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Working Paper 99-WP 232

November 1999

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We acknowledge financial support for this research from U.S. Department of Agriculture, Economic Research Service and the Iowa Department of Human Services.

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Abstract

In 1993, the State of Iowa, through waivers, implemented reforms to its welfare program creating the Family Investment program (FIP), a program similar to the Federal Temporary Assistance to Needy Families (TANF) program created in 1996. This paper examines the experiences of individuals and families who left FIP during the initial years. The program is designed to help FIP recipients achieve economic self-sufficiency. The analysis of linked state administrative record data and other local data shows that the Iowa experience has been relatively successful in supporting the transition of those leaving FIP. Almost three fourths of those leaving the program remained off for at least 12 months. Higher wage and child support collections were important factors in determining who would leave the program and their ability to stay off of public assistance. The food stamp program functions as a safety net and is an important income source for those who leave FIP. The success of moving people out of FIP in the long run requires finding low-income individuals a stable job and higher paid work.

Key words: child support, social assistance programs, welfare reform

INNOVATION AT THE STATE LEVEL: INITIAL EFFECTS OF WELFARE REFORM IN IOWA

Under the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996, federal welfare policy, and linkages among social assistance programs and policies, changed significantly. The changes of 1996, however, began earlier in several states. In 1993, the State of Iowa, through waivers, implemented reforms creating the Family Investment Program (FIP), a program similar to the Temporary Assistance to Needy Families (TANF) program created under PRWORA. The Family Investment Program's goals of helping program recipients leave poverty and become self-supporting parallel the intent of TANF and PRWORA (Holcomb et al., 1998; Iowa Department of Human Services, 1996). FIP merged and coordinated several existing programs and tied support for job training, education, child care, and transportation more directly to income transfers. The reforms were designed to encourage and require welfare recipients to make changes toward achieving self-sufficiency. Iowa has had to change FIP very little to meet current federal guidelines. Thus, the experience in Iowa provides over five years under a program with rules and incentives similar to those instituted nationwide only recently.

This paper examines the experiences of individuals and families who leave FIP. Specifically, we explore why some low income households successfully leave public assistance while others who leave later return. The analysis makes use of a unique data set comprised of linked state administrative records, and provides new and important information about the effects of early welfare reform efforts in one state: Iowa. The research has three specific objectives. First, we examine the characteristics of FIP program participants and those leaving the program. Characteristics are compared across time periods. Second, we explore the role of employment, earnings, and other support such as Food Stamps, Medicaid, and child support for those who leave FIP. Have these roles changed over time? Third, we consider reasons for recidivism among FIP leavers over time. The analysis provides evidence on the effects of changes in Iowa's welfare programs. It will help policymakers as well as advocates of those affected by the changes to better understand the impact of the reforms on low income households.

The paper consists of five sections. The first reviews the welfare reform and implementation under way in Iowa, and provides background information on the cross-program linkages. Section two describes the state data linked across programs; three provides methods used in the analysis and approaches taken to address specific measurement issues; and four presents the results in terms of program effectiveness in moving families off welfare. We conclude with a discussion of how low income families and individuals will likely be affected by the new welfare program changes.

Background

The welfare caseload in Iowa began to decline within a year after FIP replaced the Aid to Families with Dependent Children (AFDC) program on October 1, 1993. Most FIP recipients are required to complete a Family Investment Agreement (FIA), a contract between the FIP recipient and the State of Iowa. The FIA spells out activities related to moving toward self-sufficiency in which the FIP recipient must participate (e.g. orientation and assessment, job-seeking skills and job search, classroom training), and the amount of time it will take the recipient to become self-supporting and leave FIP assistance. The FIA also details what the state will do (e.g. what type of support and how much will be provided) to assist the recipient in meeting his/her FIA goals (Iowa Department of Human Services, 1996). Under FIP, the work and earnings disregards are set at 50 percent of the family's net earned income after deductions (down from 100 percent). Also, higher levels of asset accumulation are allowed; and the period for transition child-care support was lengthened. Assuming that the state has met its FIA stated obligations, benefits are terminated when the FIP recipient achieves self-sufficiency or the stated time limit for FIP eligibility is reached.

Recipients who do not complete an FIA are considered to have chosen a Limited Benefit Plan (LBP), a plan with penalties after the initial period of benefits. A recipient's first LBP lasts nine months. In the first three months of the LBP, FIP benefits are reduced by removing the needs of the adult from the benefit determination calculation. Following this initial period, the FIP recipient and his/her children are not eligible for FIP benefits for the next six months. Subsequent LBPs are identical to the initial LBPs except that the initial three month reduced benefit period is not invoked. That is, the LBP has a six-month period during which the recipi-

ent and his/her children are not eligible for FIP benefits. Medicaid benefits may continue for FIP recipients and families in an LBP.

Welfare Exiting and Recidivism

National studies, most conducted using data on conditions prior to “welfare reform,” show that a substantial proportion of those who exited AFDC later returned. Meyer and Cancian (1996) examine data from the 1979 National Longitudinal Survey of Youth (NLSY79) and find 37 percent of women who exited returned within one year; 50 percent returned within two years. Harris (1996) examines Panel Study of Income Dynamics (PSID) data and finds 27 percent of the welfare exiters returned in one year; 42 percent returned within two years. Brandon (1995) analyses data from the Survey of Income and Program Participation (SIPP). He finds that post-program spells that ended with a return to AFDC lasted on average about 5.3 months.

Research shows that the probability of leaving public assistance varies by personal and family characteristics. Factors associated with recidivism include having fewer years of education, not being married, and having little job experience (Sandefur and Cook, 1997; Brandon, 1995). Cao’s (1996) analyses indicate that initial welfare dependency and recidivism are correlated with the recipient’s age, years of education, marital status, ethnic origin, and region.

Born et al. (1998) provide a preliminary analysis of administrative data from the Maryland Family Investment Program. Less than 20 percent of the cases were reopened within the first three to six months post-exit. Reentry rates were lowest among women who exited for employment reasons. Born et al. also find that women whose exits were short-lived tended to have younger children than those women who managed to stay off of the program.

Federal law now imposes a time limit on the receipts of TANF benefits, and mandates that able-bodied welfare recipients should attempt to make the transition from welfare to work or risk losing all or part of their benefits. Most studies of former welfare recipients have found that between one-half and three-quarters of parents are employed shortly after they leave the rolls (see Parrott 1998). However, wages are low, typically below \$8 per hour and often below \$6 per hour. As a result, studies measuring earnings over three-month periods find the earnings levels well below poverty level. Welfare demonstration project evaluations consistently find that recipients earned an average of between \$2,000 and \$2,700 per quarter or between \$8,000 and \$10,800 annually.

Role of Child Support

One premise of TANF is that single-parent families should not rely on public assistance for long-term support. Rather, they should use welfare as a short-term income source. Economic self-sufficiency should be achieved relatively quickly through a combination of wages and child support (Roberts, 1998). The U.S. General Accounting Office (GAO) (1998) examined whether or not families leaving welfare would have obtained child support income by the time they reach their TANF time limit. In the first three states to enforce welfare benefit time limits, Connecticut, Florida and Virginia, the GAO found that most families had no child support collected for them by the states during the 12 months before their assistance was terminated. When a child support order had been established and the support was collected, mean monthly child support collected ranged from 22 percent to 60 percent of the mean welfare grant received in the month before termination.

The GAO (1998) also looked at two states, Minnesota and Washington, with relatively high performing child support programs and concluded that child support could be an important supplement to the post-TANF income of families. However, unless states dramatically improve the performance of their child support enforcement programs, it is unlikely that child support will become such an income supplement. Brandon (1995) finds that former AFDC mothers who infrequently receive child support payments were more likely to return to the AFDC program.

Iowa's Administrative Data

Iowa was one of the first states to link administrative data across programs to support program administration and policy analysis for welfare and child support programs. In 1995, a project was designed to develop administrative data systems for research purposes. The product of this effort was a three-year (April 1993 - March 1996) longitudinal data file that matches and merges FIP, Medicaid, Food Stamp Program (FSP), child support, and earnings records for all FIP recipients during this period. These are the key assistance programs for low-income families; child support and earnings are the key sources of nonpublic assistance income. These data are specific as to amounts (e.g. program benefits, child support received, and earnings) and dates (e.g. program exit and re-entry) and are preferred over survey data; they are not subject to problems related to respondent recall and respondent bias. Therefore, the universe population for this study is all FIP recipients. No samples were drawn for these analyses.

During the study period, the overall caseload initially increased and then fell. The initial caseload increases resulted from the more generous FIP income disregards and the stronger support programs that were introduced. The total FIP caseload and characteristics of the cases are described in Table 1 for October 1993, October 1994, and October 1995. About 90 percent of the active FIP cases received food stamps, and, as expected, almost all cases included households with children. Of these cases, 40 percent had a single adult and 87 percent of these were female. Nearly 30 percent of the cases came from rural (adjacent or non-adjacent) areas. Adjacent rural (non-metropolitan) counties are adjacent to a Metropolitan Statistical Area (MSA) or have at least 2 percent of their employed labor force commuting to a metro county.

In this analysis, we focus on two aspects of welfare (FIP) participation: the time of exit and the possible return. A welfare exit is defined as a case having been closed for two consecutive months. More specifically, they are said to have left the FIP program if: (i) they received zero dollars in FIP benefits in two consecutive months; (ii) the date of case termination indicates that the case was terminated at the time they received zero benefits; and (iii) the case status code at the time of termination indicates that the case was not pended, denied, or never opened. We focus on two periods of exit, October 1993 and October 1994, to have a 12-month post-exit observation period. Given that the exit month is October, the FIP exits include those who were FIP active in August and inactive either in September and October or in October and November.

Although the Iowa linked data set includes detailed information on child support collections, FSP participation, and quarterly wage earnings, many of the demographic variables have missing values. Specifically, nearly 60 percent of the cases had missing data. Because the sample size would be reduced significantly by deleting observations with missing data, we chose instead to preserve all observations by creating a dummy variable for each demographic variable that had missing values.

The analytical data set includes data from welfare recipients who left FIP in either October 1993 or October 1994. The total number of observations, from both exit periods, is 8,063. Table 2 shows the listing of variables used for analysis and descriptive statistics.

Household and demographic variables include educational attainment, age, marital status, and the presence of young children. Because earnings data are available only on a quarterly basis, we measure total earnings and total child support by quarter. On average, FIP exiters had wage earnings of \$3,000 per quarter, and child support collections of \$200 per quarter. The lo-

cation by county, although not an ideal indicator of job opportunities, is used to evaluate rural/urban differences in FIP program use.

Methods of Analysis

The goal of the recent welfare reform is to help welfare recipients achieve self-sufficiency. It is important to identify the main factors that keep welfare recipients off public assistance. Initial descriptive analyses clarify the measures to use for evaluating the effects of the program and labor market. These analyses also provide information on cross-program linkages and other program effects over time.

The analyses of FIP recidivism make use of single equation estimates of factors associated with program participation and exit decisions. A multivariate probit model is used to examine a set of household and program related effects on participation. The general equation is of the form:

$$Y_{it} = b_0 + b_1 X_{it} + b_2 F + u_{it}$$

where Y_{it} is a program participation indicator; X_{it} is a vector of exogenous variables; F is a vector of related program parameters; and u_{it} is an appropriately defined error term. The exogenous variables include individual variables, such as education and marital status, family composition, labor variables (wage earnings), and rural/urban (metro) location. The program parameters include participation (or benefit levels) in other programs. The dependent variable is a binary variable defined in terms of whether the household stayed off of FIP (i.e., “welfare”), given that the household had left FIP in October (1993 or 1994). Here, two periods of time off of FIP are considered: staying off at least 6 months and staying off at least 12 months.

FIP eligibility is mainly determined by household income. To account for income variations and multiple FIP reentry over time, total child support collections and total wage income in the past 6 and 12 months, respectively, were used in the Probit models. We expect that lower total child support collections and wage income will increase the probability of returning to FIP in 6 and 12 months.

Food stamp program participation is closely tied to FIP eligibility. FIP benefit recipients usually receive FSP benefits as well as FIP. However, the FSP also provides a safety net for those who leave the FIP. Those who leave FIP may qualify for food stamps on the basis of low

income. We expect participation in the FSP to be negatively related to the probability of staying off FIP, since FSP participation is an indicator of continued need for social support.

Among the demographic and household variables, we expect married families to have more economic resources and, therefore, the ability to stay off FIP longer. Because both educational attainment and area of residence are related to employment opportunity, we expect FIP recipients with a high school degree or living in metropolitan counties to be able to find jobs more easily and, as a result, be less likely to return to FIP.

Two selection biases may occur because the observations include only FIP exits. The first selection bias comes from self-selection into FIP in August. The second bias is the result of welfare recipients choosing to leave FIP in October. Heckman's (1978) two-stage procedure was used to test the existence of both selection biases. Two Probit regressions were conducted to compute the selection corrections (inverse Mill's ratios). The first Probit estimates the probability of being FIP active in August of 1993 or August of 1994. The second Probit model predicts the probability of leaving FIP in October of 1993 or October of 1994. The independent variables for the selection equations include the age, gender, ethnicity, marital status, and education level of the FIP case head; the presence of children younger than three years in the household; the local unemployment rate, and the household's location of residence (metro county, urban non-metro county, rural-adjacent county, and rural non-adjacent county).

Results

Tables 3 and 4 provide information on earnings, food stamp participation, and child support collections during the period following the exit for those who left FIP in either October 1993 or October 1994. Transitions are illustrated for those who leave and return within six months (Table 3) and those who stay out for at least 12 months (Table 4).

For those who left in October 1993 or 1994, nearly 16 percent returned within six months. As indicated in Table 3, the first quarter off of FIP was a difficult one: income and child support collections dropped significantly. Concurrently, FSP benefits increased. More than 70 percent of the cases were receiving food stamps.

Nearly 73 percent of those leaving FIP remained off for at least 12 months (Table 4). Unlike those who returned to FIP in six months, people staying off FIP for 12 months continued

to have higher wage earnings and child support collections following their exit. Their quarterly wage earnings were nearly \$1,000 more than those reported by people returning to FIP in six months; their child support collections were more than double. This shows the important role of earnings and child support in reducing recidivism. The lower percentage of reporting wage earnings in Table 4 suggests that people staying off FIP for 12 months hold better paying jobs. Among those staying off FIP for 12 months, the percentage reporting food stamp participation is considerably smaller than for those returning within 6 months, and the percentage declines over time. About 17 percent of the cases staying off of FIP for 12 months are in the food stamp program following exit. These findings suggest important differences in the mix of FIP cases. Those returning to FIP within six months often remained on FSP and were unable to fully make the transition. For these households especially, the food stamp program provides a safety net during transitions and times of economic hardship.

For the multivariate analysis, three models were estimated. Model 1 does not consider selection bias; Model 2 only controls for the self-selection into FIP in August (estimated over all FIP cases both active and former); while Model 3 controls for both self-selection into FIP in August and exit in October. We also deleted observations with missing marital status and ethnic origin. Consequently, the number of observations is reduced to 7316. Overall, the models performed well in terms of statistical significance, and most of the variables had the expected sign and were statistically significant. For the selection correction terms, only the first selection (Model 2) was statistically significant, which suggests the existence of selection bias for FIP participation. Only results for Models 1 and 2 are presented here, in Tables 5 and 6. The discussion focuses on Model 2.

The results for FIP leavers out at least 6 months, and for those out at least 12 months were similar in sign and level of significance. There are some differences in magnitude of several of the estimated coefficients. Among the economic/income variables, both wage income and child support had a positive and statistically significant effect on staying off of public assistance. The statistical significance of child support income indicates the importance of this source of income to these low income families. Food stamp assistance (quarters of receipt) is negatively associated with being able to stay off of FIP. Those less successful in staying off make greater use of food stamps, and the negative effect is stronger for those less able to stay off (6 months versus 12 months).

As expected, age (younger than 21) and the presence of young children had a negative effect on being able to stay off FIP. Being married, had no effect on the probability of staying off FIP for 6 months, but significantly increased the probability of staying off FIP for 12 months. Educational attainment (having a high school degree) is associated with human capital, training, and having job market skills. Hence, as expected, having a high school degree increased the probability of staying off FIP, although it is not statistically significant. The coefficient of the indicator of missing education is positive, but not statistically significant. Living in a metro area, which indicates more job opportunities, increases the probability of staying off FIP. The average county unemployment rate and being married are not statistically significant.

The coefficients in Tables 5 and 6 are used to calculate the marginal effect of the variables on the probability of staying off of FIP. The probability was evaluated at the values of sample means. A thousand dollar increase in the average quarterly wage income increases the probability of staying off FIP for 6 months by 0.005 and for 12 months by 0.06. On the other hand, increasing the average quarterly child support by \$1,000 will increase the probability of staying off of FIP for 6 months by 0.16 and for 12 months by 0.25. An additional quarter spent in participating in food stamps decreases the probability of staying off of FIP for 6 months by 0.15 and for 12 months by 0.14. The marginal effect of holding a high school degree or above on the probabilities of staying off FIP for 6 months is 0.02 and for 12 months is 0.03. These results indicate also the relative importance of employment and child support for longer term exits.

Conclusions

The success of PRWORA requires putting people to work, and obtaining a secure income source for former welfare recipients. The Iowa experience with the FIP program has been relatively successful in supporting the transition of those leaving the program. Almost three fourths (73 percent) of those leaving the program remained off for at least 12 months. The results in this paper confirm that income is a key determinant of participation and ability to stay off public assistance programs. People who stay remain off FIP for 12 months have higher quarterly wages and child support collections than those who stay off FIP for only 6 months or less.

The food stamp program functions as a safety net against economic downturns and indeed is an important income source for FIP exiters. The majority of people who left FIP and re-

turned within 6 months continued to participate in the food stamp program compared to only 15 percent of those staying off for 12 months. These findings, and the multivariate results, indicate that those who are able to successfully make the transition off welfare programs rely less on food stamp program support. However, even for these households, the FSP is important to their transition in the first quarter off, and, for 15 percent of the households leaving FIP, it provides support that is likely to be very important in keeping families off FIP. Child support is an important supplement for low-income families. The establishment and enforcement of child support obligations can potentially reduce the FIP caseload, as well.

The success of moving people out of FIP in the long run requires finding low-income individuals a stable job and higher paid work. The debate over recent welfare reforms has focused mainly on the issue of whether welfare recipients can find and stay in jobs for the long term. As long as the majority of people on public assistance have education at less than high school level and lack work experience, it will be difficult to move them out of welfare without providing necessary support such as job training and formal schooling. Furthermore, many low-income families are likely to face problems in the labor market because of lack of transportation and child care. The challenge in rural areas is even greater because welfare recipients face a labor market that is dispersed over a large geographic area and they require reliable private transportation. Innovative public programs may be required to provide services in transportation and child care to help low income families successfully achieve self-sufficiency. The experience in Iowa provides early evidence on what is a national experiment in alternative approaches to welfare reform.

Finally, this study demonstrates that state program data can be used for research. Experience drawn from administrative data such as the data used here can provide useful information to policymakers at both the state and federal level. We believe that the wealth of program-specific information available in state case files provides an excellent opportunity for analyses to complement the survey-based research traditionally undertaken by social scientists.

Table 1: FIP caseloads by demographic variables : October 1993, October 1994, and October 1995

Demographic Variables	Oct. 1993	Oct. 1994	Oct. 1995
	Cases (percent)	Cases (percent)	Cases (percent)
Total Caseloads	38632	39917	35509
On Food Stamp Program	(0.89)	(0.89)	(0.88)
Number of Children			
No Child	(0.01)	(0.007)	(0.007)
One Child	(0.35)	(0.35)	(0.35)
Two Children	(0.32)	(0.31)	(0.31)
More Than Two Children	(0.32)	(0.333)	(0.333)
Area of Residence			
Metro	(0.53)	(0.53)	(0.53)
Urban Non-metro	(0.17)	(0.17)	(0.17)
Rural Adjacent	(0.15)	(0.15)	(0.15)
Rural Non-adjacent	(0.15)	(0.15)	(0.15)
Earnings and Child Support			
Family Had Wage Earnings	(0.58)	(0.65)	(0.68)
Family Received Child Support	(0.22)	(0.23)	(0.22)
Number of Adults			
No Adult	(0.01)	(0.01)	(0.01)
One Adult Case	(0.41)	(0.39)	(0.39)
Two Adults Case	(0.34)	(0.35)	(0.35)
More Than Two Adults Case	(0.24)	(0.25)	(0.25)
Gender			
Male	(0.13)	(0.13)	(0.13)
Female	(0.87)	(0.87)	(0.87)
Ethnicity			
White	(0.78)	(0.78)	(0.78)
Black	(0.11)	(0.11)	(0.11)
Others	(0.03)	(0.03)	(0.03)
Missing	(0.08)	(0.08)	(0.08)
Age of Case Head			
Younger Than 18	(0.03)	(0.02)	(0.02)
Between Age 18 and 21	(0.06)	(0.05)	(0.05)
Older Than 21	(0.91)	(0.93)	(0.93)
Educational Attainment			
High School, GED, or Above	(0.28)	(0.30)	(0.26)
Less Than High	(0.19)	(0.15)	(0.17)
Unknown and Missing	(0.53)	(0.55)	(0.57)
Age of Youngest Child			
No Children	(0.01)	(0.01)	(0.01)
Younger Than 1	(0.18)	(0.17)	(0.17)
Between 1 and 3	(0.26)	(0.25)	(0.25)
Between 3 and 6	(0.22)	(0.24)	(0.24)
Older Than 6	(0.33)	(0.33)	(0.33)

Table 2: Characteristics of those with exit, sample means, and standard deviation

Variable	Mean (Standard Deviation)
Staying off FIP for 6 months (0,1)	0.84 (0.368)
Staying off FIP for 12 months (0,1)	0.73 (0.447)
White (0,1)	0.785 (0.411)
Black (0,1)	0.084 (0.277)
Male (0,1)	0.167 (0.373)
Married (0,1)	0.286 (0.452)
Case Head Younger Than 21 Years Old (0,1)	0.09 (0.292)
Children Younger Than 3 Years Old (0,1)	0.419 (0.493)
Less Than High School Degree (0,1)	0.149 (0.356)
Living in Metro Counties (0,1)	0.491 (0.50)
Living in Urban-nonadjacent Counties (0,1)	0.174 (0.379)
Living in Rural-adjacent Counties (0,1)	0.154 (0.361)
Number of Quarters Participating in Food Stamp Program in the Past 6 Months	0.533 (0.795)
Number of Quarters Participating in Food Stamp Program in the Past 12 Months	1.065 (1.477)
Average Wage Income Received in the Past 6 Months (in Thousands)	3.011 (3.575)
Average Wage Income Received in the Past 12 Months (in Thousands)	3.124 (3.562)
Average Child Support Received in the Past 6 Months	392.01 (821.72)
Average Child Support Received in the Past 12 Months	841.29 (1653.41)
Average Local Unemployment Rate in the Past 6 Months	4.025 (1.062)
Average Local Unemployment Rate in the Past 12 Months	3.738 (0.93)
Marital Status Missing (0,1)	0.088 (0.283)
Education Missing (0,1)	0.57 (0.495)
Race Missing (0,1)	0.084 (0.278)
Number of Observations	8063

Table 3: FIP exits in October 1993 or October 1994, with returned to FIP in 6 Months by demographic characteristics

Demographic Variables	Oct.-Dec.	Jan.-Mar.	April-June	July-Sept.
Income				
Mean Income (Sum of Wage Earnings and Child Support)	3,072	2,307	2,873	3,251
Share of Child Support	0.11	0.12	0.12	0.12
Percentage with Wage Earnings	0.76	0.72	0.74	0.76
Mean Earnings for Those with Wage Earnings	3,824	3,095	3,728	4,114
Food Stamp (FS) Program				
Percentage with Food Stamp Benefits	0.45	0.71	0.59	0.65
Mean FS Benefits for Those with FS Benefits	443	542	588	564
Child Support				
Percentage Received Child Support	0.29	0.29	0.31	0.31
Mean Child Support Collections for Those with Child Support	524	255	329	398
Total FIP Exits Returning in 6 Months	1,304			
Total FIP Exits in October	8,063			
Percentage of Returning to FIP in 6 Months	0.16			

Table 4: FIP exits in Oct. 1993 or Oct. 1994 and stayed off of FIP for 12 Months by demographic characteristics

Demographic Variables	Oct.-Dec.	Jan.-Mar.	April-June	July-Sept.
Income				
Mean Income (Sum of Wage Earnings and Child Support)	3,444	3,177	3,546	3,692
Share of Child Support	0.13	0.15	0.16	0.14
Percentage with Wage Earnings	0.70	0.67	0.68	0.69
Mean Earnings for Those with Wage Earnings	4,639	4,407	4,795	4,997
Food Stamp (FS) Program				
Percentage with Food Stamp Benefits	0.21	0.17	0.15	0.14
Mean FS Benefits for Those with FS Benefits	425	415	427	416
Child Support				
Percentage Received Child Support	0.30	0.30	0.34	0.32
Mean Child Support Collections for Those with Child Support	702	727	848	760
Total FIP Exits Staying off for 12 Months	5,838			
Total FIP Exits in October	8,063			
Percentage of Staying off FIP for 12 Months	0.73			

Table 5: Probability of staying off FIP for at least 6 months, given that the case had left FIP in either October 1993 or October 1994

Independent Variables	Model 1 (S.D.)	Model 2 (S.D.)
Average Quarterly Wage Incomes in 6 Months	0.022*** (0.006)	0.023*** (0.007)
Average Quarterly Child Support Collections in 6 Months	0.664*** (0.063)	0.677*** (0.063)
Number of Quarters Participating in Food Stamp Program in 6 Months	-0.652*** (0.02)	-0.649*** (0.022)
Case Head Younger Than 21 Years Old (Dummy)	-0.188*** (0.066)	-0.249*** (0.074)
Children Younger Than 3 Years Old (Dummy)	-0.145*** (0.04)	-0.137*** (0.040)
Living in the Metro County (Dummy)	0.158*** (0.042)	0.164*** (0.043)
Married	0.049 (0.042)	0.037 (0.043)
Less Than High School Degree (Dummy)	-0.078 (0.056)	-0.071 (0.057)
Education Missing (Dummy)	0.053 (0.045)	0.044 (0.045)
Average Unemployment Rate in 6 Months	0.029 (0.02)	0.030 (0.020)
Correction for Being FIP Active in Aug. 1993 or Aug. 1994		0.108** (0.05)
Intercept	1.137*** (0.105)	1.031*** (0.119)
Chi-square Statistics	1028.16	1031.62
Degree of Freedom	10	11
Number of Observations	7,316	7,316

Standard deviation is in the parentheses.

*** Significant at 1 percent level.

** Significant at 5 percent level.

* Significant at 10 percent level.

Table 6: Probability of staying off FIP for 12 Months, given that the case had left FIP in either October 1993 or October 1994

Independent Variables	Model 1 (S.D.)	Model 2 (S.D.)
Average Quarterly Wage Incomes in 12 Months	0.015*** (0.006)	0.017*** (0.006)
Average Quarterly Child Support Collections in 12 Months	0.691*** (0.052)	0.717*** (0.052)
Number of Quarters Participating in Food Stamp Program in 12 Months	-0.409*** (0.011)	-0.405*** (0.011)
Case Head Younger Than 21 Years Old (Dummy)	-0.181*** (0.06)	-0.285*** (0.067)
Children Younger Than 3 Years Old (Dummy)	-0.177*** (0.036)	-0.164*** (0.036)
Living in the Metro County (Dummy)	0.119*** (0.038)	0.130*** (0.038)
Married	0.129*** (0.038)	-0.107*** (0.039)
Less Than High School Degree (Dummy)	-0.083 (0.052)	-0.072 (0.052)
Education Missing (Dummy)	0.044 (0.04)	0.027 (0.041)
Average Unemployment Rate in 12 Months	0.012 (0.02)	-0.014 (0.020)
Correction for Being FIP Active in Aug. 1993 or Aug. 1994		0.187*** (0.052)
Intercept	0.877*** (0.098)	0.69*** (0.112)
Chi-square Statistics	1616.78	1629.59
Degree of Freedom	10	11
Number of Observations	7,316	7,316

Standard deviation is in the parentheses.

*** Significant at 1 percent level.

** Significant at 5 percent level.

* Significant at 10 percent level.

References

- Allison, Paul D. (1984). *Event History Analysis*. Newbury Park, CA: Sage Publications.
- Bane, Mary Jo and David T. Ellwood (1986). "Slipping into and out of Poverty: The Dynamics of Spells." *Jour. of Human Resources* XXI (Winter 1986): 1-23.
- Blank, Rebecca M. (1997). "What Causes Public Assistance Caseloads to Grow?" Unpublished manuscript available on the web page for the Institute for Policy Research at Northwestern University.
- Blank, Rebecca M. and Patricia Ruggles (1996). "When Do Women Use Aid to Families with Dependent Children and Food Stamps?" *Jour. Human Resources* 31 (Winter): 57-89.
- Born, Catherine E., Pamela J. Caudill, Christopher Spera, and John F. Kunz. (1998). A Look at Life After Welfare. *Public Welfare*. 56: 32-37.
- Brandon, Peter David. (1995). Vulnerability to Future Dependence Among Former AFDC Mothers. Institute for Research on Poverty. Discussion Paper no. 1055-95. University of Wisconsin – Madison. January.
- Burtless, Gary. (1998). Can the Labor Market Absorb Three Million Welfare Recipients? Brookings Institution Working Paper. June.
- Cao, Jian. (1996). Welfare Reciprocity and Welfare Recidivism: An Analysis of the NLSY Data. Institute for Research on Poverty. Discussion Paper no. 1081-96. University of Wisconsin – Madison. March.
- Fraker, Thomas M., Lucia A. Nixon, Jan L. Losby, Carol S. Prindle, and John F. Else. (1997). *Iowa's Limited Benefit Plan*. Report Submitted to the Iowa Department of Human Services by Mathematica Policy Research, Inc. and the U.S. Department of Health and Human Services, Office of the Assistant Secretary of Planning and Evaluation under Contract Nos. DEA-0699 (IDHS) and 282-92-0044, DO #14 (DHHS/ASPE). May 1997.
- _____. (1997). *Iowa's Benefit Plan*. Report submitted to Iowa Department of Human Services and U.S. Department of Health and Human Services, Office of Assistant Secretary for Planning and Evaluation under Contract Nos. DEA-0699 (Iowa DHS) and 282-92-0044, DO #14 (DHHS/ASPE). May 1997.

Garasky, Steven (1997). "Using State Administrative Caseload Data to Examine Child Support Enforcement Activities: Preliminary Analyses from Iowa. Paper presented at the first annual Joint Center for Poverty Research conference on "Evaluating State Policy: The Effective Use of Administrative Data," Northwestern University, Evanston, IL, June 1997.

Greene, William H. (1993). *Econometric Analysis*. New York: Macmillan.

Harris, Kathleen Mullan. (1996). Life after welfare: Women, work and repeat dependency. *American Sociological Review*. 61: 407-26.

Heckman, J. (1976) The Common Structure of Statistical Models of Truncation, Sample Selection and Limited Dependent Variables and a Simple Estimator for Such Models. *Annals of Economics and Social Measurement*, 5: 475-92.

Holcomb, Pamela A., LaDonna Pavetti, Caroline Ratcliffe, and Susan Riedinger. (1998). *Building an Employment Focused Welfare System: Work First and Other Work-Oriented Strategies in Five States*. Report Submitted to the U.S. Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation by The Urban Institute under Contract No. HHS-100-95-0021. June 1998.

Holzer, Harry J. (1996). Employer Demand, AFDC Recipients and Labor Market Policy. Institute for Research on Poverty Discussion Paper no. 1115-96. University of Wisconsin – Madison. November.

Hsiao, Cheng (1986). *Analysis of Panel Data*. Cambridge: Cambridge University Press.

Iowa Department of Human Services (1998). *Food Stamp Program- State Summary: Report Series F-1*. March 1998.

_____. (1996). *FIP: The Family Investment Program*. Des Moines, IA: Iowa Department of Human Services.

Kalbfleisch, J.D. and R.L. Prentice (1980). *The Statistical Analysis of Failure Time Data*. New York: Wiley Press.

Kuhn, Betsey A., Michael LeBlanc, and Craig Gundersen (1997). "The Food Stamp Program, Welfare Reform, and the Aggregate Economy." *Amer. J. of Agricultural Economics* 79(December): 1595-99.

Meyer, Daniel R., and Maria Cancian. (1996). Life After Welfare. *Public Welfare*. 54: 25-29.

O’Conner, Dan, Daisy Ewell, and Ed Hoke (1998). *Iowa Data Linkage File Documentation: 1993 Panel Public Use File*. Washington, D.C.: Mathematica Policy Research, Inc. January 9, 1998.

_____. (1998). *Iowa Data Linkage File Documentation: 1993 Panel Public Use File*. Washington, DC: Mathematica Policy Research, Inc. January 9.

Parrott, S. (11/16/98). Welfare Recipients Who Find jobs: What do We Know About Their employment And Earnings? *Center On Budget And Policy Priorities* [On-line]. Available: <http://www.cbpp.org>

Richards, T., M.J. White, and A.O. Tsui (1987). “Changing Living Arrangements: A Hazard Model of Transitions Among Household Types,” *Demography* 24: 77-97.

Roberts, P. (9/2/98). New GAO Study About Child Support For Families Leaving Welfare. Center For Law And Social Policy [On-line]. Available: <http://www.clasp.org>

Sandefur, Gary D. and Steven T. Cook. (1997). Duration of Public Assistance Receipt: Is Welfare a Trap? Institute for Research on Poverty. Discussion Paper no. 1129-97. University of Wisconsin – Madison. April.

Sandefur, Gary D. and Tom Wells. (1996). Trends in AFDC Participation Rates: The Implications for Welfare Reform. Institute for Research on Poverty. Discussion Paper no. 1116-96. University of Wisconsin – Madison. December.

State of Iowa (1995). *Waiver Terms and Conditions: Iowa - Family Investment Program Demonstration*. December.

State of Iowa, Terry E. Branstad, Governor (1996). *Temporary Assistance for Needy Families State Plan*. Submitted Pursuant to Public Law 104-193, The Personal Responsibility and Work Opportunity Reconciliation Act of 1996. November.

Super, D.A., Parrott, S., Steinmetz, S., Mann C., (8/13/96). The New Welfare Law. Center On Budget And Policy Priorities [On-line]. Available: <http://www.cbpp.org>

The Urban Institute—A Comparison of Selected Key Provisions of the Welfare Reform Reconciliation Act Of 1996 With Current Law (1996). [On-line]. Available: <http://www.urban.org>

USDA Food and Consumer Service, Office of Analysis and Evaluation (1997). *Household Food Security in the United States in 1995. Summary Report of the Food Security Measurement Project*. Report prepared by Abt Associates, September 1997.

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