

미국의 주거소비규범에 관한 연구

The existence of and deviations from housing consumption norms
in the United States

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〈 요 약 〉

본 연구는 주거소비규범에서의 이탈과 관계된 변수들을 조사하고자 시도되었으며, 이러한 목적을 달성하기 위한 구체적인 연구과제는 다음과 같다.

1. 미국의 각기 다른 가구유형별(가족생활주기 측면에서 구성된) 주거소비규범이 존재하는가?
2. 규범보다 높은수준의 주거소비와 관계된 변수는 무엇인가? 규범보다 낮은 수준의 주거소비와 관계된 변수는 무엇인가?

자료는 미국에서 실시된 1990년도 소비지출조사의 인터뷰대상에서 추출된 4,923개의 소비자단위로 연구과제를 해결하기 위해 ordinary least squares(OLS) 중회귀분석방법이 사용되었으며, 본 연구에서 주거소비규범은 다음과 같은 4가지 주거특성, 즉 방수, 주거유형, 침실당 사람수 및 주거소유유형으로 확인되었다. 분석결과, 가구유형 및 크기가 규범이 존재한다고 믿어지는 4가지 주거특성과 유의하게 관련되어 있었으며, 이는 이러한 특성에 대해 규범이 존재한다는 결론을 지지했다. 한편, 다른 많은 가구들이 그들의 가구유형규범과 크기규범에 일치하지 않는 주거에서 살고 있는 것으로 나타났는데, 이러한 이탈은 소득, 가상의 연령 및 성별과 같이 자원제약을 나타내는 변수와

관계되어 있었다. 본 연구의 결과는 왜 인구통계적 변수가 주거 및 다른 소비와 관계되는지에 대한 이유를 설명할 수 있도록 하는 근거를 제시하고 있으며, 주거소비반족과 주거조정행동의 근거를 이해하는데 적용될 수 있을 것이다.

I. Introduction

The belief that consumer choices are influenced by culture and society is an integral part of the study of household consumption. McCracken stated that "consumption is shaped, driven, and considerations" (1988, p.xi). One expression of this belief is recognition of relationships between demographic characteristics (Ferber, 1973, p.1330) or social categories (McCracken, 1988, p.73) and consumption choices. Belief in the influence of culture in choices provides a rationale for the widespread practice of including demographic characteristics that signify social categories, such as education, occupation, and family type, as explanatory variables, in studies of household consumption.

The consumption behavior associated with a demographic group might be regarded as a norm for the group. The word norm has two definitions that might apply: "a principle of right action binding upon the members of a group": or "a pattern or trait taken to be typical in the behavior of a social group" (Webster, 1988, p.806). The second definition, which equates norms with typical behavior, was used in this study, because underlying the typical behavior there may be principles of right or appropriate action that serve to identify behavior that is "proper and acceptable" for members of a demographic group. If such principles exist, then membership in a social category may indicate appropriate housing choice. Availability of resources will also influence housing choice, by constraining the household's

choices to what is feasible.

Households might choose to deviate from the housing norms typical of the society as a whole for two reasons: Because they lacked the means to acquire housing that satisfied the norms for their social category, or because there were special household characteristics in their situation that weakened their desire or need to comply with the norms. The first type of factors might include low income, a shortage of time for maintaining housing, or discrimination that prevented or discouraged them from acquiring some housing. The second type of factor might include awareness of and interest in alternative forms of housing or lifestyle combined with adequate resources for satisfying those interests, or simply an unusually low or high degree of personal preference for housing compared with other uses of income.

The purpose of this study is to identify specific factors that are associated with deviation from housing norms. In order to achieve this purpose, it is necessary to answer these questions:

1. What are the housing norms for different household types (identified with respect to family life cycle variables) in the United States?
2. What factors are associated with housing that is above the norm? What factors are associated with housing that is below the norm?

II. Background

The concept of housing norms used in this paper based on the framework developed by Morris and Winter (1975), who identified two

types of norms : family and cultural. They equated housing needs with cultural housing norms and identified five types of cultural norms for housing : space, tenure, structure type, housing quality and characteristics of the neighborhood. Space norms are expressed primarily in the form of number of rooms, especially bedrooms. According to Morris and Winter, the number of bedrooms needed varies by household type (size, age-sex composition, and marital status of household members), while the number of other rooms needed is about the same for all types of households. Based on the results of several researches, they also suggested that the norm for tenure (home ownership) and structure type (single-family detached dwelling vs. other types) are also about the same for all families.

A study by Apgar and Brown (1988) analyzed the state of America's housing and concluded that not all American households have housing that is at or above applicable housing norms. Ability to achieve the norm depends in part on the ability of the household to pay for the housing. They found that, as of 1987, approximately one-third (32%) of total U.S. housing units were occupied by renters and the share of inadequate units in the rental stocks was 13.3 percent. They also found that in 1987 21.3 percent of poor renters lived in units classified as structurally inadequate. Homeowners are not immun to the problem : in that same year, 19.8 percent of poverty-level owners occupied inadequate units. These statistical reports suggest discrepancies between American housing norms and reality.

Other studies (Bird, Day, & Cavell, 1990 ; Danes & Morris, 1986 ; McCluree, 1989) investigated the relationship between housing needs and household characteristics and concluded that housing needs vary with the characteristics of the

household.

III. Methods

1. Data

The data used in this study were from the interview component of the 1990 Consumer Expenditure Survey (CES) collected in the third quarter of 1989. This survey, which is conducted by the Bureau of Labor Statistics, is the most comprehensive source of household expenditure information available at the national level. About 5,000 consumer units are interviewed each quarter over a 1-year period. Households which had exceptionally high level of income or of market value were top-coded so the exact values were not known. The final sample consisted of 4,923 households.

2. Variables

Housing norms in this study were identified with respect to four housing characteristics. Two of the characteristics number of rooms and type of structure-pertained to the dwelling itself. Structure was categorized into 2 types : (a) detached, single-family dwelling and (b) other types, which included town houses, apartments, mobile homes and so forth. The remaining two characteristics-number of persons per bedroom and whether the home was owned or rented-described the relationship of the households to the dwelling.

Many other housing characteristics might have been included, such as type of materials used in the structure, architectural style, size of lot, and utilities available (e.g., piped water, indoor plumbing, heating equipment, central air condition-

ing). Some of these variables were not available in the CES dataset. Of those available, selection was based on whether the variable was meaningful and useful for all households in the sample and whether the variable was capable of differentiating among groups. Size of lot was meaningful only for single-family detached dwellings; need for heating and air conditioning varied by climate zone. Almost all households, regardless of type, had piped water and indoor plumbing.

Household type was defined in terms of two variables: household composition and household size. Household composition was represented by five categories: husband-wife household without children (Type I), husband-wife household with children, the oldest being under age 6 (Type II), husband-wife household (Type III) single-parent with children household (Type IV), and other households, including single households (Type V). The fifth type of households was used as the reference group.

Factors that might affect ability to achieve the norm are income, household size, sex of householder, and number of earners, because these variables might affect the household size was hypothesized to affect the household's ability to pay for Housing by creating other demands on income. Sex of householder might affect the household's ability to obtain a home mortgage and also affect the amount of household labor available to maintain the home. Age of householder would also be expected to affect housing status. Since houses are durable goods and are major items of expenditure, it may take a consuming unit many years to acquire housing that satisfies the norm, and thus older householders would be more likely to be at the norm for housing than younger ones. Other factors might affect housing choices either by modifying the social category to

which the household belongs or by strengthening or weakening the household's desire to conform to societal norms. Such variables might include race, education, and sex of householder.

3. Method of Analysis

Housing norms were investigated by regressing the four housing characteristics on household type and household size. The predicted value for a given type and size of household was assumed to be the norm. The residuals, i.e., the difference between actual and predicted values of housing characteristics were interested as deviations from the housing norms. The residual indicated that the household was above the norm. Two regression methods were investigated—standard multiple regression and logit analysis—and were found to yield similar results. The OLS multiple regression method was used in the results reported in this paper.

In order to examine which factors were associated with housing that was above or below the norm, additional regression analyses were performed. Residuals from the first set of regressions were regressed on seven socio-demographic variables: household income, household size, number of earners, sex, age, race, and educational level of householder. The residuals for each housing characteristics were regressed separately.

In additional analyses, the four residuals for each household were summed to form a conformity index, which represented overall conformity to the four sets of residuals less than -2 standard deviation below zero coded "-1", those greater than 2 standard deviation above zero coded "1", and the remainder coded "0". The conformity index was also regressed on the seven

social-demographic variables.

IV. Results

1. Evidence for the Existence of Housing Norms

Persons per bedroom : Household type accounted for about 43 percent of the variation in number of persons per bedroom (Table 1). All of the independent variables, i.e., household size and the dummy variables, for composition categories, were significant at the .01 level. Household size was positively associated with number of persons per bedroom, that is, the larger the householder, the more likely it is for 2 or more persons to share a bedroom. Compared with other households, single consumers and husband-wife families with young children averaged more persons per bedroom ; husband-wife families with

no children or older children averaged fewer.

Translated into norms (Table 2), the expectation for a one-person household is 1.6 bedrooms ; in other words, many have a guest bedroom. If we assume that most married couples occupy the same bedroom, then most husband-wife-only families also have one or more guest bedroom, about the same as for two-person households other than single-parent households. The expectation for three-person households is 2.2 bedrooms for husband-wife families with older children, and 2.5 bedrooms for other families.

Number of rooms : Household type accounted for about 17 percent of the variance in number of rooms in the dwelling. Number of rooms was positively associated with household size. Husband-wife families, with or without children, had larger dwellings than other families of single consumers.

Translated into norms, the expectation would be :

Table 1. Regression Results for Household Type and Size

	Dependent Variables			
	No. of persons per bedroom	No. of rooms	Tenure	Structure
	b coefficients			
I. Husband-wife	-.05*	.86***	.33***	.28***
II. Husband-wife, children < 6	.15***	.35**	.11***	.09**
III. Husband-wife, children • 6	-.12***	1.08***	.32***	.29***
IV. Single Parent	.10**	.03	-.11***	.05
Household Size	.28***	.28***	.0009	.03***
Constant	.36***	4.39***	.47***	.40***
Adjusted R ²	.43	.17	.12	.12

Note. * significant at p<.05.

** significant at p<.01.

*** significant at p<.001.

Table 2. Estimated Norms for Housing for Given Household Types and Sizes

Household type	Household size	Predicted Value			
		No. of persons per bedroom	No. of rooms	Tenure ^a	Structure ^b
I. Husband-wife	2	.87	5.81	.82	.62
II. Husband-wife, children < 6	1.35	1.35	5.58	.58	.40
	4	1.63	5.86	.58	.37
III. Husband-wife, children • 6	3	1.08	6.31	.79	.60
	4	1.36	6.59	.79	.57
IV. Single Parent	2	1.02	4.98	.36	.29
	3	1.30	5.26	.36	.26
	4	1.58	5.54	.37	.23
V. Other	1	.64	4.67	.47	.37
	2	.92	4.95	.47	.34
	3	1.20	5.23	.47	.31
	4	1.48	5.51	.47	.28

Note : Values for tenure and structure might be interpreted as probabilities. A value greater than 0.5 for tenure means that the household is more likely to own than to rent its home; a value greater than 0.5 for structure means that the dwelling is more likely to be a single-family, detached house than an apartment, mobile home, town house or other type of structure.

^a1 = owned dwelling, 0 = rented.

^b1 = single, detached family dwelling, 0 = apartments, mobile homes, and so forth.

one-person household-4.7 rooms (3.1 in addition to expected number of bedrooms) ; husband-wife-only families-5.8rooms (3.5 in addition to bedrooms) ; two-person households-5.0 rooms (2.7 in addition to bedrooms for other households, 3.0 for single parent with child) ; Husband and wife with child under 5-5.6 rooms (3.5 in addition to bedrooms) ; Husband and wife with older child-6.3 rooms (3.6 in addition to bedrooms) ; other three-person households-5.2 rooms (2.7 in addition to bedrooms). In other words, the norm is about 3 room in addition to bedrooms.

Dwelling type : Household type and size accounted for about 12 percent of the variance in dwelling type (i.e., whether or not it was a single-family, detached dwelling). Single parents

and other households were not likely to live in a single-family, detached dwelling ; husband wife families, those with older children were more likely than those with younger children to live in a single-family structure. Larger households were somewhat more likely than smaller ones to live in single-family dwellings.

Tenure : The pattern for housing tenure (whether the dwelling was owned or rented) was similar to that for dwelling type, except that household size was not associated with tenure. About 12 percent of the variance was accounted for by household type.

2. Factors Associated with Status with Respect to Norms

If we accept the predicted values as the housing norm in American society (see Table 2), the degree of conformity of each household to the housing norm can be assessed by examining how far each household's actual housing departs from that predicted on the basis of type and size.

The relationship between seven household characteristics and deviation from the four housing norms, is presented in Table 3. For each of the four housing norms, exceeding the norms was positively and significantly associated with number of earners, income, and race (white), education, and age of householder, indicating that female householders are less likely to achieve exceed

housing norms than male householders.

Household sex was significantly and positively associated with exceeding the norms for tenure and dwelling type, but was not associated with deviation from the other norms or with the conformity index.

V. Summary and Conclusion

Household type and size were significantly related to four housing characteristics for which norms are believed to exist : number of rooms, number of persons per bedroom, whether the dwelling is owned or rented, and whether the dwelling is a single-family detached structure or some other dwelling structure.

This finding supports the conclusion that

Table 3. Regression Results for Relationship Between Deviation from Housing Norms and Other Household Characteristics.

	Relationship to Norm with respect to				
	No. of persons per bedroom	No. of rooms	Tenure	Structure	Overall conformity index
No. of earners	.02**	.09**	.04***	.02**	.14**
Race (white) of householder	.05**	.25***	.13***	.11***	.68***
Education of householder	.03***	.13***	.02***	.01***	.14***
Male householder	-.06***	-.28***	-.09***	-.05***	-.22**
Age of householder	.005***	.019***	.009**	.006***	.05***
Income	.000001***	.00001***	.000002***	.000001***	.00002***
Household size	.004	-.003	.01**	.01*	.03
Constant	-.70***	-2.98***	-.84***	-.62***	-5.10***
Adjusted R square	.07	.12	.15	.07	.14

Note. * significant at p<.05.

** significant at p<.01.

*** significant at p<.001.

norms exist for those characteristics. On the other hand, many households live in housing that deviates from the norm for their household size and type. Deviations were related to variables that may reflect resource constraints, such as income and age and sex of householder. Deviations were also related to variables that may reflect differences in tastes or life style.

The findings of present study suggest a basis for explaining reasons why socio-demographic variables are related to housing and other consumption. Economic theory gives little guidance on explaining these relationship.

The findings also suggest that meaningful groupings of socio-demographic variables are possible. It may be possible to differentiate between household characteristics associated with cultural norms, those representing or associated with resource constraints, and those that reflect individual variation in taste. It can be applied to understand the genesis of housing satisfaction and housing adjustment behaviors.

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