Lacking in a land of plenty: Understanding food acquisition coping strategies used by the food insecure

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Overview

- What is food security and how is it measured?
- How prevalent is food security nationally and within subgroups?
- What do individuals do when they are worried about having enough food?
  - Three types of food acquisition coping strategies
  - Findings from the *Food Options* study
- What do we known so far and what can be done with that information?
- What’s next to study?
What is food security?

- Food **security** for a household (HH) means access by all members at all times to enough food for an active, healthy life. Food security includes at a minimum:
  - The ready availability of nutritionally adequate and safe foods.
  - Assured ability to acquire acceptable foods in socially acceptable ways (that is, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies).

- Food **insecurity** is limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.
Why food security is important

- Moral imperative
- Nutritional adequacy is single most important determinant of health
- Food insecurity increases susceptibility to diseases and affects quality of life
- Children suffer physical, intellectual, emotional developmental impairments
How food security is measured

- Information collected since 1995 on Current Population Survey (CPS)
- Calculated based on responses to a series of questions
- Assessed over 12 months
- Measures prevalence and severity
- Levels:
  - **High** - No problems/anxiety; consistent access to enough food.
  - **Marginal** - Some problems/anxiety re: accessing adequate food, but the quality, variety, and quantity of their food intake were not substantially reduced.
  - **Low** - Reduced quality, variety, and desirability of diets, but quantity of food intake and normal eating patterns not substantially disrupted.
  - **Very low** - At times, eating patterns of >1 member disrupted and food intake reduced because lack money & other resources for food.
“USDA Eliminates Hunger”

Washington Post: Anti-hunger advocates say the new words sugarcoat a national shame. “The proposal to remove the word ‘hunger’ from our official reports is a huge disservice to the millions of Americans who struggle daily to feed themselves and their families,” said David Beckmann, president of Bread for the World, an anti-hunger advocacy group. “We ... cannot hide the reality of hunger among our citizens.”
Prevalence of food insecurity (2010)

- 17.2 million food insecure HHs (14.5%)
- 3.9 million HHs with food insecure children (9.8%)
- 6.4 million very low food secure (VLFS) HHs (5.4%)

About HHs with VLFS

- 99% worried food would run out before had money for more
- 96% food bought didn’t last and didn’t have money for more
- 96% cut meal-size or skipped meals due to lack of money for food
- 66% reported feeling hungry because couldn’t afford food
- 45% lost weight due to lack of money for food
- 29% didn’t eat for day due to lack of money for food
Variations in prevalence rates

- Higher rates:
  - HH incomes near or below the Federal poverty line (33%)
  - HHs with children headed by single woman (35%) or man (25%)
  - Black (25%) and Hispanic (26%) HHs
  - In large cities (17%) (compared to suburbs)
  - South (16%) and West (15%) (vs. Midwest (13%) and NE (12%))

- Lower rates
  - >1 adult/HH with no children (10%)
  - HHs with elderly (8%)
  - HH incomes above 185% poverty (7%)
  - White, non-Hispanic HHs (11%)
Federal “safety net” programs

- Developed just after World War II
- 1946 National School Lunch program- “measure of national security to safeguard health & well being of Nation’s children”
- 1964 SNAP (Food Stamps)- “safeguard health and well-being of Nation’s population & raise nutrition”
- 1966 Child Nutrition Act- “good nutrition and the capacity of children to develop & learn”
- Other financial and targeted assistance programs

- USDA has 15 domestic feeding programs
  - 59% of food insecure HHs participate in ≥1 of 3 Fed. food asst. programs (SNAP (41%), School Lunch (32%), WIC (14%)).
Type of food acquisition coping strategies

1. Participating in Federal food and financial assistance programs (“safety net”)

2. Obtaining food from Emergency Food Providers (EFPs): Food Pantries (FPs) and Soup Kitchens (SKs)
   - 5.6 mil HH (5%) used FPs; 3.9 mil HH food insecure (2%)
   - 722,000 HH (0.6%) used SKs; 518,000 HH food insecure (3%)
   - Combined use: 70% of FP and 63% of SK users participated in 1 of 3 “safety net” programs

3. Using individually developed food acquisition coping strategies
   - Individuals use a combination of 3 types
Individually developed coping strategies

- Little is known about these
- Unlike other types, tend not to be formally organized responses
- Identification of 78 unique strategies
  - 6 risk categories: financial, food safety, illegal/regulatory, nutritional, physical, and no risk
The Food Options Study

- Validate previously identified compilation of strategies
- Determine frequency of use of strategies over lifetime, past 12 months and past 30 days
- Examine the relationship between strategies and sociodemographic influences and mediating and modifying mechanisms, including food security
Conceptual Framework

Socio-Demographic Influences

Modifying Conditions

Mediating Mechanism

Behavioral Outcome

Individual

Household-Level

Knowledge & Perceptions of Others

Food Acquisition Practices

Safety Net Programs

Environmental Level

Food Security Status
Sample selection

All EFPs
n = 369

Kitchens
n = 55
15%

Pantries
n = 314
85%

Kitchen

Stratify by Type

Proportional Allocation

n = 8

Pantry

Proportional Allocation

Sorted by County

n = 42

Primary Sampling Unit
n = 50

Secondary Sampling Unit
n = 492
**Socio-demographic characteristics**

**Race**
- White: 49%
- Black: 43%
- Other: 8%

**Employment**
- Unemployed: 78%
- Part-time or Occasionally: 14%
- Full-time: 8%
Socio-demographic characteristics (cont.)

**Education**

- College degree: 5%
- < High school: 28%
- Trade or technical: 9%
- High school or equivalent: 37%
- Some college: 21%

**Monthly Household Income**
Participation in “safety net” programs

Program

- Food Stamps
- SSI
- Subsidized housing
- SSDI
- General Assistance
- TANF
- WIC

% of all Participants
Food security status

Very low: 61%
Low: 21%
Marginal: 11%
High: 7%
## Top strategies

<table>
<thead>
<tr>
<th>Practice</th>
<th>30 days No.</th>
<th>30 days %</th>
<th>12 months No.</th>
<th>12 months %</th>
<th>Lifetime No.</th>
<th>Lifetime %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gone to a food pantry</td>
<td>417</td>
<td>85%</td>
<td>459</td>
<td>93%</td>
<td>474</td>
<td>96%</td>
</tr>
<tr>
<td>Made meals with low cost foods</td>
<td>372</td>
<td>76%</td>
<td>431</td>
<td>88%</td>
<td>471</td>
<td>96%</td>
</tr>
<tr>
<td>Bought food items because they were on sale</td>
<td>364</td>
<td>74%</td>
<td>433</td>
<td>88%</td>
<td>467</td>
<td>95%</td>
</tr>
<tr>
<td>Bought food just because it was inexpensive</td>
<td>296</td>
<td>60%</td>
<td>378</td>
<td>77%</td>
<td>414</td>
<td>84%</td>
</tr>
<tr>
<td>Bought food at dollar stores</td>
<td>243</td>
<td>49%</td>
<td>325</td>
<td>66%</td>
<td>369</td>
<td>75%</td>
</tr>
<tr>
<td>Avoided buying expensive foods like fresh fruits or meat</td>
<td>233</td>
<td>47%</td>
<td>298</td>
<td>61%</td>
<td>331</td>
<td>67%</td>
</tr>
<tr>
<td>Used coupons for food</td>
<td>228</td>
<td>46%</td>
<td>291</td>
<td>59%</td>
<td>348</td>
<td>71%</td>
</tr>
<tr>
<td>Skipped meals</td>
<td>202</td>
<td>41%</td>
<td>288</td>
<td>59%</td>
<td>333</td>
<td>68%</td>
</tr>
<tr>
<td>Eaten less costly foods at the end of the month, like no fresh foods or meat</td>
<td>201</td>
<td>41%</td>
<td>269</td>
<td>55%</td>
<td>300</td>
<td>61%</td>
</tr>
<tr>
<td>Used emergency food supplies more frequently at the end of the month</td>
<td>199</td>
<td>40%</td>
<td>233</td>
<td>47%</td>
<td>247</td>
<td>50%</td>
</tr>
<tr>
<td>Limited the variety of food you eat at the end of the month</td>
<td>197</td>
<td>40%</td>
<td>261</td>
<td>53%</td>
<td>281</td>
<td>57%</td>
</tr>
<tr>
<td>Taken home leftovers from meals you ate outside your home to have for a future meal</td>
<td>189</td>
<td>38%</td>
<td>321</td>
<td>65%</td>
<td>385</td>
<td>78%</td>
</tr>
<tr>
<td>Eaten meals at other people’s homes, like friends and family</td>
<td>161</td>
<td>33%</td>
<td>275</td>
<td>56%</td>
<td>329</td>
<td>67%</td>
</tr>
<tr>
<td>Gone to a soup kitchen</td>
<td>158</td>
<td>32%</td>
<td>188</td>
<td>38%</td>
<td>229</td>
<td>47%</td>
</tr>
</tbody>
</table>
Distribution of strategies by risk type

- **No Known, 37%**
- **Nutrition, 33%**
- **Food Safety, 17%**
- **Illegal/Regulatory, 6%**
- **Physical, 1%**
- **Financial, 6%**
## Examples of strategies by risk category

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutritional</td>
<td>Skipped Meals—59%</td>
</tr>
<tr>
<td></td>
<td>Diluted Foods or Drinks—54%</td>
</tr>
<tr>
<td>Food Safety</td>
<td>Bought food in damaged packages—50%</td>
</tr>
<tr>
<td></td>
<td>Eaten improperly stored perishable foods—14%</td>
</tr>
<tr>
<td>Financial</td>
<td>Didn’t pay bills—41%</td>
</tr>
<tr>
<td></td>
<td>Established store credit—44%</td>
</tr>
<tr>
<td>Illegal/Regulatory</td>
<td>Begged—8%</td>
</tr>
<tr>
<td></td>
<td>Switched price tags—3%</td>
</tr>
<tr>
<td>Physical</td>
<td>Lived in abandoned buildings—3%</td>
</tr>
<tr>
<td></td>
<td>Engaged in illegal activities—2%</td>
</tr>
</tbody>
</table>
## Socio-dem. characteristics by FS level

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Very Low</th>
<th>Low</th>
<th>Marginal</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age, mean (SD)</strong></td>
<td>492 100.0%</td>
<td>46.8  11.7</td>
<td>50.2  12.7</td>
<td>52.8  17.5</td>
<td>55.6  17.5</td>
</tr>
<tr>
<td><strong>Women, No. (%)</strong></td>
<td>322 65.7%</td>
<td>200  62.1%</td>
<td>64  19.9%</td>
<td>37  11.5%</td>
<td>21  6.5%</td>
</tr>
<tr>
<td><strong>Men, No. (%)</strong></td>
<td>168 34.3%</td>
<td>100  59.5%</td>
<td>39  23.2%</td>
<td>18  10.7%</td>
<td>11  6.5%</td>
</tr>
<tr>
<td><strong>Race, No. (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>230 48.0%</td>
<td>149  64.8%</td>
<td>43  18.7%</td>
<td>28  12.2%</td>
<td>10  4.3%</td>
</tr>
<tr>
<td>Black</td>
<td>202 42.0%</td>
<td>122  60.4%</td>
<td>38  18.8%</td>
<td>24  11.9%</td>
<td>18  8.9%</td>
</tr>
<tr>
<td><strong>Education, No. (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than High School</td>
<td>136 28.0%</td>
<td>86  63.2%</td>
<td>29  21.3%</td>
<td>13  9.6%</td>
<td>8  5.9%</td>
</tr>
<tr>
<td>High School or Equivalent</td>
<td>183 37.0%</td>
<td>110  60.1%</td>
<td>37  20.2%</td>
<td>22  12.0%</td>
<td>14  7.7%</td>
</tr>
<tr>
<td>More than High School</td>
<td>172 35.0%</td>
<td>105  61.0%</td>
<td>37  21.5%</td>
<td>19  11.0%</td>
<td>11  6.4%</td>
</tr>
<tr>
<td><strong>Employed, No. (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>108 22.0%</td>
<td>67  62.0%</td>
<td>20  18.5%</td>
<td>15  13.9%</td>
<td>6  5.6%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>375 77.0%</td>
<td>229  61.1%</td>
<td>83  22.1%</td>
<td>38  10.1%</td>
<td>25  6.7%</td>
</tr>
<tr>
<td><strong>Household Income, No. (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $250</td>
<td>83 17.0%</td>
<td>64  77.1%</td>
<td>9  10.8%</td>
<td>7  8.4%</td>
<td>3  3.6%</td>
</tr>
<tr>
<td>$251-$999</td>
<td>197 41.0%</td>
<td>129  65.5%</td>
<td>41  20.8%</td>
<td>16  8.1%</td>
<td>11  5.6%</td>
</tr>
<tr>
<td>$1,000+</td>
<td>206 42.0%</td>
<td>106  51.5%</td>
<td>52  25.2%</td>
<td>31  15.0%</td>
<td>17  8.3%</td>
</tr>
</tbody>
</table>
Comparison of most common strategies by FS level

<table>
<thead>
<tr>
<th>Behaviors</th>
<th>High</th>
<th>Marginal</th>
<th>Low</th>
<th>Very Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gave to a food pantry</td>
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<td></td>
<td></td>
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<tr>
<td>Bought food items because they were on sale</td>
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<tr>
<td>Made meals with low cost foods</td>
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<tr>
<td>Bought food just b/c cheap</td>
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<tr>
<td>Eaten leftovers from meals eaten outside the home</td>
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<tr>
<td>Used coupons on foods</td>
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</tr>
<tr>
<td>Avoided buying expensive foods, like fresh fruits or meat</td>
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<tr>
<td>Removed spoiled parts from fruits or vegetables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eaten less costly foods at end of month</td>
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<tr>
<td>Limited variety eaten at end of month</td>
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<tr>
<td>Bought food in large quantities for bulk discount</td>
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<td></td>
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<tr>
<td>Skipped meals</td>
<td></td>
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</tr>
<tr>
<td>Eaten meals at other’s homes</td>
<td></td>
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<tr>
<td>Eaten less costly foods at end of month</td>
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<tr>
<td>Bought food in large quantities for bulk discount</td>
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</tbody>
</table>

Percentage of Group

Food Security Group
Trends across food security level
Predictors by risk type (cont.)
Predictors by risk type (cont.)

Nutritional Risks

Gender  Substance Abuse  Fin. Asst  Child Feed. Asst.
What is known

- Strategies vary greatly in type and potential for risk
- Frequent use of multiple strategies
- Strategies can be risky
  - May pose financial, health, food safety, illegal/regulatory, nutritional and/or physical risk
  - Strategies less overtly risky, reported more often
- Lowest food security level, highest overall participation rates
- VLFS associated with income
- VLFS and abusing substances increase likelihood of participation in risky strategies
What can be done with information

• “Get the message out!”
  - The prevalence and practices of the food insecure are becoming very clear…provide information to those who can do something with it.

• Develop more effective and efficient training

• Target efforts to assist the most critical need…those with high food insecurity

• Maximize utilization of extant assistance programs
What’s next?

Next papers:
- Explore predictors of use of risky coping strategies
- Examine relationship between substance abuse and use of coping strategies
- Understand influence of acculturation on use of coping strategies

Next studies:
- Study the interplay between types of coping strategies
  - Describe decision making associated with selection of coping strategies
- Expand sample to include more diverse population groups
- Examine mediating mechanisms between food security and clinical responses
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Understanding the interplay between types of strategies

Very Low Food - Secure Households with Children

**Sociodemographic and Psychosocial Influences**
- Primary household food provider / caregiver
- * Age
- * Gender
- * Citizenship Status
- * Employment Status
- * Type of Residence
- * Residence Location
- * Education
- * Ethnicity
- * Race
- * Origins
- * Attitudes about using coping strategies
- * Beliefs about using coping strategies
- * Knowledge about coping strategies
- * Perceptions about perceived availability and access to coping strategies.

**Modifying Conditions**
- Household
  - * Number of People
  - * Income
  - * Age of Members
  - * Sex of Members
  - * Citizenship Status
  - * Employment Status
  - * Substance Abuse
  - * Relationship to Respondent

**Behavioral Response Outcomes**
- Individually Developed Coping Strategies
- "Safety Net" Participation
- EFP Usage