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UKCPR Discussion Paper Series

#2003-03

<http://www.ukcpr.org/Publications/DP2003-03.pdf>

July 2003

Exit Routes from Welfare: Examining Barriers to Employment, Demographic and Human Capital Factors

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EXIT ROUTES FROM WELFARE: EXAMINING BARRIERS TO EMPLOYMENT, DEMOGRAPHIC AND HUMAN CAPITAL FACTORS

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July 22, 2003

*This research was supported in part by grants from the Charles Stewart Mott Foundation, the Joyce Foundation, the John D. and Catherine T. MacArthur Foundation, and the National Institute of Mental Health (R24-MH51363) and a National Institute for Child Development Training Grant. Sheldon Danziger, Reynolds Farley, Pamela Smock, and Yu Xie provided helpful comments on an earlier draft.

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Abstract

This paper investigates how barriers to employment, human capital, and demographic characteristics affect women's exit routes off welfare. Specifically, I address two questions. First, what are the avenues through which women leave welfare? Second, are mental and physical health problems, domestic violence, and lack of access to transportation, characteristics that have been ignored in other studies of welfare dynamics, associated with different welfare exit routes? Using multinomial logistic regression and data from the Women's Employment Survey, this project examines the specific exit route chosen in detail and goes beyond general dynamics associated with welfare exit in order to capture the full heterogeneity of outcomes now witnessed in the post-Welfare Reform world. Results indicate that women with physical limitations are less likely to leave welfare either through obtaining a new job or through a non-work exit. Finally, women with transportation problems or with post-traumatic stress disorder are less likely to leave welfare through combining work and welfare

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The search for media sound bites after the 1996 Welfare Reform Act has led to a focus on dramatic caseload declines. Between fiscal year 1996 and 2000, the average monthly number of Temporary Assistance for Needy Families Program (TANF) recipients fell 53 percent to 6.0 million persons, the smallest number of people on welfare since 1968 (US Department of Health and Human Services, 2002). While these are the largest welfare caseload declines in the history of U.S. welfare programs, the focus on welfare caseload declines ignores the complexity of what is occurring across the nation as women leave welfare for a variety of reasons and through a variety of pathways. Looking only at welfare exits lumps together women who are sanctioned for noncompliance and those who were able to find work and leave immediately. Similarly, an examination of work exits alone ignores the very different routes women take to leave welfare for work—some women combine work and welfare for many months before being able to leave welfare and some women leave welfare immediately upon finding work. In this paper, I explore these different pathways off welfare and their correlates in detail.

This paper investigates how barriers to employment, human capital, and demographic characteristics affect women's exit routes off welfare. Specifically, I address two questions. First, what are the avenues through which women leave welfare? Second, are mental and physical health problems, domestic violence, and lack of access to transportation, characteristics that have been ignored in other studies of welfare dynamics, associated with different welfare exit routes? This project examines the specific exit route chosen in detail and goes beyond general dynamics associated with welfare exit in order to capture the full heterogeneity of outcomes now witnessed in the post-Welfare Reform world.

This research extends past work in several ways. First, Welfare Reform substantially changed the trade-offs women face when developing welfare exit strategies. This paper updates our knowledge of how women leave welfare. Second, if women's physical and mental health characteristics and access to transportation are important in determining the type of welfare exit route chosen, then controlling for their effects will eliminate some forms of bias in the estimated effects of demographic and human capital characteristics. Furthermore, including these elements will enhance our understanding of how such factors operate at the individual level as women develop exit strategies from welfare.

Current Policy Environment

Concern over welfare dependency fueled the push for welfare reform in the form of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA). Receipt of cash assistance is now restricted to a maximum lifetime limit of five years, or less at state option. Welfare recipients must be engaged in work or work-related activities in order to be eligible to receive cash assistance after 24 months of TANF receipt (or less at state option). States have great discretion regarding the range of activities that may fulfill the federal work requirement but the emphasis has shifted from education and skill-building programs to a "Work First" approach which stresses experience in the labor market as the best avenue towards achieving self-sufficiency.

In Michigan, where the data for this study are collected, new recipients are required to attend an orientation at Work First (the State's agency which handles job placement for the welfare population) before their TANF or Food Stamp application will be accepted. Unless the recipient meets a stringent list of exemptions¹, she must participate in a Work First activity

¹ Recipients in Michigan not required to participate in Work First orientation if they fall into any of 4 categories: 1) employed more than 20 hours or more per week; 2) severely disabled or caring for a severely disabled child or spouse; 3) mother caring for an infant under the age of 12 weeks; and 4) over age 65 or under age 16.

within 10 calendar days. If she fails, new cases are closed after 60 days of nonparticipation. For on-going cases, after 60 days, noncompliance results in a 25 percent reduction in both cash and food stamps for four months followed by case closure (Seefeldt et al, 1998).

However, accompanying the stringent work requirement under Welfare Reform are high incentives towards employment. The well-noted work disincentives imbedded in the Aid to Families with Dependent Children Program (AFDC) welfare program such as a high tax rate on earnings and the loss of Medicaid benefits have been replaced with high income disregards, a large Earned Income Tax Credit (EITC), and increased medical coverage (Ellwood, 1999). In Michigan, recipients who work are allowed to keep the first \$200 and an additional 20 percent of earned income without it affecting their grants.² Working families with children that have annual family income less than \$26,500 with one child and \$30,095 with two or more children are also eligible for the Earned Income Tax Credit (EITC). The maximum EITC in 1998 was \$3756 for a family with two or more children and \$2271 for a family with one child (Danziger et al., 2002). Finally, families who leave the welfare system due to increased earnings are eligible for up to 12 months of medical coverage under Medicaid. Children in low-income families in Michigan may also be eligible for coverage under MICHild, the State's version of the Federal Child Health Insurance Program (CHIP) (Seefeldt, 1999).³ Consequently, with this package of benefits for workers, women who receive TANF in Michigan are now economically much better off if they work than if they do not.

These programmatic changes in welfare policy have been implemented during a time of strong economic growth. Regardless of the change in welfare policy, the booming labor market would have pulled some women off the rolls and into employment. Estimates vary

² Assuming no other income, a family of three can earn approximately \$775 a month before the case closes (Seefeldt, 1999).

regarding how much of the welfare caseload reduction is due to strength of the overall economy but research indicates that about one-half of the decline for the 1994 to 1996 period is due to low unemployment (Danziger, 1999).⁴

Many studies examined the avenues through which women leave welfare before the adoption of the 1996 Welfare Reform Act (Bane and Ellwood, 1994; Blank, 1989; Harris, 1993; Hofferth, Stanhope and Harris, 2002; Pavetti, 1993). For example, using monthly data from the PSID for 1984-1986, Harris (1993) distinguished between two types of work exits-- women who leave welfare when they find a job and those who work their way off through cumulative work experience. She contrasted these two groups and those who exit for other reasons with those who remain on welfare using multinomial logistic regression. Her findings indicated that background characteristics such as age, race, and urban residence had little direct influence on the exit route and that changing life circumstances, such as the number of children, and investments in human capital, such as education and work experience, largely determined the exit route off welfare.

The combination of work requirements, economic incentives geared toward supporting work, and a strong economy together have substantially changed the relationship between work and welfare for low-income women in the late-1990s from that in the 1980s, when most previous research was conducted. Additionally, earlier studies may put too much stress on human capital and demographic characteristics to the exclusion of other barriers to employment, specifically mental and physical health problems, domestic violence, and problems with transportation. For example, women who live with an abusive partner or experience a mental illness such as depression may not perform well in a job interview and,

³ For a fuller discussion of the effects of welfare reform on the incentive structure of employment see Ellwood (1999) and Danziger et al. (1999).

subsequently, have difficulty obtaining employment and face state sanctions. Women with a physical health problem may have limited physical functioning and therefore only be able to perform a limited number of job tasks, reducing the number of jobs for which they qualify. Alternatively, women with physical or mental health problems may find the repeated office visits and large amounts of documentation required to remain qualified for cash assistance difficult with which to comply, leading to their removal from the caseload without other forms of support. This paper extends the human capital and demographic models of welfare exit to include other previously unmeasured barriers to employment to explore how health, domestic violence and transportation affect women's pathways off welfare.

Models of Welfare Exit

The Human Capital and Demographic Models

The human capital model assumes that women with higher levels of education, work experience and job skills are in a better position to obtain employment and thereby exit welfare through work (Mincer and Polacheck, 1974). Women with lower levels of human capital are at higher risk for long-term welfare dependency and are more likely to cycle between welfare and work (Bane and Ellwood, 1994; Harris, 1996). For example, using nationally representative annual data from the Panel Study of Income Dynamics (PSID) from 1968-1989, Bane and Ellwood (1994) use multinomial logistic regression to model characteristics associated with different exit routes. They find that education and work experience are associated with an increased likelihood of a work exit. Human capital theorists argue that women will exit welfare through work when they have the levels of education, job skills and

⁴ Estimates over the 1994 to 1998 period indicate that the proportion of the caseload decline due to economic growth is even smaller (Wallace & Blank, 1999).

work experience demanded by employers and when the expected income from work exceeds the expected income from welfare.

The demographic approach stresses the importance of household composition and fixed characteristics, such as race and age, on a woman's choice of welfare exit route. The presence of young children may constrain single mothers' ability to leave welfare through either work or marriage. The presence of other adults in the household, particularly an employed adult, may enable a single mother to overcome the short-term costs of employment or may provide an alternative source of income that leads her to exit welfare without work (Edin and Lein, 1997). African-American women have been found to have longer lengths of welfare receipt, largely because of their low marriage rates and their lower expected market incomes (Bane and Ellwood, 1994; Pavetti, 1993). Finally, as women age and the length of welfare receipt increases, their probability of leaving welfare through work should increase as they adapt to their situation, expand their information networks, and develop problem solving and time management skills (Harris, 1993). Generally, the demographic model assumes that fixed characteristics, such as age and race, make a difference in the likelihood of welfare exit route through their association with either employment or marriage.

From the human capital and demographic models come two hypotheses. In the human capital model, it is expected that higher levels of human capital should be associated with higher rates of exiting welfare through work, particularly new-job exits, in which women quickly make the transition from welfare-to-work. In the demographic model, it is expected that race and the presence of young children should decrease the probability of work and marriage exits while age and the presence of other adults in the household should increase work exits.

Both models share a conceptual framework in which the decision to leave welfare is an economic decision. “Women can only move off welfare if they replace welfare income with some other source of income to support their family, such as income from a job, income support from a man through marriage or cohabitation, or income from friends and family” (Hofferth et al, 2002:10). Women are viewed to weigh the benefits and costs of remaining on welfare with their expected wage rate and the constraints of child care costs and local labor market conditions. This approach may be incomplete at best in the current policy environment.

First, under TANF women no longer have a choice to work or receive welfare. Participation in a qualifying work activity is not dependent upon a woman’s calculation that it is beneficial to work but is mandatory after two years of receipt of cash assistance or less at state option (60 days in Michigan). Women who do not meet the work requirement may face state sanctions—that is some or all of the state support package may be withheld including the TANF cash assistance, food stamps, and adult Medicaid benefits (Bloom and Winstead, 2002). Second, conceptualizing work and welfare as competing *choices* for single mothers ignores the dramatic policy change that went into effect in 1996 making work mandatory. In many states such as Michigan, women are actively encouraged to combine work and welfare generating a whole new population of legitimate working welfare recipients. Finally, a small, but substantial, minority of women currently leave welfare without an income substitute for the cash assistance of TANF (Danziger, et al, 2000; Rangarajan and Wood, 2000). According to estimates from New Jersey, one-quarter of women in this group leave welfare after being sanctioned and leave involuntarily; six percent report welfare was too much of a hassle (Rangarajan and Wood, 2000). Viewing the act of leaving welfare as a purely economic decision ignores the constraints many women may face due to their health, mental health, experiences of domestic violence and transportation problems. I expand upon this last point in

more detail below. Given these substantial changes in the parameters low-income mothers use to calculate leaving welfare, it is useful to examine the pathways women leave welfare in the current policy environment.

Barriers to Employment on Welfare Exits

It is well understood that gender, race and low socioeconomic status are associated with increased rates of poor mental and physical health. Kessler et al. (1994) established that mental health illnesses are more prevalent in women than in men. Among women, the disadvantaged are at increased risk of poor mental and physical health. The risk of depression, for example, is increased for mothers with several young children, single mothers, and mothers in poverty (Hobfall et al, 1995). Williams (1995) finds that black women have higher rates of phobias than do white women. Similarly, physical health has long been linked to gender, race and socioeconomic status (Denton and Walters, 1999; Williams, 1999).

In research focused on recipients of welfare, Danziger et al. (2000), Kalil et al. (1998), Olsen and Pavetti (1996), and Pollack et al (1999) indicate that physical and mental health problems, and experiences of domestic violence are much more common in the welfare population than in the general population. Danziger et al. (2000: Table 3) report that women on welfare are about twice as likely to meet the criteria for depression, generalized anxiety disorder, or substance dependence than are similar aged women in the general population; women on welfare are twice as likely to have a child that has a health problem than are women in the general population. Two studies have begun to look at the role of health in determining exit route strategy. Hofferth et al. (2000) examine the role that physical health plays in women's welfare exits by analyzing if the head of the household has a disability in a sample of women from the mid 1990's, before Welfare Reform. They find that having a disability decreased the odds of leaving welfare through either work or non-work means. Looking at

mental health, Coiro (2001) finds a marginal relationship between depression symptoms and the likelihood of leaving welfare in a sample (N=173) of welfare mothers taken before Welfare Reform in Georgia. This paper improves upon these earlier efforts by incorporating measures of both physical and mental health and examining how these affect the specific exit strategy chosen by women on welfare.

Similarly, Tolman and Raphael (2000) review various studies showing rates of domestic violence are over-represented among women on welfare. They suggest that domestic violence may impact the transition from welfare-to-work directly through partner interference with work as well as indirectly through the elevated presence of physical and mental health problems. Not only does domestic violence interfere with the ability to obtain and retain employment (Browne, Salomon, and Bassuk, 1999; Sable, Libbus, Huneke, and Anger, 1999; Scott et al. 2002), but it may also decrease the probability of leaving welfare through marriage, and increase the probability of a leaving involuntarily or through an undetermined mechanism.

Danziger et al. (2000) have shown that lack of a car or a driver's license to be negatively related to the probability that a respondent is working 20 hours weekly. Ong and Blumenberg (1998) find that many welfare recipients live in "job poor" neighborhoods far from employment for which they are qualified. Raphael and Rice (1999) find that having access to a car is a significant determinant of labor market outcomes, both in terms of employment and work hours. In keeping with prior research, I expect to find that women with transportation problems will have lower odds of leaving welfare through new work activity.

In past research, models of welfare exits have mainly focused on the role of human capital and demographic characteristics. While it has been noted that welfare exits are probably influenced by other constraints, no one has fully tested the hypothesis in the Post Welfare Reform Era. One approach researchers have used is to include labor market

indicators, such as county unemployment rate, as proxies of the social and economic opportunity (Harris, 1993). Others (Sandefur and Cook, 1998) have chosen to simply note the existence of unmeasured heterogeneity due to physical and mental health problems among the welfare population.

Work by Danziger et al. (2000) has shown the relationship between physical and mental health, domestic violence, transportation problems and work. Given the strong relationship demonstrated there, I expect to find that welfare exits are strongly related to physical and mental health and experiences of domestic violence. *Compared to women currently on welfare, women who experience physical and mental health problems, domestic violence, or transportation problems are expected to be less likely to transition quickly from welfare-to-work, less likely to work their way off of welfare after accumulating work experience, and more likely to leave welfare through other exits, such as being sanctioned.*

Data

Data come from the Women's Employment Survey (WES), a new longitudinal survey of welfare recipients in Michigan (Danziger et al., 2000). WES interviews, lasting about one hour, were completed between August and December 1997 with a random sample of 753 single mothers with children who were welfare recipients in an urban Michigan County in February, 1997. Michigan's Family Independence Agency provided names and addresses of all single parent cases; a stratified random sample was drawn; completed interviews represent an 86 percent response rate.⁵ A second wave was conducted in Fall 1998, which yielded 693 cases for a 92 percent response rate. Given this high response rate and the fact that there are

⁵ To derive a representative sample of the metropolitan area and the sample population, staff at the Institute for Social Research proportionally selected cases by zip code, race (white versus African-American) and age. The response rate of 86.2 percent is calculated by dividing the interview cases by the sample cases (753/874). Excluded non-sample cases (n=26) include instances in which the sample person resided outside of the sample county, no housing unit existed at the address, or the sample person was institutionalized for the duration of the data collection period. See Appendix C in Danziger et al. 2000.

very few significant differences between respondents and non-respondents, weighting is unnecessary.

Although the data are specific to an urban area in Michigan, no nationally representative survey contains the information on women's health and experiences with domestic violence necessary for this analysis. The data available in the Women's Employment Study are relatively unique and therefore well suited to this analysis. Additionally, Michigan's welfare policies are quite similar to those of many other states. For example, women in Michigan who worked part-time at minimum wage jobs were at the median for monthly net income among 12 states that contained a large portion of the nation's population and about 70 percent of the federal TANF caseload in 1999 (Allen and Kirby, 2000). Furthermore, the fraction of women in our sample who are employed and the fraction who have left welfare are very similar to the results of a recent Manpower Demonstration Research Corporation report on Cleveland (Brock et al., 2002), results in Wisconsin from a study by Cancian et al, (2000), and very similar to those reported by Acs and Loprest (2001) at the Urban Institute using administration data from the Washington, D.C. area. While the study uses data from only Michigan, the policy and economic conditions are broadly representative of the majority of the TANF caseload.

Methods

Drawing heavily on the work of Harris (1993), I use multinomial logistic regression to estimate a transition-from-welfare model. I break the sample up into four hierarchical categories. Following the specifications used by Harris (1993), I separate welfare exits from work into two categories. I first assign women to the category, *new job-leavers* (n=88), if the women leaves welfare within three months of getting a new job after one month of being on

welfare and not working. I allow a three-month period to exit welfare because leaving welfare might well take three months.⁶ The second category of workers, *work/welfare leavers*, includes women who move from combining work and welfare to being wage-reliant (n=201), defined as women who are not new job-leavers and who leave welfare after three months of concurrent welfare and work. The third category consists of all women who leave for any reason other than employment (n=234). This last group includes women who marry or begin a cohabitation (n=39), women who leave welfare after being sanctioned for failing to follow the program rules, or women who leave for any other reason.⁷ The reference category (n=123) includes all women who continued to receive cash assistance between February 1997 and December 1998, according to administrative data.

Because this study focuses on transitions from welfare, it is important to be clear about how a transition from welfare is defined here. The *first* exit off welfare between February 1997 and December 1998, a period of 23 months, is my base measure. If a woman exits welfare twice during this period, only the first welfare exit is coded. A welfare exit is defined as two continuous months without welfare receipt based on administrative data reports obtained from the State of Michigan's Family Independence Agency.⁸

I use the Women's Employment Study to estimate the following equation:

$$\Pi_{ij} = \exp(x'_i \beta_j) / \sum_{j=1}^J \exp(x'_i \beta_j)$$

⁶ A woman might begin work in month 1, file exit paperwork in month 2, and then stop receiving her welfare check in month 3.

⁷ I collapse a change in union status with other exits because of the small number of women in this category.

⁸ The measure of exit is right censored and could reflect a short-term sanction or administrative error and not a true sustained exit from welfare. In order to minimize this problem, I require a woman to remain off welfare for two consecutive months (instead of just one month).

Where Π_{ij} = the probability of leaving welfare in approximately two years through one of the 3 exit routes detailed above, and χ'_i = a vector of individual characteristics. I include three categories of independent characteristics: demographic characteristics; human capital characteristics; and barriers to employment described in detail below.

Multinomial logistic regression estimates the probability that a woman falls into one group versus the other four groups. In this case, I estimate the probability that a woman exits welfare through a new job, cumulative work experience, or some other reason relative to the probability that a woman continues to receive cash assistance. Within each contrast, I estimate two models. The first is the standard human capital model and includes controls for background demographic characteristics, educational level, work experience, and the number of job skills previously used in the labor market. The second model under each constraint adds controls for transportation, physical and mental health, and domestic violence. In essence, the results reveal which factors are important in differentiating the four groups of women. The first model closely approximates that estimated by Harris (1993) and Hofferth et al. (2002); the second model improves upon these models by including characteristics of women not measured in most datasets.

Throughout this discussion, I examine the *association* of these characteristics and exit route, and do not imply that these characteristics *caused* the welfare exit. I cannot rule out the possibility that a welfare exit actually led to the characteristics or that the characteristics and the welfare exit are both the result of a third intervening variable. To the extent exit strategies are constrained by barriers to employment, this should be evident in differential routes of welfare exit.

Variable definitions

[Table 1 about here]

Demographic and Household Characteristics. Table 1 presents sample means for all explanatory variables by welfare exit strategy. I draw upon the work of Harris (1993; 1996) most heavily in defining my variables for analysis. Demographic measures, all of which are measured at Wave 1, include a dummy variable indicating if the respondent is African-American, which describes 56 percent of the respondents. I also include a dummy variable indicating if the woman has never been married (63%) and if she reports one year or less of welfare receipt at the first interview (12%). Hofferth et al. (2002) find that exit rates are substantially higher during the first year of public assistance than later. Due to non-linearities in the effect of age on the transition from welfare, age is entered as a categorical variable (Bane and Ellwood, 1994; Harris 1993, 1996).

Household composition is a well established predictor for both length of welfare receipt as well as exit route (Bane and Ellwood, 1994; Harris, 1993, 1996) and is therefore controlled along four different dimensions for the multivariate analysis: (1) A dummy variable indicating whether children under age 4 are present in the household, which describes 34 percent of the sample; (2) a dummy variable indicating whether three or more children are present (37 percent); (3) based on research indicating that having a child with a health problem lowers work effort of single mothers (Danziger et al, 2000; Olson and Pavetti, 1996), a dummy variable indicating whether the respondent reported that their child, or a child for whom they were the primary caregiver, was receiving Supplemental Security Income (SSI) at Wave 2 (6 percent); and (4) a continuous variable measuring the number of adults in the household.

Most studies omit the number of adults in the household, perhaps assuming that as welfare recipients, most are single mothers living alone.⁹ In WES, however, we found that 25 percent of the respondents in Wave 1 reported living with another adult with whom they were not married or cohabiting. There are many possible benefits of having another adult in the household such as sharing child-care responsibilities or household expenses (Edin and Lein, 1997). However, if this adult requires care, such as an elderly relative with a medical condition, another adult could indicate the presence of increased home responsibilities. About 13 percent of women in Wave 2 indicated that they participated in help-giving activities that interfered with their ability to work or perform regular activities. Approximately one-fifth of the respondents in Wave 2 indicated that they had individuals living with them who they wished were not there. Therefore, with a variety of possible causal pathways, the presence of additional adults in the household may be an important predictor of welfare exit route that has been excluded from many prior analyses. The average number of adults present, excluding the mother, is 0.51.

Human Capital Characteristics. I include three human capital variables measured at Wave 1: 1) a woman's education level captured in two dummy variables indicating if a woman has a high school diploma (37 percent) or more than a high school education (33 percent); 2) whether a woman had recent work experience; 3) and the number of job-related skills previously used. Recent work experience is indicated by a dummy variable coded 1 for all women who reported working in February 1997, the date when the sample was drawn.¹⁰

⁹ Harris (1993) selected a subsample of single women on welfare who are not living with kin. Harris (1996) includes women who are married or cohabiting but it is not clear if other adults may be present. Bane and Ellwood (1994:166) indicate that selecting single mothers as heads when using the PSID excludes women who may receive AFDC and live in someone else's household.

¹⁰ Measures of work experience vary. Harris (1993) operationalized work experience using whether a woman has ever worked; Duncan and Harris (1997) use whether a woman worked 250 or more work hours in either of the two years preceding onset of AFDC. I use a measure that incorporates recency as the primary gauge assuming

While previous research employed only these gross measures of human capital, I am able to use a more sensitive measure of human capital: job-related skills. Using questions adapted from Holzer (1996), respondents were asked about which of the following nine tasks they had performed on a daily, weekly, or monthly basis on previous jobs: worked with a computer; written letters or memos; watched gauges; talked with customers face to face; talked with customers on the phone; read instructions; filled out forms; did arithmetic; worked with electronic machines. Women who indicated they used these skills on a monthly or weekly basis were coded as previously using the skill. I use a continuous measure of the number of job skills previously used.¹¹ In Holzer's (1996) study of employers in Detroit, Atlanta, Boston and Los Angeles, he found that each of these tasks, except writing paragraphs, is performed daily in half or more of the jobs that did not require a college degree.

Barriers to Employment. Due to the richness of the data, I am able to include a number of measures of factors that have been absent from most previous studies that might constrain a respondent's ability to obtain employment or a partner and, therefore, affect their welfare exit route. Each of these factors is measured at both Wave 1 and Wave 2. I am therefore, able to include a measure of persistence by including a dummy variable indicating if the condition is present at both waves.

Mental health is assessed with diagnostic screening batteries for the 12-month prevalence of two psychiatric disorders listed in the Diagnostic and Statistical Manual, revised third edition – major depression and post-traumatic stress disorder. Questions come from the 12-month screening version of the World Health Organization's (WHO) Composite

that the date of the most recent spell of labor market attachment is correlated with work experience. In analyses not shown, I did test to see if the effect of work experience on exit strategy was sensitive to the definition used and I found that it was not.

International Diagnostic Interview (CIDI) (WHO, 1990; Kessler et al., 1999). The CIDI is a structured interview schedule that is designed to be used by trained interviewers who are non-clinicians to assess the prevalence of specific psychiatric disorders (Robins et al., 1988). WHO field trials and other methodological studies (Wittchen, 1994) have documented acceptable test-retest reliability and clinical validity of the CIDI diagnoses. The items in each of the indices are scored for clinical caseness, and all respondents who meet the scale criteria are defined as having the disorder. Eight percent of the sample met the criteria for depression at both waves and 7 percent met the criteria for post-traumatic stress disorder.

Health status is measured using the physical limitations scale taken from the SF-36 Health Survey (Ware and Sherbourne, 1992). Respondents who score in the lowest age-specific quartile (based on national norms) of this multiple-item scale are defined as having a physical health limitation. Eleven percent met the criteria for having a physical limitation at both waves.

Domestic violence is assessed using items from the Conflict Tactics Scale (Straus et al., 1986), a widely-used measure of family violence. Respondents were defined as having experienced domestic violence if they reported any incidents of severe violence (e.g. hit with a fist or object, beaten, or choked) in the 12 months prior to the interview. Six percent experienced persistent domestic abuse at both waves 1 and 2.

Drawing on the work of Raphael and Rice (1999) and their finding regarding the importance of access to a car on work outcomes, a respondent is defined to have a transportation problem if she lacks access to a car and/or she does not have a driver's license at both Wave 1 and Wave 2—about 29 percent of the sample. In the urban county from which

¹¹ In analyses not shown, I tested different functional forms of the work skills variable and found that the results were generally not sensitive to the specification chosen.

this sample was drawn, public transportation is not widely available and therefore the inability to drive substantially restricts employment possibilities.

Descriptive Results

Estimates of exits from welfare using WES indicate that almost two-fifths of all exits are work/welfare leavers, 17 percent are due to new jobs, and the remaining approximately two-fifths exiting through marriage (7.5 percent) or some other mechanism (see Table 2). These results differ somewhat from those reported by Harris (1993).¹² She found 41.6 percent of all exits occurred as the result of a new job; 27.1 percent from cumulative work experience, and 31.3 percent through some other mechanism, such as marriage. Hofferth et al. (2002) examine welfare exits for the 1989-1996 period also using the PSID and, although they do not use the same categories as Harris, find roughly similar results. Grouping both type of work exits, Hofferth reports that 64 percent of welfare exits are work related and 36 percent due to other reasons. Overall, it appears that exits through new jobs have decreased while those from cumulative work experience have increased post welfare-reform. This is likely a result of the increase in the earnings disregard many states, including Michigan, implemented under welfare reform wherein women can more easily accumulate work experience before leaving welfare by combining work and welfare receipt. Additionally, more women are leaving welfare without ties to employment suggesting increases in marriage and/or sanctions.

[Table 2 about here.]

New job takers differ conceptually from women who work their way off welfare in a number of ways. First, new job takers tend to be the subject of many welfare success stories since these are the women that transition from being wholly dependent on cash assistance from

¹² Results presented here are similar to those presented by Hofferth (2000), who just classifies exits according to work or non-work. Using PSID data from 1989-1996, they report that 64 percent of all exits are associated with

welfare to completely independent within a few months of finding a well-paying job. Women who combine work and welfare tend to move more slowly towards the goal of self-sufficiency. These women begin by finding a job but then continue to receive welfare for many months while working, due to some combination of low wages and low work hours, before taking the last step towards self-sufficiency and leaving welfare behind. The differing context around their welfare exits suggests that the two groups of women may differ substantially on a host of both measured and unmeasured characteristics, including those analyzed here.

Second, Table 1 shows new job takers are more disadvantaged than women who work their way off welfare: New job takers are more likely to have young children, to experience persistent domestic violence, to have persistent post-traumatic stress disorder, and less likely to be a high school graduate than are women who work their way off welfare. These differences are statistically significant at the .10 level.

Third, despite these differences, I find that women who leave welfare due to getting a new job stay off welfare longer, on average, than do women who leave through cumulative work experience (6.9 months versus 5.1 months).¹³ In fact, women who move from combining work and welfare to being wage-reliant not only have a significantly shorter exit off welfare, but also experience the quickest re-entry onto welfare. Women who leave due to the formation of a new union or through some other mechanism have exits that last 7.1 months, on average. That the length of exit is related to the exit route suggests that either some exit routes are more stable than others (Harris, 1996), or that some other factor, such as a women's health, experiences with domestic violence and transportation, effect both their exit route and their length of exit.

work and 36 percent non-work. A similar classification with the data here would yield an estimated 55 percent of exits due to work and 45 percent due to non-work.

¹³ Analysis of variance indicates that the difference is significant at the $p < .001$ level.

Hofferth et al. (2002) examine the relationship between welfare exit route (work only, work and marriage, and marriage only) and returns to welfare in a pre-welfare reform sample. They also find that the cumulative proportion of women returning to welfare is higher for welfare exits associated with marriage than those associated with work. However, the difference becomes nonsignificant once state level economic and policy conditions are controlled. Given that the data for the current project are from the same geographic area and time period, other factors must be driving the difference in returns to welfare. I explore human capital levels, demographic characteristics and barriers to employment associated with exit routes below.

Results from Multinomial logistic regression analysis

[Table 3 about here.]

Results from Model 1 in Table 3 for the first contrast between those who stop receiving cash assistance after beginning a new job and those still receiving cash assistance indicate that first year of welfare receipt and two of the human capital characteristics are significant and in the expected direction. Receiving welfare for one year or less, having worked in February 1997, the first month of observation, and the number of job skills previously used are positively correlated with leaving welfare through obtaining a new job. This is not surprising-- women with high levels of human capital are most able to secure jobs at high enough wages to allow them to leave welfare. These findings, however, contrast with those of Harris (1993), who found that new job exits were negatively associated with having young children and positively associated with high school completion.

In Model 2, controls for transportation, mental and physical health and domestic violence are included. Only having a persistent physical health problem is statistically significant, and, consistent with my expectations, reduces the odds of exiting welfare via a new

job. This is consistent with the findings of Hofferth et al. (2002) who also found that having a disability decreased the probability of work exit. Given that these new job exiters are often the subject of the success stories offered by welfare program administrators, the negative correlation between physical health and new job exit suggests that good health may be a key characteristic in a rapid transition from welfare-to-work.

For the second contrast, between those who stop receiving cash assistance after combining work and welfare and those still receiving cash assistance, results from Model 1 indicate that children's health is important: Women with a child who receives SSI have lower odds of leaving welfare after combining work and welfare, possibly indicating that the extra care such a child would require inhibits a women's ability to build up enough tenure on any one job to exit welfare. Older women also have lower odds of leaving through this route. Human capital characteristics differ in their importance for this group from those who left welfare after taking a new job. Having worked in February 1997 and having a high school diploma (compared to those with less than a high school education) increases the odds of working-off welfare, while the number of job skills previously used is unrelated to this type of welfare exit. Hofferth et al. (2002) found a similar positive association between the work experience and education level and work exit.

In Model 2, controls for transportation, mental and physical health and domestic violence are included. Consistent with my hypotheses, persistently not having a car and/or a driver's license and experiencing post-traumatic stress disorder significantly reduce the odds of working-off welfare. Having persistent major depression, experiencing persistent domestic violence, or persistent health problems have no effect on the odds of working-off welfare. Including these additional controls, however, slightly reduces the coefficient on the education level variable making it fall in statistical significance. Thus, women with transportation

problems and mental health problems, specifically post-traumatic stress disorder, face lower odds of accumulating the work experience requisite for leaving welfare through work. It may be that women with transportation and mental health problems are unable to work enough hours at high enough wages to support themselves financially without the cash assistance from welfare. Alternatively, the problems that they face may lead them to have unstable work patterns and prevent them from moving up the job ladder.

Finally, in the third contrast between those who leave welfare through some other mechanism (including union formation) are contrasted with those continuing to receive cash assistance. In Model 1, those age 35 and over are less likely to exit welfare through some other mechanism than to remain on welfare compared to those under age 25, as are women who have a child receiving SSI. Those who were working in February 1997 were also less likely to leave welfare through this route. This finding is in contrast to that of Hofferth et al. (2002) who find a positive relationship between work experience and a non-work exit. Oddly, the number of job skills previously used is associated with increased odds of leaving welfare through a non-work exit. In contrast to the findings of Harris (1993), but similar to the findings of Hofferth et al. (2002), I do not find an association between the first year of welfare receipt and leaving welfare through a non-work exit.

In Model 2, of the additional controls, having a persistent health problem is associated with decreased odds of leaving welfare through this route. Domestic violence, major depression, transportation problems, and post-traumatic stress disorder are not significant correlates for this group. Results are consistent to those of Hofferth et al. (2002) with respect to the importance of age and the head having a physical health problem (or disability as defined in Hofferth et al.).

Results here echo the work of Hofferth et al (2002) and Harris (1993) in that I find strong support that human capital levels have effects on the odds of leaving welfare. My results only weakly support my predictions regarding the importance of physical health, mental health and transportation problems in determining women's exit routes from welfare. I find no support for the hypothesis that experiences of domestic violence would be associated with fewer work exits and more non-work exits. However, adding measures of access to transportation, physical and mental health, and domestic violence substantially improves the fit of the transition from welfare model from Model 1 to Model 2 ($p < .001$). So, while each of the individual barriers to employment is not associated with welfare exit strategy, I find evidence to support the importance of including barriers as a block in models of welfare exit routes.

Conclusion

This paper examined how human capital levels, demographic characteristics and barriers to employment affect women's exit routes off welfare in the Post-Welfare Reform Era. Using panel data from a random sample of welfare recipients in February 1997 from an urban county in Michigan, I find that almost two-fifths of all exits are work/welfare leavers, 17 percent are due to new jobs, and the remaining two-fifths exit through marriage or some other mechanism. This marks a dramatic change from estimates of exit routes in the 1980s.

I also compare the role of demographic and human capital characteristics with barriers to employment such as health, domestic violence, and transportation on women's welfare exit strategies. I find that mothers' physical health, experiences with post-traumatic stress disorder, and access to transportation are associated with the likelihood of exiting welfare through different exit routes. These results indicate the existence of other constraints on women's welfare exit routes. While exposure to domestic violence and experiences of major depression did not have a direct significant effect on the choice of exit route, introducing the block of

variables did improve the overall model fit. This suggests that it is important to include other characteristics in modeling women's welfare exit routes.

This analysis suggests more research should consider the effect of women's physical and mental health, experiences of domestic violence and access to transportation on welfare exit routes. These characteristics represent dimensions of women's lives that both constrain their options and are affected by their social environment. As stated above, low-income women are much more likely to suffer mental health problems (Danziger et al, 2000; Hobfall et al., 1995; Pollack et al., 1999; Olsen and Pavetti, 1996), physical health problems (Danziger et al., 2000; Denton and Walter, 1999; Olsen and Pavetti, 1996; Polit et al., 2001; Williams, 1999), experience domestic violence (Browne et al., 1999; Olsen and Pavetti, 1996; Scott et al. 2002) and transportation problems (Ong and Blumenberg, 1998). Although not generalizable because the data are limited to an urban county in Michigan, results are suggestive that national research should be directed towards better understanding the effects of health problems, domestic violence and transportation on the life decisions of women on welfare.

Evidence is also found in support for the human capital and demographic models. Women with recent work experience and higher numbers of job skills are more likely to exit welfare through obtaining a new job; being a high school graduate and having recent work experience is associated with exiting welfare through cumulative work experience. Additionally, I find that receiving welfare for one year or less is associated with leaving welfare through a new-job. These findings are consistent with Hofferth et al. (2002) who found that education level, work experience, and receiving welfare for one year or less were positively associated with work exit. Interestingly, the number of job skills previously used is associated with exiting welfare through a non-work route. Age and child's health are associated with the odds of leaving welfare through combining work and welfare and for non-

work exits. Similarly, Hofferth et al. (2002) found that age was associated with both work and non-work exits.

However, there is no evidence that welfare exit route is associated with race, the presence of young children or the number of adults present in the household. These results differ somewhat of those of Hofferth et al. (2002) who found that the presence of preschool age children increased the probability of work exits and decreased the probability of nonwork exits. Since Michigan only grants work exemptions to women with infants under three months, it is surprising that age of youngest child does not have a strong impact in the current policy environment.

Under welfare reform, states now require quick labor force attachment as a requirement of welfare receipt. The results from this analysis, however, show that almost half of all women who exit welfare in Michigan, do so through a non-work route. That is, they get married or begin a new cohabitation, are sanctioned, or leave through some other mechanism. While work activity is strongly related to the characteristics examined here (Danziger et al. 2000), welfare exit route is not. This suggests that, at least in Michigan, the relationship between work and welfare is much more complicated than previously thought. Incentives that have made work more attractive (Danziger et al., 2002), may not easily translate into welfare exits routes than can be traced directly to work. Perhaps some women leave welfare without employment but then find a job within a short time period (Miller, 2002). These welfare exits would be characterized as “non-work” exits according to my coding scheme.

If the returns to the labor force attachment model are questioned by this research, the feasibility of marriage as an exit route that should be encouraged is even more suspect. I find that very few women leave welfare through formation of a new marriage or cohabitation—just 7.4 percent (n=39). In spite of the support for marriage as an alternative to welfare from the

current Presidential administration, currently this is not a common route off welfare. Research by Hofferth et al. (2002) suggests that women who leave welfare through a combination of both marriage and work or through work alone fare much better financially than women who exit welfare into a marriage alone. Those results indicate that work and marriage exiters and work exiters have higher average individual earnings, average household incomes and higher average income-to-needs ratios 24 months after exiting welfare than are women who left welfare for marriage alone. Additionally, women who exited welfare through work and marriage were more likely to remain married 24 months after leaving welfare than were women who left for marriage alone (92 percent versus 78 percent, respectively).

This paper contributes to the existing literature on welfare dynamics in two ways: first, by detailing the welfare exit routes used by women in the post-welfare reform era; and second, by considering the role of barriers to employment such as physical and mental health, domestic violence and transportation problems in constraining women's exit route strategies. In doing so, this paper sheds light on the potential impact of policies on women that stress labor force attachment but do not address underlying barriers to employment. Results indicate that women with physical limitations are less likely to leave welfare either through obtaining a new job or through a non-work exit. Finally, women with transportation problems or with post-traumatic stress disorder are less likely to leave welfare through combining work and welfare.

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Table 1: Descriptive Statistics by Welfare Exit Route

<i>Characteristic</i>	<i>Sample %</i>	<i>New Job takers</i>	<i>Work--off</i>	<i>Other exits</i>	<i>On welfare</i>	<i>p-value[†]</i>
<i>Demographics</i>						
African-American	56.0	59.8	56.5	52.6	59.0	
Age 25-34	46.8	41.4	48.0	48.7	45.1	
Age 35 or older	26	32.2	26.5	19.4	32.8	*
Youngest child <4	34.3	36.8	26.5	40.5	33.6	*
Three or more total children present	37.4	35.6	35.5	36.6	43.4	
Child receives SSI	5.5	3.5	3.5	4.7	11.5	*
Number of adults present	0.51	0.51	0.50	0.55	0.48	
Never married	63.0	66.7	62.0	62.5	63.1	
First year	11.9	20.7	6.5	14.2	9.8	*
<i>Human Capital</i>						
Less than a high school education	29.7	29.9	20.6	34.9	34.1	*
High school graduate/GED	37.4	31.0	42.7	38.8	30.3	*
More than high school education	33.0	39.1	36.7	26.3	35.3	*
Number of job skills previously used	5.8	6.2	6.0	5.7	5.3	^t
Worked in February 1997	42.3	58.6	60.0	21.6	41.0	*
<i>Barriers to Employment</i>						
Transportation problem	29.2	25.3	17.5	36.2	37.7	*
Major depression	8.0	6.9	7.0	9.1	8.2	
Post-traumatic stress disorder	6.7	12.6	3.0	6.5	9.0	*
Domestic violence	6.2	6.9	2.0	9.9	5.7	*
Mother has physical limitations	10.6	6.9	9.0	10.3	16.4	

Notes

Sample size: 640 observations with no missing data

* indicates that the rows and columns fail the Pearson's Chi-Square test of independence at the .10 level

^t ANOVA indicates that the differences in means is significant at the .10 level

Table 2. Welfare Exit Routes

<i>Author</i>	<i>Data</i>	<i>Year Observed</i>	<i>% New Job Exit</i>	<i>% Work Off Exit</i>	<i>Other Exit</i>
Heflin	WES	1997-1999	16.8	38.5	44.7
Hofferth et al. (2002)	PSID	1989-1996		64.03	36
Harris (1993)	PSID	1984-1986	41.6	27.1	31.3

Table 3: Multinomial Logistic Regression Parameter Estimates of the Transition off Welfare

<i>Explanatory Variables</i>	<i>New Job Exits</i>		<i>Work/Welfare Exits</i>		<i>Other Exits</i>	
	<i>Model 1</i>	<i>Model 2</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 1</i>	<i>Model 2</i>
	<i>B</i> (<i>S.E.</i>)	<i>B</i> (<i>S.E.</i>)	<i>B</i> (<i>S.E.</i>)	<i>B</i> (<i>S.E.</i>)	<i>B</i> (<i>S.E.</i>)	<i>B</i> (<i>S.E.</i>)
Demographics						
African-American	0.27 (0.32)	0.26 (0.33)	0.02 (0.26)	0.06 (0.27)	-0.13 (0.26)	-0.13 (0.26)
Age 25-34	-0.14 (0.42)	-0.14 (0.43)	-0.35 (0.34)	-0.29 (0.35)	-0.16 (0.33)	-0.15 (0.34)
Age 35 or older	0.34 (0.49)	0.52 (0.50)	-0.72 + (0.40)	-0.65 (0.41)	-0.87 * (0.40)	-0.82 + (0.41)
Youngest child <4	0.18 (0.36)	0.23 (0.37)	-0.34 (0.29)	-0.30 (0.30)	-0.09 (0.28)	-0.07 (0.29)
Three or more total children present	-0.18 (0.32)	-0.20 (0.33)	-0.29 (0.27)	-0.38 (0.27)	-0.19 (0.26)	-0.21 (0.26)
Child receives SSI	-1.04 (0.68)	-1.02 (0.69)	-1.02 * (0.51)	-0.79 (0.52)	-0.91 * (0.45)	-0.93 * (0.46)
Number of adults present	0.13 (0.21)	0.19 (0.21)	0.14 (0.17)	0.15 (0.18)	0.10 (0.16)	0.14 (0.17)
Never married	0.08 (0.35)	0.41 (0.36)	-0.17 (0.28)	-0.07 (0.29)	-0.34 (0.28)	-0.36 (0.29)
First year	0.81 + (0.46)	0.84 + (0.46)	-0.74 (0.46)	-0.76 (0.47)	.04 (0.47)	0.08 (0.41)
Human Capital						
High school graduate	-0.15 (0.37)	-0.25 (0.39)	0.78 * (0.31)	0.61 + (0.32)	0.19 (0.29)	0.19 (0.30)
More than high school	-0.23 (0.37)	-0.35 (0.39)	0.30 (0.32)	0.09 (0.34)	-0.47 (0.31)	-0.48 (0.33)
Number of job skills previously used	0.15 * (0.07)	0.14 + (0.07)	0.07 (0.05)	0.04 (0.06)	0.11 * (0.05)	0.11 * (0.05)
Worked in February 1997	0.64 * (0.30)	0.60 * (0.31)	0.63 * (0.25)	0.62 * (0.25)	-1.03 ** (0.26)	-1.02 ** (0.26)
Barriers to Employment						
Transportation problem		-0.41 (0.35)		-0.74 * (0.30)		0.10 (0.27)
Major depression		-0.04 (0.62)		0.46 (0.50)		0.51 (0.47)
Post-traumatic stress disorder		0.72 (0.53)		-1.09 + (0.58)		-0.49 (0.49)
Domestic violence		0.44 (0.63)		-0.69 (0.68)		0.71 (0.49)
Mother has physical limitations		-0.88 (0.52) +		-0.45 (0.38)		-0.60 + (0.36)
Constant	-2.02 (0.79)	-1.91 (0.83)	-0.00 (0.63)	0.45 (0.66)	1.05 (0.60)	0.96 (0.63)
Pseudo R-squared	0.08	0.11				
Chi-square	142.74	181.70				

Multinomial logistic regression: exit routes off welfare with continuous receipt as comparison group
 Sample size: 640 observations with no missing data; B is significant at: + <.10 * p<.05 ** p<.01

