

Perceived and actual food security in Guatemala: Which households are more likely to worry?

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Introduction

- Being worried that food in the household would run out could reflect the actual food security situation, but it is also possible that some households are more likely to be worried than others.
- This study examines the link between perceived and actual food security status of farmers with varied behavior in agricultural practices.

Data and Methodology

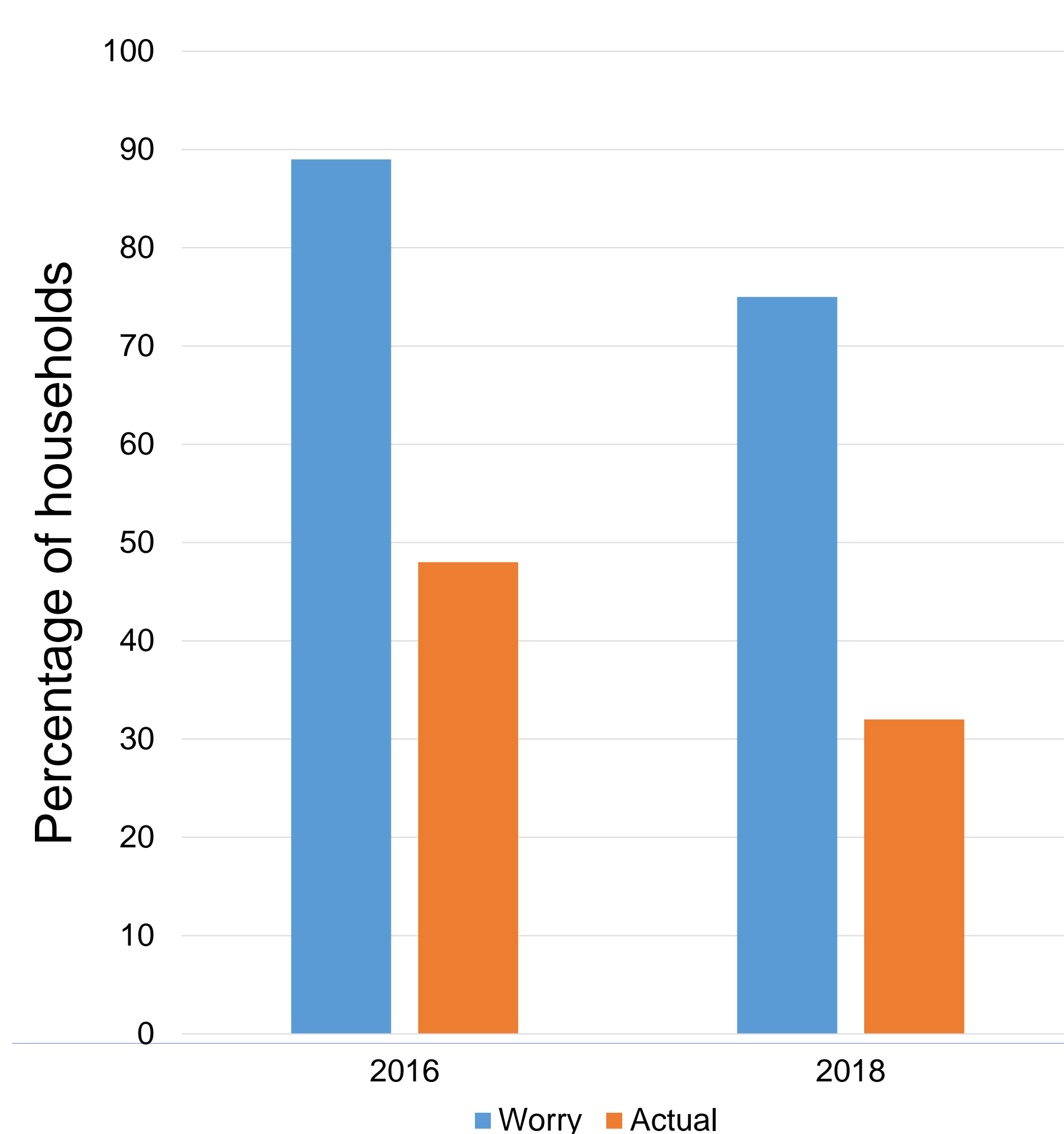
- Based on data collected by HarvestPlus from two rounds of survey in 2016 and 2018 with more than 1,000 farm households in rural Guatemala.
- Survey questions about food security were adapted from the Household Food Insecurity Access Scale of USAID:
 - [Worry]** In the past 3 months, were you ever worried that the household would run out of food?
 - [Actual]** In the past 3 months, did the household run out of food?
- Other information collected during survey included farm and household characteristics, behavior in agricultural practices, such as risk preference, sharing seed, input, and agricultural information with neighbors and friends.
- Logistic regression analysis was conducted.



Source: Salomon Perez

Results

(I) Food-insecure households



(II) Logistic regression results

Variables	Food insecurity [Worry]	Food insecurity [Actual]
Wealth index	-0.2139** (0.0906)	-0.3679*** (0.0897)
Worry about food insecurity in the past	0.6230*** (0.2146)	0.5061* (0.2725)
Actual food insecurity in the past	0.7223*** (0.1642)	0.7181*** (0.1469)
Total farm area	0.0225 (0.0542)	-0.1317* (0.0791)
Livestock ownership	-0.3248 (0.2262)	-0.3544* (0.1859)
Age of household head	-0.0176** (0.0072)	0.0033 (0.0067)
Education of household head	-0.0685** (0.0294)	-0.0160 (0.0290)

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$. Standard errors are in parentheses. Statistically significant coefficients are highlighted in red. All regressions also include control variables such as bean harvest, gender of household head, household size, municipality fixed effects, and behavioral indicators in agriculture, such as risk preference and sharing of agricultural input and information with friends and neighbors.

Conclusions

- Factors of production, such as livestock ownership and farm size, were associated with actual food security only.
- Worry about food insecurity was linked to other variables, which were individual-specific, such as age and education.