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**Vulnerability to Future Dependence  
among Former AFDC Mothers**

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## **Abstract**

This study analyzes short-run AFDC recidivism among mother-only families. Findings suggest that a sizable minority of former AFDC recipients return to AFDC rapidly. Those most likely to return to AFDC are those switching jobs, those moving to public housing, those adding children, and those not getting regular child support payments. The results also suggest that wages are better predictors of staying off AFDC than are alternative measures of success in the labor market.

## **Vulnerability to Future Dependence among Former AFDC Mothers**

### **I. INTRODUCTION**

Several years ago, David T. Ellwood, using data from the Panel Study of Income Dynamics, reported that about 40 percent of mothers who had participated in the Aid to Families with Dependent Children (AFDC) program returned to AFDC after their first spell ended and that 11 percent of those mothers returned within twelve months (Ellwood, 1986). Despite the significance of these two findings and the mounting concern over welfare dependency, little additional information on the repeated use of AFDC has existed until recently.

New sources of data containing enough details on multiple spells of AFDC reciprocity have now permitted researchers to supplement Ellwood's initial findings. Their work shows that one-time AFDC recipients who return to AFDC do so quickly. Weeks (1991), using longitudinal data collected on low-income female-headed households in the state of Washington, found that 35 percent of persons who left AFDC returned within two years, with the majority returning within the first year. Blank and Ruggles (1994) determined that 20 percent of post-AFDC spells end in returns to AFDC within six months, on average. Likewise, Gleason, Rangarajan, and Schochet (1994) found that teenage mothers have higher recidivism rates than other groups and that their returns to AFDC are quick as well.

Thus, even though the literature on recidivism is limited, the evidence strongly suggests that former AFDC recipients who return to AFDC do so very quickly.

Such brief periods between spells of AFDC receipt suggest that the first few months off welfare, combined with factors influencing exits in the first place, determine either recurring dependency or economic self-sufficiency. What happens to these mothers in the short run, therefore, during those first few months off AFDC is crucial to understanding recidivism.

I argue that success in the labor market as well as predictable sources of nonlabor income, permanent housing, and uniform family size<sup>1</sup> *in the short run* are critical factors preventing welfare recidivism. The results here suggest that former AFDC mothers who are unable to secure steady streams of income quickly, who are unable to afford housing in the private market, and who add children to their family in the early months of economic independence rapidly return to AFDC, thereby reducing their family's vulnerability to economic uncertainties. Basically, the public safety net provides a secure income floor unattainable through private means. If minimizing the uncertainty around the family's level of consumption is the goal, then a woman's decision to return to AFDC is consistent with this goal.

The plan of the paper is as follows: Section 2 describes the methods and data; Section 3 presents the findings; and Section 4 draws some conclusions.

## II. METHODOLOGY

### Empirical Model

To test my argument—that economic instability early in the transition period, along with changes in housing arrangements and numbers of dependent children, affects women's decisions to return to AFDC—I estimate duration models for spells of non-welfare receipt among single mothers who recently exited the AFDC program.

Like Blank and Ruggles (1994), I allow these spells of non-AFDC receipt (i.e., postprogram spells) to terminate in one of three ways: (1) by returning to AFDC; (2) by remaining a single-mother family without returning to AFDC in the panel period (i.e., becoming right-censored); or (3) by becoming ineligible for AFDC, either through a marriage, which must last until the end of the survey, or by losing dependent children.<sup>2</sup>

Blank and Ruggles (1994) call the third type of termination "demographic endings," and so do I, although becoming ineligible for AFDC through marriage is quite different from becoming ineligible through losing children. Furthermore, a child can reappear and a marriage can end; either event would reactivate eligibility for AFDC. Indeed, 6.6 percent of the marriages ended within the survey's time frame, triggering new spells of single motherhood and renewing the risk of returning to AFDC.

I use standard reduced-form hazard models to estimate the probability of ending a spell of non-AFDC receipt with a return to the AFDC program.<sup>3</sup> The models that I estimate include variables measuring race, work disability, and age at the start of the spell of non-AFDC receipt, as well as variables measuring changes in marital status, number of children, housing type, and uniformity of child support payments during the postprogram period. (See Table 1.)

To account for other time variation in the data, I include time parameters that are constant across each four-month period. As others have emphasized, it is sometimes necessary when using longitudinal data to include time parameters in models to control for the seam bias problem (Long, 1990; Blank and Ruggles, 1994; Janine et al., 1990). Four monthly time parameters are needed for the data used in this study (Singh et al., 1988).

### Data Description

To show that volatility in income sources, added children, and changes in household arrangements *in the short run* affect recidivism, I use data from the Survey of Income and Program Participation (SIPP). SIPP is a longitudinal survey of a random sample of the U.S. population. The SIPP panels I use are the 1986, 1987, and 1988 panels, each containing four rotation groups spanning the period from October 1985 through March 1990. Each rotation group provides information on 24 or 28 consecutive months.<sup>4</sup> Each wave of the survey was collected every four months, so each participant was interviewed three times a year about his or her monthly experiences over the past four months. Thus, the data provide monthly information on household composition, labor market behavior, and

income sources. (See Blank and Ruggles [1992, 1993a] for a discussion on the intricacies of using SIPP data.)

The SIPP is particularly useful because it has longitudinal information on the welfare participation, household composition, and labor market experiences of women. SIPP reports a great deal more information on a monthly basis than other surveys about sources of income, especially public assistance income, and labor market attachments. Monthly data on welfare receipt and earnings make analyzing welfare exits more accurate, although the length of time to study one or subsequent transitions is less than that afforded by the Panel Study of Income Dynamics (PSID), which follows persons for several years.

Combining the three SIPP panels yields a sample of 12,017 black and white women who reported that they were mothers (or guardians) of children under the age of 19.<sup>5</sup> About 90 percent of them (N = 10,743) reported no receipt of income from the AFDC program. The remaining 1,274 women reported that they were currently unmarried and receiving AFDC income for at least one month of the panel period.

The subsample of interest, a panel of single mothers aged between 18 and 44 who ended a spell of AFDC receipt, is drawn from these 1,274 mothers. This subsample numbers 557 single mothers who may or may not have headed households. (A small fraction of these 557 mothers reported returning to AFDC within two months. If no change was measured in either income or family composition during those two months, I assumed these short AFDC exits reflected administrative churning and therefore closed the gap between the two spells.)

Although combining the three SIPP panels provides me with much information on a number of single mothers who were former AFDC recipients, such a gain does not compensate for each panel lacking monthly longitudinal data that extends beyond two and a quarter years. The weakness of the SIPP data is that it disallows analyses associated with long-term recidivism. Many of the single

mothers in my subsample were receiving AFDC when they were first interviewed (N = 344). Not knowing if this was a protracted spell of AFDC or if it was one of many short spells biases the estimated recidivism rate. In retrospect, each SIPP survey should have queried respondents about the timing and duration of any past use of public assistance, even if they were not currently receiving assistance.

For the 557 mothers under study, a record of moves in the labor market, changes in household composition, and shifts in sources of income was created. Durations of jobs, occupations, and housing arrangements, as well as the number of coresiding children, were added to information collected on their demographic attributes. Together, the variables portray the experiences that former AFDC mothers encountered after ending a spell of receipt of AFDC. Collectively, these former AFDC mothers contribute 573 spells of single motherhood off of AFDC.

### III. FINDINGS AND DISCUSSION

Table 1 contains definitions of the variables appearing in Tables 3, 4, and 5. Before showing how major changes in sources of income and household arrangements during the early phase of economic independence affect returns to AFDC, I first show in Table 2 that my results for the three SIPP panels are consistent with those of Blank and Ruggles (1994), which they produced by merging two SIPP panels.

For the 573 postprogram spells, Table 2 shows that about 21 percent ended with the mother returning to AFDC prior to the end of the survey period. About 47 percent were right-censored. The other 31.7 percent became ineligible for AFDC by marrying or by losing their dependent children.

**TABLE 1****Definition of Variables**


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Worked always	1 if employed at one job for entire period of panel, 0 otherwise
Promoted	1 if changed occupation but stayed with same employer and succeeding monthly earnings increased, 0 otherwise
Turnovers	Number of jobs terminated during survey
Disabled	1 if disabled in every wave during panel, 0 otherwise
Dis_nowk	1 if disabled across every wave and no employment across any wave, 0 otherwise
No work	1 if no work across panel period, 0 otherwise
Predwage	Predicted wage of respondent over the panel period
Endmar	1 if marriage ended after end of first observed AFDC spell and respondent returned to spell of single motherhood, 0 otherwise
Initial kids	Number of children under the age of 19 reported at the beginning of the panel
Post child	1 if a new child either returned to mother or was born after first observed welfare spell ended, 0 otherwise
Pubsub move	1 if moved into subsidized or public housing, 0 otherwise
Never married	1 if respondent headed own household and never married during panel period, 0 otherwise
Childsup	Number of spells of non-receipt of child support when respondent should have received monthly payments of child support
Age	1 if younger than 29 years old, 0 otherwise
White	1 if non-Hispanic white, 0 if black
Education	Years of completed schooling
Othinc	Log of average amount of household income minus all household transfers and mother's earnings
Food stamps	1 if reported at least 1 month of food stamp receipt, 0 otherwise
Mean spell length	Average duration of a spell

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TABLE 2

## Recidivism in AFDC Postprogram Spells

Months after AFDC Spell Ends	Number of Single-Mother Spells after receipt of AFDC	Percentage of Single-Mother Spells off of AFDC Returns to AFDC	Demographic <sup>b</sup> Endings	Ending in Right Censoring
1-2	573	0.0	16.4	0.0
2-3	555	4.0	0.7	4.7
3-4	524	3.2	1.7	5.5
4-5	487	7.3	0.6	12.9
5-6	382	2.3	6.0	4.9
6-7	353	1.7	1.4	3.1
7-8	333	2.1	0.3	3.3
8-9	320	1.8	0.7	10.9
9-10	243	0.8	6.9	1.2
10-11	235	0.8	0.0	0.8
11-12	229	0.8	2.1	1.7
12-13	219	2.7	1.1	7.8
13-14	173	0.5	1.8	2.8
14-15	165	1.2	2.4	3.0
15-16	158	0.0	1.2	2.5
16-20	151	1.3	3.9	12.0
20-24	92	1.0	4.3	27.0
24-28	29	0.0	3.4	83.2
All spells	573	21.3	31.7	46.9
Mean length of postprogram spell	10.0 <sup>a</sup>	5.3	7.7	11.9

<sup>a</sup>Mean length of all 573 spells of single motherhood following a spell of AFDC receipt.

<sup>b</sup>Those that either married and stayed married for the entire period of the survey, or those that lost children. Those who ended their marriage in the period after receipt of AFDC were considered again at risk of AFDC receipt (because they were single mothers again) and therefore were not classified as having a demographic ending.

Since the distributions of post-AFDC spell endings across the different groups are similar to those obtained by Blank and Ruggles, the average length of the spells of the three different groups should be similar as well. Blank and Ruggles (1994) reported that the mean observed length of spells for all groups was 9.1 months; I found that it was 10 months. Results for each group are also similar to the findings of Blank and Ruggles. I found that postprogram spells that ended with a return to AFDC lasted on average about 5.3 months; they reported a mean length of 5.6 months. Either statistic indicates that most mothers who return to AFDC do so rapidly.

These findings show, along with Blank and Ruggles (1994), Weeks (1991), and Ellwood (1986), that the majority of those who leave AFDC do not return. But those who do return, return quickly. The plot of hazard rates across different time intervals that are presented in Figure 1 further substantiate this finding, showing that it is within the first six months that women are most vulnerable to returning to AFDC. The figure also shows that the probability of AFDC returns averages over 2 percent per month in the first six months after ending AFDC receipt. After that initial six-month period, the risk of returning to the rolls becomes low.

Table 2 shows that fewer spells (16.4 percent) ended in the first month after AFDC through demographic changes than reported by Blank and Ruggles (18.6 percent). Subsequent months, however, reflect the same steady, low rate of exit shown in their article. (See Blank and Ruggles, 1994, Table 1.)

Table 3 reports differences between recidivists and non-recidivists. Recidivists had fewer years of completed education and were more likely to be disabled<sup>6</sup> and to have never worked during the survey. All recidivists, not just those who were disabled, were more likely to have reported never working. Other descriptive statistics reflect what others have found: recidivists were more likely to be black, to have never been married, and to have less unearned income. (See Ellwood, 1986; Blank and Ruggles, 1994; Long, 1990.)

Figure 1 here

**TABLE 3****Characteristics of Single Mothers Who Ended First Observed AFDC Spell**

	AFDC Exits		
	Total Postprogram Spells	Recidivists Spells	Non-Recidivists Spells
White (%)	65.0	57.3	67.1
Age	28.6	27.0	29.1
Never married (%)	46.4	63.9	41.6
Endmar (%)	6.6	7.1	6.5
Education	11.2	10.8	11.35
Disabled (%)	9.9	9.8	9.9
Dis_nowk (%)	4.8	5.7	4.6
No work (%)	23.9	29.5	22.4
Othinc	\$682.83	\$439.08	\$748.77
Food stamps (%)	93.3	97.6	92.2
Mean spell length	10.0	5.3	11.3
Initial kids	2.09	2.13	2.11
Number of spells	573	122	451

Results contained in Tables 2 and 3 confirm the rapid returns among those women who return to AFDC. Further, the results suggest that there are differences in personal and family characteristics between those who return to AFDC and those who remain off the program. I argue that recidivists differ from non-recidivists in two important ways: recidivists are unable to maintain a uniform level of income greater than AFDC benefit levels, and they experience changes in household arrangements in the immediate period after ending AFDC receipt.

My argument—that economic instability early in the transition period, concomitant with short-term changes in household arrangements, makes women more likely to return to AFDC—is supported by findings contained in Tables 4 and 5.

The chief difference between Tables 4 and 5 is that Table 5 shows results from the alternative way of modeling the effects of continuous job tenure and job performance on the rate of AFDC recidivism. Within Table 5, model 1 shows the effects of a predicted average wage for each mother ("Predwage") alongside the two dummy variable measures of labor force behavior, "Worked always" and "Promoted." Then model 2 of Table 5 displays the effects of "Predwage" without the dummy variables measuring labor force behavior.

Laying out results in this fashion, across two tables (4 and 5) that contain three alternative models, demonstrates that the variable measuring average wage levels of mothers yields a better estimate of the recidivism rate than estimates that are generated from the two dummy variables in Table 4, "Worked always" and "Promoted."<sup>7</sup> (See Appendix A and Table A.1 for details on how wages were estimated.)

Although the estimated hourly wage is a stronger predictor of returns to AFDC than are the two dummy variables, the estimated coefficients for "Worked always" and "Promoted" in Table 4 and model 1 of Table 5 still indicate that staying attached to the labor market and being promoted reduce the risk of returning to AFDC.

**TABLE 4**  
**Competing Risk Duration Models of AFDC Postprogram Spells<sup>a</sup>**

	<u>Postprogram Spell Following an AFDC Exit<sup>†</sup></u>	
	Spell Ends with a Demographic Change	Spell Ends with Return to AFDC
Age	.012 (.201)	.239 (.186)
White	.207 (.243)	-.184 (.182)
Education	.014 (.048)	-.039 (.038)
Never married	-4.905*** (1.024)	.573*** (.219)
Endmar	0.338 (0.282)	0.421 (.378)
Disabled	-.037 (.324)	.041 (.291)
Worked always	-.148 (.313)	-.537* (.322)
Promoted	-1.096 (.747)	-.959 (.722)
Turnovers	.175 (.186)	-.031 (.173)
Initial kids	.112 (.092)	-.002 (.080)
Post child	.087 (.744)	1.321*** (.488)
Pubsub move	-.198 (.353)	.618** (.242)
Othinc	-.133** (.060)	-.007 (.043)
Childsup	-.085 (.197)	.330*** (.112)
Number of observations	573	
Log likelihood value	-547.85	-781.73

<sup>a</sup>Standard errors in parentheses.

\*  $p \leq .10$

\*\*  $p \leq .05$

\*\*\*  $p \leq .01$

<sup>†</sup>Models include a control for seam bias and four-month time parameters.

TABLE 5

Competing Risk Duration Models of AFDC Postprogram Spells: Alternative Specifications<sup>a</sup>

	Spell Ends with a Demographic Change <sup>†</sup>		Spell Ends with Return to AFDC <sup>†</sup>	
	Model 1	Model 2	Model 1	Model 2
Age	-.168 (.277)	-.259 (.272)	-.070 (.244)	-.121 (.245)
White	.220 (.243)	.205 (.243)	-.123 (.184)	-.114 (.184)
Education	.056 (.065)	.070 (.070)	.039 (.039)	.052 (.052)
Never married	-4.636*** (1.039)	-4.636*** (1.035)	.885*** (.270)	.924*** (.270)
Endmar	.376 (.285)	.422 (.284)	.422 (.387)	.417 (.378)
Disabled	-.322 (.440)	-.371 (.441)	-.484 (.398)	-.562 (.398)
Worked always	-.090 (.319)	--	-.414 (.327)	--
Promoted	-1.006 (.751)	--	-.832 (.726)	--
Turnovers	.414 (.312)	.482 (.299)	.407 (.285)	.539* (.276)
Predwage	-.266 (.278)	-.345 (.269)	-.483** (.245)	-.591** (.240)
Initial kids	.100 (.094)	.085 (.093)	-.014 (.080)	-.017 (.079)
Post child	-.093 (.744)	.119 (.739)	1.252** (.489)	1.162** (.484)
Pubsub move	-.201 (.353)	.193 (.354)	.618** (.243)	.641*** (.242)
Othinc	-.123** (.060)	-.099 (.057)*	.003 (.043)	.008 (.042)
Childsup	-.065 (.197)	-.063 (.136)	.310*** (.114)	.293** (.114)
Number of observations	573			
Likelihood value	-547.40	-548.59	-779.80	-781.44

<sup>a</sup>Standard errors in parentheses.

\*  $p \leq .10$

\*\*  $p \leq .05$

\*\*\*  $p \leq .01$

--Variables omitted from specification.

<sup>†</sup>Models include a control for seam bias and four-month time parameters.

In Table 4, the estimated negative coefficient for "Worked always" indicates that recidivism occurred less frequently among women who kept the same job during the entire survey, including the time when they were on AFDC; moreover, the estimated negative coefficient for "Promoted" suggests that recidivism was even more less likely among those same women who stayed with one employer but switched occupations and obtained an earnings increase. The magnitude of that coefficient (-0.959), though statistically insignificant, is large relative to the significant coefficient for "Worked always" (-0.537).

The estimated coefficient for "Turnovers" in Table 4 is neither statistically significant nor in the right direction.<sup>8</sup> Once the predicted wage, "Predwage," is entered into the model of recidivism (column 3, Table 5), however, the estimated coefficient for "Turnovers" changes sign. The significant predicted wage coefficient (-0.483) is more effective than "Worked always" and "Promoted" at capturing short-run stability and performance in the labor market.<sup>9</sup>

Clearly, having four variables measuring the same construct in model 1 of Table 5 is redundant. By replacing "Worked always" and "Promoted" with "Predwage" the model generates results suggesting that former AFDC mothers with higher predicted earnings in the short run are at lower risk of returning to AFDC (column 4, Table 5). And, the positive coefficient for "Turnovers" in column 4 of Table 5 demonstrates that it is not just increases in average wage levels that matter to recidivism but turnovers in jobs as well.

Using "Predwage" instead of "Promoted" and "Worked always" uncovers the true effect of disability status on returns to AFDC as well. I find, contrary to past studies, that disability status and returns to AFDC are negatively correlated, not positively correlated, as past studies have suggested (Ellwood, 1986; Long, 1990; Blank and Ruggles, 1994) and as Table 4, column 2, implies.

Disability status and welfare returns appeared positively correlated in past studies because those studies' measures of disability status reflected the relationship between disability status and low



earnings. It is not disability status that drives mothers back to welfare but the low earnings resulting from disability status. Past studies did not consider this effect that disability status has on earnings. The analyses in this study, however, do account for the effect of disability status on earnings in the estimation of the predicted average wage. Thus, the models in Table 5 containing the "Predwage" reveal the true negative effect of disability status on returns to AFDC, once corrected for its effects on earnings.

The negative coefficients for "Disabled" across the columns of Table 5 could imply that former AFDC mothers who are disabled are less likely than others to return to AFDC because their disabilities, while making them incapable of long-term work, make them eligible for alternative forms of public assistance, like Supplemental Security Income (SSI). Theoretically, switching to another public assistance program would make them no longer at risk of repeat spells of AFDC.

The findings in Table 5 support my argument that measuring the average levels of wages that mothers can earn more effectively predicts returns to AFDC. More generally, the results in column 4 of Table 5 show more clearly than Table 4 that mothers' decisions to stay off AFDC depend on short-run stability in maintaining levels of earnings higher than AFDC benefit amounts.

Besides earnings, the models in Tables 4 and 5 also indicate that the availability of nonearned income sources affects recidivism too. The models in both tables present evidence consistent with past studies that levels of household nonearned income affect recidivism. (See Ellwood, 1986; Blank and Ruggles, 1994.)

Household nonearned income is not the only source of nonearned income that may influence recidivism, however.<sup>10</sup> The certainty of child support payments should also affect recidivism. Other studies have ignored the effects of the timing of such cash transfers on recidivism.<sup>11</sup> Yet, I find that recidivism rates are greater among former AFDC mothers who experience highly variable spells of child support payments. The estimated coefficients for "Childsup" in Tables 4 and 5 are significant and

suggest that constant, uninterrupted receipt of child support affects mothers' deliberations about returning to AFDC.

Two other pieces of information contained in the models in the last two tables suggest that two major changes in household arrangements early in the postprogram period also influence the rate of recidivism. First, an additional child entering the mother's family<sup>12</sup> in the early phase of economic independence leads to higher rates of recidivism. I suspect that the magnitude of the estimated coefficient for "Post child" would increase if births were distinguished from returns of older children to the family.

Second, Tables 4 and 5 indicate that moving to subsidized housing in the postprogram period also raises recidivism rates. The estimated effect is probably biased upward, however, as subsidized housing is often located in poorer neighborhoods and chosen more often by relatively poorer mothers. Nevertheless, the propensity of recidivists to move to subsidized housing is certainly consistent with Blank and Ruggles' finding (1994) that AFDC reentrants tend to use other public assistance programs. Indeed use of in-kind transfer programs, like subsidized housing and food stamps, may signal an effort to lessen economic vulnerability without returning to AFDC. From the analyses, however, it seems more like a prelude to returning to AFDC.

Except for the disability variable, adding variables that gauge the effects of short-run stability in labor markets and household organization have little impact on the effects of other variables that have been reported in previous studies (Ellwood, 1986; Blank and Ruggles, 1994). Greater recidivism still occurs among black mothers, among younger mothers, among those with more children, and among those who have never been married. Besides those variables, the "Endmar" variable suggests that those 6.6 percent of mothers who had short-lived marriages (i.e., they ended AFDC eligibility through marriage but then divorced during the survey period) are more likely than others to return to AFDC.

Figure 2 diagrams the estimated hazard rate that is generated from the estimates in column 4 of Table 5. The estimated risk of AFDC reentry from the model mimics the original discrete hazard function plotted in Figure 1. Both figures reflect the initial high rate of return and the rapid decline in the risk of reentry after twelve months.

#### IV. CONCLUSIONS

This paper builds upon previous work on AFDC recidivism. It bolsters those past studies by showing that a sizable group of mothers return to AFDC quickly. The study argues, however, that understanding the short-run housing arrangements and labor market successes of former AFDC mothers in the early transition period is crucial. I find that former AFDC mothers who, in the short run, have additional children, move to subsidized housing, infrequently receive child support payments, and achieve no labor market successes are often led back to the consumption floor guaranteed by AFDC. If these mothers need any further government assistance after exiting AFDC, then the first few months in the postprogram period are when they seem to need it most.

The results are persuasive, yet three important refinements to the models would improve them. First, attempting to account for dependence across alternative types of spells (e.g., a spell on AFDC, a spell off it, and then another spell back on) would generate more efficient estimates of the recidivism rate. The length of a previous AFDC spell should affect the behavior of that rate. Second, correcting for unobservable individual heterogeneity is another necessary refinement. Negative duration dependence is produced without this rectification. (See Heckman and Singer, 1986.)

Finally, I make no allowance for the economic and institutional environment within which these women make re-participation decisions. If data on those environments were available, I could

Figure 2 here

have determined the interaction between state variation in AFDC benefit levels (Blank and Ruggles, 1994) and measures of short-term vulnerability.



**Appendix A**

The model predicts that wages affect AFDC recidivism rates. The estimated hourly wage is calculated from hourly wage levels for each month of the survey period. Though hourly wages are unreported in SIPP, it is possible to calculate estimates of hourly wages, with measurement error, however. I calculated an hourly wage by matching three pieces of information for every month of the survey: monthly reports on earnings, monthly reports on average hours worked per week of a month, and monthly reports on job status. Thus, for each month of the survey, there is an average hourly wage for the month. Once transformed into the log of hourly wages, this measure is then used as the dependent variable in regressions predicting wages.

Limitations in the data prevented me from fully specifying a complete set of variables that may affect a woman's wage. However, several key variables are used to predict the average hourly wage for a woman in the survey. Mothers' educational levels, past work experiences, headship status, and race are combined with a variable controlling for seam bias in the SIPP to predict the wages of these mothers. Table A.1 shows the results of the semi-log regression. The summary statistics of the model and several estimated coefficients indicate that the regression captures some of the variation in mothers' wages. The results resemble findings that are common to those derived from Mincer's (1974) earnings equations.

TABLE A.1

Predicting Hourly<sup>a</sup> Wages of Mothers

Variables	Coefficient	Standard Error
Race	0.004	0.076
Experience	0.058***	0.018
Experience Squared	-0.001*	0.0006
Education	0.105***	0.016
Never married	0.288***	0.073
Post child	-0.012	0.031
Disabled	-0.501***	0.120
Turnovers	0.702***	0.046
Constant	-1.98***	0.245

N = 573  
 $R^2 = .412$ , adj  $R^2 = .403$   
 $F(9, 563) = 5.73***$

**Notes:** Mean predicted antilog value = \$1.71; Standard error = \$1.04. Range of predicted wage: Minimum = \$0.00; Maximum = \$8.35.

<sup>a</sup>Log of hourly wages

\*  $p < .10$

\*\*\*  $p < .01$



### Notes

<sup>1</sup>Here, I focus on increases in the number of dependent children. Similar effects are possible if additional dependent adults, for example, elderly parents or disabled adult kin, are added to the family after women leave the welfare rolls.

<sup>2</sup>By losing a child, I mean that the child enters adulthood or moves away from the household.

<sup>3</sup>The hazard rate is defined as a function of both time and a set of explanatory variables. The empirical equation is  $h(t,X) = \lim_{\Delta t \rightarrow 0} [P(t \leq T \leq t + \Delta t, X) / \Delta t]$  where  $t$  is the number of months since the beginning of the spell and  $X$  is a vector of independent variables describing characteristics of the individual. The advantages and disadvantages of applying the Cox proportional hazards model to data recording exits from and entries onto the AFDC program are extensive. The reader is referred to Heckman and Singer (1986), Lancaster (1990), and Sueyoshi (1992).

<sup>4</sup>Rotation group 1 of the 1986 panel was followed for only 24 months instead of 28 months.

<sup>5</sup>Hispanics and other ethnic groups in the SIPP are excluded from my analyses.

<sup>6</sup>I highlight disability status in Table 3 because studies on recidivism emphasize that welfare returns and disability status are positively correlated. (See Ellwood, 1986; Long, 1990; and Blank and Ruggles, 1994.)

<sup>7</sup>The omitted reference group in all models consists of women who reported never working during the survey period, even though they did finish an episode of AFDC receipt.

<sup>8</sup>I know when a change of job also involved a change in both occupation and industry from the three-digit Standard Industrial Classification (SIC) and Standard Occupation Classification codes that were recorded for each woman in the survey. (See Technical Paper 59, "The Relationship Between the 1970 and 1980 Industry and Occupational Classification Systems," U.S. Department of Commerce, Bureau of the Census, 1985.)

<sup>9</sup>Those reentering AFDC had an estimated mean hourly wage of \$1.18, while those staying off

AFDC had an estimated mean hourly wage of \$2.17.

<sup>10</sup>The monthly data collected on child support amounts and coverage allow me to separate this source of nonearned income from other sources of nonearned income. These data may undercount the frequency of child support payments or undercount the numbers of families covered by child support orders if mothers feared that divulging child support information to SIPP would affect their AFDC receipt.

<sup>11</sup>There are other types of cash transfers, as well as in-kind transfers. I focus on child support because of its policy implications and unclarified impact on the lives of former AFDC mothers.

<sup>12</sup>The present analyses clump births in the postprogram spell and returns of other dependent children together.

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