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Mid-life Patterns and the Residential Mobility of Older Men

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SEDAP Research Paper No. 64

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ABSTRACT

There are numerous ways to better integrate the elderly into communities, many of which are contingent upon whether they will remain in their pre-retirement homes or make a move. Using a life course perspective, this paper establishes that residential history, social and family relations, socio-economic status, and health trajectories measured at mid-life, can be associated with moves in later life, either directly or indirectly through their effect on the mid-life residential trajectory. These relationships are examined with multi-variate Cox proportional hazards and Poisson regression models, using data from the Ontario Longitudinal Study of Aging. These findings suggest directions for future research to aid the development of public policy for the large "baby boom" cohorts who are just entering mid-life.

Population aging, coupled with a shift in public policy to a more community based model for long term care, present major challenges for local planners. Although there are numerous ways to better integrate the elderly into communities, many are contingent upon whether they will decide to age-in-place, make a local move, or migrate to a different community. Within the residential mobility literature there is an increasing awareness that moving decisions in later life reflect a life time of experiences. Using a life course theoretical framework, this research examines the relationship of a number of life trajectories at mid-life to residential mobility in later life, either directly, or indirectly through their effect on earlier residential trajectories.

Literature Review

A life course theoretical framework hinges on the proposition that, "the life course is structured by interlocking trajectories involving the scheduling of events and the management of resources and demands ... both within and across trajectories" (Elder, 1985:73). During mid-life, patterns of differentiation based on cumulative specialization become evident (Fuchs, 1983). Much of the research concerning the residential mobility of the elderly focuses on the impact of transitions during later life, such as retirement (*e.g.* Cribier, 1982), changes in health (*e.g.* Longino *et al.*, 1991; Speare *et al.*, 1991), and widowhood (*e.g.* Bradsher *et al.*, 1992). However, a review of the literature suggests that life course trajectories, specifically residential history, family and social relations, socio-economic status, and health trajectories, can be related to residential mobility in later life.

Residential History

There are two sources of divergence in residential trajectories which become important with age -

previous residential mobility patterns, and housing tenure. Previous residential transitions, both

in terms of moving frequency (Meyer & Speare, 1985), and duration of residence (Bradsher *el

al.*, 1992; Longino *et al.*, 1991; Speare & Goldscheider, 1987; Speare *et al.*, 1991) are often the

strongest predictors of subsequent mobility. These variables are argued to represent a divergence

of mover and stayer housing trajectories which Morrison (1971) found to be increasingly

apparent with time.

By mid-life, housing tenure represents a major divide in housing trajectories, effectively

separating households into two distinct housing markets with associated differences in life

chances (Kendig, 1990). Numerous studies have found housing tenure is a strong predictor of

the residential mobility of the elderly, with homeowners being more likely to remain in their

homes (*e.g.* Biggar, 1980; Longino *et al.*, 1991; Speare & Goldscheider, 1987; Speare *et al.*,

1991).

Family and Social Relations

Social support can have a buffering effect on life transitions, especially the less normative ones

which predominate mid- and later life (Cobb, 1979). Spouses, children, other kin, and friends are

important social resources for older people. Family transitions throughout life result in diverging

life course trajectories with different family ties and social support networks (Rosenthal &

Gladstone, 1994).

Transitions associated with marriage and children are important triggering events for

moves at all ages. Speare and Goldscheider (1987) found that marital status transitions can have

a profound short-term effect on residential mobility, but with time the type of marital status

change does not matter when age is statistically controlled. They did, however, observe a slight

tendency for the widowed, separated and divorced to have higher odds of mobility in the long run. In general, married elderly have been less residentially mobile that the non-married (*e.g.* Biggar, 1980; Meyer & Speare, 1985; Northcott, 1988; Wiseman & Peterson,1980). However, amenity migration shortly after retirement typically involves married couples (Cribier, 1982; Litwak & Longino, 1987; Meyer and Speare, 1985), who tend to be empty nesters (Rosenberg & Halseth, 1993).

With the development of chronic disability, proximity to kin, especially children, is an important motive for support seeking moves (Joseph & Hallman, 1996; Litwak & Longino, 1987; Meyer & Speare, 1985; Moore & Rosenberg, 1994; Silverstein, 1995; Wiseman, 1980). Proximity to children and kin has also been given as an important reason for staying (Clark & Wolfe, 1992). Research has shown that the number (Carter, 1988), gender (Speare *et al.*, 1991), and proximity of children (Meyer & Speare, 1985) can be important predictors of residential mobility in later life. However, Wiseman and Peterson (1980) found that the greater the number of local relatives, other than children, the more likely a person with a low ability to maintain independence is to move.

Extensive interaction with friends and neighbours can create strong local community ties such that the emotional costs of moving become prohibitive for older people, while those with few social moorings may find moving easier (Longino, 1992). In addition, an earlier pattern of disrupted social activities may result in fewer social adaptive resources for older people (Wigdor & Marshall, 1995), leading to a greater relative risk of moving as a coping strategy.

In combination, it may be that family, friends and social participation provide the elderly with social resources which make them more able to absorb change in later life with a minimum of disruption, facilitating either moving or staying.

Socioeconomic Status

Financial status provides a resource base which can serve to constrain or facilitate housing trajectories and associated residential mobility throughout the life course (Kendig,1990). However, the empirical evidence of a relationship between income and residential mobility of older people has been inconsistent. Those with few financial constraints have been found to be more likely to migrate for amenity reasons upon retirement (Meyer & Speare, 1985; Moore & Rosenberg, 1994). They also tend to move further (Biggar,1980; Northcott,1988), possibly due to the greater economic resources required to make long-distance relocations (Longino, 1992). Older people on lower fixed incomes who are concerned with the continued affordability of current housing have fewer choices (Moore & Rosenberg, 1994). The imputed income associated with home ownership can greatly reduce mobility of low income elderly (Kendig, 1990; Moore *et al.*, 1997). However, those with lower incomes are also more likely to reduce the temporal distance from their children (Silverstein,1995), possibly using social resources to compensate for low levels of economic resources. With these cancelling effects, it is not surprising that a number of researchers have found that income variables fail to distinguish stayers from movers (eg. Biggar,1980; Meyer & Speare, 1985; Speare *et al*., 1991).

Associated with the income of older people is their participation in the labour market before retirement. Those from lower social class groups, particularly manual blue collar occupations, have lower levels of personal resources (except social support) than higher class groups (Evandrou & Victor,1989). They have poorer health and are materially disadvantaged. Birenbaum (1984) has suggested that residential mobility can represent different status passages for different classes because housing can be an indicator of social status and an important source of self-esteem in later life. He argued that for retired working class elderly, status is associated

with the ability to maintain their way of life. When those of lower status occupational

backgrounds do move, it is expected to be at a later stage when it becomes difficult to maintain

their own household, while upper and middle class elderly have the opportunity for continued

high status when they move to amenity rich retirement communities. However, in one of the rare

studies of elderly migration which considered pre-retirement occupational class, Cribier (1982)

found no evidence of a relationship.

One final indicator of socio-economic status which may be related to the residential

mobility of the elderly is educational attainment. In addition to its close association with income

throughout the life course, education is thought to reflect a willingness to invest human capital to

obtain future returns (Fuchs, 1983). Henretta and Campbell (1976) have suggested that

education also has lagged effects on the well-being of the elderly through better planning and a

greater adaptive capacity. However, Biggar (1980) found that there is no overall association

between education and residential mobility. However, there is evidence that local movers have

the lowest level of education (Biggar, 1980; Meyer & Speare, 1985; Northcott, 1988), and

migrants had the highest (Biggar, 1980; Northcott, 1988), possibly also resulting in a cancelling

effect. It is difficult to determine to what extent this simply reflects the close association of

income with education. However education may have an independent effect if the more highly

educated have higher reserves or adaptive capacities.

Health

Health, in terms of functional ability, plays an important role in the life cycle approaches to the

study of residential mobility in later life. However, the relationship is not straightforward.

While good health can facilitate amenity migration upon retirement, poor health is thought to be

the main motivation for support seeking moves in later life (Litwak & Longino, 1987). Patrick (1980) has suggested that, at any given age, the relationship of health with the likelihood elderly moves may be U-shaped. Coupled with the negative relationship between health and age, he has argued that it becomes difficult to analyze the impact of health changes on migration for the elderly population overall. Regardless, there is empirical evidence of a relationship between health and elderly residential mobility, particularly in the older age groups (Moore & Rosenberg 1994; Moore *et al.*, 1997). Also, in addition to health status *per se*, declining health has been found to be associated with the likelihood of residential mobility for those over 70 years of age (Longino *et al.*, 1991; Speare *et al.*, 1991).

Summary

In sum, the connection between life course trajectories and the residential mobility choices of the elderly has usually been studied retrospectively, or through short-term panel studies which tend to focus on precipitating events or life course transitions associated with aging. Little attention has been given to the underlying life course trajectories in which these transitions are situated. Few researchers have been able to take a longer view of life course trajectories as they relate to residential mobility choices in later life. The literature suggests a number of factors for each of the life course trajectories, which could have direct effects on residential mobility in later life , or indirect effects through associations with residential history throughout mid-life. Mid-life residential history variables affecting residential mobility in later life would be moving propensity, duration of residence and housing tenure. Family and social relations variables of interest are marital status and changes in marital status, children, proximity of children and other kin, plus continuity and level of social participation. With regard to socio-economic status, there

is some evidence that mid-life income, occupation and education can be related to residential mobility in later life, although these variables are inter-related and difficult to disentangle, leading to ambiguous or contradictory findings. Lastly, there is evidence that health level and changes in health have a relationship with residential mobility in later life which reverses with time, also leading to ambiguous findings. The present paper examines the relationship between mid-life variables and the likelihood of moving in later life.

Methods

The data used for this analysis are from the Ontario Longitudinal Study of Aging, which began in 1959 with a stratified quota sample of 2000 employed, 45 year old men (Ontario, 1962). The sample was stratified by the Department of Public Welfare district, type of community (metropolitan, small urban and rural) and occupation. The sampling ratios for the districts varied from five to eight per cent. The subjects were interviewed in person, once a year (except 1977) until 1978, at which time they were 64 years of age. In 1990, a follow-up telephone survey was conducted with the remaining respondents, or their survivors. The sub-sample of the LSA data used for this analysis is composed of the 1063 respondents who were still in the study in the year of retirement or upon turning age 65, whichever came first.

The respondents at the beginning of the study, and those who remained in 1978, were found to be reasonably representative of the corresponding sub-group of the population, specifically Ontario males in the 1961 labour force, age 45-65 years of age (Forbes, *et al.*, 1989). However, the foreign-born and the single, never married were under-represented and the educational level was somewhat higher. The attrition throughout the survey was comparable to other longitudinal surveys, as were the distributions of a number of variables such as perceived

health (Forbes *et al.*, 1989; Thompson & Forbes, 1989). In addition, relationships between variables for the LSA data have not been found to be particularly sensitive to attrition (Thompson & Forbes, 1989). However, as a study of a single gender and birth cohort in a specific period of history, there are limitations on the generalizability of the findings and caution is required in the interpretation of the results.

Measurement

The measurement of the specific variables used in this analysis is summarized in Table 1. The operational definition of mid-life is the period between the beginning of the LSA and retirement or age 65, whichever came first. At age 65, there are major changes on legal rights and obligations, such as mandatory retirement and access to government benefits, that mark the beginning of a new stage in life, as does early retirement. Since the length of mid-life varied by individual, this was statistically controlled throughout the analysis.

The primary independent variable used for the life history analysis is time to the first move after retirement or upon turning age 65, whichever came first. Number of moves during mid-life was used as a second dependent variable to examine indirect effects of mid-life variables on residential mobility in later life through their association with mid-life residential history.

The independent mid-life variables can be generally grouped by the four life course trajectories. Briefly, the residential history measures included number of mid-life moves, years of residence, and housing tenure. The measures of family and social relations were marital status just prior to retirement/age 65, marital status change during mid-life, existence of children, period of empty nest, maximum contact with a non-household relative during mid-life, continuity of social relations, and a social relations index developed by Hirdes (1989). Mid-life socio-

economic status was measured in terms of income pattern, main occupation, and years of education. Finally, health rating over mid-life and the proportion of years during mid-life with declining health, were developed as measures of mid-life health patterns.

Interaction variables were also developed to examine whether relationships remained constant over time. Each interaction with time was entered as a time-dependent covariate in the form of the product of the variable and the natural logarithm of time in years. In the interest of parsimony, only time interactions that obtained a marginal level of statistical significance (p<.10) were retained in the model.

Analytical Procedures

Cox proportional hazards modelling was used for this analysis. It has the advantage of being able to exploit the potential of longitudinal data while taking attrition into account (Hirdes & Brown, 1994). The results can be interpreted in terms of the relative risk of moving given specific mid-life patterns, while adjusting for the effect of possible confounding factors. Moreover, it is possible to test whether the relative risk is constant over time by entering the interaction with time into the model as a time-dependent covariate. This can be a particularly useful part of the analysis if you have a theoretical reason to believe that the factors that are associated with an elderly move may change over time as suggested by Litwak and Longino's (1987) developmental model.

Log-linear Poisson regression was used to examine possible indirect effects of mid-life variables on residential mobility in later life through their association with mid-life residential history. This was necessary because, the number of moves during mid-life was counted data with a Poisson-like distribution of non-negative integers with an effective upper limit of infinity. The

number of moves is modelled as a function of an intercept plus the effects of the explanatory

variables with the length of mid-life (*L*) used as an "offset" (McCullagh & Nelder, 1983).

Findings

The mid-life patterns of the LSA subjects are summarized in Table 2. Their mid-life residential

histories were fairly stable with relatively few moves and a high home ownership rate. With

regard to family and social relations, a large proportion of them were married (93%). Most of

them had children, and many had at least one child still at home in late mid-life. They also

tended to have frequent contact with kin at some point over the mid-life period. Many

experienced changes in social activities during mid-life. The majority had varying incomes,

moving between income groups in a variety of ways throughout mid-life. Forty-seven per cent of

these men had blue collar occupations. About a quarter of them retired early. Finally, their

health showed signs of decline during mid-life, as one would expect.

Residential Mobility in Later Life

After retirement or turning age 65 whichever came first, 343 (32.3%) of the subjects moved

before they were lost to follow-up or died. Of those who moved, almost half of them did so in

the first three years (26.2% in the first year, 15.7% in the second, and 7.9% in the third). This is

consistent with the small peak in the migration rates of men around retirement age which is

frequently found in the Canadian literature (*e.g.* Moore & Rosenberg, 1994; Northcott, 1988).

Mid-life residential history had a strong association with residential mobility in later life,

as can be seen in Table 3. The number of moves made during mid-life by the LSA subjects was

found to have a positive association with the relative risk of moving after retirement/age 65. The

risk of making a move in later life increases with each additional mid-life move such that a man who made five moves is more that twice as likely to move in later life than one who made no moves. Also, the shorter the length of residence in their pre-retirement homes, the more likely they are to move later, although the shortest group (0 to 10 years) only have a marginally significant difference from those with more than 25 years (p<.10). Homeowners are significantly less likely to move (p<.001). The risk ratio indicates that the LSA subjects who did not own their homes were twice as likely to move in later life than homeowners.

Marital status change at some point during mid-life is not a significant (p>.10) contributor to the proportional hazards model of residential mobility. The resulting marital status at the end of mid-life only has a marginally significant (p<.10) association with the relative risk of moving in later life in a time dependent form. That is shortly after retirement or turning age 65, there is little difference between the marital status groups in their relative risk of moving. With time those men who were widowed, separated or divorced at the end of mid-life are increasingly more likely to move when other variables are taken into consideration (graphically represented in Figure 1). The single, never married group, if anything, becomes more similar to the married group with time.

When the empty nest measure was entered into a preliminary multi-variate model, there was a statistically significant association only for those without children, who were less likely to move than those who still had children in their home at the end of mid-life. Based on this finding, a simpler measure noting the existence of children was entered into the final model. Those with children are more likely to move than those without children when other variables are taken into consideration.

Looking at the maximum contact with kin during mid-life, those who saw kin on a

weekly basis at some point during mid-life are less likely to move in later life than those who saw kin monthly, and this relationship does not vary with time. However, there is some evidence ($p<.10$) that those who saw their kin less than monthly throughout mid-life are less likely to move - a pattern which becomes more pronounced with time, as can be seen in Figure 2.

Those respondents with a low continuity of social activity during mid-life - who had a relatively large proportion of mid-life years with changes in social activities - are more likely to move than those with a moderate level ($p<.05$). In addition, a low value in the social relations index which jointly considers marital status, number of children, family contact and social participation in early mid-life is associated with a greater relative risk of moving in later life ($p<.01$).

With regard to socio-economic status, there was little evidence of a relationship between mid-life income pattern and the relative risk of moving in later life ($p>.10$). Alternative measures of income patterns during mid-life, including income levels at particular times, obtained similar results. The subjects whose main occupation during working life was blue collar are less likely to move in later life (a risk ratio of .78) when compared with those with white collar occupations ($p<.05$). However, there is a statistically significant ($p<.05$) interaction with time in the association between length of mid-life (time of retirement) and the relative risk of moving in later life. The longer the mid-life (the later the time of retirement) the less likely the subjects are to move immediately following retirement and the more likely they are to move at a later time. The educational attainment of the LSA men has a negative association with moving in later life ($p<.01$). Higher levels of education are associated with a lower relative risk of moving.

Using self-reported health ratings as a measure of health trajectories, there is evidence

that those who reported poor health early in mid-life are more likely to move in later life than those with consistently good health ratings throughout mid-life (p<.01). Those with early poor health are half again as likely to move in later life as are those with good health, once other variables are taken into consideration. As a measure of the stability of health during the mid-life period for the LSA respondents, the proportion of mid-life years with declining health has an association with the relative risk of moving which changed direction with time (p<.01). Those with a high proportion of years with declining health are half as likely to move shortly after retirement as are those with a low proportion, when the period of onset of poor health is controlled along with the effects of other variables in the multi-variate model. However, with time this group with a history of unstable health are increasingly more likely to move as can be seen in Figure 4.

Indirect Effects Through Mid-life Residential Mobility

The results of the multi-variate Poisson regression model of the number of mid-life moves (Table 4) indicate that length of residence prior to mid-life is negatively associated with the number of mid-life moves (p<.001). Hence, length of residence, particularly that of long duration may be having an indirect effect on the relative risk of moving in later life through its association with the number of mid-life moves. There is also a strong negative association between home ownership and the number of mid-life moves (p<.001).

Marital change during mid-life has a positive association with the number of mid-life moves, as one would expect given the associated formation and dissolution of households. Hence, marital status change may have an indirect relationship with the relative risk of moving in later life through its association with the number of moves during mid-life. However, there is

little indication of an indirect effect for the resulting marital status at the end of mid-life.

There is a positive association between those whose children left home prior to mid-life and the number of mid-life moves, suggesting that there may be an indirect effect on residential mobility in later life.   There is also evidence that there may be an indirect relationship between the frequency of family contact and the relative risk of moving in later life. It would appear that both those with relatively frequent and with relatively infrequent contact with family during mid-life are less likely to move in mid-life and in later life, than those with moderate contact. However, a statistically significant association is not found between the continuity of social activity or the level of social relations and the number of moves made during mid-life ($p > .10$).

Turning to socio-economic status, there is little evidence of an association between income and the number of moves during mid-life. Similarly consistent with patterns in later life, those with blue collar occupations made fewer moves during mid-life. Also, the higher the educational attainment of the subjects the fewer moves they make during mid-life.

No relationship is found between the pattern of self-reported health ratings during mid-life and the number of moves during mid-life ($p > .10$). Neither is one found between the proportion of years with declining health (mid-life health stability) and the number of moves during mid-life ($p > .10$).

Discussion

The results of this longitudinal analysis of a single birth cohort of Ontario men demonstrate that life course trajectories measured during mid-life can be associated with residential mobility in later life either directly, or indirectly through their relationship with mid-life residential history. As such, they support the need for a shift from a developmental approach which tends to focus

on transitions in later life that precipitate residential mobility, to a broader life course theoretical perspective which places these transitions within the context of life course trajectories. However, it should be noted that, as a study of a single gender and birth cohort in a specific period of history, the generalizabilty of the findings from this analysis is limited, and caution is required in the interpretation of the results. Recognizing these limitations, there are a number of findings in each of the trajectories which warrant further discussion.

 Residential mobility in later life represents the continuation of life-long housing trajectories, hence it is to be expected that it has a strong association with earlier residential histories. Moreover, each of the measures of residential history has an independent effect on the relative risk of moving in later life. These findings suggest that both a history of moving and the recency of the last move are important and should be included in models of residential mobility for older people. This has rarely been the case, possibly because data on moving propensity have not been available. As longitudinal studies become available, this should not longer be a problem.

Turning to family and social relations, it is not surprising that LSA respondents who have children are more likely to make a first move in later life. One of the main reasons frequently given by the elderly for moving is to be closer to children, regardless of distance (Joseph & Hallman, 1996; Meyer & Speare, 1985). However, it is interesting that there is some indication of a time interaction for the LSA respondents who were widowed, separated or divorced at the end of mid-life (p<.10) but not for the single group. Throughout later life the single, never married group were similar to the married, much as was the case in Speare & Goldscheider's study (1987). Although both of the non-married groups had no spouse to provide primary care, it is the widowed, separated or divorced group who are increasingly more likely to move with time

in later life, even when the existence of children is taken into consideration. This suggests that previously married men may be increasingly vulnerable, or reluctant to live alone, during later life regardless of the time at which they entered this status, especially when one considers that the LSA subjects were approximately 76 years old at the end of the study and just entering the age range in which large increases in disability are common.

It is also interesting that those who had monthly contact with kin during mid-life are more likely to move than those with either more or less contact. Possibly interaction with kin is important to individuals with monthly contact but factors such as distance or busy schedules have inhibited more frequent face-to-face interaction. Under these conditions, declining functional ability could be a motivation to move closer to the kin with whom they regularly interact and seek social support. The subjects who had more frequent contact with kin, possibly because they lived in close proximity, made fewer moves during mid-life and are less likely to move in later life. Those who had less than monthly contact with kin, may not have a strong kinship network upon which to draw support, and have compensated through social interaction with other members of the local community (Rosenthal & Gladstone, 1994). In general, those LSA subjects who were more socially integrated within the local community during mid-life as indicated by frequent contact with kin, moderate to high continuity of social activity, and a moderate to high score on the social relations index were less likely to move in later life.

Financial constraints or pressures are frequently argued to result in a socio-economic selectivity in the residential mobility patterns of the elderly (*e.g.* Biggar, 1980; Longino, 1992; Meyer & Speare, 1985). The results of the present analysis indicate that mid-life income does not distinguish between movers in later life and those who age-in-place. This is not unexpected if there is a cancelling effect due to high incomes facilitating moves for some, while affordability

problems pressure others with low incomes to move (Biggar, 1980; Wiseman 1980). However, LSA subjects who were blue collar workers are less likely to move in both mid- and later life than are those with white collar occupations. This is consistent with Evandro and Victor's (1989) finding that those with blue collar occupations have lower levels resources, which could make moving difficult. A similar result would also be expected using Birenbaum's (1984) argument that aging-in-place helps working class elderly maintain their social status. Further research into the relationship between class and residential mobility in later life is required to examine the relative merits of these explanations.

An unexpected finding was that the higher the educational attainment of LSA subjects the more likely they are to age-in-place. This is contrary to the expectation that education would have a slightly positive or no effect on residential mobility in later life (Biggar, 1980). For example, Northcott (1988) found that university-educated older men in Canada were the most mobile group as compared with those with less education. Possible explanations of the different results in the present analysis are associated with attrition, the distance of the move, and/or seasonal migration patterns. Although Maxwell (1995) found no evidence of a relationship between education and the loss of LSA subjects due to a move, men making moves out of Ontario during mid-life were dropped from the study, resulting a longitudinal sample with a history of shorter distance moves. Also, much of the literature, considers intra-provincial or intra-state moves to be local. If one excludes the inter-state movers from Biggar's (1980) analysis, the educational attainment of stayers is higher than that of movers, as is the case in the present analysis of moves which are predominantly intra-provincial. Finally, elderly residents of southern Ontario already live in one of the most desirable regions of Canada, and those wishing to move to amenity rich locations with warmer climates tend to go to the American "sun belt"

states. However, the different health care system in the United States discourages permanent migration. Seasonal migrants to Florida from Canada have above average levels of education (Tucker *et al.*, 1988), which could be providing them with a greater adaptive capacity, facilitating the strategic and complex decision processes associated with seasonal migration (Marshal *et al.*, 1989). The LSA respondents appear to have a similar pattern to that of the Parisians studied by Cribier (1982), who found that the more highly educated who lived in desirable districts of Paris and could afford to take long holidays in amenity seaside locations, were less likely to make a permanent migration. Unfortunately, the LSA respondents were not asked about their seasonal migration patterns.

A second unexpected finding was that length of mid-life, a control variable which is also a measure of early retirement, has a relationship with residential mobility which reversed with time. Few researchers studying the residential mobility of the elderly have explicitly examined the age at retirement, possibly because this information was not readily available. Heaton and his associates (1980) observed that men age 45-64 who were retired were more likely to migrate to amenity rich areas than were retirees 65 years of age or over, but age at retirement was not known. In the present analysis, not only are early retirees more likely to move shortly after retirement but they also are increasingly less likely to move with time as compared with those retiring at a later age. Those making an early retirement would probably have the economic resources both to retire and to facilitate an amenity move. Following the logic of Litwak and Longino's (1987) developmental model, there would also be a longer period after retirement before an age related decline in health would lead to the need for an assistance move for this group. Many of those who remained in the work force longer may have done so because they could not afford to leave before mandatory retirement age. At retirement, they would have been

older and may have had fewer health or economic resources with which to make an amenity move. Moreover, there would be a shorter period of time after retirement before disability set in and they began to make support seeking moves. In combination, these trends could explain a relationship which reverses with time, however period effects could also play a part.

Health trajectories are of great importance to the interpretation of the findings for each of the trajectories. Hence, it is not surprising that both measures of the mid-life health have independent associations with the relative risk of moving in later life. While those with an early onset of poor health are more likely to move in general, those with a high proportion of mid-life years with declining health are less likely to move shortly after retirement. Possibly, those men with less stable mid-life health histories are more conservative in their mobility choices in later life because of an inability to predict future health, or an anticipation of a rapid decline, which makes them less willing or able to cope with the added stress of a move, until the need for assistance makes a move unavoidable. Those with more stable health, even if it is poor, may be better able to assess the relative costs and benefits of an earlier move. Importantly, these findings are consistent with U-shaped nature of the relationship between health and moving in later life suggested by Patrick (1980). The advantage of a survival analysis is that, with the inclusion of a time interaction, there is no cancelling effect and one is able to examine the effects of this reversing trend over time within the same model. However, because of the 12 year gap in the LSA data, between age 64 and age 76, it was not possible to fully test Patrick's hypothesis by including health transitions during later life in the model. As new longitudinal studies become available, it will be possible to examine the relative contributions of both life course trajectories measured at earlier points and the transitions during later life, to the residential mobility decisions of the older people.

The results of this study suggest that further research involving a comparable study with a larger sample size, including both men and women from different birth cohorts, over a longer period of time in later life and a larger geographical area, with more information on income, period of empty nest, seasonal migration, and post-retirement characteristics around the time of moves, would be useful both in the evaluation of the relative merits of alternative explanations, and the extent to which the present findings can be generalized to other birth and gender cohorts.

In the absence of similar longitudinal studies on which to base a comparison, this analysis provides evidence that mid-life patterns can be associated with residential mobility choices in later life and this finding in itself has important implications for planning for an aging population. The key is the adoption of an expanded life course perspective on the residential mobility of older people, which considers life course trajectories in addition to transitions in later life. With the large baby boom cohorts just entering mid-life, it will be possible to start examining their life course patterns in comparison with the LSA cohort. Rather than assuming that the baby boomers are just more of the same, policy planners can begin to look for similarities and differences between the cohorts which could influence the relationships between life course trajectories and residential mobility in later life.   As more longitudinal studies become available, the relationships for different gender and birth cohorts can be examined to better understand the influence of age, period and cohort on the residential mobility choices of older men and women.

References

Biggar, J.C. (1980). Who moved among the elderly, 1965 to 1970: A comparison of types of older movers. *Research on Aging 2* (1), 73-91.

Birenbaum, A. (1984). Aging and housing: a note in how housing expresses social status. *Journal of Housing for the Elderly 2* (1), 33-40.

Bradsher, J.E., Longino, C.F.,Jr., Jackson, D.J., & Zimmerman, R.S. (1992). Health and geographic mobility among the recently widowed. *Journal of Gerontology 47* (5), S261-S268.

Carter, J. (1988). Elderly local mobility: An examination of determinants derived from the literature. *Research on Aging 10* (3), 399-419.

Clark, R.L., & Wolf, D.A. (1992). Proximity of children and elderly migration. In A. Rogers, W.H. Frey, P. Rees, A. Spear, Jr. & A. Warnes (Eds.), *Elderly Migration and Population Redistribution: A Comparative Study* (pp. 77-96). London: Belhaven Press.

Cobb, S. (1979). Social support and health through the life course. In M.W. Riley (Ed.), *Aging from Birth to Death: Interdisciplinary Perspectives* (pp. 93-106). Boulder, Colorado: Westview Press.

Cribier, F. (1982). Aspects of retired migration from Paris: an essay in social and cultural geography. In A. M. Warnes (Ed.), *Geographical Perspectives on the Elderly* (pp. 111-137). Chichester: John Wiley & Sons.

Elder, G.H., Jr. (1985). Perspectives on the life course. In G.H. Elder, Jr. (Ed.), *Life Course Dynamics: Trajectories and Transitions, 1968-1980*, (pp. 23-49). Ithaca, New York: Cornell University Press.

Evandrou, M., & Victor, C.R. (1989). Differentiation in later life: Social class and housing tenure cleavages. In B. Bytheway, T. Keil, P. Allatt, & A. Bryman (Eds.), *Becoming and Being Old: Sociological Approaches to Later Life* (pp. 104-120). London: Sage Publications.

Forbes, W. F., McPherson B.D., & Shadbolt-Forbes M.A.. (1989). The validation of longitudinal studies: The case of the Ontario Longitudinal Study of Aging (LSA). *Canadian Journal on Aging 8* (1), 51-67.

Fuchs, V. (1983). *How We Live*. Cambridge, Massachusetts: Harvard University Press.

Heaton, T.B., Clifford, W.B., & V. Fuguitt, G.V. (1980). Changing patterns of retirement migration: Movement between metropolitan and nonmetropolitan areas. *Research on Aging 2* (1), 93-104.

Henretta, J.C., & Campbell, R.T. (1976). Status attainment and status maintenance: A study of stratification in old age. *American Sociological Review 41* (12), 981-992.

Hirdes, J.P. (1989). *An Examination of Factors Associated with the Maintenance of Physical Well-Being Among Middle-Aged Males*. Ph.D. dissertation. University of Waterloo.

Hirdes, J.P., & Brown, K.S. (1994). The statistical analysis of event histories in longitudinal studies of aging. *Canadian Journal on Aging 13* (3), 332-352.

Joseph, A.E., & Hallman, B.C. (1996). Caught in the triangle: The influence of home, work and elder location on work-family balance. *Canadian Journal on Aging 15* (3), 393-412.

Kendig, H. L. (1990). A life course perspective on housing attainment. In D. Myers (Ed.), *Housing Demography: Linking Demographic Structure and Housing Markets* (pp. 133-156). Madison, Wisconsin: The University of Wisconsin Press.

Litwak, E., & Longino, C.F., Jr. (1987). Migration patterns among the elderly: A developmental perspective. *The Gerontologist 27* (3), 266-272.

Longino, C.F., Jr. (1992). The forest and the trees: Micro-level considerations in the study of geographic mobility in old age. In A. Rogers, W.H. Frey, P. Rees, A. Spear, Jr., & A. Warnes (Eds.), *Elderly Migration and Population Redistribution: A Comparative Study* (pp. 23-34). London: Belhaven Press.

Longino, C.F., Jr., Jackson D.J., Zimmerman, R.S., & Bradsher, J.E. (1991). The second move: Health and geographic mobility. *Journal of Gerontology: Social Sciences 46* (4), S218-S224.

Marshall, V.W., Longino, C.F., Jr., Tucker R., & Mullins, L. (1989). Health care utilization of Canadian snowbirds: An example of strategic planning. *Journal of Aging and Health 1* (2), 150-168.

Maxwell, C. J. (1995). *An Examination of Environmental, Socioeconomic and Behaviourial Risk Factors for Alzheimer's Disease and Impaired Mental Functioning Among Elderly Persons in Ontario*. Ph.D. dissertation. University of Waterloo.

McCullagh, P., & Nelder, J.A. (1983). *Generalized Linear Models*. London: Chapman & Hall.

Meyer, J. & Speare, A., Jr. (1985). Distinctively elderly mobility: Types and determinants. *Economic Geography 61*, 79-88.

Moore, E.G., & Rosenberg, M.W. (1994). Residential mobility and migration among Canada's elderly. In V. Marshall & B. McPherson (Eds.), *Aging: Canadian Perspectives* (pp. 51-69). Peterborough, Ontario: Broadview Press.

Moore, E.G., Rosenberg, M.W., & McGuinness, D. (1997). *Growing Old in Canada:*

Demographic and Geographic Perspectives. Statistics Canada catalogue no. 96-321-MPE No.1. Toronto: ITP Nelson, International Thomson Publishing.

Morrison, P.A. (1971). Chronic movers and the future redistribution of population: A longitudinal analysis. *Demography 8* (2), 171-184.

Northcott, H.C. (1988). *Changing Residence: The Geographic Mobility of Elderly Canadians*. Toronto: Butterworths.

Ontario. (1962). *Long-Term Study of Aging. Health Status. Highlight Report Number 1*. April. Toronto: Ontario Department of Public Welfare.

Patrick, C.H. (1980). Health and migration of the elderly. *Research on Aging 2* (2), 233-241.

Rosenberg, M.W., & Halseth, G. (1993). *Recreational Home Conversion in Canada*. Ottawa: Canada Mortgage and Housing Corporation.

Rosenthal, C., & Gladstone, J. (1994). Family relationships and support in later life. In V.W. Marshall & B.D. McPherson (Eds.), *Aging: Canadian Perspectives* (pp. 158-174). Peterborough, Ontario: Broadview Press.

Silverstein, M. (1995). Stability and change in temporal distance between the elderly and their children. *Demography 32* (1), 29-45.

Speare, A., Jr., Avery, R., & Lawton, L. (1991). Disability, residential mobility and changes in living arrangements. *Journal of Gerontology: Social Sciences 46* (3), S133-S142.

Speare, A., Jr., & Goldscheider, F.K. (1987). The effects of marital status change on residential mobility. *Journal of Marriage and the Family 49* (2), 455-464.

Thompson, M.E., & Forbes, W.F. (1989). The problem of low response rates in surveys of the elderly. *Mathematical Scientist 14*, 127-137.

Tucker, R. D., Marshall, V.W., Longino, C.F., Jr., & Mullins, L.C. (1988). Older anglophone Canadian snowbirds in Florida: A descriptive profile. *Canadian Journal on Aging 7* (3), 218-232.

Wigdor, B.T., & Marshall, V.W. (1995). Public policy implications. In *Contributions to Independence Over the Adult Life Course*, (pp. 121-127). Toronto: Centre for Studies of Aging, University of Toronto.

Wiseman, R.F. (1980). Why older people move: Theoretical issues. *Research on Aging 2* (2), 141-154.

Wiseman, R. F., & Peterson, T. (1980). Elderly migration and independence maintenance. *East Lakes Geographer*, 6-16.

Table 1
Variables derived from the Longitudinal Study of Aging for proportional hazards and Poisson regressions

Dependent Variables

Time to first move	years after retirement/age 65 to first move
Number of mid-life moves	number of moves during mid-life

Residential History Variables

Number of mid-life moves	number of moves during mid-life
Years of residence	(dummied years in pre-retirement/age 65 home)
0-10	1= 0 to 10 years; 0= other
11-25	1= 11 to 25 years; 0=other
(26+)	reference category
Prior length of residence	years of residence in home before mid-life period
Housing tenure	housing tenure of pre-retirement/age 65 home
	1= owned; 0= other

Family and Social Relations Variables

Marital status change	changes in marital status during mid-life
	1= some; 0= none
Marital status	(dummied marital status just prior to retirement/age 65)
single	1= single, never married; 0= other
(married)	reference category
widowed, separated, divorced	1= widowed, separated, divorced; 0= other
single x ln time	interaction of single with logarithm of time in years
widowed etc. x ln time	interaction of widowed etc. with logarithm of time
Children	number of children
	1=some; 0=none
Period of empty nest	(dummied period of empty nest)
always empty /no children	1= no children; 0= other
prior to mid-life	1= prior to age 45; 0=other
early mid-life	1= between ages 45 and 50; 0= other
intermediate mid-life	1= between ages 50 and 55; 0= other
(late mid-life, if at all)	reference category
Maximum family contact	(dummied maximum contact with a non-household relative during mid-life)
<monthly	1= less than monthly; 0=other
(monthly)	reference category
weekly	1= at least weekly; 0=other
<monthly x ln time	interaction of less than monthly with logarithm of time
weekly x ln time	interaction of at least weekly with logarithm of time

Table 1 continued

Family and Social Relations Variables (continued)

Continuity of social activities	(dummied proportion of years during mid-life with no change in social activity)
low	1= lowest third; 0= other
(medium)	reference category
high	1=highest third; 0= other
Social relations index	(dummied index based on marital status, children, memberships and family contact)
low	1= lowest decile; 0= other
(moderate)	reference category
high	1= highest decile; 0= other

Socio-Economic Status Variables

Income	(dummied income pattern during mid-life)
low	1= consistently lowest third; 0= other
(moderate)	reference category, consistently middle third
high	1=consistently highest third; 0=other
variable	1=varied ; 0=other
missing	1=information missing; 0=other
Occupation	(dummied main occupation during mid-life)
(white collar)	reference category
blue collar	1=blue collar; 0= other
farm	1=farm; 0=other
Years of education	number of years of formal education

Health Trajectory Variables

Health rating	(dummied health pattern during mid-life)
(good)	reference category, consistently good
later poor	1= poor after age 50 but during mid-life; 0=other
early poor	1= poor age 45 to 50; 0= other
Years with declining health	(dummied proportion of years during mid-life with declining health)
(low)	reference category
moderate	1= middle third; 0= other
high	1= highest third; 0= other
moderate x ln time	interaction of middle third with logarithm of time
high x ln time	interaction of highest third with logarithm of time

Additional Independent Variables

Length of mid-life	number of years in mid-life period (early retirement)
length x ln time	interaction of length of mid-life with logarithm of time

Table 2

Distribution of mid-life characteristics among Ontario Longitudinal Study of Aging men

Mid-life Variable	Percentage[1]	(n)
Number of mid-life moves		
0	55.7	(592)
1	24.7	(263)
2	10.1	(107)
3+	9.5	(101)
Years of residence		
0-10	26.8	(285)
11-25	37.6	(400)
26+	35.6	(378)
Housing tenure		
owner	88.9	(945)
other	11.1	(118)
Marital status change		
some	13.5	(144)
none	86.5	(919)
Marital status		
single	1.8	(19)
married	92.9	(987)
widowed, separated, or divorced	5.4	(57)
Children		
some	91.2	(969)
none	8.8	(94)
Period of empty nest		
always empty (no children)	8.8	(94)
prior to mid-life	2.1	(22)
early mid-life	5.7	(61)
intermediate mid-life	20.5	(218)
late mid-life, if at all	62.8	(668)
Maximum family contact		
< monthly	5.6	(59)
monthly	10.8	(115)
weekly	83.6	(889)

[1]   Percentages may not add up to 100 due to rounding

Table 2   continued

Mid-life Variable	Percentage	(n)
Continuity of social activity		
low	39.3	(418)
moderate	22.6	(240)
high	38.1	(405)
Social relations index		
lowest decile	11.9	(127)
moderate	77.2	(821)
highest decile	10.5	(112)
missing	0.3	(3)
Income		
low	8.1	(86)
moderate	3.2	(34)
high	8.6	(91)
variable	78.6	(832)
missing	1.9	(20)
Occupation		
white collar	45.2	(480)
blue collar	47.1	(501)
farm	7.7	(82)
Years of education		
0-8	36.0	(383)
9-13	53.2	(566)
14+	10.5	(112)
missing	0.2	(2)
Health rating		
good	45.2	(481)
later poor	34.1	(363)
early poor	20.6	(219)
Years with declining health		
low	20.5	(218)
moderate	42.1	(447)
high	37.4	(398)
Length of mid-life		
10-18	24.5	(260)
19+	75.5	(803)

Table 3

Multi-variate proportional hazards model for time to a residential move after retirement/age 65 by mid-life residential history, family and social relations, socio-economic status and health trajectory variables, plus length of mid-life

Mid-life Variable	Parameter Estimate	Standard Error	Risk Ratio	95% Confidence Limits
Number of mid-life moves	**.152****	.050	**1.16**	1.06 - 1.28
Years of residence				
0-10	**.350†**	.188	**1.42**	0.98 - 2.05
11-25	**.291***	.151	**1.34**	1.00 - 1.80
26+ (ref)			1.00	
Housing tenure				
owner	**-.752*****	.167	**0.47**	0.34 - 0.65
other (ref)			1.00	
Marital status change	-.094	.185	0.91	0.63 - 1.31
Marital status				
single	-1.272	1.012	0.28	0.04 - 2.04
(single x ln time)	.420	.602	1.52	0.47 - 4.95
married (ref)			1.00	
widowed, separated or divorced	-.430	.407	0.65	0.29 - 1.45
(widowed etc. x ln time)	**.463†**	.243	**1.59**	0.99 - 2.56
Children				
some	**.478***	.243	**1.61**	1.00 - 2.60
none (ref)			1.00	
Maximum family contact				
< monthly	-.176	.423	0.84	0.37 - 1.92
(< monthly x ln time)	**-.623†**	.347	**0.54**	0.27 - 1.06
monthly (ref)			1.00	
weekly	**-.520***	.252	**0.59**	0.36 - 0.97
(weekly x ln time)	.058	.174	1.06	0.75 - 1.49
Continuity of social activity				
low	**.319***	.148	**1.38**	1.03 - 1.84
moderate (ref)			1.00	
high	.105	.158	1.11	0.82 - 1.51

Table 3 continued

Mid-life Variable	Parameter Estimate	Standard Error	Risk Ratio	95% Confidence Limits
Social relations index				
lowest decile	**.503****	.174	**1.65**	1.18 - 2.33
moderate (ref)			1.00	
highest decile	.017	.193	1.02	0.70 - 1.49
Income				
low	.078	.350	0.93	0.47 - 1.84
moderate			1.00	
high	.304	.355	1.36	0.68 - 2.72
variable	-.165	.300	0.85	0.47 - 1.53
missing	-.763	.554	0.47	0.16 - 1.38
Occupation				
white collar (ref)			1.00	
blue collar	**-.248***	.128	**0.78**	0.61 - 1.00
farm	.238	.206	1.27	0.85 - 1.90
Years of education	**-.062****	.023	**0.94**	0.90 - 0.98
Health rating				
good (ref)			1.00	
later poor	.190	.132	1.21	0.93 - 1.57
early poor	**.390****	.153	**1.48**	1.09 - 2.00
Years with declining health				
low (ref)			1.00	
moderate	**-.491***	.247	**0.61**	0.38 - 0.99
(moderate x ln time)	.256	.174	1.29	0.92 - 1.82
high	**-.750****	.254	**0.47**	0.28 - 0.78
(high x ln time)	**.433****	.173	**1.54**	1.10 - 2.16
Length of mid-life	**-.087***	.037	**0.92**	0.85 - 0.99
(length x ln time)	**.056***	.027	**1.06**	1.00 - 1.12

† p<.10; ***** p<.05; ****** p<.01; ******* p<.001

Table 4

Multi-variate Poisson regression model for number of mid-life moves by residential history, family and social relations, socio-economic status and health trajectory variables, off-set by length of mid-life

Mid-life Estimate	Parameter Standard Error	Asymptotic	Risk Ratio	95% Confidence Variable Limits
Prior length of residence	**-.028***	.005	**0.97**	0.96 - 0.98
Housing tenure				
owner	**-1.181***	.079	**0.31**	0.26 - 0.36
other (ref)			1.00	
Marital status change				
some	**.319**	.100	**1.38**	1.13 - 1.67
none (ref)			1.00	
Marital status				
single	.389	.246	1.48	0.91 - 2.39
married (ref)			1.00	
widowed, separated, or divorced	-.114	.156	0.89	0.66 - 1.21
Period of empty nest				
always empty (no children)	.179	.137	1.20	0.91 - 1.56
prior to mid-life	**.412**	.163	**1.51**	1.10 - 2.08
early mid-life	.023	.155	1.02	0.76 - 1.39
intermediate mid-life	.065	.087	1.07	0.90 - 1.27
late mid-life, if at all (ref)			1.00	
Maximum family contact				
< monthly	**-.362***	.170	**0.70**	0.50 - 0.97
monthly (ref)			1.00	
weekly	**-.306**	.102	**0.74**	0.60 - 0.90
Continuity of social activity				
low	.110	.091	1.12	0.93 - 1.33
moderate (ref)			1.00	
high	-.138	.095	0.87	0.72 - 1.05
Social relations index				
lowest decile	-.188	.118	0.83	0.66 - 1.04
moderate (ref)			1.00	
highest decile	.113	.118	1.12	0.89 - 1.41

Table 4 continued

Mid-life Estimate	Parameter Standard Error	Asymptotic	Risk Ratio	95% Confidence Variable Limits
Income				
low	-.038	.254	0.96	0.59 - 1.58
moderate (ref)			1.00	
high	.391	.247	1.48	0.91 - 2.40
variable	.173	.214	1.19	0.78 - 1.81
missing	.266	.302	1.30	0.72 - 2.36
Occupation				
white collar (ref)			1.00	
blue collar	**-.318***	.079	**0.73**	0.62 - 0.85
farm	.048	.170	1.05	0.75 - 1.46
Years of education	**-.047***	.014	**0.95**	0.93 - 0.98
Health rating				
good (ref)			1.00	
later poor	.068	.080	1.07	0.92 - 1.25
early poor	-.091	.103	0.91	0.75 - 1.12
Years with declining health				
low (ref)			1.00	
moderate	.057	.098	1.06	0.87 - 1.28
high	-.019	.103	0.98	0.80 - 1.20
Intercept	**-1 .280***	.316	**0.28**	0.15 - 0.52

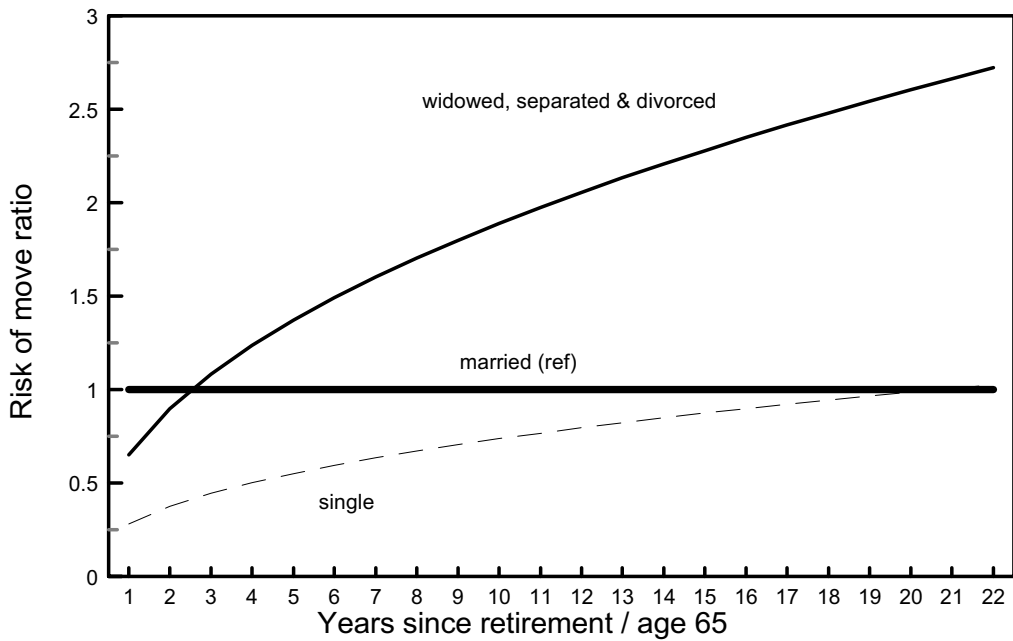† p<.10; ***** p<.05; ****** p<.01; ******* p<.001

Figure 1   Adjusted risk of move after retirement/age by marital status at the end of mid-life and by years since retirement/age65
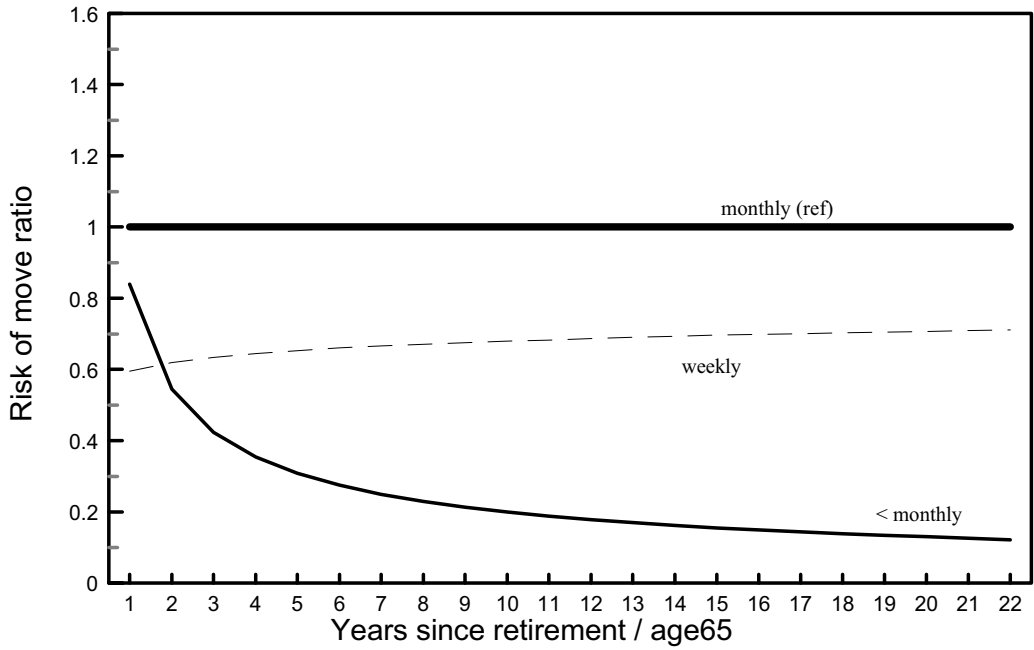

Figure 2   Adjusted risk of move after retirement/age by maximum family contact and by years since retirement/age65
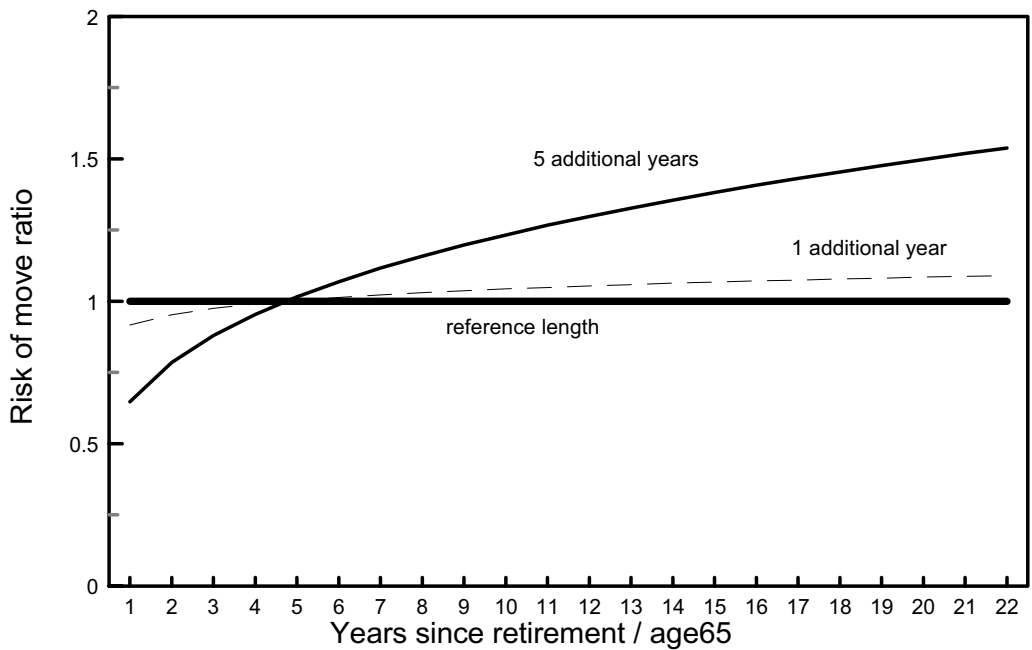
Figure 3   Adjusted risk of move after retirement/age by length of mid-life and by years since retirement/age65
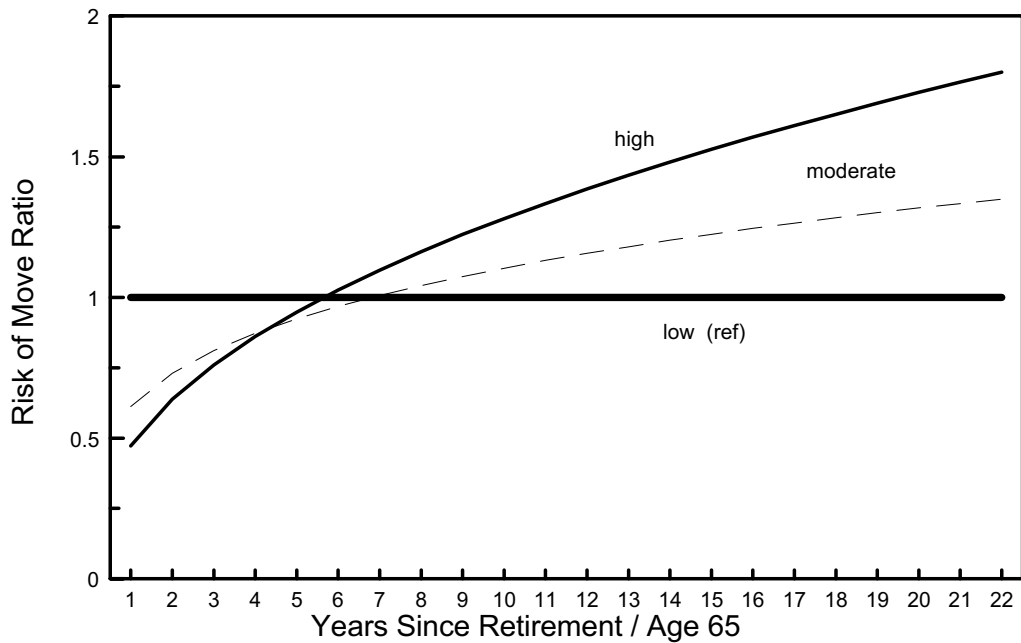

Figure 4   Adjusted risk of move after retirement/age by proportion of mid-life years with declining health and by years since retirement/age65

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