



# Food Insufficiency, Food Stamp Participation, and Mental Health<sup>1</sup>

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This study examines the ways in which enrollment in the food stamp program affects the mental health status of enrollees. The results find that the negative mental health effects associated with food insufficiency are higher among food stamp participants than non-participants. It is estimated that 35.1 million people lived in food-insecure households (Nord, Andrews, and Carlson, 2006) in 2005. This means that at some point in the previous year, due to scarce household resources, these families were unable to acquire enough food or were uncertain of having enough food to meet their basic needs. Food insufficiency is defined as not having enough to eat periodically over the previous 12 months and is a more severe level of food insecurity. This study examines food insufficiency, rather than food insecurity, due to its relation to food expenditures, and nutritional intake (Basiotis, 1992; Cristofar and Basiotis, 1992).

There is reason to expect that food insufficiency itself has serious effects on mental health. One theory suggests that food insufficiency could have a negative impact on mental health through the direct effect of nutritional shortfalls (Bhattacharya, Currie, and Haidler, 2004; Lynch et al., 2000). Early stages of nutritional deficiency have been shown to have adverse effects on behavior and mental performance. A second theory suggests the awareness of being disadvantaged compared to one's peers creates feelings of shame and distrust that have negative mental and physical consequences (Lynch, et al., 2000). Additionally, the association between a persistently stressful life and the onset of mental illness is well documented. However, prior work has not explored how participation in the Food Stamp Program might impact the relationship between food insufficiency and emotional distress. That relationship

is examined in this report.

## Background on the Food Stamp Program

The Food Stamp Program is an integral component of the social safety net in the United States. The program works under the principle that everyone has a right to food for themselves and their families. Therefore, the program is available to all who meet income and asset tests. In fiscal year 2003, the Food Stamp Program had more than 21 million participants and appropriations over \$21 billion. Households have to meet three financial criteria to qualify for the Food Stamp Program:

- A gross income before taxes in the previous month must be at or below 130 percent of the poverty line; <sup>2</sup>
- A net monthly income at or below the poverty line; and
- A liquid-asset test (\$2,000 if the head of the household is under 60 years old) and a vehicle-value test (\$4,650 in 2001, though certain exemptions are allowed such as a car for work-related purposes).

Householders receive food stamps equal to the maximum food stamp benefit level minus 0.3 times their net income.

Ideally, food insufficient individuals who participate in the Food Stamp Program should be better off in terms of emotional distress than other non-participating individuals. The most obvious mechanisms are the direct benefits of the food itself, and, indirectly, the fact that those who participate have greater financial resources

at their disposal to meet non-food needs. In addition, individuals who take part in the program may also view the federal government's safety net as part of their social support system. This can lead to a feeling of being supported and connected to society, which improves their emotional well-being (Turner, Taylor, and Van Gundy, 2004). The ability of individuals to navigate the social welfare bureaucracy may foster feelings of self-efficacy as well (Rothbaum, Weisz, and Snyder, 1982; Gecas and Schwalbe, 1983; Rodin, 1986).

However, there are possible negative effects of food stamp participation such as social stigma, welfare culture, and the "hassles" of meeting eligibility requirements. For example, limited office hours, frequent recertification meetings, and transportation difficulties could increase levels of emotional distress. This could then lead program participants to be worse off than similar non-participating food-insufficient individuals in terms of emotional distress (Serido, Almeida, and Wethington, 2004). Proponents of the culture of poverty theory suggest that participation in federal entitlement programs erodes feelings of self-efficacy and results in dependency (Meade, 1986; Kane, 1987). Others suggest recipients face public criticism for participating and the stigma has shown to be detrimental to mental health (Williams et al., 1997). There may also be a dosage effect in regards to the participation in the Food Stamp Program. The emotional effects may be a function not just of the decision to participate, but also depend on the level of benefits received. The mental health effects of long-term participation could be different from those that result from transitioning into the program.

## Data and Methods

The study compares the mental well-being of food insufficient individuals who choose not to participate in the Food Stamp Program to those who do choose to participate in the program. It also seeks to determine if the mental health status varies with the value of the food stamp benefit received and the duration for which a participant is in the program. The study was conducted using data from the 2001 and 2003 Panel Study of Income Dynamics (PSID). The PSID is longitudinal study of a representative sample of U.S. men and women initially drawn in 1968. It follows descendants of the original 5,000 families over time, providing an excellent source of generational data for social science

research. The PSID emphasizes the dynamic aspects of economic and demographic behavior, but also includes sociological and psychological measures.

In addition to the sample of the population (N=4,438), the study also looked at subsets of the population who are at higher risk of for food-stamp use. Previous research suggests that families at greatest risk for food hardships and emotional distress are low-educated and female-headed households. Members of these groups are therefore more likely to participate in the food stamp program. Consequently, in addition to a sample of the population, the study also examines subsamples of low education (N=2,216) and female-headed households (N=983). A fourth subsample selected were those households that are income eligible for food stamps, which are those with before-tax income less than 130 percent of the family-size adjusted poverty threshold (N=570).

For the outcome of interest, mental health, the study used the measure of 30-day emotional distress from the National Health Interview Survey collected along with the PSID in 2001 and 2003. The scale provides a reliable measure of serious mental illness, defined as meeting the criteria for at least one of the mental health diagnoses other than substance abuse disorder. This measure records how often a participant experienced certain symptoms of psychological distress in the last 30 days, such as feelings of sadness, nervousness, restlessness, hopelessness, or worthlessness. The measure uses a scale of 0–24 (a score of 24 is the highest level of distress), with the average score being 3.2 for the general population. In contrast, 3.6 was the average for the low-education sample, 4.1 for female heads, and 4.8 for food-stamp-eligible heads.

The study examines how the mental health of food-insufficient individuals is affected by food stamp participation. Those who indicate they "sometimes" or "often" did not have enough to eat in the last 12 months are counted as being food insufficient. Food stamp participation was then defined as anyone who reported having received food stamps in the previous year. The study also takes into account the effect of other socioeconomic factors that may influence mental health such as gender, age, race, education level, marital status, number of children, and age of children. This allows the authors to be more confident that the effect seen on mental health

is due to food insufficiency and food stamp participation rather than other factors.

#### DEMOGRAPHICS OF FOOD STAMP PARTICIPATION

	Food Insufficiency	Food Stamp Participation Rate	Emotional Distress (scale 0-24)
General Population	1.9%	6.8%	3.2
Low Education	3.0%	11.2%	3.6
Female Headed Household	3.0%	19.8%	4.1
Food-Stamp-Eligible*	8%	37.2%	4.8

\* Both Food Stamp participants and non-participants that meet gross income eligibility requirements

Rates of food insufficiency are about 1.9 percent in the general population, 3 percent among low-educated and female-headed families, and 8 percent among food-stamp-eligible families. Food stamp participation rates are 6.8 percent overall, 11.2 percent among families whose head has a high school degree or less, and 19.8 percent among female headed households. Participation rates among food-stamp-eligible households are 37.2 percent, meaning that nearly two-thirds of the households that meet the gross income eligibility requirements for food stamps do not participate in the program.

This study builds upon previous research, which found that food insufficiency is associated with increased emotional distress. The authors present three key findings about the relationship between food insufficiency, food stamp participation and emotional distress. First, food insufficient respondents who do not receive benefits report lower levels of emotional distress than similar food insufficient respondents who do receive food stamps. Second, the authors examined the effect of the benefit amount on emotional distress. Among food stamp participants, individuals who receive higher amounts of food stamp benefits suffer greater emotional distress associated with food insufficiency than those who receive smaller benefits. Finally, the study examines the mental health effect of the transition into food stamp use, as compared to persistent participation in the program. For those individuals transitioning into the program when also reporting food insufficiency there is a significant increase in emotional distress. This suggests that stigma, “hassles”, and the welfare culture associated with program enrollment and participation may be detrimental to food insufficient families. The transition

into food insufficiency and then into the Food Stamp Program creates a large negative shock that a household does not easily overcome. However, the results show no evidence of an additional harmful effect on mental health of being in the program persistently (from at least 1999 through 2003) and being food insufficient.

#### Conclusion

The study finds that the effect of food insufficiency on emotional distress is greater among food stamp participants. There is also evidence of a dosage effect such that food-insufficient individuals who receive greater amounts of food stamp benefits suffered greater emotional distress than those who received lower amounts. However, the effects are driven primarily by periods of transition into the Food Stamp Program. For individuals transitioning into the program there is a significant relationship with emotional distress. Those who are persistently on the program show no evidence of an additional harmful effect on mental health. Further evaluation analysis is necessary to determine the mechanism that affects the emotional distress of new participants. For example, are certain eligibility and certification procedures associated with more emotional distress? Is the length of participation or size of benefit related to experiences of stigma or feelings of dependency?

This research has significant policy implications for the structure of the current social safety net. There are strategies the Food Stamp Program could adopt to lessen the emotional burden that seems to accompany participation in the program. One promising policy option is the use of a web-based application system. This would remove the need for face-to-face interviews and lengthy office visits during workday hours. By reducing the emotional toll of the program it may also allow participants the stability needed to seek and obtain employment. The value of the Food Stamp Program has been demonstrated in terms of supporting child and adult nutrition. However, other options for reducing the burden of the process need to be explored in order to address the negative unintended consequences on the mental health of participants.

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## NOTES

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<sup>2</sup>In 2001, the federal poverty level was \$1,219 per month for a family of three. Department of Health and Human Services. <http://aspe.hhs.gov/POVERTY/01poverty.htm>

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