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**Family migration and mobility sequences
in the United States:
Spatial mobility in the context of the life course**

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Family migration and mobility sequences in the United States: Spatial mobility in the context of the life course

William A.V. Clark¹

Suzanne Davies Withers²

Abstract

Significant changes in family composition in the past quarter-century raise important questions about life-course outcomes embedded in these family changes, especially in relation to the migratory and mobility patterns of individuals and families. The classic distinction between long-distance/employment and short-distance/housing-related moves may be eroding. Patterns of movement appear much less dichotomous and more diverse as family structures become more diverse. Using the Panel Study of Income Dynamics this study shows that the previous research, which suggested relatively simple links between long-distance and short-distance moves, is an over-simplification. Moreover, there is much more unintended movement at both migratory and mobility scales suggesting the economic models of employment migration may be missing important family dynamics in the migration mobility process.

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1. Introduction

Migration and residential mobility are integral parts of societal change and American individuals and households, perhaps more than in any other society, are especially mobile and have always been so. Even though mobility has declined slightly, with an aging society, mobility rates are still significantly higher in the United States than they are in most European societies. But whether it is mobility in American urban areas or European cities, mobility and migration have always been of great interest to spatial demographers, because it is the outcomes of migration and mobility that change neighborhoods and cities. Most recently, the outcomes of literally thousands of mobility decisions made every year can be seen in the fundamental changes in ethnic neighborhoods, as cities in America, and indeed in Europe, react to the impact of fundamental shifts in international migration and their local outcomes.

Geographers and spatial demographers have developed a rich research literature on migration and residential mobility. We know a great deal about why people move and about the processes of choice that they engage in during the migration and mobility process. Now the research on migration and mobility has been enriched by placing it within the framework of the life course. The life-course approach to residential mobility and migration focuses on the link between life events and the intersection of these events with spatial outcomes. More than a decade ago, Odland and Shumway (1993) and Mulder and Wagner (1993) drew attention to the inter-dependencies between migration and other life events, especially marriage. Their research and the work that followed asked about the connections between marriage, the birth of children, divorce, and other life changes and residential mobility and migration.

Geographers in particular, but spatial demographers too, have been particularly concerned to relate the changes in the life course to geographical outcomes. Geographers have argued that the spatial outcomes are as important as the processes of migration itself. Places change as people enter and leave them and if the composition of the population entering a particular location is different from the composition of the population already there then there will be a variety of ramifications for that community or neighborhood. Thus, when families with children move into a community, there will be demands for schools and facilities that serve young families. In contrast, in those communities with increasing numbers of older people there will be demands for very different kinds of facilities and access. These simple examples indicate the potential of mobility and migration to change places.

However, changes occur to individuals in households, as well as to neighborhoods. We know from earlier research that families who move often undergo composition changes, either in association with the move or as an outcome of the move. Women leave and enter the labor force as part of the family migration process. Households expand and

dissolve often in association with long-distance moves. Because families, either with children or without, are still the largest proportion of all households, there has been particular concern with the outcomes for married couples in the mobility and migration process. The focus on married couples has been further stimulated by the notable change in the number of married couples with children over the past three decades.

This research tackles the question of the migration and mobility behavior of married couples in the United States. We place our research within the context of the life course and in particular, we are concerned with the sequences of long-distance and short-distance moves. The central question which guides this work of course is why households make the moves they do, and what is new from a sequential analysis of relocation behavior? Specifically, we examine the links between long-distance moves often motivated by employment decisions and the local moves which adjust the housing that is consumed by particular household combinations. In the past the research has asserted that long-distance moves were followed by short-distance adjustment moves as people finally located housing that was suitable. What we will show is that this simplistic interpretation is much more complex and is inter-related with complex family changes. We argue that there is considerable dynamism in the intersection of long-distance and short-distance moves and family change. We believe that long-distance and local moves are part of the dynamic process of change across space and over time and that this is an increasingly complex process. There is greater complexity in the mobility process and its intersection with family change than is revealed in studies that focus on either migration or residential mobility. In addition we show that there is considerable serendipitous or unintended relocation embedded in migration and mobility.

2. Context and literature

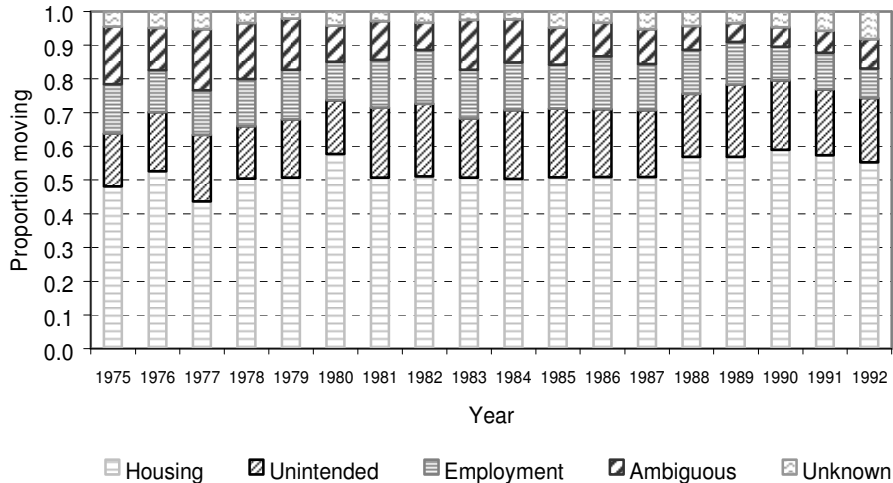
The study of migration and mobility has been enriched by using the life-course paradigm which gives a central role to life events, or the stimuli that create changes in family composition, and which in turn create the need for new housing or housing in a different neighborhood or region (see Courgeau 1985, Clark and Dieleman 1996 for a more extended discussion of the life course). Over the life course people transition through a variety of 'states' and their moves are linked to specific changes in occupations, relationships, and additions and deletions to the family composition. The advantage of the life course over the earlier use of the 'stage' in the life cycle is that it does not categorize or segment people into particular age groups and then attempt to examine their behavior as a function of being that age. Rather, the life course examines the process of change, where age is important, but is no longer the defining characteristic of the changes that occur. Thus, of two individuals one may marry early or right out of college, and another much

later in their thirties, but both can proceed in a somewhat linear fashion to buy a house and have children, though at quite different moments in their age trajectory. Clearly, the marriage 'event' occurred at two very different ages yet the process is part of a life course and it is that course that is important in the outcome, not the age-specific timing *per se*.

In the previous discussion marriage is a trigger, and we can think of other triggers quite easily. They range from changes in occupational careers to changes in family composition both positive (family additions) and negative (divorce and death). It is the fact that changes in any one of these careers may intersect with the others that provides a way of linking family compositions and mobility. In an event-history analysis, the events are the triggers or stimuli and have been the focus of substantial research in the attempts to understand the impact of the birth of a child (Clark *et al.* 1984), of divorce (Dieleman and Schouw 1989), of marriage (Mulder and Wagner 1993, Odland and Shumway 1993) and family composition change (Davies Withers 1998) on migration and mobility. In a life course in which people have multiple and parallel careers, migration is an adjustment bringing the household into equilibrium in occupation or in location and housing consumption. Moves are undertaken to deal with events that have taken the household out of equilibrium (Clark and Dieleman 1996). Clearly, changes in any one of the occupational, family or housing careers can lead to changes in the others.

However, not all changes are anticipated. Unlike traditional research that has tended to focus on the normative sequencing and timing of events, the life-course perspective emphasizes the variability in the number, timing, and sequencing of events in parallel careers across peoples lives, and in so doing, draws attention to the variability and unpredictable nature of the life course (Rindfuss *et al.* 1987). This 'disorder' calls into question the utility of thinking in terms of orderly paths in the housing and occupational careers of families. What is the potential impact of disorder in the lifecourse on residential mobility and migration processes? How important is the unexpected or accidental event? In fact, there may be much more complexity in the migration and mobility process than is revealed by the mobility-housing/migration-employment dichotomy. An analysis of reasons for moving from the Panel Study of Income Dynamics (PSID) shows that roughly a quarter of all moves are unintended³ (see Figure 1). Clearly, there are additional dimensions to the migration/mobility process than the employment/housing explanations for relocation.

³ The PSID categorizes the reasons for moving into various purposive reasons, and groups together a variety of reasons for moving that are not purposive, but occur in response to outside events such as being evicted, divorce, or health reasons. While the PSID generalizes these reasons as involuntary, we use the term unintended to stress the distinction between intentional (planned) and unplanned moves. This is discussed further in the methods section.

Figure 1: Proportion moving by reason for all mobility types, 1975–1992

Source: Calculations based on PSID, 1975–92.

Much of this complexity is likely related to the increasingly complex gender relationships in two-worker households and especially dual-professional households. Substantial work has established that women's roles have changed (Raley *et al.* 2006) and those changes have complicated the mobility behavior of households (Green *et al.* 1999, Jarvis 1999, Smits *et al.* 2003, Green 2004, Challiol and Mignonac 2005, Baldrige *et al.* 2006). While employment is still a primary reason for long-distance mobility, there is increasing evidence that the ways in which households operate with respect to other factors may be equally important in generating long-distance relocation (Cooke 2001, Boyle *et al.* 2003, Bailey *et al.* 2004). A growing body of research has placed gender at the center of the discussion of the impacts of mobility and migration on women who move with their spouses (Bonney and Love 1991, Bielby and Bielby 1992, Fielding and Halford 1993, Halfacree 1995, Zvonkovic *et al.* 1996, Bailey and Cooke 1998). In particular the work of Boyle *et al.* (2001) argues that the notion of the tied migrant downplays the importance of family gender roles *per se*, and inhibits the concern with whether women get back into the labor market following migration. In their conceptualization, the key explanatory variable in understanding migration is not the potential economic return to migration but the extent to which traditional gender roles inhibit consideration of the woman's labor-market activity

when migration decisions are made. Following this argument their research suggests that women who migrate long distances with their partners are most likely to be unemployed or economically inactive in contrast with women who moved long distances *without* their partners who were more likely to be employed (Boyle *et al.* 2001). That is, women have different roles and different outcomes in different household structures.

Previous work suggested that the connection between long-distance and short-distance moves was generated by local adjustments after major relocation (Goodman 1982). In this conceptualization households move a long distance and then adjust their location to better suit their needs with short-distance relocations within their new city. These short-distance or local movers are movers who do not have local knowledge, and when they acquire that local knowledge they adjust their housing types and often their neighborhoods as well. However, an alternative explanation for additional short-distance moves, after a long-distance move, may be related to repeat-mover behavior. The hypothesis tested previously (Goodman 1982), and which we will examine in this paper, is that both owners and renters have higher mobility rates if the previous move was long distance rather than local.

The frequent-mover hypothesis and the adjustment hypothesis were initiated by Goodman (1976) in which repeat moving was generated by the need for adjustment from the long-distance moves. Roseman (1971) provided a conceptual basis for the repeat-mover hypothesis by suggesting that long-distance movers have more difficulty simply because they have less local knowledge of the housing market to which they are moving. As a result, they may make additional moves, repeat moves, in order to bring the household into equilibrium with their needs. Research by Clark and Huang (2004) demonstrated that the repeat-mover and the adjustment hypothesis are not necessarily mutually exclusive although the evidence in general favors the repeat-mover conceptualization over the adjustment hypothesis. Indeed, Clark and Huang (2004) provided documentation that long-distance moves were much more likely to generate another long-distance move, suggesting a failed migration.

We might expect changes in the outcomes of the adjustment hypothesis and repeat-mover theory because family structures are different from those of three decades ago. In 1970, only 6 percent of individuals aged 30 to 34 years were never married, but by 2002 this figure had risen to 34 percent. Over the past three decades there has been a distinct weakening of marriage and the nuclear family in advanced industrial societies. In general, Americans have become less likely to marry. The number of marriages per women age 15 and older has declined from about 77 to 40 per 1000 in the past 34 years (State of Our Unions 2005). Americans are less likely to marry than any previous time in U.S. demographic history. Married couples with children under 18, as a percent of all family groups with children under 18, have declined from close to 90 percent to about 70 percent in the past three decades. The proportion of married-couple families has dropped to below 30 percent (see Table 1). Despite all the documented benefits of marriage, such as greater

wealth, increased economic assets, greater likelihood of being healthy, and overall higher likelihood of satisfaction and happiness, the likelihood of marriage has decreased and the likelihood of divorce has increased. In the three decades of interest in this present study, the divorce rate has almost doubled between 1965 and 1980, with modest declines since 1980 (State of Our Unions 2005). The decline in married-couple households has been paralleled by a significant increase in the number of single male households and a rise in the proportion of single-headed households with children.

Table 1: Family composition over time (in %)

Year	Married with child	Married	Single with child	Single women	Single men
1971	40.5	22.0	15.5	14.2	7.7
1976	38.7	21.7	13.9	15.8	10.0
1981	36.7	21.1	13.6	16.6	11.9
1986	34.6	22.6	13.6	17.3	11.9
1991	34.6	22.3	13.5	17.4	12.2
1996	29.6	21.5	17.4	16.9	14.7
2001	29.3	23.1	17.7	15.8	14.1
2003	27.2	23.9	17.9	16.1	14.8

Source: Calculations based on State of Our Unions 2005.

All these changes interact with and contribute to the continuing high mobility of American households. While it is true that mobility rates have declined slightly, a function of the aging of American society, overall the U.S. is probably the most highly mobile of the postindustrial societies. This mobility, as we argued earlier in the paper brings about substantial change within cities and across regions. A recent census report documents the substantial changes that are occurring as especially white middle-class households leave states, where housing is expensive and opportunities seem less available than a decade or two ago (US Census 2006b). The census reports that ‘whites are fleeing’ the nation’s big cities in search of cheaper homes and open spaces farther out. Davies Withers and Clark (2006) have documented the connection between the relative affordability of destinations and women’s labor-force entries and exits. While the causal direction remains unclear, notable is the frequency with which women move in and out of the labor force. Also notable is the connection between geography and family mobility strategies. Women’s labor-force participation has changed since the 1970s, and while we know a good deal

about rates of participation, and entries and exits in the labor force, we know much less about the way in which labor-force participation has influenced family connections, especially across generations. Plane *et al.* (2005) cite the life course as a powerful explanatory factor in understanding mobility down the U.S. urban hierarchy. Likewise, Rogerson *et al.* (1993) note the spatial disconnect across the life course that can result from highly mobile adult children living at considerable distance from their aging parents. As the baby boom matures and is sandwiched between caring for their elders and caring for their offspring, geographic mobility can have profound effects on intergenerational care and contact. For some there is a desire to return 'home' to be near helpful grandparents, likewise a desire to leave 'home' to be near grandchildren. These are expressions of the complex interaction of family structure and mobility. High levels of mobility generate change in places and in families.

But it is emerging that at least some of the continuing high mobility is generated by what we can call unintended relocations – moves which do not have any specific generating force. Numerous studies cite residential dissatisfaction as a common reason for local moves, but beyond this we have only limited substantive research on people's intentions to move and whether they act upon these intentions (Lu 1998, 1999). There is still not very much research which actively investigates unintended mobility yet we will show that unintended moves represent a quarter of all reasons for moving. The traditional emphasis on economic rationality does not easily lend itself to studying unintended events. Two recent papers have made a call for greater consideration of the intentionality of migration and mobility. Smith (2004) builds on Halfacree's (1995) thesis of the intentional/unintentional agency of family migrants, and both authors call for fuller understanding of non-economic reasons and outcomes in the family migration process. Interestingly, while academia has been reticent, the law has not. The Internal Revenue Service has codified what constitutes the 'unforeseen circumstances' of moving in the context of liability for capital gains tax on income derived from the selling of a home. The allowable events include disasters, death of a spouse, becoming unemployed, financial burden due to employment changes, divorce or legal separation, and multiple births from the same pregnancy (Silow 2006). All of these are triggers for relocation, including the last one which depicts unexpected space stress. The common thread amongst these is the unintended nature of the event.

Finally, we are beginning to recognize that the processes of entry and exit to the labor market are much more volatile and dynamic than at any time in the past (Linneman and Grave 1993). The labor market has changed and so has the nature of participation. Clark and Withers (2002) and Clark and Huang (2006) established that even though migrant wives are not necessarily disadvantaged by family migration there was considerable job fluidity for migrants, local movers and those who were residentially stable. While we often conceptualize employment as long spells with one employer and in one occupation, the

shift to a service economy has destabilized employment spells. While long spells in employment are clearly relevant for professional workers, in fact, much of the mobility in and out of the labor force is not in the professional occupations and is frequent and unstable. A more detailed understanding of the dynamism of labor-force participation and the impacts and interactions of families will provide us with better ways to conceptualize the interdependencies of employment and mobility.

Our research adds to the literature by enriching the discussion of repeat-mover behavior and the adjustment hypothesis by examining the reasons that households give for their relocation behavior. In this way, we provide a much more nuanced explanation for long-distance and short-distance mobility behavior and by focusing on intentions and explanations, we are able to show the relative connections between housing related, employment related, and unintended behaviors in the mobility process.

3. Data, variables, and measurement

This study uses the Panel Study of Income Dynamics which is a longitudinal survey detailing the life course of thousands of American households since 1968. In this study, we restrict our analysis to married-couple households between the ages of 21 and 64 years with at least one member of the marriage active in the labor market during the interval from 1986 to 1993. Our sample has 14,521 families. We observe the mobility intentions, mobility behavior, employment dynamics, household dynamics, and general demographic and housing attributes of these families. We observe baseline family attributes in time 1, and follow changes in these various behaviors and attributes for three subsequent years (time 2 through time 4). Initially, we distinguish between families that are residentially stable, and families that move a short distance and a long distance. Ideally we would follow families from the onset of marriage, but over this interval this approach would not provide sufficient observations to study sequences. The purpose at hand is to examine the sequencing and intentions of families that move. So, all families are left-censored since we observe them initially in the same calendar year. Hence, there is variation in their duration of marriage and their duration of residence. Although the models used in this paper include some covariates that are associated with the duration of marriage, it is not measured directly⁴. Using the geo-coded survey information, short-distance moves were defined as a change of residence within the same county. Moves between county were considered long-distance moves. All of these long-distance moves were verified to be moves between labor-market areas⁵, with the exception of three households. Therefore, short-distance

⁴ We consider the issue of left-censoring in the interpretation of the findings.

⁵ Labor-market areas are provided by the 1990 census, and are generally defined by commuter zones. Consequently, a labor-market area may be comprised of any number of counties.

moves are moves within the same county within the same labor-market area, and long-distance moves are moves between labor-market areas. Our initial investigation examines the sequence of moves and explores the underlying explanations for long-distance and short-distance moves. We then explore explanations for those who make long moves and short moves, conditional on earlier long and short moves. Throughout the analysis we explore the stated reasons for moving and the sequence of reasons for moving.

The Panel Study of Income Dynamics asks mobile household heads why they moved and categorizes the responses into eight reasons (Appendix 1). As well, we know the main reason why people moved since the categories are in priority order. In this study we grouped these categories such that moving for 'employment' represents people who move for purposive productive reason, such as to take another job, transfer, or move closer to work (codes 1 and 2). Included in moving for 'housing' purposes are those who move for purposive consumptive reasons, for example to have a larger (or smaller) home, more or less space, moving to homeownership, or getting married (codes 4 through 6). 'Area' related moves are purposive consumptive moves related to the neighborhood, such as moving to a better place or to go to school. Moves in response to outside events (code 7) are what we call 'unintended' moves. Included in this category are situations such as a dwelling coming down, being evicted, armed services transfer, health reasons, divorce, and retiring because of health. While the PSID code refers to these as involuntary reasons, we prefer to use the term 'unintended' for two reasons. First, even if an event occurs beyond someone's control, still they are able to exercise volition in how they respond to it. We want to stay clear of this association between involuntary events and involuntary outcomes. For example, someone might not want to get divorced, but once it occurs one can respond in a variety of ways, including staying in the family home. Second, we use the term unintended to emphasize the unplanned nature of these moves. Unlike the prior categories which refer to purposive reasons, by contrast these reasons are not purposive but occur in response to outside events. These moves are unintended in the sense that they are unanticipated relative to the other types of moves.

Table 2 provides descriptive statistics for variables used throughout the analysis. The mean age of the head of household is almost 40 years. The mean level of education is a high school degree with some training beyond high school but no additional degree. Mean household income is \$45,820, which is above the median of \$38,890 (1986 dollars). The space needs of households are measured as the difference between the actual number of rooms and the required number of rooms for the household size and composition. A negative value reflects a deficit of space. The mean and median values are similar (at or close to 3) indicating that on average families do not have space stress. The county unemployment rate varies from a low of 1 to a high of 21 but on average the unemployment rate was 5.62. The categorical variables include race (with minorities as the baseline group), presence of children, and homeownership (with renters as the baseline

group). Events include the birth of a child, marital dissolution, and transitions into and out of employment. Labor-market transitions are measured for both husbands and wives. As well, we measure professional/managerial occupational status amongst husbands (baseline is other occupations) and wives not in the labor market (working wives as the baseline). Marital events are limited in occurrence. Since all families begin in a married state, there are virtually no remarriages during the interval and very few marital dissolutions.

Two other important variables are constructed. We differentiate the families on the basis of whether the head is living in the same geographic area as during childhood, of which there are 28 percent. This allows us to capture populations that have already been geographically mobile and thus have different geographic attachment. As well, it is conceivable that these families may have reasons to migrate long distances to return to their place of origin. Our final variable is a measure of moving intentions. In the prior year households were asked if they were likely to move. Interestingly, just a little less than a third of households stated they might move in the subsequent year.

Table 2: Descriptive statistics for base-year independent variables

Variable	Mean	Median	Standard deviation
Age of the head	39.3	37.0	10.3
Education of the head	5.1	5.0	1.7
Household income	45,820.4	38,890.0	39,654.0
Space needs	2.9	3.0	1.7
County unemployment rate	5.6	5.0	2.4
Categorical variables (no=0, yes =1)	0	1	Proportion
Presence of children	4509	9567	0.67
Race, white	3885	10,200	0.72
Homeownership	3571	10,514	0.74
Birth of a child	13,062	1023	0.07
Marital dissolution	13,443	642	0.04
Husband professional	9367	4718	0.33
Husband leaves employment	13,650	435	0.03
Husband enters employment	13,728	357	0.02
Wife leaves employment	13,258	827	0.05
Nonemployed wife	10,466	3619	0.25
Might move	9655	4430	0.31
Head's geographic mobility	10,062	4023	0.28

Source: Calculations based on PSID, 1975–92.

4. Analyses

4.1 Sequential moving behavior and explanations

Frequent mover behavior is not unusual, several hundred households make long-distance moves followed by additional long or short moves and the same is true for households that make initial short-distance moves. While we have some theory to suggest why long-distance moves are followed by further moves, we are less clear about short-distance moves followed by long-distance moves although we might account for this by invoking the notion of a pre-emptive temporary relocation before the long-distance move. Such a conceptualization fits with the broad outlines of the adjustment hypothesis.

Approximately 14 percent of our PSID family sample moves in the initial interval (Figure 2). A little over 10 percent move locally and another 4 percent make long-distance relocations. The average mover ratio and the split between long- and short-distance moves replicate what is generally known about mobility and migration distances (Nivalainen 2004)⁶.

In this paper the focus is on the sequence of moves (Figure 2) and their explanations which we will take up in a following diagram. What is the follow-up behavior of those who move again after the initial move? We explore this for initial long-distance movers, short-distance movers and those who stay (Figure 2). For long-distance movers, 38 percent of them move again in the second year, nearly equally divided between further long- and short-distance moves. Slightly more than 60 percent stay. For short-distance movers, there is a much greater likelihood of a further short-distance move and the probability of a long-distance move is somewhat like initial long-distance moves – less than 5 percent. A significantly higher proportion of short-distance movers stay after the short move. It appears the household has been able to bring its housing needs into adjustment with the household characteristics. Stayers tend on the whole to continue staying. Less than 10 percent make any initial move after staying in the first interval. However, despite the relatively low percent of stayers who then make long or short-distance moves, the absolute numbers of these married couples is quite large; 349 couples make a long move after a stay, and 862 couples make a short move.

By year 4 there is a general tendency for repeat mobility to die out (Figure 2). The predominant outcomes across all categories are to stay. Stayers continue to stay, and many repeat long movers and repeat short movers become stayers. We can interpret this as the

⁶ The fact that all households are left censored has the greatest impact on their mobility status in the first time period. It biases the initial mobility category that families fall into since we know, all other things being equal, the longer the duration of residence the less likely people are to move. As well, the longer the duration of marriage the more likely people are to remain married. Consequently, the sample distribution of mover types in the first time period is similar to other cross-sectional surveys.

A summary table of initial long- or short-distance moves and subsequent moves derived from Figure 2 provides a test of the adjustment hypothesis and some observations on following adjustments (see Table 3). Long-distance movers are more likely to move again than short-distance movers and both have substantially higher mobility than stayers, suggesting support for the repeat-mover hypothesis. However, summarizing the figure, long-distance movers are more likely to make another short-distance move than a long-distance move suggesting support for the adjustment hypothesis. Short-distance movers are more likely to make another short-distance move than a long-distance move, reflecting housing adjustments in local labor markets. Long-distance movers who make additional moves are again more likely to make a short-distance move, reiterating the ‘settling down’ process of movement and adjustment. While short-distance movers who make subsequent moves are more likely to make further short-distance moves, we find that there is reasonably high risk of a long-distance move (see Table 3).

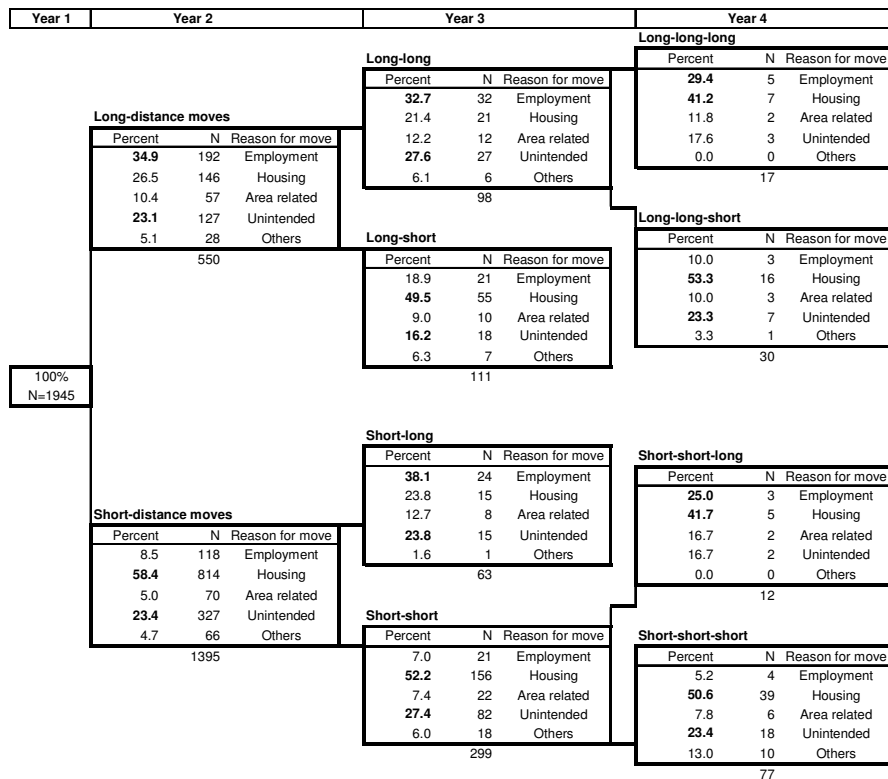
Our interest is not just in the rates of long- and short-distance moves and in the sequence structures but in the reasons for these moves. How do they connect to the migration/mobility dichotomy and how can we interpret the movement behavior of married couples in the context of repeat and adjustment moves. For each of three year segments we plot the major reasons for long- and short-distance moves and follow these over the sequence of successive moves (Figure 3).

Table 3: Mobility status in subsequent periods by move status in the initial period

Move status in the initial period (1–2 years)	Share of initial movers by move status in subsequent periods in %					
	Years 2–3			Years 3–4		
	Long move	Short move	All moves	Long move	Short move	All moves
Long-distance move (N=572)	17.7	20.5	38.1	10.3	18.8	29.1
Short-distance move (N=1472)	4.7	21.5	26.2	17.4	25.6	43.0
No move (N=12,477)	2.8	6.9	9.7	12.3	19.4	31.7

Source: Calculations based on PSID, 1975–92.

Figure 3: Reasons for long-distance moves and short-distance moves



Source: Calculations based on PSID, 1975–92.

To simplify the detail of Figure 3 we provide a summary table focused on only the moves which identify employment, housing, and involuntary moves as the reasons for relocation (see Table 4). The initial long-distance relocations are primarily attributable to employment. A little more than a third of initial long-distance movers identify employment related reasons for their move. But, and it is a very large but, there are more long-distance movers who identify housing and unintended reasons for their relocations. In fact, unintended moves are almost as large as housing related moves. There are a number of implicit, if not explicit, questions that arise immediately – if we examine outcomes for employment for women in couple households to identify employment related outcomes when only a third identify employment as a motivating reason we may be finding impacts

that are in fact clearly created by other forces than the intersection in the labor market. In other words, labor-market transitions occur when a family moves long distances, but this is not necessarily the motivation for the long-distance move.

Short-distance moves are consistent with the large body of research which privileges housing as the explanation for local adjustments, but even in this case the research shows that employment change is interrelated with moves within local labor markets (Van Ommeren *et al.* 1996, Clark and Davies Withers 1999). Somewhat less than 10 percent of short-distance movers identify employment as their primary reason for local changes. Unintended moves are almost as large, representing nearly a quarter of all explanations for short-distance moves.

Further sequential moves confirm the complexity of the explanations for movement behavior (see Table 4). Initial long-distance moves that are followed by additional long-distance moves have about the same ratio of employment to housing related reasons but significantly, the proportion of unintended moves is larger than for the initial moves. Long-distance moves which are followed by short-distance moves are, as expected, much more likely to be housing related. Short-distance moves followed by short-distance moves are also clearly housing related but unintended moves are still nearly a quarter of all the explanations for these moves. It is the short-distance moves with sequential long-distance moves which re-emphasize the role of employment as an explanation for these moves, but housing moves are not unimportant and unintended reasons continue to be a powerful element of the explanatory process.

Although the sample sizes are small we also explore the extended sequence of repeat long distance, repeat short distance and long and short repeat sequences followed by a change in the distance of move (see Table 4 section c). The results confirm the findings from the analysis of two sequences but with some interesting and important nuances in the findings. Overall, housing is more important than employment for repeated moves, long-distance or short-distance moves. Employment related reasons re-emerge as a somewhat important explanation for long-distance moves following repeated short-distance moves. Unintended reasons for moves hover between 16 and 24 percent of all reasons for relocation. What to make of all this? Clearly, repeat movers are making different kinds of adjustments than simply relocating in the classic neo-economic explanation of searching for and making adjustments for employment. Only about a quarter of all these repeat movers are concerned with employment *per se*. If we aggregate housing and unintended explanations it is quite apparent that couples who move repeatedly over relatively short time sequences are making some form of adjustment, planned or unplanned to bring their households into adjustments with their housing/location needs.

Tenure change is often invoked as the explanation for adjustment moves but in fact 76 percent of all the moves do not involve a tenure change. However, if we look at the tenure

changes for the unintended movers we find that many of them involve a change from own to rent, a down-market move.

In sum, we have ventured upon a continuum of moving intentions from the unintended to the predetermined and planned – all representing the complex link between family lives and migration and mobility. At a moment in time, much remains orderly and predictable with respect to the migration-employment/residential mobility-housing distinction. Yet, when placed within a dynamic context this orderly dichotomy dissipates into a complex family migration process.

Table 4: Reasons for moving by move type and sequence (in %)

Move type		Employment	Housing	Unintended
(a) Sequence 1				
Long		34.9	26.6	23.1
Short		8.5	53.4	23.1
(b) Sequence 1 Sequence 2				
Long	Long	32.7	21.4	27.6
	Short	18.9	49.6	16.2
Short	Long	38.1	23.8	23.8
	Short	7.0	52.2	27.4
(c) Repeated				
Long	Long Long	29.4	41.2	17.7
Short	Short Short	5.2	50.7	23.4
Long	Long Short	10.7	53.3	23.3
Short	Short Long	25.0	41.7	16.7

Source: Calculations based on PSID, 1975–92.

4.2 Models of sequential moves

We construct three models for the sequences of long-distance and short-distance moves – (a) long distance, short distance and all moves for the first sequence (moves from year 1 to year 2); (b) long-distance moves followed by long- and short-distance moves, and (c) short-distance moves followed by long- and short-distance moves.

4.2.1 First moves

There are no surprises in the analysis of the initial sequence of moves and a number of the research findings from previous investigations are confirmed in the analysis (see Table 5). However, because we examine both long- and short-distance moves as well as moves in the aggregate we are able to emphasize some of the distinctions between long-distance and short-distance moves and to re-focus attention on some of the family related changes which are critical in our concerns for family change and migration and mobility.

The models of long-distance move (long-distance move versus no move) have negative coefficients for age and positive coefficients for education – it is younger, and generally more educated couples who move and white couples more than minority couples, a general replication of what we know already. That said, the interesting results are in the outcomes for family change and by employment and for entering and leaving the workforce. The variables family change, entering and leaving the labor force, and the birth of a child are measured for the interval of one year prior to the move. In this sense they serve as potential triggers of mobility/stability. Divorce or separation leads to long-distance migration and the husband leaving the workforce is associated with long-distance migration – naturally, we might say. It is also associated with women leaving the workforce – a classic tale of the tied mover. Most interestingly, it is also positively associated with women who are not in the workforce – the classical tale of greater mobility when there is only one labor-market attachment.

Ownership reduces the probability of moving but if the head lived in a different state than where they grew up there is a greater likelihood of a long-distance move which hints at stronger family links and associations than are measured by our other variables. It is parallel to the measure of intended mobility which is a significant predictor of migration (Lu 1998, 1999).

In sum, we find that long-distance migration is mainly intentional, people move when they say they are likely to move, it is consistent with our theory about younger and more educated movers and it is coincident with significant labor-market exits and entrances, and the role of women is reiterated with the significant measure for women not in the labor force or exiting the labor force.

For short-distance moves dissolution, marital break-up, also stimulates moves as does the addition of a child. In other words family change, negative or positive is played out in local adjustment changes too. This finding is confirmed with the strong coefficient for requiring more space. Households that have significant room stress are likely to make short-distance moves, clearly to bring their households into equilibrium. Again, ownership reduces the likelihood of moving and intentions to move are positively related to making a short-distance move. Entering and leaving employment is not significant at this scale.

Table 5: Logistic regression models of the probability of moving for all moves, long-distance moves, and short-distance moves

Variable	All moves			Long-distance moves			Short-distance moves		
	Parameter estimate	Pr > ChiSq	Odds ratio	Parameter estimate	Pr > ChiSq	Odds ratio	Parameter estimate	Pr > ChiSq	Odds ratio
Intercept	-1.44	<0.0001		-3.57	<0.0001		-1.66	<0.0001	
Demographics									
Age of the head	-0.04	<0.0001	0.96	-0.04	<0.0001	0.96	-0.03	<0.0001	0.9
Education of the head	0.05	0.0325	1.05	0.17	<0.0001	1.19	-0.02	0.5123	0.9
Household income (1000s)	0.00	0.6696	1.00	0.00	0.2550	1.00	0.00	0.9062	1.0
Presence of children	-0.11	0.1207	0.90	-0.16	0.1340	0.85	-0.04	0.6073	0.9
Race	0.38	<0.0001	1.46	0.41	0.0005	1.50	0.27	0.0003	1.3
Housing									
Homeownership	-0.98	<0.0001	0.37	-0.65	<0.0001	0.52	-0.89	<0.0001	0.4
Space needs	-0.10	<0.0001	0.91	-0.04	0.3024	0.96	-0.10	<0.0001	0.9
Family events									
Birth of a child	0.32	0.0011	1.38	-0.08	0.6290	0.92	0.42	<0.0001	1.5
Marital dissolution	2.54	<0.0001	12.71	1.14	<0.0001	3.13	2.00	<0.0001	7.3
Employment									
Husband professional	0.16	0.0344	1.17	0.10	0.4225	1.10	0.13	0.1144	1.1
Husband leaves employment	0.54	0.0003	1.72	0.87	<0.0001	2.38	0.04	0.7915	1.0
Husband enters employment	0.31	0.0574	1.36	0.33	0.1944	1.39	0.20	0.2435	1.2
Wife leaves employment	0.47	<0.0001	1.60	1.16	<0.0001	3.20	-0.08	0.5754	0.9
Nonemployed wife	0.03	0.6464	1.03	0.39	0.0004	1.48	-0.15	0.0497	0.8
County unemployment rate	0.04	0.0033	1.04	0.00	0.9435	1.00	0.05	0.0008	1.0
Motivations									
Might move	1.63	<0.0001	5.12	1.34	<0.0001	3.82	1.48	<0.0001	4.3
Head's geographic mobility	0.27	<0.0001	1.31	0.69	<0.0001	1.99	-0.03	0.6947	0.9
Likelihood Ratio Chi-Square	2871.65			809.58			1856.03		
DF	17			17			17		
Pr > Chi-Square	<0.0001			<0.0001			<0.0001		
Share moving in %	14.2			4.0			10.2		

Source: Calculations based on PSID, 1975–92.

Nonetheless, the unemployment rate does increase the likelihood of a local move, whereas it was insignificant in predicting the likelihood of a long-distance move⁷.

⁷ Parameter estimates for the unemployment rate should be interpreted with caution as the standard errors of parameter estimates are downward biased for contextual variables in a single-level model.

The coefficients for all moves naturally combine the labor-market and housing-market effects. Family effects are significant and strong, but so too are labor-market effects and the local housing-market effects of space needs, ownership, and the local unemployment rate. That the previous locations of the head are still important is recognition of the fact that households seem to be increasingly linked to their extended family compositions, no doubt reflecting the increasing need to provide care to those extended family relationships (Rogerson *et al.* 1993, Rogerson 1996).

4.2.2 Conditional moves

The findings from the first-move analysis enrich our previous understanding of the move process but when we condition the outcomes of second moves on long- and short distance first moves the findings are enriched further. We provide coefficients for conditional models of long- and short-distance moves conditional on either long- or short-distance moves. In both cases the models could be much stronger and the coefficients significant at higher levels but nevertheless the results are strongly instructive of the changes which are occurring in mobility behavior. In discussing significant coefficient effects we use levels of significance of .10 or greater (see Table 6). In these models the variables family change, entering and leaving the labor force, and the birth of a child are measured for the interval of one year prior to the second move. In this sense they serve as potential triggers of repeat mobility/stability.

For 'further' long-distance moves it is clear that the process is still influenced by age, but income plays a role (note that the coefficient is negative) and there is a reversal of the significance of marital dissolution (couples who dissolve their relationship are less likely to move). This would seem counter-intuitive if it were not for the fact that these are conditional models. These are couples who have moved a long distance in the previous year together, and subsequent dissolution is unlikely, but if marital dissolution happens one partner is likely to stay (unlikely to move). The most significant predictor, and central to the gender arguments, is that women who leave the workforce drive another long-distance move. For a long-distance followed by a short-distance move it is all about the negative effects of dissolution and heads of households entering and leaving the labor market. Two forces appear to be driving these locational behaviors – one is about the interaction of family change and behavior, the other about participation in the labor market. At the local scale the household is adjusting by moving, adjusting to family changes and to the situation of the head in the labor market. Clearly, this raises questions about the extent to which we can 'solely' use the labor market or family change as the fundamental forces in sequential mobility behavior. Sequential behavior may well be the norm in the mobility process as households try to situate themselves in the larger context of change.

Table 6: Logistic regression models of the probability of moving for all moves, long-distance moves and short-distance moves conditional on a long-distance move

Variable	All moves			Long-distance moves			Short-distance moves		
	Parameter estimate	Pr > ChiSq	Odds ratio	Parameter estimate	Pr > ChiSq	Odds ratio	Parameter estimate	Pr > ChiSq	Odds ratio
Intercept	-0.05	0.9436		0.28	0.7383		-1.21	0.0973	
Demographics									
Age of the head	-0.03	0.0476	0.97	-0.03	0.0392	0.97	-0.01	0.3224	0.99
Education of the head	0.13	0.0759	1.13	0.09	0.2634	1.10	0.01	0.8793	1.01
Household income (1000s)	0.00	0.1484	1.00	-0.01	0.0776	0.99	0.00	0.7376	1.00
Presence of children	0.02	0.9287	1.02	0.04	0.8668	1.04	0.00	0.9981	1.00
Race	0.17	0.4621	1.18	0.00	0.9918	1.00	0.37	0.1295	1.45
Housing									
Homeownership	-0.17	0.4684	0.85	-0.59	0.0317	0.55	0.16	0.5140	1.17
Space needs	-0.04	0.5681	0.96	-0.95	0.2528	0.39	0.00	0.9500	1.00
Family events									
Birth of a child	0.10	0.7601	1.10	0.00	0.9959	1.00	0.19	0.5561	1.21
Marital dissolution	-0.64	0.0183	0.53	-0.60	0.0829	0.55	-0.58	0.0515	0.56
Employment									
Husband professional	0.22	0.3672	1.24	0.50	0.0755	1.65	-0.05	0.8290	0.95
Husband leaves employment	0.94	0.0097	2.55	0.40	0.3125	1.49	0.95	0.0067	2.60
Husband enters employment	0.54	0.2560	1.72	-0.73	0.2779	0.48	0.92	0.0504	2.50
Wife leaves employment	0.68	0.0184	1.97	0.71	0.0217	2.04	0.09	0.7709	1.09
Nonemployed wife	0.58	0.0080	1.79	0.18	0.4804	1.20	0.37	0.1065	1.45
County unemployment rate	0.04	0.3146	1.04	0.01	0.8991	1.01	0.04	0.3876	1.04
Motivations									
Might move	-0.18	0.4305	0.83	-0.39	0.1517	0.68	0.08	0.7411	1.08
Head's geographic mobility	0.21	0.2835	1.23	0.06	0.7723	1.07	0.29	0.1501	1.34
Likelihood Ratio Chi-Square	48.19			44.95			22.37		
DF	17			17			17		
Pr > Chi-Square	<0.0001			0.0002			0.1709		
Share moving in %	49.5			25.0			31.9		

Source: Calculations based on PSID, 1975–92.

The parallel discussion is of long- and short-distance moves conditional on an initial short-distance move (see Table 7). The long-distance moves conditional on a short-distance move are dependent on head's education, being white, women leaving the workforce and the previous geography of the head of household. Clearly, the geographical history of migrants is central in the behavior of these migrants who move long distances after they have relocated locally. Women behave similarly to those who move long distances initially – leaving work. The probabilities are reduced for homeownership.

Short-distance moves conditional on an earlier short-distance move are affected by head's education – perhaps a surrogate for income although income is in the equation. However, the large odds ratio (although the parameter is not significant) for women leaving employment may be an indicator of unintended moves by the household and these moves have a de-stabilizing effect on women's ability to be employed.

For mobility in general (all moves) age and education decrease the likelihood of moving as does homeownership. There is nothing striking here. However, women leaving employment and the intention to move signal perhaps, a planning process that is outside the decision to be in employment *per se*. At the same time, the unemployment rate is nearly significant at the 0.05 level suggesting that there are complicated relations between the mobility decision and the local context.

What do conditional moves tell us about the mobility process more generally? First, and significantly, the conditional moves reiterate the complexity and increasingly dynamic process of mobility and the interconnection of mobility, migration, and the labor market. Second, the conditional analyses emphasize how difficult it is to assign unambiguous explanations for short- and long-distance moves. The old dichotomy of long- and short-distance moves and their links to employment and housing explanations for movements is increasingly dubious. Third, there is much greater interaction between long- and short-distance moves than previously identified. Short, long and non-movements interact in much more complex ways than suggested by repeat-mover and adjustment hypotheses. Finally, it is clear that while tenure is an important differentiator in the mobility process the actual change in tenure is not a critical element of the mobility process. The number of tenure changes that are linked to mobility, as a proportion of all moves, is quite small.

Table 7: Logistic regression models of the probability of moving for all moves, long-distance moves, and short-distance moves, conditional on a short-distance move

Variable	All moves			Long-distance moves			Short-distance moves		
	Parameter estimate	Pr > ChiSq	Odds ratio	Parameter estimate	Pr > ChiSq	Odds ratio	Parameter estimate	Pr > ChiSq	Odds ratio
Intercept	0.63	0.1360		-3.23	> 0.0001		0.59	0.1870	
Demographics									
Age of the head	-0.02	0.0253	0.98	-0.01	0.5197	0.99	-0.01	0.1131	0.99
Education of the head	-0.08	0.0770	0.92	0.19	0.0142	1.20	-0.15	0.0016	0.86
Household income (1000s)	0.00	0.3793	1.00	0.00	0.3745	1.00	0.00	0.6833	1.00
Presence of children	-0.06	0.6759	0.95	-0.17	0.4555	0.85	0.01	0.9703	1.01
Race	0.06	0.6419	1.07	0.76	0.0030	2.14	-0.12	0.3873	0.89
Housing									
Homeownership	-0.27	0.0563	0.76	-0.49	0.0487	0.61	-0.20	0.1775	0.82
Space needs	-0.04	0.3848	0.96	-0.11	0.1598	0.90	-0.03	0.5435	0.97
Family events									
Birth of a child	-0.10	0.5771	0.90	0.09	0.7581	1.10	-0.10	0.6214	0.91
Marital dissolution	-0.09	0.5579	0.91	0.11	0.6930	1.11	-0.09	0.5869	0.91
Employment									
Husband professional	-0.09	0.5573	0.91	0.15	0.5478	1.16	-0.26	0.1177	0.77
Husband leaves employment	0.09	0.7267	1.10	0.60	0.1284	1.82	-0.06	0.8213	0.94
Husband enters employment	-0.10	0.7344	0.91	0.15	0.7652	1.16	-0.16	0.5908	0.85
Wife leaves employment	0.65	0.0083	1.91	0.85	0.0166	2.33	0.41	0.1046	1.51
Nonemployed wife	0.19	0.1709	1.21	0.05	0.8278	1.05	0.22	0.1303	1.24
County unemployment rate	0.05	0.0644	1.05	0.04	0.3653	1.04	0.04	0.1919	1.04
Motivations									
Might move	-0.29	0.0355	0.75	-0.30	0.1874	0.74			
Head's geographic mobility	0.10	0.4345	1.11	0.52	0.0149	1.68			
Likelihood Ratio Chi-Square	53.94			43.62			62.01		
DF	17			17			17		
Pr > Chi-Square	<0.0001			0.0004			>0.0001		
Share moving in %	38.5			9.1			31.3		

Source: Calculations based on PSID, 1975–92.

5. Conclusions

There is one major, innovative, and important conclusion from this study. It is that we often proceed with set notions of the nature and impacts of family change and its role on migration, but then we learn, as in this study, that much of what we may be setting within the framework of purposive employment or housing related choices and behavior is much more complex. The outcomes are created by and involve complicated interactions of family change, employment change, and housing selection. Sometimes housing adjustment is the driving force in local moves and sometimes it is important in long-distance moves and we find similar outcomes for long-distance moves. It is true that housing related moves are more important in local moves but they only account in the aggregate for half of the reasons for these relocations. For long-distance moves it is much more complex than the previous notions of solely employment driven moves. A truly new finding in the study is the important role of unintended moves. Clearly, serendipitous forces play an important role in the migration and mobility process. For nearly a quarter of all moves respondents report something other than jobs or housing adjustment as the most important factor in their mobility behavior. These findings, in particular that at least a significant proportion of short-distance moves have employment explanations, suggest that we abandon the notion of providing dichotomous explanations for short- and long-distance moves.

Thus, even though many couples are making long-distance moves to accommodate changing occupational aspirations long-distance moves can no longer be assigned unambiguously to employment driven changes. The complexity is enhanced by the role of women in the long-distance migration process, their exits and entrances to the labor force are an integral part of understanding mobility behavior. Similarly, short-distance moves are not simply generated by changes in a family's interaction with the housing market. The reiteration that there is much less change in tenure with mobility and migration emphasizes that an economic concern with tenure change and ownership is a much less powerful explanation for relocation than is often asserted.

At a primary level, long-distance moves are somewhat explained by employment opportunities and the way in which couples interpret these opportunities. Similarly, short-distance moves are related to the housing market and the way in which households try and bring their housing aspirations into adjustment with the opportunities in the market. But the role of interruptions to the life course and complex family responses to changing opportunities and constraints clearly complicates this overly simplistic interpretation of sequential mobility. Many moves and even those which are ostensibly for employment or housing reasons are mixed and at odds with our dichotomous explanations. What does this mean for our longitudinal analysis of family related migration and mobility? At the simplest level it means that we must be aware of the greater complexity in human behavior than many of our current models allow and we need to search for sequential models which

will allow us to capture the continuous time process of household change and residential relocation.

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Appendix 1

Codes for variable 'Why moved?' in the Panel Study of Income Dynamics

Why did you (head) move?^a

Code	Description
1	Purposive productive reasons: to take another job; transfer; stopped going to school.
2	To get nearer to work.
3	Purposive consumptive reasons: expansion of housing; more space; more rent; better place.
4	Purposive consumptive reasons: contraction of housing; less space; less rent.
5	Purposive consumptive: other house-related; want to own home; got married.
6	Purposive consumptive: neighborhood-related; better neighborhood; go to school; to be closer to friends and/or relatives.
7	Response to outside events (involuntary reasons): housing unit coming down; being evicted; armed services; health reasons; divorce; retiring due to health.
8	Ambiguous or mixed reasons: to save money; all my old neighbors moved away; retiring.
9	Not available; don't know.
0	Inappropriate: has not moved.

^a The codes are in priority order.