Can Entrepreneurship Programs Transform the Economic Lives of the Poor?

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The Issues

- the poorest households are typically engaged in low productivity occupations/underemployed
- economic development requires productivity increases:
  - for a given occupational structure/set of activities [info, credit]
  - through changes in the choice of economic activity
- yet there is limited evidence on whether and how policies can affect occupational choice

The Questions

- lack of skills and assets make the poorest potentially less responsive to some existing programs [e.g. microfinance, technology transfers]
- we evaluate an innovative program that tackles constraints related to both skills and assets
  - can entrepreneurship be taught to the very poorest?
  - can it transform the economic lives of the poor?
- beyond the impacts on beneficiaries, we measure spillover effects on other households in the same community, operating through labor markets

BRAC's Ultra Poor Program

- STUP (Specially Targeted Ultra Poor), key components:
  - asset transfer (livestock), average value 9,000TK ($130)
  - enterprise training
  - subsistence allowance (Tk 15 per day) for the first 40 weeks
  - tailor made health support and community mobilization
  - lessons in micro-finance and invitation to join after 18-24months
- scale-up: to reach 500,000 households in 40 districts by 2011 at a cost of TK20,700 ($300) per household

Identifying the Ultra-Poor (UP)

- communities engage in participatory wealth ranking
- all households in lowest wealth rank are included in a "primary selection survey"
- beneficiaries chosen after further examination to verify exclusion/inclusion criteria
- note: ongoing forms of village level participation into the programme (village committees)

The Lives of the Ultra-Poor at Baseline

- low human capital: 7% literate, 18.3 average BMI
- low PCE: 2/3 of average PCE in middle class, 1/3 of top class
- stark wealth inequality: 3% of mean middle class wealth, 0.5% of top class
  - 45% of UPs own no assets
  - average value of asset transfer = 2X initial wealth
- [Table 1A]

Table 1: Baseline Summary Statistics

Averages

	STUPs	Other poor	Middle class	Upper class
Number of households	6,819	8,628	5,390	4,231
HH Head Male	.58	.78	.94	.95
Female respondent is literate	.07	.16	.27	.52
Female respondent BMI	18.3	18.9	19.3	20.3
Total Pce (Tk)	3961.1	4247.1	5563.3	11973.2
Wealth (Tk)	5619.8	14009	153318,7	853426.6
Livestock value	869.9	2553.1	12876.8	31304.6
Durables value	375.8	566.8	1620.3	5967.5
Savings (Tk)	142.3	389.9	1617.6	9297.1

The Occupational Choices of the Ultra-Poor at Baseline

- Stark differences in occupational structure for both men and women:
  - incidence of wage work (maid, agricultural) decreases with wealth
  - incidence of self employment (livestock, land) increases with wealth
- poor women work more hours, no difference for men across wealth classes
- [Table 1B]

Table 1: Baseline Summary Statistics

Averages

	STUPs	Other poor	Middle class	Upper class
Female respondent, hours spent in:				
Self-employment	413.4	502.8	700.4	769.5
Wage employment	723.5	435.3	110.9	42.6
All income generating	1136.8	938.3	811.3	812.1
Male head, hours spent in:				
Self-employment	572.8	750.8	1252.9	1556.1
Wage employment	1074.6	1060.4	638.1	254.6
All income generating	1651.9	1813.1	1894.5	1816.6

Mechanisms: Beneficiary Households

- the program loosens two constraints:
  - lack of productive assets
  - lack of skills and information on how to use assets
- both channels increase the returns to self-employment vis-à-vis wage labor
- overall effect on labor supply and occupational choice depends on:
  - whether individuals were previously at full-employment
  - the balance of the income and substitution effects

Mechanisms: Spillover Effects on Other Households

- the program potentially affects the occupational choice of 10-15% of the population in each community (the UP)

  $\longrightarrow$ reduces the supply of casual labor and can increase the casual wage

- the program also injects wealth in the community in the form of livestock
  $\longrightarrow$ increases the demand for livestock labor

- both affect the potential earnings and hence the occupational choice of **other hhs** in the community
  - households that are close substitutes in the labor market to the UP
  - those socially connected to the UP
  - wealthier households that were previously contracting with the UP

Randomized Evaluation

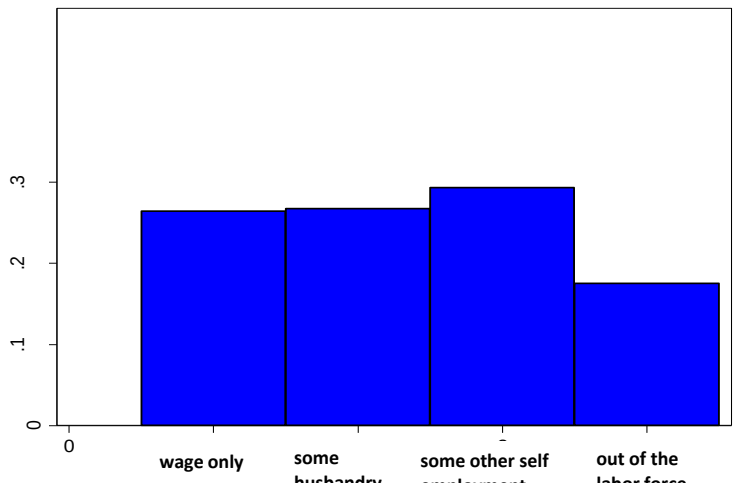
- randomization at the branch (sub-district) level: half the branches randomly assigned to be treated in 2007
- remaining branches will be treated in 2011
- UP are identified in both treatment and control communities
- survey all UP plus a representative 10% sample from other wealth classes
- baseline (2007)—midline (2009)—endline (2011)
- 40 branches, 1409 communities, 25,068 households

Evaluation: Description

- full compliance: all selected UP participated in the program
  - intensive personalized support ends after 24 months
  - UPs can sell the assets after that
- average 800 days between baseline and follow-up
  - 96% of UP at follow-up have at least a cow/goat (46% at baseline)
  - 91% of UP at follow-up have at least one cow (6% at baseline)
- survey design: detailed information on income generating activities: measure the transformation of occupational choices

TREATMENT COMMUNITIES

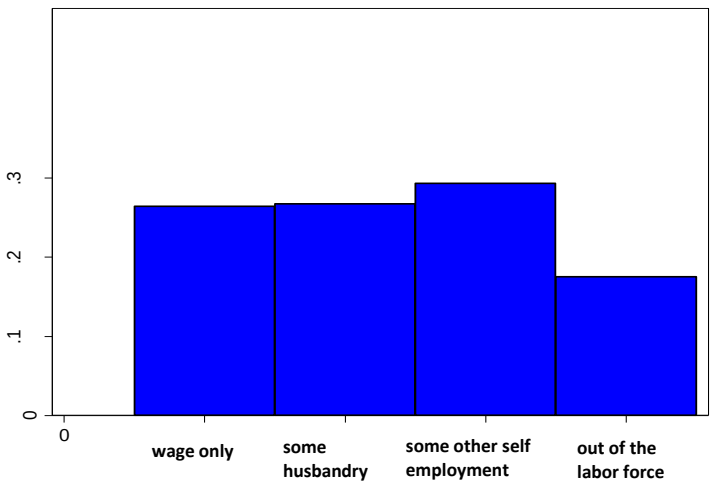
Before



After

TREATMENT COMMUNITIES

Before



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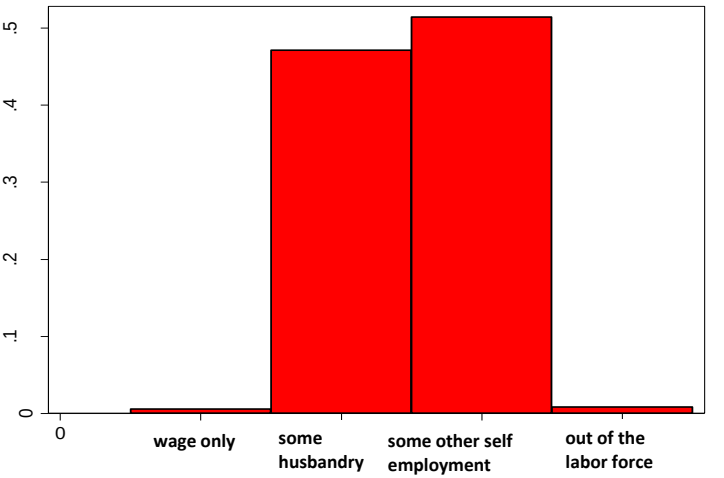
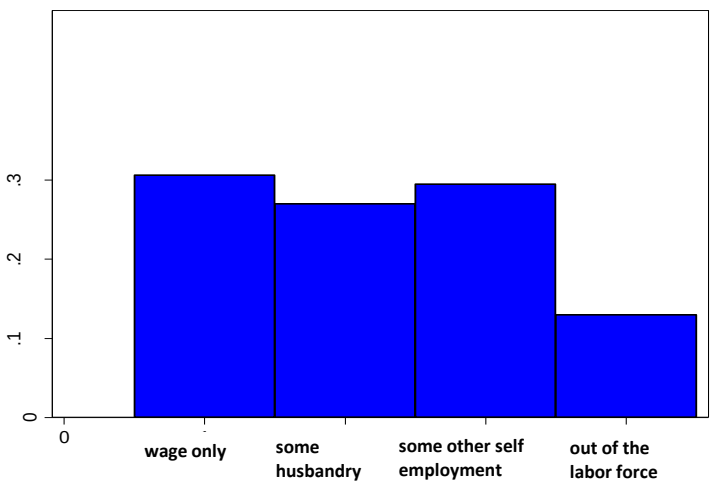


CONTROL COMMUNITIES

Before



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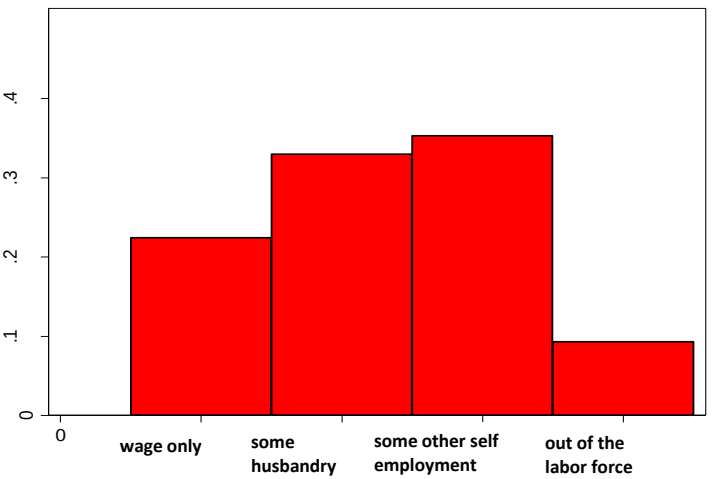

Treatment on the Treated: Occupational Structure

- UP women more than double time devoted to self-employment (husbandry and land cultivation) – close the gap with top classes
- reduce time devoted to wage employment (agr labor and maid services)
- the increase in self-employment (550 hours) is much larger than the drop in wage employment (100 hours)

  $\longrightarrow$ overall labor supply increase (leisure consumption decrease)

  $\longrightarrow$ labor income increases by 1,918 (recall baseline PCE of UP was 3961)

Treatment on the Treated: Other Occupation Related Changes

- other hh members also increase hours devoted to self-employment activities
  - effect strongest for male head (if present): a 50% increase from baseline
- increase in asset holding mirrors occupational changes:
  - value of livestock owned increases 14 times
  - **complementary** assets increase as well: animal sheds and shops
- increase in size of land cultivated, both through ownership and rental

Treatment on the Treated: Savings

- amount of savings increase four-fold: reduced vulnerability to income shocks
- conditional on borrowing (lending), average loan size increases by 37% (150%)
- perhaps microfinance effects will be different now that occupational transformation has occurred?

Welfare

- change in occupation $\longrightarrow$ increase income $\longrightarrow$ increase expenditures
- food, non-food and total PCE increase by 7%, 21% and 10%, respectively
- food security increases by 1/3
- price per calorie (proxy for food quality) increases by 5%

Cost-Benefit Analysis

- program costs TK 20,700 per household
- yearly income of female respondent increases by TK 1,918 $\approx$ 10% of initial cost – probably an underestimate of the long-run effects
- an equivalent cash transfer at going interest rates (6%) would have yielded TK1080 per year
- hence program generates a rate of return almost double that of cash transfers alone

Spillover Effects: Labor Markets

- given its large effect on the poorest 10-15% of the population, the program is likely to have spillover effects on other households
- focus on labor market spillovers: maid services and casual agricultural labor, separately by gender
- in both maid and agricultural markets, the labor supply of non-UP *women* increases, but not enough to compensate for the supply drop of UP
- in both markets, *female wages* increase, both for UP and non-UP hhs
  - maid wages increase by 35% and 25%, respectively
  - agr wages increase by 11% and 7% respectively
- in contrast, the average labor supply of UP **men** decreases, but the wage remains constant

Spillovers: Cost-Benefit Analysis

- to incorporate these spillover effects into the CBA, consider that the average community has 10-15% of hh UP, and similar proportions of "other poor"
- income effect on UP: TK9590
- income effect on "other poor": TK3630
- ignoring spillovers vastly underestimates net benefits of the program

Conclusions: Effects on the Treated

- we find that even the poorest households with low skills, can successfully operate small businesses
- program success relies on the choice of "appropriate" projects – in this case livestock rearing, which is a common activity undertaken by richer people in the same communities
- further research will explore:
  - effect on human capital accumulation, especially of children (could be positive or negative–more work less schooling?)
  - long run effect– is this a permanent shift?
- longer term impacts on Bangladesh economy as programme reaches 500,000 rural households

Future Variants of the Programme

- emphasis here on raising income through occupational choice: specialization in livestock rearing
- other mechanisms: raising milk yields from animals:
  - veterinary services, AI, best practice on livestock rearing
- raising prices obtained by livestock rearers (**community level interventions**):
  - market linkages (chillers; milk collection)