Informal assistance and the risk of household food insecurity in urban families

Christian King
University of Nebraska-Lincoln
Dept of Nutrition & Health Sciences

Food System Symposium June 2016
What is Food Insecurity?

- Not having access to enough food for an active and healthy life
- Experiencing disruption in food intake because of lack of money or resources for food
- ~48 million (15.4%) food insecure Americans in 2014
- ~15 million (20.9%) food insecure children in the US in 2014
What is Food Insecurity?

- Groups at higher risk of food insecurity:
  - Low-income (<185% of federal poverty guidelines)
  - Single-parent household (especially, female-headed)
  - Lower education
  - Households with children
  - African-American, Hispanic headed households
Consequences of food insecurity

- Lower health outcomes for both adults and children (physical and mental)
- Higher probability of:
  - Pregnancy complications
  - Chronic diseases (e.g. diabetes)
  - Hospitalization
  - Poorer general health
  - Depression and lower mental health
  - Cognitive problems
  - Higher levels of aggression and anxiety
  - Etc.
Trends in Food Insecurity in the US

Percentage of food insecure households 1995-2014

![Graph showing trends in food insecurity from 1995 to 2014. The graph compares the percentage of food insecure households and very low food secure households over the years.]
How to reduce food insecurity?

- Formal assistance (public assistance programs)
  - SNAP (formerly known as Food Stamps)
  - School Breakfast Program
  - National School Lunch Program

- Large literature showing that SNAP and other programs are effective in reducing food insecurity and poverty
How to reduce food insecurity?

- Informal responses to household food insecurity
- Informal assistance
  - Understudied in the literature
- Social networks
  - Individual
  - Community (neighborhood)
How to reduce food insecurity?

- Informal responses to household food insecurity
- Smaller body of literature showing that informal assistance could also be effective in reducing food insecurity

Some limitations with previous studies

- Geographically restricted or convenience sample (difficult to generalize)
- Did not distinguish between individual and community level support
- Previous studies did not examine transitions in and out of food insecurity
Research Question

- What is the relationship between informal assistance and food insecurity?
Data

- Fragile Families and Child Wellbeing Study (FFCWS)
  - Longitudinal study
    - Sampled parents with children born between 1998 and 2000 in 20 large U.S. cities with population greater than 200,000
    - Study focuses on and oversamples unmarried mothers who are at higher risk of living in poverty and separation
  - Parents interviewed at baseline, 1st, 3rd, 5th, and 9th year
    - Data collection for year 15 started in early 2014
Data

- Fragile Families and Child Wellbeing Study (FFCWS)
  - Representative sample of fragile families in these 20 large urban U.S. cities when weighted
Data: Cities

- Austin, TX
- Birmingham, AL
- Boston, MA
- Chicago, IL
- Corpus Christi, TX
- Detroit, MI
- Indianapolis, IN
- Jacksonville, FL
- Nashville, TN
- Newark, NJ
- New York, NY
- Norfolk, VA
- Oakland, CA
- Philadelphia, PA
- Pittsburgh, PA
- Richmond, VA
- Santa Ana, CA
- San Antonio, TX
- San Jose, CA
- Toledo, OH
Sample

- 3rd and 5th year core and in-home surveys
- Have food insecurity and informal assistance measures
  - Sample size = 2,481 households with children
Data: Dependent Variables

- Household food insecurity (0-1)
  - 18 questions from USDA Food Security Module
  - 3+ affirmative responses = food insecure
- Food insecure (year 3)
- Became food insecure (at year 5)
- Became food secure
How is food insecurity measured?

- USDA Food Security Survey Module (18 questions)
- Q1. I worried whether our food would run out before we got money to buy more (often, sometimes true, or never true in the last 12 months)
- Q2. The food that we bought just didn’t last, and we didn’t have money to get more
- Q3. We couldn’t afford to eat balanced meals
- Q12. We couldn’t feed the children a balanced meal because we couldn’t afford that
- Q18. Did any of the children ever not eat for a whole day because there wasn’t enough money for food?
Key independent variables

- **Individual level**
  - Social participation
  - Social support

- **Community level**
  - Neighborhood social cohesion
  - Neighborhood social control
Data: Control Variables

- Demographic (race, marital status, new partner, number of children, etc)
- Socioeconomic status (income/poverty ratio, education, employment status, etc)
- Maternal depression
- Domestic violence
- Past drug or alcohol abuse
- Parenting stress
- Food stamps receipt
- Lives in public housing
Methods

- Logistic regressions
- Linear probability models
<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school</td>
<td>31%</td>
</tr>
<tr>
<td>High school</td>
<td>30%</td>
</tr>
<tr>
<td>Some college</td>
<td>44%</td>
</tr>
<tr>
<td>College graduate</td>
<td>13%</td>
</tr>
<tr>
<td>African American</td>
<td>49%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>24%</td>
</tr>
<tr>
<td>Income to poverty ratio</td>
<td>2.1</td>
</tr>
<tr>
<td>Separated from child’s father</td>
<td>44%</td>
</tr>
</tbody>
</table>
Results

Social support

Social participation

Neighborhood social cohesion

Neighborhood social control

-0.06 -0.04 -0.02 0 0.02

Food insecure at year 3
Remained food insecure
Became food insecure
Summary

- Social support and neighborhood social cohesion are protective factors against household food insecurity
- Help transitioning out of food insecurity
- Reduce the risk of becoming food insecure
Implications

- Informal assistance could be as effective in reducing food insecurity as formal assistance
  - Also potentially less costly

- Potential spillover impacts
  - Promotes civic engagement and strengthens people social networks
  - Social support is associated with better health, lower rates of morbidity and mortality
Thank you
Key independent variables

- Individual level
  - Social participation
    Participated in various social activities (group church, labor union, community organization, etc)
  - Social support (could count on someone to:)
    1) Loan $200
    2) Loan $1,000
    3) Provide with a place to live
    4) Provide emergency child care
Key independent variables

- Community level
  - Neighborhood social cohesion
    1) People are willing to help their neighbors
    2) Neighborhood is close-knit
    3) People get along with each other
    4) People in neighborhood can be trusted
    5) People in neighborhood share same values
  - Neighborhood social control
Key independent variables

- Community level
  - Neighborhood social control

Neighbors intervene if:

1) children skipped school or hung out at a street corner
2) they see children spray painting graffiti on local building
3) if children were showing disrespect to an adult
4) if fight broke out in front of their house
5) a nearby fire station was threatened with budget cuts