

Financial Incentives as Signals: Experimental Evidence from the Recruitment of Village Promoters in Uganda

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Motivation

- How can organizations change incentives to attract better workers?
 - Here: Can financial incentives crowd out pro-social motivation?
- Related literature
 - Theoretical research on role of financial incentives as signals
 - Higher price may can signal better quality \approx higher wage may convey difficulty of job, intentions of employer, or nature of task
 - Selection effect of incentives
 - Fixed wage to performance pay \implies more able workforce (Lazear 2000)
 - Higher wages attract more (qualified) applicants (Dal Bó et al. 2013)
 - Civil service aspirants more skilled, ambitious (Ashraf et al. 2016)

- Community-based approach: workers are recruited within their villages and trained to deliver public services for own community
- Many community-based programs combine public and private services
 - Agents asked deliver social service *and* sell products at a margin
 - Product mix includes socially beneficial and popular HH items
- BRAC Community Health Promoter (CHP) program in Uganda
 - Built on top of microfinance (MF) program, composed of women only
 - Recruitment process: selection, training, and deployment
 - Flexible hours, part-time job (common for NGO workers in this setting)

Experimental Design

- Information experiment: tests signal channel of financial incentives

SAMPLES	All treatments	Low-pay treatment	Medium-pay treatment	High-pay treatment
Respondents	$N = 6,845^a$	$N = 2,296$	$N = 2,279$	$N = 2,270$

^aHere, 3,375 are asked type 1 questions (sample 1); 3,470 are asked type 2 questions (sample 2).

Step 1: Collect data on personality trait from all respondents.

Step 2: Show recruitment leaflet to respondent; randomization of the leaflet is at the respondent level.

Step 3: Measure job perceptions.

- Recruitment experiment: tests effect of incentives on applicant pool

SAMPLES	All treatments	Low-pay treatment	Medium-pay treatment	High-pay treatment
Microfinance groups (communities)	$N = 315$	$N = 105$	$N = 104$	$N = 106$
Potential applicants (microfinance clients)	$N = 4,863$	$N = 1,617$	$N = 1,632$	$N = 1,614$
Applicants	$N = 826$	$N = 233$	$N = 276$	$N = 317$
CHPs	$N = 301$	$N = 95$	$N = 102$	$N = 104$

Step 1: Collect data on personality trait from all potential applicants (microfinance clients).

Step 2: Show recruitment leaflet; randomization of the leaflet is at the microfinance group level.

Step 3: Ask for application decisions privately to all microfinance clients.

Step 4: Appoint one applicant in each microfinance group.

Step 5: Train hired CHPs and track them on the job for two years.

Validation of Experiment

- Treatment varies expected average but not expected variation \implies agents self-select without changing perception of risk

TABLE 2—TREATMENT EFFECTS ON PERCEIVED EARNINGS (*information experiment*)

Variables	Survey questions		Calculated from elicited expected distribution of earnings			
	Expected earnings in a “typical month” (1)	Expected earnings per hour of work in a “typical month” (2)	Expected average earnings (3)	Expected median earnings (4)	Expected SD in earnings (5)	Expected average earnings/ expected SD in earnings (6)
Medium-pay treatment	5.5364 (2.39)	0.2016 (0.13)	2.5943 (1.68)	2.2693 (1.95)	−0.7232 (0.77)	0.2345 (0.11)
High-pay treatment	33.2167 (3.11)	0.7658 (0.15)	8.3172 (1.70)	9.8436 (1.88)	0.4867 (0.65)	0.3127 (0.12)
Mean dep. var. in low-pay treat.	87.886	2.575	116.852	114.404	47.648	2.789
Observations (number of respondents)	3,031	2,717	2,715	2,715	2,715	2,715
R^2	0.354	0.387	0.406	0.407	0.365	0.238
p -value Med = High	0.000	0.000	0.001	0.000	0.088	0.528
p -value Low = Med = High	0.000	0.000	0.000	0.000	0.230	0.014

Notes: This table shows one observation per respondent and OLS estimates. All regressions include village fixed effects and control for the number of work hours per week, self-employed in a non-farming activity, age, marital status, highest education level completed, and house size. All variables are expressed in thousands of UGX and are truncated at the top at 1 percent. The results remain consistent if I do not truncate the variables. “Expected earnings in a typical month” asks the respondents in sample 2 how much they believe a CHP earns “in a typical month” (similar for “expected earnings per hour of work”). The variables in the last four columns are calculated from the elicited distribution of expected earnings from each respondent of sample 1. Differences in the number of observations are explained by the presence of two separate samples (samples 1 and 2) with different sample sizes and by missing values in the dependent variables.

Treatment Effects

- Job perceptions (information experiment)
 - High-pay treatment group (relative to low and medium) more likely to
 - Perceive CHP position as a “private goal” rather than “social goal”
 - Report higher perceived proportion of time spent selling goods
 - No impact on expected hours, difficulty, or self-confidence
- Selection (recruitment experiment)
 - Those who volunteered in health sector or are “community driven” more likely to apply relative to those who haven’t, *under low-pay*
 - Number of applicants crowded in > number of applicants crowded out
 - CHPs recruited under medium- and high-pay less likely to donate or be among top donors, and less likely to have volunteered
 - CHPs recruited under low-pay are retained for longer and perform better
 - Effects persist even after surprise effect is likely to have disappeared

Conclusion

- Alternative mechanisms: higher pay could
 - ① Attract agents with higher reservation earnings/educ \iff less pro-social
 - ② Dissuade pro-social agents because of reputational concerns
 - ③ Discourage pro-social candidates if they react differently to ads
 - ④ Affect decisions differently based on composition of MF group
- Outstanding questions
 - Does this apply to primary occupations?
 - When are incentives large enough to convey signal about social impact?
 - Likelihood of hiring someone vs. likelihood they perform well?