Exploring Residential Mobility among Low-Income Families

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Abstract

While it is widely recognized that low-income families move frequently, the complexities of such transitions are not well understood. This paper uses panel data from the Women’s Employment Study to examine the patterns and correlates of different forms of mobility among one sample of low-income mothers in the years following welfare reform. The analysis reveals considerable heterogeneity between movers and non-movers, and to a lesser extent, between those who experience positive and negative moves. Most families experience positive residential transitions, yet nearly a quarter of movers are dissatisfied with their housing circumstances following a move. Multivariate analyses show that being African American, experiencing a job loss, and reporting hard drug use significantly increase the probability of experiencing negative mobility, while having a physical health problem increases the probability of dissatisfaction in the absence of mobility. The paper contributes to a growing body of scholarship on residential transitions among low-income families.

Keywords: Mobility, Welfare, Low-income Housing

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Introduction

Residential mobility is common in the United States, with nearly half of the population moving over a five-year period (Berkner and Faber 2003; Ihrke, Faber, and Koerber 2011). Most moves are voluntary, reflecting transitions into more affordable or better quality housing, changes in household size, or relocation for employment. Other moves are involuntary, resulting from eviction, foreclosure, or destruction of a housing unit or property (Clark and Onaka 1983). Although mobility is common across the economic spectrum, low-income households move more frequently than other households, and are more likely to experience negative mobility in the form of evictions and homeless episodes (Hartman and Robinson 2003; Nichols and Gault 2003).

While it is widely recognized that low-income households move frequently, the complexities of residential transitions are not well understood. For example, it is not clear whether high rates of mobility reflect voluntary and positive transitions for most poor families, or forced and involuntary transitions. Similarly, it is unclear whether the absence of mobility reflects contentment with existing housing circumstances, or constraints on the ability to improve existing housing and neighborhood circumstances by moving. While residential mobility represents a choice for most Americans, low-income families are more likely to experience employment, housing, and personal problems that may increase the risk of involuntary forms of mobility or forced staying in place.

Because residential mobility has consequences for parent and child wellbeing, this represents a gap in the literature. Voluntary mobility into higher quality neighborhoods or
housing units can lead to improvements in neighborhood safety, and positive changes in physical
and mental health (Leventhal and Brooks-Gunn 2003; Sanbonmatsu et al. 2011). For families
that are able to remain in higher quality housing and neighborhoods, such benefits may persist
over time. In contrast, unstable or frequent mobility can disrupt employment and social
networks, and may interfere with children’s educational achievement and emotional wellbeing
(Astone and McClanahan 1996; Crowley 2003; Harkness and Newman 2006; Pribesh and
Downey 1999). In addition, families that are constrained in their mobility may be forced to
remain in poor quality housing or unsafe neighborhoods.

To provide greater insight into the patterns and correlates of residential mobility among
low-income families, this paper explores mobility among one sample of families in the years
following the 1996 passage of the Personal Responsibility and Work Opportunity Reconciliation
Act (PRWORA), or welfare reform. Using panel data from the five-wave Women’s Employment
Study (WES), the paper examines the extent and frequency of different types of mobility, using
sample members’ subjective assessments of their housing circumstances to categorize residential
mobility positive or negative. The paper analyzes how life cycle and demographic
characteristics, personal problems, and housing problems are related to mobility, and how
experiences of housing instability (for example, evictions and homeless episodes) and transitions
between renting and owning differ for positive and negative movers and non-movers.

The analysis contributes to a growing body of research that explores different types of
residential transitions among low-income families. The analysis provides descriptive information
about the extent of positive and negative mobility, and helps to identify the characteristics and
experiences that distinguish different groups of movers and non-movers. By focusing on current
and former welfare recipients, the analysis also provides greater insight into the wellbeing of
families in the post welfare reform era. While many scholars have examined the economic and material wellbeing of low-income families in the years since PRWORA’s passage, few have focused on residential mobility as an indicator of families’ wellbeing.

The paper proceeds as follows. The first section reviews relevant research on mobility among low-income families, and identifies how demographic characteristics, personal problems, and housing and neighborhood conditions shape residential moves. The second introduces the WES data and methodological approach. The third section describes the incidence of different types of mobility, and analyzes relationships between mobility and life cycle characteristics, individual and household constraints, and housing problems, and examines housing instability and transitions between renting and owning across different types of movers. The fourth section discusses the key findings, and the final section describes the study limitations and policy implications.

Research Context

Low-income populations consistently report higher rates of residential mobility than other populations (Coulton, Theodos, and Turner 2009; Ihrke and Faber 2012). While approximately 10 percent of Americans moved between 2011 and 2012, the comparable percentage for those living in poverty was above 20 percent (Ihrke and Faber 2012). Rates of mobility are particularly high for low-income families with children who receive cash welfare benefits through Temporary Assistance to Needy Families (TANF), the public assistance program created under the PRWORA. One study of current and former welfare recipients in Connecticut found that 65 percent of study members moved in the three years following
PRWORA’s passage (Bloom et al. 2002), and a similar study conducted in Florida found that over 70 percent of study members moved over a comparable period (Bloom et al. 2000).

While it is clear that low-income families move frequently, it is less clear whether residential mobility represents a positive or negative transition for most poor families. Among the general population, most moves reflect an attempt to improve housing or neighborhood quality, or move closer to friends or family (Schachter 2001). Yet low-income families have fewer resources than other families, and are more likely to experience problems related to employment, health, and housing (Danziger 2000). These problems may increase the incidence of involuntary or negative forms of mobility. For instance, unstable or low-wage work may increase the risk that a family will experience an eviction.

Similarly, the absence of mobility may reflect the fact that a family’s housing arrangements meet its existing needs, or constraints on the ability to improve housing circumstances by moving. Mobility scholars have theorized that for most non-movers, a lack of mobility reflects a satisfactory fit between housing needs and circumstances (Speare 1974). Yet the same problems that leave low-income families vulnerable to negative mobility may act as constraints positive forms of mobility. For example, individuals in low-wage jobs may have few financial resources available for moving out of poor quality housing units or neighborhoods.

Recently, scholars have begun to analyze variation in the mobility of low-income populations. Research from the ten-city Making Connections study investigates the complexities of residential mobility by dividing a population of low-income households into clusters based on an analysis of individual, housing, and neighborhood characteristics (Coulton et al. 2009, 2012). This research reveals considerable heterogeneity among low-income families that move. Approximately 30 percent of families in this study are categorized as “up and out movers.”
These movers are younger, have higher relative incomes, and move longer distances into higher quality neighborhoods. A second cluster of movers, “nearby attached movers,” represent 24 percent of movers and are middle-aged households who move shorter distances with minimal changes in housing or neighborhood quality. “Churning movers” constitute the final 46 percent of the sample. These young households have lower incomes, and experience few changes in quality following a move.

While the first two clusters appear to represent positive transitions, the third cluster likely includes moves that are perceived by families as negative, or motivated by financial or housing problems (Coulton et al. 2009; 2012). Indeed, the high percentage of churning movers suggests that negative forms of mobility are more common than previous research indicates. Existing studies typically find that less than ten percent of low-income families experience negative forms of mobility such as evictions or homeless episodes, though a larger percent experience at least one form of housing insecurity or instability overtime (Acs and Loprest 2004; Bloom et al. 2000; Bloom et al. 2002; Phinney et al. 2007; Wood and Rangarajan 2003).

The Making Connections study also provides evidence of heterogeneity among non-movers. Nearly half of low-income households that do not move are categorized as “positive stayers.” Positive stayers tend to include working adults and have higher incomes relative to other non-moving households. Most are homeowners, and report high levels of neighborhood quality and engagement. In contrast, approximately 22 percent of households are categorized as “dissatisfied stayers.” Dissatisfied stayers are younger than other non-moving households, report difficulty paying housing costs, and are less satisfied with their housing and neighborhood circumstances (Coulton et al. 2012). This suggests that for a significant minority of non-moving
households, residential stability may reflect constraints on mobility rather than satisfaction with current residence.

While recent research draws attention to different forms of residential mobility in low-income communities, few studies explore these complexities in greater depth. As a result, little is known about the individual and household-level factors that distinguish households that experience positive forms of mobility from those that experience negative forms of mobility, or the factors that distinguish dissatisfied non-movers from other non-moving households. Previous research on residential mobility and housing instability provides guidance regarding the factors that are likely to impact voluntary forms of mobility, as well as those that place families at risk for experiencing negative moves, such as moves associated with evictions or homeless episodes. This research draws attention to the ways in which life cycle and demographic characteristics, personal and household problems, and housing and neighborhood problems shape both positive and negative residential transitions.

*Demographic and Life Cycle Characteristics*

Individual demographic characteristics, particularly those related to the life cycle, are consistently associated with mobility in past research. Scholars theorize that characteristics including age, race, marital status, and household size influence mobility directly, as well as indirectly through residential satisfaction (Landale and Guest 1985; Newman and Duncan 1979; Rossi 1955; Speare 1974; Speare, Goldstein, and Frey 1975). Residential satisfaction refers to the “fit” between a household and its housing circumstances. When this fit changes, often due to events associated with the life cycle, families become more likely to consider moving and more
likely to move. Life cycle and demographic characteristics also contribute to negative forms of mobility directly, as well as indirectly by depleting economic and social resources.

Young adults, for example, are more likely to experience both positive and negative forms of mobility (Ihrke and Fader 2012). Young adults engage in many activities that necessitate voluntary residential transitions, such as leaving home to attend college, getting married, and having children. Yet young adults are also vulnerable to involuntary moves because they are less likely to have savings or wealth, which can protect against residential instability during times of economic hardship. With respect to race, racial minorities move at higher rates than other Americans, and are more likely to experience negative moves, such as those resulting in homeless episodes (Ihrke and Faber 2012; Sommer 2001). Racial differences with respect to savings and wealth may increase the risk of housing instability (Massey and Denton 1985). In addition, racial discrimination in the housing market can limit voluntary mobility among racial minorities by decreasing the availability of housing (Yinger 1986). South and Deane (1993), for instance, show that African American households are less likely to move than white households, despite similar levels of neighborhood dissatisfaction, suggesting that racial minorities may face barriers to voluntary mobility that other households do not face.

Movers have smaller households than non-movers, and are less likely than non-movers to be married or cohabiting (Ihrke, Faber, and Koerber 2011). Lower rates of mobility among larger families may reflect the stronger attachment that such families have with their housing and neighborhoods, or the constraints that such families face in the housing market (Kleit and Manzo 2006; Long 1972; US Department of Housing and Urban Development 2011). Families are also underrepresented among those experiencing negative forms of mobility such as homeless episodes (Burt 2001; US Department of Housing and Urban Development 2011). Because
marriage often reflects a stable living arrangement, those who are married may have less need or desire to move. Marriage may also protect against involuntary forms of mobility because two-parent families have more economic resources that single-parent families (Blank 1997). When cohabitation reflects a stable relationship, it may depress voluntary mobility just as marriage does. Yet cohabitation has been shown to be less stable than marriage (Bumpass and Sweet 1989; Smock 2000), and women who are cohabitating may be more likely to move if their relationships end.

**Constraints and Risk Factors**

In addition to life cycle and demographic characteristics, personal problems can impact mobility by acting as a constraint on positive moves while increasing the risk of negative or forced moves. Moving requires resources, information, and ability, and households with fewer resources, incomplete information, and limited ability may be unable to act on a preference to move (Landale and Guest 1985). At the same time, characteristics that constrain positive forms of mobility may increase the risk of negative mobility either directly or by depleting resources that protect against housing instability.

Employment can enable mobility, as those who work steadily and save earnings have more resources available to act on a desire to move. In contrast, limited or unstable work activity may prevent voluntary moves and place families at greater risk for experiencing various forms of housing instability (Puckett, Renner, and Slack 2002). Landale and Guest (1985) theorize that home ownership acts as a constraint on voluntary mobility because it reflects high investments made at a current residence. Home ownership may also protect against housing instability by serving as a source of wealth or savings.
Government housing assistance, available in the form of public housing, publicly assisted housing, and tenant-based assistance, can enable positive forms of mobility while reducing the likelihood of housing instability (Feins and Patterson 2005; Kleit and Manzo 2006; Orr et al. 2003; Sanbonmatsu et al. 2011; Wood, Turnham and Mills 2008). Housing assistance can lead to voluntary mobility by increasing the accessibility and affordability of more desirable housing (Orr et al. 2003; Wood, Turnham and Mills 2008). Vouchers and other forms of assisted housing may also decrease the incidence of housing instability by keeping housing affordable.¹

Mobility requires potential movers to gather information about the private housing market or housing assistance programs (Popkin and Cunningham 2002). Individuals with low educational achievement or human capital barriers may face difficulty locating available units in the private market, or may be unaware of private or public programs that help households identify or secure new housing arrangements. These barriers may also limit an individual’s ability to access the information or resources necessary to prevent an eviction or the need to double-up, and have been associated with housing instability in previous research (Phinney et al. 2007).

In addition, movers must be physically and mentally able to engage in what is often a high stress and physically challenging activity. Health problems and substance abuse can therefore act as a constraint on mobility, particularly for those with more acute problems (Popkin, Cunningham, and Burt 2005; Popkin and Cunningham 2002). With respect to negative forms of mobility, mental and physical health problems and substance abuse are more common

¹ In an analysis of the experimental Effects of Housing Vouchers on Welfare Families program, Wood, Turnham and Mills (2008) found that vouchers facilitated initial mobility for program participants, and reduced the incidence of doubling-up by 69 percent and the extent of homelessness by 74 percent (Wood, Turnham, and Mills 2008). Research also shows that poor families that receive housing assistance are much less likely to experience homelessness or double-up with relatives or friends (Shinn et al. 1998; Zlotnick et al. 1999; Stojanovic et al. 1999; Metraux and Culhane 1999; Wood and Rangarajan 2004; Wood, Turnham and Mills 2008).
among those experiencing homeless episodes (Bassuck et al. 1998; Burt et al. 2001; Wright and Weber 1987) and are associated with increased risk of housing-related hardship among low-income families (Phinney et al. 2007; Sullivan, Turner, and Danziger 2008). Such problems can influence involuntary mobility indirectly by depleting the economic resources of a household, particularly for individuals who lack health insurance. Individuals with severe mental illness or substance abuse may also be vulnerable to housing instability if their illness or substance use leads to interpersonal problems with other household members, landlord, or tenants (Mojtabai 2005).

Finally, domestic violence can constrain voluntary moves while increasing the risk of involuntary moves. Victims may find themselves without a credit history, landlord references, and limited economic resources as a result of their experience with domestic violence (Menard 2001; Pearce 1999). Domestic violence victims are vulnerable to eviction if their partner’s violence is directed towards a landlord or other tenants (Menard 2001), and may be forced to seek refuge in a shelter or double-up with friends or family in order to escape household violence.

*Housing and Neighborhood Characteristics*

Housing and neighborhood problems factor prominently into self-reported reasons for mobility (Schachter 2001). Among low-income populations, affordability problems are prevalent, and are cited as both motivating voluntary moves and leading to housing instability (Acs and Loprest 2004; Burt et al. 2001). Affordability problems may lead to mobility if households decide to move to reduce housing expenses. At the same time, such problems may lead to evictions or the need to double up to share expenses. Families experiencing physical
housing problems such as a lack of heat or inadequate plumbing, or problems with neighborhood safety or cleanliness, may elect to move to improve housing and neighborhood conditions. Such problems may also increase the likelihood of forced mobility if housing is condemned or destroyed. Some research suggests that direct relationships between housing problems and mobility are mediated by residential satisfaction (Newman and Duncan 1979). Yet housing and neighborhood problems may have a greater direct impact on low-income families’ mobility because housing and neighborhood problems are more pronounced in low-income communities (US Department of Housing and Urban Development 2003).

Contribution of Current Study

Existing research thus provides important insights regarding the predictors of residential transitions among low-income households. This paper expands on existing research in several ways. First, whereas previous research either does not distinguish between positive and negative forms of mobility or focuses on a single type of mobility, this paper analyzes the incidence of both positive and negative moves among one sample of low-income families. By comparing the characteristics of different groups of movers, it is possible to examine heterogeneity between non-movers and movers, as well as between positive and negative non-movers and movers. The use of respondents’ subjective assessments of their housing circumstances to categorize mobility as positive or negative allows this analysis to serve as a complement to studies that employ objective indicators of a move, such as a move preceded by an eviction or a move into a better quality neighborhood, to categorize mobility as positive or negative.

Second, because the WES data contain detailed measures of employment activity and instability, individual attributes, personal and household problems, and housing and
neighborhood conditions, the paper is able to explore relationships between pre-existing personal and household problems and positive and negative forms of mobility. Many of the measures in the WES, including those related to health and other household problems, are unavailable in larger, nationally-representative projects. The longitudinal nature of the data permits an analysis of whether problems that occur prior to a move are associated with subsequent experiences of mobility.

Third, by including homeowners as well as renters, the data permit a broader snapshot of residential mobility among low-income families. Existing research on mobility in low-income communities tends to focus on renters (Sanbonmatsu et al. 2011; Wood, Turnham and Mills 2008), and few studies include homeowners. While most poor families rent rather than own their home, rates of homeownership among low-income families have increased in recent years. Thirty-four percent of households in the lowest income quintile owned their home in 1994; by 2006, the rate of homeownership had increased to 38 percent (Bostic and Lee 2007). Because homeowners are less likely to move, studies that exclude homeowners may overstate the extent of mobility within low-income communities, particularly in areas where homeownership is more common. Including homeowners therefore offers a more complete description of mobility within low-income communities.

Finally, the paper draws attention to an important indicator of family wellbeing that has been underexplored within the literature on families after welfare reform. Existing research on family wellbeing after welfare reform typically focuses on economic or employment-related indicators, such as household income, receipt of public assistance, or levels of work activity (see Danziger et al. 2000; Lichter and Jayakody 2002). Few studies have explored mobility as an indicator of family wellbeing. By examining the mobility patterns of WES respondents, this
paper aims to provide insight on how families are faring post-reform with respect to their housing and mobility circumstances.

**Data, Measures, and Methods**

The data used in this analysis are drawn from the Women’s Employment Study (WES), a panel study of low-income mothers who were interviewed five times in the six years following welfare reform. The initial WES sample consists of 874 women who were receiving cash welfare in one urban Michigan county in February 1997, when the state began implementing its welfare reform policies. Sample members were selected with equal probability from an ordered list of white and African-American single, female-headed cases between the ages of 18 and 54. Trained interviewers conducted in-person interviews ranging from 1-1.5 hours with these women in the fall of 1997, 1998, 1999, 2001, and 2003. Response rates at the five waves were: 86 (N=753), 92 (N=693), 91 (N=632), 91 (N=577), and 93 (N=536) percent, respectively.²

This analysis pools data from the fourth and fifth survey years to produce an unbalanced panel of 1,111 observations. The pooled dataset includes 576 observations from the 2001 survey year and 535 observations from the 2003 survey year.³ Observations from the first three survey years were not included in the pooled dataset because a small number of independent variables were not available in the first years of data collection.⁴

The first part of the analysis examines the incidence of positive and negative mobility among WES respondents, and compares groups of non-movers and movers with respect to life

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² Cadena and Pape (2006) analyze attrition in WES, and conclude that there is little evidence that attrition from the sample was non-random. As a result, sample weights are not used in analyses of WES data.
³ Two observations (one from 2001 and one from 2003) are excluded because data on satisfaction with current housing conditions is missing.
⁴ Specifically, the 1997 and 1998 survey years did not ask respondents to report on housing and neighborhood conditions. As a result, it is not possible to obtain lagged measures of housing and neighborhood conditions for the 1998 or 1999 survey years. Observations from the 1997 survey year are not included because it is not possible to lag independent variables for the first survey year.
stage and demographic characteristics such as age and race, individual and household problems, and housing and neighborhood problems. In the second part of the analysis, multinomial logistic regression is used to estimate independent relationships between positive and negative mobility and the set of independent variables. Regression models use robust standard errors to adjust for the fact that each sample member contributes multiple observations to the pooled dataset (see Allison 1999).

Because the coefficients do not reveal the magnitude of the relationship between independent and dependent variables, the third part of the analysis calculates predicted probabilities to show how the likelihood of mobility changes when a respondent experiences one of the independent variables in that is significant in the regressions. The fourth part of the analysis examines whether positive and negative movers differ with respect to their experiences of housing instability, transitions between renting and owning, and changes in housing satisfaction.

The dependent variable is constructed from two survey questions. The first survey question asks: “Have you moved since [previous interview date];” and the second question asks: “How satisfied are you with your current housing situation--very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?” Respondents are grouped into four categories: those who moved and reported satisfaction following a move (satisfied movers); those who moved and reported dissatisfaction with their housing circumstances following a move (dissatisfied movers); those who did not move and reported satisfaction with their current housing circumstances (satisfied stayers); and those who did not move between survey years and reported dissatisfaction with their housing circumstances in the current survey year (dissatisfied stayers).5

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5 Respondents are coded as “satisfied” if they report being “very satisfied” or “somewhat satisfied” with housing and “dissatisfied” if they report being “very dissatisfied” or “somewhat dissatisfied” with housing.
This dependent variable is intended to capture whether mobility (or the lack of mobility) represents a positive or negative occurrence for WES respondents. Because mobility is theorized to represent an attempt to improve upon existing housing arrangements, it seems likely that a voluntary move will be associated with housing satisfaction following the move. In contrast, a move that is forced due to an event like an eviction is likely to yield housing arrangements that are suboptimal. In such circumstances, movers may be more likely to express dissatisfaction with their housing conditions following a move. Similarly, when housing circumstances are adequate or at least unproblematic, it seems likely that non-movers will report satisfaction with their current housing circumstances. In contrast, when a lack of mobility reflects barriers or constraints on the ability act on a preference to move out of problematic housing circumstances, non-movers may express dissatisfaction with current housing circumstances.

While the dependent variable is measured in the current survey year, most independent variables are drawn from earlier survey years. The majority of independent variables are drawn from the survey year immediately preceding a move. For example, marriage and cohabitation, health problems and drug use, and housing and neighborhood problems, are all drawn from the prior survey year. A small number of variables (percent of months worked between years, job loss, and domestic violence) are measured in the current year but assess the period of time between survey years. For example, the percent of months worked variable calculates the percentage of months that a respondent was employed between the prior survey year and the current survey year.

Several variables (race, low educational attainment, human capital barriers, and prior housing dissatisfaction) were drawn from either the first or the third year of data collection. Race, low educational attainment, and human capital barriers were measured only in the first
year of data collection (1997). To help control for unmeasured characteristics that may affect positive and negative mobility as well as personal and household characteristics, the analysis includes a control for housing dissatisfaction prior to move. This variable is drawn from the third year of data collection (1999). Appendix A provides information on the dependent and independent variables used in the analysis.

**Empirical results**

Table 1 shows the extent of residential mobility among Women’s Employment Study respondents, and compares how positive and negative non-movers and movers differ with respect to life cycle and demographic characteristics, personal and household problems, and housing and neighborhood problems. In this table, independent variables that are measured in the first or third year of data collection contain “1997” or “1999” in the variable label, and variables that are measured in the current survey year and assess the period of time between the prior and current survey year contain the words “between survey years” in the variable label. All other independent variables are measured in the survey year immediately preceding a move. Significance stars indicate statistically significant differences between all stayers and movers (columns two and three), satisfied and dissatisfied non-movers (columns four and five) and dissatisfied and satisfied movers (columns six and seven).

Table 1 shows that mobility is common for WES respondents. Approximately 45 percent of respondents moved between survey years – a two year period, on average. Most non-movers and movers are satisfied with their current housing circumstances. Approximately 77 percent of non-movers report satisfaction with their current housing circumstances while 23 percent of non-

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6 The variable measuring prior housing dissatisfaction is drawn from the third rather than the first survey year because housing satisfaction was not assessed in the first survey year.
movers report dissatisfaction. Among movers, 76 percent report housing satisfaction following a move, and 24 percent report dissatisfied with housing following a move.

**Table 1 Here**

The first column of Table 1 shows that the average WES respondent is 33 years old and African American. In the survey year preceding a move, 18 percent of women are married and 21 percent are cohabiting as unmarried partners. Sample members have, on average, 2 children. Respondents worked approximately 70 percent of months across survey years, but also experienced an array of work-related problems, including job loss (11 percent), low educational attainment (30 percent had less than a high school degree in 1997), and human capital barriers (26 percent reported low work experience or skills in 1997). In the prior year, most respondents rent rather than own their home, but a sizable minority are homeowners (29 percent are homeowners). Approximately 18 percent of women state that they report their income in order to set the rent each year, a variable that serves as a proxy for receipt of housing assistance in this analysis.\(^7\)

Physical and mental health problems are common among WES respondents. In the previous survey year, over 50 percent of respondents report physical limitations or poor physical health, and 33 percent meet the diagnostic screening criteria for major depression, post-traumatic stress disorder, social phobia, or generalized anxiety. A small percentage of respondents report hard drug use (3 percent) or domestic violence (13 percent). Sizable minorities experience

\[^7\] While an imperfect measure of housing assistance, this survey question showed the greatest correspondence with actual receipt of housing assistance in previous analysis using the WES data. Using data from the 1998 survey year, Corcoran and Heflin (2003) found that 118 WES renters stated that they reported their income to set the rent, while 373 renters stated that they did not. Eighty-four percent of these responses (N=412) matched HUD administrative records. Of the 118 WES renters that stated that they reported their income, 72 actually received housing assistance and 46 did not, yielding a match rate of 61 percent. Given the importance of housing assistance in facilitating voluntary moves and protecting against housing instability, the measure is included in the analysis despite the fact that it imperfectly measures receipt of housing assistance. In the multivariate analysis, excluding the housing assistance variable does not significantly change the findings.
housing problems in the prior year. Twenty-eight percent of respondents have a housing affordability problem, meaning that they pay more than 30 percent of income on rent.\textsuperscript{8} Thirty-eight percent report two or more problems with housing quality and 20 percent report problems with neighborhood safety. Twenty three percent experienced prior dissatisfaction with current housing circumstances.

The second and third columns of Table 1 show that non-movers differ from movers with respect to demographic and employment-related characteristics, housing tenure and assistance, mental health problems, and housing affordability. On average, movers are younger than stayers (32 years compared to 34 years, \(p < .01\)) and are less likely to be married (15 percent of movers are married compared to 20 percent of stayers, \(p < .05\)). Movers are less advantaged than stayers with respect to employment and personal problems. Respondents who move are more likely than respondents who do not move to report job loss (13 percent compared to 10 percent, \(p < .05\)) and low educational attainment (36 percent of movers compared to 26 percent of stayers, \(p < .01\)), and higher levels of mental health problems (38 percent of movers compared to 30 percent of stayers, \(p < .01\)), domestic violence (17 percent compared to 9 percent, \(p < .01\)), and housing affordability problems (31 percent compared to 25 percent, \(p < .05\)). Respondents who do not move, in contrast, have higher levels of homeownership and receipt of housing assistance: in the

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\textsuperscript{8} Relative to national samples, a smaller percentage of WES respondents experience problems related to affordability. For example, approximately 70 percent of low-income households nationwide paid more than 30 percent of income on housing in 1999 (Joint Center for Housing Studies 2002). The lower rate of housing affordability problems among WES respondents relative to national samples in part reflects the fact that the WES housing affordability variable includes only rent or mortgage payments as a measure of housing costs. Because the WES survey instrument did not contain questions about the cost of utilities, it is not possible to measure the total cost of housing plus utilities. It is also likely that the lower rate of housing affordability problems reflects the fact that household income measure includes earned household income as well as private transfers (for example, from friends or other family members) and government transfers from programs such as Temporary Assistance to Needy Families (TANF). While this measure of household income is broader than measures used in comparable studies, it nonetheless provides a more accurate measure of the resources available to pay for housing. Finally, the lower rate of affordability problems among WES respondents may reflect the fact that, relative to other states, housing costs are lower in Michigan. In 2000, for example, the median monthly rental cost in Michigan was $546, compared to $602 nationwide (US Census Bureau 2003b).
previous survey year, 39 percent of stayers owned their home compared to 17 percent of movers (p < .01) and 20 percent received housing assistance compared to 16 percent of movers (p < .10).

The fourth through seventh columns compare dissatisfied and satisfied stayers, and dissatisfied and satisfied movers. The fourth and fifth columns show that although dissatisfied stayers are slightly younger than satisfied stayers, both groups of stayers have similar rates of marriage and cohabitation, and have comparable levels of work activity and job loss. While few differences emerge with respect to demographic and employment-related characteristics, large and statistically significant differences exist with respect to personal and housing problems. Dissatisfied stayers are more likely than satisfied stayers to experience health problems and domestic violence: nearly 65 percent of dissatisfied stayers report a physical health problem compared to 51 percent of satisfied stayers (p < .01), 39 report a mental health problem compared to 27 percent of satisfied stayers (p < .01), and 13 percent experience domestic violence compared to 8 percent of satisfied stayers (p < .05).

In addition, dissatisfied stayers report significantly higher rates of housing quality problems (48 percent compared to 32 percent of satisfied stayers, p < .01), neighborhood safety problems (26 percent compared to 17 percent, p < .05), and prior housing dissatisfaction (37 percent compared to 11 percent, p < .01). Dissatisfied stayers are also less likely than satisfied stayers to be homeowners (32 percent own their home in the prior survey year compared to 41 percent of satisfied stayers, p < .10).

A slightly different set of factors distinguishes dissatisfied and satisfied movers. Among movers, there are more differences with respect to demographic and employment characteristics. Dissatisfied movers are more likely than satisfied movers to be African American (64 percent compared to 53 percent of satisfied movers, p < .05), and less likely to be married in the previous
survey year (10 percent compared to 17 percent of satisfied movers, p < .10). Relative to respondents who are satisfied following a move, those who are dissatisfied report higher rates of job loss (21 percent compared to 11 percent of satisfied movers, p < .01) as well as human capital barriers (33 percent compared to 25 percent of satisfied movers, p < .10). Health problems are common for both groups of movers. Dissatisfied movers report higher rates of drug use (8 percent report use of hard drugs compared to 2 percent of satisfied movers, p < .01) and domestic violence (24 percent report violence between survey years compared to 16 percent of satisfied movers, p < .05). With the exception of prior housing dissatisfaction, positive and negative movers do not differ significantly with respect to the incidence of housing and neighborhood problems.

The next part of the analysis uses multivariate analyses to assess the extent to which each characteristic helps explain unique variation in the dependent variable. Table 2 presents regression coefficients and robust standard errors for a multinomial logistic regression of type of mobility on the set of individual and household characteristics. The columns show the relationship between mobility and the set of characteristics, relative to a common alternative. In columns one through three, the comparison group consists of satisfied stayers; in column four, the comparison group consists of satisfied movers. The regression model controls for the number of months between survey years and prior housing satisfaction.

Table 2 here

The first and second columns compare satisfied and dissatisfied movers to satisfied stayers. These columns show that younger age and previous dissatisfaction with housing increase the likelihood of being a dissatisfied mover and satisfied mover, relative to being a satisfied stayer. The first column shows that relative to the comparison group of satisfied stayers,
dissatisfied movers are more likely to report a job loss between survey years, use of hard drugs in the prior survey year, and housing quality problems in the prior survey year. The second column shows that satisfied movers are less likely than the comparison group to be African American and more likely to have low educational attainment. For both negative and positive movers, homeownership and receipt of housing assistance decrease the likelihood of mobility, and mental health problems and domestic violence increases the likelihood of mobility, relative to those who do not move and are satisfied with their housing.

Columns three and four facilitate comparisons between positive and negative stayers, and between positive and negative movers. Column three shows the relationship between being a dissatisfied stayer and the set of independent variables, relative to being a satisfied stayer. Those who do not move and express dissatisfaction with their housing circumstances are younger, more likely to report a physical health problem, and more likely to report a housing quality problem, relative to those who are satisfied and do not move. Column four shows the relationship between being a dissatisfied mover and the set of independent variables, relative to being a satisfied mover. This column shows that relative to those who move and are satisfied with their housing circumstances, those who move and are dissatisfied are more likely to be African American, experience a job loss between survey years, and report hard drug use.

Because the regression coefficients reveal the direction but not the magnitude of the relationship between independent and dependent variables, Table 3 shows how the probability of mobility or staying in place changes for a respondent who experiences one of the problems that is significant in the regressions, but is otherwise similar to the average respondent. The table compares the predicted probability of mobility to the baseline probability of mobility for a typical respondent with mean (or modal, for dichotomous variables) demographic and household
characteristics; African American race; no housing problems; no health problems, substance abuse, or domestic violence; no employment barriers; and satisfaction with housing in the previous survey year. The first row of data shows the baseline probability, and the remaining rows show the percentage point change in probability for each of the characteristics.

Table 3 here

The first row of Table 3 shows that for the typical respondent, the baseline probability of being a satisfied stayer is 43 percent; the probability of being a dissatisfied stayer is 6 percent; the probability of being a satisfied mover is 46 percent; and the probability of being a dissatisfied mover is 5 percent. With respect to life cycle and demographic characteristics, older age decreases the probability of being a satisfied mover while increasing the probability of being a satisfied stayer, but produces only small changes in the probability of being a dissatisfied mover or stayer. The probability of being a satisfied mover decreases by 9 percentage points when a respondent is African American.

Job loss increases the probability that a respondent will be a dissatisfied mover from 5 percent to 10 percent, while decreasing the probability of all other forms of mobility. Low educational attainment increases the probability of satisfied mobility by 8 percentage points and decreases the probability of satisfied stability by a comparable amount. Although dissatisfied stayers and movers were more likely than satisfied stayers to experience physical housing problems, the increase in probability of dissatisfied staying or moving when a respondent experiences a physical housing problem is relatively small. Having a physical housing problem increases the probability of being a dissatisfied stayer and dissatisfied mobility by 2 percentage points each.
Relationships between homeownership, housing assistance, and mobility are particularly large in magnitude. Being a homeowner, for example, increases the probability of being a satisfied stayer by 31 percentage points, and decreases the probability of being a satisfied mover by 30 percentage points. Receipt of housing assistance leads to a 19 percentage point increase in the probability of being a satisfied stayer, and a 19 percentage point decrease in the probability of being a satisfied mover.

It is clear from Table 3 that personal and household characteristics lead to large changes in the probability of satisfied staying and moving, and smaller changes in the probability of dissatisfied staying and moving. For example, older age and African American race increase the probability of being a satisfied stayer and decrease the probability of being a satisfied mover by comparable amounts, but the magnitude of the change in the probability for dissatisfied stayers and movers is small. The same pattern is true for low educational attainment, homeownership, receipt of housing assistance, and mental health problems.

Yet there are some personal problems that generate larger changes in the probability of dissatisfied staying or moving, relative to the smaller changes noted above. The second column shows that physical health problems and hard drug use increase the probability of being a dissatisfied stayer by 4 percentage points and 2 percentage points, respectively, representing two of the largest increases over the baseline probability for this category of mover. The fourth column shows that hard drug use leads to an increase over the baseline probability of dissatisfied mobility of 8 percentage points, from 5 percent to 13 percent. Finally, domestic violence increases the probability of mobility by 11 percentage points for satisfied movers and 4 percentage points for dissatisfied movers.
The first three parts of the analysis show that positive and negative non-movers differ with respect to several demographic characteristics and personal and household problems. Most differences emerge between non-movers and movers as a whole, rather than between respondents who report dissatisfaction and satisfaction with housing circumstances. While few individual characteristics distinguish dissatisfied from satisfied respondents in the multivariate analysis, it is possible that these respondents differ with respect to their mobility experiences. The final part of the analysis examines how positive and negative movers differ with respect to their experiences of housing instability, transitions between renting and owning, and changes in housing satisfaction.

Table 4 here

Table 4 shows that with respect to housing instability, a minority of all WES respondents report evictions, homeless episodes, doubling-up, or frequent mobility (see column 1 in Table 4). Seven percent of all respondents experienced an eviction, five percent experienced a homeless episode, 18 percent doubled-up with others to share expenses between survey interviews, and nine percent report three or more moves between survey years. Twenty-three percent of respondents experience one or more of these types of housing instability between survey years. The second and third columns show that because few non-movers experience instability, and the incidence of such problems is more pronounced among movers.

With respect to housing tenure, the first column of Table 4 shows that 61 percent of WES respondents are steady renters, meaning they rented their home in both the previous and current survey year. Twenty-two percent are steady owners, or owned their home across survey years. Ten percent transitioned from renting to owning, and 7 percent transitioned from owning to renting, between survey years. As shown in columns two and three, stayers are more likely than
movers to be steady owners (36 percent of stayers owned their home in both years compared to 5 percent of movers, p < .01). Perhaps unsurprisingly, movers are more likely than stayers to experience a transition from renting to owning (17 percent of movers compared to 5 percent of stayers, p < .01) or from owning to renting (12 percent of movers compared to 3 percent of stayers, p < .01).9

A minority of respondents experience changes in housing satisfaction between survey years. Column one shows that the majority of WES respondents (63 percent) remain satisfied with their housing arrangements across survey years. Columns two and three show that stayers are more likely than movers to report steady housing satisfaction (69 percent of stayers report steady satisfaction, compared to 55 percent of movers, p < .01). These columns also show that while similar percentages of non-movers and movers either maintain housing dissatisfaction or report deteriorating satisfaction, movers are much more likely than stayers to report improvements in satisfaction: 21 percent of movers transitioned from being dissatisfied to satisfied following a move, compared to 8 percent of stayers (p < .01).

Columns six and seven show that despite limited differences with respect to individual and household characteristics, dissatisfied movers differ from satisfied movers with respect to both housing instability and housing tenure transitions. Relative to those who move and are satisfied with their housing circumstances, those who report dissatisfaction following a move are considerably more likely to experience an eviction (25 percent of dissatisfied movers compared to 13 percent of satisfied movers), doubling-up episode (53 percent compared to 33 percent), or frequent move (28 percent compared to 17 percent, all differences significant at p < .01). Satisfied movers are more likely than dissatisfied movers to transition from renting to owning

9 Small percentages of stayers transition from renting to owning, or from owning to renting, without experiencing a move. This may reflect rent-to-own housing arrangements, or the transfer of a home mortgage between family members within a single household.
their home (19 percent transitioned into homeownership, compared to 8 percent of dissatisfied movers, p < .01).

Discussion

The WES data reveal high rates of residential mobility among low-income mothers in the two final years of the panel study. While levels of mobility among WES respondents are slightly lower than those found in other studies during the same period (Bloom et al. 2000, 2002), close to half of WES families moved between survey years. The analysis provides evidence of positive residential circumstances among both non-movers and movers. Just over three-quarters of non-movers and movers reported satisfaction with their current housing situation. For a majority of respondents, housing satisfaction persisted across survey years. In addition, one-fifth of respondents owned their home between survey years, and 10 percent transitioned from renting to owning between survey years.

While there is evidence of positive residential transitions, the data also provide evidence of negative transitions. Nearly one-fourth of all movers report dissatisfaction following a move, and a comparable amount of stayers report dissatisfaction in the absence of a move. Experiences of instability are common among movers. In contrast to previous research, fewer WES respondents experience negative forms of mobility, at least as measured by housing dissatisfaction following a move. For example, while nearly 50 percent of movers in the Making Connections study are categorized as “churning movers,” just 24 percent of those who move in the WES are categorized as dissatisfied movers. This difference may stem in part from the fact that the Making Connections study used both objective and subjective measures to define groups of movers. Given that many WES respondents experience problems related to housing
affordability and quality, it is likely that using such characteristics to define groups of movers would lead to a larger percentage of negative movers in the WES.

Several characteristics distinguish WES respondents who move from respondents who do not move. The multivariate analysis shows that relative to those who do not move and report satisfaction with their housing circumstances, those who experience positive and negative moves are younger and more likely to be homeowners. Young age and homeownership also distinguish movers and non-movers in the general population. In the WES, movers are also more likely to experience problems including low educational attainment, mental health problems, and domestic violence.

Movers are also less likely to report receipt of housing assistance. Housing assistance sharply increases the probability that a respondent will report satisfaction in the absence of a move. This suggests that housing assistance may play a role in helping families remain in satisfactory housing arrangements. Housing assistance also decreases the probability of mobility, and the magnitude of the decrease is quite large for satisfied movers (19 percentage point change). Such findings are consistent with existing research that finds housing assistance is associated with decreased mobility over time (Wood, Turnham and Mills 2008). The fact that housing assistance decreases the probability of satisfied mobility may reflect the fact that housing assistance creates incentives for satisfied respondents to stay in place, and these incentives do not exist for those who do not receive assistance. Or, housing assistance may be acting as a proxy for an unmeasured characteristic of respondents, such as individual motivation or a personal taste for changing housing circumstances.

Relative to the differences between non-movers and movers, fewer characteristics distinguish positive and negative movers and non-movers. African American race, job loss, and
hard drug use are the only characteristics that distinguish negative movers from positive movers in a multivariate framework. While the probability that a respondent will experience a negative move is relatively small, job loss and hard drug use more than double the probability that a respondent will experience this type of move (from 5 percent to 10 percent for job loss, and from 5 percent to 13 percent for hard drug use). A slightly different set of characteristics distinguishes stayers from one another. Negative stayers are younger than positive stayers, and are significantly more likely to experience a physical health problem and poor quality housing. The relationship between physical health problems and being a dissatisfied stayer is large and statistically significant. While future research is necessary to assess causal relationships, this suggests that physical health problems may play a role in shaping patterns of mobility among low-income families.

Finally, the data show that positive and negative movers differ with respect to their experiences of housing instability as well as transitions between renting and owning. Dissatisfied movers are significantly more likely to experience housing instability in the form of evictions, doubling-up, and frequent mobility. Satisfied movers are also significantly more likely to transition into homeownership between survey years.

**Study Limitations, Implications and Conclusion**

There are several limitations of the current study. First, the data used in this paper are drawn from a single sample of low-income mothers in Michigan. It is possible that the relationships identified in this analysis differ for other regional or national samples. While past analyses have found that the WES sample compares favorably to national samples with respect to basic demographic characteristics (Seefeldt and Orzel 2005), WES respondents face lower
housing costs and affordability problems than many low-income families nationwide. It is likely that the findings identified in this analysis are most generalizable for families living in urban areas with similar rates of affordability. In higher cost areas, housing problems related to affordability and quality may emerge as more powerful predictors of both positive and negative forms of mobility.

Second, although the current analysis controls for multiple observed forms of heterogeneity among respondents, there are some differences that remain unobserved. It is possible that these unobserved forms of heterogeneity affect whether respondents experience positive and negative moves, thereby biasing the estimated coefficients. The nature of the WES panel data does permit the inclusion of respondent fixed effects, which would control for unobserved differences between respondents. However, fixed effects were not included for the following reasons.

To estimate model parameters, fixed effects models use information from respondents who experience a change in the dependent and independent variables, but do not use information from respondents for whom the dependent variable does not change or from independent variables that do not vary over time. In the WES, many respondents do not experience a change in the dependent variable, making statistical significance harder to assess. Omitting time-invariant variables is also problematic because it is likely that a respondent’s likelihood of experiencing a positive or negative move is influenced by characteristics that change over time, such as health problems, as well as those that do not change over time, such as race. Little is known about the characteristics that distinguish positive and negative non-movers and movers, and therefore a modeling approach capable of identifying systematic differences in both the stable and time-varying characteristics of groups of movers was preferred. However, the
modeling approach is not capable of controlling for unobserved forms of heterogeneity. Therefore, although the analysis provides descriptive insights regarding the correlates of residential mobility, these relationships should not be interpreted as causal.

Despite such limitations, the paper fills a gap in the literature by examining an important and underexplored indicator of wellbeing among families in the post-welfare reform era, that of housing stability and satisfaction. The analysis shows that considerable heterogeneity exists between groups of movers and stayers, and to a lesser extent, within such groups. In the WES, most movers and stayers reported satisfaction rather than dissatisfaction with current housing circumstances. Yet experiences of instability are prevalent among those who experience mobility. While the incidence of evictions, homeless episodes, doubling-up, and frequent mobility is low when such experiences are considered individually, when they are grouped together it is clear that a large number of low-income families experience such problems.

Furthermore, slightly less than one quarter of respondents reported dissatisfaction with housing circumstances following a move, suggesting that mobility may be problematic for a non-trivial number of families. The analysis also indicates that a subset of low-income families do not move despite being dissatisfied with their housing circumstances. The inability to move out of poor quality housing or neighborhoods is a policy problem that deserves attention, particularly given the fact that families who are constrained in their mobility may be less likely to come into contact with agencies that provide assistance locating affordable and quality housing.

In the analysis, homeownership and housing assistance sharply increase the probability that a respondent will report satisfaction in the absence of a move. These characteristics help distinguish those respondents who move from those who do not move. While it is not possible to rule out the possibility that homeownership and housing assistance are acting as proxies for
unmeasured characteristics of respondents, the finding that housing assistance is associated with satisfaction in the absence of a move provides support for the hypothesis that housing assistance helps families remain in housing that is considered satisfactory.

Finally, the analysis identifies a small set of factors that distinguish families at risk of experiencing a negative move, or at risk of remaining in housing that is considered unsatisfactory. Respondents who report dissatisfaction have higher levels of physical health problems, relative to those who report satisfaction. The high level of physical health problems among this population is noteworthy, and future research might investigate the causal relationship between health problems and movement out of poor quality housing or neighborhoods. Strong relationships also exist between job interruptions and housing mobility. From a policy perspective, this finding suggests that those in unstable employment situations may be at higher risk for experiencing negative mobility, and may have greater need for short-term housing assistance to address the consequences of employment interruptions.
### Appendix A
Dependent and Independent Variables, Descriptions and Means/Proportions

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Mean/Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissatisfied Stayer</td>
<td>12.9%</td>
</tr>
<tr>
<td>Satisfied Stayer</td>
<td>42.2%</td>
</tr>
<tr>
<td>Satisfied Mover</td>
<td>34.3%</td>
</tr>
<tr>
<td>Dissatisfied Mover</td>
<td>10.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Life-Cycle and Demographic Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
</tr>
<tr>
<td>African American race</td>
</tr>
<tr>
<td>Married and living with spouse</td>
</tr>
<tr>
<td>Cohabiting as unmarried partners</td>
</tr>
<tr>
<td>Number of children in household</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal Constraints and Risk Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of months worked between survey years</td>
</tr>
<tr>
<td>Job loss between survey years</td>
</tr>
<tr>
<td>Low educational attainment</td>
</tr>
<tr>
<td>Human capital barrier</td>
</tr>
<tr>
<td>Received housing assistance</td>
</tr>
<tr>
<td>Owned home</td>
</tr>
<tr>
<td>Poor physical health</td>
</tr>
<tr>
<td>Mental health problem</td>
</tr>
<tr>
<td>Hard drug use</td>
</tr>
<tr>
<td>Domestic violence</td>
</tr>
</tbody>
</table>
### Housing/Neighborhood Problems

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Housing affordability problem</strong></td>
<td>Respondent's self-reported monthly housing costs divided by gross monthly household income is greater than 30 percent in the previous survey year. Respondent reported at least two of the following six problems in the previous survey year: a leaky roof or ceiling; a toilet, hot-water heater, or other plumbing that does not work right; rats, mice, roaches, or other insects; broken windows; a heating system that does not work properly; and exposed wires or other electrical problems.</td>
<td>27.8%</td>
</tr>
<tr>
<td><strong>Housing quality problem</strong></td>
<td>Respondent reported living in an &quot;unsafe&quot; or &quot;very unsafe&quot; neighborhood in the previous survey year.</td>
<td>37.8%</td>
</tr>
<tr>
<td><strong>Unsafe neighborhood</strong></td>
<td>Respondent reported being &quot;very dissatisfied&quot; or &quot;somewhat dissatisfied&quot; with housing situation (measured in year t).</td>
<td>20.3%</td>
</tr>
<tr>
<td><strong>Prior housing dissatisfaction</strong></td>
<td>Total number of months between survey interviews (measured in year t).</td>
<td>24.1%</td>
</tr>
<tr>
<td><strong>Months between survey years</strong></td>
<td>Total Person-Year Observations</td>
<td>1,111</td>
</tr>
</tbody>
</table>

*Source: Women's Employment Study (WES), 2001-2003*


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Table 1. Characteristics of Women's Employment Study Respondents in Prior Survey Year, by Category of Mover

<table>
<thead>
<tr>
<th></th>
<th>(1) All</th>
<th>(2) All Stayers</th>
<th>(3) All Movers</th>
<th>(4) Dissatisfied Stayers</th>
<th>(5) Satisfied Stayers</th>
<th>(6) Dissatisfied Movers</th>
<th>(7) Satisfied Movers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>33.1</td>
<td>34.2</td>
<td>31.9</td>
<td>***</td>
<td>33.2</td>
<td>34.5</td>
<td>*</td>
</tr>
<tr>
<td>African American race</td>
<td>55.0%</td>
<td>54.9%</td>
<td>55.1%</td>
<td></td>
<td>56.6%</td>
<td>54.4%</td>
<td></td>
</tr>
<tr>
<td>Married and living with spouse</td>
<td>18.0%</td>
<td>20.3%</td>
<td>15.2%</td>
<td>**</td>
<td>20.3%</td>
<td>20.3%</td>
<td></td>
</tr>
<tr>
<td>Cohabiting as unmarried partners</td>
<td>20.7%</td>
<td>20.6%</td>
<td>20.8%</td>
<td></td>
<td>18.9%</td>
<td>21.1%</td>
<td></td>
</tr>
<tr>
<td>Number of children in household</td>
<td>2.2</td>
<td>2.2</td>
<td>2.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Life-Cycle and Demographic Characteristics*

<table>
<thead>
<tr>
<th></th>
<th>(1) All</th>
<th>(2) All Stayers</th>
<th>(3) All Movers</th>
<th>(4) Dissatisfied Stayers</th>
<th>(5) Satisfied Stayers</th>
<th>(6) Dissatisfied Movers</th>
<th>(7) Satisfied Movers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of months worked btwn yrs</td>
<td>69.6%</td>
<td>69.7%</td>
<td>69.4%</td>
<td></td>
<td>67.9%</td>
<td>70.3%</td>
<td></td>
</tr>
<tr>
<td>Job loss between survey years</td>
<td>11.2%</td>
<td>9.5%</td>
<td>13.3%</td>
<td>**</td>
<td>10.5%</td>
<td>9.2%</td>
<td></td>
</tr>
<tr>
<td>Low educational attainment (1997)</td>
<td>30.2%</td>
<td>25.5%</td>
<td>35.9%</td>
<td>**</td>
<td>29.4%</td>
<td>24.3%</td>
<td></td>
</tr>
<tr>
<td>Human capital barrier (1997)</td>
<td>26.3%</td>
<td>25.6%</td>
<td>27.2%</td>
<td></td>
<td>28.0%</td>
<td>24.8%</td>
<td></td>
</tr>
<tr>
<td>Owned home</td>
<td>29.0%</td>
<td>38.6%</td>
<td>17.0%</td>
<td>***</td>
<td>32.2%</td>
<td>40.5%</td>
<td>*</td>
</tr>
<tr>
<td>Received housing assistance</td>
<td>17.9%</td>
<td>19.8%</td>
<td>15.6%</td>
<td>*</td>
<td>21.0%</td>
<td>19.4%</td>
<td></td>
</tr>
<tr>
<td>Poor physical health</td>
<td>53.7%</td>
<td>54.4%</td>
<td>52.8%</td>
<td></td>
<td>65.0%</td>
<td>51.2%</td>
<td>***</td>
</tr>
<tr>
<td>Mental health problem</td>
<td>33.2%</td>
<td>29.7%</td>
<td>37.5%</td>
<td>***</td>
<td>38.5%</td>
<td>27.1%</td>
<td>***</td>
</tr>
<tr>
<td>Hard drug use</td>
<td>3.0%</td>
<td>2.6%</td>
<td>3.4%</td>
<td></td>
<td>4.2%</td>
<td>2.1%</td>
<td></td>
</tr>
<tr>
<td>Domestic violence</td>
<td>12.9%</td>
<td>9.2%</td>
<td>17.4%</td>
<td>***</td>
<td>13.3%</td>
<td>7.9%</td>
<td>**</td>
</tr>
</tbody>
</table>

*Constraints and Risk Factors*

<table>
<thead>
<tr>
<th></th>
<th>(1) All</th>
<th>(2) All Stayers</th>
<th>(3) All Movers</th>
<th>(4) Dissatisfied Stayers</th>
<th>(5) Satisfied Stayers</th>
<th>(6) Dissatisfied Movers</th>
<th>(7) Satisfied Movers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing affordability problem</td>
<td>27.8%</td>
<td>25.1%</td>
<td>31.0%</td>
<td>**</td>
<td>25.5%</td>
<td>25.0%</td>
<td></td>
</tr>
<tr>
<td>Housing quality problem</td>
<td>37.7%</td>
<td>35.8%</td>
<td>40.2%</td>
<td></td>
<td>48.3%</td>
<td>32.0%</td>
<td>***</td>
</tr>
<tr>
<td>Unsafe neighborhood</td>
<td>20.3%</td>
<td>19.1%</td>
<td>21.7%</td>
<td></td>
<td>26.1%</td>
<td>17.1%</td>
<td>**</td>
</tr>
<tr>
<td>Prior housing dissatisfaction (1999)</td>
<td>23.0%</td>
<td>17.3%</td>
<td>30.0%</td>
<td>***</td>
<td>37.1%</td>
<td>11.3%</td>
<td>***</td>
</tr>
<tr>
<td>Months between survey years</td>
<td>23.1</td>
<td>22.9</td>
<td>23.3</td>
<td>***</td>
<td>22.8</td>
<td>23.0</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>1,111</td>
<td>612</td>
<td>499</td>
<td></td>
<td>143</td>
<td>469</td>
<td></td>
</tr>
</tbody>
</table>
Source: Women's Employment Study (WES), 2001-2003

Notes: *p<0.10, **p<0.05, ***p<0.01 denote the significance of a difference of means test between Stayers and Movers (Columns 2 and 3), Dissatisfied Stayers and Satisfied Stayers (Columns 4 and 5) and Dissatisfied Movers and Satisfied Movers (Columns 6 and 7).
Table 2. Multinomial Logistic Regression Coefficients and Standard Errors, for the Regression of Mobility on Individual and Household Attributes

<table>
<thead>
<tr>
<th></th>
<th>(1) Dissatisfied Mover (Relative to Satisfied Stayer)</th>
<th>(2) Satisfied Mover (Relative to Satisfied Stayer)</th>
<th>(3) Dissatisfied Stayer (Relative to Satisfied Stayer)</th>
<th>(4) Dissatisfied Mover (Relative to Satisfied Mover)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Life Cycle/Demographic Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.071 (0.019) ***</td>
<td>-0.051 (0.012) ***</td>
<td>-0.036 (0.015) **</td>
<td>-0.020 (0.018) **</td>
</tr>
<tr>
<td>African American race</td>
<td>0.101 (0.279)</td>
<td>-0.374 (0.170) **</td>
<td>0.007 (0.249)</td>
<td>0.474 (0.250) *</td>
</tr>
<tr>
<td>Married and living with spouse</td>
<td>-0.413 (0.386)</td>
<td>-0.023 (0.236)</td>
<td>0.116 (0.337)</td>
<td>-0.390 (0.387)</td>
</tr>
<tr>
<td>Cohabiting as unmarried partners</td>
<td>0.032 (0.301)</td>
<td>-0.155 (0.207)</td>
<td>-0.079 (0.291)</td>
<td>0.186 (0.286)</td>
</tr>
<tr>
<td>Number of children in household</td>
<td>-0.109 (0.082)</td>
<td>-0.058 (0.067)</td>
<td>-0.067 (0.079)</td>
<td>-0.051 (0.082)</td>
</tr>
<tr>
<td><strong>Constraints and Risk Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent months worked btwn survey years</td>
<td>-0.192 (0.348)</td>
<td>0.028 (0.225)</td>
<td>-0.076 (0.319)</td>
<td>-0.220 (0.341)</td>
</tr>
<tr>
<td>Job loss between survey years</td>
<td>0.794 (0.300) ***</td>
<td>0.056 (0.253)</td>
<td>-0.006 (0.357)</td>
<td>0.738 (0.300) **</td>
</tr>
<tr>
<td>Low educational attainment (1997)</td>
<td>0.332 (0.281)</td>
<td>0.350 (0.185) *</td>
<td>0.056 (0.272)</td>
<td>-0.018 (0.257)</td>
</tr>
<tr>
<td>Human capital barrier (1997)</td>
<td>0.331 (0.294)</td>
<td>-0.030 (0.201)</td>
<td>0.119 (0.282)</td>
<td>0.362 (0.266)</td>
</tr>
<tr>
<td>Owned home</td>
<td>-1.111 (0.304) ***</td>
<td>-1.563 (0.209) ***</td>
<td>-0.382 (0.270)</td>
<td>0.452 (0.307)</td>
</tr>
<tr>
<td>Received housing assistance</td>
<td>-0.844 (0.342) **</td>
<td>-0.888 (0.212) ***</td>
<td>-0.184 (0.295)</td>
<td>0.044 (0.329)</td>
</tr>
<tr>
<td>Poor physical health</td>
<td>-0.134 (0.256)</td>
<td>-0.161 (0.162)</td>
<td>0.462 (0.226)</td>
<td>** 0.027 (0.249)</td>
</tr>
<tr>
<td>Mental health problem</td>
<td>0.540 (0.255) **</td>
<td>0.411 (0.168) **</td>
<td>0.236 (0.231)</td>
<td>0.129 (0.252)</td>
</tr>
<tr>
<td>Hard drug use</td>
<td>0.906 (0.538)</td>
<td>-0.452 (0.525)</td>
<td>0.258 (0.631)</td>
<td>1.358 (0.556) **</td>
</tr>
<tr>
<td>Domestic violence</td>
<td>1.019 (0.320) ***</td>
<td>0.618 (0.259) **</td>
<td>0.345 (0.353)</td>
<td>0.402 (0.278)</td>
</tr>
<tr>
<td><strong>Housing and Neighborhood Problems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing affordability problem</td>
<td>0.114 (0.266)</td>
<td>0.136 (0.177)</td>
<td>-0.020 (0.258)</td>
<td>-0.022 (0.259)</td>
</tr>
<tr>
<td>Housing quality problem</td>
<td>0.518 (0.228) **</td>
<td>0.260 (0.172)</td>
<td>0.497 (0.232)</td>
<td>** 0.258 (0.217)</td>
</tr>
<tr>
<td>Unsafe neighborhood</td>
<td>-0.231 (0.297) **</td>
<td>-0.013 (0.212)</td>
<td>0.057 (0.275)</td>
<td>-0.218 (0.271)</td>
</tr>
<tr>
<td>Prior housing dissatisfaction (1999)</td>
<td>1.704 (0.282) ***</td>
<td>1.070 (0.215) ***</td>
<td>1.479 (0.279) *</td>
<td>0.634 (0.229) ***</td>
</tr>
<tr>
<td>Months between survey years</td>
<td>0.217 (0.066) ***</td>
<td>0.151 (0.043) ***</td>
<td>-0.035 (0.046)</td>
<td>0.065 (0.068)</td>
</tr>
<tr>
<td>Constant</td>
<td>-4.464 -1.662 ***</td>
<td>-1.642 -1.051 ***</td>
<td>0.224 -1.253</td>
<td>-2.822 -1.692 *</td>
</tr>
<tr>
<td>Observations</td>
<td>1,079 1,079</td>
<td>1,079 1,079</td>
<td>1,079 1,079</td>
<td>1,079 1,079</td>
</tr>
</tbody>
</table>

Source: Women's Employment Study (WES), 2001-2003. Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1
Table 3. Predicted Probabilities for Positive and Negative Mobility

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Satisfied Stayer</td>
<td>Dissatisfied Stayer</td>
<td>Satisfied Mover</td>
<td>Dissatisfied Mover</td>
</tr>
<tr>
<td>Baseline Predicted Probability</td>
<td>43.3%</td>
<td>5.9%</td>
<td>46.0%</td>
<td>4.8%</td>
</tr>
</tbody>
</table>

Percentage Point Change in Predicted Probability for Following Characteristics

**Life-Cycle and Demographic Characteristics**
- Older Age (Age = 39) 4.9% -0.2% -3.9% -0.7%
- African American 6.9% 1.0% -9.3% 1.4%

**Constraints and Risk Factors**
- Job Loss between survey years -3.4% -0.5% -1.1% 5.0%
- Low Educational Attainment -7.7% -0.8% 7.7% 0.7%
- Owned home 30.7% 1.0% -29.5% -2.1%
- Receipt of Housing Assistance 19.3% 1.2% -18.6% -1.8%
- Physical Health Problem 1.8% 3.9% -5.2% -0.4%
- Mental Health Problem -9.6% -0.1% 8.0% 1.6%
- Hard Drug Use 3.7% 2.4% -14.2% 8.1%
- Domestic Violence -14.5% -0.4% 10.8% 4.1%

**Housing and Neighborhood Problems**
- Housing Quality Problem -7.5% 2.2% 3.4% 1.9%

*Source: Women's Employment Study (WES), 2001-2003*
Table 4. Incidence of Housing Instability, Housing Tenure Transitions, and Change in Housing Satisfaction, by Category of Mover

<table>
<thead>
<tr>
<th></th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
<th>Column 6</th>
<th>Column 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Respondents</td>
<td>100.0%</td>
<td>55.1%</td>
<td>44.9%</td>
<td>23.4%</td>
<td>76.6%</td>
<td>23.7%</td>
<td>76.4%</td>
</tr>
<tr>
<td>All Stayers</td>
<td></td>
<td></td>
<td></td>
<td>1.4%</td>
<td>0.2%</td>
<td>24.6%</td>
<td>13.1%</td>
</tr>
<tr>
<td>All Movers</td>
<td></td>
<td></td>
<td></td>
<td>0.0%</td>
<td>0.0%</td>
<td>13.6%</td>
<td>9.2%</td>
</tr>
<tr>
<td>Dissatisfied Stayers</td>
<td></td>
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<td></td>
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<tr>
<td>Dissatisfied Movers</td>
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<tr>
<td>Satisfied Stayers</td>
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<tr>
<td>Satisfied Movers</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>1,111</td>
<td>612</td>
<td>499</td>
<td>143</td>
<td>469</td>
<td>118</td>
<td>381</td>
</tr>
</tbody>
</table>

**Housing Instability**
- Eviction between survey years: 7.4% (1), 0.5% (2), 15.8% (3), *3.4% (4), 0.2% (5), *24.6% (6), 13.1% (7)
- Homeless episode between survey years: 4.7% (1), 0.2% (2), 10.2% (3), *3.2% (4), 0.0% (5), 13.6% (6), 9.2% (7)
- Doubled-up to share expenses between survey years: 18.0% (1), 2.0% (2), 37.7% (3), *28.2% (4), 1.7% (5), 53.4% (6), 32.8% (7)
- Frequent mobility (3+ moves between years): 8.8% (1), 0.0% (2), 19.7% (3), **20.4% (4), NA (5), 28.0% (6), 17.1% (7)
- One or more type of instability: 22.8% (1), 2.5% (2), 47.7% (3), ***58.2% (4), 3.5% (5), 2.1% (6), 61.9% (7), 43.3% (8)

**Housing Tenure Transitions**
- Steady owner: 21.9% (1), 35.6% (2), 5.0% (3), ***26.7% (4), 37.3% (5), 2.5% (6), 5.8% (7)
- Steady renter: 60.9% (1), 56.5% (2), 66.3% (3), ***62.7% (4), 54.2% (5), **73.7% (6), 64.1% (7)
- Transition from renting to owning: 10.2% (1), 4.9% (2), 16.6% (3), ***5.8% (4), 5.3% (5), 7.6% (6), 19.4% (7)
- Transition from owning to renting: 7.0% (1), 2.9% (2), 12.0% (3), ***2.1% (4), 3.2% (5), 16.1% (6), 10.8% (7)

**Change in Housing Satisfaction**
- Steady housing satisfaction: 62.9% (1), 69.1% (2), 55.2% (3), ***57.9% (4), NA (5), 90.2% (6), NA (7), 72.4% (8)
- Steady housing dissatisfaction: 10.5% (1), 10.8% (2), 10.0% (3), 46.2% (4), NA (5), 42.7% (6), NA (7)
- Transition from dissatisfied to satisfied: 13.6% (1), 7.5% (2), 21.1% (3), ***15.7% (4), NA (5), 9.8% (6), NA (7), 27.6% (8)
- Transition from satisfied to dissatisfied: 13.0% (1), 12.6% (2), 13.5% (3), 53.8% (4), NA (5), 57.3% (6), NA (7)

**Observations:** 1,111, 612, 499, 143, 469, 118, 381

*Source: Women's Employment Study (WES), 2001-2003*

*Notes:* *p<0.10, **p<0.05, ***p<0.01 denote the significance of a difference of means test between Stayers and Movers (Column 2), Dissatisfied Stayers and Satisfied Stayers (Column 3) and Dissatisfied Movers and Satisfied Movers (Column 4).