

Table 1: Summary Statistics

Variables	Count (N)	Mean	SD	Min	Max
CSI ^a	132	19.659	13.516	0	56
Lacked Funds for Food (1/0)	132	0.902	0.299	0	1
Insufficient Food Past Year (1/0)	132	0.894	0.309	0	1
Youth (1/0) (24 years and below=1)	132	0.182	0.387	0	1
Age of Respondent (1/0)					
15-19 years	132	0.008	0.087	0	1
20-24 years	132	0.174	0.381	0	1
25-39 years	132	0.348	0.478	0	1
>= 40 years	132	0.470	0.501	0	1
Asset Index (Binary)	132	1.500	0.502	1	2
Wealth Quintiles (1/0)					
Wealth Quintile 1	132	0.258	0.439	0	1
Wealth Quintile 2	132	0.144	0.352	0	1
Wealth Quintile 3	132	0.205	0.405	0	1
Wealth Quintile 4	132	0.197	0.399	0	1
Wealth Quintile 5	132	0.197	0.399	0	1
Ethnicity (1/0)					
Yao	132	0.530	0.501	0	1
Ngoni	132	0.288	0.454	0	1
Chewa	132	0.015	0.123	0	1
Lhomwe	132	0.121	0.328	0	1
Other	132	0.045	0.209	0	1
Gender (Male=1, Female=0)	132	0.212	0.410	0	1
Highest Level of Education (1/0)					
None	132	0.121	0.328	0	1
Primary and Adult Literacy	132	0.598	0.492	0	1
Secondary and Post-Secondary	132	0.280	0.451	0	1
Household Size	132	4.977	1.948	1	10
Religion (Christianity=1, Islam=0)	132	0.500	0.502	0	1
Marital Status (1/0)					
Single	132	0.038	0.192	0	1
Married	132	0.583	0.495	0	1
Separated	132	0.076	0.266	0	1
Divorced	132	0.136	0.344	0	1
Widowed	132	0.167	0.374	0	1
Average Time Water (Minutes)	132	21.398	18.663	1	124
Water Cost (MWK)	132	156.212	457.837	0	3,900
Access to Farm/Arable Land (1/0)	132	0.947	0.225	0	1
Size of Owned Land (Acres)	132	1.372	1.176	0	5
Finance Assistance from Anyone (1/0)	132	0.227	0.421	0	1
Food Assistance from a Church (1/0)	132	0.227	0.421	0	1
Government Food Aid Participation (1/0)	132	0.144	0.352	0	1
Religion affects Food Eaten (1/0)	132	0.417	0.495	0	1
Tradition affects Food Eaten (1/0)	132	0.341	0.476	0	1

Notes: ^aThe CSI represents the coping strategy index (ranging from 0 to 56) – which aggregates the number of

coping strategies used by households to reduce the food problem. (1/0) means the variable (or set of variables below it) is binary taking 1 for yes and 0 for no.

Table 2: Wilcoxon-Mann-Whitney Tests of Food Security Measures by Gender and Wealth

Variable	Obs	Rank Sum	Expected	z	Prob > z	Exact Prob
Lacked Funds						
Female	104	6800	6916	-1.251	0.2109	0.3764
Male	28	1978	1862			
Insufficient Food						
Female	104	6918	6916	0.021	0.9833	1.0000
Male	28	1860	1862			
CSI						
Female	104	7289.5	6916	2.080**	0.0375	0.0371
Male	28	1488.5	1862			
Lacked Funds						
Asset Index = 1	66	4686	4389	2.619***	0.0088	0.0164
Asset Index = 2	66	4092	4389			
Insufficient Food						
Asset Index = 1	66	4521	4389	1.126	0.2600	0.3973
Asset Index = 2	66	4257	4389			
CSI						
Asset Index = 1	66	4560	4389	0.779	0.4361	0.4380
Asset Index = 2	66	4218	4389			

Notes: Null hypotheses are H_0 : Dependent Variable (Gender==Female) = Dependent Variable (Gender==Male) and H_0 : Dependent Variable (Asset Index==1) = Dependent Variable (Asset Index==2). Asset index is a 2-quantile variable derived from the PCA. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 3: Number of Respondents who Expressed Lack (Cross-Tabulations / Chi-squares)

Variable	Gender			Married			Wealth			Religion		
	Male	Female	Chi2	No	Yes	Chi2	Poorer	Wealthier	Chi2	Muslim	Christian	Chi2
Lacked Funds for Food	27	92	0.298 †	50	69	1.000 †	64	55	0.016** †	62	57	0.242 †
Insufficient Food Past 12 Months	25	93	1.000	52	66	0.152 †	61	57	0.397 †	62	56	0.156 †
CSI ^a	28	104	0.883 †	55	77	0.572 †	66	66	0.021** †	66	66	0.524 †
Total Respondents	28	104		55	77		66	66		66	66	

Notes: † means reported value is p-value from Fisher's exact test instead of chi-square statistic (the Fisher's exact test was used in place of the chi-square test when one of the cells in the cross-tabulation has expected frequency of five or less. Fisher's exact test has no "test statistic"; rather computes the p-value directly).

^a CSI has 0 to 56 categories and hence, for lack of space, here we just indicate the overall cross-tabulations by the respective binary variables

Wealth is defined by the asset index, derived at by computing 2 quantile categories from principal component analysis.

CSI not included in table because it is a continuous variable.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4: Religious Beliefs and Food

	Does your religious belief affect the kind of food you eat?		
Religious Group	No	Yes	Total
Christian	56 (72.73)	10 (18.18)	66 (50.00)
Islam	21 (27.27)	45 (81.82)	66 (50.00)
Total	77 (100.00)	55 (100.00)	132 (100.00)
Pearson Chi-Square = 38.1818*** Probability = 0.000			

Notes: Cell values are frequencies (with column percentages in parentheses)

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Traditional Beliefs and Ethnicity

	Does your traditional belief affect food eaten?		
Ethnicity	No	Yes	Total
Yao	34 (39.08)	36 (80.00)	70 (53.03)
Others	53 (60.92)	9 (20.00)	62 (46.97)
Total	87 (100.00)	45 (100.00)	132 (100.00)
Pearson Chi-Square = 19.9378** Probability = 0.000			

Notes: Cell values are frequencies (with column percentages in parentheses). "Others" includes Ngoni, Chewa, Lhomwe and others.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6: Logistic and Tobit Regression Estimation Results

	Lack of Funds for Food (1)	Inadequate Food (2)	CSI (3)
Religion (Christianity=1, Islam=0)	0.000***	0.000***	7.103**
Ethnicity (Yao=1, 0=Other)	0.000***	0.000***	6.265**
Christian × YAO	901,681.225***	794,742.295***	-8.638
Asset Index (Quantile 1 =1)	0.188*	0.777	-1.610
Gender (Male =1, Female=0)	25.539***	1.964	-5.251*
Youth (1/0) (24 years and below=1)	0.371	0.608	-4.650
Highest Education Level (Base Category =None)			
Primary/Adult Literacy	3.560	3.254	-0.148
Secondary	2.034	6.790*	-2.247
Household Size	0.946	1.215	-0.293
Average Time Water (Minutes)	1.018	1.003	0.179*
Water Cost (MWK)	1.001	1.004	0.001
Land Owned (Acres)	0.562**	0.511***	-0.476
Outside Financial Assistance (1\0)	0.317	0.572	-2.687
Government Food Aid (1\0)	0.077***	0.085**	-4.204
Church Food Assistance (1\0)	43.467**	20.356**	9.284**
const	223,000,000***	5,738,242***	15.723**
chi2 (Logistic) / F (Tobit)	508.955***	770.495***	2.223***
p	0.000	0.000	0.009
N	132	132	132

Notes: Columns 1-2 show exponentiated coefficients (odds ratios) from the Logistic model. _const estimates baseline odds. Column 3 shows regular coefficients from the Tobit model censored both sides (CSI ranges between 0 and 56). All models employ robust standard errors.

(1/0) means the variable is binary taking 1 for yes and 0 for no – in which case the reference category is 0.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figure 1: Coping Strategy Index (CSI) and Asset Index Scores, by Gender

