



Food Insecurity & Coping

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The National Academies
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Causes and Consequences of
Child Food Insecurity and Hunger*

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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...”




Harmful assumptions

- Food insecurity is individual/family problem
- Deserving vs. undeserving poor
- Hunger is a temporary experience w/ temporary effects
- Food will fix the problem
- Safety net is a comprehensive "net" that works

What we know: Issues & Strategies

- **Trade offs** (Rose, 1999; Frank. et al; 2006, 2010, Jeng et al 2010)
— Between food, rent, utilities, medical care
- **Depression / Isolation / Anxiety** (Casey, 2004; Black et al, 2010; Whitaker 2006)
- **Child health & wellbeing** (Cook et al 2006, 2008; Alaimo 2001, 2002)
- **Social networks can buffer or make vulnerable** (Martin et al, 2004; Hamelin et al 2002; Tarasuk 2001)
- **Parents eat less / try to minimize effects on children** (Hamelin et al, 1999)




What we know: Child Health & Wellbeing

Illness upsets balance

- Child is sick, parent takes off from work
- Loses wages
- Behind on rent
- Borrow money
- Beholden to friends/family/ boyfriend/sugardaddy
- In debt
- Physical, mental, social pain

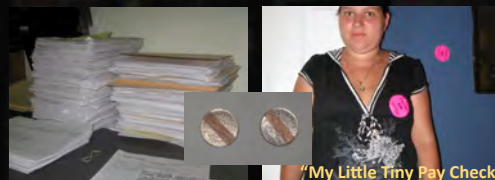
Emerging knowledge

- Inconsistent / non-traditional work
- Financial strategies
- Violence in family & community
- Toxic Stress: Experiences in early childhood affect ability as adults
- Children's experiences vs. adults (Fram et al 2011)

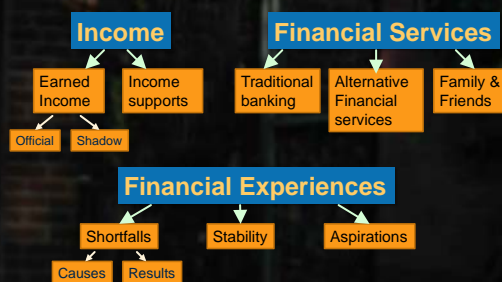
Income & Benefits

- Non-Standard Work = food insecurity
 - Unstable incomes
 - Non-standard work hours

• (Coleman Jensen, 2011)

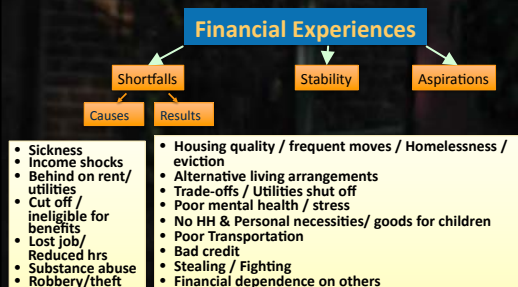


Financial Strategies



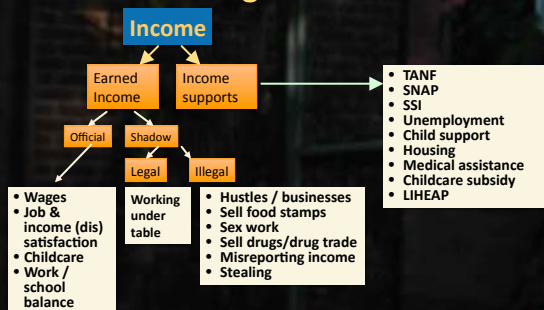
Witnesses to Hunger 2008- present (N=44)

Financial Strategies



Witnesses to Hunger 2008- present (N=44)

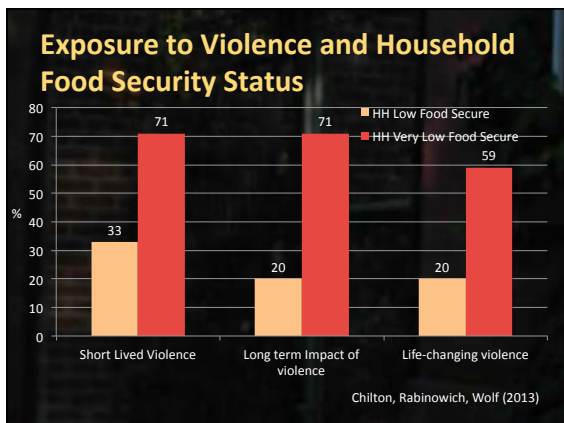
Financial Strategies



Witnesses to Hunger 2008- present (N=44)

Trauma & Violence

- Severe Child Hunger (CCHIP measure) associated with lifetime PTSD N=132 (Weinreb, et al, 2002)
- Persistent HH food insecurity associated with # of mental health problems and domestic violence N=728 (Melchior, et al 2009)
- HH Very low food security associated with exposure to severe violence N=44 (Chilton, M, et al 2013)

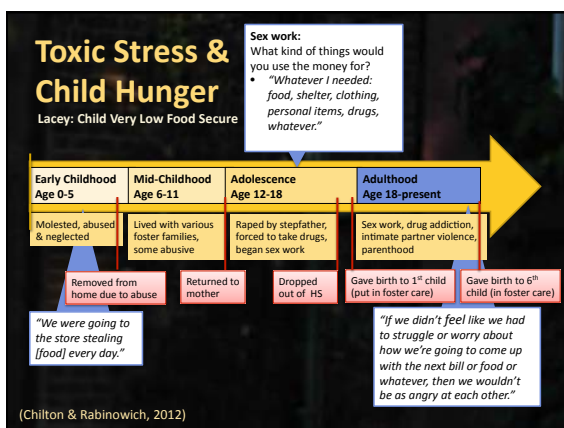


Toxic Stress

- When a child experiences strong, frequent, and/or prolonged adversity without adequate adult support
 - physical or emotional abuse
 - chronic neglect
 - caregiver substance abuse or mental illness
 - exposure to violence
 - accumulated burdens of family economic hardship

(Shonkoff, 2012)

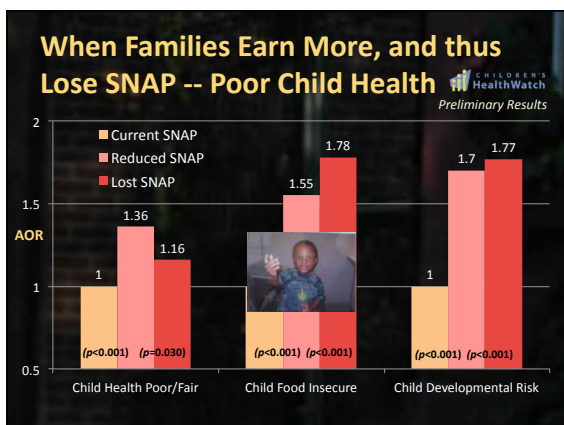
- Disruption in development of brain architecture & organ systems
- Increased risk for stress-related disease, cognitive impairment



What we don't know

- Intergenerational transfer of hunger
- Public Systems (Early Childhood Focused)
 - What is interaction w/ child welfare systems & other public assistance programs
 - Head Start? Child Care Subsidies? CACFP?
- Public Systems issues (Family Focused)
 - Churning / Administrative hurdles / Recertification
 - What happens in different states/regions?
 - Categorical eligibility make a difference?
- Employment / Education
 - How do state/city wages and labor laws affect rates of child hunger & food insecurity
 - Stability, wages, employment policies





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 2ⁿ**
- **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/FIL
ES/Participation/SNAPFoodSec.pdf](http://www.fns.usda.gov/ora/MENU/Published/SNAP/FIL
ES/Participation/SNAPFoodSec.pdf)

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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

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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:

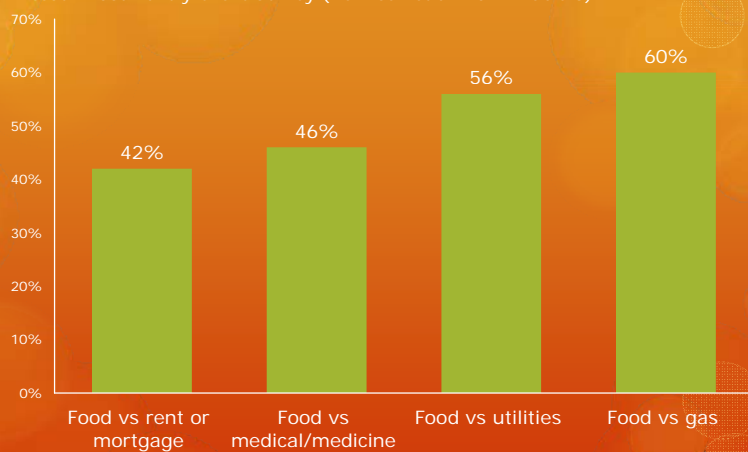
- Housing costs
- Utility costs
- Medical costs
- Transportation needs

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Food Trade-Offs

Missouri Food Pantry Client Survey (Hermesen et al. 2012: Table 3)



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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?

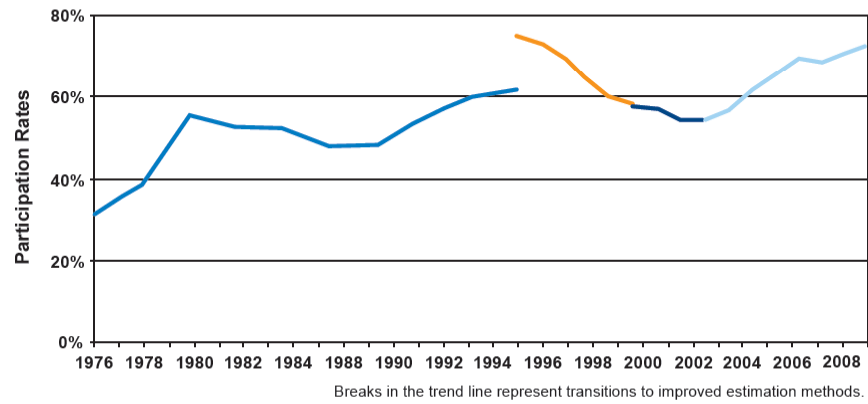
Eligible non-participation rate varies by food assistance program type

- | | | |
|------|-----|------------------------------|
| SNAP | 75% | (Cunningham et al. 2013) |
| WIC | 79% | (Tiehan and Jacknowitz 2010) |
| NSLP | 75% | (Dahl and Scholz 2011) |

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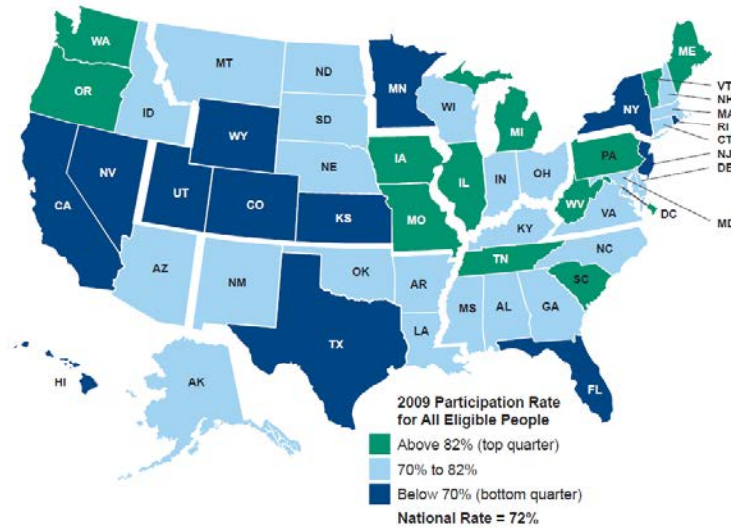


SNAP Participation Rates Among Eligible Individuals



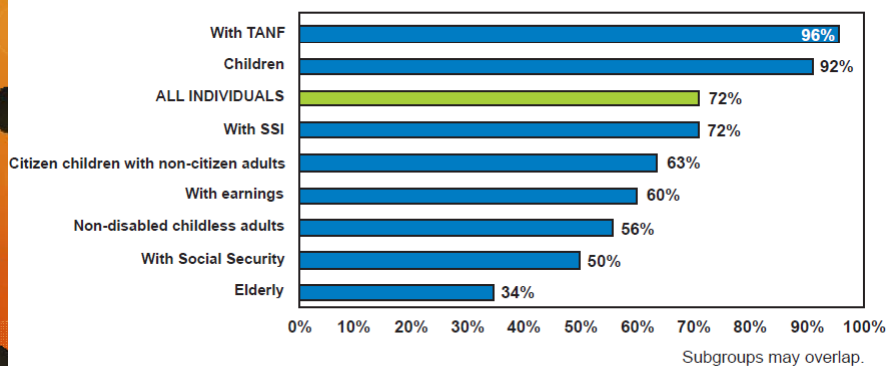
USDA, "Building a Healthy American" 2012

State SNAP Participation Rates: FY 2009



USDA, "Building a Healthy American" 2012

Individual Participation Rates by Subgroups: FY 2009



USDA, "Building a Healthy American" 2012

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


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.



Community responses to food insecurity and hunger

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**MICHIGAN STATE
UNIVERSITY**

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)



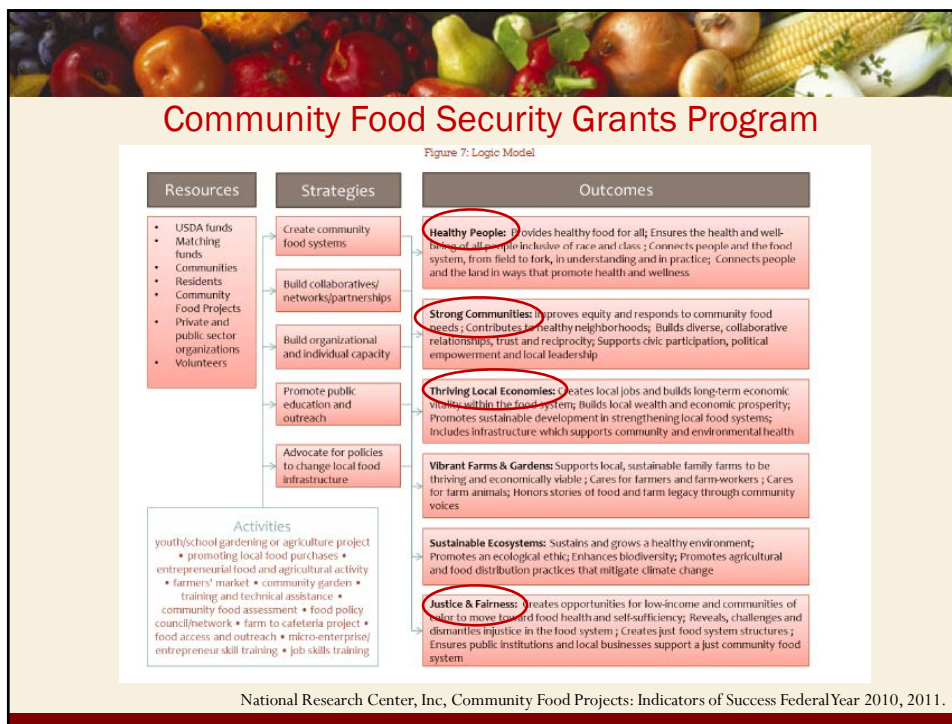
Community Food Security

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




USDA Community Food Security Grants Program, 2005-2010

\$25 million total, 2005-2010:


- 19 million pounds of food produced worth \$19.7 million
- 2.5 million people received food through a community food project
- Formation of 40 food policy councils
- Implementation of 183 policies, affecting 33 million Americans
- 2,300 jobs created
- 1,000 new businesses created, support to 2,600 existing businesses
- Preservation of 3,000 acres

Fisher, 2012, A Place at the Table, Ch14; National Research Center, Inc, Community Food Projects: Indicators of Success Federal Year 2010, 2011.



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%

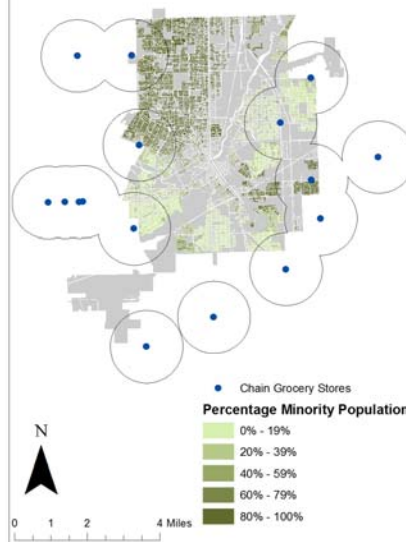
Unemployment: 20.3%

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.



Percent minority occupied housing units with 1 mile access radius around chain grocery stores in Flint, MI (2000)





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

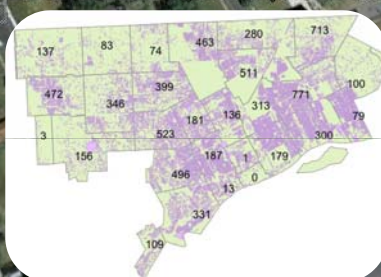


Cities have multiple ASSETS.

Urban Assets

People
Land
Knowledge
Community
Creativity

2811 Wabash St, Detroit, MI 48216



Detroit, MI: 30-50% VACANT



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





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

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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
 - understate 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)

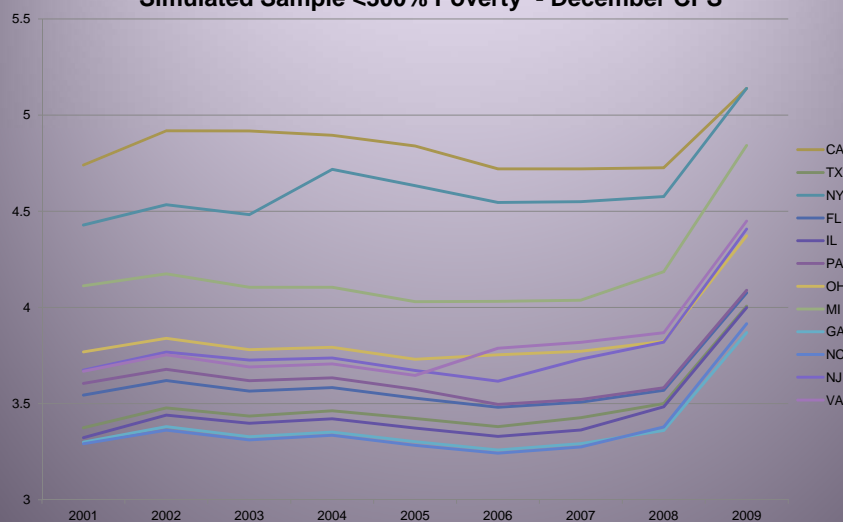
Measuring Outcomes

- 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

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



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	0.660** (0.028)	-0.012** (0.001)
Mean Simulated Fraction of Family Medicaid Eligible	-2.346** (0.381)	0.607** (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

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

OLS Regressions: LFS and Program Eligibility

	LFS	LFS
Combined Annual Imputed Cash and Food Benefit in \$000	0.007** (0.001)	
Annual Imputed TANF in \$000s		0.007** (0.001)
Annual Imputed SSI in \$000s		-0.003 (0.007)
Annual Imputed EITC in \$000s		0.015* (0.004)
Annual Imputed SNAP/Food Stamp in \$000s		0.010* (0.003)
Imputed Fraction of Family Medicaid Eligible	0.084* (0.014)	0.078* (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)	
Annual SSI Benefit		-0.086 (0.081)	
Annual EITC		-0.056** (0.021)	•Standard errors much larger
Annual SNAP/Food Stamp		-0.049 (0.045)	•Unable to detect differences across programs
Fraction of Family on Medicaid	-0.086 (0.346)	0.014 (0.070)	

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

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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- 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

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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
- Immigrant safety net difficult to model
 - 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?

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...

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