

집합주거 선호 및 규범에 관한 연구

Preferences and norms for multi-family dwellings of Korean households

양 세 화¹⁾

Yang, Sehwa

< 요약 >

주택부족 문제의 효율적 해결방안의 하나로 보급되기 시작한 아파트는 다양한 문제의 표출에도 불구하고 '좁은 땅에 많은 주택 공급'이라는 한국 현실에 가장 적합한 주거유형으로 정착되고 있다. 본 연구는 아파트를 비롯한 여러 유형의 집합주거가 어떤 계층의 가족에 의해 선호되고, 나아가 이상적인 주거유형 규범으로 인식되고 있는지 규명하기 위한 것이다. 모델에 포함된 변인중 가장의 연령과 학력은 현재 거주하는 주거유형 및 집합주거 선호에 유의적인 영향을 미치는 것으로 나타났다. 또한 현재 집합주거에 거주하는 가정일수록 높은 집합주거 선호를 보였다. 집합주거 규범에 관한 분석에서는 집합주거 선호 변인만 유의적인 영향을 주어, 집합주거를 선호하는 가정일수록 이를 한국 사회의 주거유형규범으로 생각하는 경향이 많은 것으로 해석할 수 있다.

I. Introduction

It seems quite clear in American society that single-family dwelling is, with home ownership, one of the most important housing norms (Morris & Winter, 1978; Tremblay & Dillman, 1983). This has been also true for the ordinary Korean households, and still regarded as housing norms in Korea. Such trends, however, are changing slightly since 1970s' in which the construction of multi-family dwellings, specifically mid- or high-rise apartments, had boomed.

During the last two decades, most housing construction in Korea by either

public or private housing companies have concentrated on developing apartment complexes in urban areas to solve the housing shortage problems with the effective use of land. Table 1 shows the trends of housing construction in Korea between 1970 and 1985. The rate of single-family dwellings in Korea has decreased from 95.2 percent in 1970 to 75.3 percent in 1990. When considering only the urban areas, the changes are remarkable. The rate of single-family dwellings in urban areas is declined from 89.7 percent in 1970 to 63.8 percent in 1985, while that of apartments is increased from 2.2 percent to 22.8 percent (Economic Planning Board, 1985). As a result, about one out of four urban Korean households live in apartments.

1) 정회원, 울산대학교 가정관리학과 주거환경전공
조교수, Ph.D

Table 1. Trends in Structure Type of Dwelling in Korea (1970-85)

Year	Region	Structure type of dwelling			
		Single-fam.	Apt.	Townhouse	Others
1970	Whole country	95.2(%)	.8	3.4	.6
	Urban	89.7	2.2	6.7	1.4
	Rural	97.9	.1	1.8	.2
1980	Whole country	89.7	4.9	2.6	2.8
	Urban	84.4	8.0	3.8	3.8
	Rural	97.2	.5	.9	1.4
1985	Whole country	77.3	13.4	5.7	3.4
	Urban	63.8	22.8	8.8	4.6
	Rural	93.7	2.0	2.1	2.2
1990	Whole country	75.3	14.8	5.3	4.6

(Source: Population and Housing Census, Economic Planning Board, 1990)

The concept of "apartment" is used in somewhat different ways in Korea. Often, in the U.S., apartment refers to "a set of rooms rented as a unit, usually in a multi-unit building (Morris & Winter, 1978:121)." On the contrary, in Korea, apartments do not mean simple rental housing, but multi-unit dwellings with condominium ownership. In other words, each apartment unit in a multi-unit dwelling is purchased by individual households, and they remain title to their own apartments. Besides, individuals hold common areas such as elevators, hallways, or grounds in undivided common ownership, and they are responsible for their own taxes.

Preferences for multi-family dwellings are often observed in recent housing studies in Korea (Lee, 1976; Hong, 1986; RIHE, 1989; Khil, 1991). In an earlier study, Lee (1976) found that young nuclear families were more likely to live in multi-family dwellings, expecting that the apartments are popularly accepted as a new mode of living. Hong (1986) also observed strong preferences for multi-family dwellings among the

newlywed and launching households.

Structure type preferences were also examined as one of the explanatory factors on prospective mobility (RIHE, 1989). Almost 68 percent of the sample which included about 1,000 households living in high-rise apartments in Seoul answered that high-rise apartment is the most preferred structure type.

Khil (1991) compared housing norms of Korean, Mexican, and American households. For tenure norms, home ownership was overwhelming regardless of cultures. The remarkable difference, however, was found in structure type norms. The majority of the American and Mexican households in samples identified single-family dwelling for the cultural structure type norms in each country, whereas half of the Korean sample thought that nonsingle-family dwelling is the ideal structure type in Korea rather than single-family dwelling.

The present study does focus on changing trends toward multi-family dwellings, specifically mid- or high-rise apartments as

structure type norms in Korea. The purpose of this study is to determine which groups of households in Korea are more likely to prefer multi-family dwellings and how the determinants are associated with each other. In doing so, more can be further understood as to why apartments are getting preferred by the Korean households in recent years.

II. Theoretical Model

Much research has been done on housing norms of individuals or households (Dillman et. al., 1979; Guy & Pol, 1983; Hanna & Lindamood, 1979; Hinshaw & Allott, 1972; Hohm, 1983; Memken & Morris, 1983; Morris & Cho, 1986; Morris & Winter, 1982; Morris et. al., 1984; Tremblay, 1881). According to Morris and Winter (1978), there are two levels of housing norms: cultural and household norms. Cultural norms are conceptually defined as the cultural prescriptions that indicate to individuals and households what kind of housing gains the respect of others. On the other hand, household norms are preferences that represent more or less accurate versions of the cultural norms internalized by households. Previous research has highly emphasized the relationship among housing norms, actual housing conditions, and a variety of demographic characteristics.

The model used in this study represents the tested model of Morris, Winter, and Sward (1984) involving the measurement of norms and preferences for home ownership and single-family dwellings. They specifically proposed that low-income people have housing needs that are less demanding than those

of higher income groups. Besides income, other constraints such as household size, education of the head, employment status of the head, age of the head, sex of the head, and actual tenure status and structure type as the intervening variables were considered. The main conclusion was that there are no grounds for believing that lower-income groups have less strong ownership and single-family dwelling aspirations. Preferences were primarily related to actual housing, and norms were affected by preferences and, in a very minor way, by education.

Based on Morris, Winter, and Sward (1984), the present study examines structure type preferences and norms of the Korean households in relation with sociodemographic characteristics and current structure type of the households. This study, however, is not intended to deal with the theoretical or analytical issue of housing preferences and norms. The major interest is, as stated, to clarify which groups of households in Korea tend to have stronger preferences and norms for multi-family dwellings.

III . Methods

The data used in the present research were collected during November and December, 1990 in Seoul, Korea. Four areas (namely, Gu) in Seoul comprise the area selected for the analysis, within which eight representative areas were selected through a multi-stage selection process based on the distribution of structure types of dwellings in Seoul, socioeconomic status of the households, and so on. A total of 400 self-administered questionnaires were sent to the households.

The female head of household was asked to fill out the questionnaire. Of the 400 questionnaires which were sent, 370 were collected. Sixty-five cases were deleted due to large amount of missing information. Thus, the responses by the female heads of 305 households were used for analysis. This was approximately 75 percent of the total questionnaires sent out.

Three sets of variables were included: 1) preferences and norms for structure type of the dwelling as the dependent variables, 2) current structure type as the intervening variable, and 3) the exogenous control variables such as age of the head, sex of the head, education of the head, household income, household size, employment status of the head, and type of the household.

Structure type norms were based on the question asking about the "best structure type for the ordinary Korean family." Structure type preferences were operationalized by the response to the "best structure type for you and your family right now." The responses to structure type preferences, norms, and current structure type were categorized into single-family dwelling and other types including various types of multi-family dwellings such as high- or mid-rise apartments, townhouses, and so on. For these variables, multi-family dwelling was coded 1 and 0 for single-family dwelling for easy interpretations of the results of the analysis without any confusions because the current interest is about multi-family dwellings.

The control variables were divided into two or more categories and coded as dummy variables. This categorization was intended for the comparisons among the various demographic groups of households. Table 2 sum-

marizes the operational descriptions of the variables used in the analysis.

Table 2. Operational Description of the Control Variables

Variables	Operationalization
Age of the head	*Less than 35 years 35 - 44 years 45 - 54 years 55 or over
Sex of the head	*Female Couple
Education of the head	*0 - 11 years 12 years Some college
Household income	*Less than \$15,000 \$15,000 - \$19,999 \$20,000 - \$29,999 \$30,000 or more
Household size	2 - 4 persons *5 or more persons
Employment status	*No worker Single-worker Two or more workers
Type of the household	*Nuclear Extended

* Reference group

IV. Results and Discussions

1. Sample characteristics

To summarize the characteristics of the sample used in the study, descriptive statistics were used. The mean age of the head was 42.13 years. About 48 percent of the sample

were concentrated in the category of 35-44 years. The sample consisted of 93.1 percent of couple-headed households. The mean of education of the head was 14.4 years, with nearly two-thirds of the sample in the "some college" category. The mean of annual household income for the sample was \$ 17,730. The mean household size was 4.2. Of this sample, about 70 percent had less than five persons in the household. About two-thirds of the sample had single worker in the household. The current sample consisted of 91 percent of nuclear families.

Sixty-three percent of the sample currently lived in a multi-family dwelling, and more than half of the sample (54 percent) thought that multi-family dwellings were the best type of structure for their family right now. For structure type norms, 47 percent of the sample answered that multi-family dwellings are ideal structure type in Korea.

2. Logistic regression analysis

As the main step of data analysis, logistic regression analysis was employed. Logistic or logit regression model is designed for testing the model with a binary dependent variable from a set of independent variables (Aldrich & Nelson, 1984; Neter et. al., 1983). In this analysis, the endogenous variables indicating structure type norms, preferences, and current structure type are dichotomous: 0 for single-family dwelling and 1 for multi-family dwelling. Therefore, the logistic regression was considered appropriate for analysis.

Logistic regression model is one way of multivariate techniques for estimating the probability that an event occurs. Logistic

coefficients estimated for the independent variables are used to understand the effect of the independent variables in terms of the probability of an event occurring as well as to figure out the significant explanatory factors. Details of the logistic regression procedures can be found in Harrel (1986), Aldrich and Nelson (1984), and SPSS Inc. (1990).

The effects of the control variables on current structure type are presented in Table 3. The model Chi-square is 44.588 with 13 degrees of freedom which is statistically significant.

There are two variables with significant effects in the logistic model explaining current structure type: age of the head (55 or over with a coefficient of -1.42) and education of the head (some college with a coefficient of 1.07). Although the other two age variables are insignificant, they have relatively big Wald statistics with negative coefficients. It could be interpreted that the households headed by a person in the middle- or old-age groups are less likely to live in a multi-family dwelling than are those with a young head (the omitted reference group). For the education of the head, the households whose head graduated from some college are more likely to live in a multi-family dwelling than are those with a less educated head.

There is no significant difference in current structure type between the income groups. However, the positive coefficients with an increasing pattern for the three income variables imply that as the household income increases, there tends to be a higher probability of living in a multi-family dwelling.

Table 3. Logistic Regression Analysis of Current Structure Type on the Control Variables

Independent Variables	Coefficient	SE	Wald ^a
Age of the head			
35-44 years	-.7515	.4397	2.9206
45-54 years	-.8997	.4898	3.3735
55 or over	-1.4226	.5836	5.9417*
Sex of the head			
Couple	-.2036	.5872	.1206
Education of the head			
12 years	-.0510	.5174	.0097
Some college	1.0709	.5165	4.2985*
Household income			
\$15,000-\$19,999	.1619	.3089	.2735
\$20,000-\$29,999	.5636	.3984	2.0014
\$30,000 or more	.5593	.4926	1.2887
Household size			
2-4 persons	.3602	.3196	1.2699
Employment status			
Single worker	-.4780	.9802	.2378
Two or more workers	-.9759	.9861	.9795
Type of the household			
Extended	.6788	.4643	2.1375
Intercept	1.4219		
-2 Log Likelihood	357.534		
Model Chi-square	44.588	df=13	p=.0000

^a The Wald statistic has a Chi-square distribution.

* Significant at .05 level.

Table 4 presents the results of logistic regression analysis of structure type preferences. The model included the control variables and actual structure type. The model Chi-square is 93.594 with 14 degrees of freedom, which indicates the model fits the data well. Variables with a significant coefficient are age of the head (12 years and some college), and current structure type (multi-family dwelling).

In comparing the values of a Wald statistics for each significant predictor, not surprisingly, current structure type is shown to have the strongest effects on the preferences

for multi-family dwellings. The positive coefficient indicates that when the households currently live in a multi-family dwelling, they are likely to have higher preferences for multi-family dwellings than are those living in a single-family dwelling.

The two variables related to age of the head have negative effects on the preferences for multi-family dwellings. Those with a middle-aged head tend to have lower probability of preferring multi-family dwellings than do those with a head at younger age. There is no difference between the youngest and the eldest groups. For the educational level of household head, compared to those

with a less educated head, the households whose head with high school education or more tend to have a higher probability of preferring multi-family dwellings. Household income variables, although insignificant, show an increasing pattern in the values of the coefficients and the Wald statistics with the increases of income levels. It could be interpreted that high income households are

more likely than are those with a lower income to have high preferences for multi-family dwellings.

The effects of the control variables, current structure type, and structure type preferences on structure type norms are summarized in Table 5. The Chi-square for the model is 118.821 with 15 degrees of freedom with is statistically significant.

Table 4. Logistic Regression Analysis of Structure Type Preferences on the Control Variables and Current Structure Type

Independent Variables	Coefficient	SE	Wald ^a
Age of the head			
35-44 years	-1.3881	.4788	8.4063*
45-54 years	-1.4679	.5341	7.5526*
55 or over	-.8750	.6519	1.8017
Sex of the head			
Couple	-.2252	.6436	1.8017
Education of the head			
12 years	1.8755	.7310	6.5820*
Some college	2.3239	.7332	10.0468*
Household income			
\$15,000-\$19,999	.1348	.3317	.1650
\$20,000-\$29,999	.3388	.4139	.6699
\$30,000 or more	.6420	.5264	1.4874
Household size			
2-4 persons	.3707	.3410	1.1814
Employment status			
Single worker	1.3028	.9623	1.8330
Two or more workers	.9243	.9802	.8891
Type of the household			
Extended	.2665	.5251	.2576
Current structure type			
Multi-family dwelling	1.4760	.2896	25.9754*
Intercept	-3.2014		
-2 Log Likelihood	327.175		
Model Chi-square	93.593	df=14	p=.0000

^a The Wald statistic has a Chi-square distribution.

* Significant at .05 level.

All independent variables, except structure type preferences, do not make a significant contribution to the explanation of structure type norms. As expected, structure type preferences have a strong relationship to structure type norms. The positive relationship indicates that those having preferences for multi-family dwellings are more likely to think multi-family dwellings as a structure type norms, compared to those with single-family dwelling preferences. Conversely, when

they have preferences for single-family dwellings, the probability of expressing single-family dwellings as structure type norms would be higher. The coefficient and the Wald statistic for each income variable, although insignificant, tend to increase by the increase of household income. This pattern means that higher income households are more likely to report multi-family dwellings as structure type norms, compared to those with lower income.

Table 5. Logistic Regression Analysis of Structure Type Norms on the Control Variables.
Current Structure Type and Structure Type Preferences

Independent Variables	Coefficient	SE	Wald ^a
Age of the head			
35-44 years	.3844	.4195	.8399
45-54 years	-.3305	.4899	.4552
55 or over	-.6836	.6339	1.1627
Sex of the head			
Couple	-.1162	.6808	.0291
Education of the head			
12 years	-.5443	.6572	.6858
Some college	-.3691	.6571	.3155
Household income			
\$15,000-\$19,999	.0206	.3525	.0034
\$20,000-\$29,999	.1718	.4369	.1546
\$30,000 or more	.8878	.5432	2.6710
Household size			
2-4 persons	-.0466	.3787	.0151
Employment status			
Single worker	-.0552	.9263	.0036
Two or more workers	.0557	.9414	.0035
Type of the household			
Extended	-.3556	.5486	.4203
Current structure type			
Multi-family dwelling	.2556	.3327	.6374
Structure type preferences			
Multi-family dwelling	2.6259	.3389	60.0506*
Intercept	-1.1251		
-2 Log Likelihood	302.815		
Model Chi-square	118.821	df=15	p=.0000

^a The Wald statistic has a Chi-square distribution.

* Significant at .05 level.

V. Conclusions

The question of this paper was which socio-demographic groups of the Korean households are more likely to think multi-family dwellings as structure type norms and preferences. The data analyzed were collected during November and December, 1990 in Seoul, Korea.

The probability of living in a multi-family dwelling was found to be higher for the households with a head who is younger and with higher education. Preferences for multi-family dwellings primarily differs by current structure type, age and education of the head. Specifically, multi-family dwellers, young households, and those with a head who has a high level of education tend to have a higher probability of preferring multi-family dwellings. Structure type norms were found to be affected only by structure type preferences. In other words, households who prefer multi-family dwellings are more likely than are those with single-family dwelling preferences to think multi-family dwellings as structure type norms in Korea.

Both age and education of the head are variables with significant effects in the prediction of current structure type and preferences for multi-family dwellings of Korean households. The significant contribution of age of the head once again confirms a phenomenon related to family life-cycle stages. As the young households have less household income available, they are more likely to choose renting small multi-family dwellings.

On the contrary, the finding related to education of the head is somewhat different compared to the previous research done in

the U.S.. As stated earlier, multi-family dwellings are, in the U.S., usually rental and occupied by young or less income households as a kind of temporary housing before purchasing a single-family dwelling. However, in Korea, at the beginning of the distribution of multi-family dwellings on a large scale in the southern part of Seoul, they were perceived as a symbol of a new living mode as well as modern, and well-equipped housing type and often occupied by middle or upper-middle level of Korean households. And, in fact, many housing research have found that the education level of household heads who live in multi-family dwellings is higher than those living in other types of housing.

Preferences are somewhat related to age and education of the head, but primarily to current housing. Norms for structure type are explained only by preferences. Socio-demographic and economic characteristics of the households included in this analysis has little effect on norms.

There are some limitations to this study. Even if this study included only the socio-demographic and economic characteristics of the household as the assumed determinants of the norms and preferences for multi-family dwellings, there are many other factors which should be considered. For example, housing values of the households may affect the preferences and norms for housing. What the households want from their housing, then, may be included into the analysis. Another limitation is the timing of data collection, although it is usually accepted to use even the 10-year-old data in social sciences research. The current data were collected 5 years ago. More recent data may provide more accurate results.

References

- Aldrich, J. H. & Nelson, F. D. (1984). *Linear Probability, Logit, and Probit Models*. Beverly Hills: Sage Publications.
- Banner, M. G., Berheide, C. W., & Greckel, F. R. (1982). Housing preferences in Louisville: A feminist critique of the suburban environment. *Housing and Society*, 9, 95-110.
- Bank of Korea. (1983). *Economic Statistical Yearbook*. Seoul, Korea: Bank of Korea.
- Dillman, D. A., Tremblay, K. R., Jr., & Dillman, J. J. (1979). Influences of housing norms and personal characteristics on stated housing preferences. *Housing and Society*, 6, 2-19.
- Economic Planning Board. (1990). *Population and Housing Census*. Seoul, Korea: Economic Planning Board.
- Guy, R. F. & Pol, L. G. (1983). Racial discrimination in home ownership: A reevaluation of the preference hypothesis. *Housing and Society*, 10, 117-124.
- Hanna, S. & Lindamood, S. (1985). Ownership and ownership preference: A comparison of OLS and Logit regressions. *Housing and Society*, 12, 133-146.
- Harrell, F. E. (1986). *The LOGIST procedure. SUGI Supplemental Library User's Guide*, 5, 269-293.
- Hinshaw, M. & Allott, K. (1972). Environmental preferences of future housing consumers. *Journal of the American Institute of Planners*, 38, 102-107.
- Hohm, C. F. (1983). Expectation for future home ownership. *Housing and Society*, 10, 25-35.
- Hong, H. O. (1986). *The housing adjustment and adaptation in Korea: From Chosun Dynasty to present*. Unpublished doctoral dissertation. Korea University, Seoul, Korea.
- Khil, S. Y. (1991). *A cross-cultural study of housing adjustment among Korean, Mexican, and American households*. Unpublished doctoral dissertation. Iowa State University, Ames, Iowa.
- Korean Housing Corporation. (1985). *A Statistical Survey of the Housing Situation in Korea*. Seoul, Korea: Korean Housing Corporation Press.
- Lee, S. J. (1976). *Housing adjustment of Korean families in American Society*. Unpublished doctoral dissertation. The Florida State University, Tallahassee, Florida.
- Memken, J. A. & Morris, E. W. (1983). The social differentiation of preferences for tenure and dwelling type. *Proceedings of the Annual Conference of the American Association of Housing Educators*, Lincoln, Nebraska, October, 22-23.
- Morris, E. W. & Cho, J. (1986). Logit models for housing preferences, demographic variables and actual housing conditions.

- Housing and Society, 13(2), 118-135.
- Morris, E. W. & Winter, M. (1978). Housing, Family, and Society. New York: John Wiley and Sons.
- Morris, E. W., Winter, M., & Sward, M. A. (1984). Reporting error and single-family home ownership norms and preferences. Housing and Society, 11, 82-97.
- Neter, J., Wasserman, W., & Kutner, M. A. (1983). Applied Linear Regression Models. Homewood, IL: IRWIN.
- Oh, C. O. (1983). Housing adaptation behaviors in relation to sociodemographic and physical variables. Unpublished master's thesis. Yonsei University, Seoul, Korea.
- Research Institute of Home Economics. (1989). Post Occupancy Evaluation and Design of Multi-Family Housing. Seoul, Korea: College of Home Economics, Yonsei University.
- SPSS Inc. (1990). SPSS/PC+ Advanced Statistics 4.0. Chicago, IL: SPSS Inc.
- Sward, M. A. & Morris, E. W. (1996). Reporting error and single-family home ownership norms and preferences: A replication. Housing and Society, 13, 71-78.
- Termbly, K. R., Jr. (1981). The strength of four housing norms: Evidence from sanctions, behavior, and preferences. Housing and Society, 8, 32-38.
- Tremblay, K. R., Jr. & Dillman, D. A. (1983). Beyond the American Housing Dream: Accommodation to the 1980's. Lanham, MD: University Press of America.
- Widmar, R. (1984). Preferences for multi-family housing. Journal of Architectural & Planning Resources, 4, 245-261.

