is due to the higher rate of upgrade to metal roofs among spillover households and represents approximately 5 households or 10 individuals. Columns (9) and (10) report lower and upper Manski-Horowitz bounds, imputing outcomes for the 5 attriting households using the 95th and 5th percentile of observed outcomes respectively. In columns (1) through (4), standard errors clustered at the village level are reported in parentheses. In columns (7) through (10), bootstrapped standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 45: Indices in Logs: Across Village Comparisons

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Value of non-land assets (USD)	6.52 (0.95)	0.63*** (0.05)	0.76*** (0.06)	0.17*** (0.06)	1372
Non-durable expenditure	5.61 (0.55)	0.20*** (0.03)	0.14*** (0.05)	−0.04 (0.05)	1372
Total revenue, monthly (USD)	3.66 (1.37)	0.32*** (0.08)	0.27*** (0.10)	−0.01 (0.10)	1372
Joint test (p -value)		0.00***	0.00***	0.01**	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 46: Indices in Logs: Female vs. Male

	(1) Control mean (SD)	(2) Female recipient (within villages)	(3) Male recipient (within villages)	(4) Female vs. male recipient (within villages)	(5) Female recipient (across villages)	(6) Male recipient (across villages)	(7) N
Value of non-land assets (USD)	6.52 (0.95)	0.52*** (0.07)	0.61*** (0.06)	−0.09 (0.07)	0.63*** (0.07)	0.72*** (0.08)	1372
Non-durable expenditure	5.61 (0.55)	0.22*** (0.05)	0.22*** (0.05)	−0.00 (0.05)	0.11** (0.05)	0.13** (0.06)	1372
Total revenue, monthly (USD)	3.66 (1.37)	0.46*** (0.11)	0.38*** (0.12)	0.08 (0.13)	0.29** (0.13)	0.31** (0.12)	1372
Joint test (p-value)		0.00***	0.00***	0.50	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 47: Indices in Logs: Monthly vs. lump-sum

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Value of non-land assets (USD)	6.52 (0.95)	0.42*** (0.07)	0.58*** (0.07)	−0.16** (0.08)	0.58*** (0.08)	0.69*** (0.08)	1372
Non-durable expenditure	5.61 (0.55)	0.16*** (0.05)	0.16*** (0.05)	0.00 (0.06)	0.10* (0.05)	0.11* (0.06)	1372
Total revenue, monthly (USD)	3.66 (1.37)	0.40*** (0.12)	0.20* (0.11)	0.20 (0.14)	0.40*** (0.14)	0.15 (0.13)	1372
Joint test (p-value)		0.00***	0.00***	0.03**	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 48: Indices in Logs: Large vs. Small

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Value of non-land assets (USD)	6.52 (0.95)	0.96*** (0.07)	0.50*** (0.05)	0.46*** (0.07)	1.10*** (0.08)	0.64*** (0.07)	1372
Non-durable expenditure	5.61 (0.55)	0.32*** (0.05)	0.16*** (0.04)	0.16*** (0.06)	0.24*** (0.06)	0.10** (0.05)	1372
Total revenue, monthly (USD)	3.66 (1.37)	0.40*** (0.13)	0.30*** (0.09)	0.11 (0.13)	0.30** (0.14)	0.26** (0.11)	1372
Joint test (p -value)		0.00***	0.00***	0.00***	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the household. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.3 Assets

18.3.1 Asset Variables in Levels

Table 49: Assets: Main Treatment Arms

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Value of non-land assets excluding roof (USD)	385.05 (300.02)	144.45*** (19.84)	−1.38 (37.71)	−5.52 (33.84)	131.44*** (37.97)	940
Value of livestock (USD)	166.82 (240.59)	83.18*** (15.22)	4.84 (29.32)	0.08 (27.36)	63.45** (28.51)	940
Value of cows (USD)	101.78 (211.82)	55.74*** (13.86)	17.15 (26.91)	−15.34 (25.33)	43.92* (26.06)	940
Value of small livestock (USD)	25.30 (49.67)	14.82*** (3.29)	−10.25* (6.23)	7.02 (5.81)	20.14*** (5.87)	940
Value of birds (USD)	39.74 (40.80)	12.02*** (2.77)	−3.26 (4.87)	8.54* (5.13)	−0.74 (4.50)	940
Value of durable goods (USD)	207.30 (130.60)	52.59*** (8.61)	−0.24 (14.40)	−7.31 (14.16)	64.90*** (15.70)	940
Value of furniture (USD)	138.11 (89.29)	34.37*** (6.02)	2.25 (10.16)	1.55 (10.04)	46.67*** (11.38)	940
Value of agricultural tools (USD)	10.77 (14.08)	1.57 (0.99)	−2.30 (1.84)	−0.99 (1.56)	4.21** (2.06)	940
Value of radio/TV (USD)	9.73 (17.09)	2.74** (1.11)	−0.98 (2.01)	2.04 (2.05)	0.82 (1.80)	940
Value of bike/motorbike (USD)	21.06 (35.01)	2.70 (2.26)	−0.39 (4.18)	−0.99 (3.79)	2.67 (3.86)	940
Value of appliances (USD)	3.78 (5.22)	0.70* (0.36)	−0.07 (0.57)	0.25 (0.57)	0.59 (0.67)	940
Value of cell phone (USD)	23.86 (24.85)	12.71*** (1.52)	−0.13 (2.39)	−2.92 (2.51)	7.37*** (2.48)	940
Value of savings (USD)	10.93 (29.09)	10.10*** (2.46)	−3.31 (5.03)	1.86 (4.57)	10.26** (5.04)	940
Land owned (acres)	1.31 (1.88)	0.04 (0.14)	−0.08 (0.18)	0.04 (0.17)	0.35 (0.32)	940
Has non-thatched roof (dummy)	0.16 (0.37)	0.24*** (0.03)	−0.11** (0.05)	−0.12** (0.05)	0.23*** (0.05)	940
Joint test (p -value)		0.00***	0.49	0.26	0.00***	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 50: Assets: Main Treatment Arms with Baseline Controls

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Value of non-land assets excluding roof (USD)	385.05 (300.02)	148.57*** (19.72)	-1.74 (37.68)	-3.59 (33.14)	140.72*** (37.79)	940
Value of livestock (USD)	166.82 (240.59)	85.65*** (15.21)	3.86 (29.58)	0.62 (27.19)	65.32** (28.72)	940
Value of cows (USD)	101.78 (211.82)	57.63*** (13.83)	15.75 (27.14)	-15.13 (25.15)	44.79* (26.32)	940
Value of small livestock (USD)	25.30 (49.67)	15.50*** (3.27)	-9.89 (6.09)	6.98 (5.77)	19.72*** (5.90)	940
Value of birds (USD)	39.74 (40.80)	12.34*** (2.76)	-3.28 (4.79)	8.05 (5.05)	-1.06 (4.50)	940
Value of durable goods (USD)	207.30 (130.60)	52.62*** (8.48)	-0.42 (14.37)	-6.60 (13.64)	68.18*** (15.57)	940
Value of furniture (USD)	138.11 (89.29)	33.73*** (5.98)	2.58 (10.28)	0.41 (9.80)	48.62*** (11.35)	940
Value of agricultural tools (USD)	10.77 (14.08)	1.92* (1.00)	-2.40 (1.83)	-0.81 (1.50)	4.42** (2.08)	940
Value of radio/TV (USD)	9.73 (17.09)	2.64** (1.09)	-0.92 (2.03)	1.87 (2.02)	0.95 (1.80)	940
Value of bike/motorbike (USD)	21.06 (35.01)	3.09 (2.19)	-1.31 (4.13)	-1.09 (3.66)	3.09 (3.83)	940
Value of appliances (USD)	3.78 (5.22)	0.74** (0.35)	0.02 (0.57)	0.28 (0.56)	0.64 (0.68)	940
Value of cell phone (USD)	23.86 (24.85)	12.17*** (1.51)	-0.40 (2.38)	-3.42 (2.47)	7.56*** (2.47)	940
Value of savings (USD)	10.93 (29.09)	10.11*** (2.45)	-3.43 (5.02)	1.83 (4.45)	10.96** (5.08)	940
Land owned (acres)	1.31 (1.88)	0.00 (0.11)	-0.06 (0.16)	0.05 (0.16)	0.04 (0.16)	940
Has non-thatched roof (dummy)	0.16 (0.37)	0.24*** (0.03)	-0.11** (0.05)	-0.12** (0.05)	0.23*** (0.05)	940
Joint test (p -value)		0.00***	0.40	0.29	0.00***	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 51: Assets: Spillover Analysis

	Spillover Effects						Lee Bounds		Horowitz-Manski Bounds	
	(1) All HH Estimate	(2) All HH estimate	(3) Thatched estimate	(4) Thatched estimate	(5) Test (1)=(3) <i>p</i> -value	(6) Test (2)=(4) <i>p</i> -value	(7) Lower	(8) Upper	(9) Lower	(10) Upper
Includes controls	No	Yes	No	Yes	No	Yes	No	No	No	No
Value of non-land assets excluding roof (USD)	1.00 (21.44)	-11.99 (19.98)	-18.73 (21.14)	-32.61 (19.76)	0.01***	0.00***	-3.38 (19.53)	12.84 (19.83)	-2.38 (19.92)	7.39 (20.06)
Value of livestock (USD)	-0.18 (17.07)	-11.64 (16.68)	-11.61 (17.02)	-23.27 (16.71)	0.04**	0.03**	-1.96 (14.78)	11.15 (16.09)	-1.94 (15.80)	5.36 (15.97)
Value of cows (USD)	8.25 (14.76)	0.77 (14.70)	-0.53 (14.87)	-7.86 (14.88)	0.07*	0.06*	7.25 (14.33)	18.04 (16.30)	7.18 (13.62)	12.83 (13.76)
Value of small livestock (USD)	-3.22 (3.86)	-5.22 (3.79)	-4.75 (3.90)	-6.85* (3.85)	0.14	0.11	-3.53 (3.30)	-0.04 (3.59)	-3.49 (3.28)	-2.08 (3.32)
Value of birds (USD)	-5.21 (3.28)	-7.18** (3.08)	-6.33* (3.40)	-8.57*** (3.19)	0.14	0.08*	-5.69** (2.79)	-2.82 (2.79)	-5.63* (2.93)	-4.24 (2.96)
Value of durable goods (USD)	-0.12 (10.28)	-1.97 (9.34)	-8.74 (10.90)	-11.31 (10.04)	0.00***	0.00***	-2.03 (8.62)	5.41 (8.93)	-1.91 (8.65)	2.45 (8.69)
Value of furniture (USD)	3.55 (7.12)	3.26 (6.62)	0.33 (7.63)	-0.37 (7.21)	0.10	0.06*	2.13 (5.81)	7.66 (5.97)	2.38 (6.00)	5.25 (6.03)
Value of agricultural tools (USD)	-0.10 (1.04)	-0.34 (0.97)	-0.97 (1.04)	-1.27 (0.96)	0.02**	0.02**	-0.22 (0.96)	0.88 (1.16)	-0.20 (0.96)	0.12 (0.97)
Value of radio/TV (USD)	-0.83 (1.16)	-0.77 (1.12)	-2.12* (1.13)	-2.09* (1.10)	0.02**	0.01**	-0.94 (1.07)	-0.83 (1.29)	-0.93 (1.20)	-0.56 (1.21)
Value of bike/motorbike (USD)	-0.50 (2.25)	-1.46 (2.22)	-2.03 (2.33)	-3.10 (2.28)	0.04**	0.03**	-0.73 (2.17)	0.94 (2.24)	-0.73 (2.18)	0.12 (2.19)
Value of appliances (USD)	0.11 (0.36)	0.07 (0.35)	-0.04 (0.37)	-0.09 (0.36)	0.27	0.26	0.07 (0.33)	0.36 (0.33)	0.07 (0.34)	0.21 (0.34)
Value of cell phone (USD)	-2.34 (1.94)	-2.75 (1.84)	-3.89* (2.04)	-4.39** (1.92)	0.01***	0.00***	-2.62* (1.46)	-2.34 (1.57)	-2.59 (1.70)	-1.75 (1.71)
Value of savings (USD)	1.30 (1.96)	1.62 (1.94)	1.62 (2.13)	1.98 (2.08)	0.45	0.40	1.19 (1.79)	3.36** (1.67)	1.18 (1.85)	1.72 (1.86)
Land owned (acres)	-0.13 (0.15)	-0.21 (0.14)	-0.08 (0.16)	-0.15 (0.15)	0.01**	0.01***	-0.15 (0.12)	-0.02 (0.12)	-0.15 (0.12)	-0.10 (0.12)
Joint test (<i>p</i> -value)	0.75	0.39	0.30	0.05*						

Notes: OLS estimates of spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. The sample includes all households and individuals. Columns (1) and (2) report the "naive" estimate of spillover effects, including spillover households that upgraded to metal roofs between baseline and endline. Column (3) and (4) report estimate of the spillover effect excluding metal roof households. Columns (1) and (3) exclude baseline covariates. Columns (2) and (4) include baseline covariates. Column (5) reports the *p*-value of the equality for the coefficient estimates in (1) and (3) after joint-estimation of the two models using SUR. Column (6) reports the *p*-value of the equality for the coefficient estimates in (2) and (4) after joint-estimation of the two models using SUR. The last row reports *p*-values on the joint-significance of all coefficients in a given column after joint-estimation using SUR. Columns (7) and (8) report the lower and upper Lee effect-size bounds adjusting for differential attrition generated by restricting to thatched roof households. This attrition is due to the higher rate of upgrade to metal roofs among spillover households and represents approximately 5 households or 10 individuals. Columns (9) and (10) report lower and upper Manski-Horowitz bounds, imputing outcomes for the 5 attriting households using the 95th and 5th percentile of observed outcomes respectively. In columns (1) through (4), standard errors clustered at the village level are reported in parentheses. In columns (7) through (10), bootstrapped standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 52: Assets: Across Village Comparisons

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Value of non-land assets excluding roof (USD)	385.05 (300.02)	144.45*** (19.84)	141.46*** (26.55)	1.00 (21.44)	1372
Value of livestock (USD)	166.82 (240.59)	83.18*** (15.22)	76.95*** (19.57)	-0.18 (17.07)	1372
Value of cows (USD)	101.78 (211.82)	55.74*** (13.86)	59.06*** (16.57)	8.25 (14.77)	1372
Value of small livestock (USD)	25.30 (49.67)	14.82*** (3.29)	11.23*** (4.25)	-3.22 (3.86)	1372
Value of birds (USD)	39.74 (40.80)	12.02*** (2.77)	6.66* (3.93)	-5.21 (3.28)	1372
Value of durable goods (USD)	207.30 (130.60)	52.59*** (8.61)	53.20*** (10.96)	-0.12 (10.29)	1372
Value of furniture (USD)	138.11 (89.29)	34.37*** (6.02)	36.72*** (7.74)	3.55 (7.12)	1372
Value of agricultural tools (USD)	10.77 (14.08)	1.57 (0.99)	1.45 (1.12)	-0.10 (1.04)	1372
Value of radio/TV (USD)	9.73 (17.09)	2.74** (1.11)	1.69 (1.21)	-0.83 (1.16)	1372
Value of bike/motorbike (USD)	21.06 (35.01)	2.70 (2.26)	2.72 (2.66)	-0.50 (2.25)	1372
Value of appliances (USD)	3.78 (5.22)	0.70* (0.36)	0.81* (0.41)	0.11 (0.36)	1372
Value of cell phone (USD)	23.86 (24.85)	12.71*** (1.52)	9.82*** (1.98)	-2.34 (1.94)	1372
Value of savings (USD)	10.93 (29.09)	10.10*** (2.46)	11.31*** (2.73)	1.30 (1.96)	1372
Land owned (acres)	1.31 (1.88)	0.04 (0.14)	-0.10 (0.16)	-0.13 (0.15)	1372
Joint test (p -value)		0.00***	0.00***	0.75	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 53: Assets: Female vs. Male

	(1) Control mean (SD)	(2) Female recipient (within villages)	(3) Male recipient (within villages)	(4) Female vs. male recipient (within villages)	(5) Female recipient (across villages)	(6) Male recipient (across villages)	(7) N
Value of non-land assets excluding roof (USD)	385.05 (300.02)	149.30*** (30.22)	150.48*** (29.48)	-1.38 (37.71)	149.40*** (36.52)	151.47*** (36.15)	1372
Value of livestock (USD)	166.82 (240.59)	83.69*** (23.88)	78.72*** (22.64)	4.84 (29.32)	87.82*** (29.28)	83.13*** (28.46)	1372
Value of cows (USD)	101.78 (211.82)	58.12*** (21.92)	40.85** (20.59)	17.15 (26.91)	73.80*** (25.28)	55.22** (25.09)	1372
Value of small livestock (USD)	25.30 (49.67)	11.27** (4.82)	21.53*** (5.10)	-10.25* (6.23)	7.32 (5.77)	19.53*** (5.76)	1372
Value of birds (USD)	39.74 (40.80)	13.06*** (3.97)	16.31*** (4.03)	-3.26 (4.87)	6.70 (4.91)	8.38* (4.95)	1372
Value of durable goods (USD)	207.30 (130.60)	58.25*** (11.63)	58.45*** (11.92)	-0.24 (14.40)	51.71*** (13.48)	53.55*** (13.82)	1372
Value of furniture (USD)	138.11 (89.29)	37.72*** (8.32)	35.44*** (8.31)	2.25 (10.16)	39.09*** (9.30)	37.09*** (8.90)	1372
Value of agricultural tools (USD)	10.77 (14.08)	0.75 (1.36)	3.05** (1.53)	-2.30 (1.84)	0.86 (1.32)	2.74 (1.73)	1372
Value of radio/TV (USD)	9.73 (17.09)	3.18** (1.61)	4.17** (1.67)	-0.98 (2.01)	0.95 (1.64)	1.71 (1.83)	1372
Value of bike/motorbike (USD)	21.06 (35.01)	3.19 (3.31)	3.59 (3.32)	-0.39 (4.18)	1.86 (4.00)	3.77 (3.51)	1372
Value of appliances (USD)	3.78 (5.22)	0.56 (0.45)	0.63 (0.52)	-0.07 (0.57)	0.59 (0.51)	0.75 (0.51)	1372
Value of cell phone (USD)	23.86 (24.85)	13.34*** (2.05)	13.44*** (2.12)	-0.13 (2.39)	8.36*** (2.64)	7.49*** (2.36)	1372
Value of savings (USD)	10.93 (29.09)	10.75*** (3.74)	14.06*** (4.04)	-3.31 (5.03)	9.87*** (3.46)	14.79*** (4.62)	1372
Land owned (acres)	1.31 (1.88)	-0.09 (0.13)	-0.01 (0.18)	-0.08 (0.18)	-0.28 (0.17)	-0.15 (0.20)	1372
Joint test (p -value)		0.00***	0.00***	0.87	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 54: Assets: Monthly vs. lump-sum

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Value of non-land assets excluding roof (USD)	385.05 (300.02)	106.30*** (27.91)	111.82*** (25.57)	−5.52 (33.84)	108.73*** (33.30)	103.10*** (33.44)	1372
Value of livestock (USD)	166.82 (240.59)	66.24*** (22.29)	66.16*** (20.47)	0.08 (27.36)	64.55** (25.54)	59.39** (26.85)	1372
Value of cows (USD)	101.78 (211.82)	35.75* (19.58)	51.09** (19.86)	−15.34 (25.33)	42.52* (22.81)	55.13** (24.03)	1372
Value of small livestock (USD)	25.30 (49.67)	13.19*** (4.53)	6.17 (4.64)	7.02 (5.81)	9.38* (5.51)	2.78 (4.55)	1372
Value of birds (USD)	39.74 (40.80)	16.80*** (4.30)	8.26** (3.75)	8.54* (5.13)	12.64** (5.26)	1.48 (4.97)	1372
Value of durable goods (USD)	207.30 (130.60)	31.30*** (11.37)	38.61*** (11.66)	−7.31 (14.16)	34.81** (14.13)	36.34** (14.98)	1372
Value of furniture (USD)	138.11 (89.29)	22.70*** (8.07)	21.14*** (8.08)	1.55 (10.04)	24.01** (10.18)	23.14** (10.20)	1372
Value of agricultural tools (USD)	10.77 (14.08)	−0.09 (1.21)	0.90 (1.33)	−0.99 (1.56)	−0.17 (1.22)	0.89 (1.49)	1372
Value of radio/TV (USD)	9.73 (17.09)	3.61** (1.84)	1.57 (1.41)	2.04 (2.05)	2.35 (2.20)	0.85 (1.37)	1372
Value of bike/motorbike (USD)	21.06 (35.01)	1.46 (3.20)	2.45 (2.98)	−0.99 (3.79)	1.78 (3.75)	1.49 (4.04)	1372
Value of appliances (USD)	3.78 (5.22)	0.68 (0.50)	0.43 (0.46)	0.25 (0.57)	0.78 (0.60)	0.48 (0.56)	1372
Value of cell phone (USD)	23.86 (24.85)	9.17*** (2.09)	12.09*** (2.05)	−2.92 (2.51)	6.06** (2.47)	9.49*** (2.52)	1372
Value of savings (USD)	10.93 (29.09)	8.35** (3.57)	6.49* (3.44)	1.86 (4.57)	9.37** (3.87)	7.37** (3.61)	1372
Land owned (acres)	1.31 (1.88)	−0.03 (0.14)	−0.07 (0.16)	0.04 (0.17)	−0.13 (0.16)	−0.22 (0.18)	1372
Joint test (p -value)		0.00***	0.00***	0.69	0.01**	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 55: Assets: Large vs. Small

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Value of non-land assets excluding roof (USD)	385.05 (300.02)	240.70*** (36.50)	109.26*** (20.66)	131.44*** (37.97)	237.25*** (41.36)	105.71*** (27.64)	1372
Value of livestock (USD)	166.82 (240.59)	129.65*** (26.84)	66.20*** (16.39)	63.45** (28.51)	117.60*** (31.76)	61.78*** (20.83)	1372
Value of cows (USD)	101.78 (211.82)	87.91*** (24.17)	43.99*** (15.16)	43.92* (26.06)	85.25*** (27.40)	49.29*** (17.63)	1372
Value of small livestock (USD)	25.30 (49.67)	29.57*** (5.50)	9.42*** (3.56)	20.14*** (5.87)	25.68*** (6.75)	5.84 (4.25)	1372
Value of birds (USD)	39.74 (40.80)	11.48*** (4.15)	12.22*** (3.10)	-0.74 (4.50)	6.67 (4.53)	6.66 (4.34)	1372
Value of durable goods (USD)	207.30 (130.60)	100.12*** (14.95)	35.22*** (9.11)	64.90*** (15.70)	100.29*** (15.36)	35.63*** (11.81)	1372
Value of furniture (USD)	138.11 (89.29)	68.54*** (10.83)	21.86*** (6.33)	46.67*** (11.38)	72.04*** (11.73)	23.55*** (8.12)	1372
Value of agricultural tools (USD)	10.77 (14.08)	4.65** (2.00)	0.44 (1.01)	4.21** (2.06)	4.25** (1.92)	0.40 (1.08)	1372
Value of radio/TV (USD)	9.73 (17.09)	3.34** (1.62)	2.52** (1.26)	0.82 (1.80)	2.08 (1.53)	1.54 (1.38)	1372
Value of bike/motorbike (USD)	21.06 (35.01)	4.66 (3.69)	1.99 (2.44)	2.67 (3.86)	5.65* (3.10)	1.62 (3.07)	1372
Value of appliances (USD)	3.78 (5.22)	1.13* (0.64)	0.54 (0.38)	0.59 (0.67)	1.30** (0.54)	0.62 (0.50)	1372
Value of cell phone (USD)	23.86 (24.85)	18.11*** (2.37)	10.74*** (1.65)	7.37*** (2.48)	14.96*** (2.68)	7.90*** (2.12)	1372
Value of savings (USD)	10.93 (29.09)	17.61*** (4.67)	7.35*** (2.65)	10.26** (5.04)	19.37*** (4.66)	8.30*** (2.86)	1372
Land owned (acres)	1.31 (1.88)	0.29 (0.31)	-0.05 (0.13)	0.35 (0.32)	0.12 (0.35)	-0.18 (0.14)	1372
Joint test (p -value)		0.00***	0.00***	0.00***	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the household. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.3.2 Asset Variables in Logs

Table 56: Assets in Logs: Main Treatment Arms

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Value of non-land assets excluding roof (USD)	6.34 (0.86)	0.40*** (0.04)	0.00 (0.07)	−0.04 (0.07)	0.31*** (0.07)	940
Value of livestock (USD)	4.50 (2.11)	0.69*** (0.11)	−0.08 (0.17)	0.12 (0.19)	0.58*** (0.17)	940
Value of cows (USD)	1.66 (2.86)	0.70*** (0.17)	0.19 (0.30)	−0.08 (0.29)	0.62** (0.31)	940
Value of small livestock (USD)	1.50 (2.28)	0.71*** (0.14)	−0.28 (0.24)	0.32 (0.23)	0.95*** (0.24)	940
Value of birds (USD)	3.47 (1.80)	0.32*** (0.11)	−0.17 (0.17)	0.11 (0.19)	0.15 (0.16)	940
Value of durable goods (USD)	5.80 (0.77)	0.28*** (0.04)	−0.04 (0.06)	−0.05 (0.06)	0.26*** (0.06)	940
Value of furniture (USD)	5.36 (0.89)	0.27*** (0.05)	−0.02 (0.07)	0.00 (0.08)	0.29*** (0.07)	940
Value of agricultural tools (USD)	2.61 (0.96)	0.08 (0.06)	−0.19* (0.10)	−0.03 (0.10)	0.18* (0.11)	940
Value of radio/TV (USD)	1.89 (1.63)	0.37*** (0.10)	−0.10 (0.16)	−0.03 (0.17)	0.21 (0.16)	940
Value of bike/motorbike (USD)	1.69 (2.24)	0.30** (0.13)	−0.04 (0.21)	−0.03 (0.21)	0.22 (0.21)	940
Value of appliances (USD)	1.40 (1.21)	0.22*** (0.08)	0.01 (0.12)	0.03 (0.12)	0.04 (0.12)	940
Value of cell phone (USD)	2.67 (2.03)	1.10*** (0.11)	−0.05 (0.15)	−0.20 (0.18)	0.51*** (0.13)	940
Value of savings (USD)	1.22 (1.80)	0.55*** (0.12)	−0.02 (0.21)	0.12 (0.21)	0.56** (0.22)	940
Joint test (p-value)		0.00***	0.81	0.74	0.00***	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 57: Assets in Logs: Main Treatment Arms with Baseline Controls

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Value of non-land assets excluding roof (USD)	6.34 (0.86)	0.40*** (0.04)	0.00 (0.07)	−0.04 (0.07)	0.32*** (0.07)	940
Value of livestock (USD)	4.50 (2.11)	0.71*** (0.11)	−0.09 (0.17)	0.11 (0.19)	0.60*** (0.17)	940
Value of cows (USD)	1.66 (2.86)	0.70*** (0.17)	0.17 (0.30)	−0.07 (0.29)	0.64*** (0.32)	940
Value of small livestock (USD)	1.50 (2.28)	0.72*** (0.14)	−0.30 (0.24)	0.30 (0.23)	0.95*** (0.24)	940
Value of birds (USD)	3.47 (1.80)	0.33*** (0.11)	−0.19 (0.17)	0.09 (0.18)	0.17 (0.16)	940
Value of durable goods (USD)	5.80 (0.77)	0.27*** (0.04)	−0.04 (0.06)	−0.04 (0.06)	0.28*** (0.06)	940
Value of furniture (USD)	5.36 (0.89)	0.26*** (0.05)	−0.03 (0.07)	0.01 (0.07)	0.31*** (0.07)	940
Value of agricultural tools (USD)	2.61 (0.96)	0.10* (0.06)	−0.20** (0.10)	−0.01 (0.10)	0.20* (0.11)	940
Value of radio/TV (USD)	1.89 (1.63)	0.36*** (0.10)	−0.11 (0.16)	−0.04 (0.16)	0.23 (0.16)	940
Value of bike/motorbike (USD)	1.69 (2.24)	0.31** (0.12)	−0.10 (0.21)	−0.05 (0.20)	0.20 (0.21)	940
Value of appliances (USD)	1.40 (1.21)	0.21*** (0.07)	0.02 (0.12)	0.04 (0.12)	0.08 (0.13)	940
Value of cell phone (USD)	2.67 (2.03)	1.07*** (0.11)	−0.05 (0.15)	−0.22 (0.17)	0.51*** (0.14)	940
Value of savings (USD)	1.22 (1.80)	0.55*** (0.12)	−0.03 (0.21)	0.12 (0.21)	0.63*** (0.22)	940
Joint test (p -value)		0.00***	0.74	0.77	0.00***	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 58: Assets in Logs: Spillover Analysis

	Spillover Effects						Lee Bounds		Horowitz-Manski Bounds	
	(1) All HH Estimate	(2) All HH estimate	(3) Thatched estimate	(4) Thatched estimate	(5) Test (1)=(3) <i>p</i> -value	(6) Test (2)=(4) <i>p</i> -value	(7) Lower	(8) Upper	(9) Lower	(10) Upper
Includes controls	No	Yes	No	Yes	No	Yes	No	No	No	No
Value of non-land assets excluding roof (USD)	0.01 (0.07)	-0.03 (0.06)	-0.05 (0.07)	-0.09 (0.06)	0.00***	0.00***	-0.03 (0.06)	0.03 (0.06)	-0.01 (0.06)	0.02 (0.06)
Value of livestock (USD)	-0.03 (0.15)	-0.16 (0.14)	-0.15 (0.16)	-0.29* (0.15)	0.00***	0.00***	-0.08 (0.14)	0.00 (0.14)	-0.08 (0.14)	-0.00 (0.14)
Value of cows (USD)	0.07 (0.20)	-0.04 (0.20)	-0.06 (0.20)	-0.17 (0.20)	0.05*	0.05**	0.05 (0.17)	0.11 (0.17)	0.05 (0.19)	0.12 (0.19)
Value of small livestock (USD)	-0.27 (0.18)	-0.37** (0.18)	-0.33* (0.19)	-0.43** (0.18)	0.20	0.17	-0.29* (0.16)	-0.22 (0.16)	-0.29* (0.15)	-0.23 (0.16)
Value of birds (USD)	-0.06 (0.15)	-0.16 (0.14)	-0.12 (0.17)	-0.22 (0.16)	0.14	0.09*	-0.10 (0.13)	-0.03 (0.12)	-0.10 (0.12)	-0.04 (0.12)
Value of durable goods (USD)	0.00 (0.06)	-0.01 (0.06)	-0.04 (0.07)	-0.06 (0.06)	0.01**	0.00***	-0.04 (0.05)	0.02 (0.05)	-0.01 (0.05)	0.01 (0.05)
Value of furniture (USD)	0.03 (0.07)	0.03 (0.06)	-0.00 (0.07)	-0.01 (0.07)	0.17	0.10*	-0.02 (0.06)	0.05 (0.06)	0.01 (0.06)	0.04 (0.06)
Value of agricultural tools (USD)	0.03 (0.08)	-0.01 (0.08)	-0.02 (0.08)	-0.06 (0.08)	0.02**	0.02**	0.00 (0.06)	0.06 (0.06)	0.01 (0.07)	0.04 (0.07)
Value of radio/TV (USD)	-0.03 (0.11)	-0.05 (0.11)	-0.13 (0.13)	-0.17 (0.12)	0.00***	0.00***	-0.05 (0.11)	0.01 (0.11)	-0.05 (0.11)	-0.00 (0.11)
Value of bike/motorbike (USD)	-0.21 (0.16)	-0.29* (0.16)	-0.37** (0.16)	-0.45*** (0.16)	0.00***	0.00***	-0.23 (0.15)	-0.17 (0.15)	-0.22 (0.15)	-0.17 (0.15)
Value of appliances (USD)	0.02 (0.08)	0.02 (0.08)	-0.03 (0.09)	-0.03 (0.08)	0.04**	0.03**	0.01 (0.08)	0.05 (0.09)	0.01 (0.08)	0.04 (0.08)
Value of cell phone (USD)	-0.23 (0.15)	-0.26* (0.14)	-0.32** (0.16)	-0.35** (0.14)	0.02**	0.00***	-0.26** (0.13)	-0.20 (0.13)	-0.26* (0.13)	-0.20 (0.13)
Value of savings (USD)	0.11 (0.13)	0.12 (0.13)	0.09 (0.14)	0.11 (0.14)	0.61	0.64	0.10 (0.12)	0.16 (0.12)	0.10 (0.12)	0.15 (0.12)
Joint test (<i>p</i> -value)	0.63	0.38	0.46	0.09*						

Notes: OLS estimates of spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Columns (1) and (2) report the "naive" estimate of spillover effects, including spillover households that upgraded to metal roofs between baseline and endline. Column (3) and (4) report estimate of the spillover effect excluding metal roof households. Columns (1) and (3) exclude baseline covariates. Columns (2) and (4) include baseline covariates. Column (5) reports the *p*-value of the equality for the coefficient estimates in (1) and (3) after joint-estimation of the two models using SUR. Column (6) reports the *p*-value of the equality for the coefficient estimates in (2) and (4) after joint-estimation of the two models using SUR. The last row reports *p*-values on the joint-significance of all coefficients in a given column after joint-estimation using SUR. Columns (7) and (8) report the lower and upper Lee effect-size bounds adjusting for differential attrition generated by restricting to thatched roof households. This attrition is due to the higher rate of upgrade to metal roofs among spillover households and represents approximately 5 households or 10 individuals. Columns (9) and (10) report lower and upper Manski-Horowitz bounds, imputing outcomes for the 5 attriting households using the 95th and 5th percentile of observed outcomes respectively. In columns (1) through (4), standard errors clustered at the village level are reported in parentheses. In columns (7) through (10), bootstrapped standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 59: Assets in Logs: Across Village Comparisons

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Value of non-land assets excluding roof (USD)	6.34 (0.86)	0.40*** (0.04)	0.37*** (0.07)	0.01 (0.07)	1372
Value of livestock (USD)	4.50 (2.11)	0.69*** (0.11)	0.60*** (0.16)	−0.03 (0.15)	1372
Value of cows (USD)	1.66 (2.86)	0.70*** (0.17)	0.75*** (0.22)	0.07 (0.20)	1372
Value of small livestock (USD)	1.50 (2.28)	0.71*** (0.14)	0.44** (0.19)	−0.27 (0.18)	1372
Value of birds (USD)	3.47 (1.80)	0.32*** (0.11)	0.24 (0.15)	−0.06 (0.15)	1372
Value of durable goods (USD)	5.80 (0.77)	0.28*** (0.04)	0.27*** (0.06)	0.00 (0.06)	1372
Value of furniture (USD)	5.36 (0.89)	0.27*** (0.05)	0.29*** (0.07)	0.03 (0.07)	1372
Value of agricultural tools (USD)	2.61 (0.96)	0.08 (0.06)	0.12 (0.08)	0.03 (0.08)	1372
Value of radio/TV (USD)	1.89 (1.63)	0.37*** (0.10)	0.32*** (0.11)	−0.03 (0.11)	1372
Value of bike/motorbike (USD)	1.69 (2.24)	0.30** (0.13)	−0.00 (0.17)	−0.21 (0.16)	1372
Value of appliances (USD)	1.40 (1.21)	0.22*** (0.08)	0.21** (0.09)	0.02 (0.08)	1372
Value of cell phone (USD)	2.67 (2.03)	1.10*** (0.11)	0.84*** (0.14)	−0.23 (0.15)	1372
Value of savings (USD)	1.22 (1.80)	0.55*** (0.12)	0.63*** (0.15)	0.11 (0.13)	1372
Joint test (<i>p</i> -value)		0.00***	0.00***	0.63	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 60: Assets in Logs: Female vs. Male

	(1) Control mean (SD)	(2) Female recipient (within villages)	(3) Male recipient (within villages)	(4) Female vs. male recipient (within villages)	(5) Female recipient (across villages)	(6) Male recipient (across villages)	(7) N
Value of non-land assets excluding roof (USD)	6.34 (0.86)	0.38*** (0.06)	0.38*** (0.05)	0.00 (0.07)	0.32*** (0.08)	0.35*** (0.07)	1372
Value of livestock (USD)	4.50 (2.11)	0.57*** (0.16)	0.65*** (0.14)	−0.08 (0.17)	0.50** (0.20)	0.69*** (0.18)	1372
Value of cows (USD)	1.66 (2.86)	0.65*** (0.25)	0.47* (0.25)	0.19 (0.30)	0.79** (0.30)	0.69** (0.30)	1372
Value of small livestock (USD)	1.50 (2.28)	0.63*** (0.20)	0.91*** (0.20)	−0.28 (0.24)	0.24 (0.24)	0.79*** (0.25)	1372
Value of birds (USD)	3.47 (1.80)	0.26* (0.15)	0.43*** (0.14)	−0.17 (0.17)	0.13 (0.18)	0.33* (0.18)	1372
Value of durable goods (USD)	5.80 (0.77)	0.28*** (0.05)	0.32*** (0.05)	−0.04 (0.06)	0.23*** (0.07)	0.27*** (0.06)	1372
Value of furniture (USD)	5.36 (0.89)	0.29*** (0.07)	0.32*** (0.06)	−0.02 (0.07)	0.27*** (0.08)	0.33*** (0.07)	1372
Value of agricultural tools (USD)	2.61 (0.96)	0.03 (0.09)	0.22** (0.09)	−0.19* (0.10)	0.06 (0.09)	0.22** (0.10)	1372
Value of radio/TV (USD)	1.89 (1.63)	0.35** (0.14)	0.45*** (0.14)	−0.10 (0.16)	0.18 (0.15)	0.27* (0.14)	1372
Value of bike/motorbike (USD)	1.69 (2.24)	0.32* (0.17)	0.36** (0.18)	−0.04 (0.21)	−0.05 (0.26)	0.02 (0.23)	1372
Value of appliances (USD)	1.40 (1.21)	0.24** (0.10)	0.24** (0.10)	0.01 (0.12)	0.17 (0.11)	0.16 (0.11)	1372
Value of cell phone (USD)	2.67 (2.03)	1.00*** (0.14)	1.05*** (0.14)	−0.05 (0.15)	0.59*** (0.16)	0.62*** (0.14)	1372
Value of savings (USD)	1.22 (1.80)	0.68*** (0.17)	0.70*** (0.18)	−0.02 (0.21)	0.62*** (0.19)	0.74*** (0.22)	1372
Joint test (p -value)		0.00***	0.00***	0.81	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 61: Assets in Logs: Monthly vs. lump-sum

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Value of non-land assets excluding roof (USD)	6.34 (0.86)	0.29*** (0.06)	0.33*** (0.06)	−0.04 (0.07)	0.30*** (0.08)	0.26*** (0.09)	1372
Value of livestock (USD)	4.50 (2.11)	0.60*** (0.16)	0.48*** (0.15)	0.12 (0.19)	0.56*** (0.20)	0.34 (0.21)	1372
Value of cows (USD)	1.66 (2.86)	0.49** (0.24)	0.57** (0.22)	−0.08 (0.29)	0.55* (0.28)	0.63** (0.29)	1372
Value of small livestock (USD)	1.50 (2.28)	0.63*** (0.19)	0.31* (0.18)	0.32 (0.23)	0.39 (0.26)	−0.02 (0.20)	1372
Value of birds (USD)	3.47 (1.80)	0.34** (0.16)	0.22 (0.14)	0.11 (0.19)	0.32 (0.20)	0.06 (0.19)	1372
Value of durable goods (USD)	5.80 (0.77)	0.18*** (0.05)	0.23*** (0.06)	−0.05 (0.06)	0.21*** (0.07)	0.18** (0.08)	1372
Value of furniture (USD)	5.36 (0.89)	0.20*** (0.07)	0.19*** (0.07)	0.00 (0.08)	0.23*** (0.08)	0.18** (0.09)	1372
Value of agricultural tools (USD)	2.61 (0.96)	0.02 (0.08)	0.05 (0.08)	−0.03 (0.10)	0.08 (0.09)	0.09 (0.11)	1372
Value of radio/TV (USD)	1.89 (1.63)	0.30** (0.14)	0.33** (0.13)	−0.03 (0.17)	0.25 (0.15)	0.30** (0.14)	1372
Value of bike/motorbike (USD)	1.69 (2.24)	0.23 (0.18)	0.26 (0.17)	−0.03 (0.21)	−0.06 (0.19)	−0.09 (0.24)	1372
Value of appliances (USD)	1.40 (1.21)	0.22** (0.11)	0.19* (0.10)	0.03 (0.12)	0.22* (0.12)	0.15 (0.12)	1372
Value of cell phone (USD)	2.67 (2.03)	0.86*** (0.16)	1.06*** (0.14)	−0.20 (0.18)	0.59*** (0.18)	0.80*** (0.16)	1372
Value of savings (USD)	1.22 (1.80)	0.46*** (0.17)	0.34** (0.16)	0.12 (0.21)	0.51*** (0.19)	0.44*** (0.17)	1372
Joint test (p -value)		0.00***	0.00***	0.74	0.02**	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 62: Assets in Logs: Large vs. Small

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Value of non-land assets excluding roof (USD)	6.34 (0.86)	0.62*** (0.07)	0.31*** (0.05)	0.31*** (0.07)	0.60*** (0.08)	0.28*** (0.07)	1372
Value of livestock (USD)	4.50 (2.11)	1.12*** (0.16)	0.54*** (0.12)	0.58*** (0.17)	1.04*** (0.19)	0.44** (0.18)	1372
Value of cows (USD)	1.66 (2.86)	1.15*** (0.30)	0.53*** (0.18)	0.62** (0.31)	1.18*** (0.34)	0.59*** (0.23)	1372
Value of small livestock (USD)	1.50 (2.28)	1.41*** (0.23)	0.46*** (0.15)	0.95*** (0.24)	1.18*** (0.28)	0.17 (0.20)	1372
Value of birds (USD)	3.47 (1.80)	0.43*** (0.16)	0.28** (0.12)	0.15 (0.16)	0.40** (0.17)	0.18 (0.16)	1372
Value of durable goods (USD)	5.80 (0.77)	0.47*** (0.06)	0.21*** (0.04)	0.26*** (0.06)	0.49*** (0.07)	0.19*** (0.07)	1372
Value of furniture (USD)	5.36 (0.89)	0.49*** (0.07)	0.19*** (0.06)	0.29*** (0.07)	0.52*** (0.08)	0.20*** (0.07)	1372
Value of agricultural tools (USD)	2.61 (0.96)	0.22** (0.10)	0.03 (0.06)	0.18* (0.11)	0.23** (0.11)	0.08 (0.08)	1372
Value of radio/TV (USD)	1.89 (1.63)	0.52*** (0.15)	0.31*** (0.11)	0.21 (0.16)	0.44*** (0.16)	0.28** (0.12)	1372
Value of bike/motorbike (USD)	1.69 (2.24)	0.46** (0.20)	0.24* (0.14)	0.22 (0.21)	0.20 (0.21)	-0.07 (0.19)	1372
Value of appliances (USD)	1.40 (1.21)	0.25** (0.12)	0.20** (0.08)	0.04 (0.12)	0.28** (0.11)	0.19* (0.10)	1372
Value of cell phone (USD)	2.67 (2.03)	1.47*** (0.13)	0.97*** (0.12)	0.51*** (0.13)	1.22*** (0.14)	0.70*** (0.15)	1372
Value of savings (USD)	1.22 (1.80)	0.96*** (0.21)	0.40*** (0.13)	0.56** (0.22)	1.05*** (0.24)	0.47*** (0.15)	1372
Joint test (p -value)		0.00***	0.00***	0.00***	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the household. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.4 Consumption

18.4.1 Consumption Variables: Levels

Table 63: Consumption: Main Treatment Arms

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Food total (USD)	104.46 (58.50)	19.46*** (4.19)	-1.81 (7.37)	1.79 (7.42)	8.28 (7.59)	940
Food own production (USD)	13.64 (14.79)	2.40** (0.95)	0.19 (1.71)	3.93** (1.75)	-0.28 (1.49)	940
Food bought (USD)	90.82 (52.77)	16.86*** (3.78)	-2.79 (6.57)	-2.96 (6.65)	8.10 (6.81)	940
Cereals (USD)	22.55 (17.18)	2.23** (1.13)	0.37 (1.87)	-1.06 (1.86)	2.68 (2.07)	940
Meat & fish (USD)	12.97 (13.75)	5.05*** (1.01)	0.87 (1.82)	-2.93 (1.92)	2.52 (1.63)	940
Fruit & vegetables (USD)	23.50 (17.06)	3.47*** (1.15)	-0.93 (1.95)	-0.13 (2.02)	2.39 (1.99)	940
Dairy (USD)	7.26 (9.43)	1.68*** (0.64)	-0.76 (1.10)	0.79 (1.08)	0.55 (1.09)	940
Fats (USD)	6.84 (5.51)	0.81** (0.36)	-0.31 (0.62)	-0.36 (0.63)	0.90 (0.58)	940
Sugars (USD)	11.25 (7.18)	1.05** (0.47)	-0.48 (0.81)	0.17 (0.83)	0.43 (0.78)	940
Other food (USD)	42.42 (28.28)	5.91*** (1.92)	-1.42 (3.23)	-0.78 (3.21)	3.65 (3.43)	940
Alcohol (USD)	6.38 (16.56)	-0.93 (0.99)	1.56 (1.62)	1.03 (1.64)	-1.42 (1.33)	940
Tobacco (USD)	1.52 (4.13)	-0.15 (0.22)	0.12 (0.34)	0.42 (0.33)	-0.29 (0.30)	940
Medical expenditure past month (USD)	6.78 (13.53)	2.58*** (0.99)	2.06 (1.86)	-1.34 (1.86)	-0.29 (1.74)	940
Medical expenditure, children (USD)	3.67 (8.96)	0.43 (0.62)	0.65 (1.07)	-0.49 (1.11)	-0.28 (0.97)	852
Education expenditure (USD)	4.71 (8.68)	1.08** (0.51)	0.48 (0.88)	-0.02 (0.87)	1.15 (0.91)	940
Social expenditure (USD)	4.36 (5.38)	2.43*** (0.48)	-2.06** (0.97)	-0.52 (0.99)	0.62 (0.90)	940
Other expenditure (USD)	34.36 (24.62)	9.97*** (1.72)	-1.92 (3.03)	-3.65 (3.14)	11.84*** (3.00)	940
Non-durable expenditure (USD)	157.61 (82.18)	35.66*** (5.85)	-2.00 (10.28)	-4.20 (10.71)	21.25** (10.49)	940
Joint test (p -value)		0.00***	0.77	0.43	0.04**	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 64: Consumption: Main Treatment Arms with Baseline Controls

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Food total (USD)	104.46 (58.50)	19.57*** (4.03)	-4.65 (7.20)	0.87 (7.21)	9.58 (7.08)	940
Food own production (USD)	13.64 (14.79)	2.51*** (0.90)	-0.49 (1.65)	3.50** (1.64)	-0.24 (1.42)	940
Food bought (USD)	90.82 (52.77)	16.91*** (3.68)	-4.43 (6.55)	-3.37 (6.56)	9.56 (6.50)	940
Cereals (USD)	22.55 (17.18)	2.19** (1.09)	-0.09 (1.86)	-1.04 (1.84)	2.98 (1.96)	940
Meat & fish (USD)	12.97 (13.75)	5.25*** (1.00)	1.25 (1.82)	-3.01 (1.91)	2.49 (1.63)	940
Fruit & vegetables (USD)	23.50 (17.06)	3.57*** (1.13)	-1.29 (1.92)	0.04 (2.02)	2.72 (1.91)	940
Dairy (USD)	7.26 (9.43)	1.78*** (0.62)	-0.82 (1.07)	0.65 (1.03)	0.71 (1.07)	940
Fats (USD)	6.84 (5.51)	0.81** (0.36)	-0.26 (0.63)	-0.35 (0.63)	0.95 (0.58)	940
Sugars (USD)	11.25 (7.18)	1.08** (0.46)	-0.58 (0.81)	0.09 (0.80)	0.52 (0.76)	940
Other food (USD)	42.42 (28.28)	5.90*** (1.86)	-2.05 (3.23)	-1.00 (3.16)	4.33 (3.29)	940
Alcohol (USD)	6.38 (16.56)	-0.87 (0.99)	1.66 (1.64)	0.95 (1.63)	-1.30 (1.34)	940
Tobacco (USD)	1.52 (4.13)	-0.15 (0.22)	0.15 (0.35)	0.38 (0.33)	-0.32 (0.30)	940
Medical expenditure past month (USD)	6.78 (13.53)	2.76*** (1.00)	2.14 (1.87)	-1.17 (1.85)	-0.54 (1.75)	940
Medical expenditure, children (USD)	3.67 (8.96)	0.55 (0.61)	0.65 (1.06)	-0.24 (1.11)	-0.32 (0.97)	852
Education expenditure (USD)	4.71 (8.68)	0.99** (0.49)	0.36 (0.83)	-0.09 (0.81)	1.20 (0.86)	940
Social expenditure (USD)	4.36 (5.38)	2.46*** (0.48)	-1.95** (0.95)	-0.61 (0.98)	0.54 (0.89)	940
Other expenditure (USD)	34.36 (24.62)	9.78*** (1.68)	-1.56 (3.01)	-3.76 (3.04)	12.34*** (2.89)	940
Non-durable expenditure (USD)	157.61 (82.18)	34.91*** (5.60)	-6.13 (9.98)	-5.17 (10.35)	21.66** (9.80)	940
Joint test (p -value)		0.00***	0.69	0.47	0.01**	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 65: Consumption: Spillover Analysis

	Spillover Effects						Lee Bounds		Horowitz-Manski Bounds	
	(1) All HH Estimate	(2) All HH estimate	(3) Thatched estimate	(4) Thatched estimate	(5) Test (1)=(3) p-value	(6) Test (2)=(4) p-value	(7) Lower	(8) Upper	(9) Lower	(10) Upper
Includes controls	No	Yes	No	Yes	No	Yes	No	No	No	No
Food total (USD)	-3.89 (4.62)	-6.87 (4.27)	-3.48 (4.65)	-6.98 (4.38)	0.76	0.94	-4.95 (3.84)	-0.93 (3.82)	-4.65 (4.11)	-2.63 (4.14)
Food own production (USD)	-1.37 (1.15)	-2.19** (1.10)	-2.09* (1.18)	-3.01*** (1.13)	0.02**	0.02**	-1.53 (1.05)	-0.59 (1.14)	-1.51 (1.07)	-1.02 (1.08)
Food bought (USD)	-2.52 (4.25)	-4.68 (4.00)	-1.39 (4.30)	-3.98 (4.12)	0.34	0.58	-3.43 (3.39)	-0.02 (3.25)	-3.19 (3.60)	-1.40 (3.62)
Cereals (USD)	0.19 (1.51)	-0.08 (1.45)	0.30 (1.57)	-0.09 (1.52)	0.76	0.98	-0.05 (1.19)	0.89 (1.21)	-0.05 (1.12)	0.50 (1.12)
Meat & fish (USD)	-0.73 (1.18)	-1.19 (1.17)	-0.35 (1.23)	-0.86 (1.23)	0.12	0.22	-0.88 (0.87)	-0.01 (0.92)	-0.87 (0.93)	-0.45 (0.94)
Fruit & vegetables (USD)	0.23 (1.35)	-0.47 (1.22)	0.20 (1.38)	-0.63 (1.27)	0.94	0.69	-0.01 (1.05)	1.03 (1.06)	0.03 (1.11)	0.55 (1.12)
Dairy (USD)	-0.28 (0.72)	-0.54 (0.72)	-0.16 (0.75)	-0.47 (0.76)	0.57	0.72	-0.36 (0.63)	0.23 (0.62)	-0.36 (0.65)	-0.10 (0.66)
Fats (USD)	-0.08 (0.44)	-0.18 (0.42)	0.01 (0.46)	-0.10 (0.44)	0.37	0.46	-0.16 (0.34)	0.19 (0.38)	-0.14 (0.36)	0.04 (0.36)
Sugars (USD)	-0.48 (0.53)	-0.78 (0.50)	-0.52 (0.54)	-0.85 (0.52)	0.79	0.64	-0.61 (0.44)	-0.22 (0.43)	-0.59 (0.47)	-0.35 (0.47)
Other food (USD)	-1.04 (2.32)	-1.72 (2.28)	-0.36 (2.39)	-1.25 (2.38)	0.28	0.47	-1.59 (2.07)	0.71 (1.90)	-1.39 (1.93)	-0.44 (1.94)
Alcohol (USD)	-0.78 (1.16)	-1.02 (1.19)	-0.41 (1.26)	-0.65 (1.30)	0.23	0.20	-0.85 (1.05)	-0.26 (1.06)	-0.84 (1.11)	-0.25 (1.13)
Tobacco (USD)	0.00 (0.28)	-0.08 (0.28)	-0.00 (0.28)	-0.09 (0.29)	0.96	0.97	-0.01 (0.24)	0.78*** (0.20)	-0.01 (0.27)	0.14 (0.28)
Medical expenditure past month (USD)	1.84* (0.93)	1.62* (0.94)	1.74* (0.92)	1.46 (0.94)	0.78	0.68	1.79** (0.90)	2.63*** (0.84)	1.77** (0.86)	2.10** (0.86)
Medical expenditure, children (USD)	1.41** (0.62)	1.42** (0.62)	1.24** (0.60)	1.23** (0.59)	0.56	0.52	1.38** (0.55)	1.93*** (0.53)	1.37** (0.55)	1.53*** (0.55)
Education expenditure (USD)	0.25 (0.61)	-0.04 (0.53)	0.32 (0.61)	0.01 (0.54)	0.61	0.75	0.20 (0.56)	0.71 (0.59)	0.20 (0.56)	0.43 (0.56)
Social expenditure (USD)	-1.36*** (0.44)	-1.52*** (0.43)	-1.42*** (0.46)	-1.59*** (0.46)	0.64	0.60	-1.48*** (0.46)	-0.96** (0.45)	-1.40*** (0.44)	-1.19*** (0.44)
Other expenditure (USD)	-3.66 (2.25)	-4.03* (2.09)	-3.72 (2.31)	-4.25** (2.15)	0.93	0.74	-4.04** (1.67)	-2.55 (1.79)	-3.95** (1.72)	-3.12* (1.73)
Non-durable expenditure (USD)	-7.77 (7.20)	-11.89* (6.50)	-7.31 (7.27)	-12.21* (6.67)	0.82	0.88	-9.47* (5.60)	-4.08 (5.87)	-8.93 (5.79)	-5.86 (5.83)
Joint test (p-value)	0.05**	0.03**	0.08*	0.04**						

Notes: OLS estimates of spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Columns (1) and (2) report the "naive" estimate of spillover effects, including spillover households that upgraded to metal roofs between baseline and endline. Column (3) and (4) report estimate of the spillover effect excluding metal roof households. Columns (1) and (3) exclude baseline covariates. Columns (2) and (4) include baseline covariates. Column (5) reports the p-value of the equality for the coefficient estimates in (1) and (3) after joint-estimation of the two models using SUR. Column (6) reports the p-value of the equality for the coefficient estimates in (2) and (4) after joint-estimation of the two models using SUR. The last row reports p-values on the joint-significance of all coefficients in a given column after joint-estimation using SUR. Columns (7) and (8) report the lower and upper Lee effect-size bounds adjusting for differential attrition generated by restricting to thatched roof households. This attrition is due to the higher rate of upgrade to metal roofs among spillover households and represents approximately 5 households or 10 individuals. Columns (9) and (10) report lower and upper Manski-Horowitz bounds, imputing outcomes for the 5 attriting households using the 95th and 5th percentile of observed outcomes respectively. In columns (1) through (4), standard errors clustered at the village level are reported in parentheses. In columns (7) through (10), bootstrapped standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 66: Consumption: Across Village Comparisons

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Food total (USD)	104.46 (58.50)	19.46*** (4.19)	14.39*** (5.29)	-3.89 (4.62)	1372
Food own production (USD)	13.64 (14.79)	2.40** (0.95)	0.85 (1.09)	-1.37 (1.15)	1372
Food bought (USD)	90.82 (52.77)	16.86*** (3.78)	13.55*** (4.98)	-2.52 (4.25)	1372
Cereals (USD)	22.55 (17.18)	2.23** (1.13)	2.16 (1.60)	0.19 (1.51)	1372
Meat & fish (USD)	12.97 (13.75)	5.05*** (1.01)	4.29*** (1.43)	-0.73 (1.18)	1372
Fruit & vegetables (USD)	23.50 (17.06)	3.47*** (1.15)	3.66*** (1.33)	0.23 (1.35)	1372
Dairy (USD)	7.26 (9.43)	1.68*** (0.64)	1.29 (0.83)	-0.28 (0.72)	1372
Fats (USD)	6.84 (5.51)	0.81** (0.36)	0.56 (0.45)	-0.08 (0.44)	1372
Sugars (USD)	11.25 (7.18)	1.05** (0.47)	0.53 (0.53)	-0.48 (0.53)	1372
Other food (USD)	42.42 (28.28)	5.91*** (1.92)	4.43 (2.68)	-1.04 (2.32)	1372
Alcohol (USD)	6.38 (16.56)	-0.93 (0.99)	-1.77 (1.15)	-0.78 (1.16)	1372
Tobacco (USD)	1.52 (4.13)	-0.15 (0.22)	-0.26 (0.26)	0.00 (0.28)	1372
Medical expenditure past month (USD)	6.78 (13.53)	2.58*** (0.99)	4.51*** (1.08)	1.84* (0.93)	1372
Medical expenditure, children (USD)	3.67 (8.96)	0.43 (0.62)	1.91*** (0.64)	1.41** (0.62)	1229
Education expenditure (USD)	4.71 (8.68)	1.08** (0.51)	0.85 (0.63)	0.25 (0.61)	1372
Social expenditure (USD)	4.36 (5.38)	2.43*** (0.48)	1.08* (0.57)	-1.36*** (0.44)	1372
Other expenditure (USD)	34.36 (24.62)	9.97*** (1.72)	6.04** (2.46)	-3.66 (2.25)	1372
Non-durable expenditure (USD)	157.61 (82.18)	35.66*** (5.85)	25.83*** (8.10)	-7.77 (7.20)	1372
Joint test (p -value)		0.00***	0.00***	0.05**	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 67: Consumption: Female vs. Male

	(1) Control mean (SD)	(2) Female recipient (within villages)	(3) Male recipient (within villages)	(4) Female vs. male recipient (within villages)	(5) Female recipient (across villages)	(6) Male recipient (across villages)	(7) N
Food total (USD)	104.46 (58.50)	19.76*** (5.86)	21.68*** (6.22)	-1.81 (7.37)	9.49 (5.90)	14.20* (8.25)	1372
Food own production (USD)	13.64 (14.79)	2.95** (1.38)	2.78* (1.45)	0.19 (1.71)	0.73 (1.54)	0.67 (1.67)	1372
Food bought (USD)	90.82 (52.77)	16.13*** (5.23)	18.92*** (5.61)	-2.79 (5.57)	8.76 (5.40)	13.53* (7.62)	1372
Cereals (USD)	22.55 (17.18)	1.78 (1.50)	1.40 (1.68)	0.37 (1.87)	1.45 (1.71)	0.86 (2.23)	1372
Meat & fish (USD)	12.97 (13.75)	5.23*** (1.51)	4.35*** (1.45)	0.87 (1.82)	3.94** (1.84)	3.59* (1.94)	1372
Fruit & vegetables (USD)	23.50 (17.06)	3.87*** (1.50)	4.80*** (1.73)	-0.93 (1.95)	2.42 (1.69)	3.73* (2.13)	1372
Dairy (USD)	7.26 (9.43)	1.70* (0.89)	2.46** (0.96)	-0.76 (1.10)	0.72 (1.05)	1.55 (1.15)	1372
Fats (USD)	6.84 (5.51)	0.90* (0.50)	1.20** (0.56)	-0.31 (0.62)	0.29 (0.55)	0.74 (0.62)	1372
Sugars (USD)	11.25 (7.18)	0.89 (0.62)	1.37* (0.71)	-0.48 (0.81)	-0.03 (0.65)	0.80 (0.71)	1372
Other food (USD)	42.42 (28.28)	5.53** (2.59)	6.94** (2.86)	-1.42 (3.23)	2.52 (2.79)	4.13 (3.94)	1372
Alcohol (USD)	6.38 (16.56)	-0.23 (1.41)	-1.80 (1.42)	1.56 (1.62)	-1.13 (1.71)	-2.86* (1.52)	1372
Tobacco (USD)	1.52 (4.13)	-0.10 (0.31)	-0.22 (0.30)	0.12 (0.34)	-0.38 (0.35)	-0.46 (0.39)	1372
Medical expenditure past month (USD)	6.78 (13.53)	3.43** (1.54)	1.36 (1.46)	2.06 (1.86)	5.65*** (1.57)	3.56** (1.61)	1372
Medical expenditure, children (USD)	3.67 (8.96)	0.51 (0.87)	-0.14 (0.89)	0.65 (1.07)	2.34*** (0.89)	1.71* (0.91)	1229
Education expenditure (USD)	4.71 (8.68)	1.51** (0.71)	1.03 (0.72)	0.48 (0.88)	1.34 (0.82)	0.73 (0.77)	1372
Social expenditure (USD)	4.36 (5.38)	1.79*** (0.67)	3.85*** (0.82)	-2.06** (0.97)	0.14 (0.73)	2.35** (0.98)	1372
Other expenditure (USD)	34.36 (24.62)	10.54*** (2.59)	12.44*** (2.41)	-1.92 (3.03)	4.63 (3.08)	6.21* (3.27)	1372
Non-durable expenditure (USD)	157.61 (82.18)	37.39*** (8.27)	39.57*** (8.49)	-2.00 (10.28)	19.79** (9.39)	26.49** (11.95)	1372
Joint test (p -value)		0.00***	0.00***	0.77	0.12	0.15	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 68: Consumption: Monthly vs. lump-sum

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Food total (USD)	104.46 (58.50)	18.21*** (5.88)	16.42*** (5.85)	1.79 (7.42)	12.32** (6.01)	12.57* (6.71)	1372
Food own production (USD)	13.64 (14.79)	4.59*** (1.53)	0.66 (1.19)	3.93** (1.75)	2.76 (1.68)	-0.51 (1.34)	1372
Food bought (USD)	90.82 (52.77)	13.10** (5.22)	16.06*** (5.34)	-2.96 (6.65)	9.56* (5.40)	13.07** (6.27)	1372
Cereals (USD)	22.55 (17.18)	0.94 (1.52)	2.00 (1.51)	-1.06 (1.86)	1.00 (1.59)	1.79 (1.94)	1372
Meat & fish (USD)	12.97 (13.75)	2.80* (1.44)	5.73*** (1.55)	-2.93 (1.92)	2.34 (1.77)	5.28*** (1.80)	1372
Fruit & vegetables (USD)	23.50 (17.06)	2.76* (1.67)	2.89* (1.58)	-0.13 (2.02)	2.75 (1.76)	3.36** (1.52)	1372
Dairy (USD)	7.26 (9.43)	1.96** (0.91)	1.17 (0.83)	0.79 (1.08)	1.45 (0.99)	0.86 (0.99)	1372
Fats (USD)	6.84 (5.51)	0.37 (0.50)	0.74 (0.51)	-0.36 (0.63)	0.22 (0.54)	0.47 (0.60)	1372
Sugars (USD)	11.25 (7.18)	1.03 (0.66)	0.85 (0.67)	0.17 (0.83)	0.50 (0.71)	0.37 (0.67)	1372
Other food (USD)	42.42 (28.28)	4.51* (2.64)	5.29** (2.55)	-0.78 (3.21)	3.11 (2.75)	3.51 (3.28)	1372
Alcohol (USD)	6.38 (16.56)	0.01 (1.44)	-1.03 (1.31)	1.03 (1.64)	-0.91 (1.46)	-1.99 (1.37)	1372
Tobacco (USD)	1.52 (4.13)	0.15 (0.30)	-0.26 (0.28)	0.42 (0.33)	-0.11 (0.37)	-0.21 (0.33)	1372
Medical expenditure past month (USD)	6.78 (13.53)	1.94 (1.44)	3.28** (1.44)	-1.34 (1.86)	4.25*** (1.55)	4.97*** (1.58)	1372
Medical expenditure, children (USD)	3.67 (8.96)	0.25 (0.89)	0.74 (0.87)	-0.49 (1.11)	1.73* (1.03)	2.17** (0.98)	1229
Education expenditure (USD)	4.71 (8.68)	0.76 (0.69)	0.78 (0.72)	-0.02 (0.87)	0.62 (0.80)	0.77 (0.78)	1372
Social expenditure (USD)	4.36 (5.38)	1.98*** (0.74)	2.50*** (0.74)	-0.52 (0.99)	0.70 (0.79)	1.16 (0.81)	1372
Other expenditure (USD)	34.36 (24.62)	4.84* (2.56)	8.49*** (2.36)	-3.65 (3.14)	0.99 (3.06)	4.25 (3.30)	1372
Non-durable expenditure (USD)	157.61 (82.18)	27.71*** (8.51)	31.91*** (8.21)	-4.20 (10.71)	17.40* (8.98)	22.98** (10.55)	1372
Joint test (p -value)		0.04**	0.00***	0.43	0.35	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 69: Consumption: Large vs. Small

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Food total (USD)	104.46 (58.50)	25.52*** (7.13)	17.24*** (4.55)	8.28 (7.59)	19.59*** (7.30)	12.45** (5.47)	1372
Food own production (USD)	13.64 (14.79)	2.19 (1.42)	2.48** (1.04)	-0.28 (1.49)	0.41 (1.37)	1.01 (1.23)	1372
Food bought (USD)	90.82 (52.77)	22.79*** (6.39)	14.69*** (4.11)	8.10 (6.81)	19.18*** (6.63)	11.44** (5.10)	1372
Cereals (USD)	22.55 (17.18)	4.19** (2.00)	1.51 (1.20)	2.68 (2.07)	4.14* (2.34)	1.42 (1.55)	1372
Meat & fish (USD)	12.97 (13.75)	6.89*** (1.45)	4.37*** (1.16)	2.52 (1.63)	5.30*** (1.66)	3.91** (1.52)	1372
Fruit & vegetables (USD)	23.50 (17.06)	5.21*** (1.85)	2.83** (1.27)	2.39 (1.99)	5.22*** (1.95)	3.07** (1.40)	1372
Dairy (USD)	7.26 (9.43)	2.08** (1.06)	1.53** (0.68)	0.55 (1.09)	1.70 (1.13)	1.14 (0.88)	1372
Fats (USD)	6.84 (5.51)	1.46*** (0.55)	0.57 (0.40)	0.90 (0.58)	1.12* (0.63)	0.36 (0.46)	1372
Sugars (USD)	11.25 (7.18)	1.37* (0.74)	0.93* (0.52)	0.43 (0.78)	0.78 (0.71)	0.43 (0.55)	1372
Other food (USD)	42.42 (28.28)	8.57*** (3.31)	4.93** (2.04)	3.65 (3.43)	7.38** (3.61)	3.32 (2.67)	1372
Alcohol (USD)	6.38 (16.56)	-1.96 (1.29)	-0.55 (1.10)	-1.42 (1.33)	-2.53 (1.75)	-1.49 (1.12)	1372
Tobacco (USD)	1.52 (4.13)	-0.36 (0.30)	-0.07 (0.24)	-0.29 (0.30)	-0.51 (0.35)	-0.16 (0.27)	1372
Medical expenditure past month (USD)	6.78 (13.53)	2.37 (1.61)	2.66** (1.10)	-0.29 (1.74)	4.18** (1.69)	4.64*** (1.20)	1372
Medical expenditure, children (USD)	3.67 (8.96)	0.23 (0.93)	0.51 (0.68)	-0.28 (0.97)	1.77** (0.86)	1.96*** (0.72)	1229
Education expenditure (USD)	4.71 (8.68)	1.92** (0.85)	0.77 (0.56)	1.15 (0.91)	1.24 (1.02)	0.70 (0.67)	1372
Social expenditure (USD)	4.36 (5.38)	2.88*** (0.79)	2.26*** (0.55)	0.62 (0.90)	1.44 (0.94)	0.95 (0.64)	1372
Other expenditure (USD)	34.36 (24.62)	18.64*** (2.78)	6.80*** (1.89)	11.84*** (3.00)	14.89*** (2.90)	2.74 (2.76)	1372
Non-durable expenditure (USD)	157.61 (82.18)	51.22*** (9.76)	29.97*** (6.42)	21.25** (10.49)	40.39*** (10.30)	20.40** (8.55)	1372
Joint test (p -value)		0.00***	0.00***	0.04**	0.00***	0.02**	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the household. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.4.2 Consumption Variables: Logs

Table 70: Consumption in Logs: Main Treatment Arms

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Food total	5.18 (0.59)	0.17*** (0.04)	0.01 (0.06)	0.05 (0.06)	0.10 (0.06)	940
Food own production (USD)	2.82 (1.05)	0.22*** (0.06)	-0.02 (0.10)	0.18* (0.10)	0.06 (0.10)	940
Food bought (USD)	5.02 (0.66)	0.16*** (0.04)	0.00 (0.06)	0.00 (0.06)	0.10 (0.06)	940
Cereals (USD)	3.35 (1.23)	0.14* (0.07)	0.17 (0.12)	0.04 (0.12)	0.08 (0.11)	940
Meat & fish (USD)	2.69 (1.22)	0.37*** (0.07)	0.03 (0.12)	-0.08 (0.13)	0.30*** (0.11)	940
Fruit & vegetables (USD)	3.60 (0.77)	0.13*** (0.05)	0.05 (0.08)	0.01 (0.08)	0.12 (0.08)	940
Dairy (USD)	1.79 (1.50)	0.27*** (0.09)	-0.05 (0.15)	0.15 (0.15)	-0.04 (0.16)	940
Fats (USD)	2.32 (0.84)	0.13** (0.05)	-0.01 (0.08)	-0.03 (0.09)	0.12 (0.07)	940
Sugars (USD)	2.84 (0.90)	0.13** (0.05)	-0.02 (0.07)	0.05 (0.08)	0.04 (0.09)	940
Other food (USD)	4.18 (0.83)	0.16*** (0.05)	0.02 (0.07)	0.03 (0.08)	0.08 (0.07)	940
Alcohol (USD)	0.72 (1.56)	-0.03 (0.09)	0.15 (0.15)	0.12 (0.15)	-0.15 (0.13)	940
Tobacco (USD)	0.45 (1.04)	-0.02 (0.05)	-0.02 (0.08)	0.10 (0.08)	-0.06 (0.08)	940
Medical expenditure past month (USD)	1.36 (1.55)	0.22** (0.10)	0.39** (0.18)	-0.13 (0.18)	-0.09 (0.18)	940
Medical expenditure, children (USD)	0.96 (1.30)	0.13 (0.09)	0.25* (0.15)	-0.14 (0.15)	-0.08 (0.14)	852
Education expenditure (USD)	1.52 (1.13)	0.19*** (0.06)	0.06 (0.10)	0.08 (0.10)	0.25** (0.10)	940
Social expenditure (USD)	1.72 (0.93)	0.29*** (0.06)	-0.21* (0.11)	-0.03 (0.12)	0.22** (0.10)	940
Other expenditure (USD)	3.96 (0.79)	0.26*** (0.05)	-0.06 (0.07)	-0.07 (0.08)	0.37*** (0.07)	940
Non-durable expenditure	5.61 (0.55)	0.20*** (0.03)	-0.00 (0.05)	0.00 (0.06)	0.16*** (0.06)	940
Joint test (p -value)		0.00***	0.39	0.37	0.00***	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 71: Consumption in Logs: Main Treatment Arms with Baseline Controls

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Food total	5.18 (0.59)	0.16*** (0.04)	−0.02 (0.06)	0.04 (0.06)	0.11* (0.06)	940
Food own production (USD)	2.82 (1.05)	0.22*** (0.06)	−0.06 (0.09)	0.16* (0.10)	0.07 (0.09)	940
Food bought (USD)	5.02 (0.66)	0.16*** (0.04)	−0.01 (0.06)	−0.01 (0.06)	0.11* (0.06)	940
Cereals (USD)	3.35 (1.23)	0.14** (0.07)	0.17 (0.12)	0.04 (0.12)	0.12 (0.11)	940
Meat & fish (USD)	2.69 (1.22)	0.38*** (0.07)	0.05 (0.12)	−0.10 (0.13)	0.31*** (0.10)	940
Fruit & vegetables (USD)	3.60 (0.77)	0.14*** (0.05)	0.04 (0.08)	0.02 (0.08)	0.14* (0.07)	940
Dairy (USD)	1.79 (1.50)	0.28*** (0.09)	−0.06 (0.15)	0.13 (0.15)	−0.02 (0.15)	940
Fats (USD)	2.32 (0.84)	0.13** (0.05)	−0.00 (0.08)	−0.02 (0.09)	0.13* (0.07)	940
Sugars (USD)	2.84 (0.90)	0.13** (0.05)	−0.03 (0.07)	0.04 (0.08)	0.04 (0.08)	940
Other food (USD)	4.18 (0.83)	0.15*** (0.05)	0.01 (0.07)	0.02 (0.08)	0.09 (0.07)	940
Alcohol (USD)	0.72 (1.56)	−0.03 (0.09)	0.16 (0.15)	0.11 (0.15)	−0.13 (0.13)	940
Tobacco (USD)	0.45 (1.04)	−0.02 (0.05)	−0.02 (0.08)	0.09 (0.08)	−0.06 (0.08)	940
Medical expenditure past month (USD)	1.36 (1.55)	0.24** (0.10)	0.40** (0.18)	−0.12 (0.18)	−0.10 (0.18)	940
Medical expenditure, children (USD)	0.96 (1.30)	0.14 (0.09)	0.24 (0.15)	−0.12 (0.15)	−0.09 (0.14)	852
Education expenditure (USD)	1.52 (1.13)	0.17*** (0.06)	0.03 (0.09)	0.06 (0.10)	0.24** (0.10)	940
Social expenditure (USD)	1.72 (0.93)	0.30*** (0.06)	−0.20* (0.11)	−0.05 (0.12)	0.23** (0.10)	940
Other expenditure (USD)	3.96 (0.79)	0.25*** (0.05)	−0.06 (0.07)	−0.08 (0.08)	0.39*** (0.07)	940
Non-durable expenditure	5.61 (0.55)	0.20*** (0.03)	−0.03 (0.05)	−0.01 (0.05)	0.18*** (0.05)	940
Joint test (<i>p</i> -value)		0.00***	0.13	0.43	0.00***	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 72: Consumption in Logs: Spillover Analysis

	Spillover Effects						Lee Bounds		Horowitz-Manski Bounds	
	(1) All HH Estimate	(2) All HH estimate	(3) Thatched estimate	(4) Thatched estimate	(5) Test (1)=(3) p-value	(6) Test (2)=(4) p-value	(7) Lower	(8) Upper	(9) Lower	(10) Upper
Includes controls	No	Yes	No	Yes	No	Yes	No	No	No	No
Food total	−0.03 (0.05)	−0.06 (0.04)	−0.03 (0.05)	−0.06 (0.05)	0.96	0.77	−0.05 (0.04)	−0.01 (0.04)	−0.04 (0.04)	−0.02 (0.04)
Food own production (USD)	−0.05 (0.08)	−0.10 (0.08)	−0.10 (0.09)	−0.16* (0.08)	0.02**	0.01**	−0.08 (0.07)	−0.03 (0.07)	−0.07 (0.07)	−0.03 (0.07)
Food bought (USD)	−0.04 (0.05)	−0.07 (0.05)	−0.03 (0.06)	−0.06 (0.05)	0.57	0.75	−0.06 (0.04)	−0.02 (0.04)	−0.05 (0.04)	−0.03 (0.04)
Cereals (USD)	−0.03 (0.13)	−0.04 (0.13)	−0.05 (0.13)	−0.06 (0.13)	0.54	0.34	−0.07 (0.08)	−0.02 (0.08)	−0.07 (0.08)	−0.02 (0.08)
Meat & fish (USD)	−0.06 (0.11)	−0.10 (0.11)	−0.04 (0.11)	−0.08 (0.11)	0.47	0.55	−0.09 (0.08)	−0.04 (0.08)	−0.09 (0.08)	−0.04 (0.08)
Fruit & vegetables (USD)	−0.01 (0.06)	−0.04 (0.06)	−0.01 (0.06)	−0.05 (0.05)	0.99	0.83	−0.04 (0.05)	0.01 (0.05)	−0.02 (0.05)	0.00 (0.05)
Dairy (USD)	−0.06 (0.11)	−0.09 (0.11)	−0.07 (0.12)	−0.10 (0.12)	0.78	0.67	−0.08 (0.10)	−0.03 (0.10)	−0.08 (0.10)	−0.04 (0.10)
Fats (USD)	−0.08 (0.07)	−0.09 (0.06)	−0.08 (0.07)	−0.10 (0.07)	0.58	0.52	−0.10* (0.06)	−0.06 (0.06)	−0.09* (0.05)	−0.06 (0.05)
Sugars (USD)	−0.09 (0.06)	−0.12* (0.06)	−0.09 (0.07)	−0.13* (0.06)	0.71	0.68	−0.12** (0.06)	−0.07 (0.06)	−0.11* (0.06)	−0.07 (0.06)
Other food (USD)	−0.07 (0.07)	−0.08 (0.07)	−0.07 (0.07)	−0.09 (0.07)	0.91	0.74	−0.09 (0.06)	−0.05 (0.05)	−0.08 (0.05)	−0.06 (0.05)
Alcohol (USD)	−0.15 (0.12)	−0.17 (0.12)	−0.10 (0.13)	−0.12 (0.13)	0.11	0.11	−0.16 (0.12)	−0.10 (0.12)	−0.15 (0.11)	−0.10 (0.11)
Tobacco (USD)	−0.00 (0.07)	−0.03 (0.08)	0.01 (0.08)	−0.02 (0.08)	0.65	0.62	−0.01 (0.08)	−0.00 (0.08)	−0.01 (0.07)	0.03 (0.07)
Medical expenditure past month (USD)	0.32*** (0.11)	0.30*** (0.11)	0.30*** (0.11)	0.26** (0.11)	0.49	0.36	0.31*** (0.10)	0.37*** (0.10)	0.31*** (0.10)	0.35*** (0.10)
Medical expenditure, children (USD)	0.28*** (0.10)	0.28*** (0.10)	0.26*** (0.10)	0.25*** (0.09)	0.55	0.47	0.27*** (0.08)	0.32*** (0.08)	0.27*** (0.09)	0.30*** (0.09)
Education expenditure (USD)	0.12 (0.10)	0.07 (0.07)	0.13 (0.10)	0.08 (0.07)	0.42	0.79	0.10 (0.08)	0.15* (0.08)	0.10 (0.08)	0.14* (0.08)
Social expenditure (USD)	−0.19*** (0.07)	−0.22*** (0.07)	−0.21*** (0.07)	−0.24*** (0.07)	0.44	0.40	−0.23*** (0.07)	−0.17*** (0.06)	−0.20*** (0.06)	−0.17*** (0.07)
Other expenditure (USD)	−0.10 (0.07)	−0.12* (0.06)	−0.11 (0.07)	−0.13* (0.07)	0.79	0.50	−0.13** (0.06)	−0.08 (0.06)	−0.12** (0.05)	−0.09* (0.05)
Non-durable expenditure	−0.04 (0.05)	−0.07 (0.04)	−0.04 (0.05)	−0.07 (0.04)	0.92	0.78	−0.06* (0.04)	−0.02 (0.03)	−0.05 (0.04)	−0.03 (0.04)
Joint test (p-value)	0.00***	0.00***	0.01**	0.03**						

Notes: OLS estimates of spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Columns (1) and (2) report the "naive" estimate of spillover effects, including spillover households that upgraded to metal roofs between baseline and endline. Column (3) and (4) report estimate of the spillover effect excluding metal roof households. Columns (1) and (3) exclude baseline covariates. Columns (2) and (4) include baseline covariates. Column (5) reports the p-value of the equality for the coefficient estimates in (1) and (3) after joint-estimation of the two models using SUR. Column (6) reports the p-value of the equality for the coefficient estimates in (2) and (4) after joint-estimation of the two models using SUR. The last row reports p-values on the joint-significance of all coefficients in a given column after joint-estimation using SUR. Columns (7) and (8) report the lower and upper Lee effect-size bounds adjusting for differential attrition generated by restricting to thatched roof households. This attrition is due to the higher rate of upgrade to metal roofs among spillover households and represents approximately 5 households or 10 individuals. Columns (9) and (10) report lower and upper Manski-Horowitz bounds, imputing outcomes for the 5 attriting households using the 95th and 5th percentile of observed outcomes respectively. In columns (1) through (4), standard errors clustered at the village level are reported in parentheses. In columns (7) through (10), bootstrapped standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 73: Consumption in Logs: Across Village Comparisons

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Food total (USD)	104.46 (58.50)	19.46*** (4.19)	14.39*** (5.29)	-3.89 (4.62)	1372
Food own production (USD)	13.64 (14.79)	2.40** (0.95)	0.85 (1.09)	-1.37 (1.15)	1372
Food bought (USD)	90.82 (52.77)	16.86*** (3.78)	13.55*** (4.98)	-2.52 (4.25)	1372
Cereals (USD)	22.55 (17.18)	2.23** (1.13)	2.16 (1.60)	0.19 (1.51)	1372
Meat & fish (USD)	12.97 (13.75)	5.05*** (1.01)	4.29*** (1.43)	-0.73 (1.18)	1372
Fruit & vegetables (USD)	23.50 (17.06)	3.47*** (1.15)	3.66*** (1.33)	0.23 (1.35)	1372
Dairy (USD)	7.26 (9.43)	1.68*** (0.64)	1.29 (0.83)	-0.28 (0.72)	1372
Fats (USD)	6.84 (5.51)	0.81** (0.36)	0.56 (0.45)	-0.08 (0.44)	1372
Sugars (USD)	11.25 (7.18)	1.05** (0.47)	0.53 (0.53)	-0.48 (0.53)	1372
Other food (USD)	42.42 (28.28)	5.91*** (1.92)	4.43 (2.68)	-1.04 (2.32)	1372
Alcohol (USD)	6.38 (16.56)	-0.93 (0.99)	-1.77 (1.15)	-0.78 (1.16)	1372
Tobacco (USD)	1.52 (4.13)	-0.15 (0.22)	-0.26 (0.26)	0.00 (0.28)	1372
Medical expenditure past month (USD)	6.78 (13.53)	2.58*** (0.99)	4.51*** (1.08)	1.84* (0.93)	1372
Medical expenditure, children (USD)	3.67 (8.96)	0.43 (0.62)	1.91*** (0.64)	1.41** (0.62)	1229
Education expenditure (USD)	4.71 (8.68)	1.08** (0.51)	0.85 (0.63)	0.25 (0.61)	1372
Social expenditure (USD)	4.36 (5.38)	2.43*** (0.48)	1.08* (0.57)	-1.36*** (0.44)	1372
Other expenditure (USD)	34.36 (24.62)	9.97*** (1.72)	6.04** (2.46)	-3.66 (2.25)	1372
Non-durable expenditure (USD)	157.61 (82.18)	35.66*** (5.85)	25.83*** (8.10)	-7.77 (7.20)	1372
Joint test (p -value)		0.00***	0.00***	0.05**	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 74: Consumption in Logs: Female vs. Male

	(1) Control mean (SD)	(2) Female recipient (within villages)	(3) Male recipient (within villages)	(4) Female vs. male recipient (within villages)	(5) Female recipient (across villages)	(6) Male recipient (across villages)	(7) N
Food total	5.18 (0.59)	0.19*** (0.05)	0.18*** (0.05)	0.01 (0.06)	0.08 (0.05)	0.09 (0.07)	1372
Food own production (USD)	2.82 (1.05)	0.27*** (0.09)	0.29*** (0.09)	-0.02 (0.10)	0.14 (0.10)	0.15 (0.10)	1372
Food bought (USD)	5.02 (0.66)	0.17*** (0.05)	0.17*** (0.05)	0.00 (0.06)	0.07 (0.06)	0.09 (0.07)	1372
Cereals (USD)	3.35 (1.23)	0.19** (0.10)	0.02 (0.11)	0.17 (0.12)	0.06 (0.12)	-0.11 (0.14)	1372
Meat & fish (USD)	2.69 (1.22)	0.36*** (0.10)	0.33*** (0.10)	0.03 (0.12)	0.29** (0.13)	0.29** (0.13)	1372
Fruit & vegetables (USD)	3.60 (0.77)	0.19*** (0.06)	0.14** (0.07)	0.05 (0.08)	0.10 (0.07)	0.06 (0.08)	1372
Dairy (USD)	1.79 (1.50)	0.33** (0.13)	0.39*** (0.13)	-0.05 (0.15)	0.15 (0.16)	0.21 (0.16)	1372
Fats (USD)	2.32 (0.84)	0.16** (0.07)	0.17** (0.07)	-0.01 (0.08)	-0.00 (0.07)	0.03 (0.08)	1372
Sugars (USD)	2.84 (0.90)	0.14** (0.07)	0.16** (0.07)	-0.02 (0.07)	-0.02 (0.07)	0.04 (0.06)	1372
Other food (USD)	4.18 (0.83)	0.17** (0.07)	0.15** (0.06)	0.02 (0.07)	0.04 (0.07)	0.03 (0.09)	1372
Alcohol (USD)	0.72 (1.56)	0.03 (0.13)	-0.12 (0.13)	0.15 (0.15)	-0.17 (0.17)	-0.28* (0.15)	1372
Tobacco (USD)	0.45 (1.04)	-0.05 (0.07)	-0.03 (0.07)	-0.02 (0.08)	-0.12 (0.08)	-0.10 (0.10)	1372
Medical expenditure past month (USD)	1.36 (1.55)	0.37** (0.15)	-0.02 (0.15)	0.39** (0.18)	0.74*** (0.17)	0.33** (0.16)	1372
Medical expenditure, children (USD)	0.96 (1.30)	0.18 (0.12)	-0.06 (0.13)	0.25* (0.15)	0.50*** (0.14)	0.25* (0.13)	1229
Education expenditure (USD)	1.52 (1.13)	0.25*** (0.09)	0.19** (0.08)	0.06 (0.10)	0.33*** (0.10)	0.26** (0.11)	1372
Social expenditure (USD)	1.72 (0.93)	0.25*** (0.09)	0.46*** (0.10)	-0.21* (0.11)	-0.02 (0.09)	0.22** (0.10)	1372
Other expenditure (USD)	3.96 (0.79)	0.29*** (0.06)	0.35*** (0.06)	-0.06 (0.07)	0.09 (0.07)	0.14* (0.08)	1372
Non-durable expenditure	5.61 (0.55)	0.22*** (0.05)	0.22*** (0.05)	-0.00 (0.05)	0.11** (0.05)	0.13** (0.06)	1372
Joint test (p -value)		0.00***	0.00***	0.39	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 75: Consumption in Logs: Monthly vs. lump-sum

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Food total	5.18 (0.59)	0.17*** (0.05)	0.12** (0.05)	0.05 (0.06)	0.12** (0.06)	0.09 (0.06)	1372
Food own production (USD)	2.82 (1.05)	0.30*** (0.09)	0.12 (0.08)	0.18* (0.10)	0.23** (0.10)	0.07 (0.10)	1372
Food bought (USD)	5.02 (0.66)	0.14*** (0.05)	0.14** (0.05)	0.00 (0.06)	0.10 (0.06)	0.09 (0.06)	1372
Cereals (USD)	3.35 (1.23)	0.14 (0.10)	0.10 (0.10)	0.04 (0.12)	0.10 (0.13)	0.05 (0.14)	1372
Meat & fish (USD)	2.69 (1.22)	0.24** (0.10)	0.33*** (0.11)	−0.08 (0.13)	0.20 (0.14)	0.28** (0.12)	1372
Fruit & vegetables (USD)	3.60 (0.77)	0.11* (0.06)	0.09 (0.07)	0.01 (0.08)	0.09 (0.07)	0.10 (0.07)	1372
Dairy (USD)	1.79 (1.50)	0.35*** (0.13)	0.21* (0.13)	0.15 (0.15)	0.27* (0.15)	0.13 (0.15)	1372
Fats (USD)	2.32 (0.84)	0.08 (0.07)	0.11 (0.07)	−0.03 (0.09)	−0.00 (0.08)	0.00 (0.08)	1372
Sugars (USD)	2.84 (0.90)	0.14** (0.07)	0.09 (0.07)	0.05 (0.08)	0.05 (0.07)	0.02 (0.07)	1372
Other food (USD)	4.18 (0.83)	0.15** (0.06)	0.12* (0.07)	0.03 (0.08)	0.07 (0.07)	0.03 (0.08)	1372
Alcohol (USD)	0.72 (1.56)	0.08 (0.13)	−0.04 (0.12)	0.12 (0.15)	−0.08 (0.15)	−0.20 (0.14)	1372
Tobacco (USD)	0.45 (1.04)	0.05 (0.07)	−0.05 (0.06)	0.10 (0.08)	−0.04 (0.09)	−0.01 (0.09)	1372
Medical expenditure past month (USD)	1.36 (1.55)	0.18 (0.15)	0.31** (0.14)	−0.13 (0.18)	0.57*** (0.16)	0.62*** (0.16)	1372
Medical expenditure, children (USD)	0.96 (1.30)	0.07 (0.12)	0.22* (0.12)	−0.14 (0.15)	0.35** (0.15)	0.47*** (0.14)	1229
Education expenditure (USD)	1.52 (1.13)	0.17** (0.08)	0.09 (0.09)	0.08 (0.10)	0.26** (0.11)	0.23** (0.10)	1372
Social expenditure (USD)	1.72 (0.93)	0.22** (0.10)	0.25*** (0.09)	−0.03 (0.12)	0.03 (0.10)	0.05 (0.09)	1372
Other expenditure (USD)	3.96 (0.79)	0.12* (0.06)	0.19*** (0.07)	−0.07 (0.08)	0.02 (0.08)	0.07 (0.10)	1372
Non-durable expenditure	5.61 (0.55)	0.16*** (0.05)	0.16*** (0.05)	0.00 (0.06)	0.10* (0.05)	0.11* (0.06)	1372
Joint test (p -value)		0.07*	0.04**	0.37	0.01***	0.01**	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 76: Consumption in Logs: Large vs. Small

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Food total	5.18 (0.59)	0.24*** (0.06)	0.14*** (0.04)	0.10 (0.06)	0.17*** (0.06)	0.10** (0.05)	1372
Food own production (USD)	2.82 (1.05)	0.26*** (0.10)	0.20*** (0.07)	0.06 (0.10)	0.17* (0.10)	0.15* (0.08)	1372
Food bought (USD)	5.02 (0.66)	0.23*** (0.06)	0.14*** (0.04)	0.10 (0.06)	0.19*** (0.06)	0.09* (0.05)	1372
Cereals (USD)	3.35 (1.23)	0.20* (0.11)	0.12 (0.08)	0.08 (0.11)	0.16 (0.14)	0.07 (0.12)	1372
Meat & fish (USD)	2.69 (1.22)	0.59*** (0.10)	0.29*** (0.08)	0.30*** (0.11)	0.49*** (0.12)	0.24** (0.11)	1372
Fruit & vegetables (USD)	3.60 (0.77)	0.22*** (0.07)	0.10* (0.05)	0.12 (0.08)	0.21*** (0.08)	0.10 (0.06)	1372
Dairy (USD)	1.79 (1.50)	0.23 (0.15)	0.28*** (0.10)	−0.04 (0.16)	0.15 (0.16)	0.20 (0.13)	1372
Fats (USD)	2.32 (0.84)	0.22*** (0.07)	0.10* (0.06)	0.12 (0.07)	0.12 (0.08)	−0.00 (0.07)	1372
Sugars (USD)	2.84 (0.90)	0.16* (0.08)	0.12** (0.06)	0.04 (0.09)	0.07 (0.08)	0.03 (0.06)	1372
Other food (USD)	4.18 (0.83)	0.21*** (0.07)	0.14** (0.05)	0.08 (0.07)	0.14* (0.08)	0.05 (0.07)	1372
Alcohol (USD)	0.72 (1.56)	−0.13 (0.12)	0.01 (0.10)	−0.15 (0.13)	−0.24 (0.18)	−0.15 (0.11)	1372
Tobacco (USD)	0.45 (1.04)	−0.06 (0.08)	−0.00 (0.05)	−0.06 (0.08)	−0.09 (0.10)	−0.03 (0.07)	1372
Medical expenditure past month (USD)	1.36 (1.55)	0.16 (0.17)	0.25** (0.11)	−0.09 (0.18)	0.47*** (0.15)	0.59*** (0.14)	1372
Medical expenditure, children (USD)	0.96 (1.30)	0.07 (0.14)	0.15 (0.10)	−0.08 (0.14)	0.32** (0.14)	0.41*** (0.12)	1229
Education expenditure (USD)	1.52 (1.13)	0.37*** (0.10)	0.12* (0.07)	0.25** (0.10)	0.35*** (0.13)	0.24*** (0.09)	1372
Social expenditure (USD)	1.72 (0.93)	0.45*** (0.10)	0.23*** (0.07)	0.22** (0.10)	0.25** (0.12)	0.04 (0.08)	1372
Other expenditure (USD)	3.96 (0.79)	0.53*** (0.07)	0.16*** (0.05)	0.37*** (0.07)	0.41*** (0.08)	0.05 (0.08)	1372
Non-durable expenditure	5.61 (0.55)	0.32*** (0.05)	0.16*** (0.04)	0.16*** (0.06)	0.24*** (0.06)	0.10** (0.05)	1372
Joint test (p -value)		0.00***	0.02**	0.00***	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the household. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.5 Agriculture and Business Income

18.5.1 Agriculture and Business Income in Levels

Table 77: Agricultural and Business Activities: Main Treatment Arms

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Wage labor primary income (dummy)	0.16 (0.37)	0.00 (0.02)	0.02 (0.04)	0.02 (0.04)	0.01 (0.04)	940
Own farm primary income (dummy)	0.56 (0.50)	-0.01 (0.03)	-0.00 (0.05)	-0.00 (0.05)	0.01 (0.05)	940
Non-ag business primary income (dummy)	0.12 (0.32)	0.02 (0.02)	-0.02 (0.04)	0.01 (0.04)	0.00 (0.04)	940
Non-agricultural business owner (dummy)	0.32 (0.47)	0.01 (0.03)	-0.02 (0.05)	0.08 (0.05)	0.01 (0.05)	940
Number of employees working in non-ag business	0.00 (0.00)	0.03*** (0.01)	0.00 (0.02)	-0.02 (0.02)	0.00 (0.02)	940
Non-ag business revenue, monthly (USD)	28.62 (86.25)	10.73* (5.65)	5.29 (10.23)	13.02 (10.72)	-0.96 (8.52)	940
Non-ag business flow expenses, monthly (USD)	16.61 (60.12)	9.81** (4.14)	6.46 (7.33)	10.27 (7.66)	-4.06 (6.05)	940
Non-ag business profit imputed, monthly (USD)	12.01 (44.10)	-0.61 (3.60)	-0.03 (6.60)	3.15 (7.81)	3.05 (5.34)	940
Non-ag business profit self-reported, monthly (USD)	8.26 (24.73)	1.78 (1.72)	0.22 (3.20)	1.47 (3.08)	0.05 (2.77)	940
Non-ag business investment in durables, monthly (USD)	0.17 (0.74)	0.23*** (0.08)	-0.16 (0.17)	0.01 (0.17)	-0.15 (0.13)	940
Farm revenue, monthly (USD)	9.66 (8.89)	0.24 (0.54)	-0.08 (0.89)	-0.01 (0.90)	-0.03 (0.83)	940
Farm flow expenses, monthly (USD)	5.01 (5.84)	1.46*** (0.35)	-0.63 (0.62)	-0.15 (0.59)	1.20* (0.66)	940
Farm profit, monthly (USD)	4.65 (7.47)	-1.18** (0.46)	0.44 (0.80)	0.16 (0.78)	-1.29* (0.77)	940
Livestock flow revenue, monthly (USD)	6.44 (14.04)	2.97*** (0.98)	1.18 (1.86)	3.64* (1.91)	-1.12 (1.51)	940
Livestock flow expenses, monthly (USD)	2.33 (4.64)	1.30*** (0.33)	-0.44 (0.63)	-0.76 (0.52)	2.39*** (0.66)	940
Livestock flow profit, monthly (USD)	4.11 (13.21)	1.63* (0.93)	1.40 (1.78)	4.20** (1.83)	-3.63*** (1.37)	940
Livestock sales and meat revenue, monthly (USD)	4.25 (8.40)	2.18*** (0.61)	-0.35 (1.20)	-0.15 (1.15)	-0.54 (1.07)	940
Total revenue, monthly (USD)	48.98 (90.52)	16.15*** (5.88)	5.41 (10.61)	16.33 (11.07)	-2.44 (8.87)	940
Total expenses, monthly (USD)	23.95 (61.71)	12.53*** (4.21)	5.42 (7.45)	9.41 (7.75)	-0.35 (6.23)	940
Total profit, monthly (USD)	20.78 (46.22)	-0.21 (3.68)	1.41 (6.68)	7.29 (7.92)	-2.02 (5.32)	940
Joint test (p -value)		0.00***	0.88	0.65	0.02**	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 78: Agricultural and Business Activities: Main Treatment Arms with Baseline Controls

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Wage labor primary income (dummy)	0.16 (0.37)	−0.00 (0.02)	0.01 (0.04)	0.02 (0.04)	0.01 (0.04)	940
Own farm primary income (dummy)	0.56 (0.50)	−0.01 (0.03)	0.00 (0.05)	−0.00 (0.05)	0.01 (0.05)	940
Non-ag business primary income (dummy)	0.12 (0.32)	0.02 (0.02)	−0.02 (0.04)	0.00 (0.04)	0.01 (0.04)	940
Non-agricultural business owner (dummy)	0.32 (0.47)	0.01 (0.03)	−0.02 (0.05)	0.09* (0.05)	0.02 (0.05)	940
Number of employees working in non-ag business	0.00 (0.00)	0.03*** (0.01)	0.00 (0.02)	−0.02 (0.02)	0.00 (0.02)	940
Non-ag business revenue, monthly (USD)	28.62 (86.25)	10.70* (5.68)	4.86 (9.90)	12.56 (10.36)	0.68 (8.62)	940
Non-ag business flow expenses, monthly (USD)	16.61 (60.12)	9.87** (4.10)	5.61 (7.12)	10.09 (7.46)	−2.46 (6.15)	940
Non-ag business profit imputed, monthly (USD)	12.01 (44.10)	−0.41 (3.64)	0.37 (6.57)	2.93 (7.80)	2.98 (5.28)	940
Non-ag business profit self-reported, monthly (USD)	8.26 (24.73)	1.64 (1.73)	0.31 (3.13)	1.43 (3.03)	0.49 (2.80)	940
Non-ag business investment in durables, monthly (USD)	0.17 (0.74)	0.23*** (0.08)	−0.17 (0.17)	0.00 (0.17)	−0.14 (0.13)	940
Farm revenue, monthly (USD)	9.66 (8.89)	0.20 (0.51)	−0.37 (0.89)	−0.04 (0.86)	0.11 (0.80)	940
Farm flow expenses, monthly (USD)	5.01 (5.84)	1.46*** (0.35)	−0.67 (0.63)	−0.15 (0.58)	1.35** (0.65)	940
Farm profit, monthly (USD)	4.65 (7.47)	−1.22*** (0.45)	0.27 (0.79)	0.13 (0.77)	−1.28* (0.76)	940
Livestock flow revenue, monthly (USD)	6.44 (14.04)	3.13*** (0.95)	0.77 (1.83)	3.18* (1.81)	−1.14 (1.49)	940
Livestock flow expenses, monthly (USD)	2.33 (4.64)	1.32*** (0.32)	−0.44 (0.63)	−0.81 (0.52)	2.44*** (0.65)	940
Livestock flow profit, monthly (USD)	4.11 (13.21)	1.80** (0.91)	1.19 (1.76)	3.95** (1.75)	−3.63*** (1.37)	940
Livestock sales and meat revenue, monthly (USD)	4.25 (8.40)	2.28*** (0.61)	−0.47 (1.20)	−0.30 (1.12)	−0.62 (1.05)	940
Total revenue, monthly (USD)	48.98 (90.52)	16.38*** (5.86)	4.68 (10.21)	15.43 (10.61)	−0.88 (8.92)	940
Total expenses, monthly (USD)	23.95 (61.71)	12.62*** (4.17)	4.55 (7.23)	9.16 (7.55)	1.33 (6.31)	940
Total profit, monthly (USD)	20.78 (46.22)	0.15 (3.70)	1.68 (6.66)	6.90 (7.90)	−2.03 (5.27)	940
Joint test (p -value)		0.00***	0.99	0.65	0.05**	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 79: Agricultural and Business Activities: Spillover Analysis

	Spillover Effects						Lee Bounds		Horowitz-Manski Bounds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	All HH Estimate	All HH estimate	Thatched estimate	Thatched estimate	Test (1)=(3) p-value	Test (2)=(4) p-value	Lower	Upper	Lower	Upper
Includes controls	No	Yes	No	Yes	No	Yes	No	No	No	No
Wage labor primary income (dummy)	-0.05 (0.03)	-0.04 (0.03)	-0.05 (0.03)	-0.04 (0.03)	0.68	0.70	-0.05* (0.03)	-0.04 (0.03)	-0.05* (0.03)	-0.04 (0.03)
Own farm primary income (dummy)	0.05 (0.04)	0.04 (0.04)	0.05 (0.05)	0.04 (0.05)	0.82	0.84	0.04 (0.04)	0.05 (0.04)	0.04 (0.03)	0.05 (0.03)
Non-ag business primary income (dummy)	0.02 (0.02)	0.02 (0.03)	0.01 (0.03)	0.01 (0.03)	0.46	0.39	0.01 (0.02)	0.02 (0.02)	0.01 (0.02)	0.02 (0.02)
Non-agricultural business owner (dummy)	0.01 (0.04)	0.02 (0.04)	0.01 (0.04)	0.01 (0.04)	0.42	0.30	0.01 (0.03)	0.02 (0.03)	0.01 (0.03)	0.02 (0.03)
Number of employees working in non-ag business	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	0.22	0.34	-0.01* (0.01)	0.00 (0.00)	-0.01 (0.01)	-0.01 (0.01)
Non-ag business revenue, monthly (USD)	-1.69 (5.93)	-0.43 (6.14)	-2.19 (5.67)	-1.36 (5.88)	0.85	0.74	-2.01 (6.19)	3.42 (6.28)	-1.99 (5.83)	-0.05 (5.88)
Non-ag business flow expenses, monthly (USD)	-0.97 (3.89)	-0.18 (3.96)	-0.73 (3.80)	-0.14 (3.91)	0.89	0.98	-1.16 (3.96)	2.45 (3.93)	-1.15 (3.82)	0.14 (3.85)
Non-ag business profit imputed, monthly (USD)	-0.71 (3.37)	-0.25 (3.46)	-1.46 (3.30)	-1.22 (3.33)	0.49	0.41	-1.47 (3.28)	2.23 (3.28)	-0.84 (3.05)	0.16 (3.07)
Non-ag business profit self-reported, monthly (USD)	1.63 (1.77)	1.94 (1.84)	1.70 (1.78)	1.92 (1.84)	0.93	0.98	1.56 (1.62)	2.83* (1.62)	1.54 (1.51)	2.05 (1.52)
Non-ag business investment in durables, monthly (USD)	-0.10* (0.06)	-0.11 (0.06)	-0.10 (0.07)	-0.11 (0.07)	0.98	0.85	-0.11 (0.08)	-0.01 (0.08)	-0.11 (0.07)	-0.10 (0.07)
Farm revenue, monthly (USD)	0.35 (0.73)	0.04 (0.69)	-0.21 (0.77)	-0.59 (0.74)	0.01***	0.00***	0.25 (0.53)	0.69 (0.54)	0.26 (0.56)	0.53 (0.57)
Farm flow expenses, monthly (USD)	-0.40 (0.58)	-0.49 (0.57)	-0.61 (0.60)	-0.74 (0.60)	0.08*	0.06*	-0.46 (0.40)	-0.15 (0.40)	-0.45 (0.41)	-0.25 (0.41)
Farm profit, monthly (USD)	0.75 (0.68)	0.53 (0.66)	0.41 (0.68)	0.15 (0.67)	0.04**	0.02**	0.52 (0.56)	1.06* (0.56)	0.64 (0.50)	0.90* (0.50)
Livestock flow revenue, monthly (USD)	-1.77* (1.00)	-2.35** (1.01)	-2.09** (1.04)	-2.71** (1.04)	0.31	0.26	-1.86* (1.06)	-0.90 (1.07)	-1.84* (1.01)	-1.43 (1.02)
Livestock flow expenses, monthly (USD)	-0.26 (0.36)	-0.33 (0.35)	-0.51 (0.36)	-0.61* (0.35)	0.04**	0.04**	-0.29 (0.32)	-0.03 (0.34)	-0.29 (0.31)	-0.15 (0.31)
Livestock flow profit, monthly (USD)	-1.51 (0.93)	-2.01** (0.97)	-1.57 (1.01)	-2.11** (1.03)	0.83	0.77	-1.77* (0.98)	-0.67 (1.00)	-1.63* (0.96)	-1.20 (0.96)
Livestock sales and meat revenue, monthly (USD)	-0.57 (0.59)	-0.90 (0.60)	-0.75 (0.57)	-1.12* (0.58)	0.28	0.20	-0.62 (0.55)	-0.13 (0.56)	-0.62 (0.56)	-0.37 (0.57)
Total revenue, monthly (USD)	-3.68 (6.18)	-3.64 (6.35)	-5.23 (5.84)	-5.78 (6.01)	0.56	0.45	-4.29 (6.04)	2.32 (6.06)	-4.18 (6.18)	-1.91 (6.22)
Total expenses, monthly (USD)	-1.63 (4.02)	-1.01 (4.05)	-1.85 (3.93)	-1.48 (4.02)	0.91	0.81	-1.91 (4.01)	2.22 (4.13)	-1.88 (3.94)	-0.51 (3.97)
Total profit, monthly (USD)	-1.47 (3.55)	-1.74 (3.68)	-2.63 (3.50)	-3.18 (3.58)	0.28	0.22	-2.32 (3.44)	1.98 (3.53)	-1.79 (3.27)	-0.61 (3.29)
Joint test (p-value)	0.18	0.12	0.13	0.03**						

Notes: OLS estimates of spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Columns (1) and (2) report the "naive" estimate of spillover effects, including spillover households that upgraded to metal roofs between baseline and endline. Column (3) and (4) report estimate of the spillover effect excluding metal roof households. Columns (1) and (3) exclude baseline covariates. Columns (2) and (4) include baseline covariates. Column (5) reports the p-value of the equality for the coefficient estimates in (1) and (3) after joint-estimation of the two models using SUR. Column (6) reports the p-value of the equality for the coefficient estimates in (2) and (4) after joint-estimation of the two models using SUR. The last row reports p-values on the joint-significance of all coefficients in a given column after joint-estimation using SUR. Columns (7) and (8) report the lower and upper Lee effect-size bounds adjusting for differential attrition generated by restricting to thatched roof households. This attrition is due to the higher rate of upgrade to metal roofs among spillover households and represents approximately 5 households or 10 individuals. Columns (9) and (10) report lower and upper Manski-Horowitz bounds, imputing outcomes for the 5 attriting households using the 95th and 5th percentile of observed outcomes respectively. In columns (1) through (4), standard errors clustered at the village level are reported in parentheses. In columns (7) through (10), bootstrapped standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 80: Agricultural and Business Activities: Across Village Comparisons

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Wage labor primary income (dummy)	0.16 (0.37)	0.00 (0.02)	−0.05 (0.03)	−0.05 (0.03)	1372
Own farm primary income (dummy)	0.56 (0.50)	−0.01 (0.03)	0.04 (0.05)	0.05 (0.04)	1372
Non-ag business primary income (dummy)	0.12 (0.32)	0.02 (0.02)	0.03 (0.02)	0.02 (0.02)	1372
Non-agricultural business owner (dummy)	0.32 (0.47)	0.01 (0.03)	0.03 (0.03)	0.01 (0.04)	1372
Number of employees working in non-ag business	0.00 (0.00)	0.03*** (0.01)	0.02 (0.01)	−0.01 (0.01)	1372
Non-ag business revenue, monthly (USD)	28.62 (86.25)	10.73* (5.65)	6.31 (6.50)	−1.69 (5.93)	1372
Non-ag business flow expenses, monthly (USD)	16.61 (60.12)	9.81** (4.14)	8.28* (4.43)	−0.97 (3.90)	1372
Non-ag business profit imputed, monthly (USD)	12.01 (44.10)	−0.61 (3.60)	−1.97 (3.76)	−0.71 (3.37)	1372
Non-ag business profit self-reported, monthly (USD)	8.26 (24.73)	1.78 (1.72)	3.37* (1.90)	1.63 (1.77)	1372
Non-ag business investment in durables, monthly (USD)	0.17 (0.74)	0.23*** (0.08)	0.17** (0.08)	−0.10* (0.06)	1372
Farm revenue, monthly (USD)	9.66 (8.89)	0.24 (0.54)	0.60 (0.66)	0.35 (0.73)	1372
Farm flow expenses, monthly (USD)	5.01 (5.84)	1.46*** (0.35)	0.99* (0.59)	−0.40 (0.58)	1372
Farm profit, monthly (USD)	4.65 (7.47)	−1.18** (0.46)	−0.39 (0.64)	0.75 (0.68)	1372
Livestock flow revenue, monthly (USD)	6.44 (14.04)	2.97*** (0.98)	0.98 (1.05)	−1.77* (1.00)	1372
Livestock flow expenses, monthly (USD)	2.33 (4.64)	1.30*** (0.33)	1.00** (0.39)	−0.26 (0.36)	1372
Livestock flow profit, monthly (USD)	4.11 (13.21)	1.63* (0.93)	−0.02 (1.03)	−1.51 (0.93)	1372
Livestock sales and meat revenue, monthly (USD)	4.25 (8.40)	2.18*** (0.61)	1.49** (0.65)	−0.57 (0.59)	1372
Total revenue, monthly (USD)	48.98 (90.52)	16.15*** (5.88)	9.37 (6.71)	−3.68 (6.18)	1372
Total expenses, monthly (USD)	23.95 (61.71)	12.53*** (4.21)	10.26** (4.61)	−1.63 (4.02)	1372
Total profit, monthly (USD)	20.78 (46.22)	−0.21 (3.68)	−2.38 (3.80)	−1.47 (3.55)	1372
Joint test (<i>p</i> -value)		0.00***	0.02**	0.18	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 81: Agricultural and Business Activities: Female vs. Male

	(1) Control mean (SD)	(2) Female recipient (within villages)	(3) Male recipient (within villages)	(4) Female vs. male recipient (within villages)	(5) Female recipient (across villages)	(6) Male recipient (across villages)	(7) N
Wage labor primary income (dummy)	0.16 (0.37)	0.00 (0.03)	-0.01 (0.03)	0.02 (0.04)	-0.02 (0.04)	-0.06 (0.04)	1372
Own farm primary income (dummy)	0.56 (0.50)	-0.02 (0.04)	-0.02 (0.04)	-0.00 (0.05)	0.03 (0.05)	0.04 (0.06)	1372
Non-ag business primary income (dummy)	0.12 (0.32)	0.02 (0.03)	0.04 (0.03)	-0.02 (0.04)	0.02 (0.03)	0.04 (0.03)	1372
Non-agricultural business owner (dummy)	0.32 (0.47)	0.00 (0.04)	0.02 (0.04)	-0.02 (0.05)	0.02 (0.05)	0.06 (0.04)	1372
Number of employees working in non-ag business	0.00 (0.00)	0.03* (0.02)	0.03** (0.02)	0.00 (0.02)	0.02 (0.02)	0.03 (0.02)	1372
Non-ag business revenue, monthly (USD)	28.62 (86.25)	16.95** (8.39)	11.68 (8.11)	5.29 (10.23)	4.84 (9.39)	6.23 (7.97)	1372
Non-ag business flow expenses, monthly (USD)	16.61 (60.12)	14.43** (5.82)	7.99 (5.80)	6.46 (7.33)	7.16 (6.18)	6.98 (6.40)	1372
Non-ag business profit imputed, monthly (USD)	12.01 (44.10)	1.91 (4.91)	1.95 (5.56)	-0.03 (6.60)	-2.32 (4.68)	-0.75 (5.43)	1372
Non-ag business profit self-reported, monthly (USD)	8.26 (24.73)	3.09 (2.60)	2.87 (2.64)	0.22 (3.20)	3.84 (2.61)	4.87** (2.39)	1372
Non-ag business investment in durables, monthly (USD)	0.17 (0.74)	0.16 (0.11)	0.32** (0.14)	-0.16 (0.17)	0.11 (0.13)	0.26* (0.14)	1372
Farm revenue, monthly (USD)	9.66 (8.89)	0.66 (0.78)	0.74 (0.76)	-0.08 (0.89)	0.63 (0.85)	0.67 (1.07)	1372
Farm flow expenses, monthly (USD)	5.01 (5.84)	1.53*** (0.47)	2.16*** (0.55)	-0.63 (0.62)	0.64 (0.66)	1.49* (0.80)	1372
Farm profit, monthly (USD)	4.65 (7.47)	-0.83 (0.66)	-1.28* (0.68)	0.44 (0.80)	-0.01 (0.81)	-0.82 (0.92)	1372
Livestock flow revenue, monthly (USD)	6.44 (14.04)	3.82** (1.52)	2.64* (1.49)	1.18 (1.86)	1.46 (1.63)	0.59 (1.65)	1372
Livestock flow expenses, monthly (USD)	2.33 (4.64)	1.28** (0.51)	1.72*** (0.50)	-0.44 (0.63)	0.91 (0.58)	1.25** (0.57)	1372
Livestock flow profit, monthly (USD)	4.11 (13.21)	2.39 (1.45)	0.99 (1.42)	1.40 (1.78)	0.54 (1.59)	-0.66 (1.55)	1372
Livestock sales and meat revenue, monthly (USD)	4.25 (8.40)	2.34*** (0.90)	2.70*** (0.98)	-0.35 (1.20)	1.40 (0.91)	2.07* (1.14)	1372
Total revenue, monthly (USD)	48.98 (90.52)	23.47*** (8.66)	18.06** (8.56)	5.41 (10.61)	8.33 (9.52)	9.56 (8.57)	1372
Total expenses, monthly (USD)	23.95 (61.71)	17.18*** (5.88)	11.77** (5.97)	5.42 (7.45)	8.72 (6.53)	9.73 (6.61)	1372
Total profit, monthly (USD)	20.78 (46.22)	3.22 (5.08)	1.82 (5.63)	1.41 (6.68)	-1.79 (4.67)	-2.24 (5.70)	1372
Joint test (p-value)		0.00***	0.01***	0.88	0.34	0.07*	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 82: Agricultural and Business Activities: Monthly vs. lump-sum

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Wage labor primary income (dummy)	0.16 (0.37)	0.01 (0.03)	−0.01 (0.03)	0.02 (0.04)	−0.03 (0.04)	−0.06 (0.04)	1372
Own farm primary income (dummy)	0.56 (0.50)	−0.02 (0.05)	−0.02 (0.04)	−0.00 (0.05)	0.01 (0.05)	0.04 (0.06)	1372
Non-ag business primary income (dummy)	0.12 (0.32)	0.03 (0.03)	0.02 (0.03)	0.01 (0.04)	0.05 (0.03)	0.03 (0.03)	1372
Non-agricultural business owner (dummy)	0.32 (0.47)	0.05 (0.04)	−0.03 (0.04)	0.08 (0.05)	0.09* (0.05)	−0.01 (0.04)	1372
Number of employees working in non-ag business	0.00 (0.00)	0.02 (0.01)	0.03** (0.02)	−0.02 (0.02)	0.01 (0.01)	0.02 (0.02)	1372
Non-ag business revenue, monthly (USD)	28.62 (86.25)	17.98* (9.26)	4.96 (7.24)	13.02 (10.72)	15.96* (9.57)	0.08 (7.31)	1372
Non-ag business flow expenses, monthly (USD)	16.61 (60.12)	16.41** (6.54)	6.15 (5.37)	10.27 (7.66)	16.00** (6.66)	4.98 (5.55)	1372
Non-ag business profit imputed, monthly (USD)	12.01 (44.10)	0.27 (5.68)	−2.88 (5.80)	3.15 (7.81)	−0.03 (5.17)	−4.90 (5.95)	1372
Non-ag business profit self-reported, monthly (USD)	8.26 (24.73)	2.55 (2.53)	1.08 (2.37)	1.47 (3.08)	4.88 (2.96)	2.31 (2.18)	1372
Non-ag business investment in durables, monthly (USD)	0.17 (0.74)	0.27** (0.13)	0.27** (0.13)	0.01 (0.17)	0.21 (0.13)	0.21* (0.12)	1372
Farm revenue, monthly (USD)	9.66 (8.89)	0.24 (0.73)	0.26 (0.75)	−0.01 (0.90)	0.42 (0.84)	0.53 (0.82)	1372
Farm flow expenses, monthly (USD)	5.01 (5.84)	1.06** (0.47)	1.20** (0.47)	−0.15 (0.59)	0.27 (0.68)	0.68 (0.64)	1372
Farm profit, monthly (USD)	4.65 (7.47)	−0.75 (0.63)	−0.91 (0.64)	0.16 (0.78)	0.15 (0.76)	−0.15 (0.82)	1372
Livestock flow revenue, monthly (USD)	6.44 (14.04)	5.22*** (1.66)	1.59 (1.24)	3.64* (1.91)	2.92* (1.71)	0.08 (1.38)	1372
Livestock flow expenses, monthly (USD)	2.33 (4.64)	0.26 (0.40)	1.01** (0.44)	−0.76 (0.52)	−0.03 (0.44)	0.68 (0.46)	1372
Livestock flow profit, monthly (USD)	4.11 (13.21)	4.86*** (1.58)	0.65 (1.21)	4.20** (1.83)	2.95* (1.66)	−0.60 (1.38)	1372
Livestock sales and meat revenue, monthly (USD)	4.25 (8.40)	2.25*** (0.85)	2.40*** (0.93)	−0.15 (1.15)	1.51* (0.86)	1.82* (0.96)	1372
Total revenue, monthly (USD)	48.98 (90.52)	25.58*** (9.53)	9.25 (7.55)	16.33 (11.07)	20.81** (10.10)	2.52 (7.62)	1372
Total expenses, monthly (USD)	23.95 (61.71)	17.67*** (6.59)	8.26 (5.48)	9.41 (7.75)	16.23** (6.93)	6.34 (5.70)	1372
Total profit, monthly (USD)	20.78 (46.22)	4.24 (5.85)	−3.04 (5.85)	7.29 (7.92)	3.06 (5.50)	−5.64 (5.97)	1372
Joint test (p-value)		0.04**	0.10	0.65	0.37	0.28	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 83: Agricultural and Business Activities: Large vs. Small

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Wage labor primary income (dummy)	0.16 (0.37)	0.01 (0.04)	−0.00 (0.03)	0.01 (0.04)	−0.04 (0.04)	−0.05 (0.03)	1372
Own farm primary income (dummy)	0.56 (0.50)	−0.01 (0.05)	−0.02 (0.03)	0.01 (0.05)	0.06 (0.06)	0.03 (0.05)	1372
Non-ag business primary income (dummy)	0.12 (0.32)	0.02 (0.03)	0.02 (0.02)	0.00 (0.04)	0.02 (0.04)	0.04 (0.03)	1372
Non-agricultural business owner (dummy)	0.32 (0.47)	0.02 (0.04)	0.01 (0.03)	0.01 (0.05)	0.03 (0.05)	0.03 (0.04)	1372
Number of employees working in non-ag business	0.00 (0.00)	0.03 (0.02)	0.03** (0.01)	0.00 (0.02)	0.02 (0.03)	0.02 (0.01)	1372
Non-ag business revenue, monthly (USD)	28.62 (86.25)	10.03 (8.07)	10.98* (6.27)	−0.96 (8.52)	3.25 (8.77)	7.44 (7.75)	1372
Non-ag business flow expenses, monthly (USD)	16.61 (60.12)	6.84 (5.84)	10.90** (4.56)	−4.06 (6.05)	3.43 (6.31)	10.09* (5.17)	1372
Non-ag business profit imputed, monthly (USD)	12.01 (44.10)	1.63 (4.51)	−1.42 (4.23)	3.05 (5.34)	−0.18 (4.82)	−2.64 (4.51)	1372
Non-ag business profit self-reported, monthly (USD)	8.26 (24.73)	1.82 (2.62)	1.76 (1.90)	0.05 (2.77)	3.00 (2.92)	3.50 (2.20)	1372
Non-ag business investment in durables, monthly (USD)	0.17 (0.74)	0.12 (0.10)	0.27*** (0.10)	−0.15 (0.13)	0.05 (0.14)	0.21** (0.09)	1372
Farm revenue, monthly (USD)	9.66 (8.89)	0.23 (0.79)	0.25 (0.59)	−0.03 (0.83)	0.92 (0.93)	0.48 (0.69)	1372
Farm flow expenses, monthly (USD)	5.01 (5.84)	2.34*** (0.64)	1.14*** (0.37)	1.20* (0.66)	2.32*** (0.87)	0.49 (0.60)	1372
Farm profit, monthly (USD)	4.65 (7.47)	−2.12*** (0.74)	−0.83* (0.50)	−1.29* (0.77)	−1.40 (0.85)	−0.01 (0.67)	1372
Livestock flow revenue, monthly (USD)	6.44 (14.04)	2.15 (1.41)	3.27*** (1.10)	−1.12 (1.51)	−0.14 (1.39)	1.40 (1.22)	1372
Livestock flow expenses, monthly (USD)	2.33 (4.64)	3.06*** (0.64)	0.66** (0.33)	2.39*** (0.66)	2.72*** (0.72)	0.35 (0.38)	1372
Livestock flow profit, monthly (USD)	4.11 (13.21)	−1.03 (1.25)	2.60** (1.05)	−3.63*** (1.37)	−2.87** (1.25)	1.05 (1.20)	1372
Livestock sales and meat revenue, monthly (USD)	4.25 (8.40)	1.79* (0.98)	2.33*** (0.68)	−0.54 (1.07)	0.98 (0.97)	1.68** (0.76)	1372
Total revenue, monthly (USD)	48.98 (90.52)	14.36* (8.44)	16.81*** (6.50)	−2.44 (8.87)	5.01 (9.25)	11.00 (7.93)	1372
Total expenses, monthly (USD)	23.95 (61.71)	12.28** (6.04)	12.62*** (4.62)	−0.35 (6.23)	8.47 (6.71)	10.93** (5.41)	1372
Total profit, monthly (USD)	20.78 (46.22)	−1.69 (4.50)	0.33 (4.32)	−2.02 (5.32)	−4.44 (4.98)	−1.61 (4.41)	1372
Joint test (p-value)		0.00***	0.00***	0.02**	0.00***	0.20	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the household. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.5.2 Agriculture and Business Income : Logs

Table 84: Agricultural and Business Activities in Logs: Main Treatment Arms

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Non-ag business revenue, monthly (USD)	1.25 (2.15)	0.24* (0.14)	0.02 (0.24)	0.26 (0.24)	0.09 (0.23)	940
Non-ag business flow expenses, monthly (USD)	0.91 (1.81)	0.34*** (0.12)	-0.01 (0.22)	0.45** (0.22)	0.00 (0.20)	940
Non-ag business profit imputed, monthly (USD)	0.79 (2.08)	-0.04 (0.14)	0.02 (0.25)	0.09 (0.26)	0.27 (0.23)	940
Non-ag business profit self-reported, monthly (USD)	0.88 (1.62)	0.08 (0.10)	-0.02 (0.18)	0.14 (0.18)	0.04 (0.16)	940
Non-ag business investment in durables, monthly (USD)	0.12 (0.35)	0.09*** (0.03)	-0.10 (0.07)	-0.01 (0.07)	-0.05 (0.05)	940
Farm revenue, monthly (USD)	2.57 (0.96)	0.08 (0.05)	-0.00 (0.08)	0.01 (0.09)	0.01 (0.09)	940
Farm flow expenses, monthly (USD)	1.82 (1.02)	0.30*** (0.06)	-0.03 (0.09)	-0.00 (0.09)	0.09 (0.10)	940
Farm profit, monthly (USD)	1.37 (1.84)	-0.33*** (0.12)	0.15 (0.20)	0.13 (0.20)	-0.38* (0.21)	940
Livestock flow revenue, monthly (USD)	1.28 (1.51)	0.43*** (0.10)	-0.01 (0.17)	0.21 (0.17)	0.05 (0.17)	940
Livestock flow expenses, monthly (USD)	0.82 (1.16)	0.35*** (0.08)	-0.14 (0.14)	-0.10 (0.13)	0.49*** (0.14)	940
Livestock flow profit, monthly (USD)	0.63 (1.94)	0.15 (0.14)	0.26 (0.24)	0.36 (0.23)	-0.56** (0.24)	940
Livestock sales and meat revenue, monthly (USD)	1.19 (1.33)	0.36*** (0.09)	-0.11 (0.15)	0.06 (0.15)	-0.07 (0.15)	940
Total revenue, monthly (USD)	3.66 (1.37)	0.32*** (0.08)	0.08 (0.13)	0.20 (0.14)	0.11 (0.13)	940
Total expenses, monthly (USD)	2.62 (1.46)	0.45*** (0.09)	0.03 (0.15)	0.24 (0.16)	0.17 (0.14)	940
Total profit, monthly (USD)	2.19 (2.45)	-0.24 (0.17)	0.20 (0.30)	0.23 (0.30)	-0.50* (0.30)	940
Joint test (p -value)		0.00***	0.46	0.64	0.00***	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 85: Agricultural and Business Activities in Logs: Main Treatment Arms with Baseline Controls

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Non-ag business revenue, monthly (USD)	1.25 (2.15)	0.24* (0.14)	0.00 (0.24)	0.28 (0.24)	0.10 (0.23)	940
Non-ag business flow expenses, monthly (USD)	0.91 (1.81)	0.35*** (0.12)	-0.02 (0.22)	0.48** (0.22)	0.04 (0.21)	940
Non-ag business profit imputed, monthly (USD)	0.79 (2.08)	-0.06 (0.14)	-0.00 (0.25)	0.08 (0.26)	0.26 (0.23)	940
Non-ag business profit self-reported, monthly (USD)	0.88 (1.62)	0.07 (0.10)	-0.04 (0.18)	0.16 (0.17)	0.05 (0.17)	940
Non-ag business investment in durables, monthly (USD)	0.12 (0.35)	0.10*** (0.03)	-0.10 (0.06)	-0.01 (0.06)	-0.04 (0.05)	940
Farm revenue, monthly (USD)	2.57 (0.96)	0.07 (0.05)	-0.04 (0.08)	0.01 (0.08)	0.02 (0.08)	940
Farm flow expenses, monthly (USD)	1.82 (1.02)	0.31*** (0.06)	-0.03 (0.09)	0.00 (0.09)	0.12 (0.10)	940
Farm profit, monthly (USD)	1.37 (1.84)	-0.36*** (0.11)	0.08 (0.20)	0.11 (0.19)	-0.39** (0.20)	940
Livestock flow revenue, monthly (USD)	1.28 (1.51)	0.44*** (0.10)	-0.02 (0.17)	0.17 (0.17)	0.03 (0.17)	940
Livestock flow expenses, monthly (USD)	0.82 (1.16)	0.35*** (0.08)	-0.15 (0.14)	-0.11 (0.13)	0.50*** (0.14)	940
Livestock flow profit, monthly (USD)	0.63 (1.94)	0.18 (0.13)	0.26 (0.24)	0.34 (0.23)	-0.56** (0.24)	940
Livestock sales and meat revenue, monthly (USD)	1.19 (1.33)	0.38*** (0.09)	-0.10 (0.15)	0.05 (0.15)	-0.09 (0.15)	940
Total revenue, monthly (USD)	3.66 (1.37)	0.32*** (0.08)	0.04 (0.13)	0.18 (0.13)	0.11 (0.13)	940
Total expenses, monthly (USD)	2.62 (1.46)	0.46*** (0.09)	0.02 (0.14)	0.27* (0.15)	0.22 (0.14)	940
Total profit, monthly (USD)	2.19 (2.45)	-0.25 (0.17)	0.13 (0.30)	0.18 (0.30)	-0.49* (0.30)	940
Joint test (p -value)		0.00***	0.48	0.49	0.00***	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 86: Agricultural and Business Activities in Logs: Spillover Analysis

	Spillover Effects						Lee Bounds		Horowitz-Manski Bounds	
	(1) All HH Estimate	(2) All HH estimate	(3) Thatched estimate	(4) Thatched estimate	(5) Test (1)=(3) <i>p</i> -value	(6) Test (2)=(4) <i>p</i> -value	(7) Lower	(8) Upper	(9) Lower	(10) Upper
Includes controls	No	Yes	No	Yes	No	Yes	No	No	No	No
Non-ag business revenue, monthly (USD)	0.05 (0.17)	0.08 (0.17)	−0.00 (0.17)	0.01 (0.17)	0.38	0.29	0.04 (0.13)	0.13 (0.14)	0.04 (0.14)	0.10 (0.14)
Non-ag business flow expenses, monthly (USD)	−0.05 (0.14)	−0.01 (0.14)	−0.11 (0.14)	−0.08 (0.14)	0.28	0.21	−0.06 (0.13)	0.01 (0.13)	−0.06 (0.12)	0.00 (0.12)
Non-ag business profit imputed, monthly (USD)	0.09 (0.17)	0.10 (0.17)	0.07 (0.17)	0.07 (0.17)	0.73	0.62	0.03 (0.13)	0.15 (0.13)	0.08 (0.14)	0.14 (0.14)
Non-ag business profit self-reported, monthly (USD)	0.13 (0.13)	0.15 (0.13)	0.13 (0.13)	0.14 (0.13)	0.97	0.84	0.12 (0.10)	0.18* (0.10)	0.12 (0.10)	0.17 (0.11)
Non-ag business investment in durables, monthly (USD)	−0.03 (0.03)	−0.04 (0.03)	−0.04 (0.03)	−0.04 (0.03)	0.96	0.82	−0.04 (0.02)	−0.02 (0.03)	−0.04 (0.03)	−0.03 (0.03)
Farm revenue, monthly (USD)	0.03 (0.09)	−0.01 (0.08)	−0.03 (0.09)	−0.07 (0.09)	0.01**	0.01***	−0.00 (0.07)	0.05 (0.07)	0.01 (0.06)	0.04 (0.06)
Farm flow expenses, monthly (USD)	−0.02 (0.10)	−0.04 (0.10)	−0.05 (0.10)	−0.08 (0.10)	0.09*	0.06*	−0.04 (0.06)	0.00 (0.07)	−0.04 (0.07)	−0.00 (0.07)
Farm profit, monthly (USD)	0.19 (0.17)	0.15 (0.17)	0.11 (0.18)	0.07 (0.18)	0.07*	0.05**	0.13 (0.12)	0.22* (0.12)	0.15 (0.13)	0.21* (0.13)
Livestock flow revenue, monthly (USD)	−0.18* (0.10)	−0.25** (0.10)	−0.20* (0.11)	−0.27** (0.11)	0.51	0.42	−0.20* (0.12)	−0.14 (0.12)	−0.19* (0.10)	−0.15 (0.11)
Livestock flow expenses, monthly (USD)	−0.08 (0.10)	−0.11 (0.10)	−0.12 (0.10)	−0.15 (0.10)	0.15	0.12	−0.09 (0.08)	−0.05 (0.08)	−0.09 (0.08)	−0.05 (0.08)
Livestock flow profit, monthly (USD)	−0.21 (0.13)	−0.26** (0.13)	−0.19 (0.13)	−0.24* (0.13)	0.71	0.66	−0.26* (0.14)	−0.16 (0.15)	−0.24* (0.13)	−0.17 (0.13)
Livestock sales and meat revenue, monthly (USD)	−0.09 (0.10)	−0.15 (0.10)	−0.13 (0.11)	−0.19* (0.11)	0.16	0.12	−0.11 (0.09)	−0.06 (0.09)	−0.10 (0.09)	−0.06 (0.09)
Total revenue, monthly (USD)	−0.01 (0.10)	−0.04 (0.10)	−0.08 (0.11)	−0.12 (0.10)	0.03**	0.02**	−0.04 (0.09)	0.03 (0.09)	−0.04 (0.09)	0.01 (0.09)
Total expenses, monthly (USD)	−0.06 (0.11)	−0.07 (0.11)	−0.11 (0.12)	−0.13 (0.11)	0.15	0.10*	−0.09 (0.10)	−0.02 (0.10)	−0.09 (0.10)	−0.03 (0.10)
Total profit, monthly (USD)	0.17 (0.19)	0.12 (0.19)	0.10 (0.20)	0.03 (0.20)	0.16	0.12	0.10 (0.18)	0.22 (0.18)	0.12 (0.17)	0.21 (0.17)
Joint test (<i>p</i> -value)	0.07*	0.07*	0.04**	0.03**						

Notes: OLS estimates of spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Columns (1) and (2) report the "naive" estimate of spillover effects, including spillover households that upgraded to metal roofs between baseline and endline. Column (3) and (4) report estimate of the spillover effect excluding metal roof households. Columns (1) and (3) exclude baseline covariates. Columns (2) and (4) include baseline covariates. Column (5) reports the *p*-value of the equality for the coefficient estimates in (1) and (3) after joint-estimation of the two models using SUR. Column (6) reports the *p*-value of the equality for the coefficient estimates in (2) and (4) after joint-estimation of the two models using SUR. The last row reports *p*-values on the joint-significance of all coefficients in a given column after joint-estimation using SUR. Columns (7) and (8) report the lower and upper Lee effect-size bounds adjusting for differential attrition generated by restricting to thatched roof households. This attrition is due to the higher rate of upgrade to metal roofs among spillover households and represents approximately 5 households or 10 individuals. Columns (9) and (10) report lower and upper Manski-Horowitz bounds, imputing outcomes for the 5 attriting households using the 95th and 5th percentile of observed outcomes respectively. In columns (1) through (4), standard errors clustered at the village level are reported in parentheses. In columns (7) through (10), bootstrapped standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 87: Agricultural and Business Activities in Logs: Across Village Comparisons

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Non-ag business revenue, monthly (USD)	1.25 (2.15)	0.24* (0.14)	0.25 (0.16)	0.05 (0.17)	1372
Non-ag business flow expenses, monthly (USD)	0.91 (1.81)	0.34*** (0.12)	0.29* (0.15)	-0.05 (0.14)	1372
Non-ag business profit imputed, monthly (USD)	0.79 (2.08)	-0.04 (0.14)	0.03 (0.15)	0.09 (0.17)	1372
Non-ag business profit self-reported, monthly (USD)	0.88 (1.62)	0.08 (0.10)	0.19 (0.13)	0.13 (0.13)	1372
Non-ag business investment in durables, monthly (USD)	0.12 (0.35)	0.09*** (0.03)	0.07** (0.03)	-0.03 (0.03)	1372
Farm revenue, monthly (USD)	2.57 (0.96)	0.08 (0.05)	0.10 (0.08)	0.03 (0.09)	1372
Farm flow expenses, monthly (USD)	1.82 (1.02)	0.30*** (0.06)	0.26*** (0.10)	-0.02 (0.10)	1372
Farm profit, monthly (USD)	1.37 (1.84)	-0.33*** (0.12)	-0.13 (0.17)	0.19 (0.17)	1372
Livestock flow revenue, monthly (USD)	1.28 (1.51)	0.43*** (0.10)	0.22** (0.10)	-0.18* (0.10)	1372
Livestock flow expenses, monthly (USD)	0.82 (1.16)	0.35*** (0.08)	0.26** (0.10)	-0.08 (0.10)	1372
Livestock flow profit, monthly (USD)	0.63 (1.94)	0.15 (0.14)	-0.07 (0.15)	-0.21 (0.13)	1372
Livestock sales and meat revenue, monthly (USD)	1.19 (1.33)	0.36*** (0.09)	0.25** (0.10)	-0.09 (0.10)	1372
Total revenue, monthly (USD)	3.66 (1.37)	0.32*** (0.08)	0.27*** (0.10)	-0.01 (0.10)	1372
Total expenses, monthly (USD)	2.62 (1.46)	0.45*** (0.09)	0.38*** (0.12)	-0.06 (0.11)	1372
Total profit, monthly (USD)	2.19 (2.45)	-0.24 (0.17)	-0.06 (0.19)	0.17 (0.19)	1372
Joint test (p-value)		0.00***	0.02**	0.07*	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 88: Agricultural and Business Activities in Logs: Female vs. Male

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Wage labor primary income (dummy)	0.16 (0.37)	0.01 (0.03)	−0.01 (0.03)	0.02 (0.04)	−0.03 (0.04)	−0.06 (0.04)	1372
Own farm primary income (dummy)	0.56 (0.50)	−0.02 (0.05)	−0.02 (0.04)	−0.00 (0.05)	0.01 (0.05)	0.04 (0.06)	1372
Non-ag business primary income (dummy)	0.12 (0.32)	0.03 (0.03)	0.02 (0.03)	0.01 (0.04)	0.05 (0.03)	0.03 (0.03)	1372
Non-agricultural business owner (dummy)	0.32 (0.47)	0.05 (0.04)	−0.03 (0.04)	0.08 (0.05)	0.09* (0.05)	−0.01 (0.04)	1372
Number of employees working in non-ag business	0.00 (0.00)	0.02 (0.01)	0.03** (0.02)	−0.02 (0.02)	0.01 (0.01)	0.02 (0.02)	1372
Non-ag business revenue, monthly (USD)	28.62 (86.25)	17.98* (9.26)	4.96 (7.24)	13.02 (10.72)	15.96* (9.57)	0.08 (7.31)	1372
Non-ag business flow expenses, monthly (USD)	16.61 (60.12)	16.41** (6.54)	6.15 (5.37)	10.27 (7.66)	16.00** (6.66)	4.98 (5.55)	1372
Non-ag business profit imputed, monthly (USD)	12.01 (44.10)	0.27 (5.68)	−2.88 (5.80)	3.15 (7.81)	−0.03 (5.17)	−4.90 (5.95)	1372
Non-ag business profit self-reported, monthly (USD)	8.26 (24.73)	2.55 (2.53)	1.08 (2.37)	1.47 (3.08)	4.88 (2.96)	2.31 (2.18)	1372
Non-ag business investment in durables, monthly (USD)	0.17 (0.74)	0.27** (0.13)	0.27** (0.13)	0.01 (0.17)	0.21 (0.13)	0.21* (0.12)	1372
Farm revenue, monthly (USD)	9.66 (8.89)	0.24 (0.73)	0.26 (0.75)	−0.01 (0.90)	0.42 (0.84)	0.53 (0.82)	1372
Farm flow expenses, monthly (USD)	5.01 (5.84)	1.06** (0.47)	1.20** (0.47)	−0.15 (0.59)	0.27 (0.68)	0.68 (0.64)	1372
Farm profit, monthly (USD)	4.65 (7.47)	−0.75 (0.63)	−0.91 (0.64)	0.16 (0.78)	0.15 (0.76)	−0.15 (0.82)	1372
Livestock flow revenue, monthly (USD)	6.44 (14.04)	5.22*** (1.66)	1.59 (1.24)	3.64* (1.91)	2.92* (1.71)	0.08 (1.38)	1372
Livestock flow expenses, monthly (USD)	2.33 (4.64)	0.26 (0.40)	1.01** (0.44)	−0.76 (0.52)	−0.03 (0.44)	0.68 (0.46)	1372
Livestock flow profit, monthly (USD)	4.11 (13.21)	4.86*** (1.58)	0.65 (1.21)	4.20** (1.83)	2.95* (1.66)	−0.60 (1.38)	1372
Livestock sales and meat revenue, monthly (USD)	4.25 (8.40)	2.25*** (0.85)	2.40*** (0.93)	−0.15 (1.15)	1.51* (0.86)	1.82* (0.96)	1372
Total revenue, monthly (USD)	48.98 (90.52)	25.58*** (9.53)	9.25 (7.55)	16.33 (11.07)	20.81** (10.10)	2.52 (7.62)	1372
Total expenses, monthly (USD)	23.95 (61.71)	17.67*** (6.59)	8.26 (5.48)	9.41 (7.75)	16.23** (6.93)	6.34 (5.70)	1372
Total profit, monthly (USD)	20.78 (46.22)	4.24 (5.85)	−3.04 (5.85)	7.29 (7.92)	3.06 (5.50)	−5.64 (5.97)	1372
Joint test (p-value)		0.04**	0.10	0.65	0.37	0.28	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 89: Agricultural and Business Activities in Logs: Monthly vs. lump-sum

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Non-ag business revenue, monthly (USD)	1.25 (2.15)	0.36* (0.21)	0.09 (0.18)	0.26 (0.24)	0.51** (0.22)	0.06 (0.19)	1372
Non-ag business flow expenses, monthly (USD)	0.91 (1.81)	0.58*** (0.19)	0.14 (0.16)	0.45** (0.22)	0.64*** (0.22)	0.03 (0.17)	1372
Non-ag business profit imputed, monthly (USD)	0.79 (2.08)	-0.06 (0.22)	-0.15 (0.19)	0.09 (0.26)	0.07 (0.24)	-0.10 (0.19)	1372
Non-ag business profit self-reported, monthly (USD)	0.88 (1.62)	0.14 (0.15)	0.00 (0.14)	0.14 (0.18)	0.35** (0.17)	0.08 (0.14)	1372
Non-ag business investment in durables, monthly (USD)	0.12 (0.35)	0.10** (0.05)	0.11** (0.05)	-0.01 (0.07)	0.09* (0.05)	0.08* (0.04)	1372
Farm revenue, monthly (USD)	2.57 (0.96)	0.08 (0.07)	0.07 (0.07)	0.01 (0.09)	0.11 (0.09)	0.07 (0.09)	1372
Farm flow expenses, monthly (USD)	1.82 (1.02)	0.28*** (0.08)	0.28*** (0.08)	-0.00 (0.09)	0.20* (0.11)	0.22** (0.11)	1372
Farm profit, monthly (USD)	1.37 (1.84)	-0.16 (0.16)	-0.29* (0.15)	0.13 (0.20)	0.10 (0.19)	-0.11 (0.21)	1372
Livestock flow revenue, monthly (USD)	1.28 (1.51)	0.53*** (0.14)	0.32** (0.13)	0.21 (0.17)	0.34** (0.16)	0.15 (0.15)	1372
Livestock flow expenses, monthly (USD)	0.82 (1.16)	0.17 (0.11)	0.27*** (0.10)	-0.10 (0.13)	0.07 (0.12)	0.17 (0.12)	1372
Livestock flow profit, monthly (USD)	0.63 (1.94)	0.50*** (0.19)	0.14 (0.18)	0.36 (0.23)	0.27 (0.21)	-0.06 (0.20)	1372
Livestock sales and meat revenue, monthly (USD)	1.19 (1.33)	0.41*** (0.13)	0.35*** (0.12)	0.06 (0.15)	0.30** (0.12)	0.27* (0.14)	1372
Total revenue, monthly (USD)	3.66 (1.37)	0.40*** (0.12)	0.20* (0.11)	0.20 (0.14)	0.40*** (0.14)	0.15 (0.13)	1372
Total expenses, monthly (USD)	2.62 (1.46)	0.54*** (0.13)	0.30** (0.12)	0.24 (0.16)	0.51*** (0.17)	0.17 (0.14)	1372
Total profit, monthly (USD)	2.19 (2.45)	0.02 (0.24)	-0.21 (0.23)	0.23 (0.30)	0.24 (0.28)	-0.06 (0.25)	1372
Joint test (<i>p</i> -value)		0.00***	0.01***	0.64	0.07*	0.13	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 90: Agricultural and Business Activities in Logs: Large vs. Small

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Non-ag business revenue, monthly (USD)	1.25 (2.15)	0.30 (0.21)	0.22 (0.15)	0.09 (0.23)	0.21 (0.25)	0.27 (0.18)	1372
Non-ag business flow expenses, monthly (USD)	0.91 (1.81)	0.35* (0.19)	0.34** (0.13)	0.00 (0.20)	0.23 (0.23)	0.31* (0.16)	1372
Non-ag business profit imputed, monthly (USD)	0.79 (2.08)	0.16 (0.21)	−0.11 (0.15)	0.27 (0.23)	0.17 (0.22)	−0.02 (0.17)	1372
Non-ag business profit self-reported, monthly (USD)	0.88 (1.62)	0.11 (0.16)	0.07 (0.11)	0.04 (0.16)	0.17 (0.20)	0.20 (0.13)	1372
Non-ag business investment in durables, monthly (USD)	0.12 (0.35)	0.06 (0.05)	0.11*** (0.04)	−0.05 (0.05)	0.02 (0.06)	0.08** (0.04)	1372
Farm revenue, monthly (USD)	2.57 (0.96)	0.08 (0.09)	0.08 (0.06)	0.01 (0.09)	0.13 (0.11)	0.09 (0.08)	1372
Farm flow expenses, monthly (USD)	1.82 (1.02)	0.37*** (0.10)	0.28*** (0.06)	0.09 (0.10)	0.40*** (0.14)	0.21** (0.10)	1372
Farm profit, monthly (USD)	1.37 (1.84)	−0.61*** (0.20)	−0.23* (0.12)	−0.38* (0.21)	−0.45* (0.24)	−0.02 (0.17)	1372
Livestock flow revenue, monthly (USD)	1.28 (1.51)	0.46*** (0.16)	0.41*** (0.11)	0.05 (0.17)	0.19 (0.15)	0.24* (0.13)	1372
Livestock flow expenses, monthly (USD)	0.82 (1.16)	0.71*** (0.13)	0.22*** (0.08)	0.49*** (0.14)	0.61*** (0.15)	0.12 (0.10)	1372
Livestock flow profit, monthly (USD)	0.63 (1.94)	−0.26 (0.23)	0.30** (0.14)	−0.56** (0.24)	−0.51** (0.23)	0.10 (0.17)	1372
Livestock sales and meat revenue, monthly (USD)	1.19 (1.33)	0.31** (0.14)	0.38*** (0.09)	−0.07 (0.15)	0.17 (0.15)	0.28** (0.11)	1372
Total revenue, monthly (USD)	3.66 (1.37)	0.40*** (0.13)	0.30*** (0.09)	0.11 (0.13)	0.30** (0.14)	0.26** (0.11)	1372
Total expenses, monthly (USD)	2.62 (1.46)	0.58*** (0.14)	0.41*** (0.10)	0.17 (0.14)	0.52*** (0.18)	0.33** (0.13)	1372
Total profit, monthly (USD)	2.19 (2.45)	−0.61** (0.29)	−0.10 (0.18)	−0.50* (0.30)	−0.44 (0.29)	0.08 (0.21)	1372
Joint test (<i>p</i> -value)		0.00***	0.00***	0.00***	0.00***	0.04**	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the household. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.5.3 Agriculture and Business Income : Conditional on Enterprise Ownership

This section reports treatment effects on enterprise expenses, revenue, and profit conditional on a given household owning a non-agricultural enterprise. In the main paper, we report the effect for all households, but there is reason to believe the effect may be different for only those households that already owned a business at baseline. The econometric specifications are the basic analyses outlined in the main paper.

Table 91: Agricultural and Business Activities Conditional on Business Ownership: Main Treatment Arms

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Non-ag business revenue, monthly (USD)	49.19 (107.45)	22.22* (12.63)	26.46 (20.77)	32.79 (22.93)	14.54 (21.03)	346
Non-ag business flow expenses, monthly (USD)	26.72 (76.30)	23.75** (10.10)	18.43 (17.40)	15.31 (17.86)	8.08 (16.99)	346
Non-ag business profit imputed, monthly (USD)	22.47 (59.53)	-6.05 (9.14)	10.67 (14.28)	19.15 (19.88)	6.53 (12.58)	346
Non-ag business profit self-reported, monthly (USD)	13.38 (31.28)	3.38 (3.81)	-3.90 (6.90)	7.15 (5.86)	9.57 (6.76)	346
Non-ag business investment in durables, monthly (USD)	0.23 (0.69)	0.47*** (0.16)	-0.28 (0.31)	-0.04 (0.32)	0.23 (0.32)	346
Joint test (p -value)		0.00***	0.06*	0.64	0.67	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 92: Agricultural and Business Activities Conditional on Business Ownership: Main Treatment Arms with Baseline Controls

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Non-ag business revenue, monthly (USD)	49.19 (107.45)	23.28* (13.06)	23.19 (20.73)	38.38* (23.27)	16.66 (21.11)	346
Non-ag business flow expenses, monthly (USD)	26.72 (76.30)	24.04** (10.04)	16.92 (17.50)	21.72 (18.14)	7.35 (16.78)	346
Non-ag business profit imputed, monthly (USD)	22.47 (59.53)	-4.87 (9.62)	8.77 (14.70)	17.99 (19.91)	9.56 (13.40)	346
Non-ag business profit self-reported, monthly (USD)	13.38 (31.28)	3.63 (3.84)	-4.82 (6.82)	8.34 (6.03)	10.78 (6.77)	346
Non-ag business investment in durables, monthly (USD)	0.23 (0.69)	0.48*** (0.16)	-0.29 (0.32)	0.05 (0.31)	0.22 (0.32)	346
Joint test (p -value)		0.00***	0.07*	0.54	0.54	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.6 Food Security

Table 93: Food Security: Main Treatment Arms

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Meals skipped (adults, # last month)	4.38 (5.75)	-1.01*** (0.34)	-0.14 (0.48)	-0.53 (0.55)	-0.25 (0.52)	940
Whole days without food (adults, # last month)	0.87 (2.73)	-0.28* (0.15)	-0.01 (0.19)	-0.24 (0.15)	0.27 (0.28)	940
Meals skipped (children, # last month)	1.98 (4.43)	-0.54** (0.26)	0.20 (0.33)	-0.32 (0.46)	-0.56 (0.34)	852
Whole days without food (children, # last month)	0.33 (1.40)	-0.14* (0.08)	-0.04 (0.08)	-0.19* (0.11)	-0.09 (0.10)	852
Eat less preferred/cheaper foods (# last month)	8.17 (7.69)	-1.03** (0.46)	0.39 (0.71)	-0.52 (0.77)	0.54 (0.73)	940
Rely on help from others for food (# last month)	1.87 (3.86)	-0.09 (0.25)	0.48 (0.34)	-0.24 (0.41)	0.68 (0.45)	940
Purchase food on credit (# last month)	3.12 (4.57)	-0.46* (0.26)	0.10 (0.37)	-0.42 (0.42)	-0.65* (0.38)	940
Hunt, gather wild food, harvest prematurely (# last month)	4.10 (6.78)	-0.02 (0.41)	-0.73 (0.68)	-0.66 (0.67)	0.77 (0.71)	940
Beg because not enough food in the house (# last month)	0.31 (0.80)	-0.06 (0.05)	0.00 (0.06)	-0.06 (0.08)	-0.02 (0.07)	940
All members usually eat two meals (dummy)	0.90 (0.29)	0.03* (0.02)	0.02 (0.02)	0.04 (0.03)	0.02 (0.02)	940
All members usually eat until content (dummy)	0.79 (0.41)	0.05* (0.02)	-0.01 (0.04)	0.06 (0.04)	0.06 (0.04)	940
Number of times ate meat or fish (last week)	2.41 (2.07)	0.48*** (0.14)	0.52** (0.25)	0.61** (0.27)	0.32 (0.23)	940
Enough food in the house for tomorrow? (dummy)	0.36 (0.48)	0.06** (0.03)	-0.02 (0.05)	0.12** (0.05)	0.13** (0.05)	940
Respondent slept hungry (last week, dummy)	0.23 (0.42)	-0.07*** (0.02)	-0.02 (0.04)	-0.07* (0.04)	-0.08** (0.03)	940
Respondent ate protein (last 24h, dummy)	0.29 (0.46)	0.07** (0.03)	0.04 (0.05)	0.09* (0.05)	0.07 (0.05)	940
Proportion of HH who ate protein (last 24h)	0.27 (0.42)	0.07** (0.03)	0.06 (0.04)	0.06 (0.05)	0.04 (0.04)	940
Proportion of children who ate protein (last 24h)	0.26 (0.42)	0.07** (0.03)	0.06 (0.05)	0.04 (0.05)	0.04 (0.05)	852
Food security index (children)	0.00 (1.00)	0.22*** (0.06)	0.08 (0.09)	0.15 (0.11)	0.14 (0.09)	852
Food security index	0.00 (1.00)	0.26*** (0.06)	0.06 (0.09)	0.26** (0.11)	0.18* (0.10)	940
Joint test (<i>p</i> -value)		0.00***	0.75	0.31	0.01**	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 94: Food Security: Main Treatment Arms with Baseline Controls

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Meals skipped (adults, # last month)	4.38 (5.75)	-1.04*** (0.35)	-0.24 (0.48)	-0.51 (0.54)	-0.33 (0.50)	940
Whole days without food (adults, # last month)	0.87 (2.73)	-0.31** (0.15)	0.00 (0.19)	-0.25* (0.15)	0.13 (0.23)	940
Meals skipped (children, # last month)	1.98 (4.43)	-0.53** (0.26)	0.11 (0.33)	-0.30 (0.46)	-0.47 (0.33)	852
Whole days without food (children, # last month)	0.33 (1.40)	-0.14* (0.08)	-0.04 (0.08)	-0.18* (0.10)	-0.09 (0.09)	852
Eat less preferred/cheaper foods (# last month)	8.17 (7.69)	-1.08** (0.47)	0.36 (0.72)	-0.48 (0.77)	0.48 (0.73)	940
Rely on help from others for food (# last month)	1.87 (3.86)	-0.08 (0.25)	0.44 (0.34)	-0.17 (0.39)	0.53 (0.40)	940
Purchase food on credit (# last month)	3.12 (4.57)	-0.46* (0.27)	0.14 (0.38)	-0.37 (0.42)	-0.57 (0.38)	940
Hunt, gather wild food, harvest prematurely (# last month)	4.10 (6.78)	-0.09 (0.41)	-0.78 (0.68)	-0.68 (0.67)	0.69 (0.70)	940
Beg because not enough food in the house (# last month)	0.31 (0.80)	-0.06 (0.05)	-0.00 (0.06)	-0.05 (0.08)	-0.05 (0.07)	940
All members usually eat two meals (dummy)	0.90 (0.29)	0.03* (0.02)	0.02 (0.02)	0.04 (0.03)	0.02 (0.02)	940
All members usually eat until content (dummy)	0.79 (0.41)	0.05** (0.02)	-0.01 (0.04)	0.06 (0.04)	0.06 (0.04)	940
Number of times ate meat or fish (last week)	2.41 (2.07)	0.48*** (0.14)	0.54** (0.26)	0.60** (0.27)	0.36 (0.23)	940
Enough food in the house for tomorrow? (dummy)	0.36 (0.48)	0.06** (0.03)	-0.02 (0.05)	0.12** (0.05)	0.14*** (0.05)	940
Respondent slept hungry (last week, dummy)	0.23 (0.42)	-0.08*** (0.03)	-0.02 (0.04)	-0.07 (0.04)	-0.09*** (0.03)	940
Respondent ate protein (last 24h, dummy)	0.29 (0.46)	0.07** (0.03)	0.04 (0.05)	0.08* (0.05)	0.07 (0.05)	940
Proportion of HH who ate protein (last 24h)	0.27 (0.42)	0.07*** (0.03)	0.05 (0.04)	0.06 (0.05)	0.04 (0.04)	940
Proportion of children who ate protein (last 24h)	0.26 (0.42)	0.08*** (0.03)	0.06 (0.05)	0.03 (0.05)	0.03 (0.05)	852
Food security index (children)	0.00 (1.00)	0.22*** (0.06)	0.09 (0.09)	0.14 (0.11)	0.13 (0.09)	852
Food security index	0.00 (1.00)	0.26*** (0.06)	0.06 (0.09)	0.25** (0.10)	0.21** (0.09)	940
Joint test (p -value)		0.00***	0.75	0.33	0.02**	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 95: Food Security: Spillover Analysis

	Spillover Effects						Lee Bounds		Horowitz-Manski Bounds	
	(1) All HH Estimate	(2) All HH estimate	(3) Thatched estimate	(4) Thatched estimate	(5) Test (1)=(3) p-value	(6) Test (2)=(4) p-value	(7) Lower	(8) Upper	(9) Lower	(10) Upper
Includes controls	No	Yes	No	Yes	No	Yes	No	No	No	No
Meals skipped (adults, # last month)	0.12 (0.49)	0.16 (0.50)	0.25 (0.49)	0.29 (0.50)	0.27	0.29	0.07 (0.44)	0.28 (0.44)	0.07 (0.39)	0.28 (0.39)
Whole days without food (adults, # last month)	0.12 (0.18)	0.13 (0.18)	0.07 (0.18)	0.08 (0.18)	0.48	0.51	0.12 (0.15)	0.28* (0.15)	0.12 (0.16)	0.15 (0.16)
Meals skipped (children, # last month)	0.27 (0.37)	0.31 (0.36)	0.48 (0.40)	0.51 (0.40)	0.02**	0.02**	0.25 (0.30)	0.49 (0.30)	0.25 (0.30)	0.34 (0.30)
Whole days without food (children, # last month)	0.11 (0.09)	0.12 (0.09)	0.14 (0.10)	0.15 (0.10)	0.20	0.28	0.11 (0.08)	0.20*** (0.07)	0.11 (0.09)	0.14 (0.09)
Eat less preferred/cheaper foods (# last month)	0.78 (0.72)	0.71 (0.72)	0.87 (0.72)	0.79 (0.72)	0.49	0.56	0.70 (0.50)	0.91* (0.50)	0.69 (0.50)	0.90* (0.50)
Rely on help from others for food (# last month)	-0.38 (0.34)	-0.29 (0.33)	-0.28 (0.36)	-0.17 (0.35)	0.15	0.03**	-0.40 (0.33)	-0.19 (0.34)	-0.40 (0.29)	-0.32 (0.29)
Purchase food on credit (# last month)	-0.28 (0.42)	-0.27 (0.42)	-0.43 (0.44)	-0.42 (0.44)	0.18	0.20	-0.32 (0.30)	-0.10 (0.32)	-0.31 (0.32)	-0.10 (0.33)
Hunt, gather wild food, harvest prematurely (# last month)	-0.27 (0.68)	-0.35 (0.69)	-0.15 (0.70)	-0.23 (0.72)	0.40	0.39	-0.31 (0.43)	-0.10 (0.42)	-0.31 (0.46)	-0.10 (0.47)
Beg because not enough food in the house (# last month)	-0.10 (0.07)	-0.10 (0.07)	-0.08 (0.08)	-0.08 (0.08)	0.16	0.10*	-0.10 (0.06)	-0.06 (0.07)	-0.10* (0.06)	-0.08 (0.06)
All members usually eat two meals (dummy)	0.02 (0.02)	0.02 (0.02)	0.03 (0.02)	0.02 (0.02)	0.74	0.88	0.02 (0.02)	0.03 (0.02)	0.01 (0.02)	0.03 (0.02)
All members usually eat until content (dummy)	-0.02 (0.03)	-0.03 (0.03)	-0.04 (0.03)	-0.04 (0.03)	0.18	0.14	-0.03 (0.03)	-0.02 (0.03)	-0.03 (0.03)	-0.02 (0.03)
Number of times ate meat or fish (last week)	-0.04 (0.20)	-0.04 (0.20)	-0.04 (0.22)	-0.04 (0.22)	1.00	0.99	-0.06 (0.14)	0.03 (0.14)	-0.06 (0.13)	0.00 (0.13)
Enough food in the house for tomorrow? (dummy)	0.01 (0.04)	0.02 (0.04)	0.02 (0.04)	0.02 (0.04)	0.62	0.67	0.01 (0.03)	0.02 (0.03)	0.01 (0.03)	0.02 (0.03)
Respondent slept hungry (last week, dummy)	0.02 (0.03)	0.02 (0.03)	0.03 (0.04)	0.03 (0.04)	0.66	0.59	0.02 (0.03)	0.03 (0.03)	0.02 (0.03)	0.03 (0.03)
Respondent ate protein (last 24h, dummy)	-0.03 (0.04)	-0.03 (0.04)	-0.03 (0.05)	-0.03 (0.04)	0.59	0.53	-0.04 (0.03)	-0.02 (0.03)	-0.04 (0.03)	-0.02 (0.03)
Proportion of HH who ate protein (last 24h)	-0.03 (0.04)	-0.04 (0.04)	-0.03 (0.04)	-0.03 (0.04)	0.90	0.82	-0.04 (0.03)	-0.03 (0.03)	-0.04 (0.03)	-0.03 (0.03)
Proportion of children who ate protein (last 24h)	-0.03 (0.04)	-0.03 (0.04)	-0.03 (0.04)	-0.03 (0.04)	0.84	0.77	-0.03 (0.03)	-0.02 (0.03)	-0.03 (0.03)	-0.02 (0.03)
Food security index (children)	-0.11 (0.08)	-0.12 (0.08)	-0.14* (0.08)	-0.14* (0.08)	0.22	0.28	-0.15** (0.07)	-0.11 (0.07)	-0.13* (0.07)	-0.09 (0.07)
Food security index	0.06 (0.09)	0.05 (0.09)	0.06 (0.10)	0.05 (0.10)	0.93	0.90	-0.01 (0.07)	0.08 (0.07)	0.03 (0.08)	0.07 (0.08)
Joint test (p-value)	0.24	0.16	0.11	0.10*						

Notes: OLS estimates of spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Columns (1) and (2) report the "naive" estimate of spillover effects, including spillover households that upgraded to metal roofs between baseline and endline. Column (3) and (4) report estimate of the spillover effect excluding metal roof households. Columns (1) and (3) exclude baseline covariates. Columns (2) and (4) include baseline covariates. Column (5) reports the p-value of the equality for the coefficient estimates in (1) and (3) after joint-estimation of the two models using SUR. Column (6) reports the p-value of the equality for the coefficient estimates in (2) and (4) after joint-estimation of the two models using SUR. The last row reports p-values on the joint-significance of all coefficients in a given column after joint-estimation using SUR. Columns (7) and (8) report the lower and upper Lee effect-size bounds adjusting for differential attrition generated by restricting to thatched roof households. This attrition is due to the higher rate of upgrade to metal roofs among spillover households and represents approximately 5 households or 10 individuals. Columns (9) and (10) report lower and upper Manski-Horowitz bounds, imputing outcomes for the 5 attriting households using the 95th and 5th percentile of observed outcomes respectively. In columns (1) through (4), standard errors clustered at the village level are reported in parentheses. In columns (7) through (10), bootstrapped standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 96: Food Security: Across Village

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Meals skipped (adults, # last month)	4.38 (5.75)	-1.01*** (0.34)	-0.85* (0.43)	0.12 (0.49)	1372
Whole days without food (adults, # last month)	0.87 (2.73)	-0.28* (0.15)	-0.16 (0.16)	0.12 (0.18)	1372
Meals skipped (children, # last month)	1.98 (4.43)	-0.54** (0.26)	-0.20 (0.31)	0.27 (0.37)	1229
Whole days without food (children, # last month)	0.33 (1.40)	-0.14* (0.08)	-0.03 (0.09)	0.11 (0.09)	1229
Eat less preferred/cheaper foods (# last month)	8.17 (7.69)	-1.03** (0.46)	-0.29 (0.63)	0.78 (0.72)	1372
Rely on help from others for food (# last month)	1.87 (3.86)	-0.09 (0.25)	-0.48 (0.33)	-0.38 (0.34)	1372
Purchase food on credit (# last month)	3.12 (4.57)	-0.46* (0.26)	-0.72** (0.35)	-0.28 (0.42)	1372
Hunt, gather wild food, harvest prematurely (# last month)	4.10 (6.78)	-0.02 (0.41)	-0.21 (0.68)	-0.27 (0.68)	1372
Beg because not enough food in the house (# last month)	0.31 (0.80)	-0.06 (0.05)	-0.15** (0.06)	-0.10 (0.07)	1372
All members usually eat two meals (dummy)	0.90 (0.29)	0.03* (0.02)	0.05** (0.02)	0.02 (0.02)	1372
All members usually eat until content (dummy)	0.79 (0.41)	0.05* (0.02)	0.02 (0.03)	-0.02 (0.03)	1372
Number of times ate meat or fish (last week)	2.41 (2.07)	0.48*** (0.14)	0.45** (0.20)	-0.04 (0.20)	1372
Enough food in the house for tomorrow? (dummy)	0.36 (0.48)	0.06** (0.03)	0.07* (0.04)	0.01 (0.04)	1372
Respondent slept hungry (last week, dummy)	0.23 (0.42)	-0.07*** (0.02)	-0.05* (0.03)	0.02 (0.03)	1372
Respondent ate protein (last 24h, dummy)	0.29 (0.46)	0.07** (0.03)	0.03 (0.04)	-0.03 (0.04)	1372
Proportion of HH who ate protein (last 24h)	0.27 (0.42)	0.07** (0.03)	0.03 (0.04)	-0.03 (0.04)	1372
Proportion of children who ate protein (last 24h)	0.26 (0.42)	0.07** (0.03)	0.04 (0.04)	-0.03 (0.04)	1229
Food security index (children)	0.00 (1.00)	0.22*** (0.06)	0.10 (0.08)	-0.11 (0.08)	1229
Food security index	0.00 (1.00)	0.26*** (0.06)	0.30*** (0.09)	0.06 (0.09)	1372
Joint test (p -value)		0.00***	0.02**	0.24	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 97: Food Security: Male vs. Female

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Meals skipped (adults, # last month)	4.38 (5.75)	-1.22*** (0.45)	-0.70 (0.47)	-0.53 (0.55)	-1.02** (0.50)	-0.67 (0.53)	1372
Whole days without food (adults, # last month)	0.87 (2.73)	-0.48*** (0.16)	-0.24 (0.16)	-0.24 (0.15)	-0.37** (0.14)	-0.12 (0.18)	1372
Meals skipped (children, # last month)	1.98 (4.43)	-0.56 (0.38)	-0.24 (0.37)	-0.32 (0.46)	-0.20 (0.43)	0.03 (0.43)	1229
Whole days without food (children, # last month)	0.33 (1.40)	-0.22** (0.08)	-0.03 (0.11)	-0.19* (0.11)	-0.12 (0.08)	0.09 (0.14)	1229
Eat less preferred/cheaper foods (# last month)	8.17 (7.69)	-1.45** (0.64)	-0.93 (0.64)	-0.52 (0.77)	-0.57 (0.78)	-0.33 (0.71)	1372
Rely on help from others for food (# last month)	1.87 (3.86)	-0.40 (0.33)	-0.16 (0.34)	-0.24 (0.41)	-0.70* (0.41)	-0.59 (0.40)	1372
Purchase food on credit (# last month)	3.12 (4.57)	-0.51 (0.37)	-0.09 (0.34)	-0.42 (0.42)	-0.78* (0.43)	-0.44 (0.41)	1372
Hunt, gather wild food, harvest prematurely (# last month)	4.10 (6.78)	-0.58 (0.56)	0.08 (0.54)	-0.66 (0.67)	-0.69 (0.79)	-0.15 (0.81)	1372
Beg because not enough food in the house (# last month)	0.31 (0.80)	-0.08 (0.06)	-0.02 (0.07)	-0.06 (0.08)	-0.17** (0.07)	-0.11 (0.08)	1372
All members usually eat two meals (dummy)	0.90 (0.29)	0.04* (0.02)	0.01 (0.02)	0.04 (0.03)	0.06** (0.03)	0.03 (0.03)	1372
All members usually eat until content (dummy)	0.79 (0.41)	0.06* (0.03)	0.00 (0.03)	0.06 (0.04)	0.04 (0.04)	-0.02 (0.04)	1372
Number of times ate meat or fish (last week)	2.41 (2.07)	0.72*** (0.22)	0.12 (0.19)	0.61** (0.27)	0.71** (0.28)	0.06 (0.21)	1372
Enough food in the house for tomorrow? (dummy)	0.36 (0.48)	0.09** (0.04)	-0.02 (0.04)	0.12** (0.05)	0.10* (0.05)	-0.01 (0.04)	1372
Respondent slept hungry (last week, dummy)	0.23 (0.42)	-0.09*** (0.03)	-0.02 (0.03)	-0.07* (0.04)	-0.06* (0.04)	0.00 (0.04)	1372
Respondent ate protein (last 24h, dummy)	0.29 (0.46)	0.09** (0.04)	0.01 (0.04)	0.09* (0.05)	0.07 (0.06)	-0.03 (0.05)	1372
Proportion of HH who ate protein (last 24h)	0.27 (0.42)	0.09** (0.04)	0.02 (0.04)	0.06 (0.05)	0.06 (0.05)	-0.01 (0.04)	1372
Proportion of children who ate protein (last 24h)	0.26 (0.42)	0.08** (0.04)	0.05 (0.04)	0.04 (0.05)	0.05 (0.05)	0.02 (0.05)	1229
Food security index (children)	0.00 (1.00)	0.26*** (0.09)	0.11 (0.09)	0.15 (0.11)	0.14 (0.10)	0.00 (0.11)	1229
Food security index	0.00 (1.00)	0.34*** (0.09)	0.09 (0.08)	0.26** (0.11)	0.40*** (0.12)	0.14 (0.11)	1372
Joint test (p -value)		0.00***	0.87	0.31	0.04**	0.57	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 98: Food Security: Monthly vs. lump-sum

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Meals skipped (adults, # last month)	4.38 (5.75)	-1.22*** (0.45)	-0.70 (0.47)	-0.53 (0.55)	-1.02** (0.50)	-0.67 (0.53)	1372
Whole days without food (adults, # last month)	0.87 (2.73)	-0.48*** (0.16)	-0.24 (0.16)	-0.24 (0.15)	-0.37** (0.14)	-0.12 (0.18)	1372
Meals skipped (children, # last month)	1.98 (4.43)	-0.56 (0.38)	-0.24 (0.37)	-0.32 (0.46)	-0.20 (0.43)	0.03 (0.43)	1229
Whole days without food (children, # last month)	0.33 (1.40)	-0.22** (0.08)	-0.03 (0.11)	-0.19* (0.11)	-0.12 (0.08)	0.09 (0.14)	1229
Eat less preferred/cheaper foods (# last month)	8.17 (7.69)	-1.45** (0.64)	-0.93 (0.64)	-0.52 (0.77)	-0.57 (0.78)	-0.33 (0.71)	1372
Rely on help from others for food (# last month)	1.87 (3.86)	-0.40 (0.33)	-0.16 (0.34)	-0.24 (0.41)	-0.70* (0.41)	-0.59 (0.40)	1372
Purchase food on credit (# last month)	3.12 (4.57)	-0.51 (0.37)	-0.09 (0.34)	-0.42 (0.42)	-0.78* (0.43)	-0.44 (0.41)	1372
Hunt, gather wild food, harvest prematurely (# last month)	4.10 (6.78)	-0.58 (0.56)	0.08 (0.54)	-0.66 (0.67)	-0.69 (0.79)	-0.15 (0.81)	1372
Beg because not enough food in the house (# last month)	0.31 (0.80)	-0.08 (0.06)	-0.02 (0.07)	-0.06 (0.08)	-0.17** (0.07)	-0.11 (0.08)	1372
All members usually eat two meals (dummy)	0.90 (0.29)	0.04* (0.02)	0.01 (0.02)	0.04 (0.03)	0.06** (0.03)	0.03 (0.03)	1372
All members usually eat until content (dummy)	0.79 (0.41)	0.06* (0.03)	0.00 (0.03)	0.06 (0.04)	0.04 (0.04)	-0.02 (0.04)	1372
Number of times ate meat or fish (last week)	2.41 (2.07)	0.72*** (0.22)	0.12 (0.19)	0.61** (0.27)	0.71** (0.28)	0.06 (0.21)	1372
Enough food in the house for tomorrow? (dummy)	0.36 (0.48)	0.09** (0.04)	-0.02 (0.04)	0.12** (0.05)	0.10* (0.05)	-0.01 (0.04)	1372
Respondent slept hungry (last week, dummy)	0.23 (0.42)	-0.09*** (0.03)	-0.02 (0.03)	-0.07* (0.04)	-0.06* (0.04)	0.00 (0.04)	1372
Respondent ate protein (last 24h, dummy)	0.29 (0.46)	0.09** (0.04)	0.01 (0.04)	0.09* (0.05)	0.07 (0.06)	-0.03 (0.05)	1372
Proportion of HH who ate protein (last 24h)	0.27 (0.42)	0.09** (0.04)	0.02 (0.04)	0.06 (0.05)	0.06 (0.05)	-0.01 (0.04)	1372
Proportion of children who ate protein (last 24h)	0.26 (0.42)	0.08** (0.04)	0.05 (0.04)	0.04 (0.05)	0.05 (0.05)	0.02 (0.05)	1229
Food security index (children)	0.00 (1.00)	0.26*** (0.09)	0.11 (0.09)	0.15 (0.11)	0.14 (0.10)	0.00 (0.11)	1229
Food security index	0.00 (1.00)	0.34*** (0.09)	0.09 (0.08)	0.26** (0.11)	0.40*** (0.12)	0.14 (0.11)	1372
Joint test (p -value)		0.00***	0.87	0.31	0.04**	0.57	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 99: Food Security: Large vs. Small

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Meals skipped (adults, # last month)	4.38 (5.75)	-1.19** (0.51)	-0.94** (0.37)	-0.25 (0.52)	-0.91 (0.59)	-0.83* (0.43)	1372
Whole days without food (adults, # last month)	0.87 (2.73)	-0.09 (0.30)	-0.35** (0.14)	0.27 (0.28)	0.05 (0.30)	-0.23* (0.13)	1372
Meals skipped (children, # last month)	1.98 (4.43)	-0.94*** (0.32)	-0.39 (0.30)	-0.56 (0.34)	-0.51 (0.32)	-0.08 (0.34)	1229
Whole days without food (children, # last month)	0.33 (1.40)	-0.21** (0.10)	-0.12 (0.08)	-0.09 (0.10)	-0.07 (0.10)	-0.01 (0.09)	1229
Eat less preferred/cheaper foods (# last month)	8.17 (7.69)	-0.63 (0.70)	-1.17** (0.51)	0.54 (0.73)	0.12 (0.91)	-0.44 (0.65)	1372
Rely on help from others for food (# last month)	1.87 (3.86)	0.41 (0.43)	-0.27 (0.27)	0.68 (0.45)	-0.05 (0.49)	-0.64* (0.33)	1372
Purchase food on credit (# last month)	3.12 (4.57)	-0.93** (0.38)	-0.28 (0.28)	-0.65* (0.38)	-1.06** (0.44)	-0.60 (0.36)	1372
Hunt, gather wild food, harvest prematurely (# last month)	4.10 (6.78)	0.55 (0.68)	-0.22 (0.44)	0.77 (0.71)	0.31 (0.87)	-0.40 (0.72)	1372
Beg because not enough food in the house (# last month)	0.31 (0.80)	-0.07 (0.07)	-0.05 (0.05)	-0.02 (0.07)	-0.18** (0.08)	-0.14** (0.06)	1372
All members usually eat two meals (dummy)	0.90 (0.29)	0.04* (0.02)	0.02 (0.02)	0.02 (0.02)	0.07** (0.03)	0.05* (0.03)	1372
All members usually eat until content (dummy)	0.79 (0.41)	0.09** (0.04)	0.03 (0.03)	0.06 (0.04)	0.06 (0.04)	0.01 (0.03)	1372
Number of times ate meat or fish (last week)	2.41 (2.07)	0.72*** (0.21)	0.40** (0.15)	0.32 (0.23)	0.68** (0.27)	0.36* (0.20)	1372
Enough food in the house for tomorrow? (dummy)	0.36 (0.48)	0.16*** (0.05)	0.03 (0.03)	0.13** (0.05)	0.14** (0.06)	0.04 (0.04)	1372
Respondent slept hungry (last week, dummy)	0.23 (0.42)	-0.13*** (0.03)	-0.05* (0.03)	-0.08** (0.03)	-0.13*** (0.03)	-0.03 (0.03)	1372
Respondent ate protein (last 24h, dummy)	0.29 (0.46)	0.12** (0.05)	0.05 (0.03)	0.07 (0.05)	0.07 (0.06)	0.02 (0.05)	1372
Proportion of HH who ate protein (last 24h)	0.27 (0.42)	0.10** (0.04)	0.05* (0.03)	0.04 (0.04)	0.05 (0.05)	0.02 (0.04)	1372
Proportion of children who ate protein (last 24h)	0.26 (0.42)	0.10** (0.05)	0.06** (0.03)	0.04 (0.05)	0.06 (0.05)	0.04 (0.04)	1229
Food security index (children)	0.00 (1.00)	0.32*** (0.09)	0.18** (0.07)	0.14 (0.09)	0.17* (0.09)	0.07 (0.08)	1229
Food security index	0.00 (1.00)	0.39*** (0.10)	0.21*** (0.07)	0.18* (0.10)	0.43*** (0.12)	0.26*** (0.09)	1372
Joint test (p -value)		0.00***	0.12	0.01**	0.00***	0.24	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the household. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.7 Health

Table 100: Health: Main Treatment Arms

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Medical expenses per episode, entire HH (USD)	5.81 (13.57)	0.84 (0.88)	1.52 (1.24)	-0.21 (1.36)	1.68 (1.34)	824
Medical expenses per episode, spouses (USD)	7.95 (28.39)	-1.54 (2.49)	1.97 (2.40)	2.10 (2.43)	2.94 (2.97)	375
Medical expenses per episode, children (USD)	3.70 (5.49)	0.59 (0.55)	0.43 (1.02)	0.55 (1.13)	0.95 (0.93)	642
Proportion of household sick/injured (1 month)	0.49 (0.31)	0.02 (0.02)	-0.05 (0.03)	-0.05* (0.03)	0.04 (0.03)	940
Proportion of children sick/injured (1 month)	0.44 (0.35)	0.01 (0.02)	-0.06* (0.04)	-0.03 (0.04)	0.05 (0.04)	852
Proportion of sick/injured who could afford treatment	0.82 (0.32)	0.01 (0.02)	0.05* (0.03)	-0.03 (0.04)	0.01 (0.03)	824
Average number of sick days per HH member	1.81 (3.00)	0.06 (0.18)	-0.05 (0.23)	-0.65** (0.27)	0.46* (0.28)	940
Propotion of illnesses where doctor was consulted	0.73 (0.36)	0.05** (0.02)	0.01 (0.04)	-0.04 (0.04)	0.03 (0.04)	824
Proportion of newborns vaccinated	0.59 (0.49)	-0.09 (0.07)	0.05 (0.12)	-0.16 (0.14)	0.08 (0.11)	243
Proportion of children <14 getting checkup (6 months)	0.25 (0.37)	0.04 (0.02)	-0.05 (0.04)	-0.04 (0.04)	-0.01 (0.04)	834
Proportion of children <5 who died (1 year)	0.03 (0.13)	0.01 (0.01)	0.03** (0.02)	0.00 (0.02)	-0.02* (0.01)	672
BMI to age z-score	-0.00 (1.00)	0.09 (0.16)	-0.03 (0.21)	0.23 (0.30)	-0.12 (0.16)	219
Height to age z-score	0.00 (1.00)	0.06 (0.14)	-0.28 (0.22)	-0.65*** (0.24)	-0.40* (0.21)	234
Weight to age z-score	-0.00 (1.00)	0.29* (0.15)	0.19 (0.24)	0.21 (0.29)	-0.31 (0.24)	220
Arm circumference to age z-score	-0.00 (1.00)	0.06 (0.16)	-0.12 (0.25)	0.07 (0.26)	0.15 (0.26)	235
Health index (children)	-0.00 (1.00)	-0.00 (0.07)	0.04 (0.10)	-0.06 (0.11)	-0.03 (0.10)	852
Health index	-0.00 (1.00)	-0.03 (0.06)	0.10 (0.09)	0.01 (0.10)	-0.09 (0.09)	940
Joint test (p -value)		0.19	0.09*	0.02**	0.06*	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the priamry male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 101: Health: Main Treatment Arms with Baseline Controls

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Medical expenses per episode, entire HH (USD)	5.81 (13.57)	0.95 (0.86)	1.51 (1.29)	-0.18 (1.35)	1.82 (1.38)	824
Medical expenses per episode, spouses (USD)	7.95 (28.39)	-1.43 (2.50)	2.20 (2.79)	1.98 (2.43)	3.19 (2.95)	375
Medical expenses per episode, children (USD)	3.70 (5.49)	0.67 (0.56)	0.63 (1.10)	0.65 (1.14)	1.02 (0.95)	642
Proportion of household sick/injured (1 month)	0.49 (0.31)	0.02 (0.02)	-0.04 (0.03)	-0.05 (0.03)	0.04 (0.03)	940
Proportion of children sick/injured (1 month)	0.44 (0.35)	0.01 (0.02)	-0.05 (0.04)	-0.03 (0.04)	0.04 (0.04)	852
Proportion of sick/injured who could afford treatment	0.82 (0.32)	0.02 (0.02)	0.06* (0.03)	-0.03 (0.03)	0.02 (0.03)	824
Average number of sick days per HH member	1.81 (3.00)	0.12 (0.17)	-0.08 (0.23)	-0.63** (0.27)	0.41 (0.27)	940
Propotion of illnesses where doctor was consulted	0.73 (0.36)	0.05** (0.02)	0.03 (0.04)	-0.04 (0.04)	0.04 (0.03)	824
Proportion of newborns vaccinated	0.59 (0.49)	-0.10 (0.07)	0.01 (0.13)	-0.16 (0.14)	0.04 (0.12)	243
Proportion of children <14 getting checkup (6 months)	0.25 (0.37)	0.04 (0.02)	-0.05 (0.04)	-0.05 (0.04)	-0.01 (0.04)	834
Proportion of children <5 who died (1 year)	0.03 (0.13)	0.01 (0.01)	0.03** (0.02)	0.00 (0.02)	-0.02 (0.01)	672
BMI to age z-score	-0.00 (1.00)	0.05 (0.16)	0.05 (0.23)	0.24 (0.35)	-0.12 (0.20)	219
Height to age z-score	0.00 (1.00)	0.03 (0.14)	-0.35 (0.23)	-0.66** (0.25)	-0.40* (0.23)	234
Weight to age z-score	-0.00 (1.00)	0.29* (0.16)	0.16 (0.26)	0.23 (0.32)	-0.30 (0.27)	220
Arm circumference to age z-score	-0.00 (1.00)	0.00 (0.15)	-0.12 (0.25)	0.09 (0.28)	0.28 (0.27)	235
Health index (children)	-0.00 (1.00)	-0.00 (0.07)	0.03 (0.10)	-0.07 (0.11)	-0.02 (0.10)	852
Health index	-0.00 (1.00)	-0.03 (0.06)	0.10 (0.09)	0.01 (0.10)	-0.06 (0.09)	940
Joint test (p-value)		0.14	0.08*	0.03**	0.06*	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 102: Health Spillover Analysis

	Spillover Effects						Lee Bounds		Horowitz-Manski Bounds	
	(1) All HH Estimate	(2) All HH estimate	(3) Thatched estimate	(4) Thatched estimate	(5) Test (1)=(3) p-value	(6) Test (2)=(4) p-value	(7) Lower	(8) Upper	(9) Lower	(10) Upper
Includes controls	No	Yes	No	Yes	No	Yes	No	No	No	No
Medical expenses per episode, entire HH (USD)	0.48 (1.06)	0.47 (1.06)	0.81 (1.13)	0.82 (1.12)	0.16	0.12	0.41 (1.06)	1.87** (0.90)	0.41 (1.03)	0.62 (1.03)
Medical expenses per episode, spouses (USD)	-0.57 (2.61)	-0.32 (2.52)	0.20 (2.88)	0.53 (2.83)	0.05*	0.04**	-0.80 (2.67)	2.23 (2.50)	-0.78 (2.66)	-0.16 (2.66)
Medical expenses per episode, children (USD)	0.63 (0.79)	0.77 (0.71)	0.68 (0.80)	0.81 (0.73)	0.67	0.72	0.58 (0.68)	1.47*** (0.40)	0.57 (0.70)	0.75 (0.70)
Proportion of household sick/injured (1 month)	0.05* (0.03)	0.05** (0.03)	0.05* (0.03)	0.05* (0.03)	0.78	0.89	0.04* (0.02)	0.05** (0.02)	0.04** (0.02)	0.05*** (0.02)
Proportion of children sick/injured (1 month)	0.05* (0.03)	0.05* (0.03)	0.05* (0.03)	0.05* (0.03)	0.84	0.75	0.04 (0.03)	0.06** (0.03)	0.04* (0.03)	0.05** (0.03)
Proportion of sick/injured who could afford treatment	0.03 (0.03)	0.02 (0.03)	0.02 (0.03)	0.02 (0.03)	0.52	0.42	0.02 (0.02)	0.03 (0.02)	0.02 (0.02)	0.03 (0.02)
Average number of sick days per HH member	0.00 (0.24)	-0.01 (0.21)	-0.01 (0.26)	0.00 (0.23)	0.84	0.77	-0.02 (0.21)	0.26 (0.21)	-0.02 (0.21)	0.05 (0.22)
Propotion of illnesses where doctor was consulted	-0.03 (0.03)	-0.03 (0.03)	-0.03 (0.03)	-0.04 (0.03)	0.85	0.72	-0.04 (0.03)	-0.03 (0.03)	-0.04 (0.03)	-0.03 (0.03)
Proportion of newborns vaccinated	0.15** (0.07)	0.11 (0.07)	0.12 (0.07)	0.07 (0.07)	0.17	0.17	0.13** (0.06)	0.17*** (0.06)	0.13** (0.06)	0.16*** (0.06)
Proportion of children <14 getting checkup (6 months)	-0.03 (0.04)	-0.02 (0.04)	-0.03 (0.04)	-0.02 (0.04)	0.75	0.66	-0.03 (0.03)	-0.02 (0.03)	-0.03 (0.03)	-0.02 (0.03)
Proportion of children <5 who died (1 year)	-0.01 (0.01)	-0.00 (0.01)	-0.01 (0.01)	0.00 (0.01)	0.01***	0.01**	-0.01 (0.01)	0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)
BMI to age z-score	0.01 (0.12)	0.02 (0.12)	-0.02 (0.11)	-0.01 (0.12)	0.56	0.61	-0.03 (0.13)	0.11 (0.11)	-0.02 (0.12)	0.04 (0.12)
Height to age z-score	0.15 (0.13)	0.21 (0.14)	0.09 (0.14)	0.14 (0.14)	0.04**	0.06*	0.03 (0.14)	0.26* (0.15)	0.08 (0.15)	0.20 (0.14)
Weight to age z-score	0.14 (0.15)	0.15 (0.14)	0.13 (0.15)	0.16 (0.15)	0.89	0.83	0.03 (0.14)	0.23 (0.14)	0.06 (0.14)	0.20 (0.14)
Arm circumference to age z-score	-0.08 (0.14)	-0.03 (0.15)	-0.08 (0.15)	-0.05 (0.15)	0.95	0.60	-0.16 (0.17)	0.01 (0.17)	-0.13 (0.14)	-0.02 (0.14)
Health index (children)	-0.00 (0.09)	-0.02 (0.09)	-0.01 (0.10)	-0.04 (0.09)	0.41	0.35	-0.10 (0.08)	0.03 (0.09)	-0.02 (0.08)	0.02 (0.08)
Health index	-0.06 (0.08)	-0.07 (0.08)	-0.06 (0.08)	-0.08 (0.08)	0.80	0.66	-0.10 (0.07)	-0.03 (0.06)	-0.07 (0.07)	-0.04 (0.07)
Joint test (<i>p</i> -value)	0.01**	0.01***	0.03**	0.01**						

Notes: OLS estimates of spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Columns (1) and (2) report the "naive" estimate of spillover effects, including spillover households that upgraded to metal roofs between baseline and endline. Column (3) and (4) report estimate of the spillover effect excluding metal roof households. Columns (1) and (3) exclude baseline covariates. Columns (2) and (4) include baseline covariates. Column (5) reports the p-value of the equality for the coefficient estimates in (1) and (3) after joint-estimation of the two models using SUR. Column (6) reports the p-value of the equality for the coefficient estimates in (2) and (4) after joint-estimation of the two models using SUR. The last row reports p-values on the joint-significance of all coefficients in a given column after joint-estimation using SUR. Columns (7) and (8) report the lower and upper Lee effect-size bounds adjusting for differential attrition generated by restricting to thatched roof households. This attrition is due to the higher rate of upgrade to metal roofs among spillover households and represents approximately 5 households or 10 individuals. Columns (9) and (10) report lower and upper Manski-Horowitz bounds, imputing outcomes for the 5 attriting households using the 95th and 5th percentile of observed outcomes respectively. In columns (1) through (4), standard errors clustered at the village level are reported in parentheses. In columns (7) through (10), bootstrapped standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 103: Health: Across Village

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Medical expenses per episode, entire HH (USD)	5.81 (13.57)	0.84 (0.88)	1.35 (1.11)	0.48 (1.06)	1184
Medical expenses per episode, spouses (USD)	7.95 (28.39)	-1.54 (2.49)	-1.30 (2.19)	-0.57 (2.61)	512
Medical expenses per episode, children (USD)	3.70 (5.49)	0.59 (0.55)	1.31 (0.85)	0.63 (0.79)	893
Proportion of household sick/injured (1 month)	0.49 (0.31)	0.02 (0.02)	0.06** (0.03)	0.05* (0.03)	1372
Proportion of children sick/injured (1 month)	0.44 (0.35)	0.01 (0.02)	0.05* (0.03)	0.05* (0.03)	1229
Proportion of sick/injured who could afford treatment	0.82 (0.32)	0.01 (0.02)	0.04 (0.03)	0.03 (0.03)	1184
Average number of sick days per HH member	1.81 (3.00)	0.06 (0.18)	0.08 (0.22)	0.00 (0.24)	1372
Propotion of illnesses where doctor was consulted	0.73 (0.36)	0.05** (0.02)	0.02 (0.03)	-0.03 (0.03)	1184
Proportion of newborns vaccinated	0.59 (0.49)	-0.09 (0.07)	0.03 (0.07)	0.15** (0.07)	357
Proportion of children <14 getting checkup (6 months)	0.25 (0.37)	0.04 (0.02)	-0.00 (0.04)	-0.03 (0.04)	1201
Proportion of children <5 who died (1 year)	0.03 (0.13)	0.01 (0.01)	-0.00 (0.01)	-0.01 (0.01)	959
BMI to age z-score	-0.00 (1.00)	0.09 (0.16)	0.03 (0.11)	0.01 (0.12)	303
Height to age z-score	0.00 (1.00)	0.06 (0.14)	0.22 (0.15)	0.15 (0.13)	319
Weight to age z-score	-0.00 (1.00)	0.29* (0.15)	0.31* (0.17)	0.14 (0.15)	304
Arm circumference to age z-score	-0.00 (1.00)	0.06 (0.16)	-0.01 (0.15)	-0.08 (0.14)	320
Health index (children)	-0.00 (1.00)	-0.00 (0.07)	0.00 (0.09)	-0.00 (0.09)	1231
Health index	-0.00 (1.00)	-0.03 (0.06)	-0.08 (0.08)	-0.06 (0.08)	1372
Joint test (<i>p</i> -value)		0.19	0.04**	0.01**	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 104: Health: Male vs. Female

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Medical expenses per episode, entire HH (USD)	5.81 (13.57)	2.06 (1.37)	0.38 (0.92)	1.68 (1.34)	2.75 (1.86)	0.82 (1.13)	1184
Medical expenses per episode, spouses (USD)	7.95 (28.39)	0.45 (3.65)	-2.49 (2.38)	2.94 (2.97)	1.59 (3.16)	-2.70 (2.00)	512
Medical expenses per episode, children (USD)	3.70 (5.49)	1.26 (0.80)	0.32 (0.65)	0.95 (0.93)	2.22** (1.07)	0.94 (0.92)	893
Proportion of household sick/injured (1 month)	0.49 (0.31)	0.05* (0.03)	0.01 (0.02)	0.04 (0.03)	0.08** (0.03)	0.06** (0.03)	1372
Proportion of children sick/injured (1 month)	0.44 (0.35)	0.04 (0.04)	-0.01 (0.03)	0.05 (0.04)	0.07* (0.04)	0.04 (0.03)	1229
Proportion of sick/injured who could afford treatment	0.82 (0.32)	0.02 (0.03)	0.01 (0.02)	0.01 (0.03)	0.05 (0.04)	0.04 (0.03)	1184
Average number of sick days per HH member	1.81 (3.00)	0.40 (0.27)	-0.06 (0.20)	0.46* (0.28)	0.29 (0.28)	0.01 (0.24)	1372
Propotion of illnesses where doctor was consulted	0.73 (0.36)	0.07** (0.04)	0.04 (0.03)	0.03 (0.04)	0.05 (0.04)	0.01 (0.03)	1184
Proportion of newborns vaccinated	0.59 (0.49)	-0.04 (0.10)	-0.12 (0.08)	0.08 (0.11)	0.01 (0.10)	0.04 (0.08)	357
Proportion of children <14 getting checkup (6 months)	0.25 (0.37)	0.03 (0.04)	0.04 (0.03)	-0.01 (0.04)	-0.02 (0.05)	0.01 (0.04)	1201
Proportion of children <5 who died (1 year)	0.03 (0.13)	-0.00 (0.01)	0.02 (0.01)	-0.02* (0.01)	-0.02** (0.01)	0.01 (0.01)	959
BMI to age z-score	-0.00 (1.00)	0.00 (0.17)	0.12 (0.18)	-0.12 (0.16)	-0.01 (0.08)	0.04 (0.14)	303
Height to age z-score	0.00 (1.00)	-0.23 (0.18)	0.18 (0.16)	-0.40* (0.21)	-0.05 (0.18)	0.34** (0.15)	319
Weight to age z-score	-0.00 (1.00)	0.07 (0.22)	0.38** (0.18)	-0.31 (0.24)	0.09 (0.20)	0.41** (0.20)	304
Arm circumference to age z-score	-0.00 (1.00)	0.17 (0.24)	0.01 (0.17)	0.15 (0.26)	0.21 (0.23)	-0.10 (0.16)	320
Health index (children)	-0.00 (1.00)	-0.03 (0.10)	0.01 (0.07)	-0.03 (0.10)	-0.02 (0.12)	0.01 (0.10)	1231
Health index	-0.00 (1.00)	-0.10 (0.09)	-0.01 (0.07)	-0.09 (0.09)	-0.12 (0.10)	-0.07 (0.08)	1372
Joint test (p -value)		0.04**	0.22	0.06*	0.02**	0.02**	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 105: Health: Monthly vs. lump-sum

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Medical expenses per episode, entire HH (USD)	5.81 (13.57)	0.27 (1.26)	0.48 (1.03)	-0.21 (1.36)	0.84 (1.40)	0.80 (1.24)	1184
Medical expenses per episode, spouses (USD)	7.95 (28.39)	-1.28 (2.57)	-3.38 (2.74)	2.10 (2.43)	-2.61 (2.61)	-2.77 (1.99)	512
Medical expenses per episode, children (USD)	3.70 (5.49)	0.62 (1.07)	0.06 (0.63)	0.55 (1.13)	1.24 (1.29)	0.68 (0.96)	893
Proportion of household sick/injured (1 month)	0.49 (0.31)	-0.02 (0.03)	0.03 (0.03)	-0.05* (0.03)	0.03 (0.03)	0.08** (0.03)	1372
Proportion of children sick/injured (1 month)	0.44 (0.35)	-0.02 (0.03)	0.01 (0.03)	-0.03 (0.04)	0.02 (0.04)	0.06 (0.04)	1229
Proportion of sick/injured who could afford treatment	0.82 (0.32)	-0.01 (0.03)	0.03 (0.03)	-0.03 (0.04)	0.02 (0.04)	0.05* (0.03)	1184
Average number of sick days per HH member	1.81 (3.00)	-0.41* (0.22)	0.24 (0.26)	-0.65** (0.27)	-0.28 (0.23)	0.26 (0.34)	1372
Propotion of illnesses where doctor was consulted	0.73 (0.36)	0.02 (0.03)	0.06* (0.03)	-0.04 (0.04)	-0.01 (0.04)	0.02 (0.03)	1184
Proportion of newborns vaccinated	0.59 (0.49)	-0.22* (0.12)	-0.06 (0.09)	-0.16 (0.14)	-0.09 (0.11)	0.13 (0.09)	357
Proportion of children <14 getting checkup (6 months)	0.25 (0.37)	0.02 (0.03)	0.06* (0.03)	-0.04 (0.04)	-0.02 (0.05)	0.03 (0.05)	1201
Proportion of children <5 who died (1 year)	0.03 (0.13)	0.02 (0.02)	0.02 (0.01)	0.00 (0.02)	0.00 (0.02)	0.01 (0.02)	959
BMI to age z-score	-0.00 (1.00)	0.22 (0.23)	-0.01 (0.25)	0.23 (0.30)	0.20 (0.21)	-0.13 (0.16)	303
Height to age z-score	0.00 (1.00)	-0.10 (0.22)	0.54*** (0.17)	-0.65*** (0.24)	0.02 (0.19)	0.69*** (0.19)	319
Weight to age z-score	-0.00 (1.00)	0.47** (0.22)	0.26 (0.24)	0.21 (0.29)	0.48* (0.25)	0.32 (0.20)	304
Arm circumference to age z-score	-0.00 (1.00)	0.04 (0.20)	-0.03 (0.24)	0.07 (0.26)	-0.00 (0.16)	-0.21 (0.23)	320
Health index (children)	-0.00 (1.00)	-0.03 (0.09)	0.03 (0.09)	-0.06 (0.11)	-0.01 (0.11)	0.03 (0.11)	1231
Health index	-0.00 (1.00)	-0.00 (0.08)	-0.02 (0.08)	0.01 (0.10)	-0.07 (0.09)	-0.08 (0.10)	1372
Joint test (p -value)		0.08*	0.02**	0.02**	0.40	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 106: Health: Large vs. Small

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Medical expenses per episode, entire HH (USD)	5.81 (13.57)	2.06 (1.37)	0.38 (0.92)	1.68 (1.34)	2.75 (1.86)	0.82 (1.13)	1184
Medical expenses per episode, spouses (USD)	7.95 (28.39)	0.45 (3.65)	-2.49 (2.38)	2.94 (2.97)	1.59 (3.16)	-2.70 (2.00)	512
Medical expenses per episode, children (USD)	3.70 (5.49)	1.26 (0.80)	0.32 (0.65)	0.95 (0.93)	2.22** (1.07)	0.94 (0.92)	893
Proportion of household sick/injured (1 month)	0.49 (0.31)	0.05* (0.03)	0.01 (0.02)	0.04 (0.03)	0.08** (0.03)	0.06** (0.03)	1372
Proportion of children sick/injured (1 month)	0.44 (0.35)	0.04 (0.04)	-0.01 (0.03)	0.05 (0.04)	0.07* (0.04)	0.04 (0.03)	1229
Proportion of sick/injured who could afford treatment	0.82 (0.32)	0.02 (0.03)	0.01 (0.02)	0.01 (0.03)	0.05 (0.04)	0.04 (0.03)	1184
Average number of sick days per HH member	1.81 (3.00)	0.40 (0.27)	-0.06 (0.20)	0.46* (0.28)	0.29 (0.28)	0.01 (0.24)	1372
Propotion of illnesses where doctor was consulted	0.73 (0.36)	0.07** (0.04)	0.04 (0.03)	0.03 (0.04)	0.05 (0.04)	0.01 (0.03)	1184
Proportion of newborns vaccinated	0.59 (0.49)	-0.04 (0.10)	-0.12 (0.08)	0.08 (0.11)	0.01 (0.10)	0.04 (0.08)	357
Proportion of children <14 getting checkup (6 months)	0.25 (0.37)	0.03 (0.04)	0.04 (0.03)	-0.01 (0.04)	-0.02 (0.05)	0.01 (0.04)	1201
Proportion of children <5 who died (1 year)	0.03 (0.13)	-0.00 (0.01)	0.02 (0.01)	-0.02* (0.01)	-0.02** (0.01)	0.01 (0.01)	959
BMI to age z-score	-0.00 (1.00)	0.00 (0.17)	0.12 (0.18)	-0.12 (0.16)	-0.01 (0.08)	0.04 (0.14)	303
Height to age z-score	0.00 (1.00)	-0.23 (0.18)	0.18 (0.16)	-0.40* (0.21)	-0.05 (0.18)	0.34** (0.15)	319
Weight to age z-score	-0.00 (1.00)	0.07 (0.22)	0.38** (0.18)	-0.31 (0.24)	0.09 (0.20)	0.41** (0.20)	304
Arm circumference to age z-score	-0.00 (1.00)	0.17 (0.24)	0.01 (0.17)	0.15 (0.26)	0.21 (0.23)	-0.10 (0.16)	320
Health index (children)	-0.00 (1.00)	-0.03 (0.10)	0.01 (0.07)	-0.03 (0.10)	-0.02 (0.12)	0.01 (0.10)	1231
Health index	-0.00 (1.00)	-0.10 (0.09)	-0.01 (0.07)	-0.09 (0.09)	-0.12 (0.10)	-0.07 (0.08)	1372
Joint test (p -value)		0.04**	0.22	0.06*	0.02**	0.02**	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the household. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.8 Education

Table 107: Education: Main Treatment Arms

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Education expenditure past month (USD)	66.28 (120.95)	18.30 (11.59)	−8.87 (21.06)	−20.06 (20.82)	−2.19 (16.52)	823
Education expenditure per child past month (USD)	22.97 (36.91)	3.49 (2.25)	2.28 (3.40)	1.64 (3.96)	0.71 (3.27)	823
Proportion of school-aged children in school	0.69 (0.34)	0.01 (0.02)	0.02 (0.03)	−0.03 (0.03)	0.02 (0.03)	823
School days missed past month (per child)	1.07 (1.84)	−0.11 (0.12)	−0.33 (0.22)	−0.34* (0.20)	0.03 (0.22)	822
Income-generating activities per school-age child >6	0.83 (0.85)	−0.03 (0.05)	−0.01 (0.09)	−0.16* (0.08)	−0.01 (0.08)	720
Education index	0.00 (1.00)	0.08 (0.06)	0.06 (0.09)	−0.05 (0.10)	0.05 (0.09)	823
Joint test (p -value)		0.51	0.37	0.02**	1.00	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the household for all variables, restricting to households with schoolage children. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 108: Education: Main Treatment Arms with Baseline Controls

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Education expenditure past month (USD)	66.28 (120.95)	17.65 (11.55)	-12.98 (20.29)	-16.34 (18.78)	0.80 (15.91)	823
Education expenditure per child past month (USD)	22.97 (36.91)	3.27 (2.22)	1.39 (3.40)	1.80 (3.84)	1.25 (3.23)	823
Proportion of school-aged children in school	0.69 (0.34)	0.01 (0.02)	0.01 (0.03)	-0.03 (0.03)	0.02 (0.03)	823
School days missed past month (per child)	1.07 (1.84)	-0.10 (0.13)	-0.35 (0.22)	-0.33* (0.20)	0.03 (0.22)	822
Income-generating activities per school-age child >6	0.83 (0.85)	-0.02 (0.05)	-0.03 (0.09)	-0.17** (0.08)	0.00 (0.08)	720
Education index	0.00 (1.00)	0.08 (0.06)	0.03 (0.09)	-0.03 (0.09)	0.06 (0.08)	823
Joint test (p -value)		0.61	0.43	0.02**	0.99	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the household for all variables, restricting to households with schoolage children. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 109: Education: Spillover Analysis

	Spillover Effects						Lee Bounds		Horowitz-Manski Bounds	
	(1) All HH Estimate	(2) All HH estimate	(3) Thatched estimate	(4) Thatched estimate	(5) Test (1)=(3) p-value	(6) Test (2)=(4) p-value	(7) Lower	(8) Upper	(9) Lower	(10) Upper
Includes controls	No	Yes	No	Yes	No	Yes	No	No	No	No
Education expenditure past month (USD)	-3.74 (9.77)	-4.32 (9.34)	-3.44 (10.04)	-4.04 (9.63)	0.89	0.89	-22.96** (11.68)	-1.35 (9.92)	-4.56 (9.96)	-0.80 (10.04)
Education expenditure per child past month (USD)	0.62 (2.61)	-0.28 (2.47)	0.86 (2.65)	0.16 (2.51)	0.74	0.50	-4.98 (4.31)	1.45 (2.84)	0.34 (2.67)	1.51 (2.70)
Proportion of school-aged children in school	0.00 (0.03)	-0.00 (0.03)	-0.01 (0.03)	-0.02 (0.03)	0.07*	0.03**	-0.01 (0.03)	0.03 (0.03)	-0.01 (0.03)	0.00 (0.03)
School days missed past month (per child)	0.11 (0.17)	0.12 (0.16)	0.15 (0.17)	0.16 (0.17)	0.22	0.30	-0.14 (0.14)	0.15 (0.12)	0.10 (0.14)	0.16 (0.14)
Income-generating activities per school-age child >6	0.05 (0.06)	0.04 (0.06)	0.06 (0.07)	0.05 (0.07)	0.43	0.59	-0.05 (0.08)	0.08 (0.08)	0.03 (0.07)	0.07 (0.07)
Education index	0.01 (0.07)	-0.01 (0.06)	-0.00 (0.08)	-0.03 (0.07)	0.36	0.29	-0.10 (0.10)	0.10 (0.07)	-0.01 (0.07)	0.03 (0.07)
Joint test (p-value)	0.75	0.87	0.63	0.70						

Notes: OLS estimates of spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Columns (1) and (2) report the "naive" estimate of spillover effects, including spillover households that upgraded to metal roofs between baseline and endline. Column (3) and (4) report estimate of the spillover effect excluding metal roof households. Columns (1) and (3) exclude baseline covariates. Columns (2) and (4) include baseline covariates. Column (5) reports the p-value of the equality for the coefficient estimates in (1) and (3) after joint-estimation of the two models using SUR. Column (6) reports the p-value of the equality for the coefficient estimates in (2) and (4) after joint-estimation of the two models using SUR. The last row reports p-values on the joint-significance of all coefficients in a given column after joint-estimation using SUR. Columns (7) and (8) report the lower and upper Lee effect-size bounds adjusting for differential attrition generated by restricting to thatched roof households. This attrition is due to the higher rate of upgrade to metal roofs among spillover households and represents approximately 5 households or 10 individuals. Columns (9) and (10) report lower and upper Manski-Horowitz bounds, imputing outcomes for the 5 attriting households using the 95th and 5th percentile of observed outcomes respectively. In columns (1) through (4), standard errors clustered at the village level are reported in parentheses. In columns (7) through (10), bootstrapped standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 110: Education: Across Village

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Education expenditure past month (USD)	66.28 (120.95)	18.30 (11.59)	5.52 (12.20)	-3.74 (9.77)	1174
Education expenditure per child past month (USD)	22.97 (36.91)	3.49 (2.25)	1.58 (2.80)	0.62 (2.61)	1174
Proportion of school-aged children in school	0.69 (0.34)	0.01 (0.02)	0.01 (0.02)	0.00 (0.03)	1174
School days missed past month (per child)	1.07 (1.84)	-0.11 (0.12)	-0.01 (0.15)	0.11 (0.17)	1173
Income-generating activities per school-age child >6	0.83 (0.85)	-0.03 (0.05)	-0.01 (0.06)	0.05 (0.06)	1022
Education index	0.00 (1.00)	0.08 (0.06)	0.04 (0.08)	0.01 (0.07)	1174
Joint test (p-value)		0.51	0.99	0.75	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables, restricting to households with schoolage children. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 111: Education: Male vs. Female

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Education expenditure past month (USD)	66.28 (120.95)	8.30 (10.12)	28.36 (22.55)	−20.06 (20.82)	−4.68 (12.05)	19.43 (22.59)	1174
Education expenditure per child past month (USD)	22.97 (36.91)	4.16 (3.15)	2.52 (3.36)	1.64 (3.96)	3.20 (4.20)	1.52 (3.62)	1174
Proportion of school-aged children in school	0.69 (0.34)	−0.01 (0.03)	0.02 (0.03)	−0.03 (0.03)	0.01 (0.04)	−0.01 (0.03)	1174
School days missed past month (per child)	1.07 (1.84)	−0.30* (0.15)	0.04 (0.18)	−0.34* (0.20)	−0.17 (0.17)	0.11 (0.19)	1173
Income-generating activities per school-age child >6	0.83 (0.85)	−0.12* (0.06)	0.05 (0.08)	−0.16* (0.08)	−0.09 (0.08)	0.07 (0.09)	1022
Education index	0.00 (1.00)	0.04 (0.07)	0.09 (0.09)	−0.05 (0.10)	0.07 (0.11)	0.00 (0.09)	1174
Joint test (p -value)		0.04**	0.54	0.02**	0.30	0.84	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the household for all variables, restricting to households with schoolage children. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 112: Education: Monthly vs. lump-sum

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Education expenditure past month (USD)	66.28 (120.95)	8.30 (10.12)	28.36 (22.55)	−20.06 (20.82)	−4.68 (12.05)	19.43 (22.59)	1174
Education expenditure per child past month (USD)	22.97 (36.91)	4.16 (3.15)	2.52 (3.36)	1.64 (3.96)	3.20 (4.20)	1.52 (3.62)	1174
Proportion of school-aged children in school	0.69 (0.34)	−0.01 (0.03)	0.02 (0.03)	−0.03 (0.03)	0.01 (0.04)	−0.01 (0.03)	1174
School days missed past month (per child)	1.07 (1.84)	−0.30* (0.15)	0.04 (0.18)	−0.34* (0.20)	−0.17 (0.17)	0.11 (0.19)	1173
Income-generating activities per school-age child >6	0.83 (0.85)	−0.12* (0.06)	0.05 (0.08)	−0.16* (0.08)	−0.09 (0.08)	0.07 (0.09)	1022
Education index	0.00 (1.00)	0.04 (0.07)	0.09 (0.09)	−0.05 (0.10)	0.07 (0.11)	0.00 (0.09)	1174
Joint test (p -value)		0.04**	0.54	0.02**	0.30	0.84	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the household for all variables, restricting to households with schoolage children. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 113: Education: Large vs. Small

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Education expenditure past month (USD)	66.28 (120.95)	16.70 (11.53)	18.89 (14.46)	-2.19 (16.52)	-1.08 (12.88)	8.00 (14.60)	1174
Education expenditure per child past month (USD)	22.97 (36.91)	4.01 (2.88)	3.29 (2.59)	0.71 (3.27)	-0.38 (3.08)	2.31 (3.32)	1174
Proportion of school-aged children in school	0.69 (0.34)	0.02 (0.03)	0.00 (0.02)	0.02 (0.03)	0.03 (0.04)	-0.00 (0.03)	1174
School days missed past month (per child)	1.07 (1.84)	-0.09 (0.21)	-0.12 (0.13)	0.03 (0.22)	0.03 (0.23)	-0.03 (0.15)	1173
Income-generating activities per school-age child >6	0.83 (0.85)	-0.04 (0.08)	-0.03 (0.06)	-0.01 (0.08)	-0.01 (0.10)	-0.01 (0.07)	1022
Education index	0.00 (1.00)	0.11 (0.08)	0.07 (0.07)	0.05 (0.09)	0.05 (0.10)	0.03 (0.08)	1174
Joint test (p -value)		0.70	0.70	1.00	0.98	0.97	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the household, restricting to households with schoolage children. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.9 Psychological Wellbeing

18.9.1 Psychological wellbeing: unweighted

Table 114: Psychological Wellbeing: Main Treatment Arms

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Log cortisol (no controls)	2.46 (0.89)	0.00 (0.05)	-0.17** (0.07)	0.16* (0.08)	-0.09 (0.07)	1456
Log cortisol (with controls)	-0.04 (0.88)	0.01 (0.05)	-0.17** (0.07)	0.17** (0.08)	-0.12* (0.07)	1456
Depression (CESD)	26.48 (9.31)	-1.16*** (0.44)	-0.77 (0.67)	-1.40* (0.73)	-1.22* (0.68)	1474
Worries	0.00 (1.00)	-0.13*** (0.05)	-0.04 (0.07)	-0.11 (0.08)	-0.07 (0.08)	1474
Stress (Cohen)	-0.00 (1.00)	-0.26*** (0.05)	-0.02 (0.08)	-0.02 (0.09)	-0.24*** (0.08)	1474
Happiness (WVS)	-0.00 (1.00)	0.16*** (0.05)	0.07 (0.08)	0.03 (0.09)	0.07 (0.08)	1474
Life satisfaction (WVS)	-0.00 (1.00)	0.17*** (0.05)	-0.07 (0.07)	0.12 (0.08)	0.19** (0.08)	1474
Trust (WVS)	-0.00 (1.00)	0.04 (0.05)	0.08 (0.08)	-0.08 (0.08)	-0.04 (0.08)	1474
Locus of control	0.00 (1.00)	0.03 (0.05)	0.04 (0.08)	-0.03 (0.09)	0.08 (0.08)	1474
Optimism (Scheier)	-0.00 (1.00)	0.10* (0.05)	0.07 (0.08)	0.02 (0.09)	0.16* (0.09)	1474
Self-esteem (Rosenberg)	0.00 (1.00)	0.00 (0.05)	0.19** (0.09)	0.09 (0.09)	-0.15 (0.10)	1474
Psychological well-being index	-0.00 (1.00)	0.26*** (0.05)	0.14* (0.08)	0.01 (0.08)	0.26*** (0.08)	1474
Joint test (p-value)		0.00***	0.21	0.21	0.00***	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the individual for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the the difference in effect or households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 115: Psychological Wellbeing: Main Treatment Arms with Baseline Controls

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Log cortisol (no controls)	2.46 (0.89)	0.00 (0.05)	-0.17** (0.07)	0.16* (0.08)	-0.09 (0.07)	1456
Log cortisol (with controls)	-0.04 (0.88)	0.01 (0.05)	-0.17** (0.07)	0.17** (0.08)	-0.12* (0.07)	1456
Depression (CESD)	26.48 (9.31)	-1.07** (0.43)	-0.70 (0.67)	-1.43** (0.72)	-1.31* (0.67)	1474
Worries	0.00 (1.00)	-0.14*** (0.05)	-0.04 (0.07)	-0.12 (0.08)	-0.08 (0.08)	1474
Stress (Cohen)	-0.00 (1.00)	-0.26*** (0.05)	-0.03 (0.08)	-0.03 (0.09)	-0.24*** (0.08)	1474
Happiness (WVS)	-0.00 (1.00)	0.17*** (0.05)	0.07 (0.08)	0.03 (0.09)	0.08 (0.08)	1474
Life satisfaction (WVS)	-0.00 (1.00)	0.17*** (0.05)	-0.09 (0.07)	0.12 (0.08)	0.20** (0.08)	1474
Trust (WVS)	-0.00 (1.00)	0.06 (0.05)	0.08 (0.08)	-0.07 (0.08)	-0.03 (0.08)	1474
Locus of control	0.00 (1.00)	0.04 (0.05)	0.06 (0.08)	-0.03 (0.09)	0.09 (0.08)	1474
Optimism (Scheier)	-0.00 (1.00)	0.10* (0.05)	0.08 (0.08)	0.02 (0.09)	0.18** (0.09)	1474
Self-esteem (Rosenberg)	0.00 (1.00)	0.01 (0.05)	0.20** (0.09)	0.09 (0.09)	-0.15 (0.10)	1474
Psychological well-being index	-0.00 (1.00)	0.26*** (0.05)	0.13* (0.08)	0.02 (0.08)	0.28*** (0.08)	1474
Joint test (p -value)		0.00***	0.16	0.20	0.00***	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the individual for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 116: Psychological Wellbeing: Spillover Analysis

	Spillover Effects						Lee Bounds		Horowitz-Manski Bounds	
	(1) All HH Estimate	(2) All HH estimate	(3) Thatched estimate	(4) Thatched estimate	(5) Test (1)=(3) p-value	(6) Test (2)=(4) p-value	(7) Lower	(8) Upper	(9) Lower	(10) Upper
Includes controls	No	Yes	No	Yes	No	Yes	No	No	No	No
Log cortisol (no controls)	-0.06 (0.05)	-0.06 (0.05)	-0.06 (0.05)	-0.06 (0.05)	0.98	0.88	-0.10 (0.06)	-0.05 (0.05)	-0.08* (0.05)	-0.04 (0.05)
Log cortisol (with controls)	-0.05 (0.05)	-0.05 (0.05)	-0.05 (0.05)	-0.05 (0.05)	0.92	0.99	-0.08 (0.06)	-0.03 (0.05)	-0.07 (0.05)	-0.03 (0.05)
Depression (CESD)	-0.23 (0.79)	-0.25 (0.81)	-0.20 (0.82)	-0.20 (0.85)	0.89	0.79	-0.26 (0.64)	-0.20 (0.61)	-0.43 (0.51)	-0.01 (0.51)
Worries	0.08 (0.08)	0.07 (0.08)	0.06 (0.08)	0.05 (0.08)	0.34	0.26	0.08 (0.07)	0.08 (0.06)	0.06 (0.05)	0.10* (0.05)
Stress (Cohen)	0.07 (0.07)	0.08 (0.07)	0.08 (0.07)	0.09 (0.07)	0.71	0.64	0.07 (0.05)	0.11** (0.05)	0.05 (0.05)	0.09* (0.05)
Happiness (WVS)	0.11* (0.06)	0.10 (0.06)	0.10 (0.07)	0.09 (0.07)	0.72	0.69	0.11 (0.11)	0.21*** (0.06)	0.08 (0.05)	0.13** (0.05)
Life satisfaction (WVS)	0.02 (0.08)	0.02 (0.08)	-0.00 (0.08)	-0.00 (0.08)	0.17	0.20	0.02 (0.05)	0.03 (0.07)	0.01 (0.05)	0.05 (0.05)
Trust (WVS)	-0.08 (0.07)	-0.09 (0.07)	-0.09 (0.07)	-0.10 (0.07)	0.62	0.66	-0.08 (0.05)	-0.08 (0.06)	-0.09* (0.05)	-0.06 (0.05)
Locus of control	-0.09 (0.06)	-0.09 (0.06)	-0.11* (0.06)	-0.12* (0.06)	0.21	0.17	-0.09 (0.07)	-0.09 (0.06)	-0.11** (0.05)	-0.06 (0.05)
Optimism (Scheier)	0.09 (0.07)	0.10 (0.07)	0.11* (0.07)	0.12* (0.07)	0.22	0.22	0.08 (0.07)	0.09 (0.07)	0.06 (0.05)	0.11** (0.05)
Self-esteem (Rosenberg)	-0.03 (0.07)	-0.02 (0.07)	-0.03 (0.07)	-0.02 (0.07)	0.92	0.78	-0.03 (0.07)	-0.02 (0.06)	-0.05 (0.05)	-0.00 (0.05)
Psychological well-being index	0.03 (0.07)	0.03 (0.07)	0.03 (0.07)	0.02 (0.07)	0.77	0.71	0.03 (0.06)	0.04 (0.06)	0.01 (0.05)	0.05 (0.05)
Joint test (p-value)	0.35	0.26	0.18	0.11						

Notes: OLS estimates of spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables except psychological well-being, where it is the individual. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Columns (1) and (2) report the "naive" estimate of spillover effects, including spillover households that upgraded to metal roofs between baseline and endline. Column (3) and (4) report estimate of the spillover effect excluding metal roof households. Columns (1) and (3) exclude baseline covariates. Columns (2) and (4) include baseline covariates. Column (5) reports the p-value of the equality for the coefficient estimates in (1) and (3) after joint-estimation of the two models using SUR. Column (6) reports the p-value of the equality for the coefficient estimates in (2) and (4) after joint-estimation of the two models using SUR. The last row reports p-values on the joint-significance of all coefficients in a given column after joint-estimation using SUR. Columns (7) and (8) report the lower and upper Lee effect-size bounds adjusting for differential attrition generated by restricting to thatched roof households. This attrition is due to the higher rate of upgrade to metal roofs among spillover households and represents approximately 5 households or 10 individuals. Columns (9) and (10) report lower and upper Manski-Horowitz bounds, imputing outcomes for the 5 attriting households using the 95th and 5th percentile of observed outcomes respectively. In columns (1) through (4), standard errors clustered at the village level are reported in parentheses. In columns (7) through (10), bootstrapped standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 117: Psychological Wellbeing: Across Village

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Log cortisol (no controls)	2.46 (0.89)	0.00 (0.05)	−0.06 (0.05)	−0.06 (0.05)	2102
Log cortisol (with controls)	−0.04 (0.88)	0.01 (0.05)	−0.04 (0.05)	−0.05 (0.05)	2102
Depression (CESD)	26.48 (9.31)	−1.16*** (0.44)	−1.41** (0.64)	−0.23 (0.79)	2140
Worries	0.00 (1.00)	−0.13*** (0.05)	−0.06 (0.07)	0.08 (0.08)	2140
Stress (Cohen)	−0.00 (1.00)	−0.26*** (0.05)	−0.19** (0.07)	0.07 (0.07)	2140
Happiness (WVS)	−0.00 (1.00)	0.16*** (0.05)	0.26*** (0.06)	0.11* (0.06)	2140
Life satisfaction (WVS)	−0.00 (1.00)	0.17*** (0.05)	0.19*** (0.07)	0.02 (0.08)	2140
Trust (WVS)	−0.00 (1.00)	0.04 (0.05)	−0.04 (0.07)	−0.08 (0.07)	2140
Locus of control	0.00 (1.00)	0.03 (0.05)	−0.04 (0.06)	−0.09 (0.06)	2140
Optimism (Scheier)	−0.00 (1.00)	0.10* (0.05)	0.18*** (0.07)	0.09 (0.07)	2140
Self-esteem (Rosenberg)	0.00 (1.00)	0.00 (0.05)	−0.03 (0.07)	−0.03 (0.07)	2140
Psychological well-being index	−0.00 (1.00)	0.26*** (0.05)	0.28*** (0.07)	0.03 (0.07)	2140
Joint test (p -value)		0.00***	0.00***	0.35	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the individual for all variables. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 118: Psychological Wellbeing: Male vs. Female

	(1) Control mean (SD)	(2) Female recipient (within villages)	(3) Male recipient (within villages)	(4) Female vs. male recipient (within villages)	(5) Female recipient (across villages)	(6) Male recipient (across villages)	(7) N
Log cortisol (no controls)	2.46 (0.89)	-0.11* (0.06)	0.06 (0.06)	-0.17** (0.07)	-0.16** (0.07)	0.00 (0.07)	2102
Log cortisol (with controls)	-0.04 (0.88)	-0.10 (0.06)	0.07 (0.06)	-0.17** (0.07)	-0.14** (0.06)	0.03 (0.07)	2102
Depression (CESD)	26.48 (9.31)	-1.83*** (0.55)	-1.06* (0.60)	-0.77 (0.67)	-1.49** (0.72)	-0.71 (0.78)	2140
Worries	0.00 (1.00)	-0.18*** (0.06)	-0.14** (0.07)	-0.04 (0.07)	-0.07 (0.07)	-0.02 (0.09)	2140
Stress (Cohen)	-0.00 (1.00)	-0.33*** (0.06)	-0.30*** (0.07)	-0.02 (0.08)	-0.19** (0.08)	-0.17* (0.09)	2140
Happiness (WVS)	-0.00 (1.00)	0.22*** (0.07)	0.14** (0.07)	0.07 (0.08)	0.27*** (0.07)	0.21*** (0.07)	2140
Life satisfaction (WVS)	-0.00 (1.00)	0.18*** (0.06)	0.26*** (0.06)	-0.07 (0.07)	0.17** (0.07)	0.21** (0.09)	2140
Trust (WVS)	-0.00 (1.00)	0.07 (0.07)	-0.02 (0.07)	0.08 (0.08)	-0.02 (0.08)	-0.08 (0.08)	2140
Locus of control	0.00 (1.00)	0.07 (0.07)	0.03 (0.07)	0.04 (0.08)	-0.03 (0.08)	-0.07 (0.07)	2140
Optimism (Scheier)	-0.00 (1.00)	0.14** (0.07)	0.07 (0.07)	0.07 (0.08)	0.20** (0.09)	0.12 (0.09)	2140
Self-esteem (Rosenberg)	0.00 (1.00)	0.09 (0.07)	-0.10 (0.07)	0.19** (0.09)	0.06 (0.09)	-0.14* (0.08)	2140
Psychological well-being index	-0.00 (1.00)	0.39*** (0.06)	0.25*** (0.07)	0.14* (0.08)	0.33*** (0.08)	0.19** (0.09)	2140
Joint test (p -value)		0.00***	0.00***	0.21	0.00***	0.01**	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the individual for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 119: Psychological Wellbeing: Monthly vs. lump-sum

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Log cortisol (no controls)	2.46 (0.89)	0.11 (0.07)	−0.05 (0.06)	0.16* (0.08)	0.06 (0.08)	−0.11* (0.06)	2102
Log cortisol (with controls)	−0.04 (0.88)	0.13* (0.07)	−0.04 (0.06)	0.17** (0.08)	0.09 (0.08)	−0.09 (0.06)	2102
Depression (CESD)	26.48 (9.31)	−1.57** (0.63)	−0.18 (0.57)	−1.40* (0.73)	−1.85** (0.72)	−0.32 (0.72)	2140
Worries	0.00 (1.00)	−0.17** (0.07)	−0.06 (0.06)	−0.11 (0.08)	−0.10 (0.09)	−0.00 (0.08)	2140
Stress (Cohen)	−0.00 (1.00)	−0.21*** (0.07)	−0.18*** (0.07)	−0.02 (0.09)	−0.12 (0.10)	−0.12 (0.08)	2140
Happiness (WVS)	−0.00 (1.00)	0.16** (0.07)	0.13* (0.07)	0.03 (0.09)	0.25*** (0.07)	0.22*** (0.08)	2140
Life satisfaction (WVS)	−0.00 (1.00)	0.18*** (0.07)	0.06 (0.06)	0.12 (0.08)	0.20** (0.09)	0.10 (0.08)	2140
Trust (WVS)	−0.00 (1.00)	0.01 (0.07)	0.09 (0.07)	−0.08 (0.08)	−0.05 (0.08)	0.00 (0.09)	2140
Locus of control	0.00 (1.00)	−0.00 (0.07)	0.02 (0.07)	−0.03 (0.09)	−0.09 (0.08)	−0.04 (0.08)	2140
Optimism (Scheier)	−0.00 (1.00)	0.06 (0.07)	0.04 (0.08)	0.02 (0.09)	0.16* (0.09)	0.13 (0.08)	2140
Self-esteem (Rosenberg)	0.00 (1.00)	0.09 (0.07)	0.00 (0.08)	0.09 (0.09)	0.05 (0.08)	−0.04 (0.08)	2140
Psychological well-being index	−0.00 (1.00)	0.19*** (0.07)	0.18*** (0.07)	0.01 (0.08)	0.21** (0.10)	0.20** (0.08)	2140
Joint test (p -value)		0.00***	0.20	0.21	0.00***	0.15	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the individual for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 120: Psychological Wellbeing: Large vs. Small

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Log cortisol (no controls)	2.46 (0.89)	−0.06 (0.07)	0.03 (0.05)	−0.09 (0.07)	−0.12 (0.08)	−0.03 (0.06)	2102
Log cortisol (with controls)	−0.04 (0.88)	−0.08 (0.07)	0.04 (0.05)	−0.12* (0.07)	−0.12 (0.08)	−0.01 (0.06)	2102
Depression (CESD)	26.48 (9.31)	−2.04*** (0.66)	−0.82* (0.48)	−1.22* (0.68)	−2.41*** (0.89)	−1.02 (0.63)	2140
Worries	0.00 (1.00)	−0.18** (0.07)	−0.11** (0.05)	−0.07 (0.08)	−0.08 (0.09)	−0.05 (0.07)	2140
Stress (Cohen)	−0.00 (1.00)	−0.43*** (0.08)	−0.19*** (0.05)	−0.24*** (0.08)	−0.36*** (0.11)	−0.12 (0.08)	2140
Happiness (WVS)	−0.00 (1.00)	0.21*** (0.07)	0.14** (0.06)	0.07 (0.08)	0.35*** (0.08)	0.23*** (0.06)	2140
Life satisfaction (WVS)	−0.00 (1.00)	0.31*** (0.07)	0.12** (0.05)	0.19** (0.08)	0.31*** (0.09)	0.15* (0.08)	2140
Trust (WVS)	−0.00 (1.00)	0.02 (0.08)	0.05 (0.06)	−0.04 (0.08)	−0.09 (0.09)	−0.02 (0.08)	2140
Locus of control	0.00 (1.00)	0.09 (0.08)	0.01 (0.06)	0.08 (0.08)	0.01 (0.09)	−0.06 (0.07)	2140
Optimism (Scheier)	−0.00 (1.00)	0.21*** (0.08)	0.05 (0.06)	0.16* (0.09)	0.28*** (0.09)	0.15** (0.07)	2140
Self-esteem (Rosenberg)	0.00 (1.00)	−0.11 (0.09)	0.04 (0.06)	−0.15 (0.10)	−0.12 (0.10)	0.00 (0.07)	2140
Psychological well-being index	−0.00 (1.00)	0.45*** (0.07)	0.18*** (0.05)	0.26*** (0.08)	0.47*** (0.11)	0.20*** (0.08)	2140
Joint test (<i>p</i> -value)		0.00***	0.01***	0.00***	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the individual for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 121: Psychological Wellbeing: Female vs. Male Recipient: Female Respondents

	(1) Control mean (SD)	(2) Female recipient (within villages)	(3) Male recipient (within villages)	(4) Female vs. male recipient (within villages)	(5) Female recipient (across villages)	(6) Male recipient (across villages)	(7) N
Log cortisol (no controls)	2.62 (0.92)	−0.02 (0.09)	0.10 (0.10)	−0.13 (0.11)	0.03 (0.10)	0.20** (0.09)	934
Log cortisol (with controls)	0.03 (0.92)	−0.06 (0.09)	0.11 (0.09)	−0.17 (0.11)	0.04 (0.10)	0.25*** (0.09)	934
Depression (CESD)	25.70 (9.33)	−2.06** (0.80)	−0.47 (0.90)	−1.59 (1.00)	−2.05* (1.24)	−0.26 (1.25)	951
Worries	−0.00 (1.00)	−0.24*** (0.08)	−0.17* (0.09)	−0.07 (0.10)	−0.16 (0.10)	−0.05 (0.11)	951
Stress (Cohen)	−0.00 (1.00)	−0.46*** (0.09)	−0.46*** (0.10)	0.00 (0.12)	−0.18 (0.13)	−0.15 (0.12)	951
Happiness (WVS)	−0.00 (1.00)	0.12 (0.11)	0.03 (0.10)	0.09 (0.12)	0.17 (0.10)	0.09 (0.10)	951
Life satisfaction (WVS)	0.00 (1.00)	0.29*** (0.09)	0.25*** (0.10)	0.04 (0.11)	0.11 (0.13)	0.04 (0.15)	951
Trust (WVS)	−0.00 (1.00)	0.09 (0.10)	−0.09 (0.10)	0.18 (0.11)	0.14 (0.12)	0.01 (0.12)	951
Locus of control	−0.00 (1.00)	−0.11 (0.09)	−0.01 (0.11)	−0.10 (0.11)	−0.13 (0.10)	0.00 (0.11)	951
Optimism (Scheier)	−0.00 (1.00)	0.13 (0.09)	0.04 (0.11)	0.09 (0.11)	0.18 (0.11)	0.08 (0.12)	951
Self-esteem (Rosenberg)	0.00 (1.00)	0.06 (0.12)	−0.06 (0.12)	0.11 (0.15)	0.10 (0.13)	−0.03 (0.12)	951
Psychological well-being index	−0.00 (1.00)	0.45*** (0.09)	0.26** (0.11)	0.19 (0.12)	0.24* (0.12)	−0.01 (0.12)	951
Joint test (<i>p</i> -value)		0.00***	0.00***	0.35	0.08*	0.04**	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer when restricting the analysis to female respondents. Outcome variables are listed on the left. The unit of observation is the individual for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 122: Psychological Wellbeing: Female vs. Male Recipient: Male Respondents

	(1) Control mean (SD)	(2) Female recipient (within villages)	(3) Male recipient (within villages)	(4) Female vs. male recipient (within villages)	(5) Female recipient (across villages)	(6) Male recipient (across villages)	(7) N
Log cortisol (no controls)	2.34 (0.85)	-0.17** (0.08)	0.00 (0.09)	-0.18* (0.09)	-0.33*** (0.08)	-0.17* (0.09)	1168
Log cortisol (with controls)	-0.09 (0.85)	-0.13* (0.08)	0.01 (0.09)	-0.14 (0.09)	-0.30*** (0.08)	-0.17* (0.09)	1168
Depression (CESD)	27.09 (9.27)	-1.39* (0.76)	-1.63** (0.80)	0.25 (0.91)	-1.00 (0.87)	-1.11 (0.97)	1189
Worries	0.00 (1.00)	-0.14* (0.08)	-0.12 (0.09)	-0.03 (0.10)	0.02 (0.11)	-0.00 (0.13)	1189
Stress (Cohen)	0.00 (1.00)	-0.21** (0.09)	-0.18* (0.10)	-0.03 (0.11)	-0.20* (0.10)	-0.19* (0.11)	1189
Happiness (WVS)	-0.00 (1.00)	0.28*** (0.09)	0.23** (0.10)	0.05 (0.11)	0.35*** (0.09)	0.31*** (0.11)	1189
Life satisfaction (WVS)	-0.00 (1.00)	0.09 (0.08)	0.28*** (0.09)	-0.19* (0.10)	0.21** (0.09)	0.36*** (0.12)	1189
Trust (WVS)	-0.00 (1.00)	0.05 (0.10)	0.05 (0.09)	0.01 (0.11)	-0.16 (0.10)	-0.16 (0.11)	1189
Locus of control	0.00 (1.00)	0.24** (0.09)	0.07 (0.10)	0.17 (0.11)	0.07 (0.11)	-0.12 (0.11)	1189
Optimism (Scheier)	0.00 (1.00)	0.16 (0.10)	0.10 (0.10)	0.05 (0.12)	0.22* (0.13)	0.16 (0.11)	1189
Self-esteem (Rosenberg)	0.00 (1.00)	0.11 (0.09)	-0.14 (0.10)	0.25** (0.11)	0.03 (0.10)	-0.23** (0.11)	1189
Psychological well-being index	-0.00 (1.00)	0.33*** (0.08)	0.27*** (0.09)	0.06 (0.10)	0.41*** (0.10)	0.37*** (0.11)	1189
Joint test (p -value)		0.00***	0.03**	0.11	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer when restricting the analysis to male respondents. Outcome variables are listed on the left. The unit of observation is the individual for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.9.2 Psychological wellbeing: weights for household and village size

Table 123: Psychological Wellbeing: Main Treatment Arms (weighted for household and village)

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Log cortisol (no controls)	2.34 (0.85)	−0.03 (0.06)	−0.18* (0.09)	0.20* (0.11)	−0.14 (0.09)	809
Log cortisol (with controls)	−0.09 (0.85)	−0.01 (0.06)	−0.14 (0.09)	0.20* (0.11)	−0.14* (0.09)	809
Depression (CESD)	27.09 (9.27)	−0.91 (0.58)	0.25 (0.91)	−1.74* (0.92)	−0.76 (0.99)	818
Worries	0.00 (1.00)	−0.05 (0.06)	−0.03 (0.10)	−0.07 (0.11)	−0.08 (0.10)	818
Stress (Cohen)	0.00 (1.00)	−0.18** (0.07)	−0.03 (0.11)	−0.06 (0.12)	−0.30*** (0.11)	818
Happiness (WVS)	−0.00 (1.00)	0.24*** (0.07)	0.05 (0.11)	0.07 (0.12)	0.15 (0.11)	818
Life satisfaction (WVS)	−0.00 (1.00)	0.13** (0.06)	−0.19* (0.10)	0.15 (0.11)	0.25** (0.10)	818
Trust (WVS)	−0.00 (1.00)	0.05 (0.07)	0.01 (0.11)	−0.10 (0.12)	0.00 (0.12)	818
Locus of control	0.00 (1.00)	0.12* (0.07)	0.17 (0.11)	0.17 (0.12)	0.12 (0.12)	818
Optimism (Scheier)	0.00 (1.00)	0.09 (0.07)	0.05 (0.12)	0.13 (0.13)	0.07 (0.13)	818
Self-esteem (Rosenberg)	0.00 (1.00)	−0.01 (0.07)	0.25** (0.11)	0.17 (0.11)	−0.21* (0.12)	818
Psychological well-being index	−0.00 (1.00)	0.26*** (0.05)	0.14* (0.08)	0.01 (0.08)	0.26*** (0.08)	1474
Joint test (<i>p</i> -value)		0.00***	0.04**	0.31	0.02**	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the individual for all variables. In each regression, we use inverse probability weights based on the number of individual respondents per household and households per village. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 124: Psychological Wellbeing: Main Treatment Arms with Baseline Controls (weighted for household and village)

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Log cortisol (no controls)	2.34 (0.85)	−0.03 (0.06)	−0.18* (0.10)	0.19* (0.11)	−0.13 (0.09)	809
Log cortisol (with controls)	−0.09 (0.85)	−0.01 (0.06)	−0.15 (0.10)	0.19* (0.11)	−0.14 (0.09)	809
Depression (CESD)	27.09 (9.27)	−0.80 (0.58)	0.42 (0.90)	−1.79** (0.91)	−0.70 (0.98)	818
Worries	0.00 (1.00)	−0.06 (0.06)	−0.02 (0.11)	−0.08 (0.11)	−0.10 (0.11)	818
Stress (Cohen)	0.00 (1.00)	−0.16** (0.07)	−0.03 (0.11)	−0.06 (0.11)	−0.30*** (0.11)	818
Happiness (WVS)	−0.00 (1.00)	0.25*** (0.07)	0.05 (0.11)	0.06 (0.12)	0.16 (0.11)	818
Life satisfaction (WVS)	−0.00 (1.00)	0.13** (0.06)	−0.21** (0.10)	0.15 (0.11)	0.25** (0.10)	818
Trust (WVS)	−0.00 (1.00)	0.07 (0.07)	−0.01 (0.11)	−0.08 (0.12)	0.02 (0.11)	818
Locus of control	0.00 (1.00)	0.12* (0.07)	0.19* (0.11)	0.15 (0.12)	0.13 (0.11)	818
Optimism (Scheier)	0.00 (1.00)	0.10 (0.07)	0.07 (0.12)	0.14 (0.13)	0.09 (0.13)	818
Self-esteem (Rosenberg)	0.00 (1.00)	−0.01 (0.07)	0.27** (0.11)	0.17 (0.11)	−0.21* (0.12)	818
Psychological well-being index	−0.00 (1.00)	0.26*** (0.05)	0.13* (0.08)	0.02 (0.08)	0.28*** (0.08)	1474
Joint test (<i>p</i> -value)		0.00***	0.02**	0.32	0.02**	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the individual for all variables. In each regression, we use inverse probability weights based on the number of individual respondents per household and households per village. In each regression, we use inverse probability weights based on the number of individual respondents per household and households per village. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 125: Psychological Wellbeing: Spillover Analysis (weighted for household and village)

	Spillover Effects						Lee Bounds		Horowitz-Manski Bounds	
	(1) All HH Estimate	(2) All HH estimate	(3) Thatched estimate	(4) Thatched estimate	(5) Test (1)=(3) p-value	(6) Test (2)=(4) p-value	(7) Lower	(8) Upper	(9) Lower	(10) Upper
Includes controls	No	Yes	No	Yes	No	Yes	No	No	No	No
Log cortisol (no controls)	−0.18*** (0.06)	−0.19*** (0.06)	−0.20*** (0.07)	−0.21*** (0.06)	0.25	0.27	−0.19*** (0.06)	−0.14** (0.06)	−0.19*** (0.06)	−0.16** (0.06)
Log cortisol (with controls)	−0.19*** (0.06)	−0.19*** (0.06)	−0.21*** (0.07)	−0.21*** (0.06)	0.35	0.37	−0.20*** (0.06)	−0.15** (0.06)	−0.20*** (0.06)	−0.16*** (0.06)
Depression (CESD)	−0.25 (0.83)	−0.22 (0.84)	−0.15 (0.84)	−0.11 (0.87)	0.70	0.67	−0.51 (0.77)	0.04 (0.71)	−0.43 (0.67)	−0.04 (0.67)
Worries	0.09 (0.11)	0.08 (0.10)	0.06 (0.11)	0.05 (0.11)	0.19	0.16	0.04 (0.07)	0.11* (0.06)	0.07 (0.07)	0.11 (0.07)
Stress (Cohen)	−0.06 (0.08)	−0.05 (0.08)	−0.08 (0.09)	−0.06 (0.09)	0.47	0.52	−0.10 (0.08)	0.00 (0.07)	−0.08 (0.07)	−0.04 (0.07)
Happiness (WVS)	0.14 (0.09)	0.12 (0.09)	0.13 (0.10)	0.12 (0.10)	0.86	0.88	0.14* (0.08)	0.44*** (0.07)	0.12* (0.07)	0.15** (0.07)
Life satisfaction (WVS)	0.15 (0.09)	0.15* (0.09)	0.13 (0.09)	0.13 (0.09)	0.24	0.34	0.14** (0.06)	0.19*** (0.07)	0.14** (0.07)	0.17*** (0.07)
Trust (WVS)	−0.19** (0.09)	−0.19** (0.09)	−0.21** (0.09)	−0.21** (0.09)	0.42	0.41	−0.20*** (0.08)	−0.17** (0.08)	−0.20*** (0.07)	−0.17** (0.07)
Locus of control	−0.13 (0.08)	−0.14* (0.08)	−0.14* (0.09)	−0.15* (0.08)	0.66	0.66	−0.17** (0.07)	−0.10 (0.08)	−0.15** (0.07)	−0.11 (0.07)
Optimism (Scheier)	0.11 (0.09)	0.12 (0.09)	0.14 (0.09)	0.15* (0.09)	0.26	0.25	0.08 (0.08)	0.13* (0.07)	0.09 (0.08)	0.13* (0.08)
Self-esteem (Rosenberg)	−0.06 (0.09)	−0.06 (0.09)	−0.05 (0.09)	−0.05 (0.09)	0.89	0.80	−0.09 (0.08)	−0.01 (0.07)	−0.08 (0.07)	−0.04 (0.07)
Psychological well-being index	0.03 (0.07)	0.03 (0.07)	0.03 (0.07)	0.02 (0.07)	0.77	0.71	−0.01 (0.06)	0.07 (0.06)	0.01 (0.05)	0.05 (0.05)
Joint test (p-value)	0.00***	0.00***	0.00***	0.00***						

Notes: OLS estimates of spillover effects. Outcome variables are listed on the left. The unit of observation is the individual. In each regression, we use inverse probability weights based on the number of individual respondents per household and households per village. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Columns (1) and (2) report the "naive" estimate of spillover effects, including spillover households that upgraded to metal roofs between baseline and endline. Column (3) and (4) report estimate of the spillover effect excluding metal roof households. Columns (1) and (3) exclude baseline covariates. Columns (2) and (4) include baseline covariates. Column (5) reports the p-value of the equality for the coefficient estimates in (1) and (3) after joint-estimation of the two models using SUR. Column (6) reports the p-value of the equality for the coefficient estimates in (2) and (4) after joint-estimation of the two models using SUR. The last row reports p-values on the joint-significance of all coefficients in a given column after joint-estimation using SUR. Columns (7) and (8) report the lower and upper Lee effect-size bounds adjusting for differential attrition generated by restricting to thatched roof households. This attrition is due to the higher rate of upgrade to metal roofs among spillover households and represents approximately 5 households or 10 individuals. Columns (9) and (10) report lower and upper Manski-Horowitz bounds, imputing outcomes for the 5 attriting households using the 95th and 5th percentile of observed outcomes respectively. In columns (1) through (4), standard errors clustered at the village level are reported in parentheses. In columns (7) through (10), bootstrapped standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 126: Psychological Wellbeing: Across Village (weighted for household and village)

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Log cortisol (no controls)	2.34 (0.85)	-0.03 (0.06)	-0.19** (0.07)	-0.18*** (0.06)	1168
Log cortisol (with controls)	-0.09 (0.85)	-0.01 (0.06)	-0.18** (0.07)	-0.19*** (0.06)	1168
Depression (CESD)	27.09 (9.27)	-0.91 (0.58)	-1.37* (0.72)	-0.25 (0.83)	1189
Worries	0.00 (1.00)	-0.05 (0.06)	0.02 (0.11)	0.09 (0.11)	1189
Stress (Cohen)	0.00 (1.00)	-0.18** (0.07)	-0.23*** (0.09)	-0.06 (0.08)	1189
Happiness (WVS)	-0.00 (1.00)	0.24*** (0.07)	0.38*** (0.09)	0.14 (0.09)	1189
Life satisfaction (WVS)	-0.00 (1.00)	0.13** (0.06)	0.29*** (0.09)	0.15 (0.09)	1189
Trust (WVS)	-0.00 (1.00)	0.05 (0.07)	-0.14 (0.09)	-0.19** (0.09)	1189
Locus of control	0.00 (1.00)	0.12* (0.07)	0.00 (0.09)	-0.13 (0.08)	1189
Optimism (Scheier)	0.00 (1.00)	0.09 (0.07)	0.19** (0.09)	0.11 (0.09)	1189
Self-esteem (Rosenberg)	0.00 (1.00)	-0.01 (0.07)	-0.09 (0.09)	-0.06 (0.09)	1189
Psychological well-being index	-0.00 (1.00)	0.26*** (0.05)	0.28*** (0.07)	0.03 (0.07)	2140
Joint test (p -value)		0.00***	0.00***	0.00***	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the individual for all variables. In each regression, we use inverse probability weights based on the number of individual respondents per household and households per village. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 127: Psychological Wellbeing: Male vs. Female (weighted for household and village)

	(1) Control mean (SD)	(2) Female recipient (within villages)	(3) Male recipient (within villages)	(4) Female vs. male recipient (within villages)	(5) Female recipient (across villages)	(6) Male recipient (across villages)	(7) N
Log cortisol (no controls)	2.46 (0.89)	-0.12 (0.07)	0.11 (0.08)	-0.22** (0.09)	-0.19*** (0.07)	0.01 (0.08)	2102
Log cortisol (with controls)	-0.04 (0.88)	-0.09 (0.07)	0.12 (0.08)	-0.22*** (0.08)	-0.16** (0.07)	0.04 (0.08)	2102
Depression (CESD)	26.48 (9.31)	-2.08*** (0.67)	-0.92 (0.74)	-1.16 (0.82)	-2.07** (0.82)	-1.10 (0.83)	2140
Worries	0.00 (1.00)	-0.17*** (0.07)	-0.02 (0.08)	-0.15* (0.08)	-0.08 (0.08)	0.05 (0.09)	2140
Stress (Cohen)	-0.00 (1.00)	-0.29*** (0.08)	-0.31*** (0.08)	0.02 (0.10)	-0.16 (0.11)	-0.21** (0.09)	2140
Happiness (WVS)	-0.00 (1.00)	0.18** (0.08)	0.20*** (0.07)	-0.01 (0.09)	0.29*** (0.08)	0.32*** (0.08)	2140
Life satisfaction (WVS)	-0.00 (1.00)	0.15** (0.07)	0.21*** (0.07)	-0.06 (0.08)	0.14 (0.08)	0.18* (0.10)	2140
Trust (WVS)	-0.00 (1.00)	0.06 (0.08)	-0.03 (0.08)	0.09 (0.09)	-0.04 (0.09)	-0.08 (0.09)	2140
Locus of control	0.00 (1.00)	0.11 (0.08)	0.08 (0.09)	0.03 (0.10)	0.02 (0.09)	-0.00 (0.09)	2140
Optimism (Scheier)	-0.00 (1.00)	0.19*** (0.07)	0.09 (0.08)	0.11 (0.09)	0.27*** (0.09)	0.16 (0.09)	2140
Self-esteem (Rosenberg)	0.00 (1.00)	0.17** (0.08)	-0.07 (0.08)	0.24** (0.10)	0.07 (0.09)	-0.19** (0.09)	2140
Psychological well-being index	-0.00 (1.00)	0.36*** (0.07)	0.20** (0.08)	0.16* (0.09)	0.35*** (0.08)	0.21** (0.09)	2140
Joint test (p -value)		0.00***	0.00***	0.10*	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the individual for all variables. In each regression, we use inverse probability weights based on the number of individual respondents per household and households per village. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 128: Psychological Wellbeing: Monthly vs. lump-sum (weighted for household and village)

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Log cortisol (no controls)	2.46 (0.89)	0.21** (0.08)	−0.05 (0.08)	0.26*** (0.10)	0.13* (0.08)	−0.13* (0.08)	2102
Log cortisol (with controls)	−0.04 (0.88)	0.23*** (0.09)	−0.04 (0.07)	0.27*** (0.10)	0.16** (0.08)	−0.11 (0.08)	2102
Depression (CESD)	26.48 (9.31)	−1.49* (0.78)	0.02 (0.69)	−1.51* (0.89)	−2.43*** (0.83)	−0.90 (0.85)	2140
Worries	0.00 (1.00)	−0.15* (0.09)	−0.01 (0.07)	−0.13 (0.10)	−0.10 (0.10)	−0.01 (0.09)	2140
Stress (Cohen)	−0.00 (1.00)	−0.17* (0.09)	−0.15* (0.08)	−0.02 (0.10)	−0.13 (0.12)	−0.16* (0.09)	2140
Happiness (WVS)	−0.00 (1.00)	0.16** (0.08)	0.17** (0.08)	−0.01 (0.10)	0.29*** (0.09)	0.28*** (0.09)	2140
Life satisfaction (WVS)	−0.00 (1.00)	0.07 (0.08)	0.10 (0.07)	−0.03 (0.09)	0.13 (0.11)	0.19** (0.09)	2140
Trust (WVS)	−0.00 (1.00)	0.12 (0.09)	0.06 (0.08)	0.06 (0.10)	0.05 (0.11)	−0.02 (0.10)	2140
Locus of control	0.00 (1.00)	0.03 (0.09)	0.03 (0.08)	0.00 (0.10)	0.02 (0.10)	0.04 (0.10)	2140
Optimism (Scheier)	−0.00 (1.00)	0.10 (0.08)	0.06 (0.08)	0.03 (0.10)	0.22** (0.10)	0.19** (0.09)	2140
Self-esteem (Rosenberg)	0.00 (1.00)	0.10 (0.09)	0.00 (0.08)	0.10 (0.11)	−0.02 (0.12)	−0.11 (0.09)	2140
Psychological well-being index	−0.00 (1.00)	0.09 (0.09)	0.17** (0.07)	−0.09 (0.10)	0.18* (0.09)	0.28*** (0.08)	2140
Joint test (p -value)		0.01**	0.27	0.16	0.00***	0.01***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the individual for all variables. In each regression, we use inverse probability weights based on the number of individual respondents per household and households per village. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 129: Psychological Wellbeing: Large vs. Small (weighted for household and village)

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Log cortisol (no controls)	2.46 (0.89)	−0.05 (0.08)	0.07 (0.06)	−0.12 (0.09)	−0.17** (0.08)	−0.01 (0.06)	2102
Log cortisol (with controls)	−0.04 (0.88)	−0.07 (0.08)	0.09 (0.06)	−0.16* (0.09)	−0.16** (0.08)	0.02 (0.06)	2102
Depression (CESD)	26.48 (9.31)	−2.29*** (0.80)	−0.67 (0.59)	−1.62** (0.82)	−3.54*** (0.87)	−1.60** (0.68)	2140
Worries	0.00 (1.00)	−0.17** (0.09)	−0.07 (0.06)	−0.10 (0.09)	−0.14 (0.09)	−0.05 (0.08)	2140
Stress (Cohen)	−0.00 (1.00)	−0.43*** (0.09)	−0.16** (0.07)	−0.27*** (0.09)	−0.40*** (0.12)	−0.15 (0.09)	2140
Happiness (WVS)	−0.00 (1.00)	0.22** (0.09)	0.17*** (0.06)	0.05 (0.09)	0.37*** (0.09)	0.29*** (0.08)	2140
Life satisfaction (WVS)	−0.00 (1.00)	0.24*** (0.08)	0.08 (0.06)	0.16** (0.08)	0.31*** (0.10)	0.16** (0.08)	2140
Trust (WVS)	−0.00 (1.00)	−0.04 (0.09)	0.09 (0.06)	−0.13 (0.10)	−0.11 (0.10)	0.01 (0.09)	2140
Locus of control	0.00 (1.00)	0.05 (0.10)	0.03 (0.07)	0.03 (0.10)	0.07 (0.11)	0.03 (0.09)	2140
Optimism (Scheier)	−0.00 (1.00)	0.19** (0.09)	0.08 (0.07)	0.11 (0.10)	0.31*** (0.11)	0.21*** (0.08)	2140
Self-esteem (Rosenberg)	0.00 (1.00)	−0.06 (0.10)	0.04 (0.07)	−0.10 (0.11)	−0.15 (0.11)	−0.07 (0.09)	2140
Psychological well-being index	−0.00 (1.00)	0.44*** (0.10)	0.13** (0.06)	0.31*** (0.10)	0.55*** (0.11)	0.24*** (0.08)	2140
Joint test (<i>p</i> -value)		0.00***	0.06*	0.02**	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the individual for all variables. In each regression, we use inverse probability weights based on the number of individual respondents per household and households per village. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.9.3 Psychological wellbeing: weights for household

Table 130: Psychological Wellbeing: Main Treatment Arms (weighted for household)

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Log cortisol (no controls)	2.46 (0.89)	0.03 (0.05)	-0.22*** (0.08)	0.17* (0.09)	-0.12 (0.07)	1456
Log cortisol (with controls)	-0.04 (0.88)	0.03 (0.05)	-0.21*** (0.08)	0.18** (0.09)	-0.15** (0.07)	1456
Depression (CESD)	26.48 (9.31)	-0.94** (0.47)	-0.52 (0.71)	-1.22 (0.78)	-1.51** (0.71)	1474
Worries	0.00 (1.00)	-0.11** (0.05)	-0.06 (0.08)	-0.11 (0.09)	-0.06 (0.08)	1474
Stress (Cohen)	-0.00 (1.00)	-0.24*** (0.05)	0.00 (0.09)	-0.00 (0.09)	-0.22** (0.09)	1474
Happiness (WVS)	-0.00 (1.00)	0.15*** (0.05)	0.02 (0.08)	0.05 (0.10)	0.06 (0.09)	1474
Life satisfaction (WVS)	-0.00 (1.00)	0.14*** (0.05)	-0.09 (0.08)	0.08 (0.08)	0.19** (0.08)	1474
Trust (WVS)	-0.00 (1.00)	0.04 (0.05)	0.06 (0.08)	-0.01 (0.09)	-0.06 (0.09)	1474
Locus of control	0.00 (1.00)	0.04 (0.06)	0.01 (0.09)	-0.01 (0.09)	0.07 (0.09)	1474
Optimism (Scheier)	-0.00 (1.00)	0.09 (0.06)	0.06 (0.09)	0.02 (0.10)	0.16* (0.10)	1474
Self-esteem (Rosenberg)	0.00 (1.00)	0.02 (0.06)	0.22** (0.09)	0.09 (0.10)	-0.13 (0.10)	1474
Psychological well-being index	-0.00 (1.00)	0.21*** (0.05)	0.12 (0.08)	-0.01 (0.09)	0.29*** (0.08)	1474
Joint test (p -value)		0.00***	0.14	0.54	0.01***	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the individual for all variables. In each regression, we use inverse probability weights based on the number of individual respondents per household. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 131: Psychological Wellbeing: Main Treatment Arms with Baseline Controls (weighted for household)

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Log cortisol (no controls)	2.46 (0.89)	0.03 (0.05)	-0.21*** (0.08)	0.17* (0.09)	-0.12 (0.07)	1456
Log cortisol (with controls)	-0.04 (0.88)	0.03 (0.05)	-0.21*** (0.08)	0.18** (0.09)	-0.15** (0.07)	1456
Depression (CESD)	26.48 (9.31)	-0.85* (0.47)	-0.45 (0.71)	-1.26 (0.77)	-1.59** (0.71)	1474
Worries	0.00 (1.00)	-0.12** (0.05)	-0.05 (0.08)	-0.11 (0.08)	-0.08 (0.08)	1474
Stress (Cohen)	-0.00 (1.00)	-0.24*** (0.05)	0.00 (0.09)	-0.00 (0.09)	-0.22** (0.09)	1474
Happiness (WVS)	-0.00 (1.00)	0.15*** (0.05)	0.02 (0.08)	0.05 (0.09)	0.08 (0.08)	1474
Life satisfaction (WVS)	-0.00 (1.00)	0.14*** (0.05)	-0.10 (0.08)	0.07 (0.08)	0.19** (0.08)	1474
Trust (WVS)	-0.00 (1.00)	0.06 (0.05)	0.06 (0.08)	-0.01 (0.09)	-0.05 (0.09)	1474
Locus of control	0.00 (1.00)	0.05 (0.05)	0.03 (0.09)	-0.01 (0.09)	0.07 (0.09)	1474
Optimism (Scheier)	-0.00 (1.00)	0.09 (0.06)	0.08 (0.09)	0.02 (0.10)	0.17* (0.10)	1474
Self-esteem (Rosenberg)	0.00 (1.00)	0.03 (0.06)	0.22** (0.09)	0.10 (0.10)	-0.13 (0.10)	1474
Psychological well-being index	-0.00 (1.00)	0.21*** (0.05)	0.11 (0.08)	-0.01 (0.09)	0.30*** (0.08)	1474
Joint test (p -value)		0.00***	0.11	0.49	0.01***	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the individual for all variables. In each regression, we use inverse probability weights based on the number of individual respondents per household. In each regression, we use inverse probability weights based on the number of individual respondents per household and households per village. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 132: Psychological Wellbeing: Spillover Analysis (weighted for household)

	Spillover Effects						Lee Bounds		Horowitz-Manski Bounds	
	(1) All HH Estimate	(2) All HH estimate	(3) Thatched estimate	(4) Thatched estimate	(5) Test (1)=(3) p-value	(6) Test (2)=(4) p-value	(7) Lower	(8) Upper	(9) Lower	(10) Upper
Includes controls	No	Yes	No	Yes	No	Yes	No	No	No	No
Log cortisol (no controls)	-0.07 (0.05)	-0.07 (0.05)	-0.07 (0.05)	-0.07 (0.05)	0.72	0.75	-0.08* (0.04)	-0.02 (0.04)	-0.08* (0.05)	-0.04 (0.05)
Log cortisol (with controls)	-0.06 (0.05)	-0.06 (0.04)	-0.07 (0.05)	-0.07 (0.05)	0.62	0.63	-0.07 (0.05)	-0.02 (0.05)	-0.07 (0.05)	-0.03 (0.05)
Depression (CESD)	-0.43 (0.80)	-0.43 (0.82)	-0.38 (0.82)	-0.35 (0.85)	0.79	0.68	-0.52 (0.48)	0.10 (0.50)	-0.43 (0.51)	-0.01 (0.51)
Worries	0.04 (0.08)	0.02 (0.08)	0.02 (0.09)	0.01 (0.08)	0.44	0.34	0.04 (0.05)	0.10** (0.05)	0.06 (0.05)	0.10* (0.05)
Stress (Cohen)	0.04 (0.07)	0.06 (0.07)	0.05 (0.07)	0.06 (0.07)	0.67	0.60	0.03 (0.05)	0.11** (0.05)	0.05 (0.05)	0.09* (0.05)
Happiness (WVS)	0.14* (0.07)	0.12* (0.07)	0.13* (0.08)	0.11 (0.08)	0.80	0.79	0.10 (0.07)	0.21*** (0.05)	0.08 (0.05)	0.13** (0.05)
Life satisfaction (WVS)	0.07 (0.08)	0.06 (0.08)	0.04 (0.08)	0.04 (0.08)	0.14	0.17	0.02 (0.05)	0.05 (0.05)	0.01 (0.05)	0.05 (0.05)
Trust (WVS)	-0.07 (0.07)	-0.08 (0.07)	-0.08 (0.07)	-0.09 (0.07)	0.51	0.54	-0.09 (0.06)	-0.06 (0.06)	-0.09* (0.05)	-0.06 (0.05)
Locus of control	-0.05 (0.06)	-0.06 (0.06)	-0.08 (0.06)	-0.10 (0.06)	0.07*	0.05*	-0.12** (0.05)	-0.05 (0.05)	-0.11** (0.05)	-0.06 (0.05)
Optimism (Scheier)	0.12 (0.07)	0.13* (0.08)	0.14** (0.07)	0.15** (0.07)	0.30	0.33	0.05 (0.06)	0.12** (0.06)	0.06 (0.05)	0.11** (0.05)
Self-esteem (Rosenberg)	-0.05 (0.07)	-0.04 (0.07)	-0.04 (0.07)	-0.03 (0.07)	0.82	0.67	-0.05 (0.05)	0.01 (0.05)	-0.05 (0.05)	-0.00 (0.05)
Psychological well-being index	0.09 (0.07)	0.08 (0.07)	0.08 (0.07)	0.07 (0.07)	0.79	0.77	-0.01 (0.05)	0.07 (0.05)	0.01 (0.05)	0.05 (0.05)
Joint test (p-value)	0.44	0.35	0.25	0.17						

Notes: OLS estimates of spillover effects. Outcome variables are listed on the left. The unit of observation is the individual. In each regression, we use inverse probability weights based on the number of individual respondents per household. The sample includes all households and individuals, except for the intrahousehold index, where it is restricted to co-habiting couples, and for the education index, where it is restricted to households with school-age children. Columns (1) and (2) report the "naive" estimate of spillover effects, including spillover households that upgraded to metal roofs between baseline and endline. Column (3) and (4) report estimate of the spillover effect excluding metal roof households. Columns (1) and (3) exclude baseline covariates. Columns (2) and (4) include baseline covariates. Column (5) reports the p-value of the equality for the coefficient estimates in (1) and (3) after joint-estimation of the two models using SUR. Column (6) reports the p-value of the equality for the coefficient estimates in (2) and (4) after joint-estimation of the two models using SUR. The last row reports p-values on the joint-significance of all coefficients in a given column after joint-estimation using SUR. Columns (7) and (8) report the lower and upper Lee effect-size bounds adjusting for differential attrition generated by restricting to thatched roof households. This attrition is due to the higher rate of upgrade to metal roofs among spillover households and represents approximately 5 households or 10 individuals. Columns (9) and (10) report lower and upper Manski-Horowitz bounds, imputing outcomes for the 5 attriting households using the 95th and 5th percentile of observed outcomes respectively. In columns (1) through (4), standard errors clustered at the village level are reported in parentheses. In columns (7) through (10), bootstrapped standard errors are reported in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 133: Psychological Wellbeing: Across Village (weighted for household)

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Log cortisol (no controls)	2.46 (0.89)	0.03 (0.05)	−0.03 (0.05)	−0.07 (0.05)	2102
Log cortisol (with controls)	−0.04 (0.88)	0.03 (0.05)	−0.02 (0.05)	−0.06 (0.05)	2102
Depression (CESD)	26.48 (9.31)	−0.94** (0.47)	−1.41** (0.61)	−0.43 (0.80)	2140
Worries	0.00 (1.00)	−0.11** (0.05)	−0.08 (0.07)	0.04 (0.08)	2140
Stress (Cohen)	−0.00 (1.00)	−0.24*** (0.05)	−0.19*** (0.07)	0.04 (0.07)	2140
Happiness (WVS)	−0.00 (1.00)	0.15*** (0.05)	0.29*** (0.06)	0.14* (0.07)	2140
Life satisfaction (WVS)	−0.00 (1.00)	0.14*** (0.05)	0.21*** (0.07)	0.07 (0.08)	2140
Trust (WVS)	−0.00 (1.00)	0.04 (0.05)	−0.03 (0.07)	−0.07 (0.07)	2140
Locus of control	0.00 (1.00)	0.04 (0.06)	0.01 (0.06)	−0.05 (0.06)	2140
Optimism (Scheier)	−0.00 (1.00)	0.09 (0.06)	0.20*** (0.07)	0.12 (0.07)	2140
Self-esteem (Rosenberg)	0.00 (1.00)	0.02 (0.06)	−0.03 (0.07)	−0.05 (0.07)	2140
Psychological well-being index	−0.00 (1.00)	0.21*** (0.05)	0.29*** (0.07)	0.09 (0.07)	2140
Joint test (p -value)		0.00***	0.00***	0.44	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the individual for all variables. In each regression, we use inverse probability weights based on the number of individual respondents per household. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 134: Psychological Wellbeing: Male vs. Female (weighted for household)

	(1) Control mean (SD)	(2) Female recipient (within villages)	(3) Male recipient (within villages)	(4) Female vs. male recipient (within villages)	(5) Female recipient (across villages)	(6) Male recipient (across villages)	(7) N
Log cortisol (no controls)	2.46 (0.89)	−0.11* (0.06)	0.11 (0.07)	−0.22*** (0.08)	−0.16** (0.07)	0.05 (0.07)	2102
Log cortisol (with controls)	−0.04 (0.88)	−0.09 (0.06)	0.12* (0.07)	−0.21*** (0.08)	−0.13** (0.06)	0.07 (0.07)	2102
Depression (CESD)	26.48 (9.31)	−1.59*** (0.59)	−1.06* (0.63)	−0.52 (0.71)	−1.12 (0.69)	−0.68 (0.79)	2140
Worries	0.00 (1.00)	−0.16*** (0.06)	−0.11 (0.07)	−0.06 (0.08)	−0.08 (0.07)	−0.04 (0.09)	2140
Stress (Cohen)	−0.00 (1.00)	−0.30*** (0.07)	−0.31*** (0.08)	0.00 (0.09)	−0.16* (0.09)	−0.18** (0.09)	2140
Happiness (WVS)	−0.00 (1.00)	0.19** (0.07)	0.16** (0.07)	0.02 (0.08)	0.26*** (0.08)	0.25*** (0.08)	2140
Life satisfaction (WVS)	−0.00 (1.00)	0.17*** (0.06)	0.26*** (0.07)	−0.09 (0.08)	0.16** (0.07)	0.25*** (0.10)	2140
Trust (WVS)	−0.00 (1.00)	0.04 (0.07)	−0.03 (0.07)	0.06 (0.08)	−0.03 (0.08)	−0.07 (0.08)	2140
Locus of control	0.00 (1.00)	0.08 (0.07)	0.07 (0.08)	0.01 (0.09)	0.01 (0.08)	−0.00 (0.08)	2140
Optimism (Scheier)	−0.00 (1.00)	0.13* (0.07)	0.07 (0.07)	0.06 (0.09)	0.21** (0.10)	0.15 (0.09)	2140
Self-esteem (Rosenberg)	0.00 (1.00)	0.12 (0.08)	−0.09 (0.08)	0.22** (0.09)	0.07 (0.09)	−0.15* (0.08)	2140
Psychological well-being index	−0.00 (1.00)	0.36*** (0.07)	0.23*** (0.07)	0.12 (0.08)	0.31*** (0.08)	0.20** (0.09)	2140
Joint test (p -value)		0.00***	0.00***	0.14	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the individual for all variables. In each regression, we use inverse probability weights based on the number of individual respondents per household. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 135: Psychological Wellbeing: Monthly vs. lump-sum (weighted for household)

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Log cortisol (no controls)	2.46 (0.89)	0.15* (0.08)	-0.02 (0.07)	0.17* (0.09)	0.10 (0.08)	-0.08 (0.07)	2102
Log cortisol (with controls)	-0.04 (0.88)	0.17** (0.08)	-0.01 (0.07)	0.18** (0.09)	0.13 (0.08)	-0.06 (0.07)	2102
Depression (CESD)	26.48 (9.31)	-1.19* (0.66)	0.03 (0.63)	-1.22 (0.78)	-1.66** (0.70)	-0.29 (0.75)	2140
Worries	0.00 (1.00)	-0.15** (0.07)	-0.04 (0.07)	-0.11 (0.09)	-0.13 (0.09)	-0.02 (0.08)	2140
Stress (Cohen)	-0.00 (1.00)	-0.18** (0.08)	-0.18** (0.07)	-0.00 (0.09)	-0.12 (0.10)	-0.14* (0.08)	2140
Happiness (WVS)	-0.00 (1.00)	0.16** (0.08)	0.11 (0.07)	0.05 (0.10)	0.29*** (0.08)	0.24*** (0.08)	2140
Life satisfaction (WVS)	-0.00 (1.00)	0.13* (0.07)	0.05 (0.07)	0.08 (0.08)	0.19** (0.09)	0.14* (0.08)	2140
Trust (WVS)	-0.00 (1.00)	0.05 (0.08)	0.06 (0.07)	-0.01 (0.09)	-0.01 (0.09)	-0.01 (0.09)	2140
Locus of control	0.00 (1.00)	0.02 (0.08)	0.03 (0.07)	-0.01 (0.09)	-0.03 (0.09)	0.01 (0.08)	2140
Optimism (Scheier)	-0.00 (1.00)	0.05 (0.08)	0.03 (0.08)	0.02 (0.10)	0.17* (0.09)	0.15* (0.09)	2140
Self-esteem (Rosenberg)	0.00 (1.00)	0.11 (0.08)	0.02 (0.08)	0.09 (0.10)	0.04 (0.09)	-0.05 (0.08)	2140
Psychological well-being index	-0.00 (1.00)	0.13* (0.08)	0.14** (0.07)	-0.01 (0.09)	0.21** (0.10)	0.21*** (0.08)	2140
Joint test (p -value)		0.03**	0.52	0.54	0.00***	0.10*	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the individual for all variables. In each regression, we use inverse probability weights based on the number of individual respondents per household. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 136: Psychological Wellbeing: Large vs. Small (weighted for household)

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Log cortisol (no controls)	2.46 (0.89)	-0.05 (0.07)	0.06 (0.06)	-0.12 (0.07)	-0.12* (0.07)	0.00 (0.06)	2102
Log cortisol (with controls)	-0.04 (0.88)	-0.08 (0.07)	0.07 (0.06)	-0.15** (0.07)	-0.13* (0.07)	0.03 (0.06)	2102
Depression (CESD)	26.48 (9.31)	-2.05*** (0.69)	-0.53 (0.51)	-1.51** (0.71)	-2.71*** (0.88)	-0.92 (0.62)	2140
Worries	0.00 (1.00)	-0.15** (0.08)	-0.09* (0.06)	-0.06 (0.08)	-0.10 (0.09)	-0.07 (0.07)	2140
Stress (Cohen)	-0.00 (1.00)	-0.39*** (0.08)	-0.18*** (0.06)	-0.22** (0.09)	-0.35*** (0.11)	-0.13* (0.08)	2140
Happiness (WVS)	-0.00 (1.00)	0.20** (0.08)	0.14** (0.06)	0.06 (0.09)	0.36*** (0.09)	0.26*** (0.07)	2140
Life satisfaction (WVS)	-0.00 (1.00)	0.28*** (0.08)	0.09 (0.06)	0.19** (0.08)	0.32*** (0.09)	0.16** (0.07)	2140
Trust (WVS)	-0.00 (1.00)	-0.01 (0.08)	0.05 (0.06)	-0.06 (0.09)	-0.09 (0.09)	-0.01 (0.08)	2140
Locus of control	0.00 (1.00)	0.09 (0.08)	0.02 (0.06)	0.07 (0.09)	0.04 (0.09)	-0.01 (0.07)	2140
Optimism (Scheier)	-0.00 (1.00)	0.21** (0.09)	0.04 (0.06)	0.16* (0.10)	0.30*** (0.10)	0.16** (0.07)	2140
Self-esteem (Rosenberg)	0.00 (1.00)	-0.07 (0.09)	0.06 (0.06)	-0.13 (0.10)	-0.11 (0.10)	-0.01 (0.07)	2140
Psychological well-being index	-0.00 (1.00)	0.42*** (0.08)	0.13** (0.06)	0.29*** (0.08)	0.49*** (0.10)	0.21*** (0.08)	2140
Joint test (p -value)		0.00***	0.07*	0.01***	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the individual for all variables. In each regression, we use inverse probability weights based on the number of individual respondents per household. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.10 Labor Outcomes

Table 137: Labor Variables: Main Treatment Arms

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Proportion of Adults involved in Wage Labor	0.07 (0.19)	−0.00 (0.01)	0.01 (0.02)	−0.02 (0.02)	0.01 (0.02)	940
Proportion of Adults involved in Casual Labor	0.75 (0.35)	0.00 (0.02)	−0.03 (0.03)	−0.03 (0.03)	0.05 (0.03)	940
Income Generating Activities per HH Adult	1.94 (0.65)	0.12*** (0.04)	−0.03 (0.06)	0.10 (0.07)	0.16*** (0.06)	940
Casual or Wage Labor Primary Source of Income	0.20 (0.40)	−0.01 (0.02)	0.03 (0.04)	−0.00 (0.04)	−0.01 (0.04)	940
Expenditure on wages for HH enterprise	0.00 (0.00)	−2.69 (2.11)	7.59 (5.73)	7.14 (5.43)	3.30 (2.38)	940
Joint test (p -value)		0.04**	0.56	0.27	0.04**	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 138: Labor Variables: Main Treatment Arms with Baseline Controls

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Proportion of Adults involved in Wage Labor	0.07 (0.19)	−0.00 (0.01)	0.01 (0.02)	−0.02 (0.02)	0.01 (0.02)	940
Proportion of Adults involved in Casual Labor	0.75 (0.35)	0.00 (0.02)	−0.02 (0.03)	−0.03 (0.03)	0.05 (0.03)	940
Income Generating Activities per HH Adult	1.94 (0.65)	0.12*** (0.04)	−0.02 (0.06)	0.10 (0.06)	0.17*** (0.06)	940
Casual or Wage Labor Primary Source of Income	0.20 (0.40)	−0.02 (0.03)	0.02 (0.04)	−0.00 (0.04)	−0.01 (0.04)	940
Expenditure on wages for HH enterprise	0.00 (0.00)	−2.56 (1.95)	7.91 (5.98)	7.40 (5.64)	3.24 (2.38)	940
Joint test (<i>p</i> -value)		0.03**	0.71	0.26	0.02**	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 139: Labor Variables: Across Village

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Proportion of Adults involved in Wage Labor	0.07 (0.19)	−0.00 (0.01)	0.02 (0.01)	0.02 (0.01)	1372
Proportion of Adults involved in Casual Labor	0.75 (0.35)	0.00 (0.02)	−0.00 (0.03)	−0.01 (0.03)	1372
Income Generating Activities per HH Adult	1.94 (0.65)	0.12*** (0.04)	0.12* (0.06)	0.00 (0.06)	1372
Casual or Wage Labor Primary Source of Income	0.20 (0.40)	−0.01 (0.02)	−0.05 (0.03)	−0.03 (0.03)	1372
Expenditure on wages for HH enterprise	0.00 (0.00)	−2.69 (2.11)	2.97 (36.01)	−25.69 (22.35)	1372
Joint test (<i>p</i> -value)		0.04**	0.14	0.38	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 140: Labor Variables: Male vs. Female

	(1) Control mean (SD)	(2) Female recipient (within villages)	(3) Male recipient (within villages)	(4) Female vs. male recipient (within villages)	(5) Female recipient (across villages)	(6) Male recipient (across villages)	(7) N
Proportion of Adults involved in Wage Labor	0.07 (0.19)	0.01 (0.02)	-0.01 (0.02)	0.01 (0.02)	0.04** (0.02)	0.02 (0.02)	1372
Proportion of Adults involved in Casual Labor	0.75 (0.35)	0.01 (0.03)	0.03 (0.03)	-0.03 (0.03)	0.00 (0.04)	0.02 (0.03)	1372
Income Generating Activities per HH Adult	1.94 (0.65)	0.14*** (0.05)	0.17*** (0.05)	-0.03 (0.06)	0.11 (0.08)	0.18** (0.07)	1372
Casual or Wage Labor Primary Source of Income	0.20 (0.40)	-0.00 (0.04)	-0.03 (0.03)	0.03 (0.04)	-0.02 (0.04)	-0.07* (0.04)	1372
Expenditure on wages for HH enterprise	0.00 (0.00)	0.21 (0.53)	-7.38 (5.53)	7.59 (5.73)	36.00 (74.07)	-33.23 (28.76)	1372
Joint test (p -value)		0.09*	0.01**	0.56	0.09*	0.03**	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 141: Labor Variables: Monthly vs. lump-sum

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Proportion of Adults involved in Wage Labor	0.07 (0.19)	−0.01 (0.02)	0.00 (0.02)	−0.02 (0.02)	0.01 (0.02)	0.03 (0.02)	1372
Proportion of Adults involved in Casual Labor	0.75 (0.35)	−0.03 (0.03)	0.00 (0.03)	−0.03 (0.03)	−0.03 (0.04)	−0.01 (0.03)	1372
Income Generating Activities per HH Adult	1.94 (0.65)	0.13** (0.06)	0.03 (0.05)	0.10 (0.07)	0.13* (0.08)	0.02 (0.08)	1372
Casual or Wage Labor Primary Source of Income	0.20 (0.40)	−0.01 (0.04)	−0.01 (0.03)	−0.00 (0.04)	−0.04 (0.04)	−0.04 (0.04)	1372
Expenditure on wages for HH enterprise	0.00 (0.00)	0.25 (0.64)	−6.89 (5.19)	7.14 (5.43)	−25.69 (22.37)	47.68 (75.91)	1372
Joint test (p -value)		0.18	0.82	0.27	0.35	0.39	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 142: Labor Variables: Large vs. Small

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Proportion of Adults involved in Wage Labor	0.07 (0.19)	0.00 (0.02)	−0.00 (0.01)	0.01 (0.02)	0.03 (0.02)	0.02 (0.01)	1372
Proportion of Adults involved in Casual Labor	0.75 (0.35)	0.04 (0.03)	−0.01 (0.02)	0.05 (0.03)	0.05 (0.04)	−0.02 (0.03)	1372
Income Generating Activities per HH Adult	1.94 (0.65)	0.24*** (0.06)	0.08* (0.04)	0.16*** (0.06)	0.25*** (0.08)	0.07 (0.07)	1372
Casual or Wage Labor Primary Source of Income	0.20 (0.40)	−0.02 (0.04)	−0.01 (0.03)	−0.01 (0.04)	−0.05 (0.04)	−0.04 (0.03)	1372
Expenditure on wages for HH enterprise	0.00 (0.00)	−0.28 (0.92)	−3.57 (2.70)	3.30 (2.38)	−25.69 (22.36)	13.66 (44.90)	1372
Joint test (p -value)		0.00***	0.37	0.04**	0.00***	0.44	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the household. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

18.11 Durable vs. Nondurable Investment

Table 143: Durable and Nondurable: Main Treatment Arms

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Durable Investments	515.70 (432.59)	293.89*** (27.65)	-71.09 (51.30)	-104.83** (46.60)	274.33*** (49.97)	940
Non-durable Investments	39.59 (75.68)	23.31*** (5.45)	0.94 (10.30)	11.86 (9.82)	9.18 (9.46)	940
Joint test (<i>p</i> -value)		0.00***	0.35	0.02**	0.00***	

Notes: OLS estimates of treatment effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 144: Durable and Nondurable: Main Treatment Arms with Baseline Controls

	(1) Control mean (SD)	(2) Treatment effect	(3) Female recipient	(4) Monthly transfer	(5) Large transfer	(6) N
Durable Investments	515.70 (432.59)	302.30*** (27.70)	-67.13 (50.68)	-99.33** (46.82)	279.80*** (49.85)	940
Non-durable Investments	39.59 (75.68)	23.44*** (5.32)	0.07 (9.98)	11.63 (9.46)	12.44 (9.37)	940
Joint test (p -value)		0.00***	0.38	0.03**	0.00***	

Notes: OLS estimates of treatment effects. All estimates include the baseline controls specified above. Outcome variables are listed on the left. The unit of observation is the household for all variables. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Column (1) reports the mean taken among control households in treatment villages (spillover) for a given outcome variable. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the difference in effect for households in which the primary female received the transfer in comparison to households in which the primary male received the transfer. Column (4) reports the difference in effect for households that received monthly transfers in comparison to households that received lump sum transfers. Column (5) reports the difference in effect for households that received large transfers in comparison to households that received small transfers. Column (6) reports the sample size. Standard errors are clustered at the household level. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 145: Durable and Nondurable: Across Village

	(1) Control mean (SD)	(2) Treatment (within villages)	(3) Treatment (across villages)	(4) Spillover	(5) N
Durable Investments	515.70 (432.59)	293.89*** (27.65)	393.55*** (30.98)	102.66*** (26.51)	1372
Non-durable Investments	39.59 (75.68)	23.31*** (5.45)	22.41*** (5.54)	-0.09 (5.17)	1372
Joint test (p -value)		0.00***	0.00***	0.00***	

Notes: OLS estimates of treatment and spillover effects. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of a given outcome variable among control households in treatment villages. Column (2) reports the treatment effect within villages, i.e. comparing treatment households to spillover households. Column (3) reports the treatment effect across villages, i.e. comparing treatment households to pure control households. Column (4) reports the spillover effect, i.e. comparing spillover households to pure control households. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (3) and (4), and at the household level in column (2). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 146: Durable and Nondurable: Male vs. Female

	(1) Control mean (SD)	(2) Female recipient (within villages)	(3) Male recipient (within villages)	(4) Female vs. male recipient (within villages)	(5) Female recipient (across villages)	(6) Male recipient (across villages)	(7) N
Durable Investments	515.70 (432.59)	249.73*** (40.47)	320.72*** (41.41)	-71.09 (51.30)	360.51*** (43.22)	423.33*** (46.11)	1372
Non-durable Investments	39.59 (75.68)	28.24*** (8.30)	27.31*** (7.74)	0.94 (10.30)	19.92** (8.08)	25.24*** (8.07)	1372
Joint test (<i>p</i> -value)		0.00***	0.00***	0.35	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which the primary male or the primary female received the transfer. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer recipient was female or male respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer recipients were female or male, respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 147: Durable and Nondurable: Monthly vs. lump-sum

	(1) Control mean (SD)	(2) Monthly transfers (within villages)	(3) Lump-sum transfer (within villages)	(4) Monthly vs. lump-sum transfers (within villages)	(5) Monthly transfers (across villages)	(6) Lump-sum transfers (across villages)	(7) N
Durable Investments	515.70 (432.59)	164.19*** (37.30)	269.02*** (37.13)	-104.83** (46.60)	271.37*** (40.95)	360.78*** (41.34)	1372
Non-durable Investments	39.59 (75.68)	27.22*** (8.12)	15.36** (7.09)	11.86 (9.82)	26.22*** (7.93)	14.48** (6.92)	1372
Joint test (p -value)		0.00***	0.00***	0.02**	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were made on a monthly basis or lump sum. Outcome variables are listed on the left. The unit of observation is the household for all variables. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer in which transfers were made on a monthly basis or lump sum respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 148: Durable and Nondurable: Large vs. Small

	(1) Control mean (SD)	(2) Large transfer (within villages)	(3) Small transfer (within villages)	(4) Large vs. small transfer (within villages)	(5) Large transfer (across villages)	(6) Small transfer (across villages)	(7) N
Durable Investments	515.70 (432.59)	494.79*** (47.30)	220.46*** (29.22)	274.33*** (49.97)	592.42*** (51.64)	319.33*** (33.26)	1372
Non-durable Investments	39.59 (75.68)	30.03*** (9.20)	20.85*** (5.80)	9.18 (9.46)	29.08*** (9.60)	19.92*** (6.22)	1372
Joint test (p-value)		0.00***	0.00***	0.00***	0.00***	0.00***	

Notes: OLS estimates of treatment effects for treatment arms in which transfers were large or small. Outcome variables are listed on the left. The unit of observation is the household. Column (1) reports the mean of the outcome among control households in treatment villages. Columns (2) and (3) report the treatment effect within villages, i.e. comparing treatment households to spillover households, when the transfer were large or small respectively. Column (4) the difference between these two groups. Columns (5) and (6) reports the treatment effect across villages, i.e. comparing treatment households to pure control households, when the transfer were large or small respectively. Column (7) reports the number of observations. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. Standard errors are clustered at the village level in columns (5) and (6), and at the household level in columns (1), (2), and (3). * denotes significance at 10 pct., ** at 5 pct., *** at 1 pct. level.

19 Village-level Regressions

Table 149: Village level regressions: Indices

	(1) Control mean (SD)	(2) Treatment	(3) N
Food price index	0.00 (1.00)	0.15 (0.24)	117
Non-food price index	-0.00 (1.00)	-0.39* (0.21)	117
Wages Index	0.02 (1.01)	-0.23 (0.17)	117
Crime Frequency Index	-0.00 (1.00)	-0.10 (0.21)	117

Notes: Column (1) reports the mean of the a given outcome variable among control villages. Column (2) reports the effect of designation as a treatment village. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 150: Village level regressions: Food Prices

	(1) Control mean (SD)	(2) Treatment	(3) N
Fish Index	−0.00 (1.00)	−0.48** (0.19)	117
Fruit Index	0.00 (1.00)	0.02 (0.24)	117
Starch Index	−0.00 (1.00)	−0.10 (0.21)	117
Veg Index	0.00 (1.00)	0.19 (0.29)	117
Dairy and Eggs Index	0.00 (1.00)	−0.03 (0.22)	117
Other Food Index	−0.00 (1.00)	0.06 (0.23)	117

Notes: Column (1) reports the mean of the a given outcome variable among control villages. Column (2) reports the effect of designation as a treatment village. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 151: Village level regressions: Non-food Prices

	(1) Control mean (SD)	(2) Treatment	(3) N
Cost Of Ironsheet Roof Average	654.60 (107.83)	-23.57 (23.08)	111
Cost Of Repairing Ironsheet Roof General	57.49 (43.61)	-5.72 (7.72)	108
Cost Of Thatch Roof	77.26 (31.33)	5.91 (6.94)	111
Price Of One Pile Of Firewood	0.52 (0.13)	-0.05** (0.02)	117
Price Of One Haircut	0.32 (0.05)	-0.00 (0.01)	117
Price Of One Kg Of Fuel/Parafin	1.68 (0.31)	-0.09 (0.06)	116
Price Of One Bar Of Bathing Soap	1.36 (0.29)	-0.04 (0.06)	114

Notes: Column (1) reports the mean of the a given outcome variable among control villages. Column (2) reports the effect of designation as a treatment village. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 152: Village level regressions: Starch Prices

	(1) Control mean (SD)	(2) Treatment	(3) N
Price Of Arrowroot Purchased	0.71 (0.28)	−0.08 (0.06)	100
Price Of Cassava Purchased	0.68 (0.12)	−0.03 (0.02)	117
Price Of Cookingbanana Purchased	1.11 (0.34)	0.03 (0.07)	114
Price Of Maize Purchased	0.77 (0.26)	0.06 (0.06)	115
Price Of Potato Purchased	0.48 (0.12)	−0.03 (0.02)	117
Price Of Sweetpotato Purchased	0.60 (0.14)	−0.00 (0.03)	116

Notes: Column (1) reports the mean of the a given outcome variable among control villages. Column (2) reports the effect of designation as a treatment village. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 153: Village level regressions: Fruit Prices

	(1) Control mean (SD)	(2) Treatment	(3) N
Price Of Avocados Purchased	0.18 (0.03)	−0.01 (0.01)	117
Price Of Guava Purchased	0.15 (0.08)	0.03 (0.03)	108
Price Of Largebanana Purchased	1.03 (0.35)	−0.06 (0.07)	116
Price Of Mangos Purchased	0.10 (0.03)	−0.01* (0.01)	117
Price Of Oranges Purchased	0.11 (0.03)	0.00 (0.01)	116
Price Of Passionfruit Purchased	0.27 (0.15)	−0.02 (0.03)	84
Price Of Pawpaw Purchased	0.45 (0.13)	−0.02 (0.03)	116
Price Of Pineapple Purchased	0.77 (0.23)	−0.05 (0.05)	109
Price Of Smallbanana Purchased	0.70 (0.28)	−0.01 (0.05)	117
Price Of Watermelon Purchased	0.90 (0.32)	−0.15** (0.07)	100

Notes: Column (1) reports the mean of the a given outcome variable among control villages. Column (2) reports the effect of designation as a treatment village. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 154: Village level regressions: Vegetable Prices

	(1) Control mean (SD)	(2) Treatment	(3) N
Price Of Cabbage Purchased	0.59 (0.12)	−0.01 (0.03)	117
Price Of Eggplant Purchased	0.23 (0.12)	0.01 (0.03)	73
Price Of Kale Purchased	0.20 (0.06)	0.01 (0.01)	117
Price Of Onions Purchased	0.29 (0.06)	0.07 (0.06)	117
Price Of Pumpkin Purchased	0.67 (0.20)	0.02 (0.05)	105
Price Of Spinach Purchased	0.21 (0.07)	0.01 (0.02)	100
Price Of Tomatoes Purchased	0.28 (0.05)	0.00 (0.01)	117
Price Of Traditionalveggies Purchased	0.16 (0.03)	−0.00 (0.01)	117

Notes: Column (1) reports the mean of the a given outcome variable among control villages. Column (2) reports the effect of designation as a treatment village. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 155: Village level regressions: Fish Prices

	(1) Control mean (SD)	(2) Treatment	(3) N
Price Of Mudfish Purchased	2.52 (0.83)	−0.32* (0.17)	112
Price Of Omenafish Purchased	2.36 (0.97)	−0.24 (0.18)	117
Price Of Tilapia Purchased	3.63 (0.89)	−0.42** (0.19)	116

Notes: Column (1) reports the mean of the a given outcome variable among control villages. Column (2) reports the effect of designation as a treatment village. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 156: Village level regressions: Durable Prices

	(1) Control mean (SD)	(2) Treatment	(3) N
Cost Of Ironsheet Roof Average	654.60 (107.83)	−23.57 (23.08)	111
Cost Of Repairing Ironsheet Roof General	57.49 (43.61)	−5.72 (7.72)	108
Cost Of Thatch Roof	77.26 (31.33)	5.91 (6.94)	111

Notes: Column (1) reports the mean of the a given outcome variable among control villages. Column (2) reports the effect of designation as a treatment village. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 157: Village level regressions: Non-durable Prices

	(1) Control mean (SD)	(2) Treatment	(3) N
Price Of One Pile Of Firewood	0.52 (0.13)	−0.05** (0.02)	117
Price Of One Haircut	0.32 (0.05)	−0.00 (0.01)	117
Price Of One Kg Of Fuel/Parafin	1.68 (0.31)	−0.09 (0.06)	116
Price Of One Bar Of Bathing Soap	1.36 (0.29)	−0.04 (0.06)	114

Notes: Column (1) reports the mean of the a given outcome variable among control villages. Column (2) reports the effect of designation as a treatment village. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 158: Village level regressions: Wages

	(1) Control mean (SD)	(2) Treatment	(3) N
Average Daily Wage Across Sectors Within Village	223.74 (102.10)	9.68 (20.01)	80
Average Daily Wage For Farm Workers	221.11 (134.44)	-0.28 (31.30)	48
Average Daily Wage For Livestock Workers	100.00 (86.60)	26.67 (79.86)	6
Average Daily Wage For Other Workers	310.00 (124.28)	6.67 (66.99)	13

Notes: Column (1) reports the mean of the a given outcome variable among control villages. Column (2) reports the effect of designation as a treatment village. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

Table 159: Village level regressions: Crime

	(1) Control mean (SD)	(2) Treatment	(3) N
Assault In Village Last 12 Months?	1.71 (0.26)	−0.01 (0.06)	117
Frequency Of Assault Last 12 Months	0.48 (0.57)	0.17 (0.15)	117
Number Of Conflicts Last 12 Months	6.26 (3.12)	−0.05 (0.72)	115
Crime Rate Compared To One Year Ago	2.00 (0.35)	0.07 (0.08)	117
Drug Abuse In Village Last 12 Months?	1.53 (0.32)	0.00 (0.07)	117
Frequency Of Drug Abuse Last 12 Months	1.84 (1.93)	0.10 (0.46)	117
Murders In Village Last 12 Months?	1.90 (0.17)	0.00 (0.04)	117
Frequency Of Murder Last 12 Months	0.13 (0.26)	−0.01 (0.05)	117
Other Crimes In Village Last 12 Months?	1.99 (0.07)	0.00 (0.01)	117
Frequency Of Other Crimes Last 12 Months	0.04 (0.32)	−0.03 (0.04)	117
Rapes In Village Last 12 Months?	1.89 (0.18)	0.01 (0.03)	117
Frequency Of Rape Last 12 Months	0.14 (0.24)	−0.01 (0.05)	117
Robberies In Village Last 12 Months?	1.42 (0.27)	0.05 (0.06)	117
Frequency Of Robbery Last 12 Months	1.44 (1.14)	−0.06 (0.25)	117
Vandalism In Village Last 12 Months?	1.42 (0.32)	−0.00 (0.06)	117
Frequency Of Vandalism Last 12 Months	1.37 (0.98)	−0.03 (0.21)	117

Notes: Column (1) reports the mean of the a given outcome variable among control villages. Column (2) reports the effect of designation as a treatment village. For each outcome variable, we report the coefficient of interest and its standard error in parentheses. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level.

20 Third party audit

In this section we present the results of an audit of our results and Stata code. In March 2016, Allan Hsiao (Massachusetts Institute of Technology) and Emilio Dal Re (Bocconi University) were given access to all project data and asked to replicate the results displayed in the main paper tables with the agreement that they would be compensated for their time, and for any errors they identified. Discrepancies discovered as a result of this process are displayed in the tables below. In some cases, their suggestions were incorporated into the paper. In others, we chose not to incorporate their suggestions and outline our reasoning. Additionally, the two auditors were asked to review all material and code for creating the Online Appendix Tables. All suggestions for edits are included below.

Accepted Edits

Edit	Tables Affected	Significant Outcomes
Corrected definition of household children to individuals <18 years old; previously was household members designated as a son / daughter of the respondent.	Tables I - III and V All OA tables that include main indices, consumption variables, health variables, or food security variables	Small changes in main effect estimates
Removed inverse probability weighting from main analysis. This better aligns with the PAP. We added new tables with weighted regressions in the OA.	Tables I - IV New OA Tables 36, 123–136	Small changes in main effect estimates
Fixed Stata code for calculating joint test p-values in spillover table.	Table III All OA spillover tables	Spillover effects are no longer jointly significant in Table III
Fixed OA Lee bounds code to include both household respondents for psychological wellbeing.	OA Table 9	None
Changed timing control variable in OA Section 9.6 to household endline timing for consistency with Section 9.5. Updated text in Sections 9.5 and 9.6.	OA Tables 17–19	None
Fixed code for calculating joint test p-values in treatment arm regressions with timing controls. Original code treated psychological wellbeing index as a household rather than individual-level measure.	OA Tables 17–19	None
Analysis of the temporal evolution of effects did not exclude large transfer recipient households as one would expect from the discussion in 9.7. Further, OA Table 20 did not match the specification in equation 6.	OA Table 20	None
Modified code to exclude treatment households from baseline comparisons between households in treatment and control villages. This better reflects the text and PAP.	OA Table 25	None
When calculating joint test p-values and FWER adjusted p-values, original analysis did not properly account for differences between regressions in inverse probability weights. These weights are no longer part of our primary analysis.	New OA Tables 36, 123–136	None
Fixed code for calculating FWER adjusted p-values in the calculation of across-village treatment effects (previous version included village fixed effects, which are collinear to treatment status in this specification).	OA Table 37 Columns 3 and 4	Across-village p-values now better reflect within-village p-values
Fixed coding of specification for estimating effects based on recipient gender using across-village comparison.	OA Table 38 Columns 5 and 6, etc.	Small change to joint-test p-value

Rejected Edits

Suggested Edit	Justification for not removing	Tables
For the education index, we condition on households with school age children at endline. Having school age children at endline could be endogenous to treatment, so it may be better to condition on whether households have children at baseline .	1. Any differences common to households with school age children at endline but not baseline will be captured by the missing baseline indicator. 2. This is also preferable because it allows us to use more of the data.	Table I-III All OA tables containing indices Detailed OA Tables on education
For the female empowerment index, we condition on households cohabiting at endline. Marital status at endline may be endogenous to treatment, so it maybe be better to condition on cohabitation at baseline .	See above	Table I-III OA tables containing female empowerment
For the female empowerment index, we state we will restrict to cohabiting households, but we include 10 that are married but not cohabiting. Of these, 4 were not cohabiting at either baseline or endline. The other 6 were cohabiting at baseline but not endline.	We do not pre-specify cohabitation as the restriction. There is no reason not to evaluate all married individuals.	Table I-III OA tables containing female empowerment
For treatment arm comparisons, it was suggested we change equation 6 to exclude households in which the transfer recipient was single and equation 7 to exclude large transfer households. The specifications would be as follows:	This is equivalent to our approach, and the results are nearly identical. The small difference the auditor detected is likely due to differences in the pattern of fixed effects indicators dropped by Stata due to collinearity.	All tables comparing female vs. male recipient treatment arms or monthly vs. lump sum treatment arms.
$y_{vhiE} = \alpha_v + \beta_0 + \beta_1 T_{vh}^F \times T_{vh}^{\text{Married}} + \beta_2 T_{vh}^{\text{Married}} + \delta_1 y_{vhiB} + \delta_2 M_{vhiB} + \varepsilon_{vhiE}$		
$y_{vhiE} = \alpha_v + \beta_0 + \beta_1 T_{vh}^{\text{MTH}} \times T_{vh}^S + \beta_2 T_{vh}^S + \delta_1 y_{vhiB} + \delta_2 M_{vhiB} + \varepsilon_{vhiE}$		
Unmatched HH analysis excludes village fixed effects	The sample size is too small for a fully saturated set of village fixed effects	OA Table 1
It was suggested we use the days from median transfer to endline as a control for timing, instead of months from the first sample endline to a household's endline. This would be consistent with the calculation of treatment arm calculations using controls for timing.	We can only calculate this value for treatment households, not control households (who did not receive transfers). Instead, we changed the treatment arm calculations to use the months from first sample endline to household endline.	OA Tables 16–19

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