



SUDAN CONFLICT
CONFERENCE

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CGIAR

POLICY
INNOVATIONS

FOOD FRONTIERS
AND SECURITY

The Impact of Religious Practices on Household Well-being

Evidence from Sudan during Ramadan

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Motivation

- Religion is one of the most prominent social institutions in the world
- More than 80% of the world population is affiliated with religion (Hackett et al. 2012)
- Religion has a positive effect on:
 - Happiness and which are attitudes beneficial for economic growth (Campante and Yanagizawa-Drott 2015)
 - Pro-social behavior (Guiso, Sapienza, and Zingales, 2003)
 - Pro-environmental behavior (Zemo and Nigus, 2021)
- However, religion may discourage:
 - Education, risk tolerance, and innovation (Bénabou, Ticchi, and Vindigni 2015; Bartke and Schwarze, 2008)

Motivation

- A growing literature focuses on the impact of Ramadan fasting
 - Ramadan fasting:
 - Increases leniency in judges (Mehmood, Seror, and Chen, 2022)
 - Pro-social behavior (Becker and Woessmann, 2018)
 - Happiness and positive attitudes, which are beneficial for economic growth (Campante and Yanagizawa-Drott, 2015)
 - However, Ramadan fasting:
 - Hampers the diffusion of knowledge and economic development (Squicciarini, 2022)
 - Increases the probability of car accidents (Gulek, 2022)
 - Negatively affects labor productivity and educational outcomes (Majid, 2015)

This Study

- Research gap
 - Existing evidence on the impact of Ramadan is **mixed**
 - Limited evidence on **multiple dimensions** of household welfare
 - Virtually no evidence on moral values (honesty, corruption, rule compliance) and in **conflict-affected settings**
- Contributions
 - This paper provides a multi-dimensional impact of Ramadan on household well-being
 - Offers new evidence on moral attitudes during Ramadan
 - Identifies the potential mechanisms through which Ramadan affects household well-being - *spiritual and social effects*

Objectives of the study

This study aims to examine the impacts of religious practices, such as Ramadan on:



Food security → Food Consumption Score (FCS), Household Dietary Diversity Score (HDDS), Food Insecurity Experience Scale (FIES)



Subjective Well-being → Happiness, Life Satisfaction, and Economic Condition



Mental Health, Moral Values, and Overall Well-being

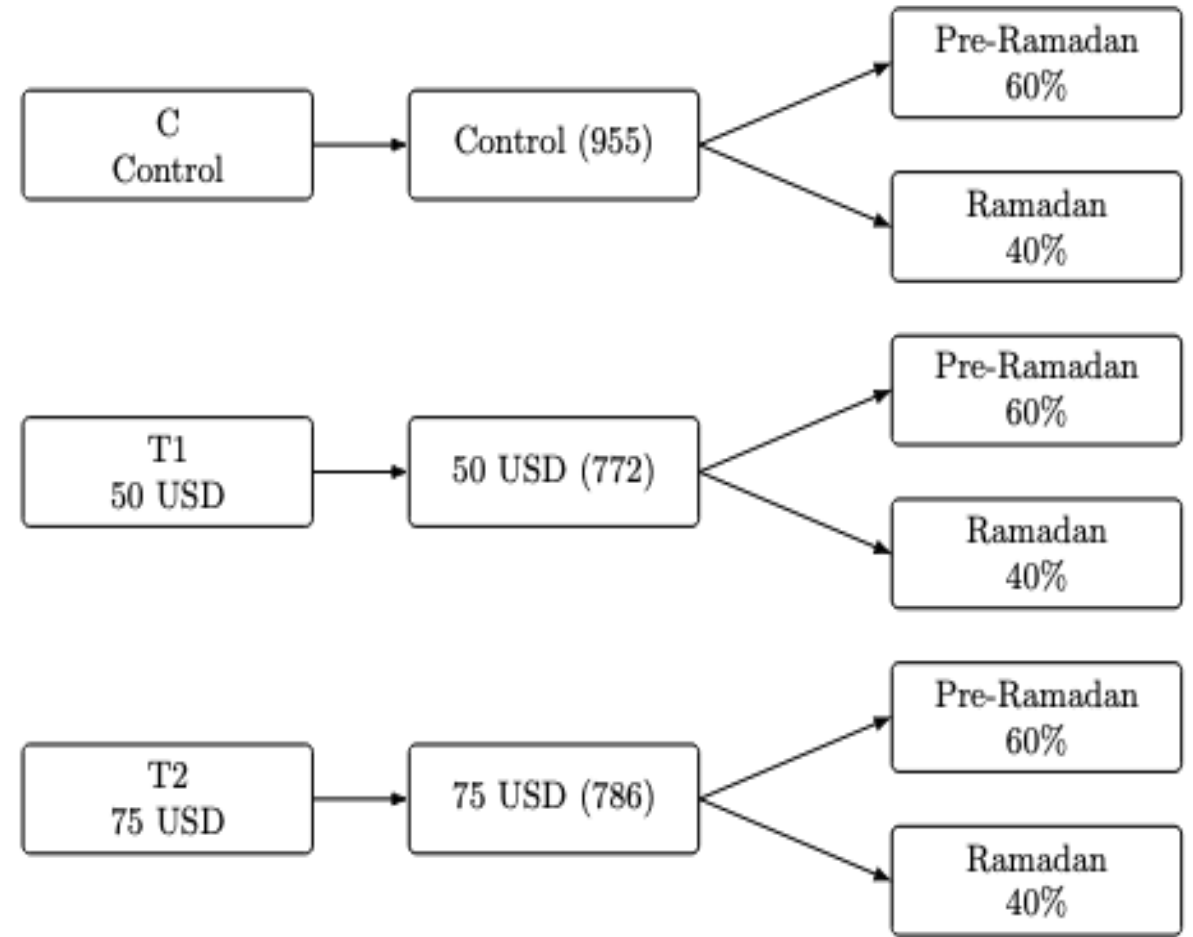


Potential mechanisms through which Ramadan affect key outcomes of interest

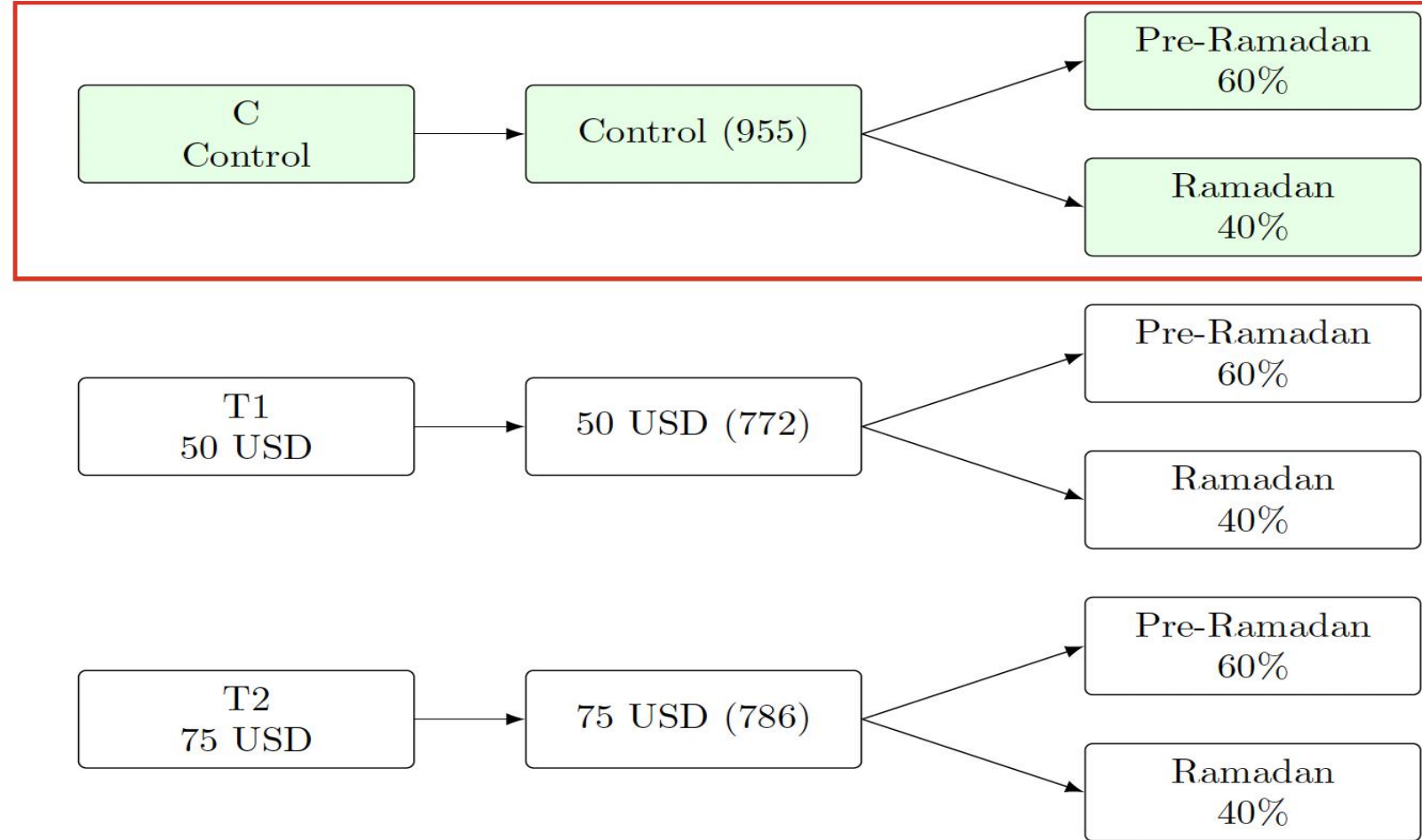
Data and Experimental Design

- Baseline sample ~ 3,000 urban households across all 18 states
- Endline sample ~ 2500 households
- Data collection – CATI
- Phone numbers drawn from phone databases maintained by WFP, IFPRI, & the data collection firm
 - Pre-Ramadan sample ~ 1,511 HHs (C=579, T1=461, T2=461)
 - Pre-Ramadan sample ~ 1,002 HHs (C=376, T1=311, T2=315)

Endline Survey



Data and Experimental Design



Balance test

	Pre - Ramadan	Ramadan	Pairwise t-test(P-value)
Main outcome variables			
Food Consumption Score	68.43	68.13	0.83
Diet Diversity Score	7.00	6.91	0.32
Food insecurity Scale	3.31	3.27	0.79
No food stock (No stock=1)	0.34	0.35	0.60
stress	22.22	22.27	0.92
Household characteristics			
Respondent gender (male=1)	0.40	0.37	0.19
Head gender (male=1)	0.90	0.88	0.27
Household Head age	44.43	43.28	0.13
Household Head education: low	0.24	0.19	0.08*
Household Head education: medium	0.49	0.52	0.28
Household Head education: high	0.27	0.28	0.78
Household size	8.78	8.84	0.86
Married	0.82	0.81	0.64
Poor or poorer than many	0.57	0.55	0.55
Exposure to SAF RSF	0.13	0.13	0.69
Feeling insecure	0.20	0.20	0.98
Have electricity	0.88	0.87	0.85
Able to visit market	0.86	0.86	0.96
Received assistance	0.47	0.44	0.28
House material: brick	0.50	0.50	0.98
House material: mud	0.24	0.22	0.39
Have bank account	0.58	0.58	0.99
Observations	594	394	

Results: Impact of Religious Practices on Food Security

- Religious practices are associated with higher food security
- Particularly, Ramadan fasting leads to;
 - Higher food consumption score (FCS)
 - Higher household dietary diversity score (HDDS)
 - Lower food insecurity experience scale (FIES)

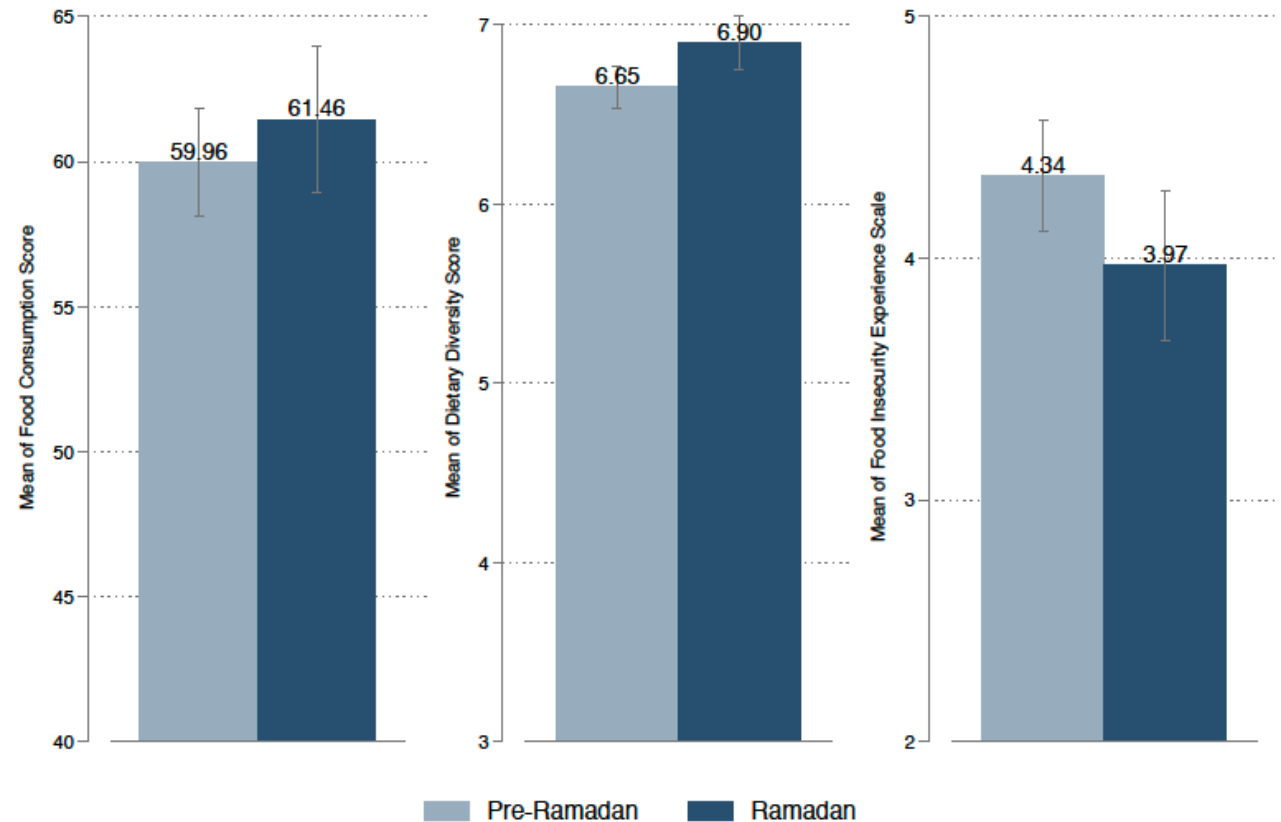


Table 1: Impact of Ramadan on Food Security

- Households interviewed during Ramadan report approximately 0.1 standard deviation lower food insecurity than those interviewed before Ramadan

	FCS		DDS		FIES		Food insecurity	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ramadan	1.465 (1.567)	1.151 (1.582)	0.245*** (0.091)	0.237** (0.093)	-0.386** (0.191)	-0.369* (0.196)	-0.100*** (0.028)	-0.095*** (0.028)
R-squared	0.02	0.03	0.03	0.04	0.02	0.04	0.04	0.05
Mean of control	59.99	59.99	6.65	6.65	4.36	4.36	0.83	0.83
Controls	No	Yes	No	Yes	No	Yes	No	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	953	953	953	953	941	941	953	953

Results: Impact of Religious Practices on Subjective Well-being

- Religious practices are associated with higher subjective well-being
- Specifically, Ramadan fasting leads to higher
 - Happiness
 - Life satisfaction
 - Economic condition

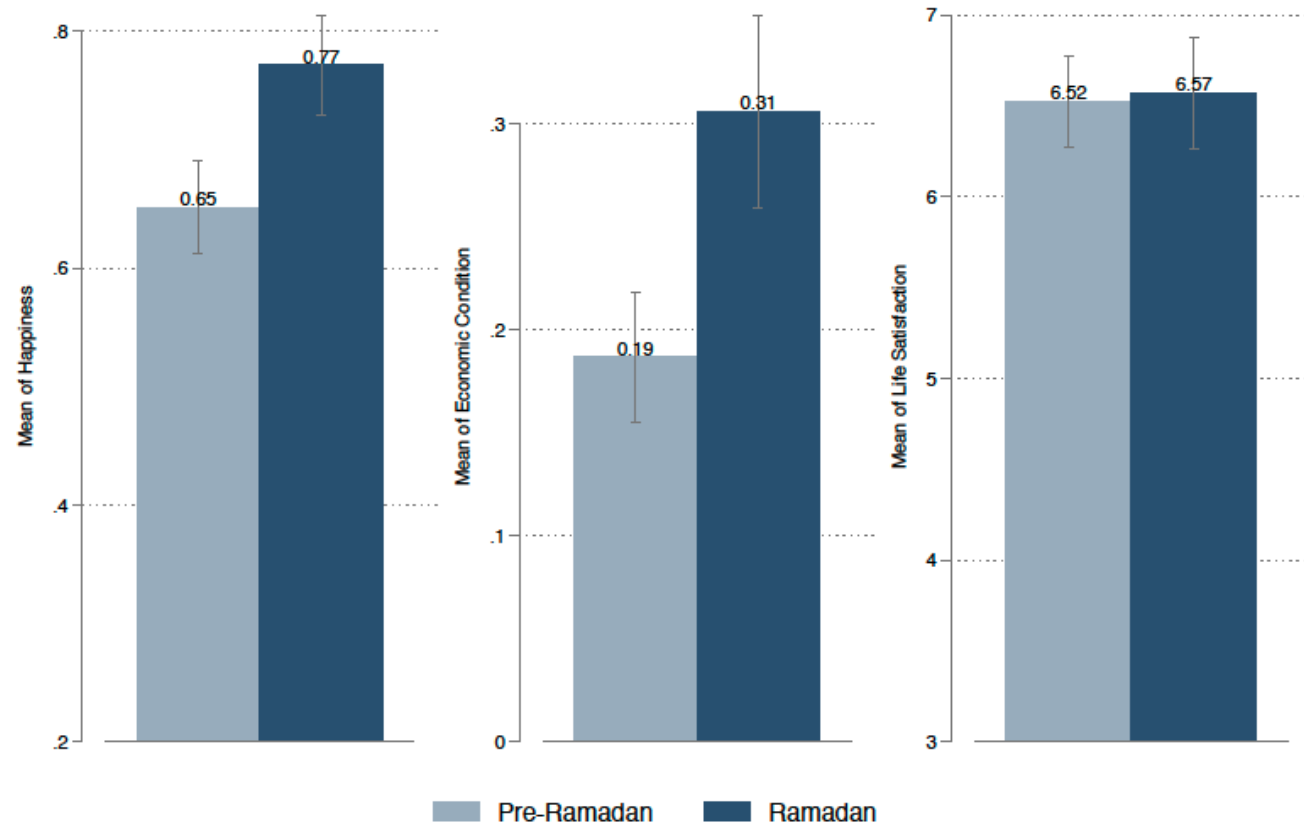


Table 3: Impact of Ramadan on Subjective Well-being

- Households interviewed during Ramadan report approximately 0.23 standard deviation higher subjective well-being than those interviewed before Ramadan

[illegible]

Result: Impact of Religious Practices on Mental Health

- Religious practices are associated with lower symptoms of mental health problems
 - Improved mental health
 - Lower perceived stress scale (**PSS**)
 - Lower anxiety scores (**GAD**)

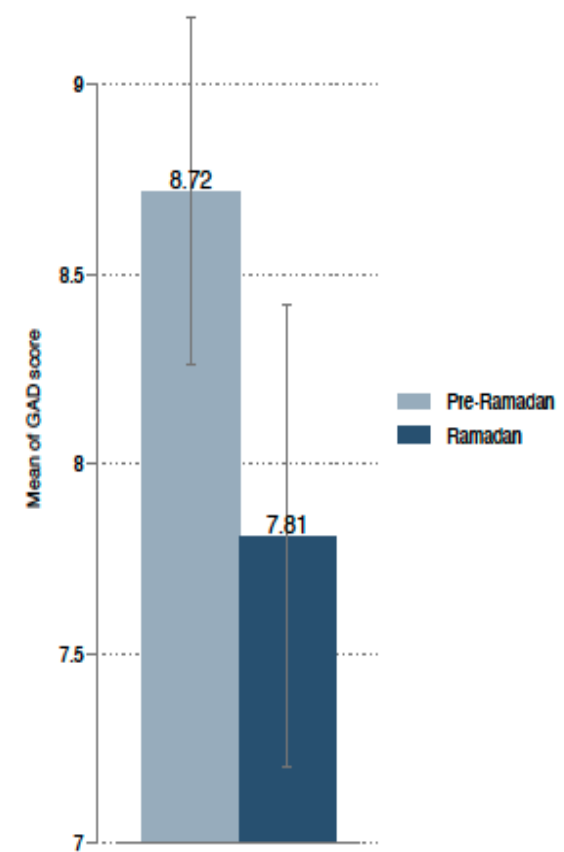
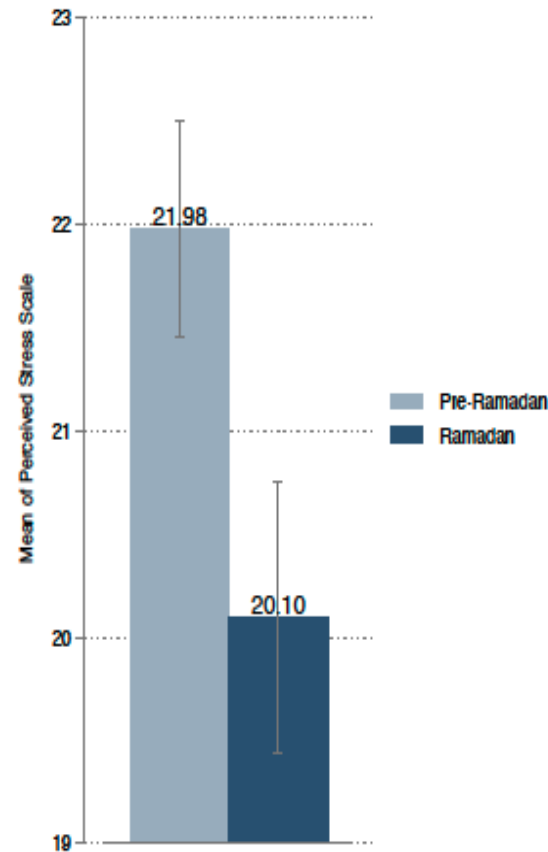


Table 3: Impact of Ramadan on Mental Health

- Households interviewed during Ramadan report approximately 8 percentage points lower perceived severe stress

	Stress		Severe stress		GAD score		Severe anxiety	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ramadan	-1.860*** (0.420)	-1.854*** (0.426)	-0.077*** (0.026)	-0.078*** (0.026)	-0.880* (0.449)	-0.915** (0.452)	-0.008 (0.014)	-0.009 (0.014)
R-squared	0.05	0.06	0.04	0.05	0.03	0.05	0.01	0.02
Mean of control	21.98	21.98	0.24	0.24	8.71	8.71	0.09	0.09
Controls	No	Yes	No	Yes	No	Yes	No	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	936	936	936	936	938	938	1941	1906

Results: Impact of Religious Practices on Honesty and Moral Values

- Religious practices are associated with higher honesty and moral values
- Households interviewed during the Ramadan fasting reported that they would return almost the entire amount of money accidentally sent to their bank account
- More than 8500 SGD, compared to the households interviewed before the Ramadan fasting

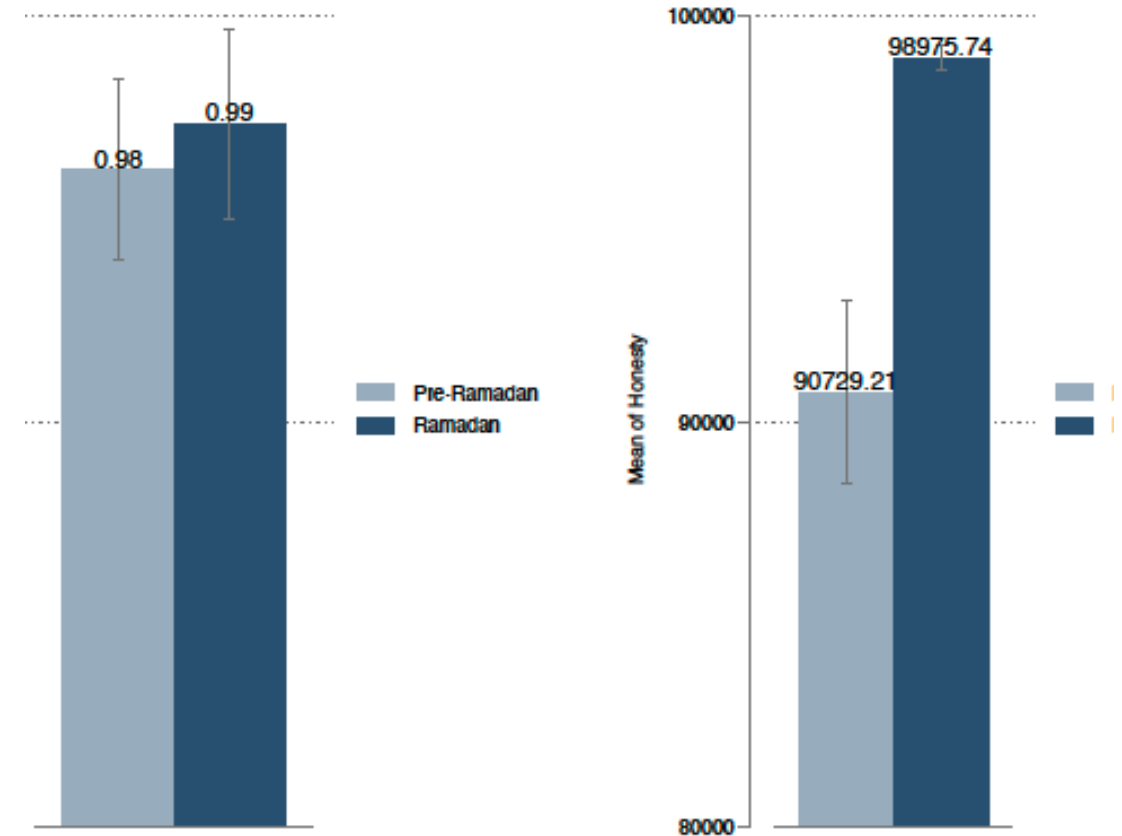


Table 4: Impact of Ramadan on Honesty

- Households interviewed during Ramadan report that they would return about 8,500 SDG more to the owners

[illegible]

Potential Mechanisms

- Social gathering and informal transfers
- Informal (receive and provide) any transfers in Cash or KIND from/for families, friends, or neighbors
- Gather with family, friends, or neighbors for a meal, or shared food (or Ramadan Iftar or suhoor) at someone's home or a public place
- Go to the mosque or perform prayers in groups

	Received transfers		Provided transfers		Gathered with others		Pray in groups	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ramadan	0.060* (0.033)	0.064* (0.033)	0.019 (0.030)	0.020 (0.031)	0.076*** (0.029)	0.078*** (0.028)	0.128*** (0.034)	0.133*** (0.033)
R-squared	0.02	0.02	0.01	0.02	0.02	0.03	0.04	0.06
Mean of control	0.25	0.25	0.31	0.31	0.59	0.59	0.51	0.51
Controls	No	Yes	No	Yes	No	Yes	No	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	951	951	950	950	953	953	950	950

Concluding Remarks



Religious practices (Ramadan fasting) are positively and significantly associated with several welfare indicators



The findings in this study show that religious practices, such as Ramadan, significantly improved

Food security

Psychological and subjective well-being

Honesty and Moral Values



Mechanisms – (i) social gathering with family, friends, or neighbors

(ii) informal (Cash or KIND) transfers from/for families, friends, or neighbors

THANK YOU