

## Overview

- Up front concerns
- What we know
- Emerging knowledge
- What we don't know
- Future research

### Up front concerns

1. Important to distinguish between child vs. household food insecurity? (1% vs 21%)
2. Hunger = Multi-dimensional
  - Economic, Psychological, Physical, Social, Lifecourse
3. Child hunger is unsettling
  - Parenting
  - Perspective of Professionals
  - Perspective of Parents
  - The “system”
4. Harmful assumptions

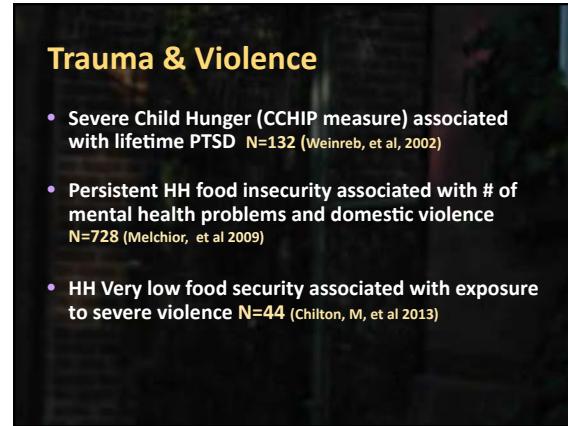
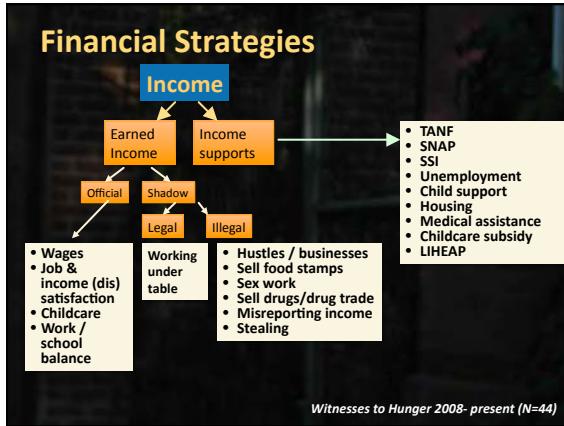
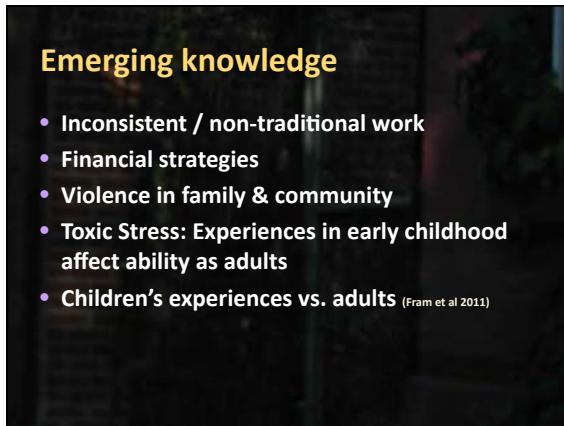
### Parenting

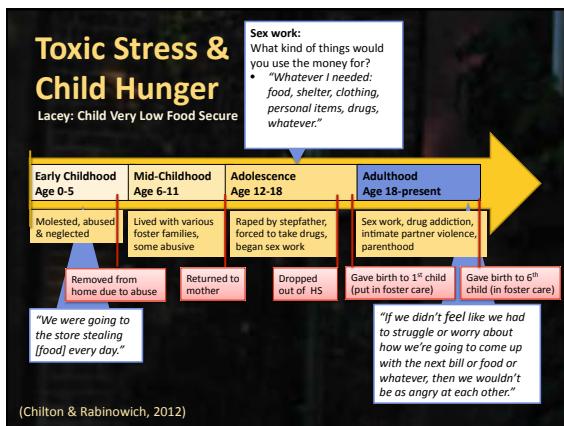
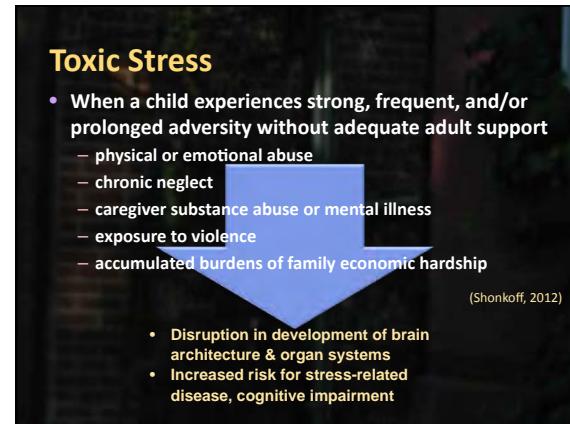
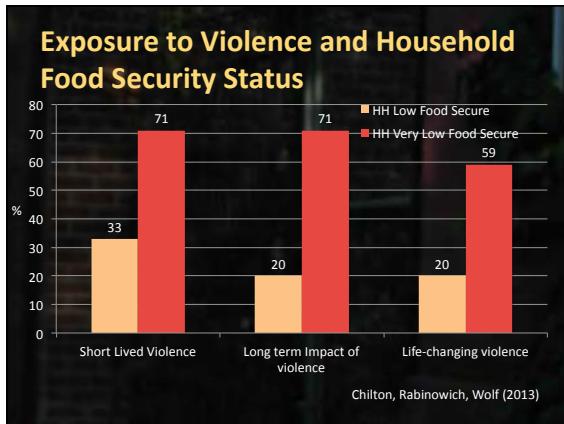
**“It makes me feel like less of a mom not to have food for my children...”**

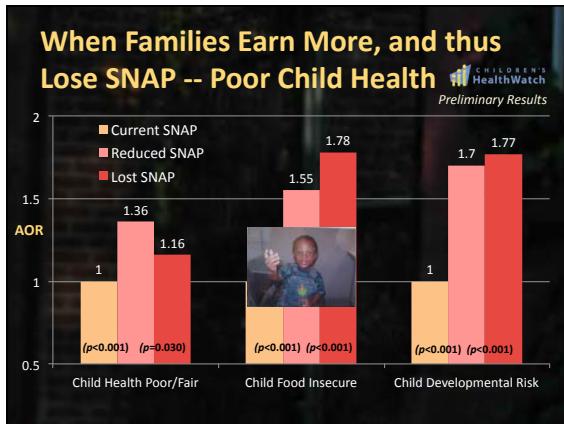
### The System

**“We needed emergency food stamps...”**









## Research priorities – Coping with programs and policies

- **Policy & Systems oriented**
  - Include multiple systems, not just food assistance
    - Wages & labor laws
    - Child welfare services / Head Start
    - TANF
    - Housing subsidies
    - LIHEAP
    - EITC
- **Solution Oriented**
  - Broad scale interventions & demonstrations
- **Research on language/framing that helps decision-makers understand and address hunger**

## Research methodologies

- **Multi-disciplinary / mixed method**
  - Epidemiology
  - Economics
  - Nutrition
  - Sociology / Anthropology / Discourse Analysis
- **Longitudinal / 2.5 generation or 2<sup>n</sup>**
- **Participatory (subjects as participants)**



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## *SNAP Food Security In-Depth Interview Study*

A report released March 2013 available on line at

<http://www.fns.usda.gov/ora/MENU/Published/SNAP/FILES/Participation/SNAPFoodSec.pdf>

Presented by Sarah Zapolksy, FNS on behalf of Kathryn Edin

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By Mathematica Policy Research for the U.S. Department of Agriculture, Food and Nutrition Service

**Individual and Family  
Coping Responses to  
Hunger**

Colleen M. Heflin

Presentation prepared for the National Academies Workshop on Research Gaps and Opportunities in Child Hunger and Food Insecurity, April 8-9, 2013

[truman.missouri.edu](http://truman.missouri.edu)

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University of Missouri

**Overview**

- Trade-offs with other essential needs
- Non-participation in food assistance programs

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Trade-offs with other essential needs:  
What do we know?

Families that report child hunger have difficulty meeting other essential needs:

- Housing costs
- Utility costs
- Medical costs
- Transportation needs

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## Unique aspects of food insecurity

1. Sensitive to small income fluctuations
2. Often very short duration
3. Need is recurrent
4. Demand fluctuates
5. Not experienced uniformly within household

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## Trade-offs with other essential needs: What do we need to know?

- No nationally representative dataset contains data on food insecurity AND other measures of material hardship
- Current Population Survey: Food Security Module
- Survey of Income and Program Participation: Adult Well-being Topic Module

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## Trade-offs with other essential needs: What do we need to know?

1. We need to better understand the prioritization of essential needs
2. We need to understand variability in prioritization process.
3. Family expenditure/resource records needed.

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## Non-participation in food assistance programs: What do we know?

Eligible non-participation rate varies by food assistance program type

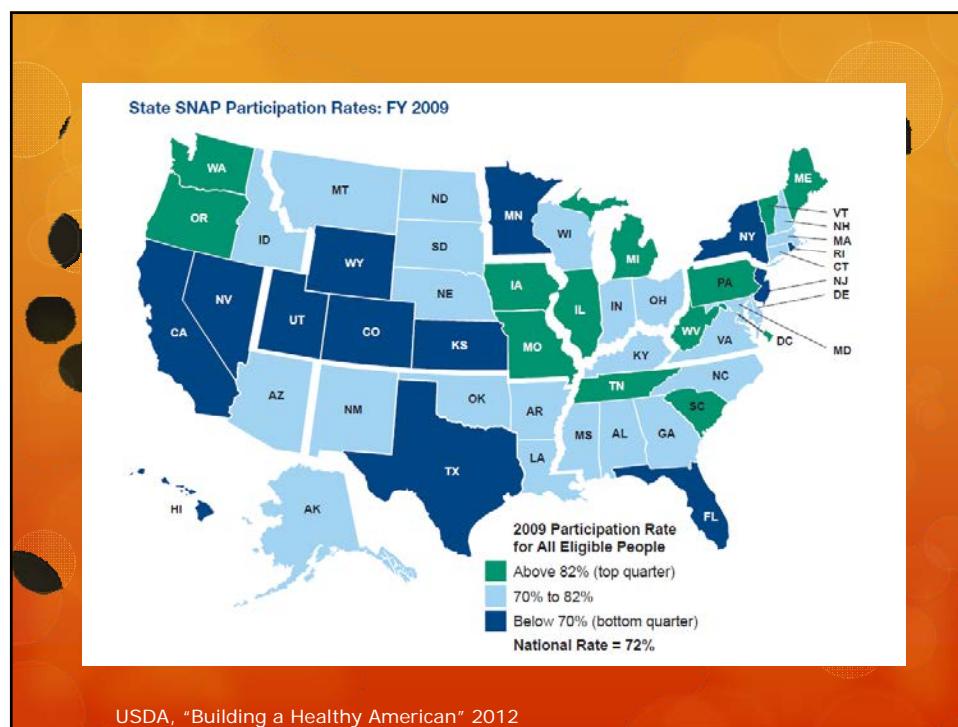
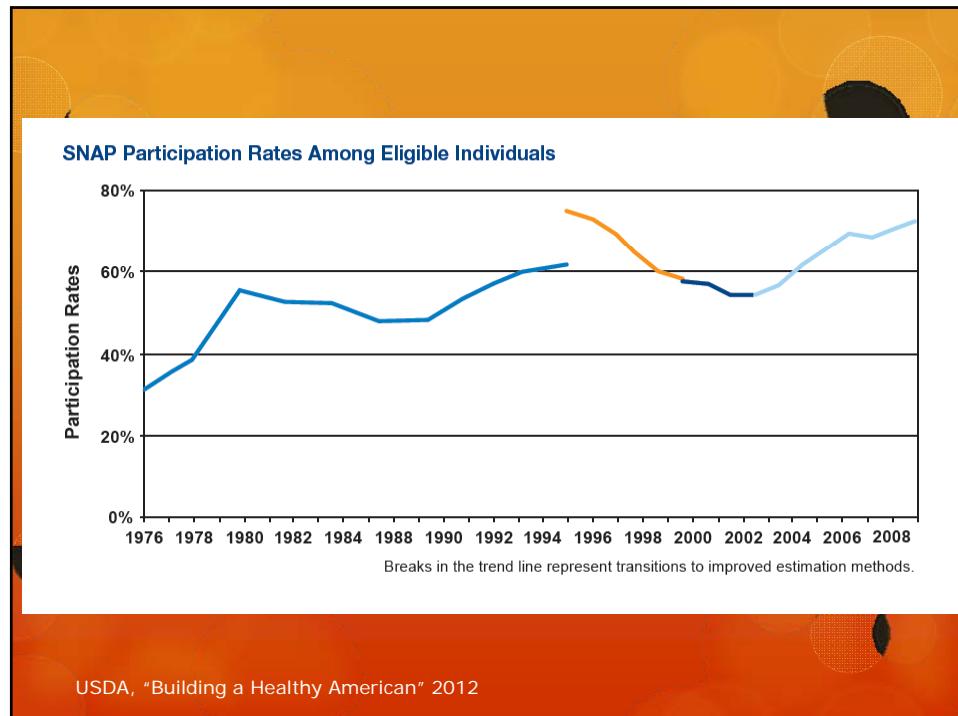
SNAP 75% (Cunningham et al. 2013)

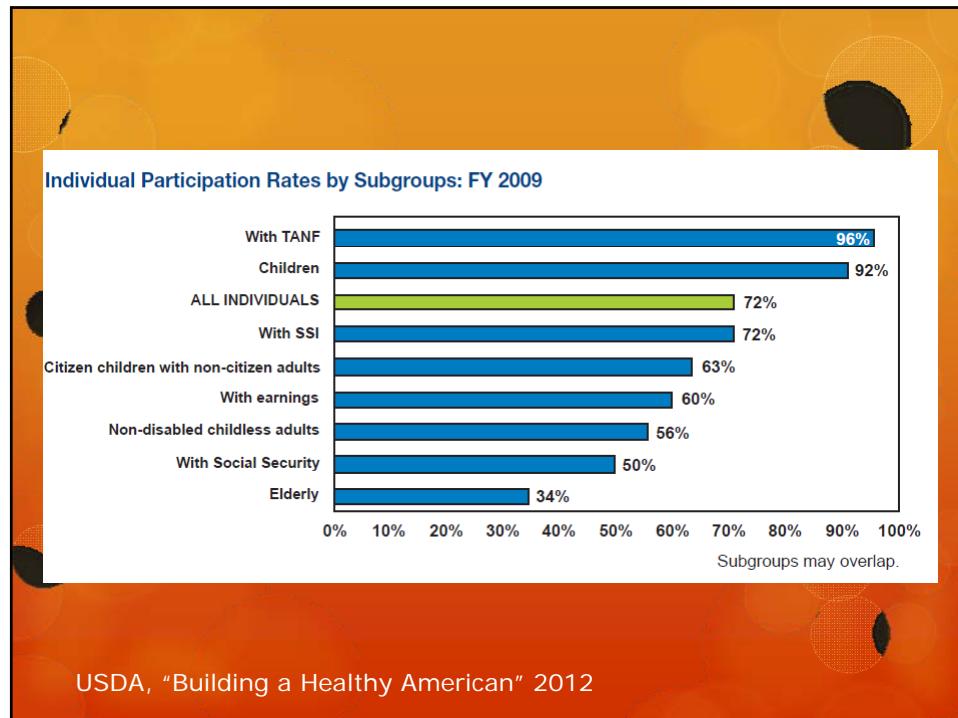
WIC 79% (Tiehan and Jacknowitz 2010)

NSLP 75% (Dahl and Scholz 2011)

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## Non-participation in food assistance programs: What do we need to know?

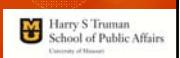
How do administrative procedures influence take-up rates?

- On-line applications
- Call centers
- Efficiency versus accessibility?

What is the role of cultural factors (stigma)?

Influence of non-profit and advocacy groups in shaping participation decision

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## Structuring Future Research Opportunities

1. Expand the scope of food policy researchers
  - Small grant programs are effective
2. Interdisciplinary approaches encouraged

The issue of childhood hunger and food insecurity involves the study of economic decision-making and social processes with nutritional, health and developmental consequences that are structured by political, economic and social factors.

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# Community responses to food insecurity and hunger

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MICHIGAN STATE  
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National Academies,  
Workshop on Child Hunger  
April 8, 2013



## Today

- History of community food programs
- Review of community programs for their potential to address food insecurity
- Summary and research recommendations



## Community Approaches Addressing Food Insecurity

1. Emergency Food System
2. Retail Initiatives: Supermarkets, farmers markets and corner stores
3. Farmers' markets coupon programs
4. Farm-to-school and school gardens
5. Urban agriculture and community gardens
6. Nutrition education



## History and Background

- Emergency Food System (EFS): recent iteration - early 1980's
- Community Food Security Movement: early 1990's
- USDA Community Food Projects Competitive Grants: since 1996
- Whole Measures (Center for Whole Communities and Community Food Security Coalition): 2007
  - **6 Goals of Community Food Security**
    - Justice and Fairness
    - Strong Communities
    - Vibrant Farms and Gardens
    - Healthy People
    - Sustainable Ecosystems
    - Thriving Local Economies
- Many community food programs are not specifically focused on "hunger". Rather, they focus on improving nutrition or diet quality which is a component of food security.



## Household vs. Community Food Security

### Different, but overlapping goals...

Household food security = access by all people at all times to enough food for an active, healthy life

Community food security = a situation in which all community residents have access to a safe, culturally acceptable, and nutritionally adequate diet through a sustainable food system that maximizes self-reliance and social justice (Hamm and Bellows 2002).

"Community food security advocates see food as an individual and a community right rather than a commodity or entitlement". (Campbell, 2004)



## Community Food Security

Justice/Rights-based approach to food security vs. Needs-based approach

- A rights-based approach creates enabling environments that support people in providing food for themselves with a structure for legal recourse.
- Necessitates facilitating social and economic structures that enable people to acquire adequate and regular nutrition.
- Not based solely on benevolence or charity but is, rather, "the duty and obligation of a country to its people". (Chilton and Rose, 2009; Anderson, 2013; Allen, 1999)

Overall framework for this review:

- Assessing community food security projects for their potential to address HH food security through a justice/rights-based approach
- Cannot separate child food hunger from adult food insecurity
- Food insecurity includes inadequate quantity and quality (nutrition) of food





## 1. Emergency Food System

- Feeding America National Network (Hunger in America 2010, Feeding America)
  - 33,500 food pantries – 68% no paid staff
  - 4,500 soup kitchens – 42% no paid staff
  - 3,600 emergency shelters
- 71% of clients have income below poverty
- 75% are food insecure
- Only 41% of clients participate in SNAP



## 1. Emergency Food System

### Successes:

- Clearly addressing a gap
- Dedicated activists/volunteers
- Enable citizens/corporations to participate in “ending hunger”
- Prevent waste of food
- Incorporate outreach for Federal programs



### Challenges:

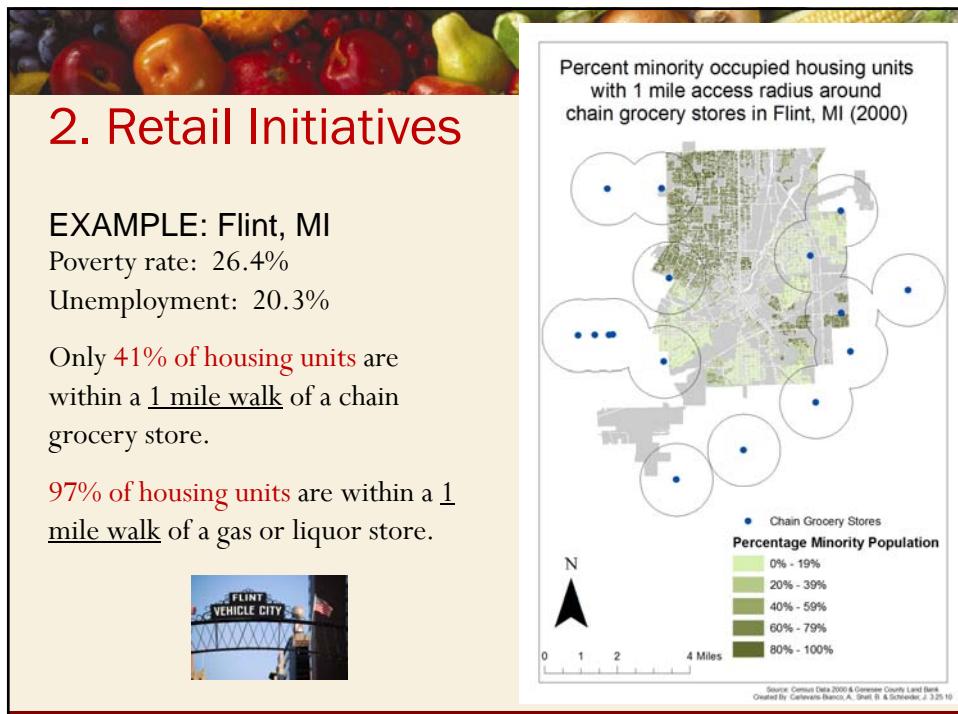
- Benefits are only a small % of \$ available to HH from SNAP, TANF, etc.
- Evidence EFS improves HH food security status?
- Poppendiek, 1999, others: Insufficient, inappropriate, inadequate, instability, inaccessibility, inefficient, indignity
- Diverts attention of advocates/citizens from rights-based approaches



## 1. Emergency Food System

Innovative programming addressing challenges (not much evaluation):

- Greater procurement of fresh food
- Nutrition standards
- “Choice” pantries
- Job training (example, DC Central Kitchen)
- Coordination with health and mental health care providers
- Community Kitchens
- Kids café and backpack programs
- Nutrition/cooking education (example, Share Our Strength’s Cooking Matters)
- Panera Cares



## 2. Retail Initiatives

### EXAMPLE: Flint, MI

Poverty rate: 26.4%

Unemployment: 20.3%

Only **41%** of housing units are within a 1 mile walk of a chain grocery store.

**97% of housing units** are within a 1 mile walk of a gas or liquor store.





## 2. Retail Initiatives

### Placing Supermarkets in “Food Deserts”

- EXAMPLES: Pennsylvania Fresh Food Financing Initiative/U.S. Healthy Food Financing Initiative
  - Public private partnerships
  - Generated tax revenue, created jobs, improved housing values, anchored other stores
- In general, placing a new store does not appear to significantly change dietary patterns or FV intake (Cummins et al 2007; Wang et al 2007; Cummins et al 2005; Cummins et al 2008), although one study found improvement in people with the poorest diets (Wrigley & Margetts 2003).
- Other supports needed? Coupons for healthy food and point-of-purchase nutrition education, others
- One study looking at food insecurity and store access: Food insecurity was not associated with proximity to food retail or community food programs, and high food insecurity was observed in areas with good geographic food access (Kirkpatrick & Tarasuk, 2010)



## 2. Retail Initiatives

### Improving Choices/Price at Corner Stores

EXAMPLE: Philadelphia’s Healthy Corner Store Initiative (The Food Trust, Philadelphia Department of Public Health and Get Healthy Philly)

- Since 2010, 600+ corner stores participating: 4 Phases
  1. Inventory changes (introduce 4 new healthy products), average is 36
  2. Healthy Food Identification Campaign (marketing materials)
  3. Business Training for Owners, 80% of stores
  4. Conversions (equipment), 100 stores, 3300 F&V added
- Corner store conversions along with point of purchase/other nutrition education improve intake and purchasing of healthy foods for adults and kids (Song et al 2009; Gittelsohn, Vijayadeva et al 2010; Gittelsohn, Song et al 2010; Dannefer et al 2012)



## 2. Retail Initiatives

### Placing Farmers' Markets in "Food Deserts"

- Placing new farmers' markets and farm stands in underserved areas increases fruit and vegetable intake (Part et al 2011; Payet et al 2005; Spalding et al 2012; Ruelas et al 2012; Evans et al 2012)
- One study found that farmers' markets had an impact on grocery prices in the neighborhood – prices decreased almost 12% in 3 years (Larsen & Gilliland 2009)
- In 2010, SNAP redemption at farmers' markets accounted for only 0.01% of total SNAP redemptions, a 49% increase since 2006 (McGuire, 2012)
- Fewer than half of states allow farmers at markets to accept WIC benefits; redemption rates are very small and decreasing (Fisher, personal communication)



## 3. Farmers' Market Coupon Programs

- WIC Farmers Market Nutrition Program (FMNP)
- Senior Farmers Market Programs
- "Double Up Food Bucks" and other programs
- [SNAP Healthy Incentives Pilot evaluation in MA]
- \$10 - \$50 per season
- In FY 2011, 18,487 farmers, 4,079 FMs and 3,184 roadside stands were authorized to accept FMNP checks or coupons, and resulted in >\$16.4 million in revenue for farmers (USDA 2012)



### 3. Farmers' Market Coupon Programs

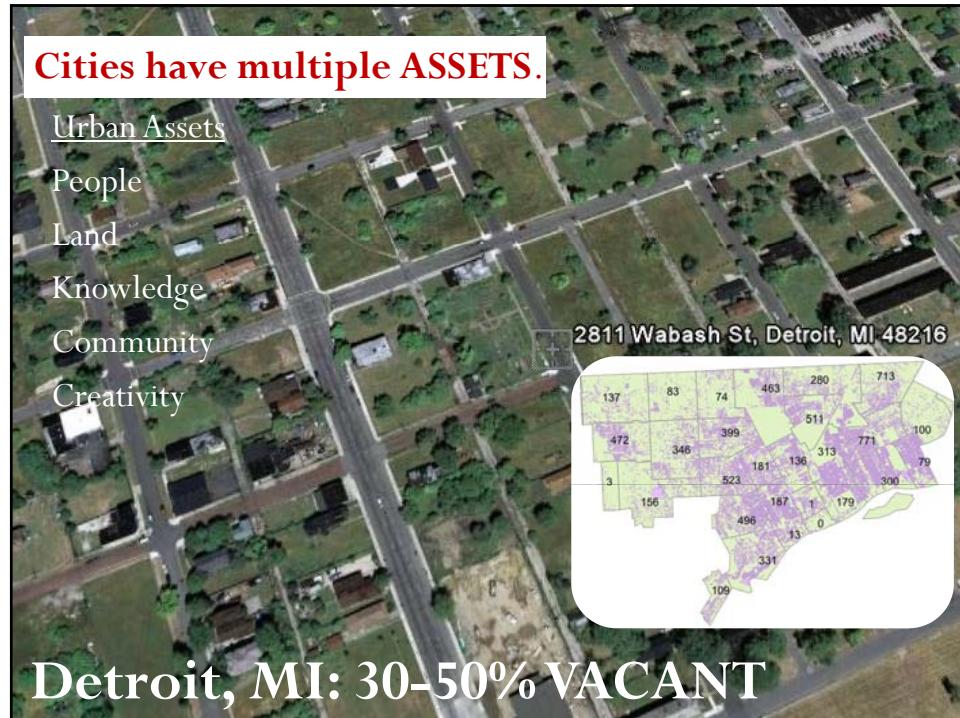
- Coupons ↑ intention and intake of F&V (McCormack et al, 2010; many others)
- Fruits and vegetables at farmers' markets are similar in price to supermarkets (Pirog 2009)
- National study: 90% of farmers reported the FMNP increased their market sales (Nat Assoc Farmers Market Nutrition Program, 2003)
- One study in a rural county compared food insecurity status of participants in the WIC FMNP with WIC participants and found no difference, although vegetable intake increased among the participants. (Kropf 2007; Walker 2007).
- Not surprising: Coupons were worth \$18.



### 4. Urban Agriculture and Community Gardens

- Gardening is very popular. 83% of U.S. households are involved in lawn and/or garden activities (US National Gardening Association, 2005)
- Community gardens are relatively low cost for families
- SNAP benefits can be used to purchase seeds and plant starts
- Capitalizes on availability of assets in many struggling cities





**4. Urban Agriculture and Community Gardens**

**EXAMPLE: Detroit, MI**

- Production of 76% of vegetables and 41% of fruit possible on vacant land (Colasanti et al, 2010)
- Shift to local food production would provide 4700 jobs & \$20 mill in tax base (Shurman, fairfoodnetwork.org)
- Keep Growing Detroit and other orgs: Goal of Food Sovereignty through Food Systems Change

Detroit Garden Resource Program Collaborative

- 1416 gardens and over 15,000 adult and youth gardeners
- 2012: gardeners grew on average 241 pounds of produce per family worth ~\$920

“Grown in Detroit” Program: Income generation

- 2012: 63 gardens sold at 4 weekly markets and wholesale, >\$80,000

**Detroit 2012 Garden Participation**



## 4. Urban Agriculture and Community Gardens

- High yield-on-investment: Estimates of 1 to 6 ratio of \$ invested to value of produce grown; \$500 - \$2000 worth of produce per family per year (Policy Link, 2013)
- Potential revenues up to \$90,000 (gross) per acre (Ohio State University, 2009)
- Among non-gardeners surveyed in Denver, 88% wanted community gardens in their neighborhoods, and 65% were interested in learning more about gardening (Litt, personal communication)
- Community gardeners (and their household members) eat more F&V than non-gardeners (Alaimo K, et al. 2008; Miles, Alaimo, et al 2009; Litt et al, 2011)
- The more F & V gardeners grow, the more they eat (Miles, Alaimo, et al. 2009)
- Larger effect size than many other fruit and vegetable interventions
- Hypothesis: ↑ access to F&V + ↑ social connection + ↑ attachment to place/nature = ↑ eating F&V



## 4. Urban Agriculture and Community Gardens

- Only one study has looked at food insecurity before and after initial participation in a community garden: Sample size: 38 families, no control group (Carney, 2012)
  - “Sometimes”/ “Frequently” worrying in the past month that food would run out decreased from 31.2% to 3.1% (P = 0.006).
  - The frequency of skipping meals due to lack of money was not statistically significantly different before and after the gardening season for either adults or children.



## 5. Farm-to-School and School Gardens

- FTS programs may offer a greater variety of fruits and vegetables than traditional lunch programs (Joshi & Azuma 2009)
- Increasing fruit and vegetable variety at lunch has been shown to increase consumption (Adams *et al.* 2005; *many others*).
- F2S programs increase school lunch participation, and fruit and vegetable selection, but studies have not documented an increase in intake. (Taylor, 2012)
- Kids who participate in school garden programs are more likely to try and eat vegetables (Blair *et al* 2009, Ratcliffe *et al.* 2009)



## 6. Nutrition Education

- SNAP-ed: Too variable to summarize
- EFNEP (Expanded Food and Nutrition Education Program)
  - USDA EFNEP Evaluation report: promising impacts (USDA FSN 2013)
    - Adults: 95% improve diet; Youth: 63% increase variety of foods
  - EFNEP in New York: ↑ food security in program graduates, More lessons received = ↑ reductions in food insecurity (Dollahite *et al.* 2003)
  - Youth EFNEP programs can be effective at increasing nutrition knowledge, food selection, and food prep and safety practices (Townsend *et al.* 2006)
- Community Program : Share Our Strength's Cooking Matters
  - Cooking and shopping educational courses for low-income youth and adults at risk for hunger (no control group) (Share Our Strength, 2011)
    - 69% of adult graduates eat more vegetables
    - On average, child graduates are 33% more confident they can make healthier food choices



## Summary

- Improving the diet quality of low-income households (actually all Americans) can be supported by community food projects
- Strategies to improve income/wages generally not emphasized, other than for job training and growers (rural or urban)
  - Growing food can supplement family food supply and income
- Very little research has been done on household economic impact or food security status for most community food projects
- May need better measures of food insecurity to capture nuances of improved diet quality due to community food programs
- Community food projects do not replace, but can advocate for and support:
  - Economic policies (structural changes to the economic system that support self-reliance, i.e., minimum wage, affordable health insurance, etc.), Federal poverty programs (EITC, housing assistance, education/training, child care, etc.) and Federal food security programs (SNAP, WIC, etc.) which are primary responses. (Justice/Rights-based approach)



## Research Recommendations

### Cross-cutting/General Research Recommendations

- Focus on mixed-method participatory approaches – include citizens facing food insecurity in community-based projects and advocacy efforts that support health and self-reliance
- Do community food programs improve economic and food security status of the household? Promote HH food security as a goal for community food projects and include food security questionnaire in evaluation
- Programs are often successful at smaller scale. What does it take to “scale up” food programs?
- Continue to document the economic development outcomes of community food programs
- Rigorous evaluation methods when possible: Randomize, control group, validated measures of diet



## Research Recommendations

### Emergency Food System Research Recommendations

- Evaluation of innovative strategies
- Expand support for rights-based approaches, addressing fundamental causes, and broadening the outcomes measured from programming/pounds of food to include food security and whole measures
- Do nutrition standards for food banks improve food security/diet quality?

### Retail Initiative Research Recommendations

- Continued evaluation of retail programs, including economic impacts, i.e. store prices, job creation, property values
- More research needed on effects of supermarket placement in low-coverage areas on diet quality and food security. Evaluation has been challenged by difficulty obtaining pre/post measures.



## Research Recommendations

### Farmers' Markets Research Recommendations

- Qualitative research on policy and program changes needed to expand farm-to-consumer sales by SNAP/WIC recipients, i.e. what are barriers and opportunities
- Develop technology that enables mobile vendors such as farmers to utilize the same EBT system for SNAP, WIC, and coupon programs
- Evaluation of outreach programs (such as through SNAP-ed) that encourage SNAP and WIC recipients to use FM's.

### Urban Agriculture/Community Gardening Research Recommendations

- Effects of zoning and land tenure changes, does recognition of urban ag as viable "redevelopment end use" improve food security?
- Small urban farms: What are the food security/economic impacts of creative financing and infrastructures such as cooperatives and food hubs that enable farmers to capture larger % of profits
- Effects of season extension on income and intake



## Discussion



Thank you to Caroline Crawford, MSc for research assistance.

# Public Policy Responses to Childhood Hunger

David C. Ribar

University of North Carolina at Greensboro & IZA

Workshop on Research Gaps and Opportunities in  
Child Hunger

Washington, DC · April 8, 2013



*With one important exception, the major determinants of food insecurity are fairly well understood. The exception is the effects of food and nutrition assistance programs.*

Nord & Parker (2010, p. 1179)



## Outline

- Conceptual approaches
- Public and private food assistance programs
- Evidence on program effectiveness
- Programmatic gaps
- Methodological gaps and challenges
- Recommendations



## CONCEPTUAL APPROACHES



## Conceptual approaches to child hunger

- At the risk of repeating material from presentations, start with conceptual model
- Helps us to understand
  - How children get fed
  - Why some go hungry
  - How programs can help, including a typology
  - Challenges to program effectiveness
- Build on models from Barrett (2002, see also Caswell & Yaktine 2013)



## Household objectives

- Adapt Becker (1965) HH production and Grossman (1972) health prod. models
- Assume that household has life-cycle preferences over members' per-period
  - Physical well-being
  - Consumption of goods
- Preferences incorporate tastes and culture
- Household discounts the future
- Future uncertain



## Production functions

- Members' physical well-being
  - Depends on previous well-being
  - Augmented w/ inputs of nutrition, activities, non-food consumption, and other items
  - Depends on shocks
- Nutritional inputs
  - Produced with food and time
  - Depends on health shocks
  - Conditioned by skills and information



## Constraints

- Life-cycle budget constraint
  - Per-period spending constraints
  - May include non-tradable goods
  - May include borrowing constraints
- Per-period time constraints
- Conditions for survival & nonimpairment create additional constraints



## Outcomes

- Household chooses
  - Work, activities
  - Consumption of food & non-food items
- Three levels of food security
  - Survival
  - Nonimpairment
  - Healthy
- Final level is focus in U.S. and other developed countries



## Structural threats to food security

- Low labor productivity (limited ability to work or earn)
- Adverse terms of trade (high prices / low wages)
- Limited market access
- Asset poverty
- Borrowing constraints
- Inadequate public or private safety net



## High risk exposure

- Proximity to food security constraints
- Susceptibility to adverse shocks
- Inadequate insurance



## General coping strategies

- Use of transfers and loans
- Foraging
- Disposal of nonproductive assets
- Reduced consumption and energy expenditure
- Disposal of productive assets
- Expropriation of others' assets
- Migration



## Introducing children

- General model doesn't consider special circumstances for children
- Children have limited capabilities
- Are dependent on other members
- Little or no ability to influence household decision-making
- Capabilities, dependency vary with age
- At a minimum, children are vulnerable



## Caring, capable parents

- Standard economic assumption is that parents are rational and altruistic
- Leads to "Ricardian" results
  - Parents protect children if gov't doesn't
  - Conversely, parents withdraw resources when government supplies them
- Leads to additional food security coping strategy of children going hungry last
- Evidence that this is *typical* behavior



## Other types of parents?

- Limited food preparation capabilities or habits (McLaughlin et al. 2003)
- Parenting problems (Chilton & Rabinowich 2012)
- Financial management problems (Gundersen & Garasky 2012)
- Difficult children; circular problems from food hardships (Kleinman et al. 1998; Perez- Escamilla & Pinheiro de Toledo Vianna 2012)



## Evidence on general threats

- Evidence supports general model
- Nord & Parker (2010)
  - Low income & unemployment
  - Low skills or disability
  - Single parenthood; large household
  - Minority, non-citizen status
  - Poor local economic conditions & institutions
- Kimbro et al. (2012) – disadvantaged neighborhoods



## Three types of food assistance

- General supplements to resources
  - Relaxes resource/budget constraint
  - Assumes ability to gen. nutritional outcomes
- Provision of specific types of foods
  - Generates nutritional outcomes directly
  - Easier to target vulnerable groups
- Increase efficacy of nutrition production
  - Usually done through increasing skills, educ.
  - Can address multiple problems



## PUBLIC AND PRIVATE FOOD ASSISTANCE PROGRAMS IN U.S.



## Major U.S. FAPs helping children

Program	Federal FY 2012 cost	General food resources	Specific foods	Increase HH efficacy	Targetted beneficiaries
Supplemental Nutrition Assistance Program (SNAP)	\$78.3 billion	✓		✓	no
National School Lunch Program	\$11.6 billion		✓		school-age children
School Breakfast Program	\$3.3 billion		✓		school-age children
Special Supplemental Nutrition Program for Women, Infants and Children (WIC)	\$6.9 billion		✓	✓	mothers, children 0-5
Child and Adult Care Food Program	\$2.8 billion		✓		pre-school-age children



## Other FAPs helping children

Program	Federal FY 2012 cost	General food resources	Specific foods	Increase HH efficacy	Targetted beneficiaries
Commodity Supplemental Food Program	\$208 million		✓		children, elderly
Food Assistance for Disaster Relief	\$4 million	✓			no
Food Distribution Program on Indian Reservations	\$97 million		✓		no
WIC Farmers' Market Nutrition Program	\$21 million		✓		mothers, children 0-5
Nutrition Assistance Block Grants	\$2.1 billion	✓		✓	no
Summer Food Service Program	\$398 million		✓		children
Special Milk Program	\$12 million		✓		school-age children
The Emergency Food Assistance Program	\$444 million	✓			no



## State and local governments

- State & local governments and school food authorities administer programs
- Contribute administrative resources
- Fund supplementary & indep. programs
  - Universal-free SBPs (DC public schools; NC kindergartens)
  - Assistance for immigrants (WA State Food Assistance Program)
  - Commodity support (NJ State Food Purchase Program)



## Private assistance

- General assistance
  - Food pantries & food banks
  - Kitchens; meals
- Organizing to leverage available resources
- Special child-oriented programs
  - Backpack programs
  - School pantry programs
  - Kids Café (Tapper-Gardzina & Cotuga 2003)
- Many use federal support



## Complex assistance landscape

- Depending where children live, attend school...
  - Lots of potential resources & flexibility
  - But also potential overlaps and inefficiency
- Landscape is uneven, depends on
  - State & local governments
  - Community organizations (social capital)
- Assistance as a tool for discrimination (e.g., charter and private schools)



## EVIDENCE ON EFFECTIVENESS



Do existing programs prevent food insecurity and hunger?



Do existing programs prevent food insecurity and hunger?

- No



## Do existing programs prevent food insecurity and hunger?

- No
- Coleman-Jensen et al. (2012) report
  - 11.5% of children live in HHs with LFSAC
  - 1.5% live in households with VLFSAC
  - 23% of SNAP households had VLFS
  - 17% of NSLP households had VLFS
  - 14% of WIC households had VLFS
- Nord (2009) reported high levels of VLFSAC in food assistance households



## Do existing programs *reduce* food insecurity and hunger?



## *Do existing programs reduce food insecurity and hunger?*

- Probably, but evidence is weak



## *Do existing programs reduce food insecurity and hunger?*

- Probably, but evidence is weak
- In simple descriptive comparisons (e.g., Coleman-Jensen et al. 2012)
  - Household and child food insecurity more common in households receiving assistance than other poor or near-poor households
- Negative association between food assistance and food security also appears in many multivariate studies



## Evidence from additional studies

- Comprehensive reviews by Barrett (2002), Currie (2003), Fox et al. (2004), Caswell & Yaktine (2013), Colman et al. (2012)
- Evidence that FAPs increase expenditures on food, but less than dollar for dollar
- Evidence on consumption and nutrition more equivocal but many examples of positive associations, especially for WIC (disputed though Besharov & Germanis 2000)



## Evidence from additional studies (cont.)

- Evidence for food security and hunger more equivocal still
- Colman et al. (2012) WIC evidence 'mixed'
- Caswell & Yaktine (2013) adopt a more positive view of SNAP based on recent methodologically sophisticated studies
  - However, overlook negative and inconclusive findings; ignore publication bias
  - Studies may be torturing data until they confess



## PROGRAM GAPS



### Standard gaps

- Design issues that are common to all assistance programs
- How large to make the benefit
- Whom to cover
- How to get people to participate



## Sufficient benefits?

- Most FAPs intended to be supplemental, not sufficient in and of themselves
- SNAP (and related programs) intended to provide sufficient resources to generate healthy nutrition
- Caswell & Yaktine (2013) beginning an analysis of benefit adequacy
  - Is the TFP adequate?
  - Are food preparation assumptions in TFP appropriate?



## Coverage gaps

- Some households not eligible for SNAP (e.g., certain immigrants)
- Limitations on the use of EBT benefits
  - Restrictions on retailers
  - Requires EBT reader
- School, child care meals
  - Limited to enrolled children
  - Generally only provided in school
- WIC not an entitlement (not an issue in recent years)



## Incomplete take-up

- See review by Currie (2004)
- Households may lack information about programs or eligibility
  - See, e.g., Osborne Daponte et al. 1999
- Administrative burdens
  - Recertification (e.g., Ribar & Edelhoch 2008)
- Stigma (Moffitt 1983)
  - See, e.g., Haldeman & Ribar 2011
- Program complexity



## Household behavior

- Capable, altruistic parents will substitute their own resources for gov't resources, diminishing measured associations
- Some specially targetted resources (especially WIC benefits) may be shared by other household members
- SNAP and WIC require parental actions; ineffective or unconcerned parents may not undertake appropriate actions



## Program complexity

- Multiple FAP participation – e.g., SNAP children categorically elig. for NSLP, SBP
- Ineligible household members – will ineligible parents collect benefits for eligible children?
- Other assistance programs
  - With reductions in TANF, SNAP has become a de facto safety net program
  - Benefits conditioned on other programs



## Complex circumstances

- Food problems often occur within constellations of other problems
- Joyce et al. (2012) report food hardships appear with other serious hardships
  - Hospitalizations and poor health
  - Housing insecurity
  - Energy insecurity (heat or eat)
- Zero-income SNAP households and disconnected leavers



## Complex circumstances (cont.)

- Ganapathy et al. (2005) describe inadequate “food systems,” including communities



## METHODOLOGICAL GAPS AND CHALLENGES



## Biggest challenge

- U.S. studies of childhood hunger, LFSAC and VLFAC face low statistical power
- Coleman-Jensen et al. (2012) – 1.5% of children live in households with VLFSAC
- Many surveys lack sufficient observations to run multivariate analyses (e.g., sample separation issues common)
- Use of asymptotic statistics (rather than “exact” statistics) questionable



## Measurement of childhood food hardships

- 2006 NAS panel found numerous shortcomings with the HFSSM
  - Hunger an individual, not a HH outcome
  - HFSSM does not capture supply of food, food safety or food quality
  - IRT assumptions questionable
  - HFSSM shouldn't be only measure of FAP effectiveness
  - CPS misses institutionalized and homeless populations



## Measurement of childhood food hardships (cont.)

- Possible social desirability bias
- Screens in HFSSM
  - assume standard coping strategies & behaviors
  - underestimate children's hardships
- HFSSM measures used ineffectively
  - binary indicators use little of the data
  - if coping strategies are followed, evidence of risks to children at lower thresholds



## Measurement of childhood food hardships (cont.)

- Alternatives to HFSSM
- Community Childhood Hunger Identification Project measure
  - Seven item measure focused more on hunger
  - Used in numerous local studies
- Food pantry inventory checklists (Bryant & Stevens 2006)



## Measurement of FAP participation

- Statistical power is again an issue
  - Participants are a modest proportion of the population
  - Small groups of non-participating eligibles and near-eligibles
  - Different program combinations
- Misreporting, under-reporting common
- Intensity (dose) of treatment; size and components of benefit packages seldom asked



## Selection

- Participation status, benefits not randomly assigned; depend on
  - *potentially* observable characteristics (benefit, eligibility formulas)
  - unobservable characteristics, including the risk of food insecurity and hunger
  - reporting of hardships and FAP participation may be selective



## Multiple program participation

- Compounds all of the other challenges
- Overlooked in many studies
  - Economists among the worst offenders
  - Have methods or instruments that can examine one program
- Private food assistance needs to be included
- Other assistance programs also need to be included



## SOME RECOMMENDATIONS



## Measurement

- Improve the measurement of child hunger
  - Split ballot questionnaires in CPS-FSS offer a low-cost way to test different scales & designs
  - Develop hunger-specific items
  - Include other food outcomes
  - Examine other periodicities
- Use more info. from the existing measures
  - We can do better than simple binary measures
  - Can also use behavioral IRT models
- Use admin. FAP data



## Roles of intermediaries

- Federal assistance relies on intermediaries
  - States & local governments to apply for and administer programs
  - SFAs to operate meal programs
  - Local organizations to distribute commodities
  - Parents to apply for assistance and to “produce nutrition”
- Research must consider these intermediaries; more research needed



## Special role of households

- Households often treated as black boxes
  - Inputs, including FAP benefits, enter in one side
  - Nutrition somehow appears at the other
- Need better understandings of
  - how nutrition for specific members is produced
  - challenges to this production
  - production over time (nutrition failures uncommon)



## Multiple FAP use

- Participation in multiple FAPs is common (see Newman et al. 2011)
- SNAP eligibility leads to categorical or adjunctive eligibility in other programs
- FAP recipients also commonly use community resources (Mabli et al. 2010)
- Full range and combinations of FAP use need to be measured and included in empirical work



## Other programs, other problems

- U.S. model of little cash assistance and lots of specific in-kind assistance is unusual
- SNAP makes some allowance for
  - Other program participation
  - Other problems
- Constellation of in-kind programs
  - assumes highly capable individuals
  - assumes other programs address other problems



## Big role for qualitative work

- The preceding slides describe
  - Tremendous complexity (programs, problems, interactions)
  - Crude understanding of family processes
  - Relatively rare events
- Qualitative methods applied to especially vulnerable populations may make quicker advances than quantitative methods



## Helping children

- Children are especially vulnerable
- Some (fortunately not many) are falling through the cracks
- Should examine new programs that can
  - feed children when schools and child care centers can't
  - empower children to produce nutrition (e.g., cook and prepare for themselves)



## Public Policy Responses to Childhood Hunger

David C. Ribar  
University of North Carolina at Greensboro & IZA

Workshop on Research Gaps and Opportunities in  
Child Hunger  
Washington, DC · April 8, 2013



# Public Policy Responses to Hunger

**Lara Shore-Sheppard**  
Williams College and NBER

**Workshop on Research Gaps and Opportunities in  
Child Hunger and Food Insecurity**

April 8, 2013

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## Outline

- My perspective from research on the safety net more broadly
- Key questions on which to focus
- Ways forward

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## Does the safety net reduce food insecurity in families?

- Research with Lucie Schmidt and Tara Watson funded by UKCPR round 1 grant, “The Effect of Safety Net Programs on Food Insecurity”
- Investigate how the structure of benefits for five major safety net programs affects food insecurity
  - Cash programs
    - Temporary Assistance to Needy Families (TANF)
    - Supplemental Security Income (SSI)
    - Earned Income Tax Credit (EITC)
  - Health program: Medicaid/Children’s Health Insurance Program (CHIP)
  - Food program:
    - Supplemental Nutrition Assistance Program (SNAP)



## Motivation

- Little known about effect of non-food safety net programs on food insecurity
  - Non-food programs expand resources available to family, but may change allocation
  - Enrollment in non-food programs may affect eligibility for or enrollment in food programs
- Net effect of program interactions ambiguous:
  - Income effect: purchase more or higher quality food
  - Substitution effect: purchase less food
- Note which programs able to study limited
  - Need variation over time and across states
  - Need to be observable in national data



## Basic Research Design

- Regress *outcomes of interest* on *measures of benefits* for which the family would be eligible

$$FoodSec_{icst} = \beta_0 + \beta_1 Benefit_{icst} + u_{icst}$$

- where *FoodSec* is an indicator for food security status of family *i* in demographic cell *c* in state *s* in year *t* and *Benefit* is the level of benefits for which the family is imputed to be eligible (either overall or separately by program type)

## Measuring Outcomes

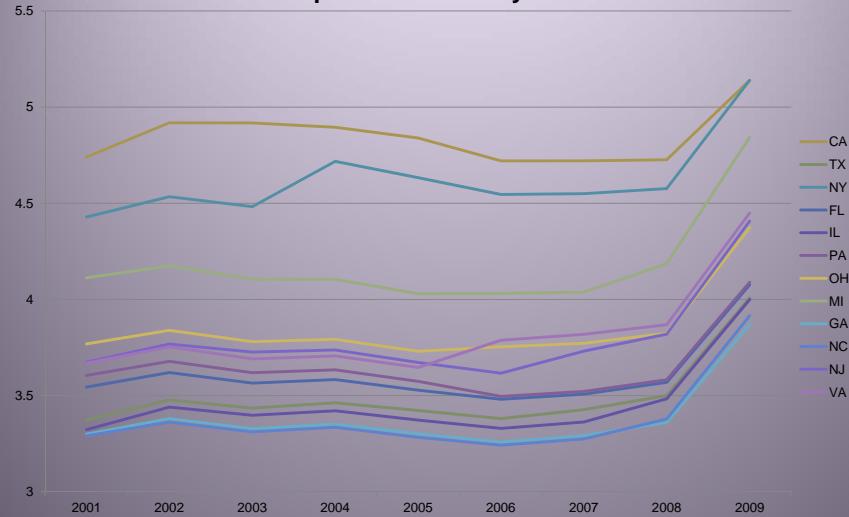
- Use data from 2001-2009 Current Population Survey Food Security Supplement (December)
  - Respondents asked how much household spent on food, use of food programs, whether able to afford enough food
  - Source for official food security statistics
    - Indicator for very low food security among children in household
    - Indicator for household very low food secure/low food secure/food secure
  - But income measure crude, includes benefit income, so match with earnings data from nearest Outgoing Rotation Group month (December-March)
  - Sample: at least one child<18, reference person between 18 and 64, only non-immigrants; focus on single-parent, low-income families

## Measuring Benefits

- Build calculators for eligibility/benefit level for programs of interest
  - Use program rules, accounting carefully for interactions between programs
  - Use NBER's TAXSIM to determine EITC level
  - Inputs include: family headship type, number and ages of children, earnings of adults in family, disability status of adults in family, employment status of parents, state of residence, year
  - Family defined differently for different programs
- FSS/ORG data → EITC → SSI → TANF → Medicaid/CHIP → SNAP

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Average Annual Total Food & Cash Benefit Package  
Thousands of Real \$2005  
Simulated Sample <300% Poverty - December CPS



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## More About Research Design

- Benefits may be endogenous: families with higher benefits also more likely to be food insecure, for reasons that may be unobservable
- Use instrument: average benefits by state, year, demographic cell for national sample of families (Currie and Gruber 1996)
  - Use 2001 sample replicated into all states and years
  - Abstracts from state-level differences in population characteristics and economic environment
  - Demographic cells defined by state, year, any disabled person in family, any child<6, number of children (1, or 2 or more), educ. category, race/ethnicity

➔ Variation at state-year-demographic cell level



### First Stage: The Impact of Simulated Eligibility on Imputed Eligibility, Single Parent Low-Income Sample (OLS)

Outcome	Imputed Cash and Food (\$000)	Imputed Fraction Medicaid Eligible
Mean Combined Annual Simulated Cash and Food Benefit in \$000	<b>0.660**</b> (0.028)	-0.012** (0.001)
Mean Simulated Fraction of Family Medicaid Eligible	-2.346** (0.381)	<b>0.607**</b> (0.036)



## Impact of eligibility on participation

- Take-up of safety net programs low, depends on unobservables
- Examine participation relationship with predicted eligibility
  - Cannot use December CPS
  - Use March CPS Annual Social and Economic Supplement (2002-2010)
  - Same IV strategy described above

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## Instrumented eligibility predicts participation

- Eligibility for each program positively predicts participation in that program
- Also interesting cross-program effects
  - Exogenously determined eligibility for one program may increase or decrease prob. of participating in another
  - Not just mechanical result of eligibility interactions

➔ Use Two-Sample IV to relate program participation to food security

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## OLS Regressions: LFS and Program Eligibility

	LFS	LFS
Combined Annual Imputed Cash and Food Benefit in \$000	<b>0.007**</b> (0.001)	
Annual Imputed TANF in \$000s		<b>0.007**</b> (0.001)
Annual Imputed SSI in \$000s		<b>-0.003</b> (0.007)
Annual Imputed EITC in \$000s		<b>0.015*</b> (0.004)
Annual Imputed SNAP/Food Stamp in \$000s		<b>0.010*</b> (0.003)
Imputed Fraction of Family Medicaid Eligible	<b>0.084*</b> (0.014)	<b>0.078*</b> (0.018)

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## IV Regressions of LFS on Program Eligibility

	I	II	
Combined Annual Imputed Cash and Food Benefit	-0.019** (0.005)		•Raising combined benefit by \$1000 reduces LFS by 1.9 percentage points on a base of 33%
Annual Imputed TANF		-0.010 (0.009)	•Median package of \$3400 → 6.5 pp reduction in LFS
Annual Imputed SSI		-0.033* (0.017)	•No detectable effect of Medicaid
Annual Imputed EITC		-0.024 (0.018)	•Can't reject cash and food have equivalent impacts
Annual Imputed SNAP/Food Stamp		-0.018+ (0.009)	
Imputed Fraction of Family Medicaid Eligible	-0.011 (0.078)	0.014 (0.070)	

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### Two-Sample IV Regressions of LFS on Program Participation

	I	II	
Combined Annual Cash and Food Benefit	-0.040*	(0.017)	• Actual receipt of combined benefit of \$1000 reduces LFS by 4 percentage points
Annual TANF Benefit	-0.0004	(0.054)	• Standard errors much larger
Annual SSI Benefit	-0.086	(0.081)	• Unable to detect differences across programs
Annual EITC	-0.056**	(0.021)	
Annual SNAP/Food Stamp	-0.049	(0.045)	
Fraction of Family on Medicaid	-0.086	0.014	
	(0.346)	(0.070)	

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### Conclusions

- A more generous cash and food safety net *does* reduce low food security in families with children
  - Median cash/food benefit package of \$3400 leads to 20% reduction in LFS
  - Larger effect from actual receipt
- No evidence that the distribution between cash and food affects food security
- No evidence for an effect of health insurance provision
- Insufficient power to draw more detailed conclusions

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### Specific issues noted from our research

- Unable to say anything meaningful about very low food security among children due to low statistical power (622 families out of 91,482 in our 10-year pooled sample)

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  - ➔ Increase sample size
- Immigrant safety net difficult to model
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- ➔ Make linking more direct or add questions to FSS month
  - December-March match is only ¼ of sample

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  - ➔ Increase sample size
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  - ➔ Measure time in US
- Had to jump through a lot of data hoops in order to try to put together measure of food insecurity, sufficiently detailed data on family economic circumstances, and program participation
- ➔ Make linking more direct or add questions to FSS month
- Unable to study many public programs due to lack of usable variation



## Further gaps

- How does public safety net combine with private safety net?
  - Crowd-out? (Hungerman 2005)
  - Different for food assistance?
- What happens inside the household?
  - Why are some HH LFS while observably equivalent HH are not?
    - In our sample, 90% of <185% FPL not VLFS
    - 23% of VLFS >185% FPL
  - Structure of US safety net ➔ premium on parents who can manage complexity
- What is variation in LFS status within the year?
  - Worse in summer when no school? In winter with additional resource need?



## Resources vs. well-being

- Know relatively little how resources translate into nutrition/health
- Need better measures of food outcomes/hunger/nutrition at individual level
- Coincidence of obesity and food insecurity
- Role for parental/child education?

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## Data-Oriented “Wish List”

- Combine resource measures with nutrition measures
- Multiple measures during the year
- Individual-based measures of insecurity
- Richer measures of household characteristics in FSS
- Strengthen link to time use survey (more observations)
- If only the SIPP...

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## Big-Picture Recommendations

- Experiments
  - Gets around problem that in many safety net programs, little variation usable by researchers
  - In education and in developing country contexts have led to important gains in knowledge
  - Information provision? (e.g. large-scale version of Daponte, Sanders, and Taylor 1999)
  - School-based?
  - Randomization of additional program benefits?

## Big-Picture Recommendations

- Experiments
- Use opportunity presented by Affordable Care Act implementation
  - Information gathered to determine eligibility for Medicaid/subsidies could be used to enroll in SNAP, other programs
  - Eligibility information sharing requirements across agencies
  - Automatic enrollment/reenrollment?
  - Study connection between health insurance and food security