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

GR 6307 class presentation by Louise Guillouët, Spring 2018

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Motivation and objectives

- Two broad categories of *motivation*
- Intrinsic: how motivated an individual feels to accomplish a certain task.
- Extrinsic: rewards an individual gets for accomplishing a certain task, most often: money.
- Research question: to recruit people for a pro-social task (intrinsic motivation), do monetary incentives attract or crowd-out financial applicants?
- In particular, does signaling of financial incentives attract or crowd-out prosocial applicants?
- Freakonomics/Benabou-Tirole: when image reward is important, adding monetary incentives can actually be counter productive.

Context

- Rural Uganda, 2010s.
- Objective: recruit community health workers who provide education (purely social) and sell items, some pro-social (mixed) and some not (purely financial)
- Mostly variable income, unpredictable and low.
- When advertising for the position, limit information on job characteristics, and randomize who gets info about max, mean and min of earnings distribution of CHW elsewhere.

Research design/empirical strategy

Two separate experiments on different groups of people:

- Research design: advertise for community health worker (CHW) position and vary information given.
- Recruitment experiment: leads to actual recruiting and follow-up among micro finance clients (4,853)
- First stage: changes perception of financial reward linked to position.
- Second stage: changes what kind of people apply and get the job.
- Ultimately, impact on job performance and for some, survey.
- Information experiment: advertise for position in the same way and survey villagers (6,844), but no recruitment.
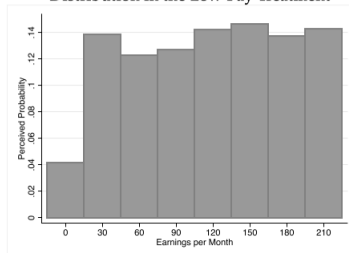
Results on perception of job earnings
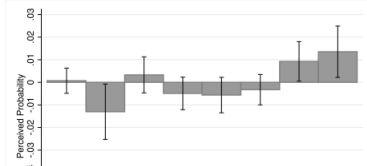
Information experiment

Outcomes: expected distribution of earnings.

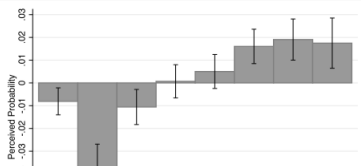Measurement: ask people to put a given number of beans in boxes representing earnings.

Distribution in the Low-Pay Treatment

Difference between Medium- and Low-Pay Treatment

Difference between High- and Low-Pay Treatment

Information experiment

Outcomes: perception of characteristics. Measurement: survey.

Table 3: Treatment Effects on other Perceived Job Attributes
[Information Experiment]

VARIABLES	(1) Job is perceived as a "private goal" (CHPs do the job for the money) more than a "social goal" (CHPs do the job to improve health conditions)	(2) Perceived proportion of time allocated to sales (vs. delivery of health services)	(3) Expected number of work hours in a "typical week"	(4) Perceived difficulty in selling products to community	(5) Perceived difficulty in improving people's health behavior	(6) Own perceived ability
Medium-Pay Treatment	-0.0033	0.0027	-0.0638	-0.0285	-0.0315	0.0286
	(0.02)	(0.01)	(0.34)	(0.04)	(0.05)	(0.13)
High-Pay Treatment	0.0692***	0.0450***	0.1665	0.0008	-0.0236	0.1144
	(0.02)	(0.01)	(0.35)	(0.04)	(0.05)	(0.14)
Mean dep var in Low-Pay T.	0.403	0.461	14.081	1.827	2.536	6.004
Obs. (# Respondents)	3,067	3,014	2,769	3,055	3,056	2,901
R-squared	0.282	0.293	0.384	0.266	0.217	0.259
p-value Med=High	0.002	0.000	0.544	0.444	0.867	0.483
p-value Low=Med=High	0.004	0.000	0.822	0.698	0.789	0.673

Results on recruited workers characteristics

Recruitment experiment
Results hold for applicants as well.

Table 6: Treatment Effects on Traits of the Health Promoters
[Recruitment Experiment, Sample = CHPs]

VARIABLES	CHP's prosocial preferences					CHP's interest in sales	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Amount donated (dictator game)	=1 if donated more than 0 (50th percentile)	=1 if donated more than .5 (85th percentile)	Has ever volunteered in the health sector	Community driven	Owns a shop	Has ever sold health-related products
Medium-Pay Treatment	-0.2399***	-0.2152***	-0.2159***	-0.0212	-0.1702**	-0.0613	-0.0007
	(0.07)	(0.06)	(0.06)	(0.07)	(0.07)	(0.06)	(0.06)
High-Pay Treatment	-0.2573***	-0.2125***	-0.2623***	-0.1108*	-0.2677***	0.0584	0.0330
	(0.07)	(0.06)	(0.06)	(0.07)	(0.07)	(0.06)	(0.06)
Mean of dep var in Low-Pay T.	0.463	0.611	0.526	0.347	0.695	0.283	0.221
Observations (# CHPs)	301	301	301	301	297	293	301
R-squared	0.255	0.309	0.312	0.046	0.174	0.143	0.156
p-value Med=High	0.703	0.965	0.406	0.151	0.146	0.045	0.546
p-value Low=Med=High	0.001	0.000	0.000	0.178	0.000	0.133	0.793

Notes: One observation per CHP. OLS estimates. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Recruitment experiment
Outcome: length on the job and performance besides sales.

Table 7: Treatment Effects on Drop-out and Performance of CHPs
[Recruitment Experiment, Sample = CHPs]

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	DROP OUT			**PERFORMANCE**											
	CHP has dropped out within two years of recruitment			Monthly sales profits			Number of households visited per month			Number of pre- and postnatal checks			Score given by BRAC to CHP overall performance (out of 10)		
Medium-Pay Treatment	0.0818	0.0391	0.0827	-3.2843	-1.2695	-1.4013	-2.4506	0.6103	-1.1416	-0.8090	-0.1435	-0.2749	-0.6288*	-0.4406	-0.3312
	(-0.06)	(0.06)	(0.07)	(2.53)	(2.49)	(2.85)	(3.51)	(3.56)	(3.65)	(0.66)	(0.66)	(0.70)	(0.34)	(0.34)	(0.39)
High-Pay Treatment	0.1359**	0.0901	0.0953	-4.8243	-2.6637	-2.9253	-8.0721**	-4.7896	-4.0527	-1.4528**	-0.7391	-0.4547	-0.8210**	-0.6228*	-0.6251
	(0.06)	(0.06)	(0.06)	(2.97)	(2.97)	(3.04)	(3.55)	(3.53)	(3.65)	(0.72)	(0.74)	(0.74)	(0.35)	(0.36)	(0.40)
Amount donated		-0.1782***	-0.1353**		8.3973***	8.4848***		12.7578***	10.9888***		2.7739***	3.1343***		0.7836**	0.9804**
		(0.05)	(0.06)		(2.79)	(2.91)		(3.69)	(4.02)		(0.69)	(0.70)		(0.31)	(0.39)
Ever volunteered in the health sector			-0.1299**			4.0673			4.0498			1.6478**			0.4169
			(0.06)			(2.63)			(3.47)			(0.71)			(0.35)
Community driven			0.0460			-3.0813			-1.0483			-0.6795			-0.3345
			(0.06)			(2.68)			(3.44)			(0.68)			(0.36)
Owns a shop			0.0610			4.0161			6.3491			-0.0151			-0.0268
			(0.07)			(4.10)			(4.19)			(0.75)			(0.42)
Ever sold health-related products			-0.2300***			0.8803			5.1064			1.2062			0.8421*
			(0.07)			(4.32)			(3.89)			(0.91)			(0.43)
Controls	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Mean of dep var in Low-Pay T.	0.189	0.189	0.189	38.396	38.396	38.396	52.807	52.807	52.807	9.801	9.801	9.801	6.758	6.758	6.758
Observations (# CHPs)	301	301	271	301	301	271	301	301	271	301	301	271	297	297	268
R-squared	0.131	0.157	0.258	0.427	0.444	0.496	0.484	0.504	0.575	0.255	0.295	0.371	0.170	0.184	0.277

Discussion and conclusion

- Interesting paper. Is it really the first one to measure financial incentives as signaling?
- Randomization was well done, balances etc.
- Interesting that it can be done without lying, just modifying information given.
- How convinced are we that prosocial worker do their job better?
- The surprise effect still holds for me.