

Food Security Among Subsistence Farmers: Challenges of Understanding and Assessing Changes Using High-Frequency Phone Survey Data

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Motivation

Call for Policy Comments for Food Policy

Submission deadline: **01 April 2025**

The first issue of *Food Policy* was published in November 1975. For the journal's 50th anniversary, the editors plan to dedicate the November 2025 volume to a special issue featuring two main types of contributions. One will be original review papers of food policy-relevant literatures, with details described in the companion Call for Proposals for Review Papers.

The other contribution will be short (no more than 1,000 word) Policy Comments that summarize the policy impacts (on the non-profit, private, or public sector) of research published in *Food Policy*. The journal introduced the Policy Comment (which offers brief, non-technical contributions) as a new contribution type earlier this year. (See our [May 2024 editorial](#) introducing Policy Comments for more background.)

The objective of this collection of Policy Comments is to highlight the many ways in which food policy research generates real world impacts, using papers published in *Food Policy* as a lens. *Food Policy's* editors have long prioritized empirical studies informing international food policy debates from any of the social sciences. In this collection, we aim to curate a collection of statements showcasing how such research can make an identifiable difference in the world.

The Policy Comment may report on impacts generated from the results reported in a single *Food Policy* article or in a broader program of work of which the *Food Policy* article was just one output but with a direct tie to the policy impacts reported.

Policy Comments for this special issue should make clear the (non-profit, private, public sector) policy question(s) explored, the central findings of the published research, and how the research informed and influenced subsequent policy, firm, consumer, civil society, producer or policymaker behavior. This is not a forum for original, formal impact evaluation results. Our expectation is of a narrative, supported by the best available evidence, of how and why published research helped inform (or avert) policy change, and with what consequences.

Policy Comments do not include an abstract. They are typically restricted to no more than ten references and one figure or table.

Simultaneously receiving essentially the same feedback on different papers, using different methods to evaluate food security using HFPS.

- Synthesize literature, identify best practices for using these data.
- Identify opportunities for moving forward, beyond the standard face-to-face format.

Motivation

Framework: Exploring the common (in my experience) questions about food security measurement in HFPS, identifying opportunities and challenges.

1. Reference points
2. Seasonality
3. Varied use of FIES
4. HFPS themselves
 - Duration
 - Tool selection
 - Bias, of various sources

Background: Measuring Food Security

Myriad tools to measure food security:

- Household Hunger Score (HHS)
- Dietary Diversity Score (DDS)
- reduced Coping Strategies Index (rCSI)
- Household Food Insecurity Access Scale (HFIAS)
- Self Assessed Measure of Food Security (SAMFS)
- Food Consumption Score (FCS)
- Food Insecurity Experience Scale (FIES)

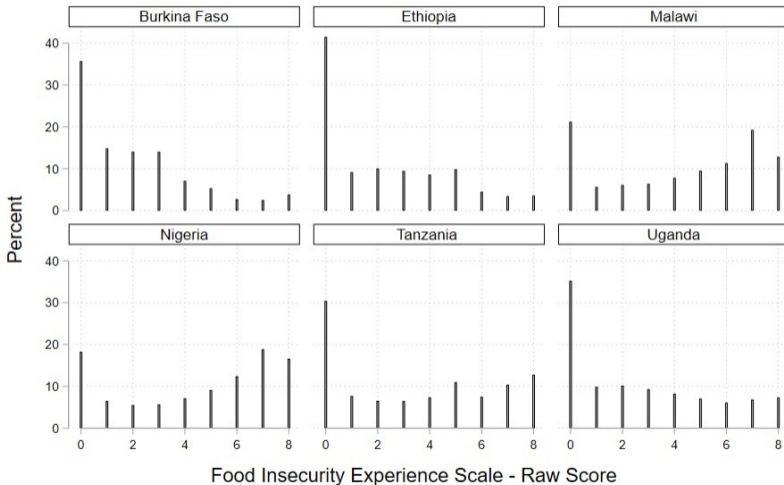
Metrics proxy for availability, access, utilization, and stability - which are the pillars of food security.

Background: Measuring Food Security

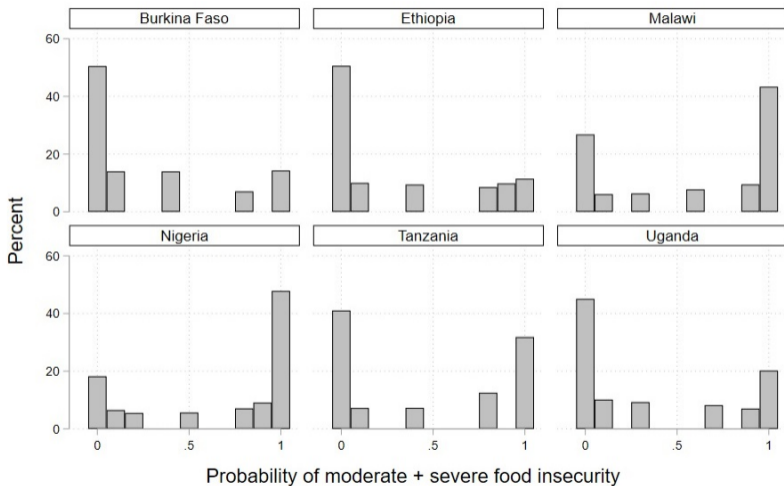
Food Insecurity Experience Scale (FIES) - During the last 12 months, was there a time when, because of lack of money or other resources:

1. You were worried you would not have enough food to eat?
2. You were unable to eat healthy and nutritious food?
3. You ate only a few kinds of foods?
4. You had to skip a meal?
5. You ate less than you thought you should?
6. Your household ran out of food?
7. You were hungry but did not eat?
8. You went without eating for a whole day?

FIES in HFPS



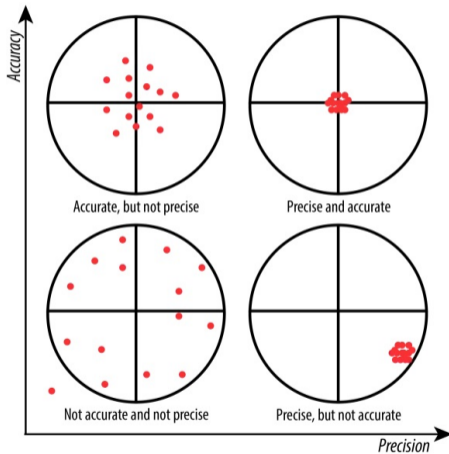
FIES in HFPS



Challenges (and Opportunities)

1. Reference points
2. Seasonality
3. Varied use of FIES
4. HFPS themselves
 - Duration
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Precision and Accuracy



credit: St. Olaf College

Reference Points

The Question: “The recall periods vary: they are either a month or a week; responses will depend on the time of year the questions were asked (and even with annual recall, there can be heavy bias depending on the timing it is asked).”

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FIES guidance: 30-day or annual recall

- Annual recall designed to include variation within the year, but serious issues with recall bias.
- 30-day recall has less recall bias, but ignores variation within a year.

And the recall period may vary across countries.

Reference Points

The Opportunities!

- More surveys and more data!
- Consistent use of reference points, e.g., FIES only asked for 30-days.
- Use of ground points, e.g., compared to the previous survey.
- Defined practices for connection HFPS with in-person surveys.

Seasonality

The question: “In most rural settings, typical seasonal variation is more dramatic than inter-annual shocks, making it virtually impossible to discern the latter in the presence of the former. This makes observed changes in food insecurity impossible to assess because it could be driven by the timing in the year.”

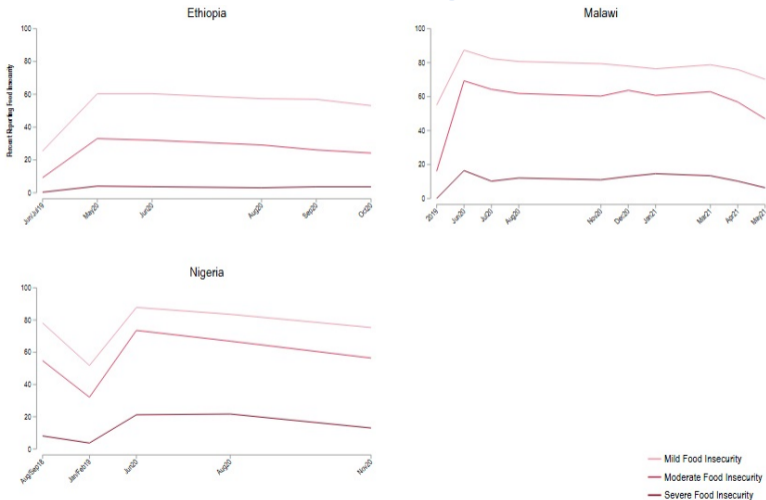
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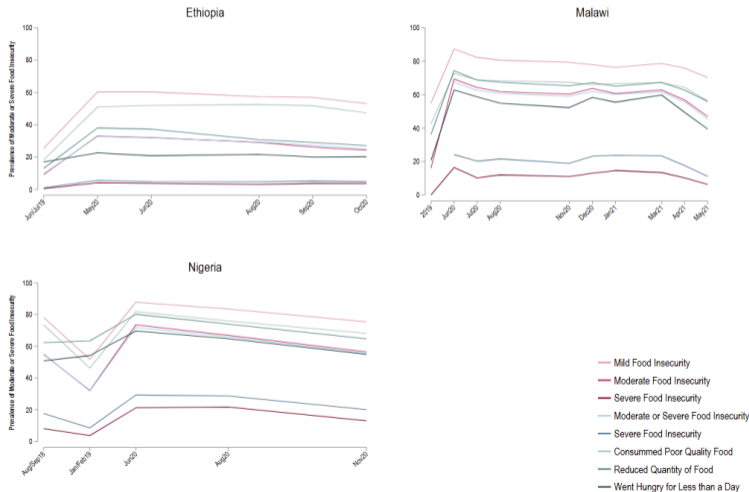
Seasonality is integrated into the concern about reference points.

- As FIES notes in guidance, annual measurement accounts for variation within year, but 30-day (or other shorter reference points) does not.

Seasonality



Seasonality



Seasonality

The Opportunities!

- More surveys and more data!
- Proxy metrics for robustness (e.g., Heady et al., 2024)

Varied use of FIES

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Multiple questions within this:

- Why measure food security with FIES?
- Why not use a single question?
- Why not use the aggregated measure?
- Why not use the raw score?

Varied use of FIES

	Raw Score	Probability of Food Insecurity
Prob. of Food Insecurity	0.96	1.0
Worried	0.75	0.73
Healthy Foods	0.77	0.75
Few Foods	0.78	0.76
Skipped	0.82	0.82
Ate Less	0.83	0.86
Ran Out	0.75	0.70
Hungry	0.77	0.71
Whole Day	0.57	0.46

Varied use of FIES

The Opportunities!

- More data, more opportunities for testing.
- Defined guidance and best practices.

Intractability in responses.

General concerns about HFPS

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[The blanks:]

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General concerns about HFPS

The Opportunities!

- Duration: frequency.
- Tool selection: opportunities for testing alternatives, proxies.
- Bias, of various sources: weights, adjustments.

General concerns about HFPS

The Opportunities!

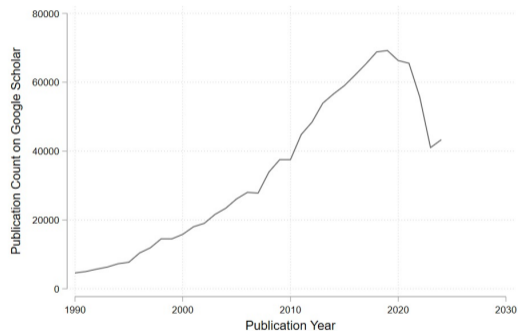
- Duration: frequency.
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- Bias, of various sources: weights, adjustments.

Intractability in responses: if people are disinclined (for whatever reason) about work, HFPS can just be another excuse.

Where do we go from here?

More research on food security using HFPS.

- Meta-research, research-on-research: seasonality, in particular.
- Simply more use!



And how do we do that?

- Create standard practices and explanations.
- Develop and use processed and standardized code.
- Keep our eyes on the future...