

QUALITY OF LIFE STUDY SERIES

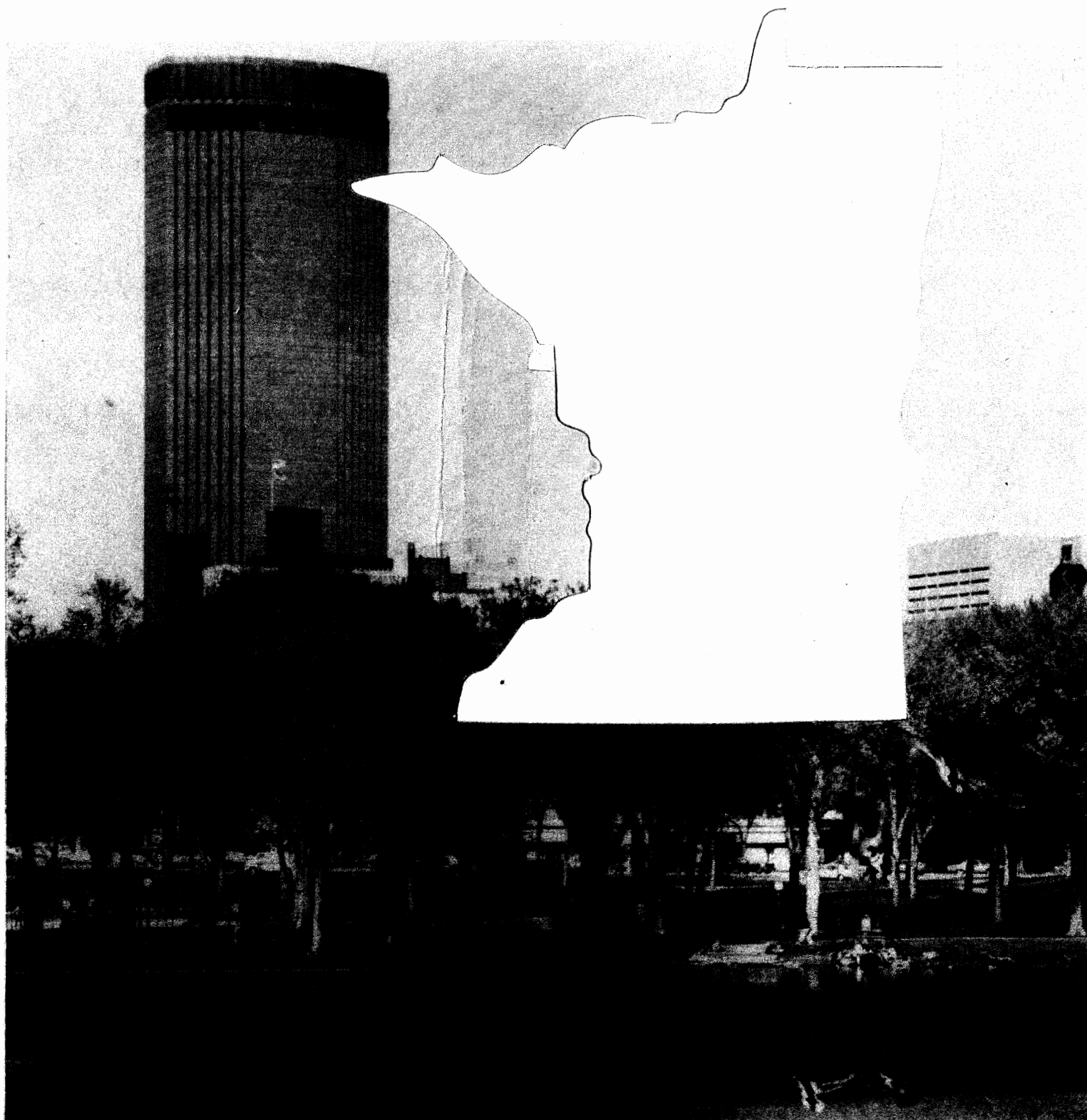


FAMILY HOUSING

USERS' PERCEPTIONS, SATISFACTIONS, AND EVALUATIONS:
A Comparison of a Metropolitan and a Non-Metropolitan Minnesota Community.

CONTENTS

Housing Satisfaction Concept	4	Adaptations	23
Family Characteristics		Condition and Adjustment Behavior	25
Area of Residence	8	Housing Market	27
Income	11	Implications	28
Tenure Status	12	Summary	30
Interior and Exterior Perceptions	16	References	31
Housing Adjustment		Appendices	32
Moving	21		



FAMILY HOUSING: USERS' PERCEPTIONS, SATISFACTIONS, AND EVALUATIONS
A Comparison of a Metropolitan and a Non-Metropolitan
Minnesota Community

HAZEL STOICK STOECKELER
Department of Design

College of Home Economics
University of Minnesota



Dear Fellow Minnesotan:

With this publication, the Agricultural Experiment Station presents another report in the Quality of Life series. Housing is a concern to Minnesotans—to all people in our country in both rural and urban areas. This research presents a fresh look at users' views of the homes in which they live.

This information will be useful to planners, to those making public policy, as well as to individuals involved in personal decisions about their own housing.

Sincerely,

A handwritten signature in cursive script that reads "Richard J. Sauer".

Director,
Agricultural Experiment Station

HOUSING SATISFACTION CONCEPT ---

This report shares information gathered using subjective indicators of the level of housing in Minnesota for a significant subgroup—husband-wife families with at least one child under 18 living in one metropolitan and one non-metropolitan community. A profile of the families and housing characteristics appears in Appendices A and B. Data were collected as part of a study of people's perceptions and attitudes about a number of life concerns which may be regarded as indicators of quality of life in general (Stoeckeler and Gage, 1978).

Satisfaction measures of overall housing and selected characteristics have been found useful by researchers studying housing as a domain of overall well-being (Campbell, Converse, and Rodgers, 1976). There has been little inquiry, however, into users' perceptions, satisfactions, and evaluations of physical, social, and psychological dimensions of their housing environment. Unique to the research reported here was the introduction of the concepts of a satisfying inside and outside of home in addition to a wide array of impressions of qualities. Further, an importance measure of the various aspects of housing being studied was introduced to give more insight on the satisfaction responses.

Respondents' answers are shown as frequencies in the tables that follow. Summaries of empirical findings are presented in a selection of figures. They illustrate results of multivariate analysis, a methodology that permits looking at interrelationship of the various sentiments, demographic, socio-economic, and physical characteristics of family members and their housing. With a small sample, study of the data is limited to

three-way cross-classifications. Data are discussed using descriptive statistics (shown in the tables); and findings presented using inferential statistics to establish significance (illustrated in the figures).

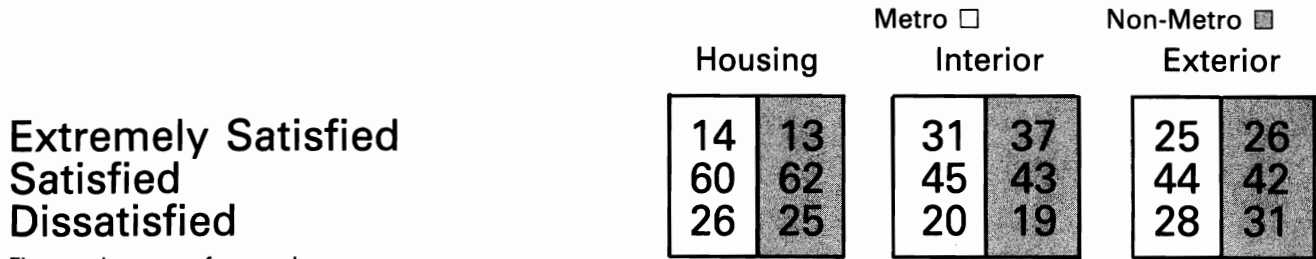
Each figure visualizes the results of analysis of the two variables being reported (identified as [1] and [2] and their relationships with the other variables, which in turn become [3]). The footnotes in the figures provide a guide for interpreting the various connections. An explanation of the statistical methodology is presented in Appendix C. The collapse of scales and frequencies for a variable, for example, husband's age, income, housing type, etc. also are discussed in Appendix C.

This report presents discussions of findings using the overall housing satisfaction response in relation to one variable from one of the categories of characteristics or sentiments together with one of the total selection of variables.

An individual cross-classification (shown in a figure) gives only the information about the relationship being analyzed. Each succeeding figure provides different information in addition to verifying a relationship or giving new insight.

These subjective data are complementary to objective indicators of housing need. The research demonstrates a basis for assessment of quality, in contrast to quantity, which should be useful to planners, policy makers, and all concerned with a housing market that serves families' social welfare.

OVERALL HOUSING, INTERIOR, AND EXTERIOR SATISFACTIONS



Figures shown are frequencies.

In general, the most metropolitan and non-metropolitan family members report satisfaction with their overall housing and with their residential interiors and exteriors. It should be noted, however, that less than 15 percent are extremely satisfied with their housing and 25 percent perceive a discrepancy between aspirations and achievement.

More family members expressed feelings of higher satisfaction with their residential interiors than their exteriors. In general, respondents' interior and exterior ratings agree; which is to say that high interior satisfaction ratings correspond to high exterior ratings although the latter are lower. Data strongly show, however, that satisfaction either with the inside or the outside of one's home may be instrumental in explaining the state of overall housing satisfaction.

Figure 1 [12] [13] [23] shows the relationship of interior and exterior satisfaction may exist independent of level of housing satisfaction. This suggests that other factors are more salient to the housing satisfaction of some family members.

None of the selected demographic and socioeconomic characteristics of the family appears to affect the relationships of interior/exterior satisfaction levels.

Three housing characteristics relate to exterior satisfaction: tenure status (more renters are dissatisfied); age of structure (62 percent of those dissatisfied with residential exterior live in homes built before the end of World War II); and condition (75 percent of those who perceive their homes as deteriorating report dissatisfaction with the outside of their homes).

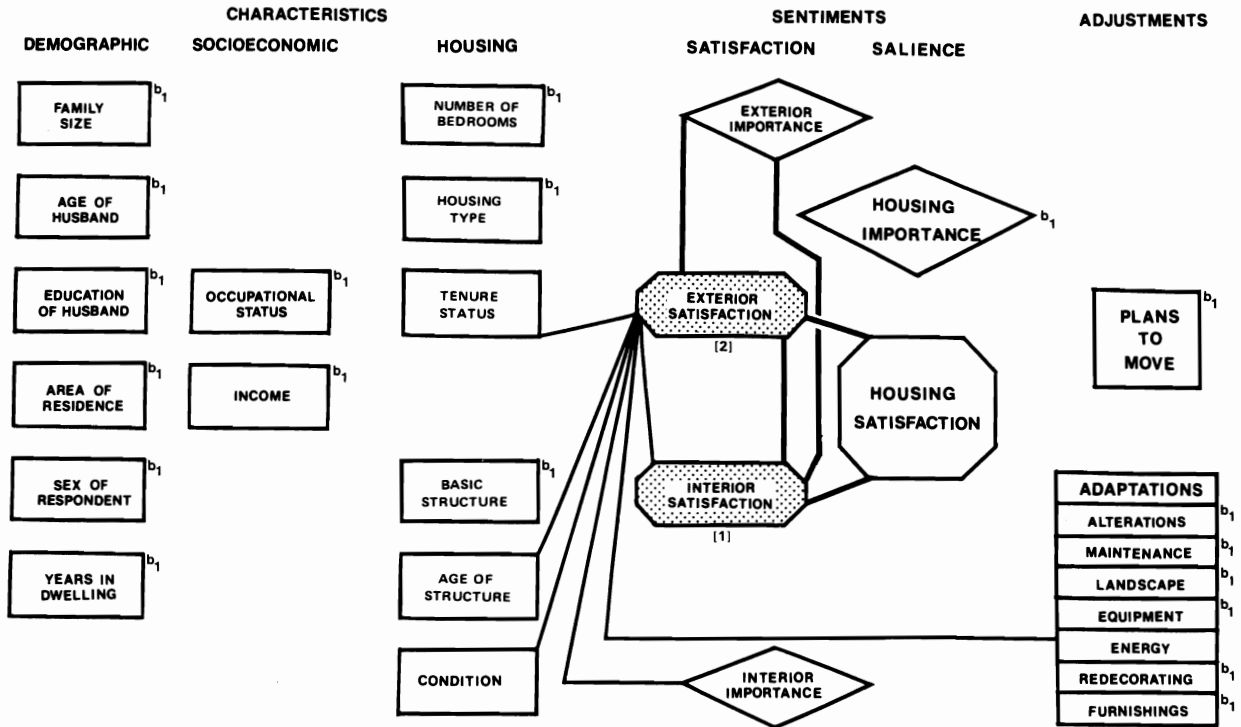
The relationship of tenure status to exterior satisfaction but not to interior satisfaction indicates that renters may be able to control their interior environments and that some experience satisfaction with this aspect of their homes. The exterior of a home may or may not be a deficit of housing satisfaction depending on the importance of a satisfying exterior.

Interior and exterior value and satisfaction relationships give insight into a varied situation. In general, family members who are satisfied with their residential exteriors also feel a satisfying outside of home is important; they may or may not be satisfied with their residential interiors. Where there is satisfaction with the inside of one's home, a satisfying exterior also is high in a hierarchy of values; however, the exterior may or may not be satisfying. Interior and exterior satisfaction levels may agree independent of how the family members feel about the importance of a satisfying outside of home (Figure 1 [12] [13] [23]).

Interior importance ratings are significantly higher and levels do not relate to interior satisfaction levels. People who experience satisfaction with the exterior of their residence also appear to feel that a satisfying interior is important (figure 1 [12] [23]). Finally, it should be noted that there are family members who are satisfied or dissatisfied with the inside and outside of their homes irrespective of how important housing is to them (Figure 1 [12] [3]).

With the exception of energy conservation measures, users' levels of interior and/or exterior satisfaction do not appear to be directly related to adjustment behavior or plans.

Figure 1^a



^ap < .01

^bTwo variables being cross-classified are [1] and [2]; other variables become [3] one at a time. Two lines convergent at one point indicate [12] [13] or [13] [23] or [12] [23] relationships. Three heavy lines connecting at different points indicate [12] [13] [23] relationships. Dotted lines convergent at one point indicate alternative models fit the data.

^cOne line connecting indicates ¹ [12] [3] or ² [13] [2] or ³ [23] [1] relationship.

^dNo connecting lines indicates independence [1] [2] [3].

OVERALL HOUSING, INTERIOR, AND EXTERIOR IMPORTANCE

	Metro □		Non-Metro ■	
	Housing	Interior	Exterior	Exterior
Extremely Important	25	42	26	27
Important	55	45	52	63
Unimportant	20	9	18	8

Figures are shown in frequencies.

The largest proportion of family members in metropolitan and non-metropolitan communities shares the view that a satisfying residential interior and exterior and housing in general are important to the quality of

their lives. Residents in both places give higher ratings to the importance of the inside of their homes. Non-metropolitan residents also give significantly higher evaluations to the importance of their home interiors.

HOUSING IMPORTANCE AND BASIC STRUCTURE

Housing Importance	Metro □		Non-Metro ■	
	Three or More Stories	One-Story Types	Two-Story Types	Split-entry Multi-level
Extremely Important	5	9	6	4
Important	2	7	15	1
Unimportant	4	21	15	13
	3	28	18	6
	0	8	5	4
	0	6	9	2

Figures are shown in frequencies.

Although, in general, housing is important to the largest proportion of family members within each category, Figure 2 indicates and data show that all residents in three or more story dwellings regard housing as important or extremely important.

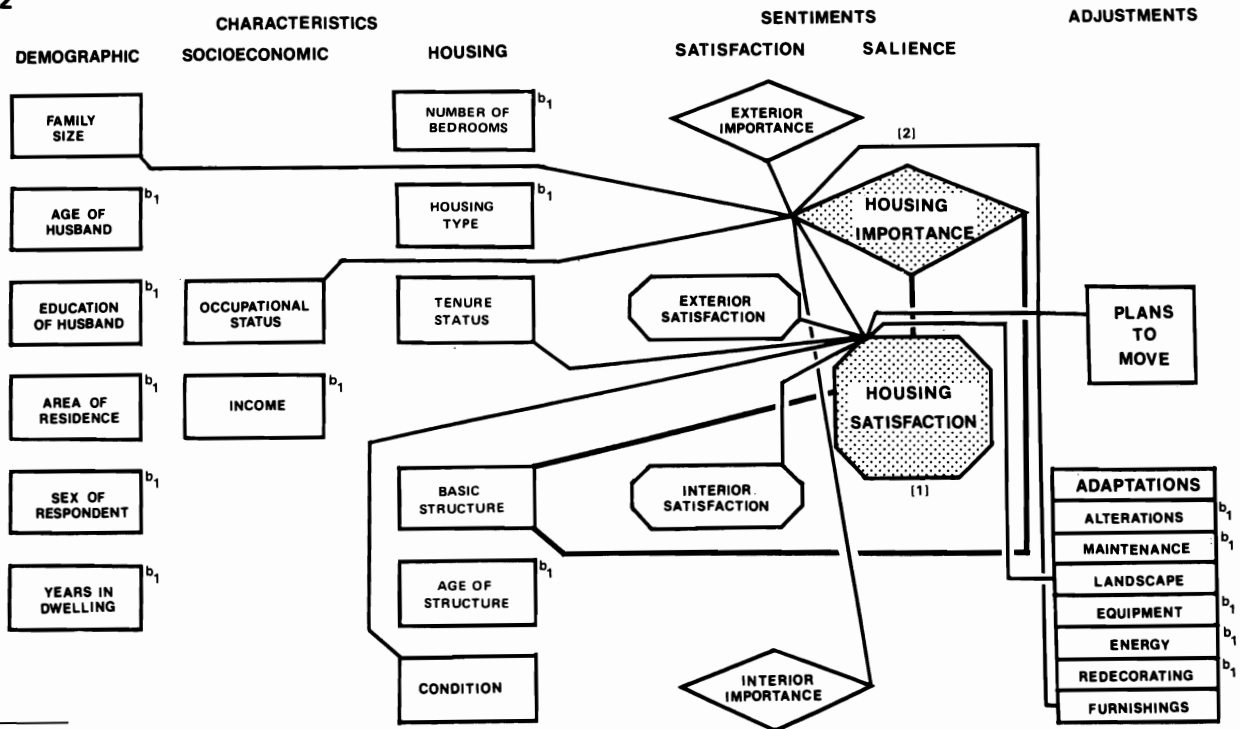
In a cross-classification (which is not shown), importance levels of interior and exterior variables generally agree, but one or the other may be related to an evaluation of the importance of housing. This seems to explain differences in the interrelationships of interior, exterior, and overall housing satisfaction revealed in Figure 1.

Family members' housing importance ratings vary from their ratings of exterior and interior satisfaction. For example, there are those who are satisfied with the

inside and outside of their homes yet do not regard housing as important, and others who regard housing as extremely important and are dissatisfied with their perceived interior and exterior qualities.

Some explanation of variability in responses is provided in Figure 2. It discloses that there are differing hierarchies of values depending on family size and occupational status of husband. (Figure 2 [12] [23].) Data show that members of families with two children and families of lower social status give higher ratings to the importance of housing. Further cross-classification of family size and area of residence exposed that more one-child families in both places also give higher ratings to the importance of a satisfying home exterior.

Figure 2^a



p < .01

^aTwo variables being cross-classified are [1] and [2]; other variables become [3] one at a time. Two lines convergent at one point indicate [12] [13] or [13] [23] or [12] [23] relationships. Three heavy lines convergent at one point indicate [12] [13] [23] relationships. Dotted lines convergent at one point indicate alternative models fit the data.

^bOne line connecting indicates ¹ [12] [3] or ² [13] [2] or ³ [23] [1] relationship.

^cNo connecting lines indicates independence [1] [2] [3].

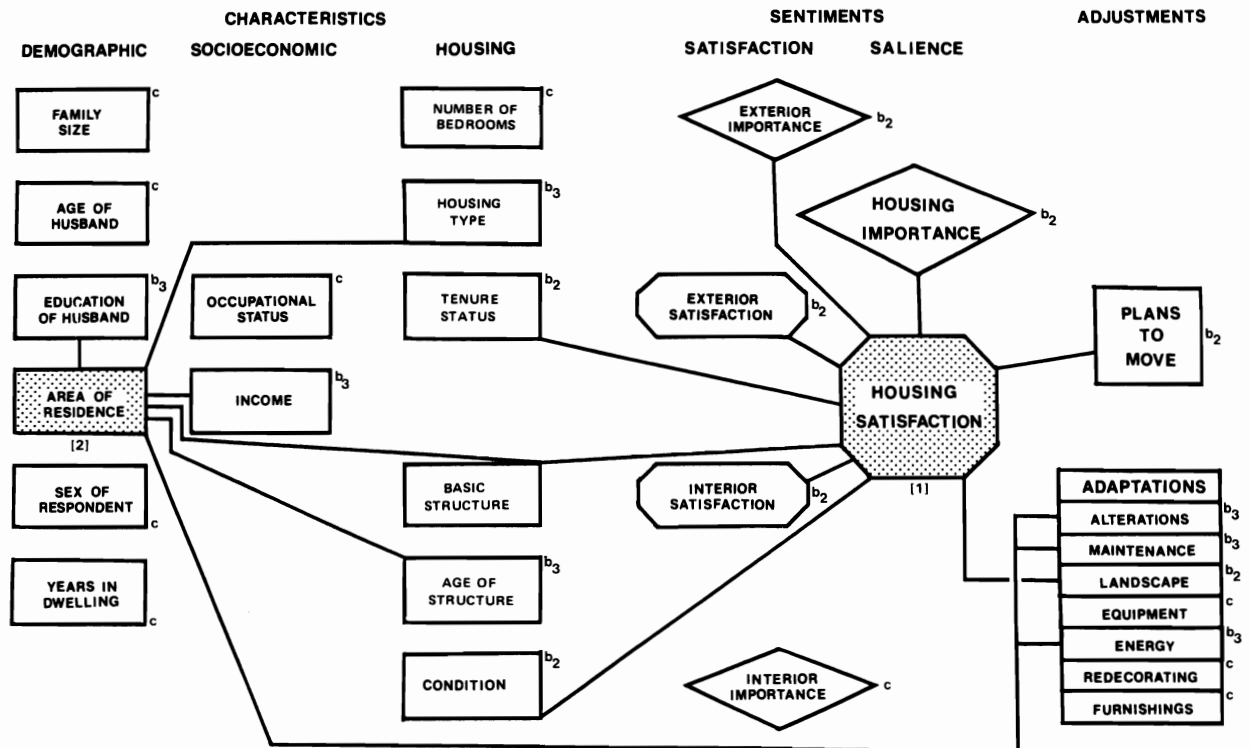
FAMILY CHARACTERISTICS

AREA OF RESIDENCE

There are only two significant differences in the selected demographic and socioeconomic characteristics of the sample families living in the metropolitan and the non-metropolitan community (Appendix A). A larger percent of husbands with education beyond high school and more families with incomes over \$20,000 occur in the metropolitan area. Figure 3 shows, however, that levels of housing are the same in both places. Home exterior and interior satisfaction

levels relate to level of housing satisfaction regardless of area of residence. Family members in both places regard housing as important and a satisfying outside of home is an important component. Feelings about the importance of exteriors match feelings of overall housing satisfaction. Ratings of the importance of a satisfying interior, however, are higher in general than ratings of overall housing satisfaction, but the same in both metropolitan and non-metropolitan areas.

Figure 3^a



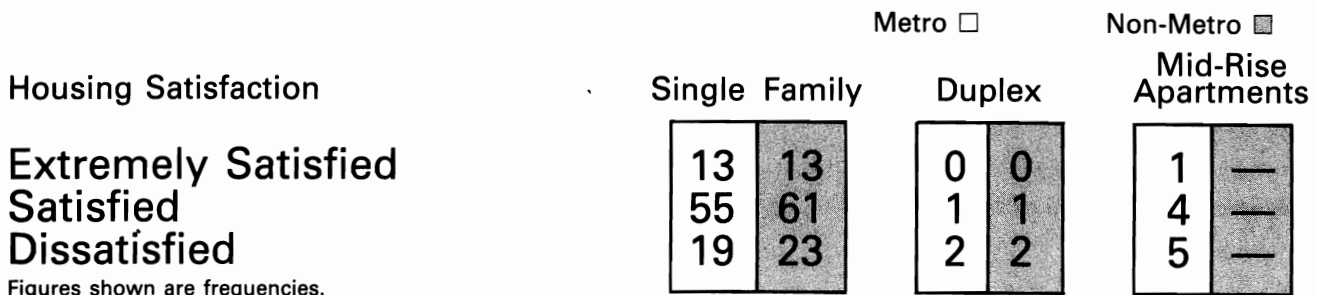
p < .01

^aTwo variables being cross-classified are [1] and [2]; other variables become [3] one at a time. Two lines convergent at one point indicate [12] [13] or [13] [23] or [12] [23] relationships. Three heavy lines connecting at different points indicate [12] [13] [23] relationships. Dotted lines convergent at one point indicate alternative models fit the data.

^bOne line connecting indicates ¹ [12] [3] or ² [13] [2] or ³ [23] [1] relationship.

^cNo connecting lines indicates independence [1] [2] [3].

HOUSING SATISFACTION, HOUSING TYPE, AND AREA OF RESIDENCE



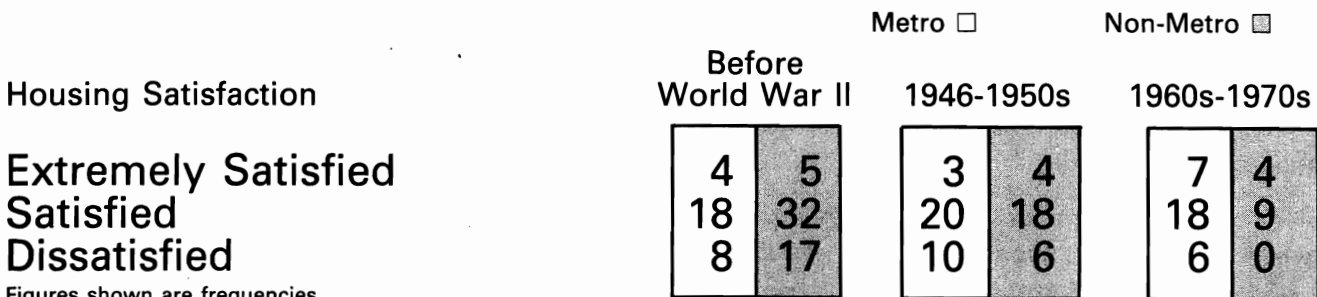
Figures shown are frequencies.

There are three differences in the housing stock of families living in the metropolitan and the non-metropolitan community. Appendix B shows that 97 percent of the non-metropolitan families live in single-family houses in contrast to 87 percent in the metropolitan area. These percentages are higher than those for the state's general population—86 percent for non-metropolitan areas and 65 percent for the region. This includes the Twin Cities (Minnesota State Planning Agency, June 1978). There are no multi-family dwell-

ings of five or more units in the non-metropolitan community; the metropolitan area apartments are not in high-rise buildings.

Figure 3 shows that housing satisfaction levels for residents in the various types of housing are similar in each type of housing in both places. It should be noted that 50 percent of the metropolitan families living in apartments of five or more units are satisfied with their housing in general.

HOUSING SATISFACTION, STRUCTURE AGE, AND AREA OF RESIDENCE



Figures shown are frequencies.

Age of structure is related to area of residence (Figure 3); 57 percent of the housing in the non-metropolitan community were built before the end of World War II and only 14 percent during the last two decades. There

are similar proportions of satisfied and dissatisfied residents in structures of all ages regardless of place of residence.

HOUSING SATISFACTION, BASIC STRUCTURE, AND AREA OF RESIDENCE

Housing Satisfaction	Metro □		Non-Metro ■	
	Three or More Stories	One-Story Types	Two-Story Types	Split-entry Multi-level
Extremely Satisfied	0	5	4	5
Satisfied	4	19	19	14
Dissatisfied	5	14	3	2
	0	5	7	1
	4	24	24	8
	1	12	11	0

Figures shown are frequencies.

Basic structure is related to both area of residence and housing satisfaction (Figure 3). There are more two-story structures in the non-metropolitan community and more split-entry and multi-level types in the metropolitan area.

A larger proportion of family members in the two latter types are satisfied with housing in general at higher

levels irrespective of location of community. Note in Figure 1 related levels of interior and exterior satisfaction occur in every type of basic structure. This suggests the need for determining what qualities of two-story and split-entry or multi-level types engender overall housing satisfaction.

HOUSING SATISFACTION, HOUSING CONDITION, AND AREA OF RESIDENCE

Housing Satisfaction	Metro □		Non-Metro ■	
	Sound	Deteriorating	Dilapidated	
Extremely Satisfied	13	1	—	—
Satisfied	51	7	—	—
Dissatisfied	18	6	—	—
	13	0	—	—
	55	5	—	—
	15	9	—	—

Figures shown are frequencies.

Levels of condition of housing appear to be similar in both locations. The classification of condition employed in the 1960 Census was used along with reporting of objective structural characteristics (regarded as useful indicators of condition) developed for the 1970 Census (Metropolitan Council, 1971). None of the families regard their housing as dilapidated. Appendix B shows that 98 percent or more have private toilet and bathing facilities, hot and cold running water, and complete kitchen facilities.

Appraisal of condition relates to level of housing satisfaction in both places (Figure 3). Eighty percent of those who regard their homes as sound also are satisfied with their housing. Condition appears to explain housing dissatisfaction and, as already shown in Figure 1, is specifically related to exterior dissatisfaction. Exterior dissatisfaction in general is related to level of overall housing satisfaction.

Note also that there are houses with varying numbers of bedrooms (Appendix B). Figure 3 shows that users experience similar proportions of housing satisfaction or dissatisfaction regardless of number of bedrooms and location of residence.

A larger proportion of renters (tenure status in Figure 3) is dissatisfied with their housing and this is the case in both metropolitan and non-metropolitan areas.

Although adjustment behaviors will be discussed in a later section, it should be observed that where there is housing dissatisfaction there are plans to move; and this is true of both metropolitan and non-metropolitan family members. There are some differences in modifications and maintenance activities (made or planned) between residents in a metropolitan and a non-metropolitan community.

INCOME

In this sample the mean income for non-metropolitan families was in the category of \$12,000 to \$14,999. For metropolitan families the mean fell between \$15,000 to \$19,999. These data are comparable to 1977 figures

(Minnesota State Planning Agency, November 1978) which indicate that the median income for husband-wife families was \$17,880 in Region 11 and \$13,680 for the balance of the state.

HOUSING SATISFACTION, INCOME, AND AREA OF RESIDENCE

Housing Satisfaction	Metro □		Non-Metro ■	
	Under \$9,000	\$9,000-\$14,999	\$15,000-\$19,999	\$20,000 and over
Extremely Satisfied	1	3	2	3
Satisfied	2	5	12	18
Dissatisfied	1	1	3	4

Figures shown are frequencies.

Data show and analysis confirms (Figure 4) that although there is an imbalance in non-metropolitan and metropolitan income levels, there are satisfied and

dissatisfied family members in every level of income and the largest proportion is satisfied in each category in both places of residence.

HOUSING SATISFACTION, INCOME, AND TENURE STATUS

Housing Satisfaction	Renters □		Owners ■	
	Under \$9,000	\$9,000-\$14,999	\$15,000-\$19,999	\$20,000 and over
Extremely Satisfied	2	2	0	5
Satisfied	1	6	4	29
Dissatisfied	2	0	8	18

Figures shown are frequencies.

Tenure status is related to both income and housing satisfaction. Among renters, 77 percent are in the two low income brackets. More renters (59 percent) are dissatisfied with their housing and more owners (78 percent) are satisfied—regardless of income level.

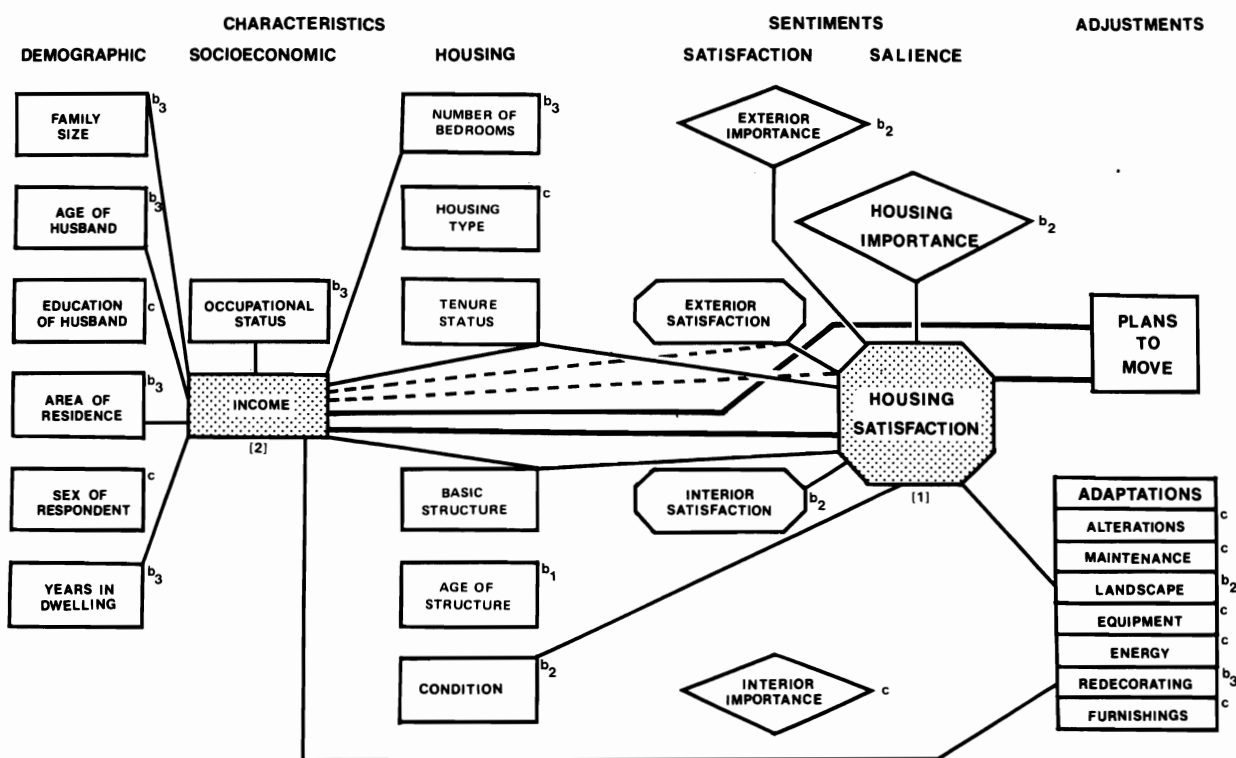
Figure 4 provides information complementary to that given in appendix Table A. Low income families appear to be small; to have young husbands; to be in a lower occupational status; to have lived less than five years in their homes; and to have small homes with

few bedrooms. However, levels of housing satisfaction are not directly related to membership in any of these categories.

Families in different income categories appear to live in different basic structures. A significantly larger proportion (80 percent) of families living in split-entry or multi-level types of dwellings are in the two higher income categories.

This cross-classification confirms what the various analyses have shown thus far—exterior satisfaction is related to overall housing satisfaction. Income appears to be a constraint to exterior satisfaction especially among families in the two income categories ranging from \$9,000 to \$19,999. (It should be noted from the income and tenure status table that 68 percent of the renters are in these two income categories.)

Figure 4^a



p < .01

^aTwo variables being cross-classified are [1] and [2]; other variables become [3] one at a time. Two lines convergent at one point indicate [12] [13] or [13] [23] or [12] [23] relationships. Three heavy lines connecting at different points indicate [12] [13] [23] relationships. Dotted lines convergent at one point indicate alternative models fit the data.

^bOne line connecting indicates ¹ [12] [3] or ² [13] [2] or ³ [23] [1] relationship.

^cNo connecting lines indicates independence [1] [2] [3].

TENURE STATUS

Since there is a widespread feeling that single-family home ownership is the most important American housing ideal, tenure status—whether one is an owner or renter—would seem to be essential in determining

the level of housing satisfaction and assessing perceived housing needs.

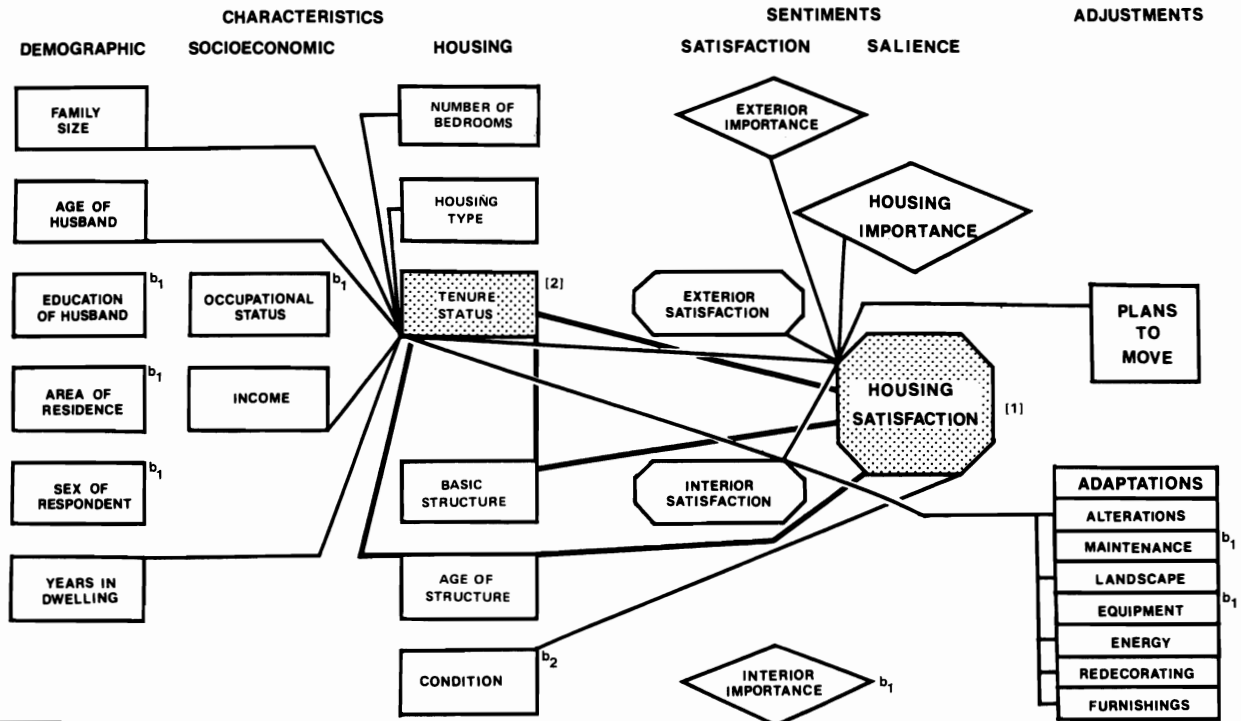
The proportion of renting families is small, but it corresponds to the tenure status for all families of this type (Minnesota State Planning Agency, June 1978).

Family characteristics relate to tenure status (Figure 5). In renter-occupied homes, family size is smaller; the husband is younger; incomes are lower; and the family has lived in the home for less than five years.

This profile is similar to that for all Minnesota renters. Analysis indicates that there are satisfied and dissatisfied family members (owners and renters) in each of these categories of characteristics.

More renting families (72 percent) live in multifamily type of dwellings. Metropolitan renters generally live in duplexes or apartments in structures of five or more units. Non-metropolitan renters live mostly in single-family houses (Appendix B). Tenure status and housing type are related but housing satisfaction is not associated with residence in a particular housing type (Figure 5 [12] [23]).

Figure 5^a



^ap < .01
^bTwo variables being cross-classified are [1] and [2]; other variables become [3] one at a time. Two lines convergent at one point indicate [12] [13] or [13] [23] or [12] [23] relationships. Three heavy lines connecting at different points indicate [12] [13] [23] relationships. Dotted lines convergent at one point indicate alternative models fit the data.
^cOne line connecting indicates ¹ [12] [3] or ² [13] [2] or ³ [23] [1] relationship.
^dNo connecting lines indicates independence [1] [2] [3].

HOUSING SATISFACTION, TENURE STATUS, AND AREA OF RESIDENCE

Housing Satisfaction	Metro <input type="checkbox"/>		Non-Metro <input checked="" type="checkbox"/>	
	Owners	Renters	Owners	Renters
Extremely Satisfied	11	12	2	1
Satisfied	54	60	5	1
Dissatisfied	21	17	5	8

Figures shown are frequencies.

Among owners, 78 percent are satisfied with their housing in contrast to 41 percent of renters. Family members living in both places report the same feeling (Figure 5 [12] [3]).

fewer bedrooms. It appears that varying levels of housing satisfaction occur among families irrespective of number of bedrooms in the home (Figure 5 [12] [23]).

Number of bedrooms, basic structure, and age of structure relate to tenure status. Rental units have

HOUSING SATISFACTION, STRUCTURE AGE, AND TENURE STATUS

Housing Satisfaction

Extremely Satisfied
Satisfied
Dissatisfied

Figures shown are frequencies.

	Owners □		Renters ■	
	Before 1945	1950s	1960-1970s	
Extremely Satisfied	8	4	10	1
Satisfied	49	36	22	4
Dissatisfied	17	15	2	4

Among owners and renters, more occupants of recently built homes (86 percent) are satisfied with their housing (Figure 5 [13]). More homeowners in every category of age structure are satisfied with their housing (Figure 5 [12]). The largest proportion of owners and renters lives in pre-World War II homes, but 80 percent of the renters are dissatisfied in contrast to 23 percent of the owners.

The proportion of renters in recently built dwellings (41 percent) is larger than that for owners (21 percent); however, 44 percent of the renters are dissatisfied.

Data suggest that where people can have a choice and control their environments, that is maintain and improve their environment because they are owners, age of home may not be a factor.

Perceived condition is strongly related to housing satisfaction, and condition of home varies among both owners and renters (Figure 5 [13]). There appear to be renters in recently built dwellings in good condition who are dissatisfied because they may prefer to be owners.

HOUSING SATISFACTION, BASIC STRUCTURE, AND TENURE STATUS

Housing Satisfaction

Extremely Satisfied
Satisfied
Dissatisfied

Figures shown are frequencies.

	Owners □		Renters ■	
	Three or More Stories	One-story Types	Two-story Types	Split-entry Multi-level
Extremely Satisfied	0	9	8	6
Satisfied	5	41	42	20
Dissatisfied	3	22	9	1

Basic structure of residence presents more complex relationships to tenure status and housing satisfaction (figure 5 [12] [13] [23]). A larger proportion of owners than renters is satisfied with their housing regardless of category of structure (Figure 5 [12]).

The largest proportion of owners live in one-story structures and most of the renters in two-story struc-

tures (Figure 5 [23]). Almost one-third of the owners and two-thirds of the renters of one-story homes are dissatisfied. More occupants—both owners and renters—who live in split-entry or multi-level types of structures (93 percent) are satisfied with their homes. Thus, Figure 5 shows a [13] relationship between basic structure and housing satisfaction independent of tenure status.

OWNERSHIP IMPORTANCE, TENURE STATUS, AND AREA OF RESIDENCE

	Metro <input type="checkbox"/>		Non-Metro <input checked="" type="checkbox"/>	
Ownership Importance	Owners		Renters	
Extremely Important	48	53	2	2
Important	32	35	6	1
Unimportant	1	1	2	1

Figures shown are frequencies.

Norms in favor of home ownership appear to be equally strong among owners and renters in both the metropolitan and the non-metropolitan area. Twenty percent of the metropolitan renters, however, and 25 percent in the non-metropolitan community rate home

ownership as unimportant. A segment—slightly larger in the metropolitan area—may not place as much emphasis on housing as a life concern. This suggests a need for a housing alternative that does not require a large investment in money, time, or energy.

TENURE SATISFACTION, TENURE STATUS, AND AREA OF RESIDENCE

	Metro <input type="checkbox"/>		Non-Metro <input checked="" type="checkbox"/>	
Tenure Satisfaction	Owners (Home Ownership)		Renters (Renting)	
Extremely Satisfied	45	53	0	0
Satisfied	33	32	2	2
Dissatisfied	3	4	10	8

Figures shown are frequencies.

Data analysis suggests that tenure status is a major factor in the anatomy of housing satisfaction of most families that is independent of the selected family and housing characteristic. Findings show that 90 percent or more of owners are satisfied with home ownership and 80 percent or more of renters are dissatisfied with renting.

A small proportion of satisfied renters, however, emphasizes the need for rental housing which may be more appropriate for families in different life stages or life styles. Coupled with the other information from this analysis, it seems that landlords need to be encouraged to improve properties and a proportion of rental housing should be available for families.

INTERIOR AND EXTERIOR PERCEPTIONS _____

There appears to be a mixture of characteristics which may be categorized as aesthetic, economic, physiological, psychological, and social that emerges among the higher ratings of satisfaction with residential interior

and exterior qualities. Users' responses are shown in rank order of mean satisfaction in Appendices D and E. (The self-administered questionnaire used for collecting these data is presented in Appendix I.)

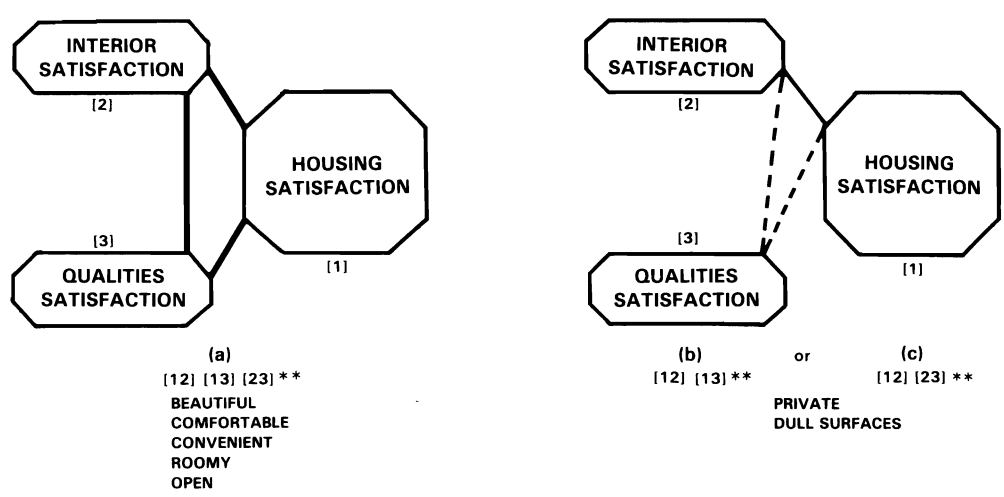
INTERIOR QUALITIES

The way in which perceived qualities appear in a rank order of ratings seems to be an empirical demonstration of the APHA (1961) categorization of housing needs into fundamental principles of physical, mental, and social health. Four words—healthy, safe, comfortable, and convenient, which are related to qualities considered essential to housing and overall well-being of our society (USBC, 1967)—are clearly regarded by the largest number as satisfying or extremely satisfying aspects of their homes. There are few significant differences in ratings

between metropolitan and non-metropolitan family members. When perceptions are studied with interior and housing satisfactions, however, there are differences in how the words relate to respondents' housing sentiments. Figure 6 presents the models that describe the various relationships.

Due to limits of space, in this report it is possible to call attention to only a few findings. A look at responses to satisfaction with the "comfortable" quality of home interior illustrates the role of an "essential" quality.

Figure 6



**p<.01

HOUSING, INTERIOR, AND COMFORT SATISFACTION

Housing Satisfaction

Extremely Satisfied
Satisfied
Dissatisfied

Interior Satisfaction

Extremely Satisfied
Satisfied
Dissatisfied

Figures shown are frequencies.

Metro Non-Metro
Comfort Satisfaction

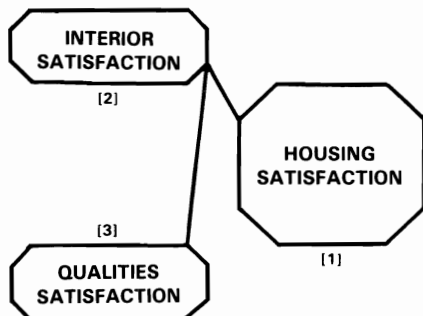
		Satisfied		Satisfied		Dissatisfied	
		Metro	Non-Metro	Metro	Non-Metro	Metro	Non-Metro
Housing Satisfaction	Extremely Satisfied	11	10	3	3	0	0
	Satisfied	15	18	35	39	8	1
	Dissatisfied	1	5	14	13	10	6
Interior Satisfaction	Extremely Satisfied	19	23	11	11	1	1
	Satisfied	6	8	34	33	5	0
	Dissatisfied	2	2	6	11	12	6

Only 13 percent of family members are dissatisfied with the comfort of their homes (64 percent of these are dissatisfied with their housing and 72 percent with the inside of their homes). Figure 6, model (a) shows that levels of satisfaction with comfort relate to levels of housing satisfaction [13] and to interior satisfaction [23].

Analysis indicates, however, that there are discrepancies between related levels of interior and housing satisfaction and levels of comfort satisfaction [12]. The terms "comfortable" as well as "convenient," "safe," and "healthy" may not be rated as highly as a family's feelings of satisfaction about housing in general; or these perceived qualities may receive higher ratings than the more global housing assessments. This

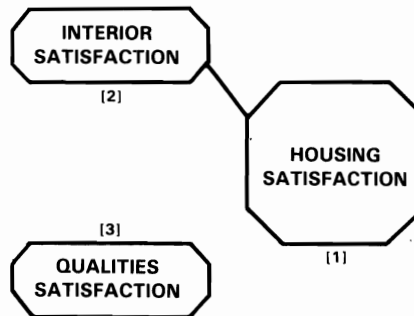
seems to indicate that housing dissatisfaction may exist although the "essential qualities" are satisfying and relate to home interior satisfaction ratings. It appears that, irrespective of satisfaction with perceived comfort, there are more people who are dissatisfied with their housing (26 percent) and with their home interiors (20 percent).

This seems to reaffirm what other analyses show and suggests that other aspects such as tenure-status, or the overall components of the interior or the exterior, condition etc., are more powerful in explaining housing dissatisfaction among a significant number of families. Interrelationships of these variables are the same among metropolitan and non-metropolitan respondents.



(d)
[12] [23]**

FRIENDLY	MODERN	PLAIN
RELAXING	LARGE	SOFT
STIMULATING	FRESH	SMOOTH
IMPRESSIVE	QUIET	SHINY SURFACES
INDIVIDUAL	LIGHT	SAFE
NEAT	WARM IN WINTER	DRY
ORDERLY	COOL IN SUMMER	HEALTHY
	HIGH	



(e)
[12] [3]**

SUBDUED COLOR	ANGLED
BRIGHT COLOR	CURVED
SMALL	DELICATE
ROUGH	RUGGED
ECONOMICAL	ORNATE
OLD FASHIONED	

HOUSING, INTERIOR, AND "ROOMY" SATISFACTIONS

Housing Satisfaction	Metro □		Non-Metro ■	
	"Roomy" Satisfaction			
	Extremely Satisfied	Satisfied	Dissatisfied	
Extremely Satisfied	8	5	2	2
Satisfied	14	11	16	19
Dissatisfied	1	2	17	14
Interior Satisfaction				
Extremely Satisfied	14	12	6	8
Satisfied	7	4	16	15
Dissatisfied	2	2	13	12

Figures shown are frequencies.

Perception of "roomy" appears to provide useful information on the impact of a space deficit on housing satisfaction. Although a number of words were used to probe reactions to the space capsule of home—roomy,

large, small, open, and high—only roomy and open related to both interior and overall housing satisfaction (Figure 6, model (a)).

"ROOMY" AND HOUSING SATISFACTIONS AND BEDROOM NUMBER

"Roomy" Satisfaction	Metro □		Non-metro ■	
	Number of Bedrooms			
	Four or More	Three	One or Two	
Extremely Satisfied	9	10	3	2
Satisfied	10	15	7	9
Dissatisfied	4	7	15	11
Housing Satisfaction				
Extremely Satisfied	3	4	4	3
Satisfied	16	22	11	10
Dissatisfied	5	6	10	9

Figures shown are frequencies.

Many more who live in one and two bedroom dwellings are dissatisfied with the roominess of their homes. Analysis of housing satisfaction [1], roominess [2], and number of bedrooms [3] shows that housing satisfaction is unaffected by number of bedrooms in the residence; satisfaction with perceived roominess, however, is linked with overall housing satisfaction [12] [23]. When family size [1], number of bedrooms [2], and housing satisfaction [3] are looked at together, one finds a relationship between family size and number of bedrooms—unrelated to housing satisfaction [12] [3]. It appears that the number of bedrooms may

be an inadequate measure of crowding and is certainly not indicative of how families experience space.

Analysis is incomplete, but there appear to be enlightening and useful implications when the data on the environmental descriptors—large, small, open, and high—are studied along with "roomy" and in relation to the qualities such as privacy, relaxing, stimulating, and family characteristics. For example, satisfaction with "roomy" [1], satisfaction with "large" [2], and housing satisfaction [3] show an association of "roomy" and "large" satisfactions, but roominess is the quality—which if perceived as satisfying—that

relates to housing satisfaction [12] [13]. "Large" and "roomy" seem to tap different dimensions of the housing environment.

This type of information opens avenues of investigation to determine relationships of size and character of

space, physical and social definition, relationship of structure and furnishings, and relationship to dimensions of the family. This part of the research is exploratory and limited by the kind of information collected. An in-depth report on some of the variables is being prepared.

IMPRESSION, IMPORTANCE, AND SATISFACTION WITH "BEAUTIFUL"

Impression	Metro □		Non-metro ■			
	"Beautiful" Satisfaction					
	Extremely Satisfied	Satisfied	Dissatisfied			
Extremely Beautiful	2	7	2	5	1	0
Beautiful	4	3	42	38	5	4
Ugly	0	0	23	18	17	22
"Beautiful" Importance						
Extremely Important	2	5	3	3	1	0
Important	4	4	48	51	14	15
Unimportant	0	1	16	6	9	10

Percentages shown are frequencies.

Beautiful and ugly are regarded as bipolar words appropriate for use in semantic scales to measure various aspects of the environment. (For references and discussion see Stoeckeler, 1977.) No family members rate their home interior as ugly but 41 percent express mixed feelings about the degree of "beautiful." Seventy-five percent of the respondents are satisfied or extremely satisfied with perceived levels of interior aesthetic quality; 78 percent regard a beautiful interior as important.

that those who perceive the inside of their homes as beautiful also are satisfied with this quality of their interiors. Where there is dissatisfaction with aesthetic quality, 80 percent rate the inside of their homes toward the ugly side of the scale. Feelings of importance are not related to feelings of satisfaction given the level of impression; 61 percent of those who are dissatisfied regard aesthetic quality as important; 39 percent of those dissatisfied may not experience a deficit since aesthetic quality is not important to them.

Analysis of the relationship of impression [1], satisfaction [2], and importance [3] of "beautiful" discloses

HOUSING, INTERIOR, AND "BEAUTIFUL" SATISFACTIONS

Housing Satisfaction	Metro □		Non-Metro ■			
	"Beautiful" Satisfaction					
	Extremely Satisfied	Satisfied	Dissatisfied			
Extremely Satisfied	3	5	9	8	2	0
Satisfied	3	5	45	46	10	9
Dissatisfied	0	0	13	7	12	17
Interior Satisfaction						
Extremely Satisfied	6	7	22	26	3	3
Satisfied	0	1	35	31	10	9
Dissatisfied	0	1	9	4	11	14

Figures shown are frequencies.

Figures shown are frequencies.

The data on aesthetic quality have not yet been exhaustively studied. Findings provide a basis for tentatively concluding that how satisfied people are with perceived "beautiful" quality is a summative response to various combinations of environmental stimuli depending on a family member's preferences. Figure 6, models (a) and (d), provide some insight on this idea. Model (d) shows satisfaction with various qualities relating to interior satisfaction, but these attributes may or may not explain overall housing satisfaction. On the other hand, satisfaction with aesthetic quality does relate to overall housing satisfaction (Figure 6,

model a) but there may be some other interior deficits which account for level of satisfaction. The interior also may be generally satisfying, but overall housing appraisal may not be congruent.

Findings support that the majority of family members are aware of the home as a place for rich sensory experiences and that it plays an important role in nurturing human capacity for response to the environment. This study empirically identifies and sheds light on the intangible functions of home as a medium for self-expression and an outward symbol of aesthetic values and personal tastes.

EXTERIOR QUALITIES

Because of the limited time for data collection the decision was made to use only a few exterior variables. Figure 7 shows the relationships of these perceived qualities to both exterior and overall housing satisfaction. An earlier report (Stoeckeler, 1979) indicated that perceptions of home exterior aesthetics relate to exterior satisfaction and exterior satisfaction relates to overall housing satisfaction; but levels of aesthetic exterior quality do not relate to levels of housing satisfaction. Further analysis shows that satisfaction with aesthetic quality of exterior relates to both exterior and overall housing satisfaction. The complex model indicates that a number of conditions exist:

1. Exterior satisfaction is related to housing satisfaction but the exterior may not be aesthetically satisfying [12].
2. An aesthetically satisfying exterior is related to housing satisfaction, but there may be some

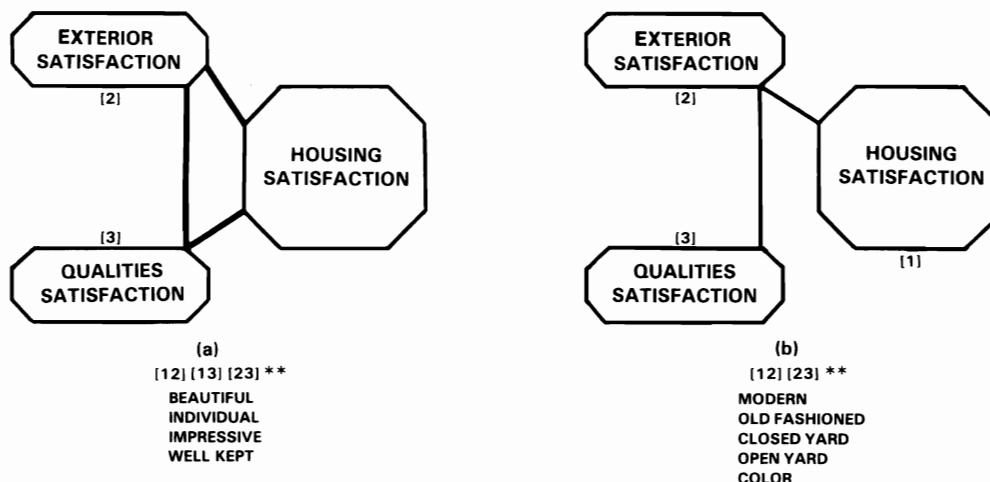
other qualities which determine the perceived level of exterior satisfaction [13].

3. The exterior and its aesthetic qualities may be satisfying but unrelated to overall housing satisfaction; some other component of housing (i.e. interior) or other factor (i.e. tenure status) may be more powerful in explaining overall housing satisfaction [23].

This furnishes further evidence that the home has important symbolic functions. For most families in both metropolitan and non-metropolitan places, aspects of one's home—especially the exterior—appear to be a means for expressing values, tastes, and status.

Outside space and exterior color are being investigated further and results will be shared in a later report.

Figure 7



**p<.01

HOUSING ADJUSTMENT

MOVING

An appraisal of housing satisfaction appears to be a measure of perceived housing deficits. Decisions for dealing with gaps between achievement and aspiration (deficits) are dependent on the type and magnitude of

the situation and various influences that serve as constraints or stimuli to adjustment behavior. Moving is one way to deal with housing dissatisfaction (Morris and Winter, 1978).

HOUSING SATISFACTION, PLANS TO MOVE, AND AREA OF RESIDENCE

Housing Satisfaction	Metro □		Non-Metro ■	
	No	Don't Know	Yes	
Extremely Satisfied	13	12	1	0
Satisfied	49	46	4	7
Dissatisfied	10	17	3	1
			0	1
			7	9
			13	7

Figures shown are frequencies.

It is quite clear that where there are feelings of dissatisfaction with housing in general there are plans to move. This variable was introduced into each of the cross-classifications. Figure 3 verifies that a family member's perceived dissatisfaction is related to plans to move regardless of place of residence.

In Figure 5 this same relationship is disclosed among both owners and renters. Feelings about the importance of housing (Figure 2), the importance of a satisfying exterior and interior (not shown), and levels of interior and exterior satisfaction (Figure 1) vary among people who plan or do not plan to move.

In this research the question was posed "Do you plan to move to a different community in the near future, say the next five years?" Therefore, housing satisfaction appears to be a measure of the contribution of one of a number of factors influencing a desire to move. Figure 8 shows that respondents from families with husbands who have only high school education or less, low incomes, and less than five years of occupancy in their homes entertain plans to move. This

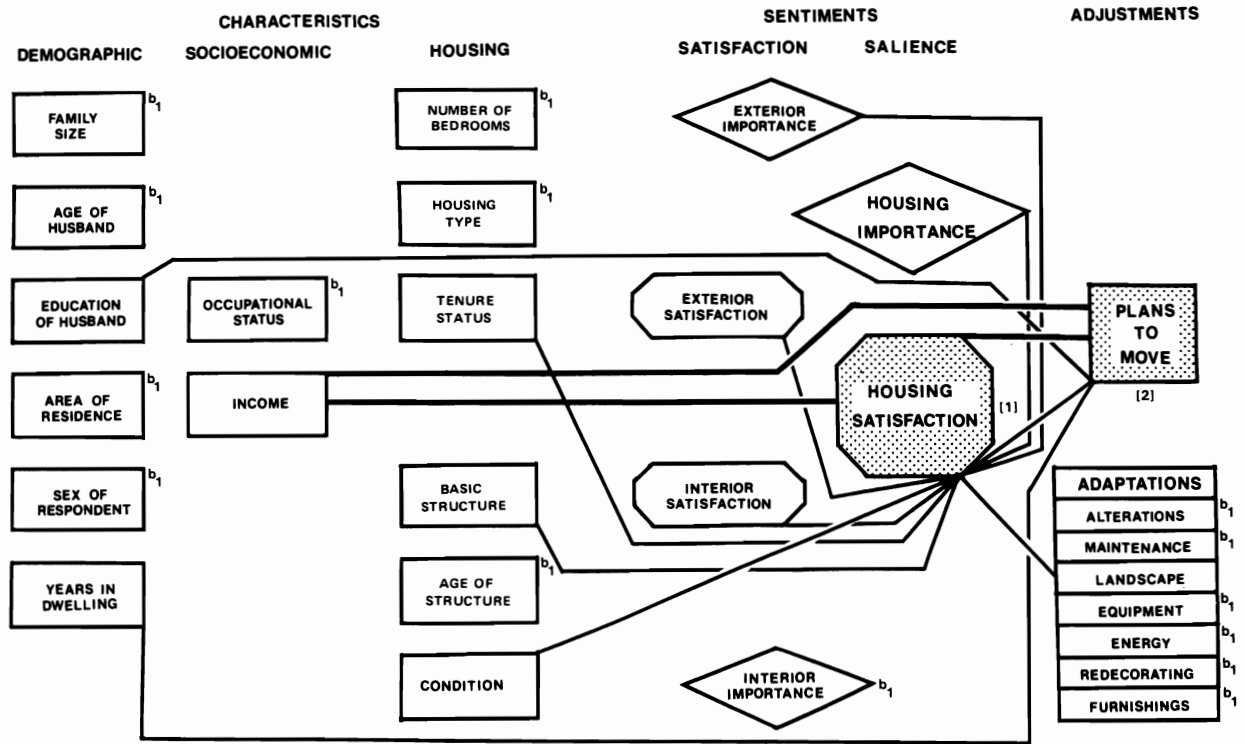
suggests other reasons which may be more salient in motivating plans to move.

Cross-classifications of satisfaction with employment and satisfaction with neighborhood (not shown), indicate that, regardless of income level, where the husband is dissatisfied with his employment or respondent is dissatisfied with the neighborhood, there are plans to move.

Review of housing research shows that the reasons why families move are: space (traditionally measured by number of bedrooms), renter status, dissatisfaction with housing type, quality of housing, and place of residence. Analysis of data in this study reveals that tenure status, basic structure, roominess (which appears to be a measure of perceived space), and condition (an aspect of quality) relate to housing satisfaction but not directly to plans to move (Figure 8). This relationship may reflect the wording of the question.

An examination of the 1979-1980 telephone directories for the communities sampled in 1977 gives some insight on relationships of intentions and subsequent behavior.

Figure 8^a



^ap < .01
^bTwo variables being cross-classified are [1] and [2]; other variables become [3] one at a time. Two lines convergent at one point indicate [12] [13] or [13] [23] or [12] [23] relationships. Three heavy lines connecting at different points indicate [12] [13] [23] relationships. Dotted lines convergent at one point indicate alternative models fit the data.
^cOne line connecting indicates ¹ [12] [3] or ² [13] [2] or ³ [23] [1] relationship.
^dNo connecting lines indicates independence [1] [2] [3].

MOVING BEHAVIOR, PLANS TO MOVE, AND AREA OF RESIDENCE

Moving Behavior	Metro <input type="checkbox"/>		Non-Metro <input checked="" type="checkbox"/>	
	No	Don't Know	Yes	
Have Not Moved	55	4	10	7
Moved from Home But Not Area of Residence	60	9	7	
Moved from Area of Residence	4	1	4	2
	10	0	2	
	9	2	3	8
	3	0	8	

Figures shown are frequencies.

These data have not been subjected to multivariate analyses, but the relationship of moving plans and actual behaviors appears to be similar among metropolitan and non-metropolitan residents. Of those who had no plans to move, 82 percent did not move and 10 percent changed homes but not communities. Thus, only 8 percent of those who had no plans to move from the community actually did move.

Of those who planned to move, 50 percent did not move, 32 percent moved away, and 18 percent moved

within the community. It seems that there are intervening variables such as the housing market and employment opportunities which affected plans. It also should be noted that the question was phrased with a time framework—"the next five years." Among those who planned to move but have not moved, there may be family members who still plan and will move during the next two years.

ADAPTATIONS

In this study “adaptations” refers to ways in which people modified their housing environment rather than how they adapted their behavior to housing conditions. Family members were asked whether they had done (within the last 12 months) or were planning to do (within the next 12 months) one or more of a list of activities to maintain or adapt their homes. Appendices G and H present, in rank order, a comparison of the metropolitan and non-metropolitan respondents’ plans and accomplishments.

In Figure 5, alterations (enlarging, remodeling, etc.), landscape changes (adding trees, fences, etc.), energy conservation (adding insulation, storm windows, etc.), redecorating (painting, carpeting, etc.), and adding new furniture or accessories (lamps, pictures, etc.) are typical activities reported. Both renters and owners have the same behaviors in respect to planning and accomplishment of maintenance and repairs and additions or replacement of household equipment.

HOUSING SATISFACTION, LANDSCAPE CHANGES, AND AREA OF RESIDENCE

Housing Satisfaction	Metro □		Non-Metro ■	
	Not Done Nor Planned	Done and Planned	Not Done Planned	Done Not Planned
Extremely Satisfied	3	0	4	7
Satisfied	25	7	12	16
Dissatisfied	14	1	7	4
	4	0	4	5
	21	3	29	9
	16	0	4	5

Figures shown are frequencies.

Landscape changes (adding trees, fences, etc.) appear to be the only modification related to overall housing satisfaction irrespective of feeling of importance of housing (Figure 2); regardless of area of residence (Figure 3); unrelated to income level (Figure 4); and independent of moving intentions (Figure 8). Among

all dissatisfied family members, 59 percent have not done and do not plan any landscape changes.

There are a few differences in behavior between non-metropolitan and metropolitan family members (Figure 3). Alterations, maintenance/repair, and energy conservation profiles vary by area of residence.

HOUSING SATISFACTION, ALTERATIONS, AND AREA OF RESIDENCE

Housing Satisfaction	Metro □		Non-Metro ■	
	Not Done Nor Planned	Done and Planned	Not Done Planned	Done Not Planned
Extremely Satisfied	7	1	4	2
Satisfied	38	6	8	8
Dissatisfied	13	1	8	4
	6	0	3	4
	21	2	18	21
	12	0	4	9

Figures shown are frequencies.

A larger proportion of non-metropolitan family members have done or plan to do some form of enlarging or remodeling (Figure 3). This may be related to the fact that there are a larger number of older structures in the non-metropolitan community.

All the configurations shown indicate that alteration behavior cannot be predicted to relate to any of the selected demographic, socioeconomic, or housing characteristics of families. Family members’ sentiments relate in the same way regardless of alteration plans or activities.

MAINTENANCE AND AREA OF RESIDENCE

	Metro □		Non-Metro ■	
	Not Done Nor Planned	Done and Planned	Not Done Planned	Done Not Planned
	31	20	9	0
	22	30	38	48

Figures shown are frequencies

Results of analysis shown in Figure 3 indicate that more non-metropolitan residents have done or plan some type of home repair. This also may occur because there are more older homes in the non-metro-

politan community. Figure 7 shows that age of structure and condition are related—more older homes are regarded as deteriorating.

HOUSING SATISFACTION, ENERGY CONSERVATION, AND AREA OF RESIDENCE

Housing Satisfaction	Metro □		Non-Metro ■	
	Not Done Nor Planned	Done and Planned	Not Done Planned	Done Not Planned
Extremely Satisfied	8	4	0	0
Satisfied	30	11	2	1
Dissatisfied	11	10	1	1
	3	5	3	4
	14	25	14	25
	6	6	8	8

Figures shown are frequencies.

There is a different profile between residents in different areas with respect to energy conservation measures. More non-metropolitan family members have done and plan to improve the energy efficiency of their

homes. These activities do not appear to be related to feelings of overall housing satisfaction or dissatisfaction (Figure 3) or any of the family characteristics (Figures 2, 4, 5, and 8).

EXTERIOR SATISFACTION, ENERGY CONSERVATION, AND AREA OF RESIDENCE

Exterior Satisfaction	Metro □		Non-Metro ■	
	Not Done Nor Planned	Done and Planned	Not Done Planned	Done Not Planned
Extremely Satisfied	16	7	0	0
Satisfied	17	7	3	2
Dissatisfied	13	10	0	0
	2	4	7	15
	11	18	13	15
	10	14	5	7

Figures shown are frequencies.

Although plans to add insulation, storm windows, etc. are not related to overall housing satisfaction, Figure 1 indicates that level of exterior satisfaction and different energy behaviors or intentions are related. There are more family members (81 percent) who are satisfied or extremely satisfied with the outside of their homes among these who have made some energy

conservation efforts. There are more dissatisfied (41 percent) among those who are planning but have not yet done anything; 33 percent of those who have done nothing and plan to do nothing also are dissatisfied. This relationship exists among family members living in both areas of residence.

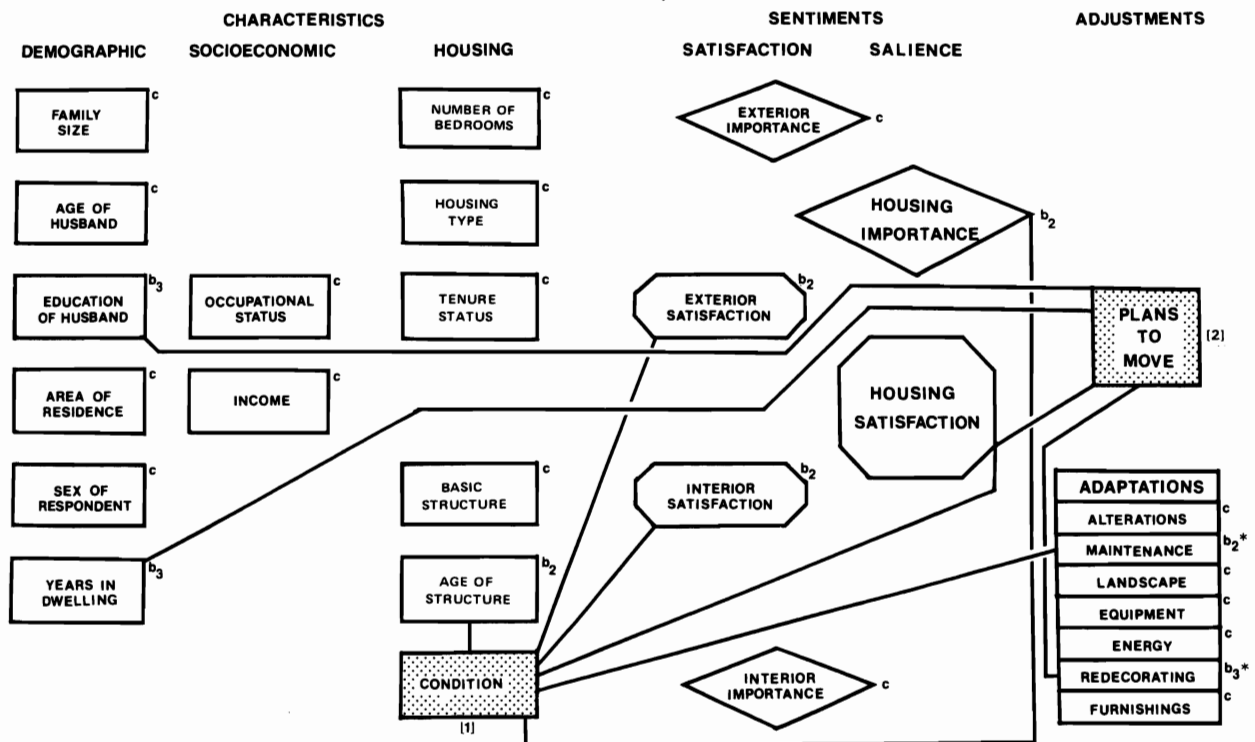
CONDITION AND ADJUSTMENT BEHAVIOR

Since condition of the home consistently relates to housing satisfaction (Figures 2, 3, 4, and 5), it seemed useful to look at family members' perceptions of this aspect of their homes for relationship with plans to move or modify their environments.

plans to move. Condition shows the same relationships to exterior satisfaction displayed in Figure 1. The information that high interior satisfaction also is related to perceived sound condition is added in this cross-classification.

Figure 9 reveals that while condition relates to housing satisfaction it does not appear to have a direct bearing on

Figure 9^a



^ap < .01

^bTwo variables being cross-classified are [1] and [2]; other variables become [3] one at a time. Two lines convergent at one point indicate [12] [13] or [13] [23] or [12] [23] relationships. Three heavy lines connecting at different points indicate [12] [13] [23] relationships. Dotted lines convergent at one point indicate alternative models fit the data.

^cOne line connecting indicates ¹ [12] [3] or ² [13] [2] or ³ [23] [1] relationship.

^dNo connecting lines indicates independence [1] [2] [3].

PLANS TO MOVE, MAINTENANCE, AND HOUSING CONDITION

Plans to Move	Deteriorating Condition □		Sound Condition ■	
	Not Done Nor Planned	Done and Planned	Not Done Planned	Done Not Planned
No	4	1	11	3
Don't Know	0	0	0	2
Yes	2	2	2	1
	31	6	31	55
	3	1	3	7
	7	1	5	15

Figures shown are frequencies.

Analysis of condition and adjustment behavior (figure 9) reveals that maintenance activity is related to perceived condition. The largest number (85 percent) regard their homes as sound and 46 percent of these have made some repairs or have done some type of maintenance. Among the 15 percent who regard their

homes as deteriorating, only 21 percent have done something about it. The situation is reversed with maintenance plans; 46 percent of family members who perceive their homes as deteriorating plan some form of maintenance repair.

PLANS TO MOVE, REDECORATE, AND HOUSING CONDITION

Plans to Move	Deteriorating Condition □		Sound Condition ■	
	Not Done Nor Planned	Done and Planned	Not Done Planned	Done Not Planned
No	4	1	7	7
Don't Know	0	1	1	0
Yes	1	4	0	4
	19	7	39	58
	5	1	4	4
	8	2	5	11

Figures shown are frequencies.

Redecorating occurs whether people regard their homes as sound or deteriorating (Figure 9). More family members (84 percent) who plan to stay in their homes—in contrast to 74 percent of those who plan to move—did or planned some type of painting, carpeting, etc. The type of redecoration may be more critically related to moving plans than redecoration per se.

It is possible that some people may do some cosmetic changes in anticipation of sale of home.

It should be noted that, in Figure 4, analyses show that income and redecoration are related—as income decreases a smaller percent have done something or have plans to do something.

HOUSING MARKET

Residents were asked to express their satisfaction with the quality and availability of the housing in their community. Family members' views reflect a state of achievement of some type of housing, a level of

satisfaction, and varying degrees of articulated or unarticulated aspirations which may involve modifying their present home or seeking an alternative housing environment.

HOUSING MARKET SATISFACTION AND IMPORTANCE

Market Satisfaction	Metro □		Non-Metro ■	
	Extremely Important	Important	Unimportant	
Extremely Satisfied	11	5	3	2
Satisfied	8	6	34	30
Dissatisfied	11	18	16	21
			1	0
			8	3
			5	11

Figures shown are frequencies.

The housing market is satisfying to most of the sample (58 percent). An even larger proportion (85 percent) regard the housing market as important. Family members in both the metropolitan and non-metropolitan area who are satisfied also feel the availability and

quality of housing is an important aspect of their community related to the quality of their lives. It appears, however, that more non-metropolitan residents are dissatisfied with the local housing market.

HOUSING MARKET SATISFACTION AND TENURE STATUS

Market Satisfaction	Metro □		Non-Metro ■	
	Owners	Renters		
Extremely Satisfied	13	6	2	1
Satisfied	46	38	2	1
Dissatisfied	25	42	7	8

Figures shown are frequencies.

There are more renters (71 percent) than owners (39 percent) who are dissatisfied with the housing market in both areas of residence. Cross-classification of housing satisfaction [1], housing market satisfaction [2], and tenure status [3] indicates that renters are

dissatisfied with the quality and availability of housing regardless of their level of housing satisfaction. Further, family members who are dissatisfied with their housing also are dissatisfied with the housing market whether they are owners or renters [12] [13] [23].

HOUSING SATISFACTION AND HOUSING MARKET IMPORTANCE

Housing Satisfaction	Metro □		Non-Metro ■	
	Extremely Important	Important	Unimportant	
Extremely Satisfying	9	7	3	6
Satisfying	14	18	37	36
Dissatisfying	8	7	14	12

Figures shown are frequencies.

Analysis of housing satisfaction [1], housing market satisfaction [2], and the importance of the housing market [3] confirms the relationships of market perceptions, but discloses that levels of housing satisfaction and market importance ratings are unrelated [12]

[23]. Eighty percent of those dissatisfied with their housing regard the quality and availability of local housing as important, while 66 percent of those who feel the community supply is unimportant are satisfied with their housing.

IMPLICATIONS

Since the context of this research was a study of families and perceived quality of life, it is appropriate to conclude with some insights on the relationships of values and

satisfactions to housing, family life, and overall well-being.

HOUSING AND FAMILY LIFE SATISFACTIONS

Housing Satisfaction	Metro □		Non-Metro ■	
	Extremely Satisfied	Satisfied	Dissatisfied	
Extremely Satisfied	10	8	4	4
Satisfied	22	21	32	35
Dissatisfied	8	10	12	11

Figures shown are frequencies.

Analysis shows that, where family life is perceived as satisfying, housing also is satisfying regardless of the

socio-economic characteristics of the family, including the place of residence.

HOUSING IMPORTANCE AND FAMILY LIFE SATISFACTION

Housing Importance	Metro <input type="checkbox"/>		Non-Metro <input checked="" type="checkbox"/>	
	Extremely Satisfied	Satisfied	Dissatisfied	
Extremely Important	18	6	1	2
Important	14	33	8	6
Unimportant	8	9	3	3
	16	8	2	
	17	33	6	
	6	9	3	

Figures shown are frequencies.

When housing importance is introduced, it appears that where family life is satisfying, housing is important. Housing also is important to a majority of family members who are dissatisfied with their family life.

Data strongly suggest that the housing environment is perceived as contributing significantly to a satisfying family life.

IMPORTANCE OF HOUSING AND FAMILY LIFE

Housing Importance	Metro <input type="checkbox"/>		Non-Metro <input checked="" type="checkbox"/>	
	Extremely Important	Important	Unimportant	
Extremely Important	24	1	0	0
Important	32	22	1	0
Unimportant	12	9	1	0
	24	2	0	
	40	16	0	
	12	6	0	

Figures shown are frequencies.

Analysis shows a majority regard family life as important and also have a value-orientation toward housing as an important concern. There is a small portion (19 percent) who do not regard housing as important, although family life is extremely important or impor-

tant. This suggests a family whose focus of interest is away from the home—on entertainment, education, or service in the community. There also may be families who desire to allocate their resources in ways other than into housing.

HOUSING AND QUALITY OF LIFE SATISFACTIONS

Housing Satisfaction	Metro <input type="checkbox"/>		Non-Metro <input checked="" type="checkbox"/>	
	Extremely Satisfied	Satisfied	Dissatisfied	
Extremely Satisfied	7	8	1	2
Satisfied	2	41	19	13
Dissatisfied	2	6	13	14
	3	5	2	
	5	41	13	
	3	13	14	

Figures shown are frequencies.

A cross-classification of housing satisfaction [1], family life satisfaction [2], and satisfaction with the quality of one's life [3], shows metropolitan and non-metropolitan family members' ratings of both housing and family life are related to overall assessments of well-

being [13] [23]. This seems to say that quality of life may be explained by family life satisfaction but housing satisfaction may or may not be present. On the other hand, data show that evaluations of well-being clearly reflect a material assessment—dissatisfying

housing related to dissatisfying quality of life occurring with varying levels of family life satisfaction. This demonstrates that well-being implies both evaluations

of tangible and intangible aspects of peoples' lives which may or may not be related to one another.

SUMMARY

The majority of Minnesota families living in one metropolitan and one non-metropolitan community are alike in having achieved the American cultural norms of ownership in a single-family house with number of bedrooms to match family size and a range of essential and preferred qualities. Objective housing characteristics do not reveal any states of physical deprivation. Satisfaction levels are the same in both areas of residence; with 75 percent extremely satisfied or satisfied, housing satisfaction levels appear to reflect their achievements.

Twenty-five percent of family members, however, indicate housing stress (dissatisfaction) which suggests displacements in the social and psychic aspects of the living environment. Only a small percentage are extremely satisfied with their housing. This may indicate that housing is not generally fulfilling the aspirations and/or expectations of these families.

Housing is a valued life concern and respondents who regard family life as important (99 percent) also feel housing is important (81 percent). It should be noted that almost 25 percent do not unequivocally feel housing is important. This number may signal a trend or at least identify a segment who do not feel it is important to expend as much money, time, or energy as is required to maintain present cultural standards of housing for their social class or income level. This may reflect a reordering of life priorities as the result of income constraints caused by the high cost of housing and its related accoutrements and services. Opportunities for leisure and educational experiences for both children and adults and possibly work preferences of mothers may be regarded by some family members as more important than the acquiring and maintaining of material possessions.

Renters comprise a subgroup of families who, in general, are dissatisfied with their housing. Renter dissatisfaction occurs in both single-family and multi-family dwellings. Dissatisfaction with components such as interior and exterior, general condition, age of

structure, and basic structure type are expressed by both owners and renters. The roots of renter discontent seem to be related to a perceived need for home ownership and the environmental control this offers.

A small number of contented renters seem to indicate the need for a small proportion of rental housing stock for families. For example, in the metropolitan area there are satisfied renters in recently built, well-maintained, mid-rise apartments with exterior amenities such as child recreational facilities. Appealing exterior characteristics are important to most family members. Rental properties are lacking especially in this respect.

Landlords in non-metropolitan communities need incentives to improve their single-family houses, and possibly to offer some alternative types of housing, which may be better suited to life stage and/or tastes, values, and goals of a segment of families.

Indexes of qualities or simply a selection of attributes have been used in most housing research to identify the role of housing quality (referring to individual characteristics or qualities which may explain level of housing satisfaction). A contribution of the research being reported here is the demonstration of the usefulness of the global concepts of interior and exterior satisfaction, which seem to either identify an area of housing dissatisfaction or show that level of satisfaction may be due to some other factor.

Assessment of overall housing satisfaction seems to provide a useful indicator for policies and planning. This measure appears to serve as a means for isolating both the extent and the components of discontent; for identifying possible housing behaviors; and for determining the role of housing as an aspect of overall well-being and satisfying family life.

Findings strongly suggest that the symbolic communication of the home is essential for families and further research is needed into what constitutes aesthetic quality as a significant aspect of expression of self.

Energy conservation may entail changes in house design which require drastically different exterior attributes, reduced amounts of natural light, and/or limits to affordable space. Acceptable compromises will have to be arrived at which may call for the education of the public to accomplish change in values and life styles that will not be detrimental to family life.

This research shows housing satisfaction and dissatisfaction occurring in every level of income. Inflation and the high cost of housing materials, services, and furnishings may become severe deterrents to maintenance

of the levels of satisfaction manifested in these data.

This study provides a baseline of subjective measurements of housing perceptions, satisfactions, and values of a significant subgroup of the general population. It attempts to identify some of the sources of dissatisfaction and related family characteristics. This information should be useful in identifying issues, stimulating further investigation, and providing a basis for public policies and action in the housing marketplace that support healthy families and family living.

REFERENCES

- APHA, American Public Health Association. *Housing: Basic Health Principles and Recommended Ordinance*. Washington: Author, 1971.
- Campbell, A., Converse, P. E., and Rodgers, W. L. *The Quality of American Life: Perceptions, Evaluations, and Satisfactions*. New York: Russell Sage Foundation, 1976.
- Fienberg, S. E. *The Analysis of Cross-Classified Categorical Data*. Cambridge, Massachusetts: The MIT Press, 1977.
- Metropolitan Council of the Twin Cities Area. *Indications of Housing Quality in the Twin Cities Metropolitan Area: Housing Report 2*. Minneapolis: Author, December, 1971.
- Minnesota State Planning Agency. *Housing in Minnesota 1977*. St. Paul, Minnesota: Office of the State Demographer, June 1978.
- Minnesota State Planning Agency. *Minnesota Household Characteristics 1977*. St. Paul, Minnesota: Office of the State Demographer, November, 1978.
- Morris, E. W. and Winter, M. *Housing, Family, and Society*. New York: John Wiley and Sons, 1978.
- Nie, N. H., Hull, C. H., Jenkins, J. G., Steinbrenner, K., and Bent, D. H. *SPSS, Statistical Package for the Social Sciences*. (Second Edition) New York: McGraw Hill, 1975.
- Stoeckeler, H. S. "Aesthetic quality of home interior—a useful indicator for housing satisfaction and other quality of life measures." *Journal of Interior Design Education and Research*. Vol. 3 (1) Spring 1977, pp. 53-73.
- Stoeckeler, H. S. *Users' Perceptions of Aesthetic Quality of Outside of Home-Housing Satisfaction Indicators*. Quality of Life Study Series, Miscellaneous Publication 166. St. Paul, Minnesota: University of Minnesota Agricultural Experiment Station, 1979.
- Stoeckeler, H. S. Loglinear models for analyzing housing sentiments of family members in a metropolitan and a non-metropolitan community. *Home Economic Research Journal* (In Press), 1980.
- Stoeckeler, H. S. and Gage, M. G. *Quality of Life*. Agricultural Experiment Station Miscellaneous Report 154. St. Paul, Minnesota: University of Minnesota Agricultural Experiment Station, 1978.
- USBC, U.S. Bureau of the Census. *Measuring the Quality of Housing, An Appraisal of Census Statistics and Methods*. Working Paper No. 25, Washington, D.C.: Author, 1967.

APPENDICES

APPENDIX A

PROFILE OF FAMILIES^a

Metro

Non-Metro

	H ^b	W	H	W
Age (years)				
Under 25.....	3	7	6	9
25-44.....	76	79	72	77
45-64.....	21	13	21	13
65 and over.....	0	0	1	1
Years of School Completed				
8 or less.....	1	2	5	1
9-11.....	10	11	15	6
12.....	27	38	38	54
Over 12.....	61	48	42	39
Employment				
Not working.....	2	47	1	51
Less than 35 hrs.....	0	21	0	28
35 hrs. and over.....	97	27	98	21
Occupation of Husband				
Professional.....	25		15	
Technical Managers, self-employed.....	15		25	
Clerical, sales.....	13		15	
Craftsman, foreman.....	19		23	
Operatives.....	14		12	
Laborers, service.....	6		5	
Years of Marriage				
5 and under.....	18		25	
6-10.....	32		25	
11-20.....	31		29	
21 and over.....	14		21	
Family Size				
3.....	22		26	
4.....	39		26	
5.....	24		30	
6 or more.....	15		18	

Age of Oldest Child		
Under 1.....	3	5
1-5.....	29	22
6-11.....	29	22
12-17.....	22	36
18 and over.....	17	15
Annual Family Income		
Under \$9,000.....	4	9
\$9,000-14,999.....	27	40
\$15,000-19,999.....	17	25
\$20,000-29,999.....	39	17
\$30,000 and over.....	11	7
Length of Residence		
Housing		
Less than 1 yr.....	15	18
1-4 years.....	43	37
5-9 years.....	19	27
10 or more yrs.....	23	18
Neighborhood		
Less than 1 yr.....	11	16
1-4 years.....	39	37
5-9 years.....	21	26
10 or more yrs.....	29	21
Community		
Less than 1 yr.....	8	5
1-4 years.....	33	24
5-9 years.....	18	31
10 or more yrs.....	41	40
State		
Less than 1 year.....	3	1
1-4 years.....	8	1
5-9 years.....	9	9
10 or more yrs.....	80	89

^aSome totals do not add to 100 because of missing data.

^bH = Husband; W = Wife

APPENDIX B

FREQUENCIES OF HOUSING CIRCUMSTANCES^a

Metro

Non-Metro

Tenure Status		
Owners	86	89
Renters.....	12	10
Housing Type		
Detached single-family	87	97
Duplex	3	3
Apartment (5 or more units)	10	0
Basic Structure		
One-story with basement	20	31
One and one-half story (finished attic space).....	18	10
Two story	26	42
Split-entry and multi-level types.....	21	9
Three or more stories	9	5
Number of Bedrooms		
One	0	1
Two	25	21
Three	51	45
Four	19	29
Five	3	4
Six or more.....	2	0
Number of Rooms		
One to four	0	0
Five	6	4
Six	4	4
Seven	11	11
Eight	14	17
Nine	13	9
Ten	15	15
Eleven	12	17
Twelve or more	18	21

Age of Structure		
Before 1920	12	16
1920s-1945	18	38
1946-1950s	33	28
1960s	18	4
1970s	13	9
Toilet Facilities		
None inside	0	1
Shared	2	1
Private	93	95
Bathing Facilities		
None.....	0	0
Shared	1	1
Private	94	96
Sewage Disposal		
Septic tank or cess pool	10	3
Public sewer	85	94
Hot and Cold Running Water		
No piped-in water.....	0	0
Only cold water	0	0
Hot and cold	95	97
Complete Kitchen Facilities		
Incomplete	0	0
Shared	0	0
Complete and private	96	97
Condition		
Dilapidated	0	0
Deteriorating	14	14
Sound.....	82	83

^aSome totals do not add to 100 because of missing data.

APPENDIX C

METHODOLOGY

The Sample

Sampling was designed to produce a probability sample useful for predicting differences among individuals in husband-wife families with a child under eighteen living in a metropolitan area and a small community. Minnesota has only one large SMSA (Standard Metropolitan Statistical Area) totally within its political boundaries, Minneapolis-St. Paul and environs. The telephone directory for the 1976-1977 Minneapolis calling area provided the metropolitan population base. Montevideo (population 7,000) was selected from among communities of 5,000 to 10,000 which are not college towns and are located more than 30 miles away from the influence of a SMSA. It was chosen from three eligible communities on the basis of convenient access for data collection.

The sample of 200 families—100 from each of these places—was selected using a systematic sampling plan with clustering in the final stages, constructed according to procedures developed by Dr. Seymour Sudman, Survey Research Laboratory, University of Illinois. Interview targets for each sampling point were randomly designated for number of female and male respondents so that the sample of 200 families was controlled to achieve 50 male and 50 female respondents in each community. A cluster consisted of five respondents. Data were collected by Mid-Continent Survey using experienced professional interviewers—six in Minneapolis and seven in Montevideo.

Measures

During an hour-and-fifteen-minute interview (average time) a family member orally reported his or her housing satisfaction and the importance of housing (as well as other life concerns) in relation to the quality of his or her life. The interviewer presented cards with numerical scales with each step defined and ordered: 1 = "extremely dissatisfied" or "extremely unimportant" through 7 = "extremely satisfied" or "extremely important." Perceptions and sentiments about the characteristics of people's homes were obtained using the self-administered questionnaire reproduced in Appendix I.

Selected Individual, Family, and Housing Characteristics

The sample is shown in Appendices A and B. In the method of statistical analysis used, dichotomous (sex, occupational status, own/rent), non-ordered polytomous (housing types), and ordered polytomous (age, income, family size, and scale responses) values of variables are treated as discrete categories. The following variables were categorized for study of relationships:

- 1) sex of respondent;
- 2) age of husband divided into three groups—under 35, 35-44, and 45 years or more (introduced for influence of family life cycle);
- 3) size of households classified into three members, four members, and those with five or more members;
- 4) owners and renters;
- 5) family's type of housing divided into single-family dwellings, duplex or townhouse, and apartments of five or more units;
- 6) income information which was complete except for four families; cross-classification was conducted with four levels of income: a) = less than \$9,000; b) = \$9,000-14,999; c) = \$15,000-19,999; and d) \$20,000 or more; and
- 7) occupational information which was missing for 13 cases. In addition to the census occupation classification, respondents were identified by an occupational code which divided the sample into two categories of social class.

Statistical Analysis

Findings were studied as cross-classified categorical data using a *CTAB* program incorporated into *SPSS* (Nie, Hull, Jenkins, Steinbrenner, and Bent, 1975). While complete discussion of the technique is beyond the scope of this report, in order to understand the interpretation of the findings and the visual diagrams, some discussion of the appropriateness and distinctive characteristics of the analysis procedures is warranted.¹ Most researchers use cross-classification for analyzing two-dimensional marginal totals, but techniques are also available for studying three or more variables simultaneously. Structural relationships among the variables can be described without using subjective measures such as indexing, weighting, factor interpretation, etc. (Fienberg, 1977).

To briefly illustrate the method and demonstrate the meaning of "model" consider the data given in Appendix C, Table 1. Because the sample size was small, housing satisfaction responses were collapsed into three categories: 1 = 1-5, "extremely dissatisfied," "dissatisfied," "somewhat dissatisfied," "mixed," and "somewhat satisfied," 2 = 6, "satisfied," and 3 = 7, "extremely satisfied." Tenure status was categorized into 1 = Renters and 2 = Owners, and income was divided into four categories.

The *CTAB* program analyzes contingency tables (such as Appendix C, Table 1) by means of hierarchical loglinear models. Since sample size ($N = 200$) was small, analysis was limited to three-way relationships.

¹The author is indebted to Professor Kinley Larntz, Department of Applied Statistics, University of Minnesota, for guidance and valuable comments.

TABLE 1

Cross classification of responses into four categories of income (I), three categories of housing satisfaction (HS), and two categories of tenure status (R=Renter and O=Owner).

	I-1 (Under \$9,000)		TOTALS
	R	O	
HS1 ^a	2	0	2
HS2	1	6	7
HS3	2	2	4
TOTALS	5	8	13

	I-2 (\$9,000-\$14,999)		TOTALS
	R	O	
HS1 ^a	8	18	26
HS2	4	29	33
HS3	0	7	7
TOTALS	12	54	66

	I-3 (\$15,000-\$19,999)		TOTALS
	R	O	
HS1 ^a	3	4	7
HS2	0	29	29
HS3	0	5	5
TOTALS	3	38	41

	I-4 (\$20,000 and Over)		TOTALS
	R	O	
HS1 ^a	0	15	15
HS2	1	49	50
HS3	1	8	9
TOTALS	2	72	74

^aScales numbered 1-7 with each step identified and ordered were collapsed into HS1=Dissatisfied (Rating 1-5); HS2=Satisfied (6); and HS3=Extremely Satisfied (7).

Let x_{ijk} be the number in cell (i, j, k) and m_{ijk} be the corresponding expected value for that entry under some model. Linear models are examined for the log expected values. The most general loglinear model is given by:

$$\log m_{ijk} = u + u_{1(i)} + u_{2(j)} + u_{3(k)} + u_{12(ij)} + u_{23(jk)} + u_{13(ik)} + u_{123(ijk)}$$

Each variable is given a number -1, 2, and 3 respectively, which in various combinations become models that mathematically describe a set of counts. Appendix C, Table 2 shows the various models and the statistics generated by the computer program. They are the likelihood-ratio statistic (G^2) and the chi-square statistic (X^2):

$$G^2 = 2 \sum (x_{ijk}) \log (x_{ijk}/\hat{m}_{ijk})$$

and

$$X^2 = \sum (x_{ijk} - \hat{m}_{ijk})^2/\hat{m}_{ijk}$$

G^2 is used for model selection. Since sample size is small, the X^2 is always examined, and where its value is not close to the G^2 , it is used as the guide to selecting the model with the best fit. One searches for a model with the smallest number of interactions.

Model selection begins with model (a) which shows all the possible pairwise interactions. Using the process of subtracting the G^2 for model (a) from the G^2 for model (b) and so on, one soon determines that models (a) and (d) fit the data. Using a Table of Distribution of χ^2 one finds that both have G^2 statistics that are clearly not significant; (Large values of G^2 indicate models that are not satisfactory in describing a data set.)² Having determined the fit of the model, by subtracting the G^2 statistic for model (d) from those which follow, one finds that the [12] and [23] interactions are statistically significant at level $p < .01$. Study of the meaning of the data in the contingency table together with these statistics allows one to conclude:

- 1) that there is a larger proportion of renting family members in the lower income categories, but level of overall housing satisfaction is not related to being in a particular income bracket [23]; and
- 2) more renting family members are dissatisfied (more owners are satisfied) with their housing regardless of income level [12].

²A more detailed discussion of the process appears in Stoeckeler, 1980. (In press)

TABLE 2

Values of the Goodness-of-Fit Statistics G^2 and X^2 For Various Loglinear Models as Applied to Data in Appendix C, Table 1.

Model ^a	d.f.	G^2	X^2
(a) [12] [13] [23]	6	14.10	12.13
(b) [12] [13]	9	29.79**	26.63**
(c) [13] [23]	8	26.36**	28.95**
(d) [12] [23]	12	24.66	20.92
(e) [12] [3]	15	42.08**	43.41**
(f) [13] [2]	11	43.78**	49.84**
(g) [23] [1]	14	38.65**	37.97**
(h) [1] [2] [3]	17	56.07**	68.48**

**p < .01

^a1=Housing Satisfaction
2=Tenure Status
3=Income

APPENDIX D

MEAN SATISFACTION OF INTERIOR PERCEIVED QUALITIES

Metro

Non-Metro

Quality	Mean	Standard Deviation
Comfortable	4.08	.70
Relaxing	4.07	.65
Healthy	4.06	.75
Friendly	4.03	.59
Safe	3.98	.71
Private	3.89	.76
Light	3.87	.67
Fresh	3.87	.71
Convenient	3.76	.79
Cool in Summer	3.76	.91
Warm in Winter	3.73	.97
Beautiful	3.72	.73
Dry	3.72	.84
Open	3.69	.78
Roomy	3.67	1.09
Individual	3.66	.68
Neat	3.65	.95
Quiet	3.65	.90
Economical	3.60*	.87
High	3.60	.76
Stimulating	3.55	.68
Orderly	3.54*	.88
Subdued Color	3.52	.72
Large	3.50	1.05
Modern	3.48	.79
Bright Color	3.47	.76
Rugged	3.40	.54
Soft	3.35	.60
Angled	3.33	.50
Smooth	3.32*	.59
Impressive	3.30	.79
Dull Surfaces	3.28	.67
Delicate	3.27	.54
Rough	3.26	.59
Shiny Surfaces	3.25	.67
Plain	3.24*	.67
Ornate	3.23	.75
Curved	3.21	.59
Old Fashioned	3.17	.85
Small	3.08	.92

Quality	Mean	Standard Deviation
Comfortable	4.24	.68
Healthy	4.23	.63
Relaxing	4.20	.69
Friendly	4.14	.68
Safe	4.14	.65
Fresh	3.95	.83
Convenient	3.92	.68
Neat	3.88	.77
Economical	3.85*	.84
Private	3.82	.89
Dry	3.81	.85
Orderly	3.80*	.74
Light	3.79	.86
Beautiful	3.78	.70
Individual	3.76	.78
Open	3.75	.87
Modern	3.71	.90
Warm in Winter	3.68	.99
Roomy	3.66	1.00
Quiet	3.65	.89
Cool in Summer	3.61	.91
Bright Color	3.59	.87
Subdued Color	3.58	.84
Stimulating	3.55	.86
Impressive	3.51	.77
Large	3.51	1.08
High	3.51	.75
Soft	3.51	.72
Smooth	3.51*	.67
Plain	3.51*	.75
Rugged	3.49	.69
Dull Surfaces	3.42	.72
Angled	3.42	.72
Shiny Surfaces	3.40	.80
Ornate	3.37	.78
Delicate	3.34	.84
Old Fashioned	3.34	.89
Rough	3.28	.71
Curved	3.26	.72
Small	3.22	1.02

*p < .05

APPENDIX E

MEAN SATISFACTION OF EXTERIOR PERCEIVED QUALITIES

Metro

Non-Metro

Quality	Mean	Standard Deviation
Well Kept	3.82	.89
Beautiful	3.73	.84
Color	3.70	1.00
Individual	3.63	.72
Open Yard	3.57	.97
Closed Yard	3.52*	.94
Modern	3.48	.82
Impressive	3.45	.78
Old Fashioned	3.22	.68

Quality	Mean	Standard Deviation
Open Yard	3.79	.84
Color	3.78	.98
Well Kept	3.75	.85
Beautiful	3.61	.84
Individual	3.61	.74
Modern	3.59	.82
Impressive	3.50	.84
Old Fashioned	3.18	.82
Closed Yard	3.14*	.97

*p < .05

APPENDIX F

MEAN SATISFACTION AND IMPORTANCE OF OVERALL HOUSING, INSIDE AND OUTSIDE OF HOME

Metro

Non-Metro

	SATISFACTION				IMPORTANCE			
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Housing ^a	5.75	.91	5.69	1.01	6.02	.75	6.08	.66
Inside of Home ^b	4.06	.83	4.13	.85	4.34	.64	4.53	.56
Outside of Home ^b	3.90	.89	3.89	.88	4.08	.68	4.19	.57

^aHousing satisfaction and importance responses given to an interviewer using a card with seven categories, identified and ordered from 1="extremely dissatisfied" to 7="extremely satisfied" and 1="extremely unimportant" to 7="extremely important."

^bBi-polar graphic scales on a self-administered questionnaire given and collected at time of interview. Five-step scales were identified, numbered and ordered, from 1="extremely dissatisfied" to 5="extremely satisfied" and 1="extremely unimportant" to 5="extremely important."

APPENDIX G

HOUSING ADJUSTMENTS IN RANK ORDER OF ACCOMPLISHMENT (June 1976-June 1977)

		Metro <input type="checkbox"/>	Non-Metro <input checked="" type="checkbox"/>
Redecorate Inside (painting, carpeting, etc.)	50	Redecorate Inside (painting, carpeting, etc.)	51
Repair and/or Maintenance	47	Repair and/or Maintenance	50
Add New Furniture or Accessories	46	Add or Replace Household Equipment	44
Add or Replace Household Equipment	38	Add New Furniture or Accessories	43
Landscape Changes (add trees, fences, etc.)	35	Energy Conservation (add insulation, storm windows, etc.)	39
Energy Conservation (add insulation, storm windows, etc.)	28	Alter Dwelling (enlarge, remodel, etc.)	36
Alter Dwelling (enlarge, remodel, etc.)	22	Landscape Changes (add trees, fences, etc.)	22

Figures shown are frequencies.

APPENDIX H

HOUSING ADJUSTMENTS IN RANK ORDER OF PLANNED FOR FOLLOWING YEAR (June 1977-June 1978)

		Metro <input type="checkbox"/>	Non-Metro <input checked="" type="checkbox"/>
Add New Furniture or Accessories	41	Landscape Changes (add trees, fences, etc.)	40
Redecorate Inside (Painting, carpeting, etc.)	37	Energy Conservation (add insulation, storm windows, etc.)	37
Landscape Changes (add trees, fences, etc.)	31	Add New Furniture or Accessories	33
Repair and/or Maintenance	28	Repair and/or Maintenance	32
Alter Dwelling (enlarge, remodel, etc.)	28	Alter Dwelling (enlarge, remodel, etc.)	27
Energy Conservation (add insulation, storm windows, etc.)	26	Redecorate Inside (painting, carpeting, etc.)	27
Add or Replace Household Equipment	22	Add or Replace Household Equipment	20

Figures shown are frequencies.

APPENDIX I

QUALITY OF LIFE SURVEY

FINDING OUT HOW PEOPLE FEEL ABOUT THEIR HOMES

The pairs of words in the column to the right, describe opposite conditions. Please circle a number closer to one of the two words in each item, which tells best how you feel about this quality. Your first reaction is generally accurate, so answer each item quickly.

EXAMPLES

There are five blank spaces on each line. If you feel that the inside of your home is extremely related to the word at one end of the line circle the number closest to that word.

Small 1 | 2 | 3 | 4 | 5 | Large

Small 1 | 2 | 3 | 4 | 5 | Large

If you feel that the inside of your home is moderately related to the word at one end of the line place your circle as follows:

Small 1 | 2 | 3 | 4 | 5 | Large

Small 1 | 2 | 3 | 4 | 5 | Large

If you feel that the inside of your home is equally related to one word or the other circle the center number.

Small 1 | 2 | 3 | 4 | 5 | Large

HOW MANY ROOMS DO YOU HAVE OF DIFFERENT TYPES IN YOUR HOUSING UNIT?

	Number of each
11. kitchen	_____
12. ^{or} kitchen with eating area	_____
13. separate dining room or dining area	_____
14. living room	_____
15. family room or recreation room	_____
16. bedrooms	_____
17. full bath	_____
18. half bath	_____
19. utility or laundry room	_____
20. sewing room or workshop	_____
21. other _____	_____
22.-23. Total number of rooms	_____

HOW WOULD YOU RATE THE INSIDE OF YOUR HOME?

(Please circle a number in each item.)

IMPRESSIONS

- | | | |
|-------------------|-------------------|---------------|
| 11. Ugly | 1 2 3 4 5 | Beautiful |
| 12. Common | 1 2 3 4 5 | Individual |
| 13. Boring | 1 2 3 4 5 | Stimulating |
| 14. Unfriendly | 1 2 3 4 5 | Friendly |
| 15. Tense | 1 2 3 4 5 | Relaxing |
| 16. Public | 1 2 3 4 5 | Private |
| 17. Cramped | 1 2 3 4 5 | Roomy |
| 18. Unimpressive | 1 2 3 4 5 | Impressive |
| 19. Modern | 1 2 3 4 5 | Old Fashioned |
| 20. Chaotic | 1 2 3 4 5 | Orderly |
| 21. Inconvenient | 1 2 3 4 5 | Convenient |
| 22. Unhealthy | 1 2 3 4 5 | Healthy |
| 23. Costly | 1 2 3 4 5 | Economical |
| 24. Dangerous | 1 2 3 4 5 | Safe |
| 25. Messy | 1 2 3 4 5 | Neat |
| 26. Uncomfortable | 1 2 3 4 5 | Comfortable |
| 27. Dissatisfying | 1 2 3 4 5 | Satisfying |

PHYSICAL SENSATIONS

- | | | |
|--------------------|-------------------|----------------|
| 28. Small | 1 2 3 4 5 | Large |
| 29. Closed | 1 2 3 4 5 | Open |
| 30. Low | 1 2 3 4 5 | High |
| 31. Angled | 1 2 3 4 5 | Curved |
| 32. Delicate | 1 2 3 4 5 | Rugged |
| 33. Hard | 1 2 3 4 5 | Soft |
| 34. Rough | 1 2 3 4 5 | Smooth |
| 35. Dull Surfaces | 1 2 3 4 5 | Shiny Surfaces |
| 36. Ornate | 1 2 3 4 5 | Plain |
| 37. Subdued Color | 1 2 3 4 5 | Bright Color |
| 38. Dark | 1 2 3 4 5 | Light |
| 39. Noisy | 1 2 3 4 5 | Quiet |
| 40. Cold In Winter | 1 2 3 4 5 | Hot In Winter |
| 41. Hot In Summer | 1 2 3 4 5 | Cold In Summer |
| 42. Wet | 1 2 3 4 5 | Dry |
| 43. Foul | 1 2 3 4 5 | Fresh |



HOW SATISFIED ARE YOU WITH THESE QUALITIES OF THE INSIDE OF YOUR HOME?

(Please circle a number in the column which best describes your feeling.)

	Extremely Dissatisfied	Moderately Dissatisfied	Mixed-Equally	Moderately Satisfied	Extremely Satisfied
11. Beautiful	1	2	3	4	5
12. Individual	1	2	3	4	5
13. Stimulating	1	2	3	4	5
14. Friendly	1	2	3	4	5
15. Relaxing	1	2	3	4	5
16. Private	1	2	3	4	5
17. Roomy	1	2	3	4	5
18. Impressive	1	2	3	4	5
19. Modern	1	2	3	4	5
20. Old Fashioned	1	2	3	4	5
21. Orderly	1	2	3	4	5
22. Convenient	1	2	3	4	5
23. Healthy	1	2	3	4	5
24. Economical	1	2	3	4	5
25. Safe	1	2	3	4	5
26. Neat	1	2	3	4	5
27. Comfortable	1	2	3	4	5
28. Small	1	2	3	4	5
29. Large	1	2	3	4	5
30. Open	1	2	3	4	5
31. High	1	2	3	4	5
32. Angled	1	2	3	4	5
33. Curved	1	2	3	4	5
34. Delicate	1	2	3	4	5
35. Rugged	1	2	3	4	5
36. Soft	1	2	3	4	5
37. Rough	1	2	3	4	5
38. Smooth	1	2	3	4	5
39. Dull Surfaces	1	2	3	4	5
40. Shiny Surfaces	1	2	3	4	5
41. Ornate	1	2	3	4	5
42. Plain	1	2	3	4	5
43. Subdued Color	1	2	3	4	5
44. Bright Color	1	2	3	4	5
45. Light	1	2	3	4	5
46. Quiet	1	2	3	4	5
47. Warm In Winter	1	2	3	4	5
48. Cool in Summer	1	2	3	4	5
49. Dry	1	2	3	4	5
50. Fresh	1	2	3	4	5

(Please circle in each item the number which describes your condition.)

24. **WHAT IS THE BASIC STRUCTURE OF YOUR DWELLING UNIT?**
- 1 One story (no basement) 4 Two story
 2 One story with basement 5 Split level
 3 One and one half story (finished attic space) 6 3 or more stories
 7 Other _____
25. **WHEN DO YOU THINK YOUR DWELLING WAS BUILT?**
- 1 Before 1920 4 1960's
 2 1920's - 1945 5 1970's
 3 1946 - 1950's
26. **IS THERE A FLUSH TOILET IN THIS DWELLING UNIT?**
- 1 No
 2 Yes, but shared with another household
 3 Yes, for exclusive use of this household
27. **DO YOU HAVE A BATHTUB OR SHOWER?**
- 1 No
 2 Yes, but shared with another household
 3 Yes, for the exclusive use of this household

28. **IS THERE HOT AND COLD WATER IN THIS DWELLING UNIT?**
- 1 No water piped into the building
 2 Only cold water
 3 Hot and cold water
29. **DO YOU HAVE COMPLETE KITCHEN FACILITIES (A SINK WITH PIPED WATER, A RANGE OR COOK STOVE AND A REFRIGERATOR) IN THIS DWELLING UNIT?**
- 1 No, incomplete facilities
 2 Yes, but shared with another household
 3 Yes, for the exclusive use of this household
30. **IS THIS DWELLING CONNECTED TO A PUBLIC SEWER, A SEPTIC TANK OR WHAT?**
- 1 Public sewer
 2 Septic tank or cess pool
 3 Other _____ (specify)
31. **HOW WOULD YOU DESCRIBE THE CONDITION OF YOUR DWELLING UNIT?**
- 1 Dilapidated (Poor quality materials - needing many repairs)
 2 Deteriorating (Run down - needing some replacement and repairs)
 3 Sound (Good quality materials - in good repair)

HOW IMPORTANT TO YOU ARE THESE QUALITIES IN REGARD TO THE INSIDE OF YOUR HOME?

(Please circle a number in the column which best describes your feeling.)

	Unimportant	Extremely Unimportant	Moderately Unimportant	Mixed-Equally	Moderately Important	Important	Extremely Important	
11. Beautiful	1	2	3	4	5			
12. Individual	1	2	3	4	5			
13. Stimulating	1	2	3	4	5			
14. Friendly	1	2	3	4	5			
15. Relaxing	1	2	3	4	5			
16. Private	1	2	3	4	5			
17. Roomy	1	2	3	4	5			
18. Impressive	1	2	3	4	5			
19. Modern	1	2	3	4	5			
20. Old Fashioned	1	2	3	4	5			
21. Orderly	1	2	3	4	5			
22. Convenient	1	2	3	4	5			
23. Healthy	1	2	3	4	5			
24. Economical	1	2	3	4	5			
25. Safe	1	2	3	4	5			
26. Neat	1	2	3	4	5			
27. Comfortable	1	2	3	4	5			
28. Small	1	2	3	4	5			
29. Large	1	2	3	4	5			
30. Open	1	2	3	4	5			
31. High	1	2	3	4	5			
32. Angled	1	2	3	4	5			
33. Curved	1	2	3	4	5			
34. Delicate	1	2	3	4	5			
35. Rugged	1	2	3	4	5			
36. Soft	1	2	3	4	5			
37. Rough	1	2	3	4	5			
38. Smooth	1	2	3	4	5			
39. Dull Surfaces	1	2	3	4	5			
40. Shiny Surfaces	1	2	3	4	5			
41. Ornate	1	2	3	4	5			
42. Plain	1	2	3	4	5			
43. Subdued Color	1	2	3	4	5			
44. Bright Color	1	2	3	4	5			
45. Light	1	2	3	4	5			
46. Quiet	1	2	3	4	5			
47. Warm in Winter	1	2	3	4	5			
48. Cool in Summer	1	2	3	4	5			
49. Dry	1	2	3	4	5			
50. Fresh	1	2	3	4	5			
51. Satisfying	1	2	3	4	5			

FOLLOWING IS A LIST OF ITEMS WHICH MAY INFLUENCE PEOPLE'S FEELINGS ABOUT WHAT MAKES THEIR HOMES BEAUTIFUL:

- 63-65 Pick out the three with the greatest influence on you and number them 1, 2, and 3 with 1 indicating the most influence.
- 66-68 Pick out the three with the least influence on you and number them 7, 8 and 9 with 9 indicating the least influence.

- | | | |
|-------|---|---|
| _____ | Pictures, articles, and advertisements in magazines | 1 |
| _____ | What is on display in local stores | 2 |
| _____ | Pictures, articles, and advertisements in newspapers | 3 |
| _____ | What is shown in mail order catalogues | 4 |
| _____ | What is on display in large city department stores | 5 |
| _____ | What neighbors, friends, and relatives have in their homes | 6 |
| _____ | What is shown at the State Fair or special home exhibitions | 7 |
| _____ | What is shown of homes on TV programs | 8 |
| _____ | The home you grew up in | 9 |
| _____ | Other _____ | 0 |



HOW WOULD YOU RATE THE OUTSIDE OF YOUR HOME?

(Please circle a number closest to the word which tells best how you feel about this quality).

- 44. Ugly

1	2	3	4	5
---	---	---	---	---

 Beautiful
- 45. Common

1	2	3	4	5
---	---	---	---	---

 Individual
- 46. Subdued Color

1	2	3	4	5
---	---	---	---	---

 Bright Color
- 47. Unimpressive

1	2	3	4	5
---	---	---	---	---

 Impressive
- 48. Modern

1	2	3	4	5
---	---	---	---	---

 Old Fashioned
- 49. Run Down

1	2	3	4	5
---	---	---	---	---

 Well Kept
- 50. Closed Yard

1	2	3	4	5
---	---	---	---	---

 Open Yard
- 51. Dissatisfying

1	2	3	4	5
---	---	---	---	---

 Satisfying

HOW SATISFIED ARE YOU WITH THESE QUALITIES OF THE OUTSIDE OF YOUR HOME?

- | | | | | | | |
|--|--|-------------------------------|--------------------------------|-------------------------------|-----------------------------|----------------------------|
| | | <i>Extremely Dissatisfied</i> | <i>Moderately Dissatisfied</i> | <i>Mixed-Equaly Satisfied</i> | <i>Moderately Satisfied</i> | <i>Extremely Satisfied</i> |
|--|--|-------------------------------|--------------------------------|-------------------------------|-----------------------------|----------------------------|
- 51. Beautiful

1	2	3	4	5
---	---	---	---	---
 - 52. Individual

1	2	3	4	5
---	---	---	---	---
 - 53. Color

1	2	3	4	5
---	---	---	---	---
 - 54. Impressive

1	2	3	4	5
---	---	---	---	---
 - 55. Modern

1	2	3	4	5
---	---	---	---	---
 - 56. Old Fashioned

1	2	3	4	5
---	---	---	---	---
 - 57. Well Kept

1	2	3	4	5
---	---	---	---	---
 - 58. Closed Yard

1	2	3	4	5
---	---	---	---	---
 - 59. Open Yard

1	2	3	4	5
---	---	---	---	---

HOW IMPORTANT TO YOU ARE THESE QUALITIES IN REGARD TO THE OUTSIDE OF YOUR HOME?

- | | | | | | | | | |
|--|--|--------------------|------------------------------|-------------------------------|-------------------------------|-----------------------------|------------------|----------------------------|
| | | <i>Unimportant</i> | <i>Extremely Unimportant</i> | <i>Moderately Unimportant</i> | <i>Mixed-Equaly Important</i> | <i>Moderately Important</i> | <i>Important</i> | <i>Extremely Important</i> |
|--|--|--------------------|------------------------------|-------------------------------|-------------------------------|-----------------------------|------------------|----------------------------|
- 52. Beautiful

1	2	3	4	5
---	---	---	---	---
 - 53. Individual

1	2	3	4	5
---	---	---	---	---
 - 54. Subdued Color

1	2	3	4	5
---	---	---	---	---
 - 55. Bright Color

1	2	3	4	5
---	---	---	---	---
 - 56. Impressive

1	2	3	4	5
---	---	---	---	---
 - 57. Modern

1	2	3	4	5
---	---	---	---	---
 - 58. Old Fashioned

1	2	3	4	5
---	---	---	---	---
 - 59. Well Kept

1	2	3	4	5
---	---	---	---	---
 - 60. Closed Yard

1	2	3	4	5
---	---	---	---	---
 - 61. Open Yard

1	2	3	4	5
---	---	---	---	---
 - 62. Satisfying

1	2	3	4	5
---	---	---	---	---

HAVE ANY OF THE FOLLOWING BEEN DONE TO YOUR HOME DURING THE PAST 12 MONTHS OR ARE PLANNED TO BE DONE IN THE NEXT 12 MONTHS? (Check (✓) the blanks which apply.)

	DONE	PLANNED
Alter dwelling unit (enlarge, remodel, etc.)	_____	_____ 1
Repair and/or maintenance of dwelling unit	_____	_____ 2
Landscape changes (add trees, fences, etc.)	_____	_____ 3
Add or replace household equipment	_____	_____ 4
Energy conservation (add insulation, storm windows, etc.)	_____	_____ 5
Redecorate inside (painting, carpeting, etc.)	_____	_____ 6
Add new furniture or accessories (lamps, pictures, etc.)	_____	_____ 7
	32	33

HOW SATISFIED ARE YOU WITH THE FOLLOWING:

- | | | | | | | |
|--|--|-------------------------------|--------------------------------|-------------------------------|-----------------------------|----------------------------|
| | | <i>Extremely Dissatisfied</i> | <i>Moderately Dissatisfied</i> | <i>Mixed-Equaly Satisfied</i> | <i>Moderately Satisfied</i> | <i>Extremely Satisfied</i> |
|--|--|-------------------------------|--------------------------------|-------------------------------|-----------------------------|----------------------------|
- 34. Home Ownership

1	2	3	4	5
---	---	---	---	---
 - 35. Renting

1	2	3	4	5
---	---	---	---	---

HOW IMPORTANT TO YOU ARE THE FOLLOWING:

- | | | | | | | | |
|--|--|--------------------|------------------------------|-------------------------------|-------------------------------|-----------------------------|----------------------------|
| | | <i>Unimportant</i> | <i>Extremely Unimportant</i> | <i>Moderately Unimportant</i> | <i>Mixed-Equaly Important</i> | <i>Moderately Important</i> | <i>Extremely Important</i> |
|--|--|--------------------|------------------------------|-------------------------------|-------------------------------|-----------------------------|----------------------------|
- 36. Home Ownership

1	2	3	4	5
---	---	---	---	---
 - 37. Renting

1	2	3	4	5
---	---	---	---	---

WHAT ARE YOUR AVERAGE MONTHLY HOUSING COSTS?

RENTER

\$ _____ Rent (38-40) \$ _____ Utilities (41-43)

HOMEOWNER

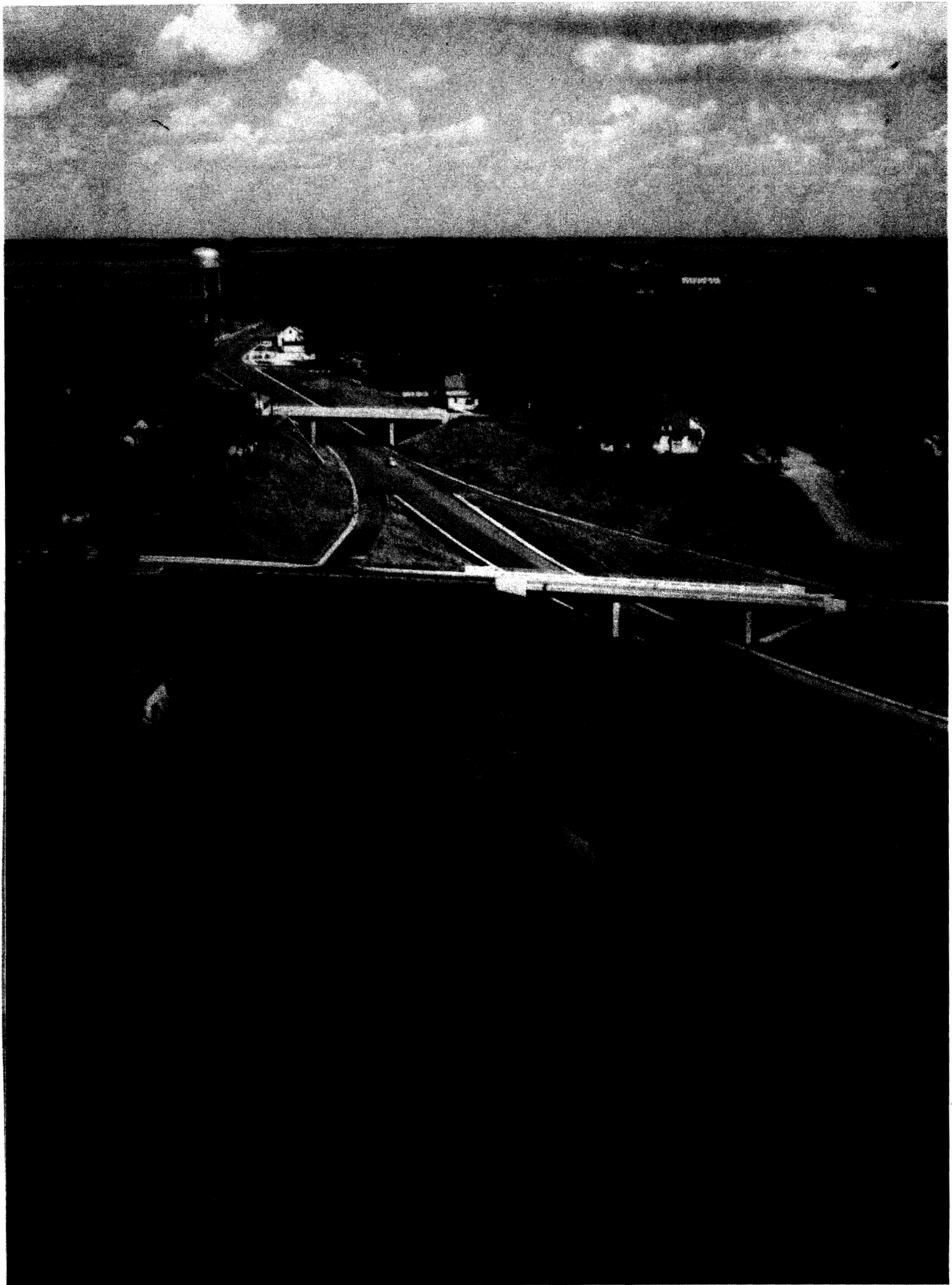
\$ _____ MONTHLY MORTGAGE PAYMENT (44-46)

\$ _____ REAL ESTATE TAXES AND INSURANCE (47-49) (if not included in Mortgage Payment)

\$ _____ UTILITIES AND MAINTENANCE COSTS (50-52)

IF YOU ARE A HOMEOWNER AND WERE TO SELL YOUR HOME TODAY, ABOUT HOW MUCH DO YOU THINK YOU COULD GET FOR IT?

\$ _____ (53-58) **THANK YOU**





The data reported here are a part of the research project NC-128 "Quality of Life as Influenced by Area of Residence" sponsored by the Agricultural Experiment Stations of Arizona, California, Colorado, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Nevada, Ohio, and Texas, in cooperation with

Science and Education Administration
Cooperative Research
The United States Department of Agriculture

The author thanks Janet Sawyer, undergraduate in the Interior Design Program, who assisted in preparing the figures, and Judith A. Ulrich, undergraduate in the Housing Program, for assistance in compiling data.

INSIDE COVER PHOTOS

Minnesota Department of Economic Development
John Peterson Studio, Montevideo, Minnesota

Production assistance provided by
the Department of Information and
Agricultural Journalism

The University of Minnesota, including the Agricultural Experiment Station, is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, creed, color, sex, national origin, or handicap.