

**THE SURVEY OF INCOME AND
PROGRAM PARTICIPATION**

**FOOD STAMP RECEIPT:
THOSE WHO LEFT VERSUS THOSE
WHO STAYED IN A TIME OF
WELFARE REFORM**

No. 236

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U.S. Department of Commerce CENSUS BUREAU

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**Presented at:
The Status of Women: Facing the Facts, Forging the Future,
Women's Policy Research Conference
Washington, DC
June 2000**

* This paper reports the results of research and analysis by Census Bureau staff. It has undergone a more limited review than official Census Bureau publications. This paper is released to inform interested parties of research and encourage the discussion.

FOOD STAMP RECEIPT:

Those Who Left Versus Those Who Stayed in a Time of Welfare Reform

Abstract

After reform of welfare in 1996 many people continued to need cash assistance, particularly Food Stamps (FS). This paper compares individuals who received FS over the period 1996 – 1999 with those who left the FS rolls. To investigate and understand the relationship concerning continued participation in the FS program data from waves one, four, seven, and ten of the 1996 Survey of Income and Program Participation (SIPP) are used to derive descriptive statistics and a logit regression model.

Introduction

The Food Stamp (FS) program is unique among income maintenance programs in that it offers assistance to nearly all financially needy households. Run by state welfare agencies and following regulations established by the U.S. Department of Agriculture, it issues food coupons or Electronic Benefit Transfers (EBT). Eligible households use these in combination with other income to purchase a more nutritious diet than would otherwise be possible. An uncertainty in the future of the FS program is whether the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 has changed who uses the program. Uncovering patterns of FS program participation after enactment of the PRWORA legislation will help evaluate who was affected by welfare reform.

Background on the Food Stamp Program

The FS program imposes four major tests for eligibility: income limits, liquid asset limitations, employment-related requirements, and limits on the eligibility of non-citizens. Households composed entirely of recipients of cash aid under state Temporary Assistance for Needy Families (TANF) programs, Supplemental Security Income (SSI), or General Assistance (GA) are, in most cases, automatically eligible for FS. Households not automatically eligible because of receiving TANF, SSI, or GA must have a gross monthly income below 130 percent of the poverty guidelines to qualify.

A certified FS eligible household is entitled to a monthly benefit based upon family size and income. The household is expected to contribute 30

percent of its monthly income after deductions to food purchases. FS benefits then make up the difference between the expected contribution and the amount needed to buy a low-cost, nutritionally adequate diet. The federal government pays 100 percent of the FS benefits and 50 percent of most state and local administrative costs.

PRWORA mandated two significant changes in regard to those individuals eligible to participate in the FS program. First, the legislation resulted in a one-time reduction in FS eligibility when most immigrants were removed from the rolls.¹ Second, for many areas of the country, childless individuals and families were time-limited in their participation in the FS program.² In addition to these changes, PRWORA is likely to affect participation in the FS program. The 1996 law replacing Aid to Families with Dependent Children (AFDC) with TANF block grants should result in lower spending on cash assistance which will result in both positive and negative spillover effects on other major public assistance programs (Chernick, 1998). It has been shown that the expenditure levels on AFDC depend on the expenditure levels for the other three major public assistance programs: Medicaid, FS and SSI. For example, a one dollar decrease in AFDC benefits increased FS benefits by 30 cents (Connolly, 1999).

The correlation between the FS program and AFDC suggests that those behavioral and program changes that drove AFDC and now drive TANF reciprocity also affect FS reciprocity (Robins, 1990; Wallace and Blank, 1999). For instance, if welfare-to-work programs move people into intermittent or very low wage jobs, are they likely to retain their FS eligibility? Similarly, the

implementation of time limits and restricted eligibility in several state TANF programs raise concerns about those eligible for FS and those who continue to receive TANF. This paper evaluates characteristics of an individual that affect the likelihood of being on the FS rolls immediately following the passage and implementation of the welfare reform legislation. Any attempt to estimate being on the FS rolls would involve a qualitative, logistic regression technique (Pudney 1989; Maddala 1983).

The following section provides an overview and related descriptive statistics from the data used to evaluate participation in the FS program: the 1996 Survey of Income and Program Participation (SIPP).

Overview of the SIPP

The U.S. Census Bureau sponsors and conducts the SIPP, which collects both cross-sectional and longitudinal data on income amount and sources, labor force information, program participation and eligibility data, and general demographic characteristics. This information helps to evaluate the effectiveness of existing federal, state, and local programs.

The survey design is a continuous series of national panels, with sample sizes ranging from approximately 14,000 to 36,700 interviewed households. A newly revised panel was introduced in April 1996. It includes a redesigned questionnaire and a new sample design. There are 36,700 households in the sample, which were interviewed 12 times from April 1996 through March 2000.

Linking Food Stamp Status and SIPP Waves

To track FS program participation over time a longitudinal data file from selected waves of 1996 SIPP was constructed. Specifically, waves one, four, seven, and ten are used to follow those who move and stay off the FS rolls, those who stay on the FS rolls, and those who move on and off the FS rolls. Waves one, four, seven, and ten are used because they create one-year intervals between interviews. All reported values are unweighted sample values across the relevant waves, since no longitudinal weighting factor is currently available.

Figure 1 tracks the behavior for the 9,302 individuals who reported FS receipt in wave one of the 1996 SIPP and their respective FS status in waves four, seven, and ten. The arrows indicate which category individuals moved to between waves: those off the FS rolls, on the FS rolls, and not in sample. For example, the arrow from wave one to wave four “Off the FS Rolls” shows that 2,507 individuals moved off the FS rolls. By wave seven, 66 percent (1,655) of those individuals continued to remain off the FS rolls. To account for all those off the FS rolls in wave seven, include the 24 percent (1,257) of those individuals who were on the FS rolls in wave four but off them in wave seven, which yields a total of 2,913 individuals who were off the FS rolls in wave seven.

Because Figure 1 is designed to trace movement between waves, the totals for those off the FS rolls and those on the FS rolls in wave ten are not cumulative numbers. Rather, they represent the total number of people in those

categories during wave ten. However, the totals for those no longer in the sample is a cumulative number across waves four, seven, and ten.

Descriptive Statistics of Food Stamp Recipients by Category

Table 1 reports selected demographic characteristics for those adults and children who reported receiving Food Stamps in wave one and continued to be in the 1996 SIPP panel over waves four, seven, and ten. These descriptive statistics are reported in one of three categories: those who move and stay off the FS rolls, those who stay on the FS rolls, and those who move on and off the FS rolls. In each of the three categories women are the majority reaching 73 percent of those who stayed on the FS rolls. Whites account for 59 percent or more of the individuals in each category and Blacks are over-represented, relative to their shares of the total population, in each category. Individuals are clustered in the 25 – 44 age range, with the 25 – 34 category having the greatest numbers of individuals.

A majority of people in each of the categories were either never married or married with spouse present. The never-married were 34.8 percent of all people on the rolls and outnumbered the married-spouse-present category (24.8 percent of stayers). Among those who moved on and off the rolls, the never-married were 40.4 percent of the total, compared to 31 percent who were married with spouse present. Among those who left the FS rolls, 40.9 percent were married with spouse present, compared to 37 percent who were never married.

Education also varied among stayers, leavers, and those moving on and off FS. The percentage with less than a high school education was highest among stayers (53.9 percent) and those who moved on and off the rolls (53.3 percent), lowest (42.3 percent) among those leaving the FS rolls.

Continuing with information presented in Table 1, White children were relatively more numerous (72.6 percent) among those who left the FS rolls, least numerous but still a majority (52.4 percent) of stayers, and were between these values (59.4 percent) of those who moved on and off the rolls. Black children are most numerous (40 percent) among stayers, less numerous (23.6 percent) among leavers, and intermediate (34 percent) among those who moved on and off the rolls.

Empirical Findings

To assess the likelihood of being on the FS rolls in 1999 (wave 10) given that an individual initially indicated that they were receiving FS in 1996 (wave 1) a logistic regression model was estimated. The independent variables include a measure of past FS experience and labor force behavior, and controls for socio-economic and demographic characteristics such as age, race, gender, and level of education. Table 2 provides the definitions and observed percentages for the variables used to estimate the likelihood of being on the FS rolls.³

Table 3 provides parameter estimates and test statistics from the logistic regression (SAS Institute Inc., 1995). The log-likelihood ratio test, the psuedo-R² value, and the Hosmer and Lemeshow goodness-of-fit test indicate that the

model specification is statistically appropriate and adequate (see bottom of table 3).

Current income was not included because of multicollinearity. These data are from individuals with limited means and FS is solely a function of disposable income. The variables FDSTMPS7 and TWOYRS, however, reflect past experience with the FS program and capture the effect of consumption behavior. Both variables are significant in predicting the likelihood that an individual will be on the FS rolls.

For the variable FDSTMPS7 there is a positive relationship between the likelihood that an individual would be on the FS rolls in the current period, given their participation a year earlier. In addition, the odds-ratio indicates that being on the FS rolls one year prior makes an individual nearly nine times more likely to be participating in the FS program.⁴ Similarly, for TWOYRS there is a positive affect on the likelihood of participating in the FS rolls. The odds-ratio associated with TWOYRS means that being on the FS rolls for two prior periods makes an individual 1.85 time more likely to be on the FS rolls in the current period.

For the socio-economic and demographic variables all parameter values have a positive affect on the likelihood that an individual will participate in the FS program. From the odds-ratios being a minority (NONWHITE) an individual is nearly 1.2 times more likely to be on the FS rolls and similarly not being a high school graduate (LTHS) makes an individual 1.2 times more likely to be on the FS rolls.

It is surprising that going from being married to not being married (NMSCHG) is not significant and that the parameter associated with gender (FEMALE) is just outside the range of statistical significance. Another interesting outcome from this list of variables is the sign of the parameter estimate and statistical significance for the variable DISABLE, which measures the impact of reporting a mental or physical condition that limits the type and amount of work that an individual can do. The estimated odds-ratio indicates that an individual reporting such a condition is nearly 1.5 time more likely to be on the FS rolls than someone without such a reportable condition.

Change in employment status affects receipt of FS but in somewhat surprising ways. A person moving from having a job to not having one (NJOBCH) was three times as likely to be receiving FS as someone who had a job at both the beginning and end of the period. However, a person who went from not having a job to having one (PJOBCH) also experienced elevated odds of receiving FS at the end of the period; this person was about 1.5 time as likely to be receiving FS as someone who had a job at both the beginning and end of the period. The latter finding may reflect job loss and interruptions of employment among long-term FS recipients.

Summary and Conclusions

The causes of poverty have been described as many, varied, and confounding (Children's Defense Fund, 1994). There are not quick or easy solutions to solving this problem and the socio-economic and demographic

factors associated with poverty are not easily altered (Levitan 1990). In order to lessen the burden of poverty numerous social welfare programs have been enacted. The FS program is such an initiative that provides cash transfers to purchase a more nutritious diet than would otherwise be possible.

The data and analysis provided here (see Tables 1 and 3) indicate that people who remain on the FS rolls are more likely to have a past experience with the program, be a minority, have less than a high school education, and have a disabling physical or mental condition. While not representative of the majority of FS participants, the data indicates this group will continue to utilize this program irrespective of welfare reform legislation.

By modeling the likelihood of being on the FS rolls, several interesting outcomes were uncovered. First, moving from no job to being employed was statistically significant and directly affects the likelihood that an individual would be on the rolls. Because of the high correlation between AFDC/TANF and FS participation this finding supports the argument that welfare-to-work programs move most people into intermittent or very low-wage jobs so they are likely to retain FS eligibility (Wallace and Blank 1999). Quite simply, individuals may be finding employment, but not making a living wage. Second, the findings indicate that individuals with a disability have a greater likelihood of being on the rolls, again suggesting they may be unable to find employment making a living wage.

The 1996 SIPP panel is one of a few national surveys to collect data on the same individuals over time with respect to their utilization of social welfare programs. This panel is large enough to allow for reliable estimates about the

nation's low-income and TANF populations. Although SIPP has limitations (U.S. Government Accounting Office, 2001), this paper should contribute to evaluating the affect and magnitude of changes in the nation's social safety net.

Footnotes

1. Welfare reform (PRWORA) made most legal immigrants ineligible for food stamps. Those who were participating at the time the law went into effect could participate until September 1997. New applicants became ineligible starting October 1996.
2. Welfare reform (PRWORA) restricted most childless unemployed adults to no more than three months of food stamps in a 36-month period, unless they were employed or participating in qualified work programs. Many parts of the country were exempt from the work requirement and time limit, due to waivers granted to areas with high unemployment rates or insufficient jobs.
3. The percentages and Standard errors reported in Table 3 are not based upon a longitudinal weight, but rather the person-level weight for Wave 10 of the 1996 SIPP panel. A longitudinal weight and other parameters needed to calculate the respective standard errors were unavailable.
4. The inference associated with the parameter values and odds- ratios assumes “all things being equal” the proposed effect would occur with respect to the outcome measure; the likelihood of being on the FS rolls in wave 10. Inference based upon the odds-ratios follows the discussion presented in Hosmer and Lemeshow (1989).

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Table 1: Characteristics of Those Who Stayed, Left, or Move On & Off the Food Stamp Rolls (FS) Over Wave 1, 4, 7, and 10 of the '96 SIPP

	Stayed on the Food Stamps Rolls	95% C.I.	Left the Food Stamp Rolls	95% C.I.	Moved On & Off the Rolls	95% C.I.
# Adults (15+ yrs)	4049.1		2736.8		4398.7	
Gender (%)						
<i>Females</i>	73.0	[70.7,75.3]	58.1	[55.0,61.2]	66.7	[64.4,69.0]
<i>Males</i>	27.0	[24.7,29.3]	41.9	[38.8,45.0]	33.3	[31.0,35.6]
Race (%)						
<i>White</i>	60.6	[58.1,63.1]	69.9	[66.7,72.5]	59.0	[56.6,61.4]
<i>Black</i>	33.1	[30.7,35.5]	24.7	[22.0,27.4]	33.2	[30.9,35.5]
<i>AI/AN</i>	2.2	[1.4,2.9]	1.8	[1.0,2.6]	2.8	[2.0,3.6]
<i>Asian/P.I.</i>	4.1	[3.1,5.1]	3.5	[2.3,4.6]	5.1	[4.0,6.2]
Age (%)						
<i>15-18 yrs. Old</i>	6.1	[4.9,7.3]	12.4	[10.3,14.5]	14.4	[12.7,16.1]
<i>19-24 yrs. Old</i>	11.2	[9.6,12.8]	16.5	[14.2,18.8]	14.7	[13.0,16.4]
<i>25-34 yrs. Old</i>	23.2	[21.0,25.4]	29.8	[26.9,32.7]	25.1	[23.0,27.2]
<i>35-44 yrs. Old</i>	20.1	[18.0,22.2]	20.9	[18.4,23.4]	20.9	[18.9,22.9]
<i>45-54 yrs. Old</i>	14.3	[12.5,16.1]	10.4	[8.5,12.3]	12.0	[10.4,13.6]
<i>55-64 yrs. Old</i>	9.3	[7.8,10.8]	5.8	[4.3,7.3]	6.2	[5.0,7.4]
<i>65-74 yrs. Old</i>	10.1	[8.6,11.6]	2.7	[1.7,3.7]	4.3	[3.3,5.3]
<i>75+ yrs. Old</i>	5.6	[4.4,6.9]	1.5	[0.7,2.3]	2.3	[1.6,3.0]
Marital Status (%)						
<i>Married, spouse Present</i>	24.8	[22.6,27.0]	40.9	[37.8,44.0]	31.0	[28.7,33.3]
<i>Married, spouse absent</i>	1.9	[1.2,2.6]	1.4	[0.7,2.1]	1.9	[1.2,2.6]
<i>Widowed</i>	12.0	[10.3,13.7]	4.3	[3.0,5.6]	5.3	[4.2,6.4]
<i>Divorced</i>	15.8	[13.9,17.7]	10.9	[8.9,12.8]	13.6	[11.9,15.3]
<i>Separated</i>	10.6	[9.0,12.2]	5.5	[4.1,6.9]	7.7	[6.4,9.0]
<i>Never Married</i>	34.8	[32.3,37.2]	37.0	[34.0,40.0]	40.4	[38.0,42.8]
Reported Disability (%)						
<i>Yes</i>	38.3	[35.8,40.8]	20.8	[18.3,23.3]	29.6	[27.3,31.8]
<i>No</i>	51.4	[48.8,54.0]	76.7	[74.0,79.3]	66.0	[63.7,68.3]
<i>Not in Universe</i>	10.3	[8.7,11.9]	2.5	[1.5,3.5]	4.4	[3.4,5.4]
Education (%)						
<i>8 yrs. or less</i>	27.2	[24.9,29.5]	13.2	[11.1,15.3]	22.1	[20.0,24.1]
<i>Some High School</i>	26.7	[24.4,29.0]	29.1	[26.3,31.9]	31.2	[28.9,33.5]
<i>High School Graduate</i>	31.7	[29.3,34.1]	34.3	[31.3,37.3]	28.7	[26.5,30.9]
<i>AA Degree</i>	3.6	[2.6,4.6]	6.9	[5.3,8.5]	4.8	[3.7,5.8]
<i>Some College</i>	8.8	[7.3,10.3]	12.5	[10.4,14.6]	11.7	[10.1,13.3]
<i>College Graduate</i>	1.7	[1.0,2.4]	3.7	[2.5,4.9]	1.4	[0.8,2.0]
<i>Post Graduate</i>	0.4	[0.07,0.7]	0.3	[[-0.04,0.6]	0.2	[[-0.02,0.4]

Note:

Estimate numbers are reported in thousands (000) and based upon the person-level weight reported in Wave 10 of the '96 SIPP.

Table 1 -- Continued

	Stayed on the Food Stamps Rolls	95% C.I.	Left the Food Stamp Rolls	95% C.I.	Moved On & Off the Rolls	95% C.I.
# Children, < 15 yrs.	3217.0		1761.3		3338.2	
Gender (%)						
Female	49.7	[46.8,52.6]	52.0	[48.1,55.9]	47.0	[44.2,49.8]
Males	50.3	[47.4,53.2]	48.0	[44.1,51.9]	53.0	[50.2,55.8]
Race (%)						
White	52.4	[49.5,55.3]	72.6	[69.1,76.1]	59.4	[56.6,62.2]
Black	40.0	[37.2,42.8]	23.6	[20.3,26.9]	34.0	[31.3,36.7]
AI/AN	2.8	[1.8,3.7]	1.5	[0.6,2.4]	2.5	[1.6,3.4]
Asian/PI	4.8	[3.6,6.0]	2.2	[1.1,3.3]	4.1	[3.0,5.2]
Age (%)						
4 yrs. Old & under	37.9	[35.1,40.7]	38.9	[35.1,42.7]	35.8	[33.1,38.5]
5-10 yrs. Old	40.9	[38.1,43.7]	40.1	[36.3,43.9]	41.4	[38.6,44.2]
11-14 yrs. Old	21.2	[18.8,23.6]	21.0	[17.8,24.2]	22.8	[20.4,25.2]

Note:

Estimate numbers are reported in thousands (000) and based upon the person-level weight reported in Wave 10 of the '96 SIPP.

Table 2: Variable Acronyms, Definitions and Percentages/Mean

Acronym	Definition	Percentage/Mean
<i>Dependent variable</i>		
FOODSTMP	1= on food stamp rolls in Wave 10 of '96 SIPP Panel 0 = not on food stamp rolls	46.4%
<i>Independent variables</i>		
TWOYRS	1 = on the food stamp rolls in both Waves 4 & 7 of '96 SIPP Panel 0 = otherwise	49.5%
FDSTMP57	1= on the food stamp rolls in Wave 7 of '96 SIPP Panel 0 = otherwise	55.0%
FEMALE	1= female 0 = otherwise	69.6%
PJOBCH	1 = went from not having a job to having a job 0 = otherwise	7.2%
NJOBCH	1 = went from having a job to not having a job 0 = otherwise	4.7%
NMSCHG	1 = went from being married to not married 0 = otherwise	1.0%
LTHS	1 = less than a high school education 0 = otherwise	50.8%
NONWHITE	1 = a minority 0 = otherwise	36.7%
DISABLE	1 = reported a disability that limited work activity 0 = otherwise	31.7%
AGE	Age of individual	39.3 yrs.

Note: Sample size (N) = 3,196 and consists individuals age 15+.

Table 3: Logistic Regression Results for Being On the Food Stamp Rolls in Wave 10 of the '96 SIPP Panel

Acronym	Parameter Estimate	Wald χ^2	P-value	Odds Ratio
Intercept	-2.88	329.88	0.0001	--
<i>Past food stamp participation</i>				
FDSTMPS7	2.18	153.12	0.0001	8.86
TWOYRS	0.62	13.27	0.0003	1.85
<i>Demographic characteristics</i>				
AGE	0.02	31.87	0.0001	1.02
NONWHITE	0.16	2.99	0.08	1.18
FEMALE	0.16	2.51	0.11	1.17
LTHS	0.20	4.71	0.02	1.22
DISABLE	0.39	15.39	0.0001	1.48
NMSCHG	0.37	0.43	0.51	1.44
<i>Labor force behavior</i>				
PJOBCH	0.42	5.44	0.0001	1.52
NJOBCH	1.10	18.39	0.0001	3.01

Note:

Model statistics

Log likelihood ratio: 1400.5 with 10 d.f. (p=0.0001)

Pseudo-R² value: 0.47

Hosmer & Lemeshow goodness-of-fit statistic: 11.56 at 8 d.f. (p=0.172)

Number of observation: 3,196 individuals age 15+

Dependent variable: FOODSTMP=1, if the individual is on the food stamp roll in wave 10; 0 = otherwise.

Figure 1: Tracking Individual Movements On and Off the Federal Food Stamp Rolls -- 1996 to 1999

