Residential Mobility, Housing Problems, and Child Outcomes In the Women's Employment Study

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Residential Mobility in the United States

Residential mobility is widespread in the United States. Approximately 16 percent of Americans move each year, and 46 percent move over a five-year period (Berkner and Faber 2003; Schachter 2001). While mobility is widespread across the economic spectrum, low-income populations move more frequently than other populations, and are less likely to experience moves that lead to improvements to housing or neighborhood quality (Crowley 2003). Low-income populations are also more likely to experience involuntary mobility due to eviction or destruction of the property or housing unit (Chester and Hartman 2003).

The residential mobility of low-income populations is an important topic for those interested in the wellbeing of low-income families and children. Frequent or involuntary mobility can disrupt employment and social networks. Additionally, residential mobility may interfere with children's educational achievement and/or emotional wellbeing (Crowley 2003).

This analysis utilizes panel data from the Women's Employment Study (WES) to examine the correlates of residential mobility in one low-income community. The WES is a six-year panel survey of low-income women who were receiving welfare in 1997. The survey data provide detailed information for each respondent and target child over a period of six years, and are well suited to analyze questions related to mobility, housing, and child outcomes. Survey instruments contain questions related to life events, employment activity and history, barriers to self-sufficiency, health and wellbeing for one target child, and general information about other household members. Additionally, the longitudinal data allow researchers to assess both

immediate and long-term relationships between housing problems, mobility, and parent and child outcomes.

This report proceeds as follows. In the first section, I review the literature on residential mobility, housing problems and child outcomes in low-income populations. The second section introduces the WES data and describes the variables used in the analysis. The third section analyzes the incidence of residential mobility among WES respondents and the relationship between mobility and child outcomes. The fourth section concludes.

Section 1. Residential Mobility and Low-Income Populations

The Causes and Correlates of Residential Mobility

There are many causes of residential mobility. In the United States, most moves result from a desire to improve housing or neighborhood quality, or to increase one's access to friend, family, or employment.[1] One national study found that 52 percent of people who moved in the year prior to 2000 did so to improve housing or neighborhood quality (19 percent and 5 percent of all movers, respectively), become homeowners (12 percent), or to secure more affordable housing (6 percent) (Schachter 2001).[2] Many Americans also attribute their mobility to changes in other spheres of life. For instance, residential changes often accompany household formation and dissolution – whether caused by marriage/divorce, changes in cohabitation, or life cycle changes. Changes in household size are often associated with mobility, as an increase or decrease in the number of children or adults in the household may alter a household's need for space. In

[1] Clark and Onaka (1983) distinguish between *induced* and *adjustment* moves. *Adjustment* moves are "intended to alter the type and quantity of housing consumption" (49), such as characteristics of the housing unit and neighborhood, and accessibility to employment, schools, and friends/family. *Induced* moves "includes both moves which accompany housing formation/dissolution and those which are associated with multiple or ambiguous housing adjustment necessitated by changes in life cycle or other household characteristics" (50-1). The authors categorize induced moves by the types of characteristics that are likely to change, including employment, marital status, and household size.

[2] 12 percent reported "other housing reason" as the housing-related reason for moving (Schachter 2001).

2000, 26 percent moved for family-related reasons and 16 percent moved for work-related reasons (Schachter 2001).[3]

Finally, although most moves are voluntary, some households experience involuntary mobility caused by eviction and/or destruction of their housing unit (Clark and Onaka 1983). While the prevalence of such 'forced moves' is somewhat difficult to measure (see Chester and Harman 2003), research does indicate that involuntary moves, whether caused by evictions, mortgage foreclosures (among homeowners), or involuntary displacement due to factors such as condemnation or redevelopment of the housing unit or property or natural disaster, are more common among low-income households, racial minorities, women, and renters (Chester and Hartman 2003).

Patterns of residential mobility also vary by demographic characteristics such as age and race. Previous research shows that younger people and racial minorities more frequently than other populations (Crowley 2003; Yinger 2001). As discussed earlier, low-income populations experience higher rates of mobility than other populations – perhaps because wages have not kept pace with rising housing costs.

There is also evidence to suggest that individuals with higher barriers to employments experience higher rates of mobility. Barriers to employment include such factors as human capital deficiencies, health problems, and domestic violence (Danizger et al. 2001). For example, individuals with limited work experience or low educational attainment may be at higher risk for experiencing frequent or involuntary mobility due to job instability, low wages, or inflexible work schedules. Human capital deficiencies also hinder an individual's ability to

[3] During this year, 6 percent moved for "other" reasons – for example, to attend or leave college, or for health- or climate-related reasons.

navigate the housing assistance system, or secure affordable housing through complicated housing searches (Phinney et al 2007).

Although not direct causes of mobility, physical and mental health problems can deplete the resources necessary to pay for housing or prevent eviction or foreclosure (Danziger et al. 2000), and thus may be related to the mobility. In previous analyses using the WES data, respondents who had poor physical or mental health at the onset of data collection were significantly more likely to experience an episode of homelessness over the six-year survey period (Phinney et al. 2007). Finally, individuals who experience domestic violence may have higher rates of mobility if individuals leave their primary residence to escape violence in the household.

Residential Mobility and Child Behavioral and Educational Outcomes

Residential mobility is consistently associated with lower educational achievement and disobedient behavior in school (Astone and Mclanahan 1994; Johnson et al. 2007). For many children, residential mobility is associated with moving to a different school or district (Pribesh and Downey 1999). Such moves can disrupt relationships with teachers and peers, making it more difficult for children to perform well in school (Astone and Mclanahan 1993). Studies consistently find that residential moves that are accompanied by school changes are associated with increased problems in school (Pribesh and Downey 1999). In addition, moves that are associated with instability in other spheres may have negative consequences for children (Crowley 2003). For example, moves related to divorce, death, or violence in the household may be traumatic for children and increase the incidence of emotional or behavioral problems. However, moves that housing or neighborhood quality may improve child outcomes. Crowley (2003) argues: "Given the importance of housing to child and family well-being, families who

can improve their housing circumstance by moving may be better of in other spheres of family and community life" (Crowley, 2003: 23).

Section 2. The Women's Employment Study Data

The Women's Employment Study is a panel survey of predominately single mothers who received cash welfare in one urban Michigan county in February 1997. 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. Respondents were selected with equal probability from the universe of white and African-American single, female-headed cases between the ages of 18 and 54. 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.[4]

The following paragraphs describe the WES survey variables used to assess residential mobility; housing affordability, quality, and accessibility problems; barriers to employment; and child outcomes.

The WES data contain explicit measures of mobility between survey years. In 1998, 1999, 2001, and 2003, respondents were asked if they had moved and if so, how many places they had lived since the previous interview date. With these survey questions, it is possible to measure the extent and frequency of residential mobility across the entire survey period.

The data also permit the measurement of types of housing mobility, including homeownership and involuntary mobility. Survey respondents were asked whether they rented, owned, or 'neither rented nor owned' their home, making it possible to measure transitions to homeownership. With respect to involuntary mobility, respondents were asked if they had

[4] There is little evidence that attrition from the sample was non-random, and sample weights are not used in analyses of WES data (Cadena and Pape, 2006 analyze attrition in WES).

experienced an eviction, homeless episode, or had 'doubled up' between survey years.[5] I use these questions to create three categories of respondents: respondents who do not move between survey years *(stayers)*, respondent who are evicted, homeless, or 'double up' between survey years *(involuntary movers)*, and those who move but do not experience an involuntary move between survey years *(voluntary movers)*.

Past research shows that movers often attribute their mobility to the desire to adjust the cost and quality of their housing, or their access to family, friends, and employment. In the WES, it is possible to measure housing affordability, housing and neighborhood quality, and accessibility. Affordability problems are defined as a respondent's self-reported monthly housing costs divided by a measure of gross monthly household income (housing cost burden).[6] Housing costs are measured as the amount that a respondent pays in rent or mortgage, rather than the total cost of the housing unit or the amount that a respondent pays for rent or mortgage plus utilities.[7] Gross monthly household income includes income received from welfare, social security insurance, child support, food stamps, unemployment insurance, and other government assistance, in addition to income received by the respondent or others in the household. Following federal definitions, respondents paying more than 30 or 50 percent of their household's gross monthly income on rent or a mortgage are defined as having a housing cost burden (or affordability problem).

WES respondents were also asked about physical housing problems experienced in the 12 months prior to the 1999, 2001, and 2003 interviews. I create an index of poor physical housing

[5] The survey questions are: (1) Have you been evicted since [*previous interview date*], (2) Have you been homeless since [*previous interview date*], and (3) Have you moved in with others to share expenses since [*previous interview date*]. Questions 1 and 2 are asked in survey years 2-5, while question 3 is asked in survey years 3-5.
[6] Respondents with cost burdens greater than 1 are recoded as having a cost burden of 1.
[7] Unfortunately, respondents were not asked about the cost of utilities. Because the housing cost measure excludes the cost of utilities, it represents an underestimate of the true cost of housing.

quality by giving respondents one point for each problem they report. Respondents are coded as having a housing quality problem if they report 4 or more of 6 housing quality problems. The six problems include: 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. The housing quality scale is adapted from Mayer and Jencks (1989).[8]

With respect to neighborhood quality, respondents were asked if they felt that their neighborhood was "very safe," "safe," "unsafe," or "very unsafe." This variable is used to create an indicator of poor neighborhood quality, where 1 means that a respondent reported an "unsafe" or "very unsafe" neighborhood. Additionally, although all five surveys included questions about respondents' neighborhoods, most of these questions differed from year to year. For example, earlier survey years included questions about the quality, safety, affordability, and availability of services in respondents' neighborhood, but these questions were removed in 2001 and 2003. In the descriptive analysis, I use the neighborhood questions asked in 1999 to offer a more detailed picture of neighborhood quality for a subset of respondents during this year.

With respect to accessibility to employment, respondents are coded as having a transportation problem if they lacked access to a car or driver's license. Commuting time to employment is based on the time it takes a respondent to get to her current (or most recent) place of employment. Respondents are coded as having an employment accessibility problem if their commuting time to employment is 45 minutes or greater.

[8] Two aspects of physical housing quality – peeling paint and a stove/refrigerator that does not work properly – were excluded from the housing quality scale because they are considered features of the housing *system*, rather than the housing *unit*.

Variables measuring respondent demographic and household characteristics are created from questions asked in the baseline survey (age, race, and employment barriers) and in each wave of data collection (marriage, cohabitation, number of children in household, health problems, and domestic violence). Respondent race is coded as 1 if the respondent is African American, 0 if the respondent is white. Respondents who are married and living with their husbands are coded as married; respondents who are cohabiting as unmarried partners are coded as cohabiting. Two variables are used to code for human capital deficiencies (both assessed in 1997). These include having less than a high school education and having low work experience (working less than 20 percent of the years since age 18) or low work skills (less than 4 of 9 possible skills).

Poor physical health is defined as self-reported fair or poor physical health *and* a low score (respondent is in lowest age-specific quartile) on a multiple-item physical functioning scale, drawn from the SF-36 Health Survey (Ware et al. 1993). A subset of questions from the Conflicts Tactics Scale is used to assess domestic violence in the 12 months prior to the survey interview (see Strauss and Gelles 1990). A respondent is coded as experiencing domestic violence if she reports being hit with a fist or object, beaten, choked, threatened with a weapon, or forced into sexual activity against her will.

A respondent is coded as having a mental health problem if she meets 12-month diagnostic screening criteria for major depression, post-traumatic stress disorder, generalized anxiety disorder, or social phobia. The diagnostic screening questions used in the WES are derived from the Composite International Diagnostic Interview (CIDI) used in the National Comorbidity Study (NCS), and are based on criteria specified by the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (Kessler et al.

1994). A respondent is coded as having a substance abuse problem if she meets the 12-month diagnostic screening criteria for alcohol or drug dependence (also assessed using the CIDI survey instrument) *or* used hard drugs, defined as cocaine, heroin, amphetamines, or stimulants, in the past 12 months (Phinney et al. 2005).

Although WES respondents often had multiple children in the household, detailed questions were only asked about one 'target child' in each household. The target child sample included 525 children who were between the ages of 2 and 12 in 1997. The 525 respondents with a child in the target child sample were asked a series of questions related to that child's physical, emotional, and educational wellbeing. All child outcome variables are constructed from maternal reports, and apply only to the target child.

In this report, the academic progress of a child is assessed via mothers' reports of disruptive behavior in school and school absenteeism. A child is coded as having a school absenteeism problem if he/she regularly missed school at least one or more times a month (1 if absenteeism problem; 0 otherwise). Disruptive behavior in school is derived from the following question: In the last 3 months, how true is it that the target child is disobedient in school? Children of respondents who reported that this behavior was 'often true' are coded as having a problem with disruptive behavior in school.

Child behavior problems were assessed using a subset of questions from the Behavioral Problems Index (BPI) described in Chase-Lansdale et al (1991). For these questions, mothers are asked about target child behavior in the past 3 months. Each behavioral-problem variable is assigned a value of 1 if the mother reports that the behavior is not true, a value of 2 if the mother reports that the behavior is sometimes true, and a value of 3 if the mother reports that the behavior is often true. Possible values for the scale at each wave range from 12 to 36.

Externalizing and internalizing behavior scales are created from a subset of these questions. The externalizing scale consists of 4 items, including "bullies or is cruel or mean to others" and "cheats or tells lies," and the internalizing scale consists of 4 items, such as "feels worthless or inferior" and "is unhappy, sad, or depressed." Possible values for each scale range from 4 to 12.

Section 3. Analysis of Mobility, Housing Problems, and Child Outcomes in the WES

Residential Mobility in the WES, 1997-2003

Table 1 shows the extent of mobility among WES respondents over the 6-year survey period. Mobility among WES respondents is extremely high: nearly 80 percent of respondents moved one or more times between 1997 and 2003. By comparison, 46 percent of U.S. residents and 43 percent of Michigan residents moved over a comparable period of time (1995 to 2000) (Schachter, Franklin, and Perry 2003). Additionally, nearly 50 percent of WES respondents moved 3 or more times across survey years, with 19 percent experiencing *hypermobility*, defined as six or more moves between 1997 and 2003.[9] Annual rates of mobility are also higher for WES respondents. For example, in the two years prior to the final survey interview (2001-2003), over 40 percent of WES respondents moved (data not shown). By comparison, about 14 percent of adults in the United States – and 24 percent of those living in poverty – moved over a comparable period of time (Schachter 2004). The average mover in WES changed her residence 1.3 times each calendar year.

Despite exceptionally high rates of mobility, many respondents experienced positive moves over the six-year survey period. Thirty-four percent of respondents who participated in all five waves of data collection transitioned into homeownership at some point during the survey period, and 46 percent owned a home in one or more survey years. However, involuntary

[9] The definition of *hypermobility* is adapted from Tucker, Marx, and Long (1998). In the WES data, six moves is also one standard deviation above the average number of moves for all respondents for the 1997-2003 period.

mobility was also common – 20 percent of respondents experienced an eviction, 12 percent were homeless, and 34 percent doubled-up in one or more survey years. In total, 38 percent experienced some form of involuntary mobility over the six-year survey period.

Housing and Neighborhood Problems in the WES, 1999-2003

In the United States, residential moves are often motivated by the desire to improve one's bundle of housing goods – for example, by moving into lower cost or better quality housing, or closer to family, friends, or employment (Clark and Onaka 1983; Schachter 2001). Table 2 shows the extent of problems related to housing affordability and quality, neighborhood quality, and accessibility to employment using data from the final survey year (2003). Consistent with other studies, housing affordability problems in the WES are more common than housing quality problems (HUD 2003; Malpezzi and Green 1996).[10] Approximately 27 percent of WES respondents experienced an affordability problem (paid more than 30 percent of their income on rent/mortgage) in 2003, compared to about 9 percent that reported severe problems with physical housing quality (at least 4 of 6 problems). A majority of respondents – 54 percent – experienced an affordability problem during one or more survey years (1999 to 2003), and approximately 21 reported a severe housing quality problem during this time (data not shown).

Nearly one-fifth of respondents (18 percent) reported living in an unsafe neighborhood, and a large minority of respondents experienced problems related to accessibility to employment. In 2003, 23 percent had a transportation barrier – defined as lacking access to a car or driver's

[10] Affordability problems are the most prevalent type of housing problem in the United States. The Department of Housing and Urban Development reports that in the late 1990s, over 10 percent of households paid more than half of their income for housing, while 15 percent paid between 31 and 50 percent. In contrast, 4.7 percent had physical housing problems and 2.5 percent lived in crowded conditions (U.S. Department of Housing and Urban Development 2003).

license – and 16 percent had an employment accessibility problem, or spent 45 minutes or more commuting to work.

Many questions pertaining to neighborhood quality were only asked in select survey waves to respondents who had moved between survey years. For example, respondents who moved between 1998 and 1999 were asked about the prevalence of problems such as muggings, public drug use or dealing, or police inactivity in their current neighborhood. These data – shown in Figure 1 – provide a more detailed picture of neighborhood quality among voluntary and involuntary movers in 1999. This figure shows that in 1999, over 10 percent of movers reported current problems with public transportation (12 percent), affordable housing (16 percent), and police inactivity (12 percent). Larger minorities reported that vandalism, prostitution, and groups of teens causing problems (22 percent) and muggings, gangs, and drug use or dealing in the open (18 percent) were 'very much' a problem in their current neighborhood.

These problems differed by type of mover: relative to voluntary movers, respondents who experienced an eviction, homeless episode, or 'doubling up' between 1998 and 1999 lived in poorer quality neighborhoods in 1999 (following the move). These involuntary movers reported a higher incidence of vandalism, prostitution, and teens causing problems (32 percent compared to 16 percent of voluntary movers), muggings, drug use/dealing, and gangs (26 percent compared to 13 percent of voluntary movers), and affordable housing shortages (22 percent compared to 12 percent of voluntary movers).

These statistics indicate that housing and neighborhood problems are prevalent among this sample of low-income women with children. Some problems – such as high housing cost burdens and/or transportation barriers – are fairly common at any given point in time, while

others – such as severe physical housing problems – are relatively rare. Large number of respondents experience housing and neighborhood quality problems across time. For example, additional analyses shows that over half paid more than 30 percent of income on rent/mortgage in one or more survey years and close to one-fifth or all respondents report living in an unsafe neighborhood.

Frequent, Voluntary, and Involuntary Mobility in the WES

The following sections utilize descriptive comparisons and cross-sectional logistic regressions to examine associations between individual-level characteristics and frequent mobility, and between housing affordability, quality, and accessibility and voluntary and involuntary mobility in the WES.

As discussed above, frequent mobility is common in WES. Of respondents who completed all five waves of data collection, 23 percent never moved between 1997 and 2003 (*stayers*), 59 percent moved 1 to 5 times (*average movers*), and 19 percent moved 6 or more times (*frequent movers*).[11] Table 3 shows how individual-level characteristics differ across these categories of movers. Frequent movers were on average younger (27 years compared to 30 years for respondents who moved 1-5 times and 34 years for respondents who did not move, $p<.01$), and more likely to have low educational attainment (44 percent lacked a high school education in 1997 compared to 29 percent for average movers and 22 percent for stayers, $p<.01$). Frequent movers were the least likely to be married (7 percent were married in 1997) but the *most* likely to be cohabiting (21 percent were cohabiting in 1997) (differences not significant). Respondents who moved frequently were also more likely to have a mental health problem (48 percent compared to 35 percent of average movers and 30 percent of stayers, $p<.05$) and to have experienced domestic violence during or prior to 1997 (60 percent compared to 54 percent of

[11] This definition of frequent mobility is adapted from Tucker, Marx, and Long, 1998.

average movers and 50 percent of stayers). Perhaps unsurprisingly, frequent movers were much more likely to be renters: 87 percent rented in 1997 compared to 84 percent of average movers and 58 percent of stayers ($p<.01$).

Table 4 examines how individual-level characteristics are associated with frequent mobility in a multivariate framework. In this analysis, frequent mobility is regressed on the set of demographic, household, employment, and health-related variables. The results confirm the findings from the earlier table – frequent movers differ from other respondents with respect to many baseline characteristics. Respondents who are younger ($p<.01$) and have fewer children ($p<.05$), and those who are cohabiting in 1997 ($p<.05$), are significantly more likely to experience frequent mobility across survey years. Low educational attainment ($p<.01$), poor mental health ($p<.05$), and domestic violence ($p<.05$) are also associated with moving 6 or more times during the survey period.

These tables demonstrate that a significant percentage of WES respondents experienced frequent mobility across the 6-year survey period. Respondents who are younger and have lower educational attainment are more likely to experience frequent mobility. In addition, mental health problems, domestic violence, and cohabitation appear to be risk factors for excessive mobility in this sample of low-income women.

Voluntary and Involuntary Mobility in the WES, 1999-2003

Table 5 shows that there are also differences in demographic characteristics across different types of movers. In this table, the first column shows individual-level characteristics of respondents who completed all five waves of data collection (2003), the second and third columns compare the characteristics of those who did not move between 2001 and 2003 (Column 2) and those who moved between 2001 and 2003 (Column 3), and the fourth and fifth

columns compare voluntary movers (Column 4) and involuntary movers (Column 5). Significant stars indicate significant differences between each set of respondents (stayers versus movers, voluntary movers versus involuntary movers).

There are significant differences across categories. Relative to stayers, respondents who experienced any move between 2001 and 2003 were on average younger (33 years compared to 36years for stayers, $p<.01$) and more likely to experience a mental health problem (38 percent had a mental health problem compared to 28 percent of stayers, $p<.05$) or domestic violence (17 percent compared to 8 percent of stayers, $p<.01$) prior to the move. Movers and stayers also differed with respect to job instability: 64 percent of movers lost a job between 2001 and 2003 compared to 49 percent of stayers ($p<.01$). Movers had a slightly higher incidence of human capital barriers (low educational attainment and low work experience or skills), although these differences are not significant.

There are also strong differences between voluntary and involuntary movers. Respondents who experienced an eviction, homeless episode, or moved in with others to share expenses were much more likely to have low educational attainment (44 percent lacked a high school education compared to 24 percent of voluntary movers, $p<.01$) and to have experienced a job loss prior to the involuntary move (76 percent suffered a job loss compared to 53 percent of voluntary movers, $p<.01$). Involuntary movers were also more likely to have a physical or mental health problem (38 percent had a physical health problem compared to 16 percent of voluntary movers, $p<.01$; 46 percent had a mental health problem compared to 32 percent of voluntary movers, $p<.05$), to have a substance abuse problem (11 percent compared to 2 percent, $p<.01$), and to have experienced domestic violence prior to the move (25 percent compared to 10 percent of voluntary movers, $p<.01$).

The next table (Table 6) examines associations between individual-level characteristics and voluntary and involuntary mobility in a multivariate framework. The first column shows the regression of any move between 2001 and 2003 on the set of demographic, household, health, and employment characteristics. The second column shows how these characteristics are associated with voluntary moves, and the third column shows their relationship with involuntary moves. This table reveals that different characteristics are associated with experiencing voluntary and involuntary moves. Respondents who experience a voluntary move are on average older ($p<.01$), have higher educational attainment ($p<.05$), and are less likely to experience health problems immediately preceding the move ($p<.01$). Several of these characteristics are also associated with involuntary moves – although in the opposite direction. The third column shows that respondents who experience involuntary moves had lower educational attainment ($p<.01$) and were more likely to experience poor physical and mental health preceding the move ($p<.01$). Involuntary movers were also significantly more likely to experience a job loss between 2001 and 2003 ($p<.01$).

The previous regressions show that individual-level characteristics including age, human capital and employment, and health are significantly associated with residential mobility. Tables 7 and 8 expand on this analysis by examining how characteristics of housing affordability, quality, accessibility, and satisfaction are associated with different types of mobility. Both tables utilize pooled data from the final two survey years (2001 and 2003).

Table 7 shows logistic regression coefficients and adjusted standard errors for the regression of voluntary and involuntary mobility on individual and housing-related characteristics. This table essentially replicates the multivariate analysis shown in the previous table but utilizes two years of survey data and incorporates measures of housing affordability,

quality, and neighborhood safety. In the first set of regressions in Table 7, the dependent variable is any voluntary move between waves *t-1* and *t*; in the second set, the dependent variable is any involuntary move between waves *t-1* and *t*. Consistent with the previous table, most demographic, household, employment, and health characteristics are measured in the wave preceding the move. Housing characteristics are measured in two ways. For each type of move, the first column incorporates housing characteristics measured in the wave preceding the move (wave *t-1*), while the second column incorporates housing characteristics measured in the wave following the move (wave *t*).

This table shows that housing characteristics are strongly associated with voluntary and involuntary mobility, controlling for other characteristics of respondents. However, it is the current housing variables that are associated with experiencing voluntary moves, and the lagged housing variables that are associated with involuntary moves. The second column of Table 7 shows that respondents who experience a voluntary move have significantly higher housing cost burdens and fewer housing quality problems in the wave following the move (both are significant at .01). Neither cost burdens nor housing quality problems measured in the wave preceding the move are associated with experiencing a voluntary move (shown in column 1). The third column of Table 7 shows that housing affordability and quality measured in the wave preceding the move are significantly associated with experiencing an involuntary move: respondents who were evicted, homeless, or moved in with others to share expenses were more likely to have housing cost burdens (significant at .05) and housing quality problems (significant at .10) preceding the involuntary move. However, these characteristics were not associated with involuntary mobility when measured in the wave following the move (shown in column 4).[12]

[12] Appendix Tables A1-A3 show three sets of regressions for each of the following dependent variables: move between waves t-1 and t (Table A1), voluntary move between waves t-1 and t (Table A2), and involuntary move

Table 8 shows the extent and change in housing-related problems across three categories of respondents: those who did not move between waves *t-1* and *t* (Column 2), those who moved voluntarily between waves *t-1* and *t* (Column 3), and those who moved involuntarily between waves *t-1* and *t* (Column 4) (frequencies for all person-year observations are shown in Column 1). For each housing characteristic, the table shows the extent of the problem in wave *t-1* (or prior to the move), the percent of respondents who experienced no change in the characteristic from *t-1* to *t*, the percent who experienced a decline in the characteristic (for example, an affordability problem at time *t-1* but no affordability problem at time *t*), and the percent who experienced an improvement in the characteristic from *t-1* to *t*. The final column shows whether significant differences existed between voluntary and involuntary movers with respect to the housing characteristic measured in wave *t-1*, and change in the housing characteristic from *t-1* to *t* (no change, decline, or improvement).

This table shows that relative to other respondents, involuntary movers experience higher rates of housing problems, and for most housing characteristics, are more likely to experience changes in housing (improvements *and* declines) following a move. For example, nearly 36 percent of involuntary movers experienced a housing affordability problem at time *t-1*, compared to 28 percent of voluntary movers and 25 percent of stayers. Twenty-two percent of involuntary movers experienced an improvement in housing affordability following the move, 17 percent experienced a decline in affordability, and 61 percent experienced no change. In contrast, 17 percent of voluntary movers experienced an improvement in housing affordability between *t-1*

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between waves t-1 and t (Table A3). The tables shows the coefficients and (adjusted) standard errors for the regression of each of the dependent variables on the set of individual (non-housing) characteristics (1), the set of individual characteristics and housing characteristics measured in the wave preceding the move (2), and the set of individual-level characteristics and housing characteristics measured in the current wave. I included these tables to show how the coefficients for the household, employment, and health characteristics change once the housing characteristics are included model (most coefficients stay roughly the same).

and *t,* 19 percent experienced a decline, and 64 percent experienced no change. 74 percent of stayers experienced no change in housing affordability between *t-1* and *t.*

This pattern is repeated for many of the housing and neighborhood characteristics examined. For example, 25 percent of involuntary movers lived in an unsafe neighborhood at time *t-1*, compared to 19 percent of voluntary movers and stayers. Approximately 28 percent of involuntary movers experienced a change in this characteristic from *t-1* to *t* (13 percent decline and 15 percent improvement), compared to 24 percent of voluntary movers (9 percent decline and 15 percent improvement) and 14 percent of stayers (7 percent decline and 7 percent improvement).

Voluntary and involuntary movers differed significantly with respect to housing affordability problems at time *t-1* ($p<.10$), housing quality problems at time *t-1* ($p<.05$), and transportation barriers at time *t-1* ($p<.01$). The extent of change in transportation barriers and housing dissatisfaction between these two groups also differed significantly at $p<.01$ and $p<.05$, respectively.

Relative to other respondents, voluntary and involuntary movers are more likely than stayers to change their housing and neighborhood conditions by moving. In many cases, these changes result in improvements to housing and neighborhood characteristics. For example, 8 percent of voluntary movers and 7 percent of involuntary movers experienced an improvement in housing quality; 15 percent of voluntary movers and 15 percent of involuntary movers moved into safer neighborhood, compared to 7 percent of stayers. However, many movers also experience a decline in housing conditions following a move – for example, nearly 19 percent of voluntary movers and 17 percent of involuntary movers experienced a decline in housing affordability.

One striking difference across the three categories of respondents is the extent to which mobility is associated with a change in housing satisfaction. Nearly one-third of movers reported a change in housing satisfaction following a move, compared to 20 percent of stayers. However, voluntary movers are the most likely to experience a positive change in housing satisfaction in the year following the move. At time *t-1*, similar percentages (approximately 31-32 percent) of voluntary and involuntary movers report dissatisfaction with their current housing situation. More voluntary movers improve their housing satisfaction by moving: 25 percent of voluntary movers experience an improvement in satisfaction following a move, compared to 16 percent of involuntary movers and 8 percent of stayers ($p<.01$). In contrast, involuntary movers are the most likely to experience a decline in housing satisfaction. Sixteen percent of involuntary movers had lower housing satisfaction following the move, compared to 10 percent of voluntary movers and 12 percent of stayers.

Residential Mobility and Child Outcomes in the WES, 1997-2003

The previous analysis indicates that significant differences exist across different categories of movers. The next section examines how child outcomes vary across these categories, and how residential moves are associated with changes in child educational and behavioral outcomes.[13]

Table 9 shows the prevalence of educational and behavioral problems across the three categories of respondents (*stayers, voluntary movers,* and *involuntary movers*). This table shows the incidence of child educational and behavioral outcomes during survey year *t*, and examines

[13] I conducted a series of child fixed-effects regressions to examine how changes in these child outcomes are associated with changes in housing conditions and mobility among the children of WES respondents. In general, I found no consistent relationships between housing conditions and types of mobility. While this may be an interesting finding in itself, I found it surprising given that Johnson et al. (2007) found strong relationships between evictions and child behavioral outcomes. Because relationships were not consistent across models, I opted include tables showing simple changes in child behavioral outcomes, rather than the full child multivariate models.

the average change in outcome between survey years *t-1* and *t* for children in different mobility categories. In this table, each child contributes one observation for each year that he or she lived in the mother's household.[14] The total number of child-year observations is 1,094 (Column 1). Each child-year observation is placed in one of three categories: mother did not move between waves *t-1* and *t* (Column 2); mother moved voluntarily between waves *t-1* and *t* (Column 3); and mother moved involuntarily between waves *t-1* and *t* (Column 4).

This table shows that child educational outcomes are strongly associated with mobility. Children living in households that experienced involuntary residential mobility had higher rates of school absenteeism (30 percent of these children experienced excessive absences compared to 24 percent of all children; differences between the three categories significant at $p<.01$) and disobedience in school (10 percent were disobedient compared to 7 percent of all children; differences not significant). Additionally, children who moved involuntarily were much more likely to experience an increase in these problems in the year following the move: 15 percent of these children were more likely to increase the extent of frequent absences compared to 13 percent of all children (differences between the three categories significant at $p<.05$), and the extent of disobedience increased for 8 percent of children of involuntary movers compared to 6 percent of all children. Child behavioral outcomes were also associated with different types of mobility. Children of involuntary movers had higher rates of externalizing behavior problems ($p<.01$), internalizing behavior problems ($p<.05$), and had higher scores on the general behavior problems index ($p<.01$). However, the average change in behavioral problems did not differ significantly across the three categories of movers, although children of involuntary movers experienced larger increases in the extent of behavioral problems between *t-1* and *t*.

These comparisons provide initial support for the argument that mobility may be

[14] This analysis pools data from the final three survey years: 1999, 2001, and 2003.

associated with child outcomes. The comparisons shown in Table 10 provide further support for this argument. This table examines behavioral outcomes for target children in1998 and 2003. For this subset of children (N=280), behavioral outcomes in 1998 are compared to behavioral outcomes in 2003. In this table, children of frequent movers have higher rates of externalizing behavioral problems (6.37 compared to 5.92 for all children; differences between the three categories significant at p<.10) and higher behavior problems index scores (17.4 compared to 16.5 for all children) overall. These children also experience larger increases in the incidence of behavior problems over the course of the survey period. For example, from 1998 to 2003, the average internalizing behavior score increases by 0.89 percentage points for children of frequent movers, compared to 0.53 percentage points for all children (differences not significant). Interestingly, children of frequent movers also showed the largest decrease in externalizing behavior (-0.52 compared to -0.16 for all children). Children of stayers had the highest increase in the behavior problems index – the average score increased by 1.11 compared to 0.67 for all children. While these statistics provide some evidence that behavior problem and change in behavior problems differ by mobility status, most differences are not significant.[15]

Section 4. Conclusion

This analysis has examined the extent of housing mobility and its relationship to housing characteristics and child outcomes for one sample of low-income women. Positive and negative residential mobility was extremely common in this sample. Over the 6-year study period, many of the women in this sample experienced positive moves. A significant minority of women became homeowners, and many improved their housing and neighborhood quality, as well as their housing satisfaction, by moving. However, many respondents also experienced involuntary

[15] The lack of significant differences may have something to do with the small number of observations.

mobility or frequent mobility. These respondents tended to be more disadvantaged than other respondents with respect to human capital, health-related barriers to employment, and job loss. With respect to child outcomes, these results are also consistent with prior research indicating that children living in households that experience frequent or involuntary mobility differ from other children in important ways that increase the likelihood that they will experience problems regardless of mobility. This analysis lends support to this argument, but also suggests that children who experience frequent or involuntary mobility experience larger increases in the extent of educational and behavioral problems following residential moves.

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Table 1: Residential Mobility Among WES Respondents, 1997-2003 (Wave 5 Respondents)

Mobility - Frequency	*N=536*
Ever moved between 1997 and 2003	77.4%
Average number of moves per year, among movers	1.3
Moved 6 or more times between 1997 and 2003	18.5%
Mobility - Type	
Became homeowner between 1997 and 2003	33.8%
Experienced any "involuntary move" (eviction, homelessness, or doubling-up) between 1997 and 2003	38.1%
Ever evicted, 1997-2003	19.8%
Ever homeless, 1997-2003	12.4%
Ever moved in with others to share expenses (doubling-up), 1999-2003	34.3%

Table 2:
Housing and Neighborhood Quality and Employment Accessibility in the WES, 2003

	2003 (N=536)
Housing Characteristics	
Housing Affordability Problem	26.7%
Housing Quality Problem	8.6%
Neighborhood Quality	
Unsafe Neighborhood	17.6%
Accessibility to Employment	
No driver's license of lack of access to car (Transportation Problem)	22.8%
Employment Accessibility Problem	15.5%

Housing Affordability Problem: Respondent pays more than 30 (moderate cost burden) or 50 (severe cost burden) percent of income on rent/mortgage.

Housing Quality Problem: 4 or more of the 6 housing quality problems.

Unsafe Neighborhood: Respondent reports living in an *unsafe* or *very unsafe* neighborhood.

Figure 1. Extent of Neighborhood Problems among Voluntary and Involuntary Movers, 1999

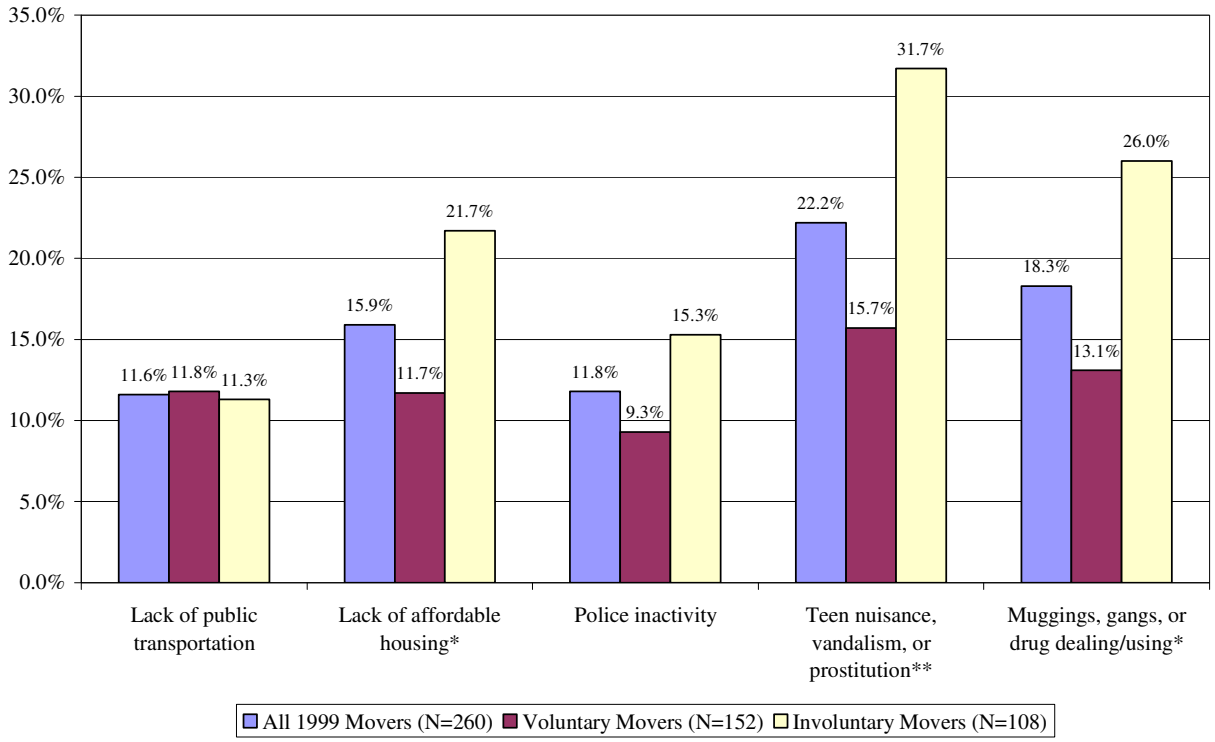

Table 3: Individual-Level Descriptive Comparisons, by Frequency of Mobility (Wave 5 Respondents Only)

	All Wave 5 Respondents	Never Moved, 1997 and 2003	Moved 1-5 times, 1997 and 2003	Moved 6+ times, 1997 and 2003
	N=536	*N=121*	*N=316*	*N=99*
	100.0%	*22.6%*	*59.0%*	*18.5%*
Age in 1997**	30.3	33.8	29.8	27.4
African American	54.7%	57.0%	53.5%	55.6%
Married in 1997	10.3%	14.2%	11.1%	7.1%
Cohabiting in 1997	14.7%	14.2%	13.6%	21.2%
Number of children in household, 1997	2.2	2.3	2.3	2.0
Less than high school education (1997)**	29.9%	21.5%	28.5%	44.4%
Low work experience or skills (1997)	26.%	31.7%	23.1%	30.6%
Currently working 20+ hrs/wk (1997)*	58.2%	58.3%	61.8%	46.5%
Mental health problem, 1997*	35.8%	29.8%	34.5%	47.5%
Physical health problem, 1997	19.4%	19.0%	19.0%	21.4%
Substance abuse problem, 1997	7.5%	7.4%	6.7%	10.1%
Domestic violence, 1997	52.8%	45.5%	53.5%	59.6%
Renter in 1997**	78.4%	57.9%	83.5%	86.9%
Homeowner in 1997**	15.1%	33.9%	10.8%	6.1%

Table 4: Logistic Regression Coefficients and Standard Errors for Regression of Frequent Mobility on the Individual-Level Characteristics of WES Respondents in 1997

	Experienced 6+ moves, 1997-2003
Age in 1997	-0.060
	(0.018)**
African American	0.215
	(0.259)
Married and living with husband, 1997	-0.073
	(0.461)
Cohabiting as unmarried partners, 1997	0.666
	(0.322)*
Number of care-given children in household, 1997	-0.232
	(0.106)*
Less than high school education, 1997	0.711
	(0.264)**
Low work experience or skills, 1997	0.289
	(0.284)
Currently working (20 or more hrs/wk), 1997	-0.366
	(0.256)
Poor physical health, 1997	-0.214
	(0.323)
Mental health problem, 1997	0.609
	(0.260)*
Substance dependence or hard drug use, 1997	-0.043
	(0.442)
Domestic violence, 1997	0.665
	(0.297)*
Constant	0.053
	(0.604)
Observations	529

Standard errors in parentheses
+ significant at 10%; * significant at 5%; ** significant at 1%

Table 5: Individual-Level Descriptive Comparisons, by Type of Move (Wave 5 Respondents Only)

				Of Movers:	
	All Respondents (N=536)	Did Not Move (N=297)	Moved 1+ Times (N=239)	Voluntary Mover (N=130)	Involuntary Mover (N=109)
Respondent age, previous survey year	34.3	35.5	32.8**	32.5	33.0
African American	54.7%	55.6%	53.6%	57.7%	48.6%
Married and living with husband, previous survey year	20.5%	22.9%	17.6%	18.5%	16.5%
Cohabiting as unmarried partners, previous survey year	20.0%	19.9%	20.1%	20.8%	19.3%
Number of care-given children in household, previous survey year	2.2	2.2	2.2	2.4	1.9*
Less than high school education, 1997	29.9%	27.3%	33.1%	23.8%	44%**
Low work experience or skills, 1997	26.4%	26.0%	26.9%	28.5%	25.0%
Job loss between survey years	55.8%	49.4%	63.7%**	53.2%	76.1%**
Percent of months worked between survey years	67.9%	69.1%	66.4%	69.5%	62.6%
Poor physical health, previous survey year	24.4%	23.1%	26.2%	16.4%	37.6%**
Mental health problem, previous survey year	32.6%	28.3%	38.1%*	31.5%	45.9%*
Substance abuse problem, previous survey year	5.4%	5.1%	5.9%	1.5%	11.0%**
Domestic violence between survey years	12.2%	8.4%	17%**	10.2%	25.0%**
Average number of months between 2001 and 2003	24.1	24.0	24.3**	24.4	24.2

Table 6: Logistic Regression Coefficients and Standard Errors for Regression of Mobility Type on the Individual-Level Characteristics of Respondents in the Previous Survey Year

	(1) *Any Move*	(2) *Voluntary*	(3) *Involuntary*
Respondent age, previous survey year	-0.058	-0.057	-0.029
	(0.016)**	(0.019)**	(0.020)
African American	-0.160	-0.147	-0.038
	(0.214)	(0.247)	(0.269)
Married and living with husband, previous survey year	-0.641	-0.379	-0.549
	(0.276)*	(0.323)	(0.363)
Cohabiting as unmarried partners, previous survey year	-0.225	-0.162	-0.099
	(0.253)	(0.298)	(0.314)
Number of care-given children, previous survey year	-0.024	0.127	-0.176
	(0.073)	(0.084)	(0.099)+
Less than high school education	0.171	-0.627	0.791
	(0.237)	(0.303)*	(0.274)**
Low work experience or skills	0.089	0.267	-0.187
	(0.253)	(0.297)	(0.312)
Percent of months worked between survey years	0.269	0.234	0.137
	(0.413)	(0.501)	(0.487)
Job loss between survey years	0.559	-0.092	1.014
	(0.226)*	(0.259)	(0.302)**
Poor physical health, previous survey year	-0.198	-1.201	0.585
	(0.271)	(0.411)**	(0.299)*
Mental health problem, previous survey year	0.513	0.235	0.509
	(0.230)*	(0.269)	(0.277)+
Substance abuse problem, previous survey year	-0.200	-1.027	0.349
	(0.478)	(0.780)	(0.520)
Domestic Violence between survey years	0.158	0.040	0.195
	(0.294)	(0.344)	(0.344)
Number of months between survey years	0.216	0.222	0.074
	(0.069)**	(0.079)**	(0.083)
Constant	-3.915	-4.696	-2.996
	(1.774)*	(2.045)*	(2.200)
Observations	445	445	445

Standard errors in parentheses
+ significant at 10%; * significant at 5%; ** significant at 1%

Table 7. Logistic Regression Coefficients and Robust Standard Errors for Regression of Voluntary and Involuntary Mobility on the Individual-Level Characteristics of Respondents

	Voluntary Move		Involuntary Move	
Demographic and Household Characteristics				
Respondent Age	-0.050	-0.053	-0.011	-0.007
	(0.013)**	(0.014)**	(0.017)	(0.016)
African American	-0.040	-0.087	0.072	0.064
	(0.164)	(0.165)	(0.208)	(0.210)
Married and living with husband, *wave t-1*	-0.266	-0.159	-0.438	-0.571
	(0.228)	(0.227)	(0.273)+	(0.269)*
Cohabiting as unmarried partners, *wave t-1*	0.154	0.151	-0.583	-0.662
	(0.188)	(0.187)	(0.261)*	(0.265)*
Number of caregiven children, *wave t-1*	0.118	0.165	-0.259	-0.232
	(0.063)+	(0.064)*	(0.074)**	(0.076)**
Employment Characteristics				
Less than high school education	-0.158	-0.161	0.632	0.681
	(0.183)	(0.186)	(0.205)**	(0.206)**
Low work experience or skills	0.143	0.165	-0.126	-0.073
	(0.195)	(0.200)	(0.238)	(0.241)
Percent of months worked between *t-1* and *t*	0.502	0.673	-0.168	-0.207
	(0.328)	(0.331)*	(0.344)	(0.337)
Experienced job loss between *t-1* and *t*	0.059	0.075	0.617	0.595
	(0.167)	(0.175)	(0.208)**	(0.207)**
Health Characteristics				
Poor physical health, *wave t-1*	-0.295	-0.357	0.167	0.313
	(0.222)	(0.233)	(0.223)	(0.223)
Mental health problem, *wave t-1*	0.048	0.114	0.307	0.303
	(0.180)	(0.184)	(0.191)+	(0.188)
Substance abuse problem, *wave t-1*	-0.532	-0.320	0.714	0.838
	(0.451)	(0.437)	(0.319)*	(0.320)**
Experienced domestic violence btwn *t-1* and *t*	-0.428	-0.172	1.142	1.102
	(0.271)	(0.276)	(0.230)**	(0.240)**
Housing Characteristics, Previous Survey Year				
Housing cost burden, *wave t-1*	-0.321		0.894	
	(0.367)		(0.425)*	
Unsafe neighborhood, *wave t-1*	0.039		-0.124	
	(0.201)		(0.248)	
Number of hsing quality problems, *wave t-1*	0.074		0.116	
	(0.057)		(0.060)+	

continued next page

Table 7. Logistic Regression Coefficients and Robust Standard Errors for Regression of Voluntary and Involuntary Mobility on the Individual-Level Characteristics of Respondents

	Voluntary Move		Involuntary Move	
Housing Characteristics, Current Survey Year				
Housing cost burden, *wave t*		1.993		-0.612
		(0.393)**		(0.479)
Unsafe neighborhood, *wave t*		-0.354		0.055
		(0.240)		(0.239)
Number of housing quality problems, *wave t*		-0.213		-0.012
		(0.065)**		(0.067)
Number of months between *t-1* and *t*	0.082	0.073	0.115	0.118
	(0.047)+	0.048	(0.045)*	(0.047)*
Constant	-1.843	-1.985	-4.192	-3.936
	1.171	(1.198)+	(1.252)**	(1.295)**
Number of person-wave observations	936	935	936	935

Table 8. Changes in Housing Characteristics by Type of Mover

	All (N=1113)	Stayers (N=613)	Voluntary Movers (N=284)	Involuntary Movers (N=216)	
Housing Affordability Problem, *wave t-1*	27.5%	24.8%	27.5%	35.7%	+
No change, *t-1 to t*	69.1%	74.4%	63.7%	61.1%	
Decline, *t-1 to t*	14.8%	12.1%	19.4%	16.7%	
Improvement, *t-1 to t*	16.1%	13.5%	16.9%	22.2%	
Housing Quality Prb, *wave t-1*	12.8%	10.6%	12.7%	19.9%	*
No change, *t-1 to t*	84.6%	86.5%	84.4%	86.0%	
Decline, *t-1 to t*	6.8%	8.0%	7.6%	6.8%	
Improvement, *t-1 to t*	8.6%	5.6%	8.0%	7.2%	
Unsafe Neighborhood, *wave t-1*	20.3%	19.3%	19.2%	25.0%	
No change, *t-1 to t*	80.7%	86.0%	76.2%	71.6%	
Decline, *t-1 to t*	8.9%	7.4%	9.3%	13.0%	
Improvement, *t-1 to t*	10.4%	6.7%	14.6%	15.4%	
Employment Accessibility Prb, *wave t-1*	30.6%	31.6%	28.8%	31.8%	
No change, *t-1 to t*	72.8%	74.6%	71.9%	68.7%	
Decline, *t-1 to t*	14.6%	13.4%	15.1%	17.3%	
Improvement, *t-1 to t*	12.7%	12.0%	13.0%	14.0%	
Transportation Barrier, *wave t-1*	28.8%	23.8%	28.5%	41.2%	**
No change, *t-1 to t*	85.6%	87.9%	86.3%	78.2%	
Decline, *t-1 to t*	5.5%	4.2%	3.9%	11.1%	**
Improvement, *t-1 to t*	8.9%	7.8%	9.9%	10.7%	
Housing dissatisfaction, *wave t-1*	24.5%	18.7%	32.5%	30.9%	
No change, *t-1 to t*	74.1%	80.4%	65.3%	67.9%	
Decline, *t-1 to t*	12.4%	12.1%	10.3%	16.3%	*
Improvement, *t-1 to t*	13.4%	7.5%	24.5%	15.8%	

Table 9. Educational and Behavioral Child Outcomes, by Mobility Type

	All Child-Year Observations (N=1094)	Stayers (N=654)	Voluntary Movers (N=283)	Involuntary Movers (N=157)
Educational Outcomes				
Frequently Absent, *t***	23.8%	25.6%	16.3%	30.0%
Increasingly absent, *t-1 to t**	13.4%	10.9%	8.5%	15.3%
Disobedient in school, *t*	7.4%	7.7%	5.7%	9.6%
Increasingly disobedient, *t-1 to t*	6.0%	6.6%	3.9%	7.7%
Behavioral Outcomes				
Externalizing Scale, *t***	5.87	5.83	5.67	6.39
Average change in externalizing scale, *t-1 to t*	-0.05	-0.05	-0.16	0.12
Internalizing Scale, *t**	5.09	5.06	5.01	5.36
Average change in internalizing scale, *t-1 to t*	0.19	0.18	0.13	0.36
Behavior Problems Index, *t***	16.85	16.90	16.53	17.96
Change in behavior problems index, *t-1 to t*	0.25	0.24	0.08	0.62

Table 10. Change in Behavioral Outcomes for Target Children in 1998 and 2003

	All N=280	Stayers N=80	Average Movers N=173	Frequent Movers N=27
Externalizing Scale, 1998+	5.92	5.69	5.96	6.37
Externalizing Scale, 2003	5.76	5.77	5.74	5.85
Average change in externalizing scale, 1998-2003	-0.16	0.08	-0.22	-0.52
Internalizing Scale, 1998	4.63	4.69	4.59	4.63
Internalizing Scale, 2003	5.16	5.19	5.09	5.52
Average change in internalizing scale, 1998-2003	0.53	0.50	0.50	0.89
Behavior Problems Index, 1998	16.50	16.31	16.45	17.44
Behavior Problems Index, 2003	17.17	17.43	16.91	18.06
Average change in behavior problems index, 1998-2003	0.67	1.11	0.46	0.62

Table A1. Logistic Regression Coefficients and Standard Errors for Regression of Mobility on the Individual-Level Characteristics of Respondents

	Moved btwn Waves t-1 and t		
	(1)	(2)	(3)
Demographic and Household Characteristics			
Respondent Age	-0.042	-0.046	-0.044
	(0.012)**	(0.012)**	(0.012)**
African American	-0.017	0.016	-0.027
	(0.157)	(0.160)	(0.159)
Married and living with husband, *wave t-1*	-0.515	-0.464	-0.455
	(0.209)*	(0.213)*	(0.211)*
Cohabiting as unmarried partners, *wave t-1*	-0.268	-0.218	-0.287
	(0.179)	(0.181)	(0.183)
Number of caregiven children, *wave t-1*	-0.027	-0.059	-0.014
	(0.059)	(0.062)	(0.060)
Employment Characteristics			
Less than high school education	0.347	0.315	0.369
	(0.168)*	(0.172)+	(0.174)*
Low work experience or skills	0.081	0.058	0.101
	(0.191)	(0.193)	(0.193)
Percent of months worked between *t-1* and *t*	0.243	0.235	0.300
	(0.292)	(0.300)	(0.296)
Experienced job loss between *t-1* and *t*	0.397	0.380	0.383
	(0.153)**	(0.154)*	(0.157)*
Health Characteristics			
Poor physical health, *wave t-1*	-0.005	-0.079	-0.011
	(0.198)	(0.200)	(0.205)
Mental health problem, *wave t-1*	0.268	0.243	0.281
	(0.161)+	(0.163)	(0.165)+
Substance abuse problem, *wave t-1*	0.465	0.349	0.654
	(0.330)	(0.339)	(0.319)*
Experienced domestic violence between *t-1* and *t*	0.563	0.537	0.732
	(0.223)*	(0.223)+	(0.230)**
Housing Characteristics, Previous Survey Year			
Housing cost burden, *wave t-1*		0.423	
		(0.379)	
Unsafe neighborhood, *wave t-1*		-0.032	
		(0.188)	
Number of housing quality problems, *wave t-1*		0.131	
		(0.053)+	

continued next page

Table A1. continued

	(1)	(2)	(3)
Housing Characteristics, Current Survey Year			
Housing cost burden, *wave t*			1.234
			(0.376)**
Unsafe neighborhood, *wave t*			-0.166
			(0.215)
Number of housing quality problems, *wave t*			-0.169
			(0.054)**
Number of months between *t-1* and *t*	0.130	0.136	0.133
	(0.037)**	(0.037)**	(0.038)**
Constant	-2.227	-2.440	-2.417
	(0.975)*	(0.976)*	(1.010)*
Number of person-wave observations	946	936	935

A2. Logistic Regression Coefficients and Robust Standard Errors for Regression of Voluntary Mobility on the Individual-Level Characteristics of Respondents

	Voluntary Move btwn t-1 and t		
	(1)	(2)	(3)
Household and Demographic Characteristics			
Respondent Age	-0.047	-0.050	-0.053
	(0.013)**	(0.013)**	(0.014)**
African American	-0.064	-0.040	-0.087
	(0.161)	(0.164)	(0.165)
Married and living with husband, *wave t-1*	-0.255	-0.266	-0.159
	(0.224)	(0.228)	(0.227)
Cohabiting as unmarried partners, *wave t-1*	0.152	0.154	0.151
	(0.187)	(0.188)	(0.187)
Number of caregiven children, *wave t-1*	0.141	0.118	0.165
	(0.060)*	(0.063)+	(0.064)*
Employment Characteristics			
Less than high school education	-0.168	-0.158	-0.161
	(0.176)	(0.183)	(0.186)
Low work experience or skills	0.161	0.143	0.165
	(0.193)	(0.195)	(0.200)
Percent of months worked between *t-1* and *t*	0.554	0.502	0.673
	(0.326)+	(0.328)	(0.331)*
Experienced job loss between *t-1* and *t*	0.080	0.059	0.075
	(0.166)	(0.167)	(0.175)
Health Characteristics			
Poor physical health, *wave t-1*	-0.271	-0.295	-0.357
	(0.218)	(0.222)	(0.233)
Mental health problem, *wave t-1*	0.073	0.048	0.114
	(0.177)	(0.180)	(0.184)
Substance abuse problem, *wave t-1*	-0.511	-0.532	-0.320
	(0.440)	(0.451)	(0.437)
Experienced domestic violence between *t-1* and *t*	-0.392	-0.428	-0.172
	(0.267)	(0.271)	(0.276)
Housing Characteristics, Previous Survey Year			
Housing cost burden, *wave t-1*		-0.321	
		(-0.367)	
Unsafe neighborhood, *wave t-1*		0.039	
		(0.201)	
Number of housing quality problems, *wave t-1*		0.074	
		(0.057)	

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Table A2. continued

	(1)	(2)	(3)
Housing Characteristics, Current Survey Year			
Housing cost burden, *wave t*			1.993
			(0.393)**
Unsafe neighborhood, *wave t*			-0.354
			(0.240)
Number of housing quality problems, *wave t*			-0.213
			(0.065)**
Number of months between *t-1* and *t*	0.076	0.082	0.073
	(0.046)+	(0.047)+	(0.048)
Constant	-1.893	-1.843	-1.985
	(1.176)	(1.171)	(1.198)+
Number of person-wave observations	946	936	935

Table A3. Logistic Regression Coefficients and Standard Errors for Regression of Involuntary Mobility on the Individual-Level Characteristics of Respondents

	Involuntary Move btwn t-1 and t		
	(1)	(2)	(3)
Household and Demographic Characteristics			
Respondent Age	-0.010	-0.011	-0.007
	(0.016)	(0.017)	(0.016)
African American	0.049	0.072	0.064
	(0.207)	(0.208)	(0.210)
Married and living with husband, *wave t-1*	-0.543	-0.438	-0.571
	(0.270)*	(0.273)+	(0.269)*
Cohabiting as unmarried partners, *wave t-1*	-0.646	-0.583	-0.662
	(0.258)*	(0.261)*	(0.265)*
Number of caregiven children, *wave t-1*	-0.240	-0.259	-0.232
	(0.073)**	(0.074)**	(0.076)**
Employment Characteristics			
Less than high school education	0.687	0.632	0.681
	(0.198)**	(0.205)**	(0.206)**
Low work experience or skills	-0.099	-0.126	-0.073
	(0.232)	(0.238)	(0.241)
Percent of months worked between *t-1* and *t*	-0.203	-0.168	-0.207
	(0.336)	(0.344)	(0.337)
Experienced job loss between *t-1* and *t*	0.610	0.617	0.595
	(0.206)**	(0.208)**	(0.207)**
Health Characteristics			
Poor physical health, *wave t-1*	0.254	0.167	0.313
	(0.221)	(0.223)	(0.223)
Mental health problem, *wave t-1*	0.314	0.307	0.303
	(0.188)+	(0.191)+	(0.188)
Substance abuse problem, *wave t-1*	0.843	0.714	0.838
	(0.319)**	(0.319)*	(0.320)**
Experienced domestic violence between *t-1* and *t*	1.135	1.142	1.102
	(0.230)**	(0.230)**	(0.240)**
Housing Characteristics, Previous Survey Year			
Housing cost burden, *wave t-1*		0.894	
		(0.425)*	
Unsafe neighborhood, *wave t-1*		-0.124	
		(0.248)	
Number of housing quality problems, *wave t-1*		0.116	
		(0.060)+	

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Table A3. continued

	(1)	(2)	(3)
Housing Characteristics, Current Survey Year			
Housing cost burden, *wave t*			-0.612
			(0.479)
Unsafe neighborhood, *wave t*			0.055
			(0.239)
Number of housing quality problems, *wave t*			-0.012
			(0.067)
Number of months between *t-1* and *t*	0.110	0.115	0.118
	(0.046)*	(0.045)*	(0.047)*
Constant	-3.745	-4.192	-3.936
	(1.256)**	(1.252)**	(1.295)**
Number of person-wave observations	946	936	935