

The Psychosocial Value of Employment

Evidence from the Rohingya refugee camps

Reshma Hussam, Erin Kelley, Gregory Lane, Fatima Zahra

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UNHCR







“Help us go back home,
and give us work.”



"Haath-er-kaaj"
– work with my hands

Rohingya refugee camps

Widespread unemployment:

- No work permits no right to work
- No free flow of labor
- Limited informal work

Study question

What is the value of employment,
beyond its direct monetary benefit,
on wellbeing?

Broad motivation

Long tradition in the social sciences of exploring the non-pecuniary benefits to employment.

- Sociology: Morse and Weiss, 1955; Jahoda, 1981; Kessler, Turner, and House, 1988
- Psychology: Paul and Moser, 2009; McKee-Ryan et al., 2005; Wehrle et al., 2018

Recent lab and lab-in-the-field experiments on the disutility of idle time: Hsee et al. 2010, Wilson et al. 2014; Bhanot, Han, and Jang, 2018

Challenges

- ① Selection: the unemployed are different from the employed
- ② Mechanism: conflation of pecuniary and non-pecuniary benefits to wage labor
- ③ Relevant outside option and realistically effortful labor

This project

- 745 Rohingya refugees in Bangladesh camps
 - ① **Control**: no work, nominal fee for weekly survey participation
 - ② **Cash**: no work, large cash fee for weekly survey participation
 - ③ **Work**: paid wage labor equivalent to cash arm per week
- Eight weeks of employment

Preview of results

- ① Work leads to substantial improvements in psychosocial wellbeing

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- ② These improvements are significantly different from that of cash, which has limited psychosocial impact
- ③ The majority of those offered work are willing to forego cash payments equivalent to baseline savings levels in order to continue working without pay
- ④ Differential effects of work are concentrated among males

Context: refugees worldwide

30 million globally (82 million FDP)

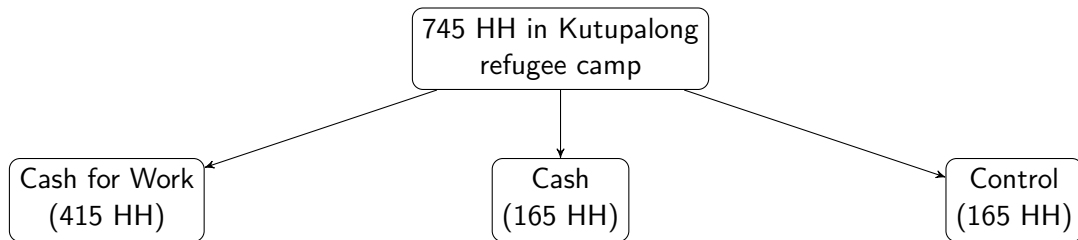
- < 1% of refugees resettled per year
- FDP displacement for 10-26 years
- 70% of refugees face restrictions on right to work
- many suffer from trauma, depression, PTSD

“We wake up, we sleep, we wake up, we sleep, we eat food... There is no purpose in a life like this. One day is like another.” - **Syrian refugee, Turkish Killis camp** (McClelland 2014)

Context: Rohingya refugees

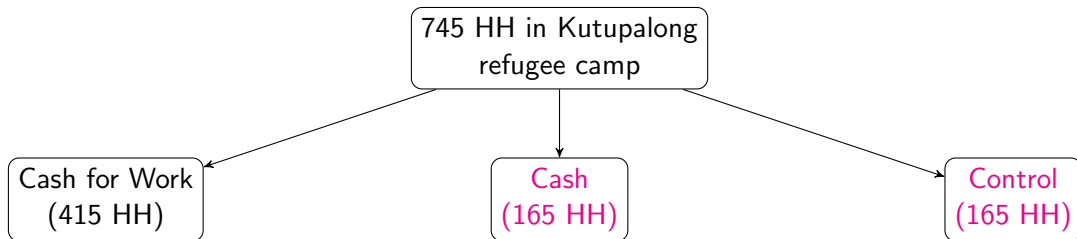
	Mean	Std. Dev.
Female	0.30	0.46
Married	0.79	0.41
Age	28.32	6.98
Household size	5.13	2.15
Formal education	0.49	0.50
Worked in the last month	0.11	0.31
Hours Idle (avg)	3.07	1.71
Savings (Taka)	248.17	1159.23
Borrowing	2670.31	4986.38
Depressed	0.38	0.48
Suicidal Ideation	0.47	0.50
Observations	745	

Experimental design

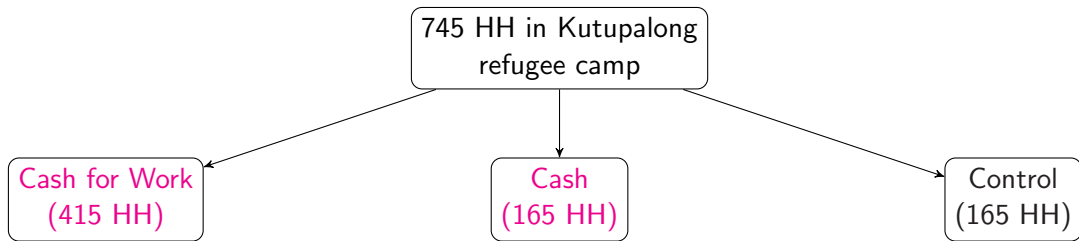


work sample size

Psycho-social value of cash



Psycho-social value of work



Cash payments

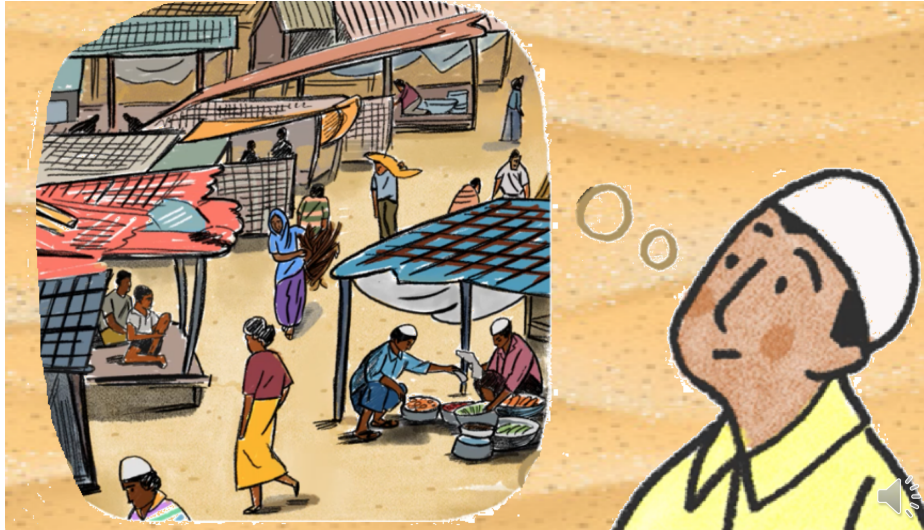
- ① **Control:** 200 taka per month (50 taka per week)
- ② **Cash and Cash for work:** 1800 taka per month (450 taka per week)
 - \$20 USD (MER), \$60 USD (PPP)
 - Substantially higher than resale value of rations per-adult monthly rations (oil, lentils, and rice)
 - Outside option: 300 taka per day, 3 days per month

Employment intervention

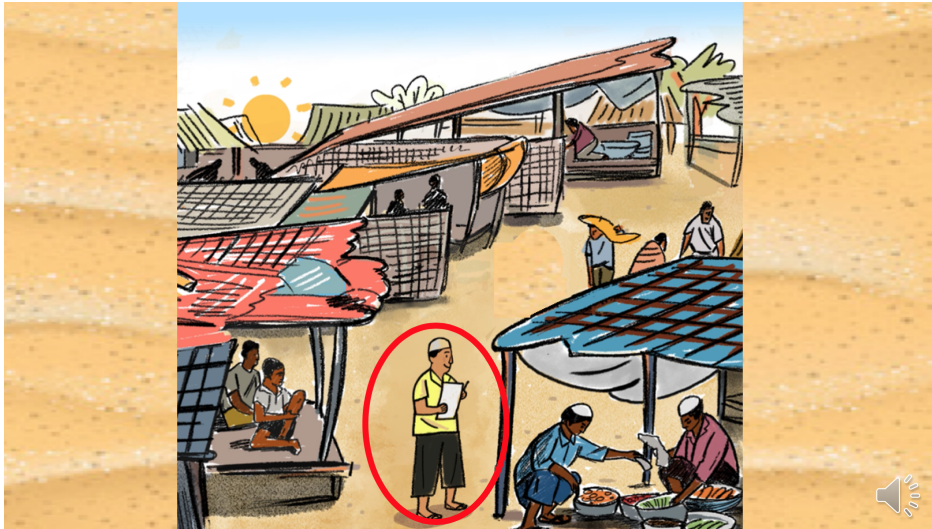
Key features of 'work':

- Effortful task (attention, energy)
- Time substitute for 'leisure'
- Of meaningful duration (Terkel, 1974)
- Social (Terkel, 1974)
- Purposeful (Soffia, Wood, and Burchell, 2021)

Work task



Work task



Work task for men

NAME:

HHID:

TIME: 2:00 - 4:00



Work task for women

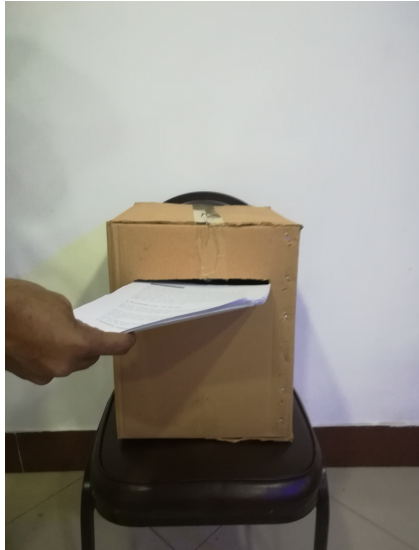
NAME:

HHID:

TIME: 2:00 - 4:00



Collection points



Work in context of camps

- Accessible to men and women with low literacy
- Local NGO (no brand name/prestige)
- Not too good, not too bad:
 - ① repetitive
 - ② outdoors in heat, physical movement
 - ③ required meaningful time and attention (2.5 hours)
 - ④ but not backbreaking labor

Roadmap of results

- ① Main psychosocial effects
- ② Physical and cognitive effects
- ③ Labor supply
- ④ Potential confounds
- ⑤ Exploring mechanisms

Psychosocial wellbeing

	Individual Components of PS Index							
	(1) PS Index	(2) PHQ	(3) Stress	(4) Life Sat.	(5) Social	(6) Self Worth	(7) Control	(8) Stability
Work	0.223*** (0.039)	-0.242*** (0.078)	-0.258*** (0.096)	0.301*** (0.075)	0.167** (0.082)	0.143* (0.080)	0.216*** (0.081)	0.249*** (0.081)
Cash	0.054 (0.051)	0.002 (0.093)	-0.060 (0.108)	0.237*** (0.087)	0.083 (0.100)	-0.075 (0.087)	0.033 (0.101)	0.055 (0.102)
Shrp. q-val Work		0.006	0.007	0.001	0.015	0.023	0.007	0.006
Test Work=Cash	0.000	0.006	0.022	0.350	0.324	0.002	0.031	0.033
Shrp. q-val Work=Cash		0.018	0.035	0.112	0.112	0.015	0.035	0.035
Observations	726	726	726	726	726	726	726	726

Weekly trends: stress

Weekly trends: sociability

back

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Physical and cognitive health

	(1) Days Sick	(2) Days Sick >7	(3) Cognitive Index	(4) Risk Av.	(5) Time Pref.
Work	-0.780* (0.411)	-0.044 (0.049)	0.208** (0.080)	-0.656** (0.291)	-0.119 (0.323)
Cash	-0.054 (0.479)	0.007 (0.055)	0.059 (0.090)	0.028 (0.342)	-0.074 (0.336)
Shrp. q-val Work	0.070	0.229	0.054	0.055	0.399
Test Work=Cash	0.064	0.204	0.027	0.016	0.850
Shrp. q-val Work=Cash	0.073	0.119	0.073	0.073	0.343
Observations	726	726	726	726	726

Weekly trends in days sick

Weekly trends in math

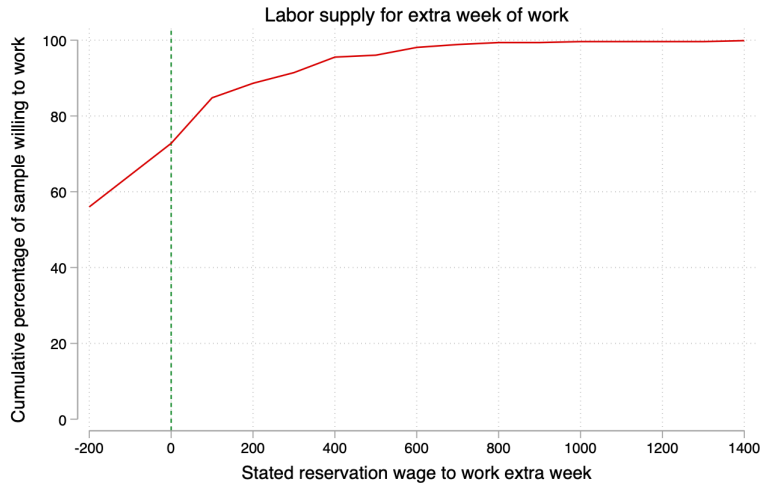
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Tracing workers' labor supply curve

- We elicit work-treatment participants' willingness to work for one additional week
- Incentivized BDM mechanism
- Only with work arm: familiarity with task

Labor supply curve



Roadmap of results

- ① Main psychosocial effects
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Future income

Are the benefits of employment driven by the expectation of future work and pay?

Cross randomize all arms with a certificate treatment one month into intervention:



Future income

	(1) Psychosocial Index
Cash	0.025 (0.105)
Work	0.245*** (0.077)
Cash * Certificate	0.084 (0.138)
Work * Certificate	-0.012 (0.105)
Certificate Assignment	-0.020 (0.089)
Observations	516

Future income

	(1) Day labor	(2) Salaried	(3) Any work	(4) Daily wage	(5) Expects work	(6) Total expected
Work	-0.030** (0.012)	0.008 (0.005)	-0.020 (0.048)	-21.328 (23.402)	-0.139 (0.201)	135.167 (305.094)
Observations	542	542	542	138	542	542
Mean in Cash	0.99	0.00	0.29	342.83	2.81	2289.31

Experimenter Demand

- ① **Outcome measures:** we document differential effects of work treatment on incentivized risk preference as well as more objective measures of physical and cognitive health
- ② **Labor supply elicitation:** majority of workers report negative reservation wages in incentivized setting
- ③ **Key comparison of cash v. work:** demand or reciprocity effects equally (or more) likely in cash arm, where the “gift” was more generous
- ④ **Nature of psychosocial questions:** often not amenable to demand effects.
 - Ex. Work intervention significantly reduces number of days of suicidal ideation (at a magnitude almost equivalent to the full PS index effect).

Summary of main effects

- Employment yields meaningful improvements in every measure of psychosocial wellbeing beyond the effects of cash alone.

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- Employment yields meaningful improvements in every measure of psychosocial wellbeing beyond the effects of cash alone.
- It further improves physical and cognitive health relative to cash.
- These effects cannot be explained by expectations of future income, nor demand effects, suggesting the mechanism may be intrinsic to the act of working itself.
- Indeed, workers appear able to price these non-pecuniary benefits of employment into their labor supply choices.

Roadmap of results

- ① Main psychosocial effects
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- ④ Potential confounds
- ⑤ Exploring mechanisms
 - Features of work
 - Features of worker

Mechanisms: what features of employment generate psychosocial value?

- Time use no differences in alternative activities
- Interpretation of cash no difference in 'earning' or consumption
- Sociability small differences in number of conversations
- Structure no differences on intensive margin
- Status and purpose no differences by baseline ranking of value

Does the nature of the employment matter at all? Yes.

Exploit individual and temporal variation in work schedule:

$$Y_{ibct} = \beta_0 + \beta DaysSinceWork_{ibct} + t + \eta_i + \gamma_c + \delta_e + \varepsilon_{ibct}$$

experience of work matters

On what margins? Likely those synonymous with employment:

- Engaging in productive activity
- Having regularity in one's day Victor Frankel
- The identity as an employed person

Mechanisms: what types of workers derive psychosocial value?

- Gender males
- Baseline sociability extroverts
- Baseline depression depressed
- Baseline exposure to violence traumatized

Benchmarking our main effects

The psychosocial impact of employment: **0.214 SD**

The psychosocial impact of cash: **0.045 SD**

- Benchmark 1: Rohingya refugee camp psychotherapy program
 - 52 week intensive psychoeducation program: 0.14 SD reduction in depression (Islam et al. 2021)
- Benchmark 2: Meta-analysis of anti-poverty programs
 - \$1000 MER leads to a 0.46 SD increase in mental health (Ridley et al. 2020)
(0.02 SD / \$40 MER)
- Benchmark 3: Meta-analysis of cash transfers
 - \$120 PPP leads to a 0.014 SD increase in mental health (Ridley et al. 2020)

Conclusion

- We find substantial psychosocial benefits to employment beyond those delivered by cash alone.

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- These effects appear to be driven by the intrinsic nature of the work, which individuals are aware of able to value
- These findings may have relevance to a broader community: the labor market constrained, the materially constrained, and the leisure-choice constrained

“But the unemployment is not merely a deficiency of income that can be made up through transfers by the state. . . it leads to losses of self-reliance, self-confidence and psychological and physical health.”

- Amartya Sen, *Development as Freedom*

Thank you!

Appendix

No evidence of long term harm to short term work

	(1) Wellbeing	(2) Life Satis.	(3) Locus of Cont.	(4) Sociability	(5) Stress	(6) Cognitive
Work	0.361*** (0.106)	0.083 (0.102)	-0.115 (0.086)	0.104 (0.108)	-0.285** (0.116)	-0.099 (0.103)
Cash	0.215 (0.132)	0.132 (0.127)	-0.083 (0.106)	0.044 (0.109)	-0.055 (0.130)	0.021 (0.128)
Observations	699	699	699	699	699	699
Mean in Control	-0.23	0.10	0.23	-0.11	0.17	0.07
Test: Cash = Work	0.251	0.672	0.727	0.464	0.040	0.242
Shrp. q-val: Cash = Work	0.720	1.000	1.000	1.000	0.320	0.720

Right to Work

- Rights to work and start a business are protected by the 1951 Refugee Convention (145 signatories)
- Nearly half the states that have ratified the Convention have declared reservations to these rights
- Many of the 48 non-signatory states also limit work rights.
- Bangladesh is not party to the 1951 Convention. Refugees are denied access to local markets and to credit from Bangladesh's micro-finance institution (KNOMAD Study)

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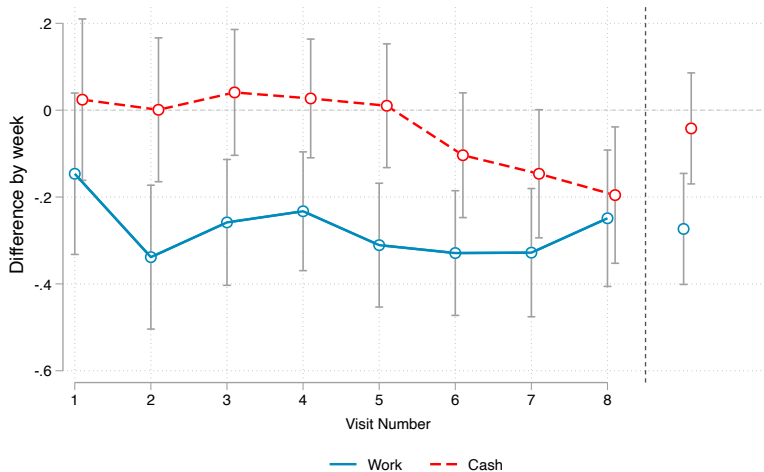
Baseline correlations between idleness and employment

Mental Health and Idleness

	(1) PHQ Scale (Std. Dev.)	(2) PHQ Scale (Std. Dev.)	(3) Mod. Depressed	(4) Mod. Depressed
Hours Idle (avg)	0.039* (0.021)		0.007 (0.010)	
No work in last month		0.343*** (0.118)		0.103* (0.058)
Constant	-0.725*** (0.190)	-0.909*** (0.206)	0.185** (0.093)	0.115 (0.101)
Mean of DV	0.00	0.00	0.38	0.38
Controls	Y	Y	Y	Y
Obs	745	745	745	745

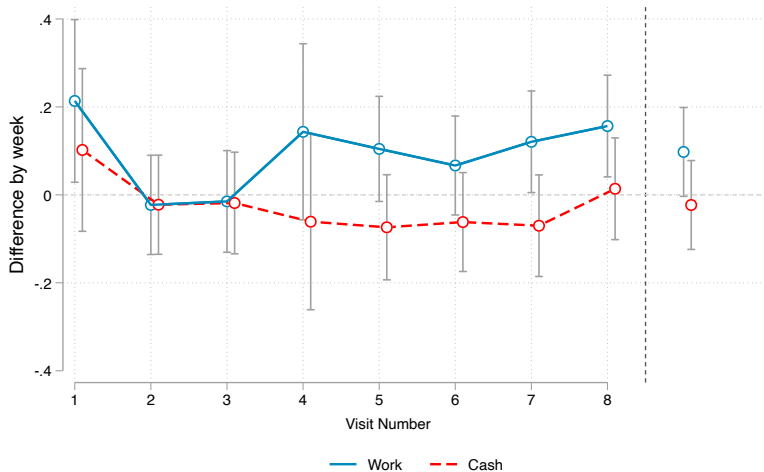
Notes: “Hours Idle” is the self-reported average number of hours spent sitting idle (excluding recreational or other unproductive activities). “No work in last month” is an indicator variable for those who self-reported as having no paid work in the past month. “PHQ Scale” reported in standard deviations; “Depressed” is percent who are moderately or severely depressed. All regressions include controls for respondent age, marital status, household size, education, being a head of household, and gender. [back](#)

Weekly trends in stress



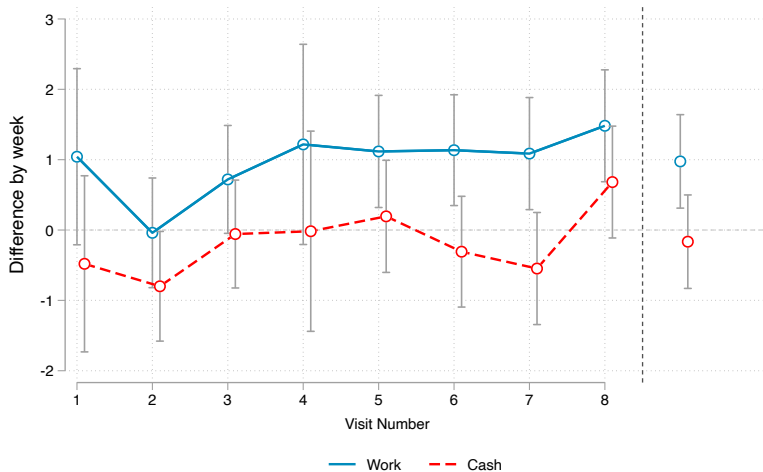
Pooled Test Work=Cash: 0.00

Weekly trends in sociability: total conversations



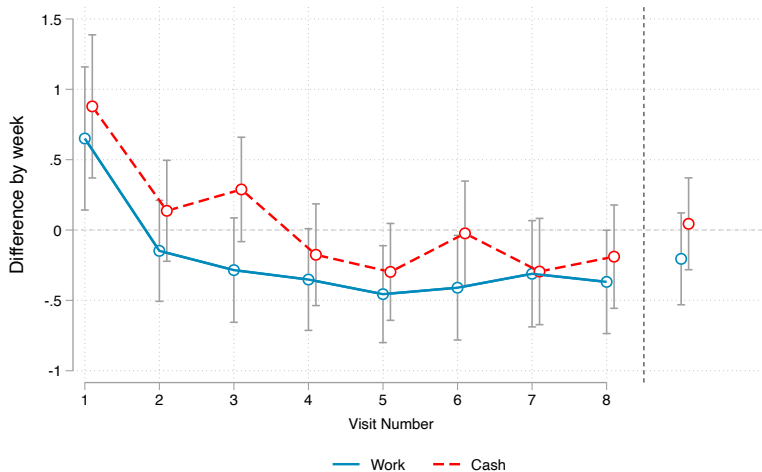
Pooled Test Work=Cash: 0.02

Weekly trends in sociability: positive conversations



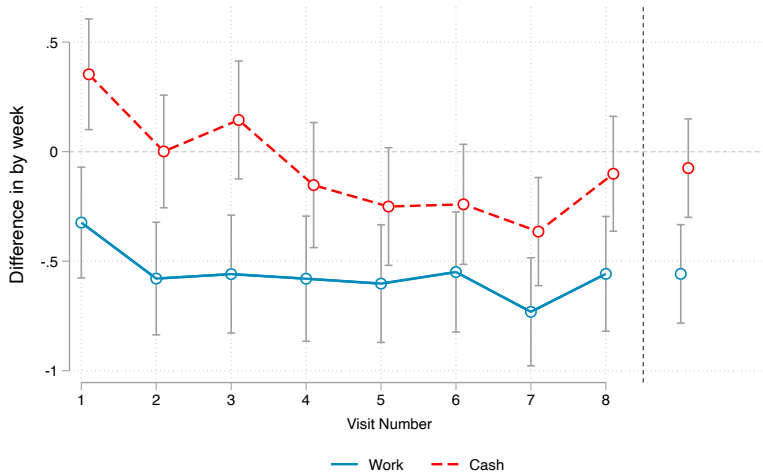
Pooled Test Work=Cash: 0.00

Weekly trends in sociability: negative conversations



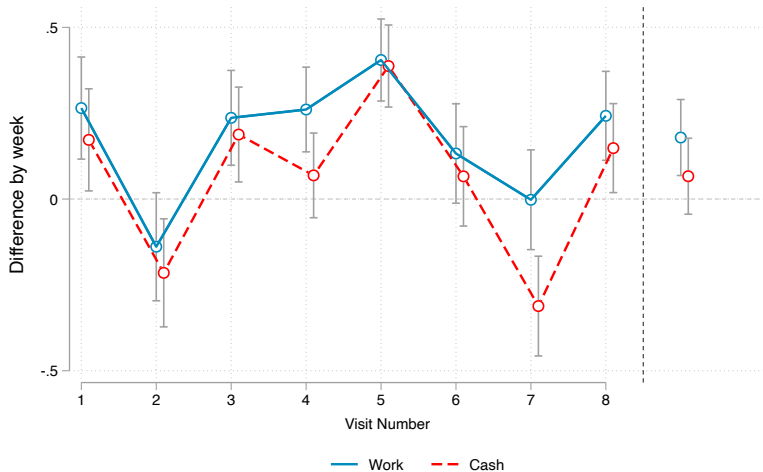
Pooled Test Work=Cash: 0.11

Weekly trends in physical health



Pooled Test Work=Cash: 0.00

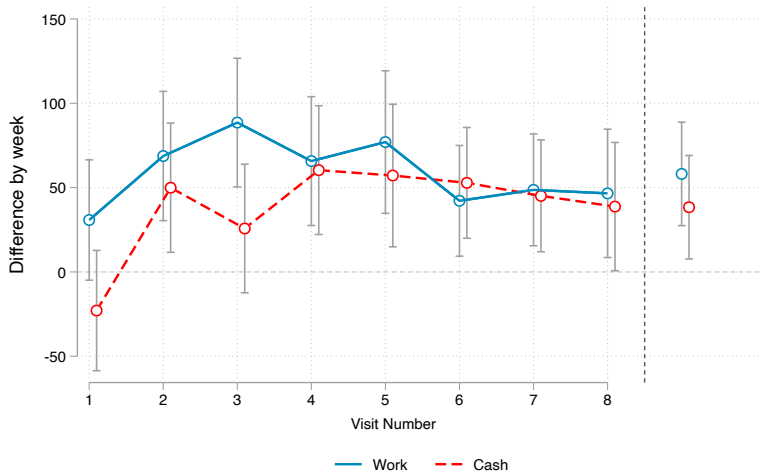
Weekly trends in math ability



Pooled Test Work=Cash: 0.03

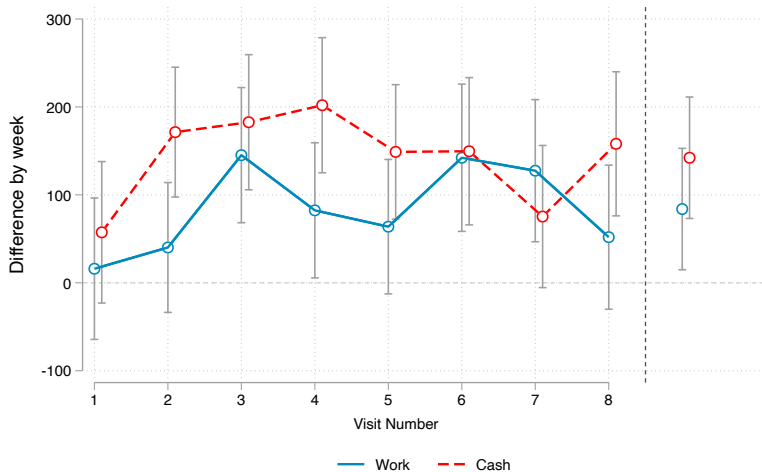
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Weekly trends in savings



Pooled Test Work=Cash: 0.30

Weekly trends in spending



Pooled Test Work=Cash: 0.06

Labor Supply Curve

73% of individuals are willing to work for free ('volunteer'). Why?

- Enjoy the work: 22%
- Better than sitting around: 13%
- Build skills: 13%
- Expectations of future work: 6%
- Want to help you: 46%
 - Only to help you: 25%
 - I am also benefiting: 21%
 - Benefiting because I enjoy work: 9%
 - Benefiting because better than sitting around: 5%
 - Benefiting because it builds skills: 2%
 - Benefiting because expecting future work: 5%

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Baseline status or purposefulness vis-à-vis community

	(1) PS Index	(2) PHQ	(3) Depressed
Work	0.137*** (0.050)	-0.330*** (0.109)	-0.107** (0.042)
Low baseline rank of perceived value to community	-0.100 (0.063)	-0.149 (0.158)	-0.046 (0.064)
Work * Low rank community	0.083 (0.076)	0.192 (0.171)	0.061 (0.070)
Observations	564	564	564

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Experience of work

	(1) Wellbeing	(2) Stress	(3) Sociability
Days Since Work	-0.054*** (0.013)	0.037*** (0.013)	0.051*** (0.015)
Observations	3159	3176	3176

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Ex ante ambiguous whether non-pecuniary benefits of work are greater for men or women.

- Men: social stigma of unemployment; lack of alternative societal roles to occupy
- Women: more to gain given conservative social mores; opportunity to be outside may reduce domestic violence

Gender

	Psychosocial Index		Household Power Index		Work Rights Index	
	(1) Female	(2) Male	(3) Female	(4) Male	(5) Female	(6) Male
Work	0.191*** (0.068)	0.239*** (0.051)	0.312** (0.126)	0.025 (0.094)	0.344*** (0.111)	0.083 (0.098)
Cash	0.100 (0.086)	0.046 (0.060)	0.267* (0.140)	0.078 (0.098)	0.110 (0.118)	0.052 (0.117)
Test: Cash = Work	0.220	0.000	0.742	0.530	0.018	0.745
Shrp. q-val Cash=Work	0.985	0.003	1.000	0.361	0.246	0.425
Test: Male = Female	0.311	0.311	0.726	0.726	0.203	0.203
Observations	220	502	220	502	220	502

PS subcomponents

Gender

- Psychosocial benefits of work concentrated among men
- Women appear to benefit from cash (with or without work)
- Consistent with:
 - ① Cash transfer literature results on female empowerment
 - ② A gender-specific identity / purpose / self worth channel underlying impacts of work

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Baseline violence, sociability and depression

- Sociable individuals benefit 15.6 percentage points more from work than less-sociable counterpart; no harm to less sociable [heterogeneity by sociability](#)
- Moderately depressed employed individuals experience a 0.3 SD greater reduction in PHQ relative to non-depressed counterparts (but suggestive only) [heterogeneity by depression](#)
- Those who experienced greater violence at baseline benefit 26.7 percentage points more from employment than non-death counterparts (re: depression) [quasi-random violence](#)
[heterogeneity by violence](#)

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Past Violence

Are benefits of employment driven by intensity of past violence?

- Rumination about the past may deepen depression (Michael et al., 2007; Ehring, Frank, and Ehlers, 2008; Roley et al., 2015) [baseline correlations](#)
- Exploit quasi-random variation in violence in Myanmar:

Rohingya villages were approached without warning, usually from more than one direction, and often in the early morning, by armed Tatmadaw soldiers...

Men, women and children were all shot at. Many victims referred to the volume of gunfire, with some describing it as “raining bullets.”

– United Nations 2018 Human Rights Council Report

[balance table on violence](#)

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Baseline correlations between past violence and employment

Violence and Work

	(1) Depressed at baseline	(2) Depressed at baseline
Experienced at least one death	0.118** (0.051)	0.149*** (0.055)
Employed at least one day in last month		0.050 (0.144)
Employed * Experienced death		-0.260* (0.152)
Mean of outcome	0.78	0.78
Observations	745	745

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Baseline correlations between future uncertainty and employment

Future Orientation and Work

	(1) PHQ Scale (Std. Dev.)	(2) Mod. Depressed	(3) PHQ Scale (Std. Dev.)
Think of Future	0.188** (0.073)	0.062* (0.036)	-0.343 (0.216)
No work in last month			0.062 (0.160)
No Work X Future			0.600*** (0.228)
Constant	-0.702*** (0.181)	0.174** (0.088)	-0.770*** (0.229)
Mean of DV	0.00	0.38	0.00
Controls	Y	Y	Y
Obs	745	745	745

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Alternative activities

	(1) Idle	(2) Chores	(3) Social	(4) Ration
Work	-0.050 (0.094)	0.132 (0.149)	0.121 (0.176)	0.003 (0.066)
Shrp. q-val Work	1.000	1.000	1.000	1.000
Cash Mean	2.652	2.845	2.655	0.155
Observations	564	564	564	564

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Do the unemployed spend their 'unearned' income differently than the employed spend their 'earned' income?

Consumption

	(1) Luxury	(2) Necessary	(3) Total Cons.
Work	39.380 (31.302)	43.785 (152.298)	99.348 (176.740)
Shrp. q-val Work	1.000	1.000	1.000
Mean in Cash	330.56	2036.86	2346.24
Observations	564	564	571

[Weekly trends](#)[Itemized consumption](#)[back](#)

Financial behavior

	(1) Savings	(2) Borrowing	(3) Lending
Work	59.049 (63.535)	60.824 (182.384)	17.759 (20.707)
Shrp. q-val Work	1.000	1.000	1.000
Mean in Cash	218.94	1467.11	37.11
Observations	564	564	564

Weekly trends

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Structure

Are benefits of employment greater if work offers more predictability around the future?

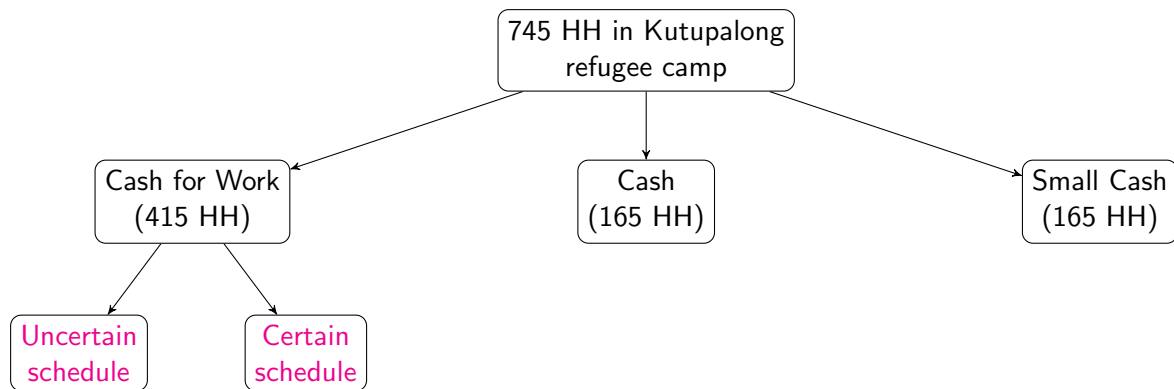
- *"I think about where I will be in the future all the time. We are travelers here. We are anxious to go back to our own land."*
- *"Sometimes it seems that we might be transferred anywhere. But I know nothing about where we will go. I imagine sometimes that we will be shifted to another place, or thrown away in the river."*

baseline correlations

- Rumination about future may deepen depression (Liao and Wei, 2011; Boelen, Reijntjes, and Smid, 2016)

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Experimentally varying structure



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Future certainty



HHID: 1 Respondent Name: _____ Block: _____ Starting date: 6/11

	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
WEEK-1					●	✓	✗
WEEK-2		✓			●	✓	✗
WEEK-3	✓		✓	✓	●		✗
WEEK-4	✓	✓	✓		●		✗
WEEK-5		✓	✓		●	✓	✗
WEEK-6	✓		✓		●		✗
WEEK-7	✓	✓	✓	✓	●		✗
WEEK-8	✓	✓				●	✗
WEEK-9	✓	✓	✓	✓	●		✗

Future certainty

	(1) Stability	(2) Risk Aversion	(3) Time Pref.
Received Schedule	-0.067 (0.078)	-0.102 (0.099)	0.034 (0.105)
Shrp. q-val Schedule Observations	0.656 407	0.656 407	1.000 407

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Man's Search for Meaning

Psychologist Victor Frankel in the concentration camps of Nazi Germany:

"A man who could not see the end of his "provisional existence" was not able to aim at an ultimate goal in life...The unemployed worker['s existence]...has become provisional and in a certain sense he cannot live for a future or aim at a goal." (p.70)

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Description of outcomes

Psychological Well-being

PHQ9 *How many days in last week did you feel down or depressed? Have trouble concentrating? Have suicidal thoughts?*

Life Satisfaction Index *You are satisfied with your life. Your life is close to your ideal.*

Stress Index *How many days in the last week have you been able to fall asleep peacefully? Felt nervous? Felt frustrated?*

Sociability *How many conversations did you have yesterday? Positive? Negative?*

Self Worth Index *Think of a person you know who you [respect / think helps] the most in your [family / community]. If that person is a 10, where would you rank yourself?*

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Description of outcomes

Psychological Well-being continued

Locus of Control *In the last 7 days, how many days did you feel that to a great extent your life is controlled by accidental/chance happenings?*

Allocation Decision Game Indicator (yes / no) for response to an offer to make a resource allocation decision for their community or have another individual (an NGO worker, an “expert”, or another refugee) make the decision.

Stability Index *How secure [do you feel / think you will feel] [at present / five years from now]?*

Psychosocial Index A standardized inverse-covariance weighted average of the above indices.

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Description of outcomes

Gender Dynamics

Work Perceptions Index The standardized total score of two questions regarding women's work: *How often would you agree that women should be allowed to work for a living [inside /outside] the block?*

Power Perceptions Index The standardized total score of five questions regarding norms for intimate partner violence (IPV) from the Demographic and Health Survey (DHS).

Financial Wellbeing

Savings Response to the question "How much money do you currently have in savings?" During the collection surveys (midlines) this question instead asked "How much money did you save in the past week?"

Borrowing Total amount of money the household has borrowed.

Economic Decision Making

Risk Preference Measured using incentivized responses to the multiple price list decisions adapted from Holt-Laury and Sprenger (2002).

Time Preference Measured by adapting Andreoni and Sprenger's (2011) convex time budget method following Giné et al. (2018).

Description of outcomes

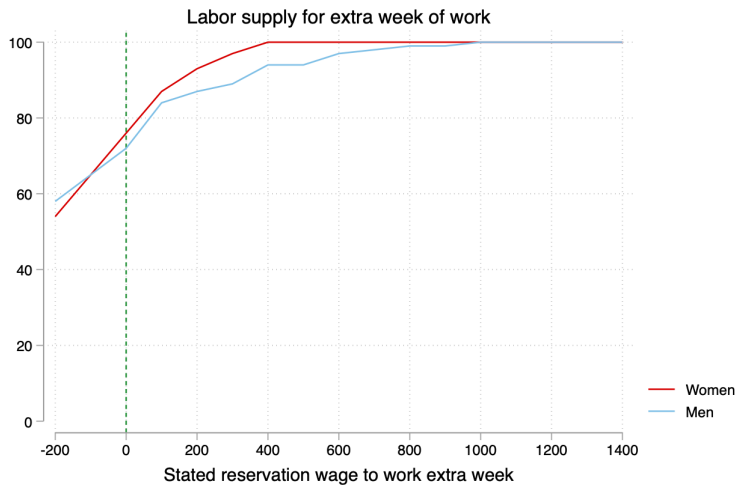
Other Outcomes

Cognitive Ability A standardized weighted index of the number of correct responses to i) a digit span (forward and backward) memory test and ii) basic arithmetic problems including addition, subtraction, multiplication, and division. Only the arithmetic problems were included in midline.

Physical Health An indicator for prolonged health problems that persisted for more than one week over the past month. Coded from a question asking respondents "In the past 30 days, how many days were you sick?". For the collection surveys (midline), this question was modified to ask "How many of the last 7 days did you feel sick?"

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Labor supply curve by gender



Balance

	(1) Control	(2) Cash	(3) Work	(4) (1) vs. (2)	(5) (1) vs. (3)	(6) (2) vs. (3)
Female	0.32	0.29	0.30	0.24	0.45	0.49
Married	0.82	0.81	0.76	0.34	0.04	0.31
Age	28.39	29.03	28.01	0.74	0.41	0.17
Household size	4.99	5.23	5.14	0.52	0.61	0.78
Formal education	0.48	0.44	0.51	0.70	0.14	0.07
Worked in the last month	0.11	0.11	0.10	0.88	0.49	0.39
Hours Idle (avg)	2.97	3.31	3.01	0.99	0.39	0.46
Wellbeing (index)	-0.12	0.05	0.03	0.15	0.03	0.83
Self-worth	13.95	14.62	13.96	0.40	0.32	0.93
Stress (index)	9.48	9.94	9.49	0.24	0.96	0.18
PHQ Scale	8.19	8.73	8.20	0.31	0.80	0.18
Mental Health Index	1.15	1.05	1.16	0.55	0.52	0.20
Persistent Illness (>7)	0.30	0.33	0.28	0.89	0.26	0.24
Power Perceptions	10.87	10.70	10.86	0.19	0.85	0.07
Work Perceptions	3.77	3.60	3.76	0.61	0.63	0.31
Math ability (index)	2.61	2.59	2.58	0.90	0.43	0.38
Observations	165	165	415			

Past Trauma

Table: Balance (Violence)

	(1) No Violence	(2) Violence	(3) No Vio. vs. Vio.	(4) No Vio. vs. Vio., Town FE	(5) No Vio. vs. Vio, Grid
Married	0.82	0.78	0.69	0.70	0.24
Age	27.87	28.39	0.30	0.36	0.19
Household size	5.11	5.13	0.67	0.89	0.66
Formal education	0.43	0.50	0.31	0.20	0.16
Math ability (index)	2.64	2.58	0.20	0.17	0.03
Past Ag. Work	0.58	0.66	0.22	0.17	0.41
Observations	91	654			

Columns (1) and (2) show the average value of the variable for respondents who did and did not have a family member killed in Myanmar. All difference in means test control for gender because violence was targeted differently between men and women. Column (3) shows the p-value of the difference in means with no additional controls. Column (4) reports p-values while controlling for township fixed effects, while column (5) includes fixed effects using 55 by 55 kilometer grid cells for respondent location of origin in Myanmar. [back](#)

Past Trauma

	(1) PS Index	(2) Depressed	(3) PHQ
Work	0.141 (0.120)	0.130 (0.117)	0.017 (0.278)
Experienced at least one death	-0.077 (0.114)	0.196* (0.111)	0.174 (0.254)
Work * Experienced death	0.099 (0.127)	-0.265** (0.124)	-0.302 (0.287)
Observations	561	561	561

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Baseline sociability

	(1) PS Index	(2) Depressed	(3) PHQ
Work	0.205*** (0.056)	-0.029 (0.035)	-0.244** (0.103)
Sociable	0.053 (0.074)	0.076 (0.052)	-0.121 (0.125)
Work * Sociable at Baseline	0.041 (0.085)	-0.165** (0.065)	0.002 (0.153)
Observations	565	565	565

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Baseline depression

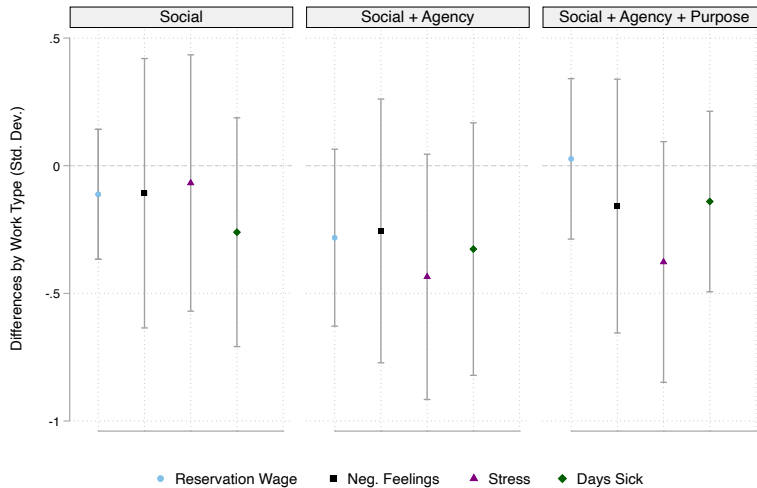
	(1) PS Index	(2) Depressed	(3) PHQ
Work	0.294*** (0.079)	-0.164* (0.084)	-0.073 (0.163)
Baseline Mild Depression	0.029 (0.089)	0.209** (0.086)	0.267 (0.177)
Baseline Moderate Depression	0.029 (0.097)	0.225*** (0.084)	0.330 (0.251)
Work * Mild Dep.	-0.075 (0.097)	0.074 (0.099)	-0.100 (0.186)
Work * Mod. Dep.	-0.096 (0.103)	0.082 (0.095)	-0.389* (0.214)
Observations	565	565	565

Work quality among volunteers

	(1) Completed work	(2) Any mistakes	(3) Effort
Will work for free	0.015 (0.019)	0.090*** (0.032)	-0.173 (0.179)
Observations	326	326	326

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Features of work: lab-in-the-field experiment



Consumption: itemized

	(1) Meat/Fish	(2) Fruits/Veg	(3) Paan/Cigs	(4) Tea	(5) Educ.	(6) Health	(7) HH Supplies	(8) Clothing	(9) Electronics
Work	106.282 (73.377)	27.846 (18.073)	7.598 (22.044)	7.598 (16.372)	21.014 (14.781)	-41.834 (73.074)	-8.229 (22.792)	52.812* (31.776)	3.101 (2.945)
Cash	45.118 (82.899)	52.243** (25.703)	-12.079 (26.312)	-9.466 (16.703)	16.296 (19.381)	-41.269 (69.840)	-8.112 (24.240)	52.303 (36.005)	1.583 (3.745)
Mean in Control	684.10	317.19	223.27	120.62	64.32	429.32	63.49	145.09	3.58
Test Work=Cash	0.340	0.301	0.379	0.187	0.785	0.992	0.995	0.987	0.697
Observations	726	726	726	726	726	726	726	726	726

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Gender: psychosocial components

	PHQ		Stress		Life Satisfaction		Sociability	
	(1) Female	(2) Male	(3) Female	(4) Male	(5) Female	(6) Male	(7) Female	(8) Male
Work	-0.150 (0.135)	-0.279*** (0.096)	-0.090 (0.165)	-0.324*** (0.122)	0.234* (0.139)	0.338*** (0.093)	0.202* (0.107)	0.133 (0.104)
Cash	-0.084 (0.151)	0.039 (0.110)	-0.010 (0.185)	-0.078 (0.127)	0.323** (0.150)	0.185* (0.103)	-0.012 (0.133)	0.088 (0.129)
Test: Cash = Work	0.604	0.002	0.571	0.014	0.440	0.058	0.085	0.666
Shrp. q-val Cash = Work	0.227	0.010	0.295	0.012	0.156	0.002	0.142	0.153
Test: Male = Female	0.082	0.082	0.484	0.484	0.099	0.099	0.287	0.287
Observations	220	502	220	502	220	502	220	502

	Self Worth		Control		Stability	
	(1) Female	(2) Male	(3) Female	(4) Male	(5) Female	(6) Male
Work	0.155 (0.106)	0.134 (0.107)	0.118 (0.160)	0.257*** (0.091)	0.259 (0.157)	0.289*** (0.094)
Cash	0.106 (0.141)	-0.106 (0.124)	-0.121 (0.219)	0.078 (0.106)	0.201 (0.176)	0.043 (0.121)
Test: Cash = Work	0.676	0.011	0.182	0.050	0.681	0.027
Shrp. q-val Cash = Work	0.199	0.153	0.295	0.010	0.156	0.008
Test: Male = Female	0.234	0.234	0.369	0.369	0.215	0.215
Observations	220	502	220	502	220	502