

## Conclusion

As previous analysts have demonstrated, there appears to be a large discrepancy between the marginal propensity to purchase food out of cash income and that out of food stamps. In this report, we have advanced the hypothesis that the cash-out puzzle can be explained in terms of the differential effect of food stamp and cash income on intra-household distribution of resources within multi-adult households. We have developed this hypothesis formally through a Cournot model of the intra-household resource allocation mechanism in which total household food availability has the formal characteristic of a domestic public good. In this model, even if the household is unconstrained in its food expenditure, a replacement of food stamps by an equivalent increase in the cash income of the household may reduce total household expenditure on food. This occurs because when an individual member is constrained, increase in household cash income provides more cash to the constrained member. The model predicts that only multi-adult unconstrained households may exhibit larger marginal propensity to consume food out of coupons as compared with cash.

Our empirical results, using data from cash-out experiments conducted in San Diego County, are consistent with the theoretical predictions of our model. There seems to be no evidence of a cash-out puzzle for single-adult headed households, and the difference in expenditure patterns is completely explained by the multi-adult households. Our empirical results thus cast doubt on the appropriateness of the marginal stigma hypothesis as an explanation for the cash-out puzzle. An important extension of this research is to verify that this difference in marginal propensities between single- and multi-adult households is observed in other data sets. It would be of particular interest to examine this issue using data from after the passage of the 1996 Personal Responsibility and Work Opportunity Reconciliation Act.

The basic issue we raised in this report is whether the cash-out puzzle is largely a phenomenon confined to households with multiple decisionmakers. We provided some grounds, theoretical as well as empirical, as to why this may indeed be the case. We agree with others about the need for more systematic empirical exploration of this question.<sup>26</sup> The initial results indicate that exploring the relationship between the composition of household income and intra-household distribution of access to resources may explain the cash-out puzzle. This explanation has implications for policymakers. If the cash-out puzzle is primarily manifest in multi-adult households, any switch to cash away from food stamps (or in-kind programs more generally) may result in reduced food intakes by a readily identifiable group of households. This provides a justification for the use of in-kind benefits. If intra-household dynamics lead to children's receiving more food when the benefit is in the form of food stamps than in the form of cash, this provides a compelling reason for the use of in-kind benefits.

In this report, we have considered only the effect of stigma on total food expenditure. There may be other marginal stigma effects that do not cause changes in food expenditure. Wilde and Ranney (2000) and Beecroft et al. (1994) suggest that benefit recipients make more trips to the store when they receive checks or electronic debit cards instead of food stamps. This may, perhaps, be interpreted as evidence of stigma. Alternately, it may be that people do not like to hold food coupons, a highly liquid asset, because of the risk of theft, or more frequent trips to the store may mean that recipients are buying more perishable food such as fruits and vegetables that may provide better nutritive value. One interesting extension of this report would be to consider differences in nutrition elasticities for cash and benefit income.

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<sup>26</sup>Wilde and Ranney (1996) also urge further exploration of this issue. Montalto (1992) considers the issue in a cooperative bargaining framework.