

EFFECTS OF CONDITIONS AND SATISFACTIONS

Sun-Young Lee, Jeanette A. Brandt, and Joan R. McFadden

Abstract

The purpose of this study was to determine a causal relationship between constraints, conditions, satisfactions related to housing, and propensity to move at retirement using Morris and Winter's Housing Adjustment Model. Data were analyzed for 1,175 preretirees in Oregon and Utah. Path analysis revealed that propensity to move was directly influenced ($p < .05$) by seven constraints -- age, level of education, gender, marital status, health status, location, and income sources after retirement -- and four intervening variables -- tenure, city condition, neighborhood satisfaction, and housing satisfaction. Suggesting a better understanding of retirement housing decisions could better equip communities as they facilitate to maximize the possibility of suitable, affordable, and supportive housing environments for the largest number of elderly people.

Problem Statement

Retirement planning is one of the most important activities that occurs in the adult years. Now more attention is focused on the preretiree population because the 21st century will be the first period when the elderly will be the fastest growing segment of the U.S. population.

The first of the baby boomers, those individuals born from 1946 to 1964, will turn 50 in 1995 and turn 65 in 2010. The U.S. Bureau of Census projects that men and women age 65 and over will comprise 14% of the population by 2010. This percentage will rise to 17% by 2020 and to 21% by 2030 (U.S. Bureau of Census, 1984). With one in every five Americans being aged in the 21st century, concerns of the elderly are going to be major feature of social policy (Cockerham, 1991).

Housing and residential satisfaction for the increasing life span are essential parts of pre-retirement planning. According to Soldo and Brotman (1981), the majority of the elderly live in the community rather than in institutions. The heterogeneity of the elderly requires a wide variety of living arrangements to meet their diverse needs. The evolving needs of the elderly are certain to cause changes in housing demands (Malroux, 1993). Housing the elderly is a major public concern in the U.S. As the U.S. population ages, retirement migration is also becoming more common at the national level (Flynn, Longino, Wiseman, & Biggar, 1985). The increase in the population of elderly people that the western states are experiencing is attributed in part to persons retiring in place and to in-migration of elderly people to the western region (McFadden & Makela, 1992).

According to Junk and Dillman (1990), retirees' incomes can help strengthen the economic base of a community. Retirees can also enhance a local economy from an increased demand for goods and services (Summers & Hirschl, 1985). Communities in the Pacific Northwest have and continue to explore the possibilities of the economic expansion of the nonmetropolitan environment by attracting retirees. Economic planners and local community development groups are seeking information about retirees to increase the economic development capacity of rural communities (Severinghaus, 1989). However, there is little

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information about this growing preretiree population. It is not clear how they make retirement housing and location decisions or what factors affect those choices.

As the retired population ages and expands, communities will need efficient strategies for attracting, keeping, or coping with aging citizens. It is assumed that a better understanding of the factors associated with retirement decision making will maximize the possibility of suitable, affordable, and supportive housing environments for the largest number of elderly people.

Purpose

The purpose of this study was to determine a causal relationship between constraints, conditions, and satisfactions related to housing and propensity to move at retirement using the Housing Adjustment Model (Morris & Winter, 1975, 1978).

Theoretical Background

The Housing Adjustment Model

The model hypothesized and analyzed in this study was based on Morris and Winter's (1975,78) Housing Adjustment Model. The Housing Adjustment Model is considered a causal model which hypothesizes causal relationships between the variables in the model.

The first level of Morris and Winter's model includes five types of constraints: organization, resource constraints, market constraints, discrimination, and predispositions. The second level of the Housing Adjustment Model is housing deficit, defined as "...a deviation above or below a limit characteristic of a specific organism or social system in the relevant environment" (Morris & Winter, 1978, p.6). A deficit is calculated by subtracting the existing condition from the norm. Morris and Winter classified five norms: (1) housing tenure norms, (2) structure norms, (3) space norms, (4) quality norms, and (5) neighborhood and location norms.

The third level of the Morris and Winter's model is housing satisfaction, defined as "a state of the level of contentment with current housing conditions" (1978, p. 80). The fourth level of the Housing Adjustment Model is the propensity to move. Morris and Winter's final level is actual adjustment behavior.

Proposed Model. In this study, the first four levels of Morris and Winter's model were tested (Figure 1). The exogenous variables in the first level of the model included 11 resource constraints (respondent's age, education, gender, marital status, family income, presence of children, respondent's health, household size, race, location, income sources after retirement). The intervening variables in the second level of the model included four conditions (current housing tenure, current housing structure, current neighborhood condition, and available support systems in the city).

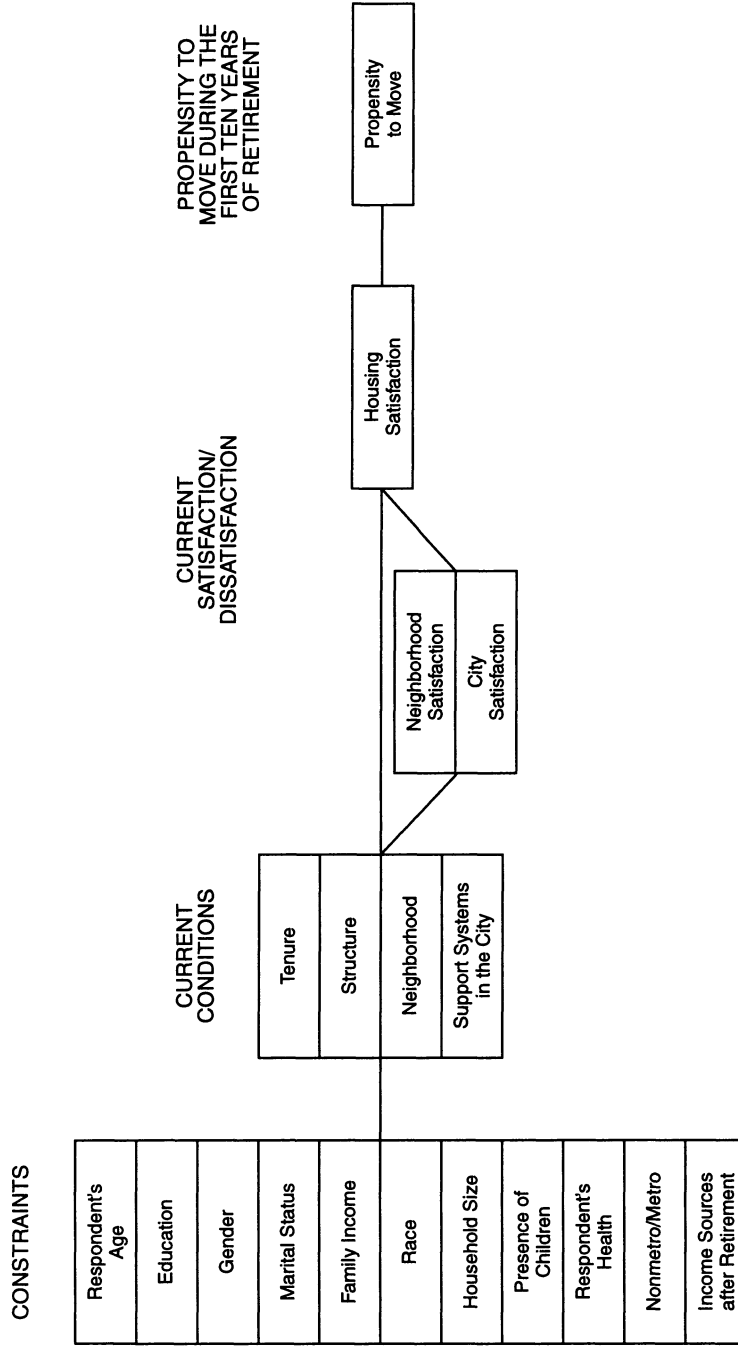
The intervening variables in the third level of the model examined current neighborhood satisfaction, city satisfaction, and housing satisfaction, based on the variables included in the first and second level. In this study, housing satisfaction was measured by respondents' overall satisfaction with their current housing. Neighborhood and city satisfaction were similarly measured, based on respondents' overall satisfaction with their neighborhood and city. Neighborhood satisfaction and city satisfaction were seen as having a direct influence on housing satisfaction and, thus, were not added in the level but treated as intervening variables between the second and third levels, as they have been used by Morris and Winter (1978). The endogenous variable in the fourth level was propensity to move, which was measured by whether or not respondents planned to move at retirement. Morris and Winter's final level, which is actual adjustment behavior, was not analyzed in this study.

Review of Literature

Constraints

Respondent's Age. Age of household head proved to be important in its impact upon home ownership (Burgess, 1982; Carliner, 1974; Chung, Magrabi, & Wysocki, 1989; Dillman, Tremblay, & Dillman, 1979). There may be a life-cycle effect on home ownership in

Figure 1. Proposed model.



that as a household increases in size and job stability, home ownership may become more desirable (Chung et al., 1989). According to Harris (1976), the older the head of household, the higher the satisfaction. This finding could be due to improved housing as age increases.

Age has been found to influence the expectation of retirement and actual retirement planning (Prothero & Beach, 1984). Goss and Paul (1986) found that the older the person, the less likely he/she will be to move, while Patrick (1980) found that mobility tends to decline until middle age, then swing upward through retirement age until the 70s, and then decline again.

Education. Hanna and Lindamood (1979) and Winter and Morris (1982) found that education does not have a statistically significant effect on home ownership. Chung et al. (1989), however, found that education is significantly and positively associated with home ownership. Education of head of household is generally related to occupation and income. Higher education could cause occupational prestige and higher income. As education level increases, housing satisfaction could increase as well (Lam, 1985).

Gender. Male heads of households are more likely to be home owners than female heads of households (Burgess, 1982; Hanna & Lindamood, 1979). Female heads of households are more likely to live in smaller and lower market value housing than male headed households with similar size and composition (Morris & Winter, 1978).

Marital Status. According to several studies, being married has been a significant determinant of home ownership (Burgess, 1982; Carliner, 1974; Dillman et al., 1979; Morris & Cho, 1986). According to Harris (1976), being presently married has had a positive effect on the level of housing quality. Litwak and Longino (1987) found that having an intact marriage was a source of great pressure to move after retirement.

Family Income. Household income has been found to be one of the principal determinants of home ownership. Home ownership and income have been found to be significantly and positively related (Burgess, 1982; Carliner, 1974; Dillman et al., 1979; Hanna & Lindamood, 1985; Morris & Cho, 1986; Pol, Rebecca, Ryker, & Chan, 1981).

Household income has been found to be related to housing satisfaction, with higher income households being more satisfied with their housing (Morris, Crull, & Winter, 1976). Goss and Paul (1986) found that income was needed to finance moves and positively affect the decision to migrate. Litwak and Longino (1987) also indicated that income had a positive effect on the ability to move.

Race. Although the role of race in home ownership varied by geographic location, several previous studies have found significant differences in home ownership between White and Black households. White households were more likely to be home owners than Black households (Carliner, 1974; Hanna & Lindamood, 1979; Pol et al., 1981). According to Morris and Winter (1978), minority families including Blacks, Puerto Ricans, and Mexican Americans faced more problems than White families in adjusting their housing to achieve housing norms.

Location. Previous research has found that cultural norms for housing have been consistent across regions of the U.S. (Belcher, 1970; Yockey, 1976). This led to the conclusion that rural and urban dwellers do not differ in their housing satisfaction level after other constraints and housing deficits were controlled (Lam, 1985). However, Dillman and Tremblay (1977) found that rural dwellers were less satisfied with their housing than were urban dwellers.

Household Size. The probability of home ownership increased with household size (Burgess, 1982; Carliner, 1974; Dillman et al., 1979). According to Brandt, McFadden, and Malroux (1991), single person households were more at risk than others during retirement and needed to be targeted for retirement planning. In 1988, 60% of the elderly women lived alone, and elderly women had a substantially higher rate of poverty than others (Hurd, 1990).

Presence of Children. Presence of children was related to household size. Larger households almost always have included children, and households with children were more likely to own a home than a household without children (Carliner, 1974; Chung et al., 1989).

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Health of Respondent. The health status of retirees has an effect on retirement plans (Prothero & Beach, 1984) and can be a major factor in the decision to move (Johnson-Carroll, Brandt, & McFadden, 1991). Lee (1980) postulated that as age increased, individuals' visits to physicians increased, and mobility experiences involved planning to move and then moving to areas with optimal health resources.

Income Sources after Retirement. Households with multiple retirement income sources have been considered as economically advantaged retired households (Kart, Longino, & Ullman, 1989). Since income has a positive effect on the ability to move, expected income sources after retirement could also have an effect on propensity to move.

Condition

Tenure and Structure Condition. Strong norms favoring home ownership as tenure and a detached single-family dwelling as a structure condition exist in the United States (Hohm, 1983; Lam, 1985; Morris & Winter, 1978). Tenure and structure conditions were major determinants of housing satisfaction and propensity to move (Morris & Jakubczak, 1988; Morris & Winter, 1976).

Neighborhood Condition. Neighborhood has been defined as the location of the dwelling unit and the nature of its immediate area (Morris & Winter, 1978). A locality group is not seen as self-sufficient as a community in that it does not fulfill all the major community activities (Rogers, Burdge, Korsching, & Donnermeyer, 1988).

Support Systems in the City. According to Junk and Dillman (1991), those who want to retire in rural areas were more likely to consider medical facilities as very important. Library facilities, educational opportunities, cultural opportunities, and convenient air transportation, however, were considered as more important to urban preferring retirees.

Satisfaction

Neighborhood/City Satisfaction. Previous studies indicated that factors related to neighborhood satisfaction included: liking the neighbors, upkeep of neighboring houses, higher average of property value, and lower density (Campbell, Converse, & Rodgers, 1976; Galster & Hesser, 1981; Lansing, Marans, & Zehner, 1970).

Housing Satisfaction. Previous research indicated that neighborhood satisfaction, tenure, and structure condition have strong influences on housing satisfaction (Lane & Kinsey, 1980; Morris et al., 1976).

Propensity to Move

Propensity to move is the potential, not actual, mobility. It refers to "desires, plans, indications or expectations about mobility" (Morris & Winter, 1978, p.167). According to Morris and Winter (1978), propensity to move is primarily related to lower housing satisfaction and neighborhood satisfaction.

Methods

Data Collection

The data analyzed in this study were from a telephone survey replicated in two western states, Oregon and Utah. A sample of 4,500 telephone numbers was obtained from Survey Sampling, Inc. for each state, based on two different sampling frames: (1) random sample of households including telephone numbers and addresses and (2) random digit dial telephone numbers. The first sampling frame consisted of 1,500 telephone numbers and addresses of households, 750 metropolitan and 750 nonmetropolitan. The second sampling frame for each state consisted of 3,000 random digit dial telephone numbers of residents, 1,500 metropolitan and 1,500 nonmetropolitan numbers.

The data were collected in the College of Home Economics and Education Telephone Survey Lab at Oregon State University. Data collection for Oregon began on October 28, 1993 and was completed on December 3, 1993. Data collection for Utah began on January 3, 1994 and ended February 1, 1994. The total sample (N=1175) included 575 residents of Oregon (300 metropolitan/275 nonmetropolitan) and 600 residents of Utah (300 metropolitan/300 nonmetropolitan).

After the content of the survey instrument was fully developed, faculty from the Oregon State University Research Center advised revisions regarding wording and telephone survey format. Once the revisions were completed, the survey instrument was pretested by the College of Home Economics and Education Telephone Survey Lab. Minor revisions were made regarding questionnaire wording and response categories.

The survey instrument was designed by beginning with an introduction that explained the purpose of the study and then proceeding to two screening questions related to employment and age. One person was selected from the household who was employed full time and who was between the ages of 40 through 64. The procedure used to select the respondent in the households including more than one adult who was between the ages of 40 through 64 and who was employed was to ask for the person whose birthday was closest to that day's date. In households that did not have a person aged 40 through 64 and employed full time, the interview was terminated.

Measurement of the Variables

Constraints. Age of respondent in this study was measured by subtracting the year in which respondent was born from the current year and was a continuous variable. Respondents' ages ranged from 40 through 64 with a mean age of 50 years.

Education measured the respondent's highest educational level, and coding was as follows: (1) 8th grade or less (0.9%), (2) grades 9 through 11 (3.4%), (3) high school graduate or equivalent (24.1%), (4) technical school beyond high school (3.8%), (5) some community college (7.8%), (6) community college (two years) associate degree or certificate (5.6%), (7) some college or university (16.1%), (8) college or university degree (17.2%), (9) some graduate hours (3.7%), (10) graduate or professional degree (17.4%). Education was treated as continuous variable.

Gender of respondent was a dichotomous variable in which males (59.0%) were coded as 0 and females (41.0%) were coded as 1. Marital status included married, widowed, divorced, separated, never married, or living with a partner. Marital status was recoded, married as 1 (77.3%) and nonmarried as 0 (22.7%), which included widowed, divorced, separated, never married, or living with a partner.

Household income measured total household income before taxes in 1992. The categories were coded as (1) less than \$10,000 (1.8%), (2) \$10,000 through 14,000 (2.7%), (3) \$15,000 through 24,999 (9.5%), (4) \$25,000 through 34,999 (17.6%), (5) \$35,000 through 49,999 (26.3%), (6) \$50,000 through 64,999 (17.5%), (7) \$65,000 through 74,999 (9.1%), (8) \$75,000 through 89,999 (6.9%), (9) \$90,000 through 99,999 (2.7%), and (10) \$100,000 or over (6.0%). Household income was treated as continuous variable.

Race was a dichotomous variable in which Whites (95.8%) were coded as 0, and Non-whites (4.2%) were coded as 1. Location was a dichotomous variable -- metropolitan area (47.5%) and nonmetropolitan area (52.5%). Metropolitan area was coded as 1, and nonmetropolitan area was coded as 0. Household size measured the total number of people living in the respondent's home. Household size ranged from 1 through 12 and was a continuous variable.

Presence of children was a dichotomous variable -- yes (93.7%) or no (6.3%). The respondents with children were coded as 1 while those without children were coded as 0. Health was measured by the respondents' self-rating of their health status and coding as follows: (1) poor (0.2%), (2) fair (3.7%), (3) good (18.0%), (4) very good (36.6%), and (5) excellent (41.5%).

Income sources after retirement was created by summing the number of sources the respondent indicated that would be a source of retirement income. "Yes" was coded as 1, and "no" was 0. The composite score could range from 0 through 12. The sources included social security, pension plan sponsored by state/employer, military plan, employment, savings, IRA (Individual Retirement Account), mutual funds, stocks and/or bonds, income from property ownership, sale of real estate or other property, annuities, and paid-up life insurance.

Conditions. Current tenure and structure were dichotomous variables. Owners (85.3%) were coded as 1, and renters (14.7%) were coded as 0. The value 1 represented single family detached dwellings (84.2%), and 0 represented all other structure types (15.8%), which included: a building of apartments, duplex, mobile home on a lot the respondent owns, mobile home on a lot the respondent rents, and others. The neighborhood condition score was generated by summing respondents' opinions regarding four characteristics: attractiveness of neighborhood, neighborhood safety, neighbors, and closeness of structures to one another. Measurement of each characteristic was based on a four-point scale from (1) poor through (4) excellent. Neighborhood condition could range from 4 through 16.

Currently available support systems in the city were considered as the city condition. The eight support systems included: having family members in the same city, support from close friends, access to handyman-type services, access to a doctor, access to a hospital, public transportation, adult educational opportunities, and place of worship. Each available support system was measured as -- available (1) or not available (0). A city condition was created by summing the number of available support systems by sum of each available system for each respondent and could range from 0 through 8.

Satisfaction. Neighborhood satisfaction and city satisfaction were measured by respondents' self-rating of overall satisfaction with their neighborhood and city. These measurements ranged from (1) very dissatisfied through (4) very satisfied. Neighborhood satisfaction and city satisfaction were considered as having direct effects on housing satisfaction. Housing satisfaction was measured by respondents' evaluation of overall satisfaction with their current housing, with responses ranging from (1) very dissatisfied through (4) very satisfied.

Propensity to Move. Propensity to move represented whether or not respondents planned to move at retirement. Respondents who plan to stay were coded as 0, and those who planned to move were coded as 1.

Statistical Analysis

Unweighted frequency distributions were used to describe the demographic and socio-economic characteristics of the respondents (see above). Despite the fact that for either state the total number of households is not comprised of an equal number of nonmetropolitan and metropolitan households, equal size samples were drawn from nonmetropolitan and metropolitan areas of each state. As a consequence, nonmetropolitan households were oversampled to metropolitan households. In addition, there was bias between states due to different population sizes. In order to correct these biases, the samples were weighted on the basis of the distribution of metropolitan and nonmetropolitan households in each state and the distribution of population between the states. Pearson product moment correlations were analyzed among the exogenous, intervening, and endogenous variables to ascertain whether multicollinearity existed. Since there was no correlation coefficient greater than .60, multicollinearity was not considered as a problem in regression analysis.

Path Analysis. Path analysis provided the method for analyzing the causal relationships and interpreting the linear and additive relationships among variables. In path analysis, the combination of exogenous variables explains a certain proportion of the variance found in the endogenous variables (Wolfe, 1977). The arrows indicate the direction of influence and the betas indicate the strength of association between the two variables, either negative or positive. The significance level was set at .05.

The path model was written as:

$$Y_8 = f(Y_7, Y_6, Y_5, Y_4, Y_3, Y_2, Y_1, X_{11}, \dots, X_1),$$

$$Y_7 = f(Y_6, Y_5, Y_4, Y_3, Y_2, Y_1, X_{11}, \dots, X_1),$$

$$Y_6 = f(Y_4, Y_3, Y_2, Y_1, X_{11}, \dots, X_1),$$

$$Y_5 = f(Y_4, Y_3, Y_2, Y_1, X_{11}, \dots, X_1),$$

$$Y_4 = f(X_{11}, X_{10}, X_9, X_8, \dots, X_1),$$

$$Y_3 = f(X_{11}, X_{10}, X_9, X_8, \dots, X_1),$$

$$Y_2 = f(X_{11}, X_{10}, X_9, X_8, \dots, X_1),$$

$$Y_1 = f(X_{11}, X_{10}, X_9, X_8, \dots, X_1).$$

Where:

Y_8 = propensity to move, Y_7 = housing satisfaction, Y_6 = city satisfaction, Y_5 = neighborhood satisfaction, Y_4 = city condition, Y_3 = neighborhood condition, Y_2 = structure condition, Y_1 = tenure condition, X_{11} = income source after retirement, X_{10} = location, x_9 = health, X_8 = presence of children, X_7 = household size, X_6 = race, X_5 = family income, X_4 = marital status, X_3 = gender, X_2 = education, and X_1 = age.

Analyses

The first analysis included the exogenous variables, constraints, and conditions. The current condition variables -- current housing tenure, current housing structure, current neighborhood condition, and current available support systems in the city -- were determined by the 11 constraints (respondent's age, education, gender, marital status, family income, race, household size, presence of children, health of respondent, location, income sources after retirement).

The current condition variables, in turn, were the intervening variables between the constraints and the dependent variables, current housing satisfaction, neighborhood satisfaction, and city satisfaction in the second analysis. However, neighborhood satisfaction and city satisfaction were also considered as having a direct influence on housing satisfaction and were treated as intervening variables. One analysis was completed with the constraints, the current conditions and the dependent variables: neighborhood satisfaction and city satisfaction. A separate analysis was then completed where housing satisfaction was regressed on the constraints, current conditions, neighborhood satisfaction, and city satisfaction. In the third analysis, housing satisfaction, neighborhood satisfaction, city satisfaction, and current conditions were intervening variables between the exogenous variables, constraints, and the endogenous variable, propensity to move during the first ten years of retirement.

Results

Findings

The tested path model can be written as:

$$Y_8 = f(Y_7, Y_5, Y_4, Y_1, X_{11}, X_{10}, X_9, X_4, X_3, X_2, X_1),$$

$$Y_7 = f(Y_6, Y_5, Y_4, Y_1, X_9, X_1),$$

$$Y_6 = f(Y_3, Y_2, X_9, X_2),$$

$$Y_5 = f(Y_3, Y_2, Y_1),$$

$$Y_4 = f(X_{10}, X_7, X_3),$$

$$Y_3 = f(X_{11}, X_{10}, X_9, X_7, X_5, X_1),$$

$$Y_2 = f(X_{11}, X_8, X_7, X_5, X_3),$$

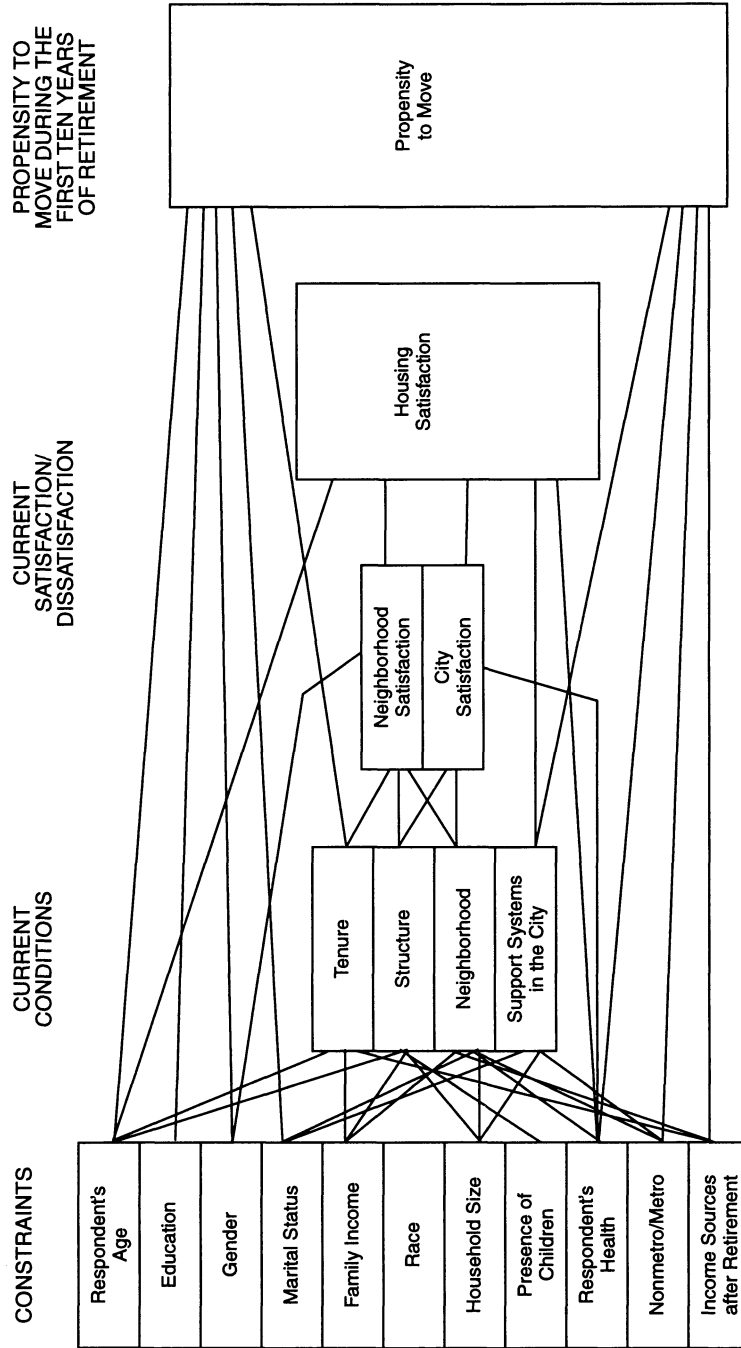
$$Y_1 = f(X_{11}, X_5, X_1).$$

The significant paths ($p < .05$) are illustrated in Figure 2. The standardized beta values and the R^2 for each of the intervening and endogenous variables are shown in Table 1.

Age ($p = .00$, $\underline{B} = .123$), family income ($p = .00$, $\underline{B} = .212$), and income sources after retirement ($p = .00$, $\underline{B} = .105$) were statistically significant determinants of current tenure condition (see Figure 3). The older the respondent, the higher the family income, and the more the income sources after retirement, the more likely was the respondent to own a house. Approximately 12% of the variance of current tenure condition was explained by age, family income, and income sources after retirement ($R^2 = .119$).

Gender ($p = .05$, $\underline{B} = -.072$), family income ($p = .00$, $\underline{B} = .150$), household size ($p = .02$, $\underline{B} = .094$), presence of children ($p = .03$, $\underline{B} = .082$), and income source after retirement ($p = .00$, $\underline{B} = .120$) were significant determinants of current structure type (see Figure 3). If the respondent was male, the higher the family income, the larger the household size. If the respondent had children, and more income sources after retirement, the more likely the respondent was to live in single family dwelling. Approximately 9% of the variance of current structure type was explained by gender, family income, household size, presence of children, and income sources after retirement ($R^2 = .087$).

Figure 2. Path model of factors affecting satisfaction and propensity to move at retirement ($p \leq .05$).



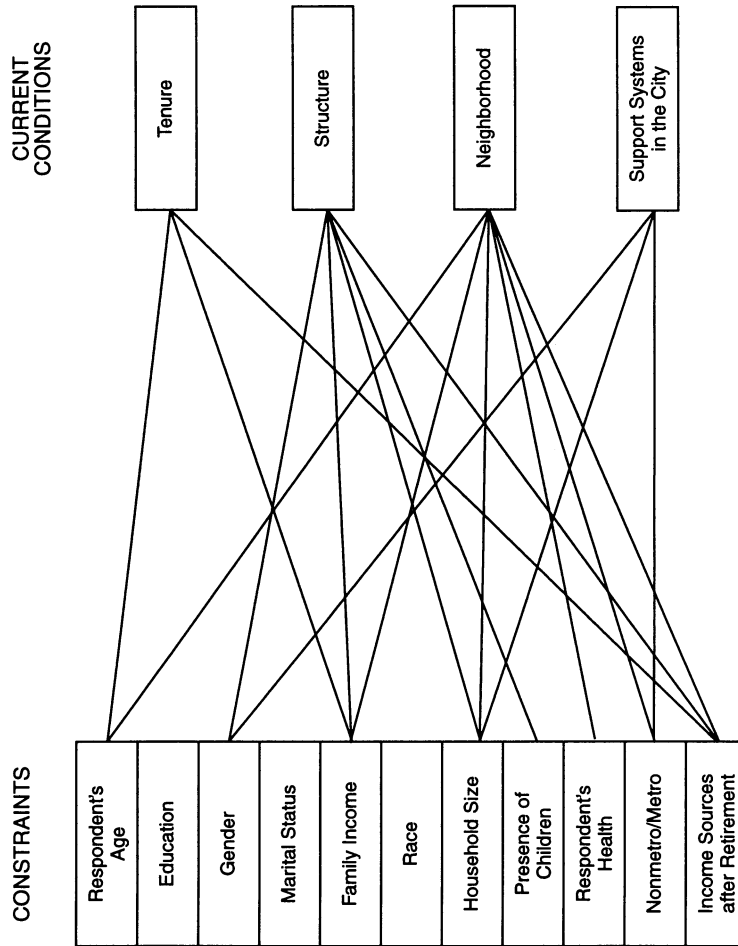


Figure 3. Tested model with current conditions regressed on constraints ($p \leq .05$).

Table 1. Path analysis results for intervening and endogenous variables.

Variables	Tenure		Structure	
	Beta	P	Beta	P
Age	.123	.00*	-.011	.78
Education	.021	.58	.042	.26
Gender	-.057	.11	-.072	.05*
Marital status	.068	.08	.021	.56
Family income	.212	.00*	.150	.00*
Race	.032	.36	-.006	.86
Household size	.069	.09	.094	.02*
Presence of children	.063	.08	.082	.03*
Health status	-.035	.32	.005	.90
Location	-.062	.08	-.034	.35
Income sources after retirement	.105	.00*	.120	.00*

* = $p \leq .05$
 $R^2 = .119$
 $R^2 = .087$

Variables	Neighborhood Condition		City Condition	
	Beta	P	Beta	P
Age	.156	.00*	.072	.07
Education	.008	.83	.062	.11
Gender	-.027	.46	.125	.00*
Marital status	-.051	.19	-.024	.54
Family income	.155	.00*	.047	.25
Race	-.018	.60	.024	.50
Household size	.145	.00*	.138	.00*
Presence of children	.010	.78	-.015	.69
Health status	.126	.00*	-.025	.49
Location	-.211	.00*	.241	.00*
Income sources after retirement	.090	.02*	.071	.06

* = $p \leq .05$
 $R^2 = .124$
 $R^2 = .109$

Variables	Neighborhood Satisfaction		City Satisfaction	
	Beta	P	Beta	P
Age	-.042	.18	.003	.95
Education	.045	.14	.094	.02*
Gender	-.008	.77	-.064	.09
Marital status	.019	.52	-.077	.06
Family income	-.031	.33	.074	.07
Race	-.049	.07	-.015	.68
Household size	-.032	.31	-.033	.42
Presence of children	.043	.13	.017	.65
Health status	-.014	.62	.106	.01*
Location	.007	.79	-.071	.06
Income sources after retirement	-.015	.62	-.070	.07

Table 1 continued.

Variables	Neighborhood Satisfaction		City Satisfaction	
	Beta	P	Beta	P
Tenure	.086	.00*	-.030	.45
Structure	-.069	.02*	-.102	.01*
Neighborhood condition	.692	.00*	.269	.00*
City condition	.030	.29	.065	.09

* = $p \leq .05$ $R^2 = .497$ $R^2 = .140$

Variables	Housing Satisfaction		Propensity to Move	
	Beta	P	Beta	P
Age	.095	.02*	.158	.00*
Education	.026	.49	.120	.00*
Gender	-.046	.21	-.162	.00*
Marital status	-.037	.33	-.169	.00*
Family income	.004	.93	-.012	.77
Race	.006	.87	.029	.43
Household size	-.011	.78	-.062	.14
Presence of children	-.009	.80	.034	.37
Health status	.073	.04*	.099	.01*
Location	.063	.09	.093	.02*
Income source after retirement	.013	.71	.106	.01*
Tenure	.159	.00*	-.169	.00*
Structure	.009	.82	.028	.48
Neighborhood condition	.090	.07	.048	.37
City condition	.113	.00*	-.097	.01*
Neighborhood satisfaction	.220	.00*	-.194	.00*
City satisfaction	.105	.01*	-.066	.10
Housing satisfaction	---	---	-.085	.04*

* = $p \leq .05$ $R^2 = .225$ $R^2 = .227$

Age ($p=.00$, $B=.156$), family income ($p=.00$, $B=.155$), household size ($p=.00$, $B=.145$), health status ($p=.00$, $B=.126$), location ($p=.00$, $B=-.211$), and income sources after retirement ($p=.02$, $B=.090$) were significant determinants of current neighborhood condition (see Figure 3). The older the respondent, the higher the family income, the larger the household size, the better the health of respondent, if the respondent lived in nonmetropolitan area, and the more the income sources after retirement, the more likely was the respondent to have better neighborhood condition. Approximately 12% of the variance of neighborhood condition was explained by age, family income, household size, health status, location, and income sources after retirement ($R^2=.124$).

Gender ($p=.00$, $B=.125$), household size ($p=.00$, $B=.138$), and location ($p=.00$, $B=.241$) were significant determinants of current city condition (see Figure 3). If the respondent was female, the larger the household size, and if the respondent lived in metropolitan area, the more likely was the respondent to have more available support systems in the city. Approximately 11% of the variance of city condition was explained by gender, household size, and location ($R^2=.109$).

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In the second analyses, neighborhood satisfaction, city satisfaction, and housing satisfaction were entered as the endogenous variables (see Figure 4). Tenure ($p=.00$, $B=.086$), structure ($p=.02$, $B=-.069$), and neighborhood condition ($p=.00$, $B=.692$) were statistically significant. If the respondent was a home owner and had better neighborhood condition, the higher the respondent rated his/her neighborhood satisfaction. However, respondents who lived in single family dwellings were more likely to have lower neighborhood satisfaction than those who lived in other structure types. Approximately 50% of the variance of neighborhood satisfaction was explained by three intervening variables -- tenure, structure, and neighborhood condition ($R^2=.497$).

The level of education ($p=.02$, $B=.094$), health status ($p=.01$, $B=.106$), structure type ($p=.01$, $B=-.102$), and neighborhood condition ($p=.00$, $B=.269$) were significant determinants of city satisfaction. The higher the level of education, the better the neighborhood condition, the higher the respondent rated his/her city satisfaction. However, respondents who lived in single family dwellings were more likely to have lower city satisfaction than those who lived in other structure types. Approximately 14% of the variance of city satisfaction was explained by two exogenous variables - the level of education and health status - and two intervening variables - structure and neighborhood condition ($R^2=.140$).

Age ($p=.02$, $B=.095$), health status ($p=.04$, $B=.073$), tenure ($p=.00$, $B=.159$), city condition ($p=.00$, $B=.113$), neighborhood-satisfaction ($p=.00$, $B=.220$), and city satisfaction ($p=.01$, $B=.105$) were significant determinants of housing satisfaction. The older the respondent, the better the health. If the respondent was a home owner, the better the city condition, the higher the neighborhood satisfaction, and the higher the city satisfaction, the more likely was the respondent to have higher housing satisfaction. Approximately 23% of the variance of housing satisfaction was explained by two exogenous variables -age and health - and four intervening variables - tenure, city condition, neighborhood satisfaction, and city satisfaction ($R^2=.225$).

In the final analyses, the propensity to move was regressed on all other variables (see Figure 5). Age ($p=.00$, $B=.158$), education ($p=.00$, $B=.120$), gender ($p=.00$, $B=-.162$), marital status ($p=.00$, $B=-.169$), health status ($p=.01$, $B=.099$), location ($p=.02$, $B=.093$), income sources after retirement ($p=.01$, $B=.106$), tenure ($p=.00$, $B=-.169$), city condition ($p=.01$, $B=-.097$), neighborhood satisfaction ($p=.00$, $B=-.194$), and housing satisfaction ($p=.04$, $B=.085$) were significant determinants of propensity to move, explaining approximately 23% of the variance ($R^2=.227$). The respondent's propensity to move was more likely if the respondent was older, had a higher level of education, was a male, was not married, had better health, lived in a metropolitan area, had more income sources after retirement, was not a homeowner, had worse city condition, and had lower neighborhood satisfaction.

Summary and Conclusion

Seven exogenous variables -- age, education, gender, marital status, health status, - location, and income sources after retirement -- and four intervening variables -- current tenure condition, current city condition (available support systems in the city), neighborhood satisfaction, and housing satisfaction -- had direct influences on the endogenous variable -- propensity to move at retirement. Preretirees were more likely to plan to move during the first ten years of retirement, if they were older, better educated, healthier, lived in metropolitan areas, and had more income sources after retirement. These findings were consistent with previous research findings. Patrick (1980) found that mobility appears to decline until middle age, then swing upward through retirement age until the 70s, and then decline again. Morrison (1990) and Sullivan (1985) found that higher income, higher education level, and better health status were positively related to retirement mobility decisions. Lam (1985) found that metropolitan dwellers were more likely to move than nonmetropolitan dwellers at retirement. Goss and Paul (1986) and Litwak and Longino (1987) indicated that income had a positive effect on decision to move.

The results from this study also indicated that if preretirees were female and/or non-married, they were less likely to plan to move during the first ten years of retirement. The reason for lower propensity to move for females and non-married respondents may be due to lower economic status and/or less income sources after retirement. Watkins (1989) and

Figure 4. Tested model with housing satisfaction regressed on neighborhood and city satisfaction, current conditions, and constraints, with neighborhood and city satisfaction also regressed on current conditions and constraints (regression of current conditions on constraints is not shown). ($p \leq .05$)

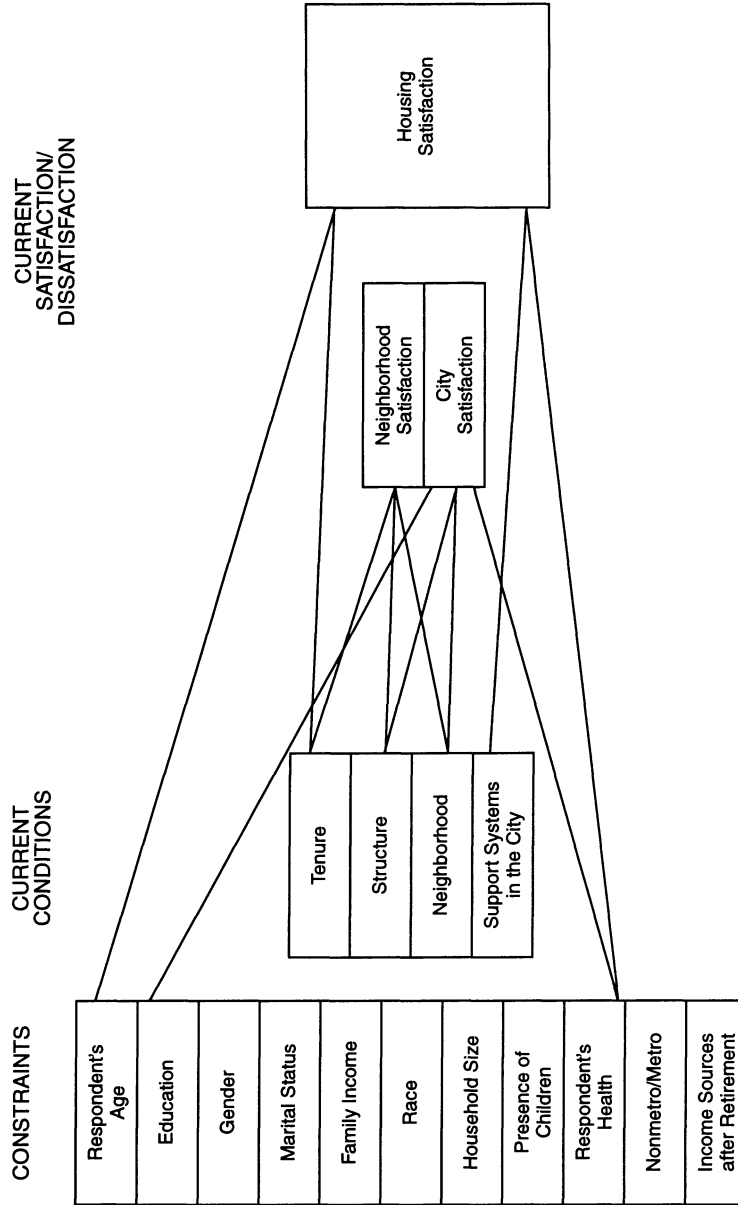
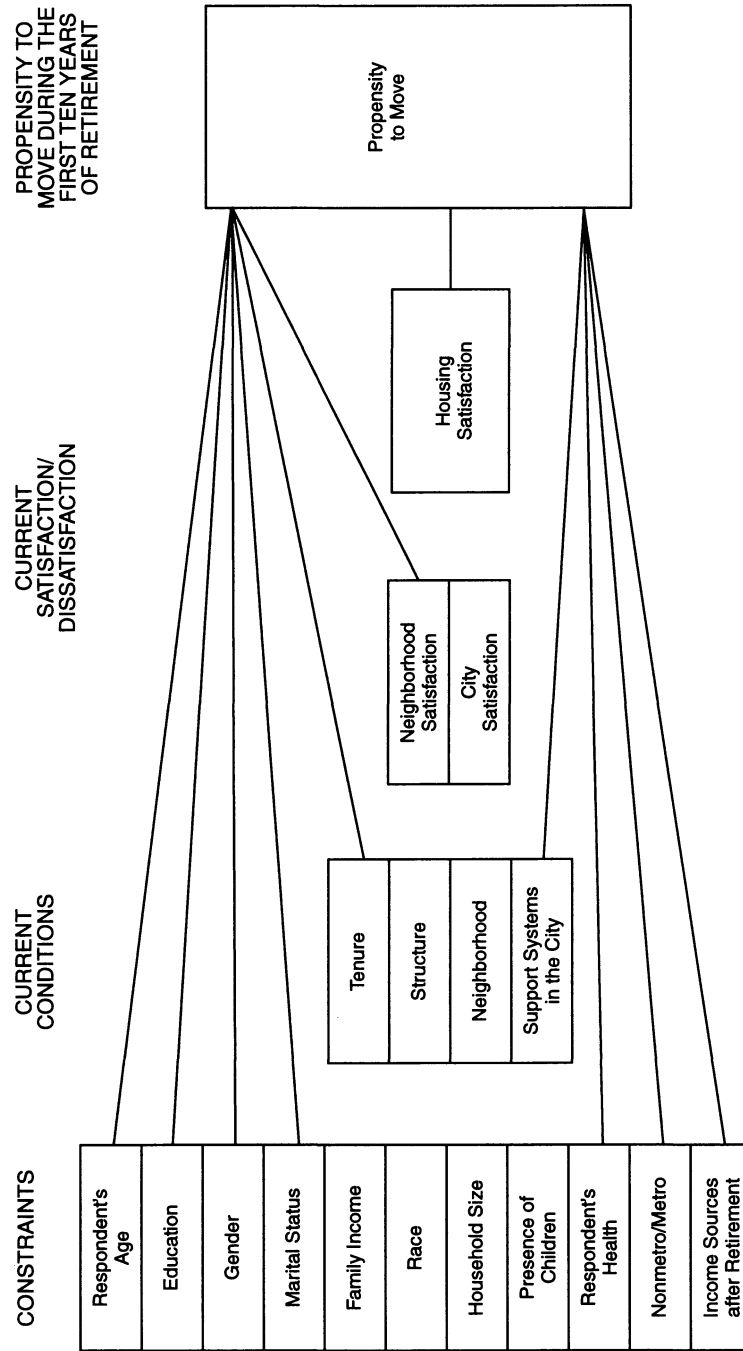


Figure 5. Tested model with propensity to move regressed on housing satisfaction, neighborhood and city satisfaction, current conditions, and constraints ($p \leq .05$).



Serow and Charity (1988), however, found that retirement migration was higher for females than males.

Among the intervening variables, current tenure condition, current city condition, neighborhood satisfaction, and housing satisfaction were significant predictors for propensity to move at retirement. Preretirees who were home owners, who had more available support systems, who had higher neighborhood satisfaction, and/or who had higher housing satisfaction were less likely to plan to move at retirement. These findings supported Morris and Winter's Housing Adjustment Model and other previous research findings that tenure condition and/or neighborhood satisfaction had strong influences on housing satisfaction which, in turn, had direct effect on propensity to move (Lam, 1985; Morris, Crull, & Winter, 1976; Morris & Jakubczak, 1988; Morris & Winter, 1978).

There was an unexpected finding that single family detached dwellers had lower satisfaction with their neighborhood and/or city. Since the single family dwelling has been the structure norm, it was expected that single family dwellers might have higher satisfaction with their neighborhood and city. Further research needs to focus on the appropriate explanations.

Implications

The findings of this study are helpful to communities as they strive to understand and predict the movement of the future elderly population. Communities can plan strategies for retaining retirees. Several factors which communities can impact were found to be predictive of retirees remaining in the preretirement home at retirement. Communities can affect the availability of support systems and the liveability of neighborhoods, two factors that predicted less likelihood to move at retirement, and a positive neighborhood satisfaction will impact housing satisfaction. Communities can also provide programs that facilitate home ownership, thus, increasing the likelihood of retirees staying in the community at retirement.

Through this research, a better understanding of who has a greater propensity to move at retirement was found. Those closer to retirement, those with higher educational levels, those who are healthier, those who live in metropolitan areas, and those with more retirement income sources were found to have a greater propensity to move at retirement. While this information may be useful to communities, additional research into the retirement housing preferences of those more prone to mobility would facilitate the communities' endeavors to plan the desired housing environments. Communities would, thus, have provided housing environments to retain or attract more mobile retirees.

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