

National Poverty Center

Gerald R. Ford School of Public Policy, University of Michigan www.npc.umich.edu



The Dynamics of Food Stamp Receipt after Welfare Reform among Current and Former Welfare Recipients

Brian Cadena, University of Michigan
Sheldon Danziger, University of Michigan
Kristin Seefeldt, University of Michigan

This paper was delivered at a National Poverty Center conference. Any opinions, findings, conclusions, or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the view of the National Poverty Center or any sponsoring agency.

**The Dynamics of Food Stamp Receipt after Welfare Reform among
Current and Former Welfare Recipients**

Brian Cadena
Sheldon Danziger
Kristin Seefeldt

Gerald R. Ford School of Public Policy and
National Poverty Center
University of Michigan

November 2, 2006

Paper prepared for the conference, Income Volatility and Implications for Food Assistance Programs II; Jointly sponsored by the National Poverty Center, Gerald R. Ford School of Public Policy, University of Michigan and the Economic Research Service, U.S. Department of Agriculture; November 16-17, 2006, Washington, DC. Any opinions expressed are solely those of the authors.

The Dynamics of Food Stamp Receipt after Welfare Reform among Current and Former Welfare Recipients

Since passage of the 1996 welfare reform, numerous studies have examined the correlates of leaving, returning to, and remaining on cash assistance. However, few studies have analyzed the dynamics of Food Stamp usage. Income limits for the Food Stamp program are set higher than for the Temporary Assistance for Needy Families (TANF) program, with the assumption that low-income working families who are not eligible for TANF should continue to receive help with food purchases. Declines in the Food Stamp caseload in the immediate aftermath of welfare reform, though, were steeper than expected, with many observers expressing concern that eligible families were not receiving assistance (Food Research Action Center, 2000). After 1996, declines in Food Stamps were smaller than declines in TANF; since the economic downturn in 2001, the Food Stamp rolls have increased substantially, whereas TANF caseloads have hardly changed.

In this paper, we use panel data from the Women's Employment Study (WES), supplemented with monthly TANF and Food Stamp administrative data, to examine several questions related to Food Stamp use among current and former welfare recipients, nearly all of whom received Food Stamps when the study began in February 1997. The questions we examine are:

- What characteristics are associated with a higher probability of leaving Food Stamps versus remaining on the rolls?
- What are the characteristics associated with a higher probability of returning to Food Stamps after a post-welfare reform exit?
- What impact, if any, did two policy experiments-- the switch to an Electronic Benefit Transfer (EBT) system and changes in eligibility rules as they relate to assets-- have on Food Stamp receipt among these women?

The paper is organized as follows. First, we provide an overview of welfare policy changes in Michigan, particularly as they relate to the Food Stamp program. Next, we describe our panel data, our analytic strategy, and the measures we use. Then we present empirical results and conclude with a discussion of policy implications.

The Policy Context in Michigan¹

Although the Food Stamp and TANF programs have different eligibility limits, treatment of earnings, definition of the family unit, etc., the rules in one may affect use of the other. In this section we describe TANF policies in effect in Michigan since the mid-1990s and how they might have affected Food Stamp program participation, particularly for former welfare recipients.

Michigan began adopting a work first approach to welfare in 1994, requiring some recipients to participate in activities designed to move them into employment quickly (Seefeldt, Danziger, and Danziger, 2003). Once the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) passed, all but a small number of recipients (e.g., those with disabilities or caring for children or other family members with disabilities) were required to participate in job search activities immediately after applying for cash assistance. Failure to comply with these or other requirements could result in loss of benefits, either immediately (for new applicants) or gradually for those who were already recipients.

Unlike all other states except Florida, Michigan included Food Stamps benefits in its sanction policy. Families not complying with TANF program rules could face reduction or loss of both TANF cash benefits and their Food Stamp allotment (Zedlewski, Holcomb, and Duke, 1998). As of April, 1997, recipients on TANF for less than 60 days who did not comply with

¹ Michigan is in the midst of adopting a new set of welfare policies. The policy context we describe, though, was the one in effect during the time our panel data were collected.

work program rules could be terminated immediately from both the TANF and Food Stamp rolls. Recipients who had received TANF for at least 60 days prior to an incidence of non-compliance faced a 25-percent reduction in both TANF and Food Stamp benefits, with case closure occurring after four months of noncompliance.² Legislation modifying this sanction policy went into effect in mid-2002. Clients then had 10 days to show good cause for non-compliance. If the client was still determined non-compliant, the entire case closed for at least one month.

Recipients who followed the new rules and obtained employment could combine work, cash welfare and food stamps, or work and food stamps depending on how many hours they worked and their hourly wage rate. Like most states, Michigan adopted an earned income disregard policy which allowed recipients to keep part of their earnings before the cash grant was reduced, the notion being that this would encourage work. Michigan's earned income disregard policy allowed TANF recipients to keep the first \$200 of earnings and 20 percent of the remainder. In 1997 a single mother with two children working at \$6.00 per hour for 20 hours per week could supplement her earnings with about \$200 a month in TANF and about \$310 in food stamps. If she worked 35 hours a week, she would lose all TANF benefits, but she would receive about \$300 in food stamps.³

PRWORA implemented a lifetime limit on welfare receipt: adults could receive TANF for no more than 60 months cumulatively in their lifetime, or fewer months at state option. While Michigan must abide by the prohibition against using federal TANF funds for families exceeding this 60-month limit, it is one of two states that did not time-limit cash assistance.

² In the data we use, to be described shortly, any woman receiving aid by April, 1997 had been receiving aid for at least 60 days.

³ Amounts were computed using the "Marriage Calculator" available from the Administration for Children and Families of the U.S. Department of Health and Human Services. We assume that the woman has no assets, no vehicle, receives no child support, and has been on TANF for at least six months. The calculator is available at: <http://marriagecalculator.acf.hhs.gov/marriage/calculator.php>

Instead, the state has used its own funds to provide cash assistance to those reaching the federal limit (assuming they were in compliance with all program rules).

Several analysts (e.g., Blank and Schmidt, 2001; Pavetti and Bloom, 2001; Zedlewski, Holcomb, and Duke, 1998) developed classifications of the stringency of state policy regimes following implementation of welfare reform. Most labeled Michigan's policies as "moderate" or "mixed." Some policies, particularly the requirement to engage immediately in work activities (the federal requirement at the time was within 24 months) and the possibility of full-family sanctions, were strict. Yet, other policies, such as the lack of a time limit, were lenient. The state's cash benefit in the late 1990s was higher than that of the average state--\$459 a month for a family of three with no other income, compared to \$379 for the median state. However, the earned income disregard policy was not especially generous, and a working recipient would be ineligible for welfare unless she worked part-time or at a low wage. As shown above, for example, a single mother with two children who worked 35 hours a week at a job paying \$6.00/hour would lose eligibility for cash assistance. In contrast, in 24 other states, such a single mother would still be eligible for TANF.

Even though Michigan's policies were classified as moderate relative to those of other states, its TANF caseload declined at a rate similar to the national average. Between 1996 and 2003, the number of families receiving cash assistance declined by about 56 percent nationwide and by about 58 percent in Michigan (authors' tabulations). Food Stamp caseloads declined less sharply. Between 1996-2002, the average number of Food Stamp recipients in Michigan declined by 20 percent, compared to 25 percent for the nation as a whole. Like many states, that seven year decline masks an increase in Food Stamp use following the recession of 2001. The average monthly number of Food Stamp recipients in Michigan climbed from 641,000 to

750,000 between 2001 and 2002 (U.S. Department of Health and Human Services, 2005). In Michigan, the rate of Food Stamp participation among eligible families is estimated to be 65 percent, somewhat higher than the national average of 56 percent (Castner and Schirm, 2006). It is unclear the extent to which this higher participation rate is related to particular state practices, is reflective of the state's distressed economy, or some combination of the two.

As noted, Michigan families can lose Food Stamps if they are sanctioned for non-compliance with TANF rules. Several studies have shown that sanctioned families are more likely to be disadvantaged on a number of measures, such as low education or poor health, than non-sanctioned recipients (Cherlin, et. al, 2002; Kalil, Seefeldt, and Wang, 2002). If these personal disadvantages also make it less likely that sanctioned adults will find employment, we might expect that they would be more likely to reapply for TANF, Food Stamps, or both. On the other hand, if these disadvantages make it difficult for sanctioned adults to understand program rules about why they were sanctioned or what they might need to do to become eligible again, then we might expect them to be less likely to reapply.

The state's choice about how frequently to require Food Stamp recipients to "recertify" their eligibility also affects participation. Federal policy requires that all cases with working aged adults be re-determined for program eligibility at least once every 12 months. Many states choose shorter recertification periods in an effort to lower program error rates. However, shorter recertification periods are associated with lower program use (Kabbani and Wilde, 2003).

In Michigan, TANF recipients are subject to the federal 12-month recertification period.⁴ Families not on TANF must be re-certified every 6 months if they have earnings. This period can be shortened to as little as 3 months at the discretion of the caseworker. Frequent re-

⁴ Details about Michigan's Food Stamp re-certification and reporting rules were obtained via personal communication with Charles Overbey, Michigan Department of Management and Budget.

certifications might reduce Food Stamp participation, particularly among working TANF leavers. Frequent updating of eligibility may be perceived as not worth the hassle for some families.

Michigan also has simplified reporting requirements, which may ease administrative burdens on working recipients. Typically, families must report any changes in employment, earnings, or income and changes that could affect eligibility. For adults whose earnings or employment status changes frequently, this reporting requirement might be burdensome. However, Michigan's simplified reporting requirement requires families to report changes in earned income only when they exceed 130 percent of usual monthly earnings.

We might also expect two other policy issues to affect Food Stamp participation over our study period. First, between 1996 and 2000, Michigan had Food Stamp error rates, that is overpayments of benefits, in 11 to 16 percent of cases, well above the national average of 9 percent, and thus faced federal sanctions (Seefeldt, Danziger and Danziger, 2003). In an effort to achieve compliance, the state devoted extra resources during 2000-2001 to monitoring Food Stamp cases. This increased monitoring might have deterred some working families from applying and might have caused other working families to be deemed ineligible.

Another policy change might have contributed to increased program use. In 2001, again to comply with federal program changes, Michigan adopted an Electronic Benefit Transfer program (EBT) to distribute both TANF and Food Stamp payments. Instead of receiving Food Stamp benefits via coupons, Michigan recipients are issued a "Bridge Card," which functions like a debit card. Proponents of EBTs argue that they reduce the stigma associated with Food Stamps; shoppers using the Bridge Card now look no different than others using debit cards. If stigma kept some former recipients from using Food Stamps, then a switch to EBT might bring some back to the rolls.

Michigan also changed how it treated assets in eligibility determination over the study period. Prior to 1997, Michigan received a federal waiver to exempt one vehicle from a client's assets. The rationale was that transitions from welfare to work would be easier if recipients owned a car. Thus, the state allowed families to own a car and maintain eligibility for the food stamp program. In September of 1999, the waiver expired, and for about one year vehicles were included in the asset test for eligibility determination. Through a creative categorical eligibility policy, the state eventually exempted all vehicles from consideration.

Finally, changes in the economic climate in Michigan are likely to have affected Food Stamp participation over time. In the first few years following implementation of welfare reform, Michigan's economy was booming, and its unemployment rate was below the national average. However, the recession of 2001 and the continuing loss of manufacturing jobs led the unemployment rate to increase and remain above the national average. In 2003, the national unemployment rate was 6 percent, but it was more than 7 percent in Michigan (see Figure 1).

Data

We analyze panel data from the Women's Employment Study (WES), conducted by the Program on Poverty and Social Welfare Policy at the University of Michigan. Respondents were chosen randomly from a list of White and African American women who received cash assistance as single parent cases in February, 1997 in an urban county in Michigan. Respondents were interviewed five times over a six-year period (Fall 1997, Fall 1998, Fall 1999, Fall 2001, Fall 2003). Response rates at the five waves were quite high: 86, 92, 91, 91, and 93 percent, respectively. There were 753 respondents in the first wave. Because there is little evidence that attrition from the sample was non-random, sample weights are not used (see Cadena and Pape, 2006 for an analysis).

Information was gathered on factors known to affect welfare and food stamp usage, including employment, marriage and cohabitation, household size, race and education. WES also gathered information on factors that potentially affect welfare and food stamp usage, but are not available in standard datasets. These include physical health and mental health status, experiences of domestic violence, child behavior and health problems. In addition to self-reported variables obtained from the five surveys, WES also contains monthly administrative data on food stamp and TANF program participation provided by the Michigan Family Independence Agency.⁵

Analysis

We begin by combining survey and administrative data and create a panel dataset with variables measured at the monthly level. We have measures of employment (self-reported) and food stamp receipt (administrative data) at this frequency. Figure 2 shows the monthly patterns of employment, welfare usage, and food stamp receipt for WES participants. All respondents received cash benefits at the beginning of the sample because benefit receipt was a sample selection criterion. TANF receipt fell continually until the beginning of 2001 when it leveled off at around 20 percent, remaining there for the rest of the study period. Almost all respondents received food stamps in February 1997. Receipt fell steadily to about 45 percent by the beginning of calendar year 2000, stayed at about this rate for about 18 months, before increasing to about 50 percent in spring 2002. It remained at about 50 percent for the duration of the study period. The monthly employment rate of respondents increased from about 40 percent when the sample was drawn in February 1997 to about 75 percent in mid-2000. Employment fell somewhat during and after the recession of 2001, and the employment rate was just under 70 percent at the fall 2003 survey.

⁵ The agency has since changed its name to the Michigan Department of Human Services.

As employment among WES respondents fell after 2000, food stamp participation increased, but TANF participation did not. These aggregate numbers suggest that, after welfare reform, women were more likely to use food stamps than to use TANF in order to smooth temporary fluctuations in earnings. Figure 3 addresses this issue directly. We select a sample of all spells of non-employment preceded by a month in which the woman was working and did not receive food stamps or cash welfare benefits. This sample represents women who have successfully made the transition from welfare to work but who then experience a spell of non-employment. Comparing the two panels of the figure reveals that women return to food stamps much more quickly than they return to cash assistance following separation from employment. After three months of non-employment, 24 percent of women return to food stamps compared to only 15 percent who return to cash welfare. By nine months, the numbers are 42 percent and 23 percent, respectively. After welfare reform, food stamp usage is more sensitive to fluctuations in employment than is cash welfare receipt. Based on this information, we now utilize the unique nature of the WES data to analyze other factors associated with food stamp dynamics.

We add variables from the five interviews to our monthly panel even though they are not measured monthly. We use retrospective relationship questions asked at each wave to create a marriage and cohabitation history for each woman.⁶ Many survey questions refer to the respondent's experiences during the preceding year. We apply values of these variables backwards in time for all months between interviews. For example, suppose that in the wave 3 interview (1999), a woman reports having experienced severe domestic abuse in the time since the last interview but that she did not report abuse at the wave 2 interview (1998). We code her as experiencing severe abuse in each month between the wave 2 and the wave 3 interviews, but

⁶ Respondents were asked if they were married or cohabiting and, if so, for how many months. Single women were asked to specify the month in which a previous marriage or cohabiting relationship ended.

as not experiencing abuse in any month between waves 1 and 2. This methodology is imperfect and will introduce some measurement error.

We then construct two separate samples of food stamp spells. The first contains information on a recipient's initial spell of food stamp use. At the start of the panel, the typical WES respondent had received welfare and food stamps for about 7.5 years since age 18 and was in a spell that began 33 months prior to February, 1997. We observe the time pattern of several variables beginning in February 1997 until the spell ends, the woman leaves the study, or the study ends. We consider the initial spell (first exit) to be completed when a woman does not receive food stamps for two consecutive months. The second sample begins with respondents who made a first exit after April, 1997 and analyzes factors associated with the first return to food stamp receipt. Each respondent contributes only one spell to each of the samples.

The WES sampling frame creates a stock sample of initial food stamp spells, tending to oversample women who were long-time recipients. To correct for this length-biased sample, we use the start date of the current spell to code which months of the spell are observed and make the appropriate adjustments to the likelihood function. The non-use spells are not subject to a length-bias problem.

Kaplan-Meier estimates of the failure function for both samples are shown in Figures 4 and 5. Each graph shows the unconditional probability (i.e. not adjusted for covariates) that a woman will have exited the initial state after the number of months given on the x-axis. We can construct the failure function over a relatively long time horizon in Figure 4 because we know the date of the start of the spell that was in progress when the sample was drawn in February 1997. Final WES interviews occurred approximately eighty months later in fall 2003, so the failure function in Figure 5 ends at that point.

We observe 679 initial food stamp spells and 504 exits from the program. The estimated failure function reaches 0.5 at twenty-four months, meaning that half of food stamp receipt spells in progress when the study began lasted for more than two years. We observe 339 returns to food stamps out of 524 spells of non-use.⁷ The estimated failure function reaches 0.5 at twelve months, implying that half of all non-participation spells following an initial exit will last for more than a year. These descriptive results demonstrate that there is a significant amount of turnover in food stamp participation. Most respondents exit the program at least once, and most women who exited their initial spell will receive benefits again.

Regression Models

We estimate a separate model for each of two questions. First, which characteristics are associated with a higher probability of leaving food stamps (first exit)? Similarly, which characteristics are associated with a higher probability of returning to food stamps after having left (first return)? We estimate exponential hazard models with baseline hazards that depend on spell duration.⁸ We also include dummy variables for each calendar year to control for unobserved differences in policies and enforcement over the time period. We report marginal effects (derivatives of the hazard rate at the sample means) in the main tables and hazard ratios (exponentiated coefficients) in the appendix tables.

In analyzing which women are most likely to leave food stamps, we focus first on characteristics of women and their households that are fixed over the sample period. The first column of Table 1 reports these results. Women with at least a high school degree are more

⁷ The number of non-use spells differs from the number of exits from initial use because we require a spell to have complete, non-missing data for all covariates throughout the entire spell in order for it to be included in our analysis. It is possible that only an individual's post-exit spell met this criterion.

⁸ Kaplan-Meier estimates of the hazard (not shown) revealed a significant non-monotonic relationship between the hazard and analysis time. The hazard functions created by our dummy variables approach closely replicate the Kaplan-Meier estimates. We allow the hazard to change every few months early in a spell, gradually lengthening the amount of time over which the hazard is constrained to remain constant. For a discussion of the benefits and drawbacks of these types of models, see Meyer (1990).

likely to leave food stamps in any given month, and African American women are less likely to leave. All three coefficients fall in size and significance when we include the time-varying variables (coefficients shown in column 2). This suggests that race and education serve as proxies for some of the variables included in the expanded model.

Women employed in any month are about a third more likely to leave food stamps than are non-workers (marginal effect/value of hazard at mean of X's, .008/.022). The positive sign is expected, but the magnitude is lower than expected. Many women following welfare reform took jobs paying low enough wages or providing few enough hours that they remained eligible for food stamps. Although most working recipients eventually exit, many women combine work with food stamps in order to stabilize their family's flow of resources rather than exiting abruptly.

Women living with a partner are more likely to exit from food stamp receipt, with married women much more likely to leave than cohabiting women (marginal effects are 0.019 and 0.005, respectively). Marriage represents a more stable relationship than does cohabitation, with married women more likely to expect the continued support of their spouse. This stability could make women more willing to discontinue food stamp participation. On the other hand, a caseworker is more likely to learn that a client is married than to learn that she is cohabiting. A partner's resources are therefore more likely to make a woman ineligible when she is married.

Mothers in larger households are eligible for a larger monthly benefit and are less likely to leave food stamps. Additionally, families that include a child who has a learning, mental or physical problem are less likely to leave food stamps. In deciding whether to remain on food stamps, women are likely influenced by the time costs required to receive benefits. If a child has a persistent health problem, for example, the mother is more likely to be in frequent contact with

service providers, reducing the additional cost of applying for and receiving food assistance. Some women whose children have persistent and severe health problems are likely exempt from the state's TANF work requirement (Seefeldt and Orzol, 2005) and thus are more likely to remain on food stamps.

Table 2 explores several additional factors related to exit from food stamp receipt. Each of the four specifications contains all variables included in column 2 of Table 1 in addition to the variables reported in the rows of Table 2. We hypothesized that women working in jobs with hours that are highly variable would be less likely to leave food stamps due to the uncertainty of their earnings. However, our measure of variability of weekly hours was not significant (column 1, Table 2).

The second column includes knowledge about food stamp program rules. Respondents were asked a series of questions in the third wave (Fall 1999) designed to measure their understanding of Michigan's post-reform policies. One question asked, "Once anyone receiving cash assistance gets a job, do the rules say they will stop receiving Food Stamps?" A significant fraction of women (thirty percent) did not realize that "no" is the correct answer. Those who answered correctly are about one quarter less likely to leave food stamps than the mean respondent (-.006/.021). These results imply that a substantial minority of women who exited from TANF may have left food stamps by mistake, thinking that they were no longer eligible.

We evaluate two policy experiments implemented by the state during the study period. As noted, Michigan adopted an Electronic Benefit Transfer system, EBT, in 2001 (in Spring 2001 in the study county). It was expected that an EBT system would both reduce fraud and reduce the stigma of purchasing food with government coupons. However, our analysis does not

reveal any significant change in the probability of food stamp exit following implementation of this policy.

We also examine the potential effect of the change in the state's treatment of assets for eligibility determination. Recall that for a period of time, the state excluded the value of one car from the food stamp asset test, although for roughly a year, the federal waiver expired and the value of a car was included as part of eligibility determination. We include a dummy variable for the months in which an asset test was in place, as well as an interaction with this variable and a vehicle ownership variable.⁹ We find no evidence that asset testing affected the probability of exit, whether or not a woman owned a vehicle.

For the most part, the analysis of the probability of re-entering the food stamp rolls following an exit of at least two months, shown in Tables 3 and 4, mirrors the analysis for initial food stamp exits. Many of the same factors are associated with a return to food stamps. For example, African Americans are more likely to return and those with a high school degree or greater educational attainment are less likely to return (column 1, Table 3).

A few differences are worth noting. Women who own vehicles are significantly less likely to return to food stamps (column 2, Table 3). Vehicle ownership may be a proxy for greater economic stability. A woman who purchases a vehicle probably has and expects to continue to have stable employment. Women without a vehicle are more likely to be living on the margin, with food stamps playing a greater role in their coping strategies. Alternatively, women may be misinformed about the way vehicles are treated in determining eligibility, and

⁹ The WES survey question asks whether a respondent owns a vehicle or has consistent, reliable access to one. For simplicity, we refer to this as vehicle ownership, even though some women may not own the vehicle to which they have consistent access. There is measurement error in that some women classified as owning a vehicle do not own one. Women who own a vehicle are correctly classified.

they may choose not to apply thinking that benefits will be denied. Any combination of these mechanisms could explain this result.

Women who experience severe domestic violence are about 45 percent more likely than the typical respondent to return to food stamps (.008/.018, Table 3, column 2). If a woman leaves a violent relationship, she may do so suddenly and unexpectedly. Such a shock is the type of life event that might trigger a food stamp spell.

Knowledge of the food stamp eligibility rule concerning combining work and benefits does not statistically significantly predict who returns to the rolls (Table 4, column 2). This result is surprising given that understanding this rule was a strong predictive factor in food stamp exit (Table 2, column 2). We can understand these results by considering the types of women who leave food stamps and are thus eligible to come back. One group of women left food stamps because they found jobs with earnings high enough to disqualify them from receiving benefits. Within this group, correct knowledge of the ability to combine work and food stamps is irrelevant to their decision to return because they are ineligible. Another group contains women who are, in fact, eligible to combine employment and food stamp benefits but who are disproportionately likely to believe incorrectly that they are ineligible. (The women who knew they were eligible may have never left.) This differential selection can explain the smaller and insignificant point estimate on correct information in the return specification.

Women were less likely to return after Michigan's EBT came online in 2001. These results do not support the hypothesis that EBT removed stigma that was keeping women from applying.

Policy Implications

Our empirical results indicate some “good news” from a policy perspective. First, food stamp participation among WES respondents was more sensitive to employment variability than was TANF receipt. Second, women who might have greater need for food stamps are less likely to exit. For example, women who have at least one child with a persistent health problem are more likely to remain on food stamps, probably because they face other hardships, independent of job loss, that keep them connected to food stamp support. When women with more children find jobs, their earnings are likely to fall farther below their needs than similar women with fewer children. Food stamp receipt allows them to increase their consumption, and we find that larger households are more likely to continue to receive assistance. Finally, advocates seeking to reduce domestic violence should be reassured that women who have recent experience with severe abuse are more likely than others to return to the food stamp rolls, meaning that they are getting additional financial help during this period of crisis.

These findings tell us about the relative likelihood of staying on or returning to food stamps, not about the participation rate of eligible families. Increased Food Stamp program outreach efforts might be warranted, given the level of confusion about food stamp rules and the employment instability of former welfare recipients. Women who understand that they are allowed to combine food stamp receipt with low-wage work are significantly more likely to continue to receive food stamps. An outreach program focused on this information might increase participation rates in the post-reform environment. Additionally, even though the typical respondent worked in about 70 percent of the months over the 6 and one-half year panel, more than half experienced at least one spell of “unstable employment,” defined as having been fired, laid off, or otherwise not having employment for more than 4 weeks (Johnson, 2005). Food stamp usage responds to non-employment, but not all who lost jobs returned to the

program. While some women find new jobs relatively quickly, we find a significant number who experience long spells of non-employment without receiving food assistance.¹⁰

A recent study of local office practices indicates that it may not be the particular type of outreach activity that matters, but rather the number of activities in which an office engages (Bartlett, Burstein, and Hamilton, 2004). For the most part, outreach is fairly low-cost and includes activities such as preparing informational pamphlets and posters for distribution in community centers and other public places, operating a toll free information hotline, and coordinating outreach activities with the local Medicaid and State Child Health Insurance Program (SCHIP) offices. Such activities may help provide accurate information about eligibility to households that might perceive themselves to be ineligible.

Although the economy has improved since the 2001 recession, there is evidence that many low-income families have not yet benefited from the recovery; poverty rates have remained at more than 12 percent since 2002, and the number of individuals who are food insecure has risen by 6 million between 1999 and 2004 (Rosenbaum, 2006). The food stamp program provides important economic support for millions of working poor families, and our results suggest that more should be done to make low-wage workers who are eligible non-participants aware of their eligibility.

¹⁰ A limitation in of our study is that our sample is drawn from a particular county in a single state. Both TANF and Food Stamp policies vary by state, and our findings may not be generalizeable to other states operating under different policy regimes. However, we think it reasonable to assume that a lack of knowledge of program rules is not unique to our sample and thus that further outreach is warranted.

Citations

- Blank, Rebecca and Lucie Schmidt. 2001. "Work, Wages, and Welfare," in *The New World of Welfare*, R. Blank and R. Haskins, eds. Washington, D.C.: Brookings Institution Press.
- Bartlett, Susan, Nancy Burstein, and William Hamilton. 2004. Food Stamp Program Access Study: Final Report. Bethesda, MD: Abt Associates, Inc.
- Cadena, Brian and Andreas Pape. 2006. "The Extent and Consequences of Attrition in the Women's Employment Study." Ann Arbor, MI: University of Michigan.
- Castner, Laura A. and Allen A. Schirm. 2006. "Reaching Those in Need: State Food Stamp Participation Rates in 2003." Washington, D.C.: Mathematica Policy Research.
- Cherlin, Andrew J., Karen Bogen, James M. Quane, and Linda Burton. 2002. "Operating within the Rules: Welfare Recipients' Experiences with Sanctions and Case Closings." *Social Service Review*, 76:3, 387-405.
- Food Research Action Center. 2000. State Government Responses to the Food Assistance Gap, 2000. Washington, D.C.: FRAC.
- Johnson, Rucker. 2005. "Wage and Job Dynamics After Welfare Reform: The Importance of Job Skills." Ann Arbor, MI: Michigan Program on Poverty and Social Welfare Policy.
- Kabbani, Nader S. and Parke E. Wilde. 2003. "Short Re-certification periods in the U.S. Food Stamp Program: Causes and Consequences." *Focus*: 22:2, 64-66.
- Kalil, Ariel, Kristin S. Seefeldt, and Hui-chen Wang. 2002. "Sanctions and Material Hardship under TANF." *Social Service Review*, 76:4, 642-662.
- Meyer, Bruce D. 1990. "Unemployment Insurance and Unemployment Spells," *Econometrica*, 58: 757-782.
- Pavetti, LaDonna and Dan Bloom. 2001. "State Sanctions and Time Limits," in *The New World of Welfare*, R. Blank and R. Haskins, eds. Washington, D.C.: Brookings Institution Press.
- Rosenbaum, Dorothy. 2006. "The Food Stamp Program is Growing to Meet Need." Washington, D.C.: Center on Budget and Policy Priorities. Available at: <http://www.cbpp.org/6-6-06fa.htm>
- Seefeldt, Kristin S., Sheldon Danziger, and Sandra K. Danziger. 2003. "Michigan's Welfare System," in *Michigan at the Millennium: A Benchmark and Analysis of its Fiscal and Economic Structure*, C. Ballard, P.N Courant, D.C. Drake, R.C. Fisher, and E.R. Gerber, eds. East Lansing, MI: Michigan State University Press.

Seefeldt Kristin S. and Sean M. Orzol. (2005). "Watching the Clock Tick: Factors Associated with TANF Accumulation." *Social Work Research*, 29:4, 215-229 .

U.S. Department of Health and Human Services. 2005. Indicators of Welfare Dependence, Annual Report to Congress 2004. Washington, D.C.: USDHHS. Available at <http://aspe.hhs.gov/hsp/indicators04/index.htm>

Zedlewski, Sheila R., Pamela A. Holcomb, and Amy-Ellen Duke. 1998. "Cash Assistance in Transition: The Story of 13 States." Washington, D.C.: The Urban Institute.

Figure 1. Unemployment Rates, 1996-2003, Michigan and U.S.

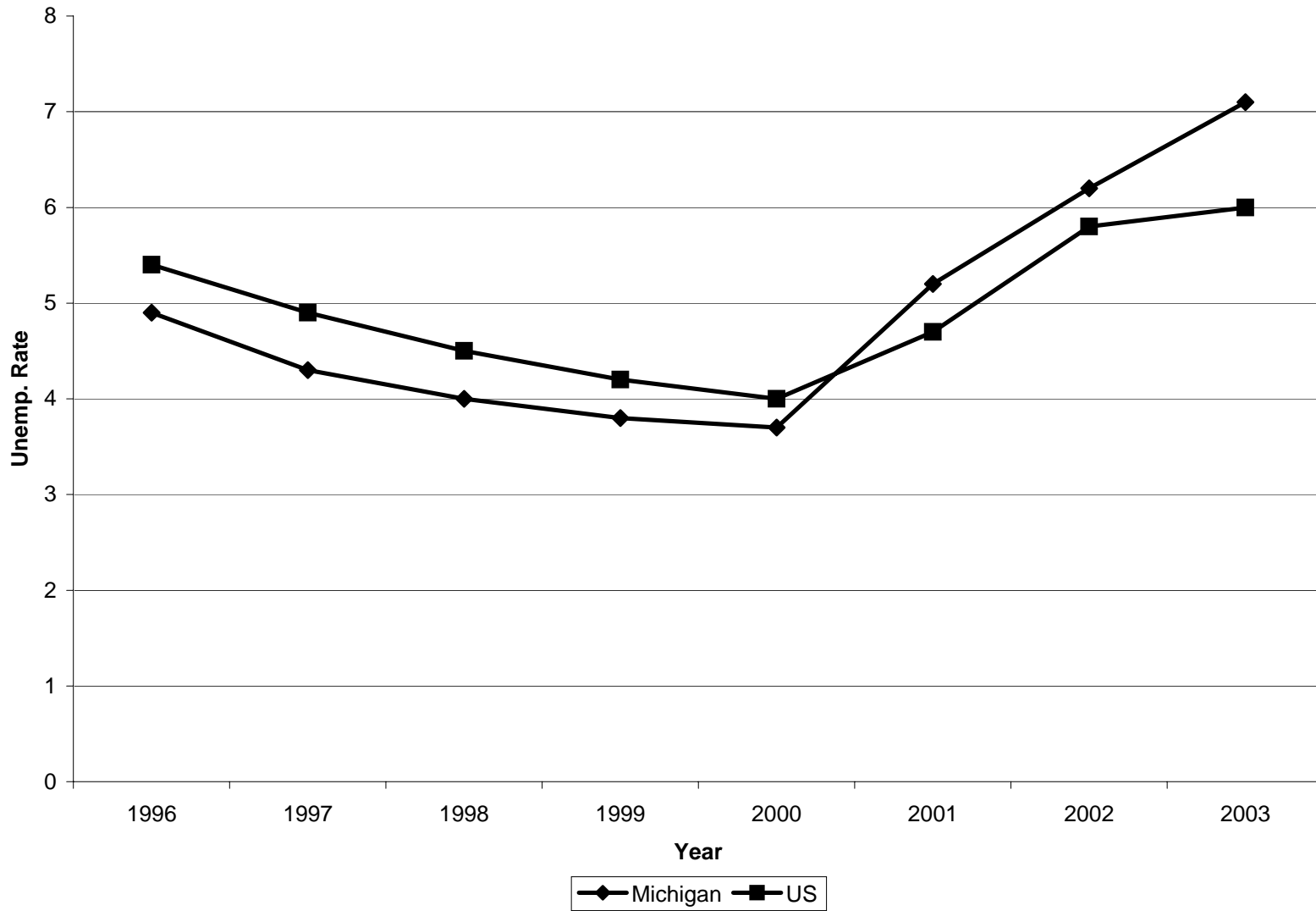
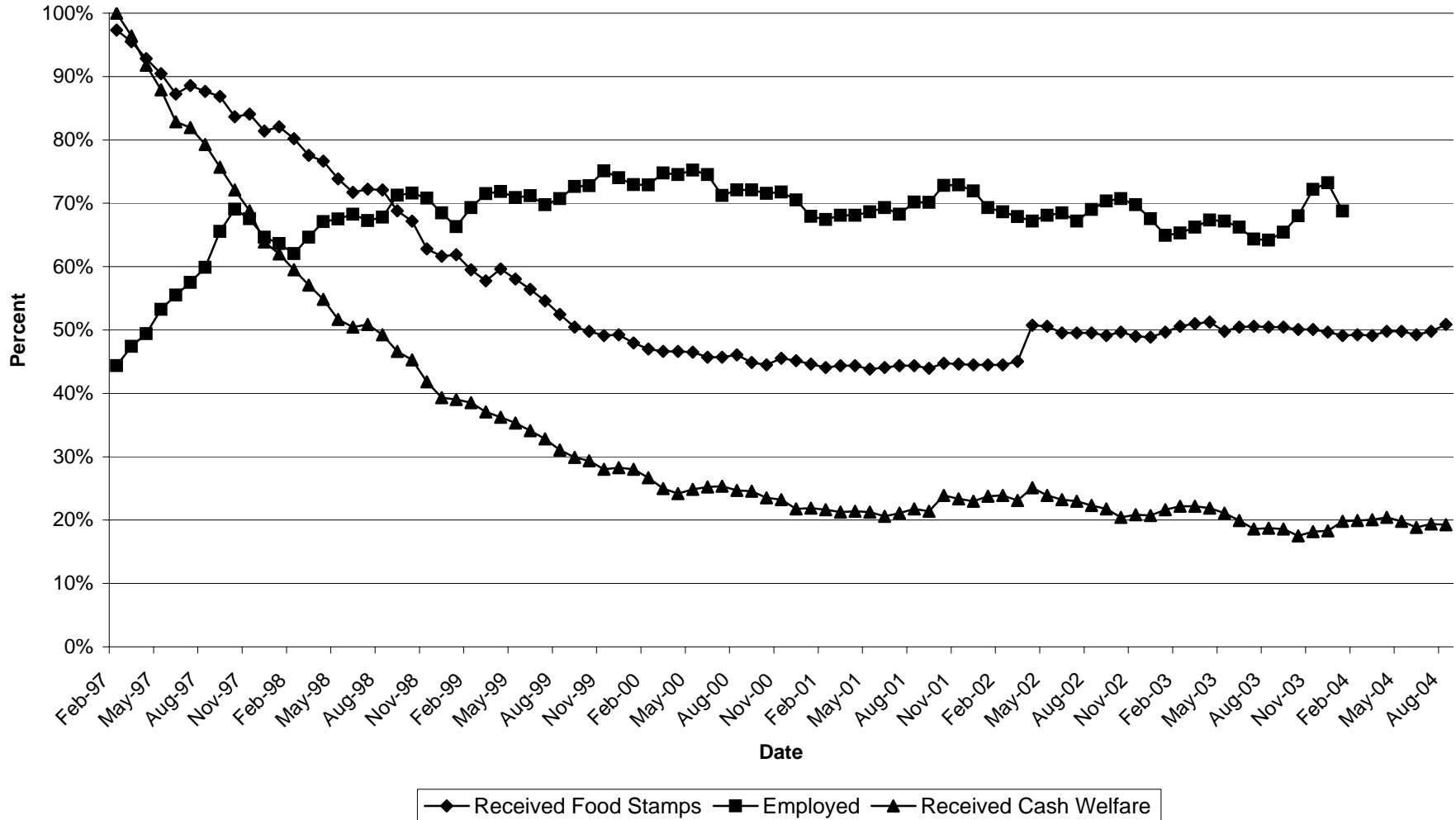
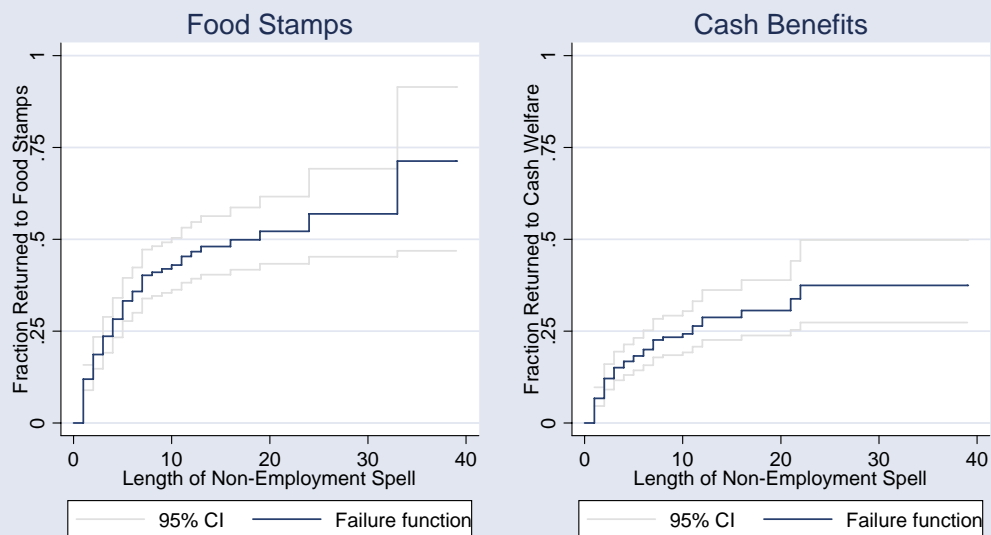


Figure 2. Employment, Cash Welfare Usage and Food Stamp Receipt



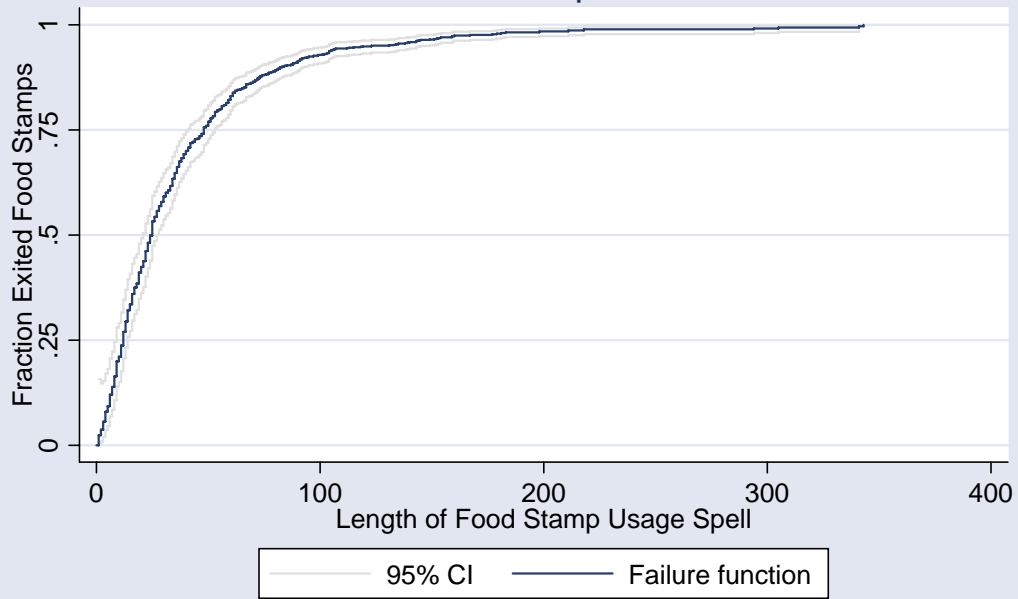
Source: Authors' calculations from the Women's Employment Study. The data include all available observations.

Figure 3. Kaplan-Meier Failure Function for return to Food Stamps and Cash Welfare Within a Non-Employment Spell



Source: Author's Calculations from the Women's Employment Study
Note: The sample includes all spells of unemployment preceded by a month of employment with no food stamp or cash assistance receipt.

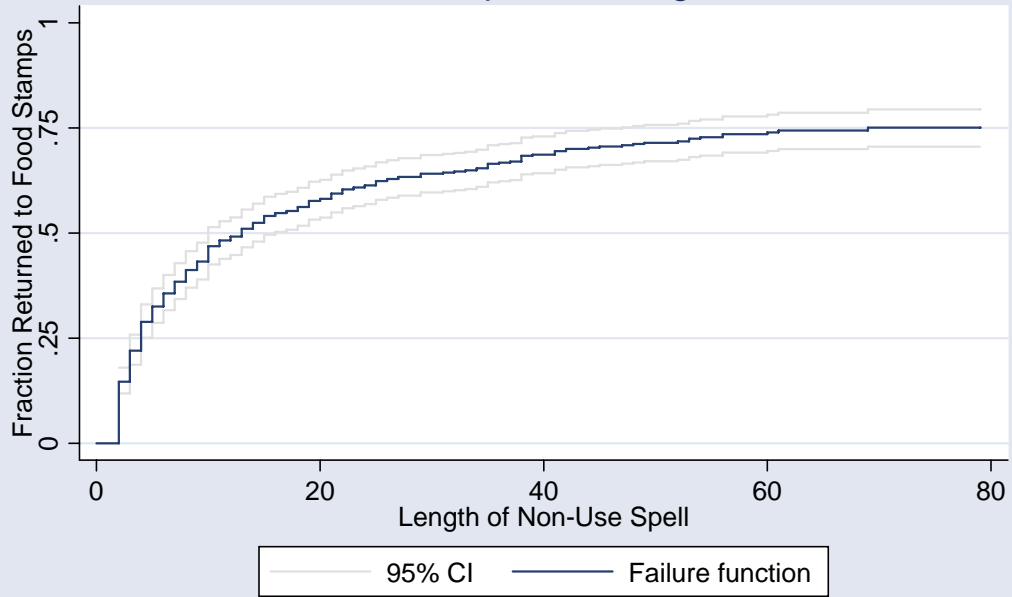
Figure 4. Kaplan-Meier Estimates of the Failure Function for Initial Exit from Food Stamps



Source: Authors' Calculations from the Women's Employment Study

STATA™

Figure 5. Kaplan-Meier Estimates of the Failure Function for Return to Food Stamps Following Initial Exit



Source: Authors' Calculations from the Women's Employment Study

Table 1. Predicted change in hazard rate for exit from initial food stamp spell.
Exponential models with flexible baseline hazard (12 categories).

	(1)	(2)	Mean
Age in 1997	-0.000 (0.001)	0.000 (0.001)	30.55
Age squared /100	0.001 (0.002)	0.000 (0.001)	9.88
HS Diploma or GED	0.006* (0.003)	0.003 (0.003)	0.35
More than HS	0.008* (0.003)	0.004 (0.003)	0.30
Race Dummy: 1 if African-American	-0.008** (0.002)	-0.005* (0.002)	0.61
Worked during this month		0.008** (0.002)	0.63
Married		0.019** (0.005)	0.10
Cohabiting, not married		0.005* (0.002)	0.28
Owens a vehicle		0.001 (0.003)	0.72
Number of people in household		-0.002** (0.001)	4.09
Age-specific phys. limit & fair/poor health		-0.004 (0.002)	0.26
Any mental health barrier		-0.003 (0.002)	0.35
Caregiver child has learning/mental/physical health prob		-0.007** (0.002)	0.21
Any substance dependence or hard drug use		-0.002 (0.004)	0.06
Severe domestic abuse in past year		-0.003 (0.003)	0.14
Unemployment rate in survey county		-0.000 (0.001)	6.08
Number of Spells	679	679	
Number of Exits	504	504	
Value of hazard at mean of X's	0.023	0.022	

+ p<0.10, * p<0.05, ** p<0.01

Standard errors in parentheses

Source: Authors' Calculations from the Women's Employment Survey.

Note: Predictions calculated at the mean of the independent variables. Values for dummy variables calculated as a discrete change from 0 to 1.

The models also include dummy variables for each calendar year.

Table 2. Predicted change in hazard rate for exit from initial food stamp spell.
 Exponential models with flexible baseline hazard (12 categories).

	(1)	(2)	(3)	(4)	Mean
Weekly hours vary 'a lot' or 'a fair amount'	-0.001 (0.003)				0.13
Knows still elig for FS if working (1 Q)		-0.006** (0.002)			0.71
After EBT rollout			0.005 (0.012)		0.16
Assets used to determine eligibilty				-0.001 (0.008)	0.11
Assets used * Owns a car				-0.000 (0.008)	0.09
Number of Spells	679	570	679	679	
Number of Exits	504	467	504	504	
Value of hazard at mean of X's	0.022	0.021	0.022	0.022	

+ p<0.10, * p<0.05, ** p<0.01

Standard errors in parentheses

Source: Authors' Calculations from the Women's Employment Survey.

Models also include all controls found in Table 1, column (2) and dummy variables for each calendar year.
 Note: Predictions calculated at the mean of the independent variables. Values for dummy variables calculated as a discrete change from 0 to 1.

Table 3. Predicted change in hazard rate for first return to food stamps after exit.
Exponential models with flexible baseline hazard (10 categories).

	(1)	(2)	Mean
Age	-0.001 (0.001)	-0.001 (0.001)	30.45
Age squared /100	0.001 (0.002)	0.001 (0.002)	9.76
HS Diploma or GED	-0.004+ (0.003)	-0.003 (0.002)	0.35
More than HS	-0.011** (0.003)	-0.007* (0.003)	0.44
Race Dummy: 1 if African-American	0.011** (0.002)	0.008** (0.002)	0.43
Worked fewer than 20% of years b/w age 18 & Feb. '97	-0.004 (0.003)	-0.005+ (0.003)	0.11
Did not work during this month		0.012** (0.003)	0.22
Married		-0.008** (0.003)	0.30
Cohabiting, not married		-0.006* (0.002)	0.30
Owens a vehicle		-0.007* (0.003)	0.90
Number of people in household		-0.000 (0.001)	3.85
Age-specific phys. limit & fair/poor health		0.003 (0.003)	0.16
Any mental health barrier		0.001 (0.002)	0.26
Caregiver child has learning/mental/physical health prob		0.002 (0.003)	0.10
Any substance dependence or hard drug use		0.002 (0.005)	0.04
Severe domestic abuse in past year		0.008* (0.004)	0.08
Unemployment rate in survey county		0.001 (0.001)	6.76
Number of Spells	524	524	
Number of Returns	339	339	
Value of hazard at mean of X's	0.020	0.018	

+ p<0.10, * p<0.05, ** p<0.01

Standard errors in parentheses

Source: Authors' Calculations from the Women's Employment Survey.

Note: Predictions calculated at the mean of the independent variables. Values for dummy variables calculated as a discrete change from 0 to 1.

The models also include dummy variables for each calendar year.

Table 4. Predicted change in hazard rate for first return to food stamps after exit.
 Exponential models with flexible baseline hazard (10 categories).

	(1)	(2)	(3)	(4)	Mean
Weekly hours vary 'a lot' or 'a fair amount'	0.000 (0.003)				0.13
Knows still elig for FS if working		-0.001 (0.002)			0.65
After EBT rollout			-0.017* (0.007)		0.39
Assets used to determine eligibilty				0.005 (0.007)	0.20
Assets used * Owns a car				0.002 (0.006)	0.18
Number of Spells	524	487	524	524	
Number of Returns	339	322	339	339	
Value of hazard at mean of X's	0.018	0.018	0.018	0.018	

+ p<0.10, * p<0.05, ** p<0.01

Standard errors in parentheses

Source: Authors' Calculations from the Women's Employment Survey.

Models also include all controls found in Table 3, column (2), and dummy variables for each calendar year.

Note: Predictions calculated at the mean of the independent variables. Values for dummy variables calculated as a discrete change from 0 to 1.

Appendix Table 1. Hazard ratios from duration models for initial exit from food stamp receipt. Exponential models with flexible baseline hazard (12 categories).

	(1)	(2)
Age in 1997	0.981 (0.044)	1.003 (0.045)
Age squared /100	1.022 (0.069)	1.003 (0.068)
HS Diploma or GED	1.267* (0.141)	1.129 (0.129)
More than HS	1.359** (0.155)	1.183 (0.141)
Race Dummy: 1 if African-American	0.731** (0.066)	0.806* (0.077)
Worked during this month		1.458** (0.157)
Married		1.934** (0.264)
Cohabiting, not married		1.240* (0.129)
Owens a vehicle		1.031 (0.121)
Number of people in household		0.914** (0.029)
Age-specific phys. limit & fair/poor health		0.846 (0.103)
Any mental health barrier		0.869 (0.092)
Caregiver child has learning/mental/physical health prob		0.703** (0.094)
Any substance dependence or hard drug use		0.890 (0.191)
Severe domestic abuse in past year		0.877 (0.125)
Unemployment rate in survey county		0.985 (0.033)
Number of Spells	679	679
Number of Exits	504	504

+ p<0.10, * p<0.05, ** p<0.01

Source: Authors' Calculations from the Women's Employment Survey.
The models also include dummy variables for each calendar year.

Appendix Table 2. Hazard ratios from duration models for first exit from food stamps.
 Exponential models with flexible baseline hazard (12 categories).

	(1)	(2)	(3)	(4)
Weekly hours vary 'a lot' or 'a fair amount'	0.970 (0.130)			
Knows still elig for FS if working (1 Q)		0.754** (0.075)		
After EBT rollout			1.232 (0.604)	
Assets used to determine eligibilty				0.945 (0.340)
Assets used * Owns a car				0.996 (0.366)
Number of Spells	679	570	679	679
Number of Exits	504	467	504	504

+ p<0.10, * p<0.05, ** p<0.01

Source: Authors' Calculations from the Women's Employment Survey.
 Models also include all controls found in Table 1, column (2) and dummy variables for each calendar year.

Appendix Table 3. Hazard ratios from duration models for return to food stamps after initial exit. Exponential models with flexible baseline hazard (10 categories).

	(1)	(2)
R's Age in 1997	0.945 (0.056)	0.938 (0.058)
Age squared /100	1.069 (0.099)	1.078 (0.105)
HS Diploma or GED	0.791+ (0.107)	0.867 (0.118)
More than HS	0.575** (0.084)	0.695* (0.106)
Race Dummy: 1 if African-American	1.711** (0.195)	1.562** (0.189)
Worked fewer than 20% of years b/w age 18 & Feb. '97	0.823 (0.157)	0.719+ (0.141)
Did not work during this month		1.718** (0.208)
Married		0.631** (0.109)
Cohabiting, not married		0.721* (0.098)
Owns a vehicle		0.723* (0.104)
Number of people in household		0.979 (0.036)
Age-specific phys. limit & fair/poor health		1.161 (0.165)
Any mental health barrier		1.028 (0.136)
Caregiver child has learning/mental/physical health prob		1.136 (0.185)
Any substance dependence or hard drug use		1.087 (0.280)
Severe domestic abuse in past year		1.473* (0.237)
Unemployment rate in survey county		1.031 (0.041)
Number of Spells	524	524
Number of Returns	339	339

+ p<0.10, * p<0.05, ** p<0.01

Source: Authors' Calculations from the Women's Employment Survey.

The models also include dummy variables for each calendar year.

Appendix Table 4. Hazard ratios from duration models for return to food stamps after initial exit.

	(1)	(2)	(3)	(4)
Weekly hours vary 'a lot' or 'a fair amount'	1.008 (0.188)			
Knows still elig for FS if working		0.959 (0.115)		
After EBT rollout			0.372* (0.150)	
Assets used to determine eligibilty				1.289 (0.393)
Assets used * Owns a car				1.121 (0.350)
Number of Spells	524	487	524	524
Number of Returns	339	322	339	339

+ p<0.10, * p<0.05, ** p<0.01

Source: Authors' Calculations from the Women's Employment Survey.

Models also include all controls found in Table 3, column (2), and dummy variables for each calendar year.

Appendix Table 5. Variable Labels and Definitions

Variable Label	Variable Definition
Age in 1997	Respondent's age in years, measured at the time of first interview
Age squared /100	Age in 1997 squared
HS Diploma or GED	1 if respondent has exactly a High School degree or equivalent; 0 otherwise
More than HS	1 if respondent has more education than a High School degree; 0 otherwise
Race Dummy: 1 if African-American	1 if African-American; 0 otherwise
Worked during this month	1 if worked at least one hour this month; 0 otherwise
Married	1 if married; 0 otherwise
Cohabiting, not married	1 if living with a male partner, but not married; 0 otherwise
Owns a vehicle	1 if owns or has reliable access to a vehicle; 0 otherwise
Number of people in household	Number of people including the respondent
Age-specific phys. limit & fair/poor health	1 if respondent has an age-specific physical limitation & reports fair or poor health; 0 otherwise
Any mental health barrier	1 if respondent has any mental health problem (PTSD, Social Phobia, Depression); 0 otherwise
Caregiver child has learning/mental/physical health prob	1 if respondent is responsible for a child with special needs (Learning disability, mental health or physical health problems); 0 otherwise
Any substance dependence or hard drug use	1 if respondent meets DSM-IV criteria for drug dependence or uses "hard" drugs; 0 otherwise
Severe domestic abuse in past year	1 if respondent reports severe physical violence from an intimate partner; 0 otherwise
Unemployment rate in survey county	Monthly unemployment rate for the survey county
Weekly hours vary 'a lot' or 'a fair amount'	1 if self reported hours variability is 'a lot' or 'a fair amount'; 0 otherwise
Knows still elig for FS if working	1 if respondent answers "no" to the question "Once anyone receiving cash assistance gets a job, do the rules say they will stop receiving Food Stamps?"; 0 otherwise
After EBT rollout	1 if after March 2001; 0 otherwise
Assets used to determine eligibility	1 if calendar date between 10/1999 and 9/2000; 0 otherwise
Assets used * Owns a car	Interaction between "Owns a car" and "Assets used to determine eligibility"