**Explaining the Food Stamp Cash-Out Puzzle.** By Robert Breunig, Indraneel Dasgupta, Craig Gundersen, and Prasanta Pattanaik. Food and Rural Economics Division, Economic Research Service, U.S. Department of Agriculture. Food Assistance and Nutrition Research Report No. 12.

## **Abstract**

Empirical studies have shown that food stamp participants spend a higher proportion of their benefit on food than they would with an equivalent amount of cash. Our study demonstrates that this result can be explained by the decisionmaking behavior of multi-adult households. Multi-adult households spend a higher proportion of their food stamp benefit than they would with an equivalent amount of cash. In contrast, single-adult households show little difference in food spending between food stamps and an equivalent amount of cash. Because over 30 percent of food stamp participants are in multi-adult households, switching from food stamps to cash may reduce food purchases of these needy households. If that is indeed the case, the use of food stamps and other in-kind benefits may be more desirable than other forms of assistance.

**Keywords**: Food Stamp Program, cash transfers, cash-out puzzle, welfare stigma, Cournot model, intra-household distribution, Engel curves

## **Acknowledgments**

Financial support from the Economic Research Service of the U.S. Department of Agriculture (Cooperative Agreement Number 43-3AEM-6-890066) for Robert Breunig and Indraneel Dasgupta is gratefully acknowledged. This financial support is administered by the University of California, Riverside. We thank Thomas Fraker of Mathematica Policy Research, Inc. for generously providing us the data set on which this report is based. Deborah Cobb-Clark, Richard Disney, Trevor Breusch, Bill Levedahl, Jim Ohls, Parke Wilde, Leslie Whitener, and seminar participants at the Australian National University, University of Queensland, University of Sydney, University of Birmingham, University of California—Riverside, and the Econometric Society Australasian Meetings of 1999 provided helpful comments. Address for correspondence: Robert Breunig, Department of Statistics and Econometrics, Faculty of Economics and Commerce, Australian National University; Canberra ACT 0200, Australia; phone: 61(02)6249-4991, fax: 61(02)6249-0087, e-mail: Robert.Breunig@anu.edu.au

## **Contents**

| Summary                              | .iii |
|--------------------------------------|------|
| Introduction                         | 1    |
| Theoretical Framework                | 3    |
| The Model                            | 3    |
| The Data                             | 9    |
| Results                              |      |
| Stigma Reconsidered                  | .14  |
| Intra-Household Resource Allocations | .14  |
| Conclusion                           | .16  |
| References                           | .17  |
| Appendix                             | .19  |

## Summary

Empirical studies have shown that food stamp participants spend a higher proportion of their benefit on food than they would with an equivalent amount of cash. Our study demonstrates that this result can be explained by the decisionmaking behavior of multi-adult households. Multi-adult households spend a higher proportion of their food stamp benefit than they would with an equivalent amount of cash. In contrast, single-adult households show little difference in food spending between food stamps and an equivalent amount of cash. Because over 30 percent of food stamp participants are in multi-adult households, switching from food stamps to cash may reduce food purchases of these needy households. If that is indeed the case, the use of food stamps and other in-kind benefits may be more desirable than other forms of assistance.

Economists have theorized, since the 1940's, that households would spend the same amount of additional resources on food whether these resources came from food stamps or cash. The one exception, according to theory, would be constrained households, i.e. those that receive in food stamps an amount greater than their desired food expenditures. Consequently, one would see a large overall food consumption effect from food stamps only if a large proportion of households are constrained. However, empirically, one observes that only a small proportion of households are constrained. Despite this small proportion, empirical studies unanimously agree on the greater propensity to buy food out of food stamps rather than cash. Economists refer to this phenomenon as the "cash-out puzzle."

To explain this puzzle, we focused on the decisionmaking process within multi-adult households. While most studies treated all food stamp households alike, we argue that the cash-out propensity arises because food stamps and cash have different effects on the distribution of resources within multi-adult households. We based our analysis on a standard utility maximization approach with complete information, in which no stigma is assumed to be attached to the use of food stamps instead of cash. The theoretical explanation is developed through a non-cooperative gametheoretic model of the intra-household resource allocation mechanism.

We found empirical confirmation of our argument in data from cash-out experiments conducted in San Diego County, California. Those data show no evidence of a cash-out puzzle for single-adult households; the difference in expenditure patterns is seen only in the multi-adult households.