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**Family, Employment Status and Residential
Mobility in the Health and Retirement Survey**

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Abstract: Understanding the relationship between mobility and the family and work transitions experienced by individuals approaching retirement is an important research topic. Both family transitions, such as divorce, widowhood or children leaving home, and work transitions, particularly retirement, influence where individuals will reside and, as they age, how much assistance they may need. This paper uses Waves 1 and 2 of the Health and Retirement Survey (HRS) to examine the residential mobility of the HRS cohort in the context of family and work status changes. The results demonstrate that respondents experiencing both household change and change in work status were more likely to have moved. While household change is a strong predictor of mobility, neighborhood and regional effects are significant predictors of mobility as well. These findings are discussed in the context of the migration and mobility data available in the HRS. Currently, the greatest limitation of using the HRS data for migration research is the lack of information on distance moved. An appendix discusses this issue in detail and suggests ways to make the HRS data more useful for understanding the relationships between mobility and the life transitions experienced by this cohort.

Data used: Health and Retirement Survey: US, 1992, 1994.

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Family, Employment Status and Residential Mobility in the Health and Retirement Survey

Introduction

While previous research has demonstrated the importance of both family and employment-related effects on residential mobility, that work has focused on the early years of adulthood when family formation, childbearing, and social mobility associated with career progression are most likely to occur. More recently, as family mobility research has broadened to include family dissolution and leaving home by adult children, retirement mobility has emerged in the literature as a "work transition" in later life. However, the data used in these studies usually focus on either the general adult population or already retired elderly persons. Since there may not be enough cases to analyze the effects of specific transitions that occur throughout the life course, the results are frequently generalized across the life course. The Health and Retirement Survey (HRS) offers a significant opportunity to expand this research by allowing researchers to examine how the life course transitions faced by persons of pre-retirement age -- specifically, changes from full-time parenting and careers to empty nests and retirement -- shape and interact with their mobility and housing preferences.

The relationships between family, employment and mobility are examined using the data available in the public release of Wave 1 and the alpha-release of Wave 2 of the HRS. To address both the theoretical and the practical significance of these topics, the main body of the paper is divided into five sections: First, a discussion of the Health and Retirement Survey data; Second, a brief overview of the literature on residential mobility and migration and how these processes are connected to the family cycle, work and retirement in the context of this cohort; Third, analyses of the effects of these family and employment related characteristics on both actual and prospective mobility are presented and discussed; Fourth, a conclusion summarizing the results of the analyses in the context of future research goals; Fifth, a brief appendix discusses the limitations of using the present HRS data to study mobility and migration as well as suggestions for future waves.

The Health and Retirement Survey

The data used in this research are from the Health and Retirement Survey, an ongoing longitudinal survey that interviews a national sample of persons born between the years 1931 and 1941 (and their spouses if married) at two-year intervals. Wave 1 was conducted in 1992 and consisted of 12,652 interviews in 7,702 households. In 1994, Wave 2 reinterviewed 11,602 individuals in 7,093 households. These data offer a unique opportunity to study both the residential mobility and migration patterns of a cohort of older adults.

The HRS data will enrich migration and housing studies by enabling researchers to distinguish between different types of retirement transitions. The housing and mobility data include detailed information on housing and neighborhood attributes as well as information on migration intentions and actual mobility. The HRS also offers an impressive array of migration-related information: detailed data on family structure and composition, labor force participation, retirement plans, health and disability, income, and wealth. Another advantage of the HRS is that the data are detailed enough so that the researcher can speculate with considerable confidence about whether the phenomena observed are generalizable to different cohorts or whether they are cohort-specific. For example, many respondents may have been exposed to "early retirement" offers. The HRS includes questions about these offers in order to fully measure the process of retirement.

The current HRS data does, however, have some significant limitations. While the HRS documents whether an individual moved between Waves 1 and 2 and whether an individual plans to move on retirement, the Wave 2 alpha release does not include data on the respondent's current state (or region) of residence. This omission is particularly significant because of the selectivity of long-distance migrants: For example, individuals with higher education generally are more likely to experience interstate moves (Long 1988). In general, elderly retirement migrants are usually healthier, wealthier and more likely to be

married than nonmigrants (Biggar 1984). Inter-state or inter-regional moves potentially involve leaving behind relatives and neighbors and may result in a significant change in physical surroundings (including climate or level of urbanization).

Other limitations of the Wave 2 alpha release will have a direct impact on the current study of residential mobility among the original respondents. Missing from the data are several hundred cases involving household change, particularly those involving new marriage and divorce. Previous research has demonstrated that changes in marital status can increase residential mobility for several years after the change itself (Speare and Goldscheider 1987). Because these changes in household composition are strongly associated with the mobility of one (or both) respondents, it is anticipated that initial analyses of mobility using the Wave 2 data will reflect job-related and external family concerns to a greater extent than change within the household.

The Family Life Cycle and Residential Mobility

Local moves, or residential mobility, are generally associated with changes in the family life cycle. While traditional elements of the family life cycle include marriage, child-bearing, child-rearing and widowhood, researchers recently have begun to include cohabitation, separation, divorce and remarriage as stages that characterize contemporary family life (Norton and Miller 1990, Sweet and Bumpass 1987). Rossi (1955) argued that the shifts in family composition that accompany life cycle changes resulted in residential mobility as a response to changing housing needs. While the emphasis of Rossi's study was on mobility generated by family growth, families needing more space to accommodate children, implicit in this work is that changes in family composition often require adjustments in housing size or general social environment. The HRS enables us to study mobility behavior at a later stage of the family life cycle, when families may need less space as children leave home. While this stage has been studied from the child's perspective (i.e., the timing of leaving home), little research has examined the consequences of children's leaving home for the parents.

Theories of residential mobility generally assume a relationship between family life cycle stage and residential satisfaction. Family life cycle stage not only defines housing needs, it also plays a significant role in determining residential satisfaction. This relationship between residential satisfaction and mobility is emphasized by the behavioral, or micro-economic, approach to residential mobility and migration decision-making. The stress-threshold model suggested by Wolpert (1965) and further developed by Speare (1974) explicitly linked residential satisfaction with changes in the life cycle.

Speare (1974, Speare et al. 1975) argued that residential dissatisfaction served as an intervening variable between the social and economic characteristics of a household and its mobility. These findings were later challenged by Lansdale and Guest (1985), who asserted that the relationships between actual mobility and attitudes about home and community were less clear than Speare suggested. They argued that structural variables -- including individual and household characteristics, housing tenure, duration of residence, and community ties -- are more strongly related to actual mobility than measures of satisfaction. McHugh et al. (1990) suggested the relationship between residential satisfaction and mobility may be time-dependent: Residential satisfaction may intervene in short-term mobility expectations, but structural variables have more strength in the long run. Their findings also suggest variation in this relationship by both age and housing tenure. Such a possibility would be consistent with earlier documentation of mobility differentials based on life cycle stages and home ownership (Long 1972, Speare 1970).

Mobility researchers have tended to overlook the changes that have occurred within the family and the implications of those changes for mobility. Stapleton (1980) argued for the consideration of marital dissolution and of the increasing number of alternatives to family living (at both older and younger ages) in theories of residential mobility. Clark and Onaka (1983, 48) suggested that both the "effects of changes in life cycle and those of stages of the life cycle" need to be taken into account to fully understand mobility decisions. In the context of mobility, it is important to consider the effect of increasing longevity on the sequence and timing of life course events, especially multigenerational family processes (O'Rand and Kreyer 1990). For example, Hogan et al. (1993) find that physical distance between the generations is a significant deterrent to intergenerational interaction.

One aspect of family change that is important for understanding the mobility of aging adults is the timing of their children's leaving home, or nest-leaving. Goldscheider and Goldscheider (1993) noted that young adults increasingly have replaced family living -- either with their parents or a spouse -- with nonfamily lifestyles and suggested that leaving home before marriage be included in studies of the life cycle. Nest-leaving is an important consideration for the study of older adult households because it corresponds to the "empty-nest" stage in the lives of older adults.

It is also important to consider how other family relations may influence the mobility of their parents. Older adult children who remain at home, or return to the nest, may have fewer resources and place greater financial demands on their parents, decreasing mobility. On the other hand, grandchildren may serve as a "pull", as grandparents consider and act on desires to be closer to them. At the same time, increased longevity may mean that aging adults also have surviving parents who may become dependent, resulting in an assistance-related move by either the parent or the "child". The HRS will allow us to capture the family context in which the decision to move occurs. Whether a move is a housing adjustment after children leave home, a move closer to family, a job relocation, or a combination of these factors will be a reflection of both the family life cycle and the individual life course stage.

Migration and The Life Course

While the family life cycle is an important consideration for housing and mobility studies, an individual's stage in the life course is an equally important consideration for long-distance migration studies. These studies generally equate life course stage with an individual's work-cycle stage: Just as age 25 is used to mark the entry of young adults into the labor force, 65 (and later 62) traditionally served as a marker for exit from the labor force and entry into the retirement stage of the life course. The migration motivations of younger adults are seen as labor-force related (Frey and Speare 1988), while retired elderly migrants are attributed noneconomic motivations for moving (Biggar 1984, Litwak and Longino 1987). This rationale implies that the main migration motivation for persons who are established in the labor force (i.e., the pre-elderly) is job change.

Persons of pre-retirement status have been included in a number of elderly migration studies. These analyses used age 60 as the elderly cutoff (Flynn et al. 1985, Longino et al. 1984, Longino 1980, Speare and McNally 1992, Yeatts et al. 1987) in order to capture early retirees as well as to account for "younger" wives who migrate with their husbands (Biggar 1984, Rogers et al. 1990). However, an indirect result of lowering the cutoff age was that a greater number of the "elderly" cited job-related motivations for migration. Rogers (1989) suggested that most researchers opt to use the 65+ designation in order to minimize the overlap between working elderly migrants and retired migrants. Yet, it is this overlap -- persons in the same age group experiencing work, anticipating retirement and retiring -- that makes the study of pre-elderly migration so important.

The preparation for and the process of retirement is of increasing importance in the lives of older working adults. Between 1950 and 1990, the median age for male retirement fell from 66.9 to 62.7; that of women from 67.7 to 62.6 (Gendell and Siegel 1992, 27). This trend toward earlier retirement has been attributed to increases in social security benefits and private pension plans that allow individuals to enjoy a comfortable standard of living after retirement (Kestenbaum 1985). Social security benefit eligibility may begin at age 62, but many private and military pensions are received at younger ages. Corporate restructuring also has encouraged early retirement by offering individuals attractive "early retirement packages". At the same time, increased female labor force participation and the accumulation of personal savings has allowed for more options in the timing and activities of retirement.

The literature on adult long-distance migration relies heavily on work-cycle changes (e.g. labor force entry, job change, retirement) as explanations of migration. This approach implies that migration motivations change sharply at retirement. But if we conceptualize retirement as a special type of job transition -- one that can be anticipated -- the question becomes whether a clean break exists between labor force and retirement migration motivations. The answer lies at least partially in the types of areas that tend to attract labor force versus retirement migrants. Labor force migration is conceptualized as flows between

larger metropolitan areas or labor markets. Retirement migration is generally characterized by flows to smaller metropolitan and nonmetropolitan areas. The retired may not have the locational pull of a local work-place as an incentive to remain in an area (Speare and Meyer 1988). A complementary view would be that, because the older worker may not have long-term career goals in mind when considering job changes, they also may have greater flexibility and more locational choices. By using the HRS to study the relationship between mobility, retirement and pre-retirement job change, we may begin to get a clearer picture of these relationships.

Family Life Cycle and the Life Course

The study of both job-related moves that precede retirement and retirement moves themselves can help us better understand how both family and labor force dynamics shape later life migration decisions. Understanding how each influences mobility is critical both theoretically, in distinguishing labor force and retirement mobility, and practically, for understanding the forces which shape the spatial distribution of older persons.

There are a number of ways an individual's family life cycle can interact with their work life. For example, in the past generation, married women have gone from unpaid "homemakers" to paid workers outside the home (Morrison 1990). When women did work outside the home, they often postponed work until after childbearing or interrupted their work during childbearing (Van Velsor and O'Rand 1984). With the growing proportion of two-career families, the process of retirement increasingly involves the adjustment of the entire family as individuals withdraw from the workforce and reenter the home. If a wife is younger than her husband, she may choose to continue working after he has retired. Parents may postpone retirement until their children have left the nest. Another family factor that might influence retirement decisions is children's college expenses. Parents may choose to delay retirement until their children have completed college. Trends toward delayed childbearing also could potentially affect labor force participation if older parents choose to work until their children complete college. A couple may delay moving until both have retired and the children have left the nest. The elderly migration literature suggests that older persons have been increasingly able to move for amenity and lifestyle reasons because they are less dependent on their families or a work-place for support (Rogers et al. 1990, Wiseman 1980).

The HRS cohort faces four potential family cycle transitions and two potential types of work-life transition. Changes in the family life cycle -- child bearing, divorce or remarriage, the empty nest or widowhood -- are associated with residential mobility. Work-life transitions such as job change and retirement are associated with long-distance migration. If we assume that these transitions are associated with different types of mobility, their consequences for mobility behavior may change if family and work-life transitions happen concurrently. Examples of how family factors may shape job-change and retirement mobility decisions include the effects of female labor force participation on family mobility decisions and/or how the presence of children interacts with mobility: As more married women remain in the labor force at older ages, one result may be that retirement becomes a more gradual process and local "retirement" moves become more common. If a couple's children have all left home, later-life job changes may be associated with "job downsizing" or changing jobs in order to live in an area with particular amenities. Table 1 summarizes the relevant stages of the family life cycle and the life course by the types of mobility that are associated with each.

Turning to the HRS data, we would expect that respondents who experienced household change or work status change (or both) also would be more likely to experience mobility. This appears to be the case: If we define household change as whether anyone has moved in or out of the household, and work status change as a reported change from their status in Wave 1 to any other status in Wave 2 (i.e., working to retired, retired to not working, etc.). Close to 11% of the HRS2 respondents reported a change in residence; however, nearly 17% of those experiencing household change also changed residence. Slightly more than 13% of respondents who reported a change in work status also moved. Table 2 summarizes the mobility distribution for respondents by household change and change in work status. Of those experiencing household change, higher proportions of movers reported household change. Movers experiencing household change were most likely to have no children at home. Households experiencing no household change had proportions of movers below the group average, the exception being those with children at

home under age 19. In general, respondents were not very likely to experience household change, particularly if there were no children living at home. One explanation for this might be that much of the household change occurring in families with children involves children leaving or returning home.

Research Questions and Variables Used in the Analyses

Previous work using Wave 1 of the HRS examined the relationship between sociodemographic characteristics, place ties, the health and disability status of the respondent, and prospective retirement migration (Muschkin and Myers 1993). Their results are consistent with the concept of a "retirement transition" (Bures 1994): Family ties were found to decrease the likelihood of expected retirement migration, while both owning a second home and vacationing increased the likelihood of anticipated migration. Building on the work of Muschkin and Myers, the current analysis of prospective mobility includes more detailed categories for marital status, children at home, education and region of residence. We also use the measure of actual mobility provided by Wave 2 to compare prospective and actual mobility. The main questions addressed by this research are: 1) How are family and work characteristics related to prospective mobility? To actual mobility? How do these effects differ? and 2) How are household and work status changes related to actual mobility for the HRS cohort?

Prospective mobility is defined using the Wave 1 question: "Using any number from zero to ten, where 0 equals absolutely no chance and 10 equals absolutely certain, what are the chances that you will move during the next two years?" The dependent variables used in this study are defined dichotomously in terms of whether the individual moved (or planned to move) or stayed. Respondents who reported (at Wave 1) a probability between 6 and 10 (absolutely certain) that they would move in the next 2 years were coded as "prospective movers". "Actual movers" reported changing residence between Waves 1 and 2. Logistic regression is used to predict prospective mobility at Wave 1 as well as actual mobility between Waves 1 and 2. The data are from the public release version of Wave 1 and the alpha release of Wave 2. The analyses include all Wave 2 alpha release respondents with the exception of proxy interviews (n = 10,437). Table 3 summarizes the variable definitions.

In examining the effects of household and work-related changes on mobility, the variables age, gender, race, ethnicity, income and education are controlled for in the analyses. Age is a continuous variable representing the respondent's age at Wave 1. Both mobility and prospective mobility are hypothesized to be negatively associated with age. The variable for gender is coded: 1=female, 0=male. Women are expected to be less likely to either move or anticipate moving. Race and ethnicity are measured with dummy variables coded to equal 1 if the respondent is black or Hispanic. Those in the reference category, white non-Hispanics, are expected to have the highest mobility.

Educational status is measured using 4 categorical variables representing: less than high school education; high school diploma or GED; college degree; and masters or professional degree. In reference to less than a high school education, education is anticipated to be negatively related to mobility. The natural log of household income is expected to be negatively associated with mobility. Household income is expected to have a weak negative relationship with prospective mobility, a weak positive relationship with actual mobility. The employment status of the respondent is represented by two variables: work disability and retirement status. Having a work disability and being retired are expected to be positively associated with mobility for this age group.

The family life cycle variables include detailed marital status, age of youngest child at home, and whether a parent of the respondent (or respondent's spouse) resides at home. Marital status is categorized as separated or divorced, widowed, never married, and married (the reference category). In reference to married persons, individuals who were separated or divorced (in Wave 1) are expected to be more likely to have moved, while widowed and never married will be less likely to have moved. These hypotheses follow from previous research that demonstrated for the age group 45-64, widowed and currently married persons have the lowest mobility rates, while those experiencing remarriage and marital dissolution had high mobility (Speare and Goldscheider 1987).

In addition, having a parent living in the respondent's home (Wave 1) is expected to impede both prospective and actual mobility. For children, we use categorical dummy variables to represent the age of the youngest child living in the respondent's home (or away at school) in Wave 1. The reference category is no children or no children residing at home. Additional categories include youngest child less than 18, youngest child aged 19-24, and youngest child aged 25 or older. Children living at home are expected to reduce mobility. In relation to the reference category of no children living at home, the effect of children residing in the home is hypothesized to be negative for all age groups and stronger for younger children.

Housing and community variables include: relatives residing in Wave 1 neighborhood, friends in neighborhood, neighborhood satisfaction (Wave 1), home ownership (Wave 1), and owning a second home (Wave 1). Strong ties to relatives and friends (measured in terms of knowing all or most of the nearby neighbors) are expected to be negatively associated with both prospective and actual mobility. Neighborhood satisfaction and home ownership are expected to be negatively related to both prospective and actual mobility as well.

Region of residence in Wave 1 is also controlled for in the analyses. Controlling for region of residence is expected to account for regional variations in mobility and housing availability. Residents of some regions, for example, the Great Plains, may be less likely to move (at all) than residents of the Sunbelt. Local mobility may also be constrained by local housing markets. In reference to the Northeast, respondents residing in all other regions are expected to be less likely to anticipate moving. On the other hand, residents of Southern and Western states are expected to be more likely to have actually moved.

Two additional variables are included in the analysis of actual mobility: whether a household change occurred between Waves 1 and 2, and whether a work status change occurred between Waves 1 and 2. Household changes may result from changes in marital status, children leaving home, children returning home, or other relatives entering or leaving the household. It is hypothesized that, for the HRS cohort, the predominant type of household change will result in a reduction in household size. This is hypothesized to increase mobility. Work-status change also is hypothesized to increase mobility. For the HRS cohort, job change and retirement are expected to be the prevalent types of work-status change. Both job-change and retirement are frequently associated with mobility.

Descriptive statistics for the sample can be found in Table 4. More than half of the HRS respondents are women (approximately 55%). More than half of the respondents have no children at home (57%). Slightly more than a third (34%) have relatives in the neighborhood and half (53%) know all or most of their closest neighbors. Some form of household change has occurred for about 22% of the respondents. Nearly 37% reported a change in work-status between Waves 1 and 2. Eight percent of the respondents reported both a household and a work-status change.

The Effects of Family, Work and Retirement on Prospective Mobility

In the first two waves of the HRS, the relationship between prospective and actual mobility is not a strong one. While the two are positively and significantly correlated, the correlation is low (0.211). Of the 1,450 persons who expected to move between Waves 1 and 2, barely 27% (387) actually did. On the other hand, a little more than 8% (725) of respondents who did not anticipate moving did. Table 5 contains the unstandardized coefficients for the logistic regressions of selected factors on prospective and actual mobility. The prospective mobility model excludes the home ownership variable because home ownership has a highly significant correlation (-0.852) with prospective mobility.

The employment characteristics, work disability and retirement status, both have significant effects on prospective mobility. Respondents with work disabilities tend to be more likely to anticipate moving. Being already retired decreases the likelihood that an individual had expected to move. Household income (log) has a weak but significant effect on prospective mobility. This is interesting because income (in general) has been demonstrated to have almost no effect on mobility among older persons (Speare and McNally 1992). The difference between these findings may reflect the fact that many of the HRS respondents are still in the labor force and that there is a greater incidence of assistance related moves among the older population (which are not necessarily associated with income).

Married respondents are the least likely to expect to move, followed by the widowed and the never married. Respondents who were separated or divorced at Wave 1 are most likely to have reported a potential move. The presence of at least one child at home seems to make respondents less likely to anticipate moving. Although not significant in the current model, the strength of this negative relationship increases with the age of the youngest child. Respondents with a youngest child at home aged 25 or older are the least likely to expect to move. These findings may be an artifact of the limited cases in the alpha release of Wave 2. They may also reflect a strong dependency between the respondents and older adult children who still reside at home. This would be consistent with the finding that having one's parent (or spouse's parent) residing in their home has an even stronger negative effect on prospective mobility. These possibilities will be explored in future research.

Neighborhood ties have strong effects on prospective mobility. Satisfaction with one's neighborhood significantly decreases the likelihood of anticipating moving. While relatives in the neighborhood have no real impact on prospective mobility, friends in the neighborhood have a strong and significant negative effect. The strength of this relationship presents a stark contrast to Connerly's (1986) finding that close neighborhood relations do not inhibit prospective mobility. One explanation for the discrepancy between these findings may be that, as an individual ages, neighborhood context becomes more important. We turn next to the relationship between these variables and actual mobility between Waves 1 and 2.

The Effects of Family, Work and Retirement on Actual Mobility

Two models predicting actual mobility for HRS respondents can be found in Table 5. The first model parallels the prospective mobility analysis with the addition of the home ownership variable. There are a number of notable differences between these models: In reference to white non-Hispanic respondents, both blacks and Hispanics are more likely to expect to move and less likely to actually move. Thus, while non-whites may have more intentions of moving, they also appear to face stronger mobility constraints. Married persons are the least likely to expect to move and most likely to have moved. This may be attributable to changes in marital status (separation or divorce) that occurred between the two waves or simply more opportunities to move for married persons. Finally, persons residing in the North are most likely to expect to move, but least likely to have actually moved. These differences persist when the homeownership variable is excluded from the actual mobility model (not shown).

For the movers, there may be several explanations for the finding that being black or Hispanic decreases the likelihood of having moved. Minorities may have stronger community ties or face greater constraints in the housing market, including discrimination. Another possibility is that there may be a higher non-response rate among minorities, particularly those who moved. Future studies will examine these possibilities in greater detail with consideration to missing cases as well as distance moved.

Although college educated respondents appear slightly more likely to have moved, education does not have any significant effects on mobility in this model. Having a work disability or being retired in Wave 1 increased a respondent's likelihood of having moved, though not significantly. Likewise, marital status and family cycle variables have insignificant effects on actual mobility: Only the separated and divorced were more likely to have moved than the married. Never married persons were the least likely to have moved. The results for age of youngest child in the home are not significant in the present model, but they are interesting. Respondents with children in their home aged less than 18 were more likely to move than those with no children, but slightly less likely to move than those with children age 19 to 24. Respondents with a youngest child in the home aged 25 or older were the least likely to move.

The variables representing ties to the community were strong predictors of actual mobility. Friends and relatives in the neighborhood decreased the likelihood of having moved. Neighborhood satisfaction had a weaker, but significant, negative effect on mobility. Consistent with these findings, ties to a different community, represented by owning a second home in Wave 1, had a positive effect on actual mobility. This may reflect a type of "anticipatory socialization", where individuals explore an area or neighborhood in anticipation of moving. The region in which a respondent resided (Wave 1) appears to

have an important relationship to actual mobility. In reference to persons residing in the Northeast, persons residing in all other regions are significantly more likely to have moved. The strength of this variable most likely reflects regional differentials in mobility and, to some extent, housing availability. It also emphasizes the need to be able to distinguish between long and short-distance moves using the HRS data.

Model 2 includes two additional variables that represent whether the respondent reported a household or work status change between Waves 1 and 2. Respondents who moved were significantly more likely to also have experienced household change. The addition of the household change variable had a strong effect on the relationship between children living at home and mobility. Controlling for household change, respondents with no children at home were more likely to have moved than those with children of any age at home. A change in work status also had a significant effect on mobility, although not as strong as that of household change. In this model, the effect of a youngest child aged 25 or older living at home increases in both magnitude and significance--making these respondents the least likely to have moved. We also tested for an interaction between household and work status change (not shown). The interaction coefficient (.243) was not significant. While its positive sign suggests that the influence of these variables is additive, the addition of the interaction also reduced the magnitude of the original coefficients.

Two limitations to the HRS2 alpha release data need to be recognized when interpreting these results. The first is the preliminary nature of the data used. As mentioned earlier, several hundred cases involving household change, particularly recent marriages and divorces, are missing from the alpha release of the HRS2. This may help to explain why external family characteristics (parents at home, relatives in the neighborhood) have significant effects on mobility, while the effects of marital status and children in the household do not. It also should be noted that the alpha release contained no nonresponse codes. In both of these instances, it is possible that many of the cases missing from the alpha release experienced some form of mobility.

A second data limitation influencing these analyses is the lack of any measure for distance moved. The distinction between local and long-distance mobility is key for understanding migration behavior. Short-distance moves are much more common than long-distance ones. In general, local moves are also determined more by family and housing needs than work and retirement. The present results are consistent with these patterns: Household change is a much stronger predictor of mobility than change in work status. In future work, we anticipate that controlling for the distance moved will increase the effects of children at home as well as the interaction between household and work-status change, particularly for long-distance migrants.

Conclusion

Research has demonstrated variation in migration patterns over the life course, focusing on migration motivations and destinations at the earliest and latest stages of adult life. Bures (1994) suggested that the migration patterns of the pre-elderly represent a "retirement transition": Their migration patterns are distinct from those of other adult age groups because the pre-elderly face life course transitions associated with changes from full-time parenting and careers to empty nests and retirement. The HRS offers a unique opportunity to help us better understand the dynamic relationships between these later-life transitions and migration behavior. The main goal of this paper has been to demonstrate how the migration data available in the HRS may be used to better understand the consequences of family-, job-, and health-related changes unique to this age group and, in doing so, to provide evidence that demonstrates the usefulness of including both residential mobility and migration data in future waves of the HRS.

The results presented in this paper demonstrate the importance of both household and work-status changes in explaining the mobility of the HRS cohort. With this in mind, care should be taken in interpreting these results. They represent a first pass at a newly released dataset and are constrained by the preliminary nature of such data. The strength of such results is that they help illustrate data needs as well as future research possibilities. There is a significant amount of change occurring in the lives of the HRS respondents and this change is often associated with a change of residence. While both household and work status change are strong and significant predictors of mobility, household change is generally associated with local mobility, work change with long-distance migration. For migration and mobility studies

information on distance moved is a necessary complement to the available data. Given this, future studies will be able to explore pre-retirement as well as retirement mobility more closely, using the wealth of family, employment, retirement and health information available in the HRS. Such research is important: By understanding the mobility and migration patterns of this age group, the ultimate contribution will be the formulation of more effective public policies on aging.

Appendix. Wave 3 and Beyond: Using the HRS to Study Migration and Mobility

The Health and Retirement Survey (HRS) includes a great deal of information that is important for studying mobility and migration. The direct measurement of these events is accomplished through questions on change of residence and prospective mobility. Detailed data on sociodemographic characteristics, housing and neighborhood satisfaction, family structure, labor force participation and economic status offer a wide array of mobility predictors. In addition, the longitudinal nature of the Health and Retirement Survey lends itself to the maintenance of detailed records of the geographic mobility of survey respondents. Thus, basic mobility data is collected simply by following the panel members.

The distinction between residential mobility and migration is an important one for a survey such as the HRS. Findley (1982) emphasized that, in designing questions to measure mobility or migration, it is first important to ask how these processes are defined. Residential mobility can be defined as a "local" move associated with housing or neighborhood adjustment. For this reason, housing and mobility data include detailed information on the housing and neighborhood attributes that are associated with local moves (Toney and Swearingen 1984, Speare 1974). On the other hand, migration is generally conceptualized as a move between geographic areas (i.e., counties, states, regions). Migration theory discusses the "push" of the origin community and the "pull" of the migrant's destination. Migration analysts makes greater use of measures of distance and community characteristics.

While labor force migration predominates at younger ages, both retirement migration and housing adjustment characterize the movement of older persons. Like labor force moves, retirement moves are usually characterized as long-distance moves. If the measurement of retirement migration is one of the goals of the HRS, geographical descriptors of long-distance migration need to be included in the data. Since more HRS respondents changed jobs than retired between Waves 1 and 2, including geographical descriptors also would allow for research on the types of labor markets such movers were drawn to. For example, are these workers "downsizing" their jobs and moving to smaller markets with greater "amenities"? Are there regional patterns of job change and migration? How do these patterns compare to those of retirement migration? Ideally, we would like to be able to distinguish between mobility and migration in the HRS in order to observe how these processes change over time and are influenced by other life events captured in the HRS.

Problems Working With the Data

The major problem faced in using the HRS data for studying migration and mobility is the lack of geographic detail. For confidentiality purposes, many state-level variables have been recoded to census division levels in the public release. The preliminary version of Wave 2 contains no geographic identifiers at all. As a result, it is impossible to determine whether an individual moved across the street or across the country.

A related frustration with the Wave 2 data is the area of birth question. Currently, the best proxy for measuring long-distance migration in the HRS is lifetime mobility. In Wave 2, the HRS asked respondents whether they "currently live in the same general area in which they were born". This question enables us to identify lifetime mobility for those who did not move between Waves 1 and 2. For persons who moved between the two waves, it cannot be determined whether they resided near their place of birth prior to the move. One solution to this issue would be to use the confidential "state of birth" data collected in Wave 1 to code a "born in state of residence" variable.

Finally, while a retirement move is generally conceptualized as a long-distance move, the HRS does not ask whether the respondent plans to change states at retirement. This information is available indirectly for persons planning to both retire and move in the 2 years between waves. However, it is unavailable for persons planning retirement further in the future.

Suggestions for Additional Data and Future Modules

A significant omission from both Waves 1 and 2 is information on the duration of residence for home owners and renters who do not reside on ranches or in mobile homes. Since there are data on the date of purchase for home owners, this information can be used as a proxy measure for duration (although it may not be fully accurate). For renters there is no comparable proxy. In addition, the HRS currently asks how difficult it would be to adjust the respondent's housing to accommodate health limitations. An important follow-up question to include would be whether the respondent already has made any "adjustments". Housing adjustments may be important alternatives to moving for older persons (Deane 1990).

Both housing and migration studies frequently make use of questions on moving costs as well as reasons for moving. Bilsborrow and Akin (1982) include a measure of moving costs as one of their criteria for evaluating migration surveys. The explicit monetary costs and the psychological costs of moving are important determinants of mobility. The HRS offers several good measures of psychological costs related to ties to the current place of residence (relatives near, friends in neighborhood, church attendance, family availability) but no monetary measures. While detailed measures of time and monetary costs could be included in later waves, one option available through existing data would be to include a measure of distance from original to current place of residence. In addition, collecting information on reasons for moving would enable researchers to clearly distinguish between types of local moves.

The inclusion of questions (or perhaps an experimental module) on the respondent's migration history will provide valuable information on the HRS respondents. Migration and residential histories can be important research tools because they allow for the examination of present mobility in the context of previous mobility (Dahmann 1989). For the HRS, this data would be particularly useful studying a number of topics including the relationship between employment change and mobility or past mobility and retirement migration.

Migration Data Inherent in the Longitudinal Surveys

A number of variables commonly used in migration studies could be coded from unreleased HRS data. These include: whether a respondent changed state of residence, changed metropolitan area of residence, changed region of residence, and whether the respondent resides in an urban or rural location. It has been suggested that one of the key contributions that the HRS will offer the field of migration is the ability to study who moves "with whom" and who moves "to whom" as individuals age (Serow 1992). To better understand this process, the inclusion of data on the state of residence for family members or at least a coding of "parent (child, sibling) resides in same state as respondent" would be useful.

Ultimately, county FIPS codes (or zip codes) could be used to merge community-level variables (from the US census and other sources) with the individual-level HRS data. Such data has been released for other longitudinal data sets (e.g., the PSID and the youth cohort of the NLS) with the researcher's insurance of the anonymity of the respondents (Toney and Swearingen 1984). This would be an important step for migration studies using the HRS.

Conclusion and Final Suggestions

The most important thing that can be done to facilitate the use of the HRS data for housing and migration research is the inclusion of geographical variables in the current releases of Waves 1 and 2. Without such data, there is no way to determine the distance individuals moved and/or whether they moved to a different metropolitan job market. Such distinctions are of the ultimate importance for understanding the complex relationship between family, work status and mobility. However, migration studies are not the only studies that would benefit by allowing researchers access to the geographic information available for the HRS. Since the guidelines for many social service and health care programs vary by state, studies of program participation and utilization would benefit as well.

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Table 1. Pre-Retirement Family Life Cycle and Life Course Events by Type of Mobility

	<i>Residential Mobility</i>	<i>Migration</i>
Family life cycle:		
Child bearing/rearing	X	
Divorce or remarriage	X	
Empty nest	X	
Death of spouse	X	
Life course:		
Job change		X
Retirement		X

Table 2. Mobility distribution for respondents by household and work status change (unweighted)

	<i>Percent Movers</i>	<i>Total Number</i>
Household change:	16.90	2,248
Same work status	14.23	1,434
Different work status	21.62	814
No household change:	5.30	7,899
Same work status	8.40	4,986
Different work status	10.74	2,913

Source: HRS Wave 1 public release; HRS Wave 2 alpha release.

Table 3. Definitions of variables used in the analyses

<i>Variable</i>	<i>Description</i>
Actual Mobility	Respondent moved between Wave1 and Wave2
Prospective Mobility	Respondent anticipated moving between Wave 1 and Wave 2
Age	In years
Female	1 = female; 0 = male
White/other	Reference category
Black	1 = black; 0 = other
Hispanic	1 = Hispanic; 0 = other
Less than high school	Reference category
High school, some college	1 = high school degree; 0 = other
College	1 = college 2 to 4 yr. degree; 0 = other
Professional degree	1 = MA or professional degree; 0 = other
Work disability	1 = disability that limits work; 0 = other
Retired	1 = retired (Wave 1); 0 = other
Household income	Natural log of household income
Married	Reference category
Separated/divorced	1 = separated or divorced; 0 = other
Widowed	1 = widowed; 0 = other
Never married	1 = never married; 0 = other
No children at home	Reference category
Youngest child at home:	
18 or under	1 = youngest child home lt 18; 0 = other
19-24	1 = youngest child home 19-24; 0 = other
25 or older	1 = youngest child home 25+; 0 = other
Parent at home	1 = parent living in hh; 0 = other
Relatives in neighborhood	1 = relatives present; 0 = other
Friends in neighborhood	1 = many friends present; 0 = other
Neighborhood satisfaction	Range: 1(poor) to 5 (excellent)
Own home	1 = owns home or ranch; 0 = other
Own second home	1 = owns second home; 0 = other
Region	Census region of residence Wave 1: North (ref), Midwest, South, West
Household change	1 = household composition changed W1 to W2 0 = no change
Work status change	1 = work status changed W1 to W2 0 = no change

Table 4. Descriptive statistics for variables used in the analyses

<i>Variable</i>	<i>Mean</i>	<i>Std. Dev.</i>
Actual Mobility	0.11	0.27
Prospective Mobility	0.12	0.29
Age	55.51	4.81
Female	0.55	0.44
White/other	0.84	0.32
Black	0.10	0.27
Hispanic	0.06	0.20
Less than high school	0.23	0.37
High school diploma	0.55	0.44
College	0.14	0.31
Professional degree	0.08	0.24
Household income (log)	10.46	1.26
Work disability	0.20	0.35
Retired	0.14	0.31
Married	0.82	0.34
Separated/divorced	0.10	0.26
Widowed	0.05	0.19
Never married	0.03	0.14
No children at home	0.57	0.44
Youngest child at home:		
18 or under	0.16	0.32
19-24	0.15	0.31
25 or older	0.12	0.29
Parent at home	0.04	0.17
Relatives in neighborhood	0.34	0.42
Friends in neighborhood	0.53	0.44
Neighborhood satisfaction	4.41	0.83
Own home	0.84	0.33
Own second home	0.15	0.31
North	0.19	0.35
Midwest	0.29	0.40
South	0.34	0.42
West	0.17	0.33
Household change	0.22	0.36
Work status change	0.37	0.42
Household*Work status change	0.08	0.24

Table 5. Unstandardized coefficients for the logistic regression of prospective mobility and mobility (move vs. stay) on selected factors

<i>Variable</i>	<i>Prospective Mobility</i>		<i>Actual Mobility</i>	
			<i>Model 1</i>	<i>Model 2</i>
Age		-0.048***	-0.026***	-0.024**
Female		-0.180*	-0.002	0.030
White/other		(ref)	(ref)	(ref)
Black		0.712***	-0.554***	-0.559***
Hispanic	0.737***		-0.355*	-0.341*
Less than high school		(ref)	(ref)	(ref)
High school, some college		-0.452***	-0.042	-0.041
College		-0.596***	0.069	0.079
Professional degree		-0.764***	-0.004	0.035
Work disability		0.626***	0.124	0.105
Retired		-0.302*	0.165	0.173
Household income		-0.100***	-0.002	0.002
Married		(ref)	(ref)	(ref)
Separated/divorced		1.625***	0.119	0.069
Widowed		1.228***	-0.193	-0.278
Never married		1.455***	-0.461	-0.512*
No children at home		(ref)	(ref)	(ref)
Youngest child at home:				
18 or under		-0.032	0.118	-0.108
19-24		-0.156	0.183	-0.194
25 or older		-0.180	-0.127	-0.440**
Parent at home		-0.390*	-0.260	-0.442*
Relatives in neighborhood		0.008	-0.371***	-0.386***
Friends in neighborhood		-0.895***	-0.356***	-0.344***
Neighborhood satisfaction		-0.178***	-0.167***	-0.172***
Own home		---	-1.454***	-1.474***
Own second home		-0.318*	0.456***	0.443***
North		(ref)	(ref)	(ref)
Midwest		-0.549***	0.289* 0.294*	
South		-0.498***	0.424***	0.414***
West		-0.399***	0.773***	0.732***
Household change				0.843***
Work status change				0.345***
Intercept	3.116***		0.986	0.639
Chi-square	1227.77		567.16	669.33
N	10,147		10,147	10,147

* p < .05, ** p < .01, *** p < .001