

## Understanding the Dynamics of Material and Financial Hardship and the Receipt of Social Assistance

Melissa J. Wilmarth, University of Alabama<sup>1</sup>  
 Martin C. Seay, Kansas State University<sup>2</sup>  
 Robert B. Nielsen, University of Georgia<sup>3</sup>

The task of acquiring sufficient food and shelter represent necessary recurring expenses that consume large portions of a household's budget. Food and shelter accounted for approximately 13% and 34%, respectively, of American households' expenditures in 2013 (USDA, 2014). These costs can be difficult to manage particularly in the face of resource constraints. The Great Recession (2007-2009) increased awareness of the basic needs, as record numbers of households that experienced hardships in one or both of these areas.

Food and housing hardships are interrelated because both are necessities that offer varying opportunities to reduce expenditures when households experience hardships, especially if the hardships are experienced simultaneously. Despite an extensive literature on the receipt of food and housing assistance separately, a relatively small literature documents the characteristics of households that experience housing cost burden and inadequate access to food. Further, there is little research on how these inter-related basic needs—and the assistance programs designed to ameliorate these hardships—might have changed before and after the Great Recession. The following research questions were investigated:

1. Does the receipt of food assistance systematically co-vary over time with the receipt of housing assistance? If so,
  - a. Are there reciprocal effects between food assistance and housing assistance?  
**Hypothesis:** The receipt of food assistance in one period is negatively related to the receipt of housing assistance in a later period.  
**Hypothesis:** The receipt of housing assistance in one period is negatively related to the receipt of food assistance in a later period.
  - b. Does the receipt of food assistance and/or housing assistance in one period reduce the incidence of housing cost burden in later periods?  
**Hypothesis:** The receipt of food and/or housing assistance in one period reduces housing cost burden in later periods.

Food and housing hardships are targeted independently through assistance programs operated by separate agencies (USDA, HUD, and HHS). An emerging literature suggests that the various public assistance programs may complement one another depending on the intensity and duration of the hardship(s). For example, housing subsidies may help alleviate food hardships among renters who shift their newly-available resources toward food related needs (Kirkpatrick & Tarasuk, 2003; 2007). Households experiencing severe housing cost burden spend a third less on food than households that are not housing cost burdened (JCHS, 2013). The possibility that cross-program benefits may exist is the foundation for this research.

This research was investigated using the 2004 and 2008 panels of the Survey of Income and Program Participation (SIPP), a nationally-representative survey of the non-institutionalized, civilian population conducted by the U.S. Census Bureau. These panels combine to provide data corresponding to calendar years 2004-2012. The 2004 panel sample includes 10,401 households that, when weighted, represent 104 million U.S. households. The 2008 panel sample includes 17,800 households that represented 111.2 million U.S. households when weighted.

<sup>1</sup> Assistant Professor, Department of Consumer Sciences, University of Alabama, Tuscaloosa, AL. Phone: (205) 348-7954, Email: mwilmarth@ches.ua.edu.

<sup>2</sup> Assistant Professor, School of Family Studies and Human Services, Kansas State University, Manhattan, KS. Phone: (785) 532-1486. Email: mseay@k-state.edu.

<sup>3</sup> Associate Professor, Department of Financial Planning, Housing and Consumer Economics, University of Georgia, Athens, GA. Phone: (706) 549-8885, Email: rnielsen@uga.edu.

First single-assistance twelve-wave lagged fixed effects models were estimated, examining if earlier receipt of one type of assistance predicted later receipt of that assistance. Then, twelve-wave lagged reciprocal models were estimated, where

$$\text{FOODASSIST}_{\text{later wave}} = f(\mathbf{X}, \text{FOODASSIST}_{\text{earlier wave(s)}}, \text{HOUSASSIST}_{\text{earlier wave(s)}})$$

and

$$\text{HOUSASSIST}_{\text{later wave}} = f(\mathbf{X}, \text{HOUSASSIST}_{\text{earlier wave(s)}}, \text{FOODASSIST}_{\text{earlier wave(s)}}).$$

The models included variables for food and housing assistance receipt lagged for four-, eight-, and twelve-months, along with control variables including household composition, socio-demographic characteristics, and key independent variables related to hardship and disability.

Second, a lagged logistic regression model was used to investigate whether the receipt of food or housing assistance in one period reduced the incidence of housing cost burden later. This was estimated such that

$$\text{Housing Burden}_{\text{later wave}} = f(\mathbf{X}, \text{FOODASSIST}_{\text{earlier wave(s)}}, \text{HOUSASSIST}_{\text{earlier wave(s)}})$$

All models were weighted and adjusted for complex sample design and incorporated time and state fixed effects.

Results of the first analysis indicate that prior receipt of assistance is the best predictor of later receipt of that same type of assistance. This occurred when predicting housing and food assistance receipt pre- and post-recession. The largest beta was found for the four-month lag of receipt of assistance, with coefficients for the eight-month and year lags being drastically smaller. There was no evidence that receipt of one type of assistance reduced future need of another type of assistance. Instead of negative coefficients, lagged receipt of housing assistance was associated with later receipt of food assistance and lagged receipt of food assistance was also associated with later receipt of housing assistance.

In predicting housing cost burden status, the results for the 2004 and 2008 Panels were as expected for receipt of housing assistance. Prior receipt of housing assistance reduced the likelihood of being housing cost burdened. In the 2004 panel, there was no evidence that food assistance reduced financial strain to a point where households saw lower housing cost burden. In the 2008 panel, measures of four-month and eight-month lagged receipt of food assistance were associated with an increased likelihood of being housing cost burdened in the current period.

Our results indicate that there is a relationship between housing and food assistance, but the exact dynamics are complex. First, the best predictor of receipt of assistance is earlier receipt of that assistance. Second, types of assistance seem to be complements rather than substitutes. Third, food and housing assistance programs act as targeted relief rather than general transfers. Overall, there was little to no evidence of cross-programmatic synergies. This may indicate the need for more comprehensive benefit programs that address overall household hardship, as opposed to programs targeting specific, individual burdens. In terms of policy, the receipt of housing assistance did not reduce the need for food assistance, but it did reduce housing cost burden. The receipt of food assistance did not reduce the need for housing assistance; instead food assistance may be an indicator of need for housing assistance as food benefits are smaller, more immediate, short-term solutions. Housing assistance appears to address longer-run assistance challenges for hardship.

## References

- Joint Center for Housing Studies. (2013). *State of the Nation's Housing: 2013*. Harvard University. Retrieved from: <http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/son2013.pdf>
- Kirkpatrick, S. & Tarasuk, V. (2003). The relationship between low income and household food expenditure patterns in Canada. *Public Health Nutrition*, 6(6), 589-597.
- Kirkpatrick, S. & Tarasuk, V. (2007). Adequacy of food spending is related to housing expenditures among lower-income Canadian households. *Public Health Nutrition*, 10(12), 1464-1473.
- USDA. (2014). *Food accounts for 13 percent of American households' budgets*. Washington, DC. Available: <http://ers.usda.gov/data-products/chart-gallery/detail.aspx?chartId=50245>