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DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

by

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* * * * *

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1978

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TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>ii</td>
</tr>
<tr>
<td>VITA</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vi</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>ix</td>
</tr>
<tr>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td>I. THE PROBLEM STATEMENT.</td>
<td>1</td>
</tr>
<tr>
<td>II. THE HOUSING MARKET CONTEXT FOR HOUSEHOLD DECISIONS</td>
<td>14</td>
</tr>
<tr>
<td>III. MODELS OF THE RESIDENTIAL RELOCATION PROCESS</td>
<td>50</td>
</tr>
<tr>
<td>IV. THE RESIDENTIAL RELOCATION PROCESS: EMPIRICAL EVIDENCE</td>
<td>86</td>
</tr>
<tr>
<td>V. RESEARCH DESIGN</td>
<td>138</td>
</tr>
<tr>
<td>VI. RESULTS AND ANALYSIS - LIFE CYCLE STAGE</td>
<td>170</td>
</tr>
<tr>
<td>VII. RESULTS AND ANALYSIS - INCOME LEVEL</td>
<td>194</td>
</tr>
<tr>
<td>VIII. RESULTS AND ANALYSIS - TENURE STATUS</td>
<td>218</td>
</tr>
<tr>
<td>IX. OVERVIEW AND ASSESSMENT</td>
<td>238</td>
</tr>
<tr>
<td>APPENDIX</td>
<td></td>
</tr>
<tr>
<td>A. THE QUESTIONNAIRE</td>
<td>250</td>
</tr>
<tr>
<td>SELECT BIBLIOGRAPHY</td>
<td>264</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 4:1 Reasons Left Previous Address, by Life-Cycle Stage 96
Table 4:2 Importance of Criteria in the Search for a New Residence 102
Table 4:3 Rating of Chosen Dwelling Against Others Considered 104
Table 4:4 Reasons for Moving to Present Address, by Life-Cycle Stage 107
Table 4:5 Criteria Used in the Search in High and Low Cost Areas 113
Table 4:6 Use of Information Sources in the Search 116
Table 4:7 Rating of the Importance of Information Sources, by Area 119
Table 4:8 Tenure Status Before the Move and the Principal Reasons for Moving, among Voluntary Movers 124
Table 5:1 Listings Deleted from the Sampling Framework 153
Table 5:2 Areal and Tenure Characteristics of the Sampling Framework 154
Table 5:3 Completed Interviews and Non-Responses 163
Table 5:4 Life-Cycle Characteristics of the Sample 164
Table 5:5 Non-Response Rates for Individual Questions 166
Table 6:1 Reasons for the Decision to Move, by Life-Cycle Stage 172
Table 6:2 The Importance of Space Needs as a Reason for Moving: Paired Comparisons of Life-Cycle Stages 174
Table 6:3 Attributes Ranked as Very Important, by Life-Cycle Stage 178
Table 6:4  Significant Differences in the Ranking of Attributes Among Married Households

Table 6:5  Significant Differences in the Ranking of Attributes: Young Single Persons and Other Life-Cycle Stages

Table 6:6  Primary Reason for Choosing the New Residence, by Life-Cycle Stage

Table 6:7  All Reasons for Choosing the New Residence, by Life-Cycle Stage

Table 6:8  Significant Differences in the Primary Criterion for Choice, by Life-Cycle Stage

Table 7:1  Reasons for the Decision to Move, by Income

Table 7:2  Proportion of Renters citing the Desire to Change Tenure, by Income

Table 7:3  Attributes Ranked as Very Important, by Income

Table 7:4  Significant Differences in the Ranking of Attributes, by Income

Table 7:5  Information Sources Used in the Search, by Income

Table 7:6  Effectiveness of Information Sources: Rossi's Measure and the Revised Measure

Table 7:7  Number of Dwellings Examined, by Income

Table 7:8  Primary Reason for Choosing the New Residence, by Income

Table 7:9  All Reasons for Choosing the New Residence, by Income

Table 7:10 Significant Differences in the Primary Criterion for Choice, by Income

Table 8:1  Reasons for the Decision to Move, by Tenure Status

Table 8:2  Ranking of Attributes by Tenure Preference

Table 8:3  Significant Differences in the Ranking of Attributes, by Tenure
Table 8:4  Significant Differences in the Ranking of Attributes, by Housing Experience .......... 226
Table 8:5  Information Sources Used in the Search and Their Effectiveness, by Tenure ........ 229
Table 8:6  Number of Dwellings Examined, by Tenure Status and Price or Rent Level ........... 232
Table 8:7  Primary Reasons for Choosing the New Residence, by Tenure ..................... 234
Table 8:8  All Reasons for Choosing the New Residence, by Tenure ............................ 235
### LIST OF FIGURES

| Figure 2:1 | A Linked Model of the Residential Development Process | 20 |
| Figure 2:2 | A Structural Model of the Housing Market | 43 |
| Figure 3:1 | The Decision to Seek a New Dwelling | 56 |
| Figure 3:2 | The Residential Relocation Decision | 57 |
| Figure 4:1 | Idealized Life Cycle Stages | 90 |
CHAPTER I

THE PROBLEM STATEMENT

Metropolitan areas in the United States admirably illustrate the dictum that the only constancy is change. This has been especially evident in the past three decades, during which the spatial structure of urban areas has undergone dramatic changes. The most notable feature of these changes has been the rapid decentralization of both population and economic activities. The swiftness of post-war growth in suburban areas requires little documentation. The new shopping centers, the industrial parks and the legions of residential subdivisions and apartments that have sprung up give eloquent visual testimony to the general process of decentralization.

As employment, services and population have moved to suburban areas, central cities have also undergone profound changes. The pace of change has been just as rapid as in the suburbs. Elegant homes of a half-century ago have been subdivided into apartments. Working class housing of the same period has deteriorated to form today's slums or has fallen victim to the wrecker's ball for urban renewal or freeway construction. Neighborhoods in the city, once occupied by ethnic immigrants, now house blacks, other minority groups and rural whites. In the 'flight to the suburbs', many central cities have become the
repositories for the old, the poor and the disadvantaged. This has created a familiar litany of urban problems: declining tax bases; a population with increased demands for services; and a social pathology including high crime rates, widespread unemployment and poverty and the downward cycle of neighborhood decay.

The general pattern of growth in suburban areas and stagnation or decline in central cities has resulted from the operation of a variety of processes, of which residential mobility has been one of the most important. The available evidence suggests that one household in eight changes its residence within a particular city each year and that almost half do so in five-year period.¹ It is not only the sheer volume of residential changes which has been instrumental in altering the spatial structure of the city, however. It must also be recognised that migration within the city is selective, since some groups in the population change their residence more frequently than others.² The impact of residential relocation has been highly variable. Some areas within the city have experienced high rates of turnover, while others have changed very slowly.

The need to understand the residential relocation process in urban areas has prompted a considerable volume of research activity, not only in geography but also in cognate disciplines. For the geographer, a concern with residential relocation can be simply justified. Migration is per se a spatial process and has discernible spatial outcomes. It changes the distribution of population within metropolitan areas. It affects the demographic and socio-economic
characteristics of the origin and destination areas and, to a great extent, it underpins the large-scale changes in urban spatial structure we have described.

Geographers concerned with describing and explaining the dynamics of change in urban areas have adopted two contrasting approaches to the study of residential relocation. The distinction between the two is dependent upon whether migration is viewed as "an attribute of the person making the decision, or as an attribute of the initial and terminal locations." While these approaches are ideally complementary, the distinction between them in practice has important methodological and substantive implications. Adopting the former approach, migration is viewed as the product of individual decision-making, with each decision reflecting the aspirations and motivations of the individual (household). Taking the latter approach, migration is regarded as a function of the socio-economic and demographic characteristics of the origin and destination areas. It may be argued that the second approach is a direct derivative of the first since aggregate migration flows, at any spatial scale, are the product of numerous individual migration decisions. However, while this argument clearly has some validity, it does not disguise the substantial practical differences between the two approaches.

The 'people-centered' and 'place-centered' approaches differ in several important respects. One obvious distinction lies in the units of observation typically employed. Research on the attributes of individual decisions requires conceptualizations couched at the individual level and demands analyses using individual data. No such
restriction is imposed on research relating migration streams to the characteristics of the origin and destination areas. Consequently the data used in these studies have typically been aggregated. It would be tempting to attribute this difference to the geographic scale at which the analysis is performed, equating intra-urban studies with the use of individual data and research at larger geographic scales with the use of aggregated data, but this would be inaccurate in two respects. First, while the bulk of the large-scale studies have used aggregated data, a number of the more illuminating studies of labor mobility and interregional population movement have used individual data. 4 Secondly, there can be little doubt that intra-urban studies would have used aggregated data had it been available in the American context. 5 Since it has typically not been available, research at this scale has concentrated on individual decision-making.

The prevailing difference in the units of observation employed in the two approaches is closely allied to the question of how accurately each approach portrays the relocation process. Models of individual decision-making have generally been underpinned by precise specifications of the relationships between relevant variables. In contrast, aggregated models have generally lacked this clarity of specification and have contained few, if any, process implications. This comment extends not only to the traditional distance-interaction formulations, such as the gravity and intervening opportunities models, 6 but also to many of the 'economic' models of migration. 7 These models have demonstrated the empirical regularities between migration and distance and
migration and economic conditions, yet have provided no compelling insights into why migration flows adhere to particular patterns.

The lack of process implications is a serious conceptual limitation in the construction of these aggregated models. A second problem which cannot be overlooked is the difficulty of making inferences about individual behavior from these models. In this regard, it has been aptly noted that aggregation cannot be correctly made without a reasonable model of the same socio-economic systems stated in terms of the behavior and interactions of elemental decision-making units. Then and only then does it become possible that ways could be found of aggregating relationships without a disastrous loss of representation.

We can reasonably argue that most aggregated models of migration have failed to provide a conception of relevant behavior systems, while models based on individual decision-making have been markedly more successful in doing so.

The more complete behavioral specifications have, however, proved much more difficult to operationalize than the weaker aggregate level conceptions. This is a problem endemic in behavioral models. Many of the alluring behavioral constructs have proved impossible, or at least very difficult, to translate into an operational format. This suggests that one of the key challenges to researchers in this field should be to develop full specified migration models which can be used to provide meaningful aggregations of behavior.

In the context of intra-urban migration, such a model should include not only the residential mobility and residential choice
decisions of the household, but also the decisions made by other actors in the housing market, whose behavior directly or indirectly affects the decisions made by the household. Models of individual decision-making have ignored the market context in which household decisions are made and this can be regarded as a fundamental weakness of the behavioral approach. The importance of the constraints imposed by institutional decision-making has been stressed by Cox who has argued that,

municipalities, firms (and) states . . . . all make decisions creating the environment in which we mutually interact. Within behavioral geography the status of these and the patterns they create have been largely neglected.\(^9\)

This is a particularly apposite comment in the case of residential relocation models where their behavior has been largely ignored. The need to model the decisions of residential developers, landlords, realtors, banks and other lending institutions and government agencies is seen as critical to the development of a fully specified model of the intra-urban migration process.

The development of a more complete and holistic conceptual model of decision-making in the housing market is one of the two primary objectives of this study. The concern here is to revise the conception of the residential relocation process and place the models of individual decision-making within the context of the overall operation of the housing market. The second objective of this research is to explore aspects of the residential relocation process which have not been systematically explored in previous research. This empirical portion
of the study is much more narrowly proscribed than the conceptual segment. It is designed to provide a systematic study of how and why different types of households make their residential mobility and residential choice decisions. Both the conceptual and empirical objectives are discussed in detail below.

The critical premise in reconsidering the conception of the residential relocation decision is that household decision-making should not be regarded as independent on decisions made by other actors in the housing market. The interdependence of supply, demand and marketing decisions has been neglected in most previous models. Where these considerations have been introduced, as in the linked models of the residential development process discussed in Chapter Two, only a limited spectrum of decision-makers have been introduced into the models. The discussion in the second chapter recognises a broader spectrum of actors whose decisions have an impact on household behavior. The structural model we present provides a more complete specification of the processes which generate residential mobility and constrain residential choice.

The inclusion of institutional decisions in the conceptual model aligns this model with the increasing volume of work which has defined the critical components of a system and modelled the interaction between the elements. In the case of migration, this approach is best illustrated by Mabogunje's model of rural to urban migration. However, there are a number of other areas of the discipline in which behavioral models have been developed to link supply and demand considerations. The interaction between shopping trip behavior and
store location decisions, the development of a behavioral basis for central place theory and the recently suggested conception of the diffusion of innovations provide examples of such models. The model we propose follows the same logic. The approach is designed to provide a complete and coherent conception of behavior in the housing market.

This general argument favoring a more complete specification of market processes and their impact on household decisions is complemented by a second, more specific, argument. The current behavioral models of the residential relocation process are regarded as inadequate in a number of respects. In the third chapter we propose a series of amendments to these models providing detailed treatment of the structure of the household's aspiration region, the spatial characteristics of the search and the rules of choice employed to evaluate vacancies found during the search. The intent of these changes is to more closely replicate the properties of the actual household decision.

The empirical portion of this research has much more limited aims than the conceptual section. The principal analytical goal of this study is to identify differences in the residential mobility and residential choice decisions of different groups of households. Previous empirical work, designed to examine the attitudes and behavior of households in making their residential relocation decision, has tended to be both piecemeal and fragmentary. There have been few studies which have examined both the residential mobility and residential choice decisions of households and those have frequently provided only consensus statements about the preferences and aspirations
of the total sample. Furthermore, a number of the most influential studies have been couched in purely hypothetical terms, so the results cannot be reasonably used as a guide to behavior.

In contrast to these studies, the research reported here examines the variations in the reasons for moving, the differences in the structure of household aspiration regions, variations in search behavior and in the criteria used to evaluate vacancies across different types of households. These groups are defined in terms of the life-cycle stage of the household, its income level and its tenure preference and residential experience. The review of literature in the fourth chapter and the hypotheses developed in association with it deal specifically with variations in the behavior and attitudes of these various groups and set the empirical portion of this study apart from previous research.

This study is divided into six major sections. The second chapter provides a brief discussion of the market context in which consumer decisions are made. This chapter examines attempts which have been made to develop integrated models of housing market behavior and considers the relationships which exist between institutional and household decision-making. This review provides not only an analysis of the constraints imposed on the household by other actors in the market but also forms the basis for the integrated model of decision-making in the housing market which is presented at the conclusion of the second chapter.
The third chapter focuses on conceptual models of household decision-making in the intra-urban relocation process. The basic conception examined in this chapter is that proposed by Brown and Moore.15 We propose a series of amendments to existing models which provide a more precise specification of the characteristics of the residential choice decision. In particular, we provide a revised conception of the household's aspiration region, an explicit spatial model of household search behavior and a model of the evaluation procedure used by the household when it examines dwellings found during the search. In the concluding section of the chapter, alternative behavioral models are discussed.

The fourth chapter examines the empirical evidence on aspects of the residential relocation process. This literature review is divided into three sections. The dominant explanation for the process of residential relocation has been couched in terms of the changing needs of the household as it moves through various phases of its lifecycle. The empirical evidence on the variations in the characteristics of the residential mobility and residential choice decisions by lifecycle stage is marshalled in the first section. The second section examines the evidence relating to an alternative proposition that household income is a critical variable in explaining the residential relocation decisions of households. The final section of this chapter examines variations in household behavior as a function of the household's previous housing experience and its tenure preference.

The discussion in the fifth chapter centers on the research design and methodology of the study. The description of the research design
includes consideration of the types of data needed for an analysis of variations in the characteristics of the residential relocation decision, the methods of analysis and the data sources used in this study. A sample survey of recent movers in a major metropolitan area forms the major vehicle for assembling data on the motives and aspirations of households.

These data form the basis of the analysis which is reported in the following three chapters. Variations in household decision-making by life-cycle stage are examined in Chapter Six. The impact of differences in household income on the migration decision is discussed in the seventh chapter and the final section of the analysis, in Chapter Eight, deals with the variations in behavior which accrue from the household's previous housing experience and its current tenure preference. In each of these chapters hypotheses are examined which deal with the residential mobility and residential choice decisions of groups of households. We also examine the institutional impact in each case, though no specific hypotheses are dealt with.

The final chapter summarises the principal findings of the study and evaluates their significance. This evaluation focusses on both the conceptual and empirical aims of the research. Evolving from this discussion, a set of future research topics which would complement the current study are proposed.
Footnotes - Chapter I


5. In the United States there are no sources of migration data which compare to the continuous population registers found in a number of European countries, nor are electoral registration records as complete as in countries like Australia. This latter source was used by E.G. Moore (1969), "The Structure of Intra-Urban Movement Rates: An Ecological Model," Urban Studies, 6, pp. 17-33.


CHAPTER II

THE HOUSING MARKET CONTEXT FOR HOUSEHOLD DECISIONS

As we have indicated in the introduction, one of the principal criticisms levelled at many behavioral models of the residential relocation process is that they have effectively ignored the market context in which the households make their residential mobility and residential choice decisions. The exclusive focus on household decision-making has tended to obscure the fact that, in aggregate, these decisions have an extremely important influence in changing the overall structure of the urban housing market. This effect has been minimized in the construction of models of the spatial structure of the housing market, where the assumptions have been normative and the outcomes have been seen as the result of a competitive process.\(^1\)

The lack of tangency between these micro- and macro-scale analyses probably explains why relatively few attempts have been made to provide a holistic view of the operation of the housing market.

The purpose of this chapter is to review the attempts which have been made to integrate the behavior of housing consumers into more general models of the operation of the urban housing market. Such models stress the ways in which institutional decision-making affects household behavior within the market. This significantly extends the behavioral approach to consider supply, marketing, financing and regulatory agencies and their behavior. The argument for this more
flexible and comprehensive approach is best expressed by Form, who directly attacks the assumptions underlying normative models of urban spatial structure by suggesting that

the image of a free and unorganised market in which individuals compete for land must be abandoned. The reason for this is that the land market is highly organised and dominated by a number of interacting organisations.²

Form identifies four groups which dominate the urban land market. These are: the real estate and building industries, which have become increasingly intertwined; large industries, large commercial users and utilities; individual homeowners and other small users of land; and local government agencies which deal with land use. These agencies occupy a unique role since they are both users of land and arbiters of disputes between other users. The interactions between these four groups yield the overall pattern of land use. The need to understand the relationships between these groups, and the spatial outcome of their interactions, dominates Form's conceptual model.

The analytical framework of this model is similar to that proposed by Harvey.³ While his analysis is confined to the housing market and his perspective is radically different, Harvey's discussion of the motivations, behavior and interactions of various institutions in the housing market gives rise to a similar conception. His identification of the ways in which the operation of the housing market is affected by the behavior of realtors, landlords, residential developers, banks and other financial institutions and government agencies provides a useful vehicle for initiating an analysis of the impact which these
decision-makers have on the residential mobility and residential choice decisions.

The principal focus of this chapter is simply to review the effects each of these institutional actors have on these decisions. The initial portion of the chapter deals with the behavior of residential developers. This is the most thoroughly explored area of the operation of the housing market and we shall particularly direct our attention to the linked models of the residential development process. The second section explores the impact of decisions made by landlords on household behavior. The third is devoted to consideration of the role of realtors in the housing market, with an emphasis on how their functions and motivations affect households searching for a new residence. The financing of housing by banks and other lending institutions is dealt with very briefly in the fourth section of this chapter, while the fifth segment examines the impact of public policy decisions on household behavior. The final section of the chapter provides a structural model of the operation of the housing market, focussing on the interactions between household and institutional decisions.

The discussion in this chapter is not intended to be exhaustive. It is specifically tailored to consider those aspects of the behavior of the institutional actors which can be shown to affect household decisions. In the following sections, we shall thus deliberately neglect the interactions between the various institutional decision-makers, even though these need to be developed if we were attempting to provide a completely specified model of the operation of the urban
housing market. Since we are not, the discussion is confined to the interactions between housing consumers and institutional decision-makers, beginning with the residential developer.

**The Behavior of Residential Developers**

Decisions made by residential developers are of significance because they determine the supply of new housing units, their location and the type and quality of the new housing stock. While the supply of new dwellings on the market at any one time is relatively small, developer decisions have a disproportionate influence on the remainder of the market, because new construction has a multiplier effect, as exemplified by the results of a number of studies of filtering in the housing market. While research has tended to focus on the effects of new construction there has been some attention given to the locational behavior of residential developers and the interactions between their decisions and those of housing consumers.

The most notable step in this direction has been the construction of linked models of the residential development process. These models focus on the relationship between decisions made by developers of single family housing in subdivisions and the households who eventually move into these units. They are behavioral models because they address the question of how developers make their locational decisions. The models suggested by Weiss, et al. and later modified by Kaiser and Weiss integrate three sets of market decisions at a fairly high level of generality. They include
a developer model based currently on the locational behavior of the single-family subdivision developer; a residential mobility model based on a householder's decision to move; and a residential choice model which provides the tie between the outputs of the developer model and of the residential mobility model.

The links they propose between producer and consumer decisions are rather tenuous since only scant consideration is given to household decision-making. The bulk of their analysis is focussed on the locational decisions made by the residential developer.

The empirical evidence supplied by Kaiser and Weiss suggests that contextual factors and relative location are the developer's principal criteria for the selection of sites. The relevant contextual factors include the zoning of the land and the availability of public services. Relative location is influential in two distinct ways. First, the developer is concerned with the accessibility of the location: to downtown, to employment centres, to an elementary school and to arterial highways. Secondly, the site selection is sensitive to the amount of contiguous residential development and the 'socio-economic prestige' of the chosen location. According to Kaiser, large scale developers (averaging more than 100 lots per year) tend to be more responsive to these factors than small-scale developers who tend to choose sites farther from downtown, farther from an elementary school, farther from employment centers, and having fewer public utilities than sites not receiving subdivisions. Large developers tend to select the opposite kind of site.

Similarly, the siting of lower-priced developments is more influenced by the public policy context and the extent of adjacent development,
while the location of higher-priced developments is especially sensitive to the socio-economic prestige of the location.

The prevailing concerns with accessibility and social prestige suggest that developers make their locational decisions with at least one eye on the potential consumer response. They assume that certain types of consumers demand access as a primary criterion: other consumers are assumed to place heavy emphasis on the social prestige of the location. Such a division is consistent with the argument that residential relocation may be viewed in terms of either 'social choice' or 'economic competition'.

The link between developer and consumer decisions provides the basis for the conceptual model developed by Kaiser and Weiss, shown in Figure 2:1. The structure of the model is simple. The residential development process provides a supply of single-family housing units. Numerous decisions to move augment this supply. The demand for housing is generated by households who decide to move, immigrants and through the formation of new households. The link between the demand for, and supply of, new and used housing is via the residential choice decision and the aggregate outcome of these individual decisions is expressed in terms of changes in the spatial structure of urban areas.

The intent of the model is to demonstrate the relationships between producer and consumer decisions, but it takes a rather restrictive view of the operation of the housing market. It can be regarded as a useful approximation of one segment of the market. It is not holistic in its treatment of even this segment, however. These linked models ignore the role of financial institutions, despite the
A LINKED MODEL OF THE RESIDENTIAL DEVELOPMENT PROCESS

Source: Kaiser and Weiss (1969) : 76
fact that the funding of the initial construction and the financing of consumer purchases are both dependent on the decisions of these institutions. Likewise, no consideration is given to the marketing of the homes once they are built. This may be controlled by the developer but it is more likely to be handled by specialised agencies. The behavior of marketing agents is ignored. However, decisions made by local government agencies concerning the provision of public services are incorporated within the models and Kaiser and Weiss recognise the important role these decisions play.

If the operation of the housing market is to be modelled with accuracy, the omissions need to be repaired. In addition, the model must be broadened to include the rental sector of the market and thus must incorporate decisions made by landlords and by households in the rental sector as well as by the other neglected institutional actors. There is a need to amplify the behavioral view of the market to include the decisions of each group of actors whose behavior has some bearing on household decision-making. We shall turn next to consideration of the behavior of landlords.

Behavior of Landlords

A considerable amount of attention has been focussed on the economic attributes of decision-making by landlords, but virtually no research has been conducted on the ways in which their decisions affect the residential mobility and residential choice decisions of their tenants. In particular, there is an extensive body of literature on the investment and disinvestment decisions of landlords, while their
decisions on rent levels, their role in the process of tenant selection and their decisions on the advertising of vacancies have been virtually ignored.

Before turning to consider the economic and non-economic components of landlord decision-making, it is useful to note that both are affected by the scale of operation of the entrepreneur. In this regard, professional landlords have been distinguished from casual investors and homeowners. The large-scale professional landlord, with extensive investments in the market, is assumed to operate in a more economically rational manner than the small-scale operator. Any analysis of landlord behavior is complicated by the fact that the casual investors and homeowners control a substantial minority of rental property. Their motives and behavior are likely to exhibit far greater variance than those of professional investors and thus it becomes somewhat difficult to generalise about landlord decision-making in either an economic or non-economic context.

The investment decisions of large-scale landlords have generally been cognised within a framework of economic rationality, with the entrepreneur being viewed as seeking to maximise his income or the increase in his wealth. The choice of strategy by the landlord has been thoroughly discussed by Harvey. He suggests that the landlord will be influenced by a variety of external factors, including the availability of mortgage funding, the amount of risk and uncertainty associated with the investment and the relationship between operating costs and revenues. Each of these factors varies spatially within the urban area. Mortgage funding is generally less easily available in
inner city areas. The risks for the landlord in these areas tend to be greater and the margin between costs and revenues tend to be smaller in central city than in peripheral locations.\(^{13}\)

In response to these factors, the rational policy for the landlord with inner-city property is to attempt to maximise the rate of return on capital in the very short-run. This can be done by reducing the variable costs of maintenance and repairs and consistently underinvesting in inner city property. This policy contributes to a decline in housing quality, though decisions by landlords merely complement and reflect the policies of financial institutions and government agencies. The effects on housing consumers in these areas are two-fold. First, the failure to maintain the property in a state of good repair leads to more rapid deterioration and enhances the probability of rapid turnover in the tenant population. Associated with this, and given that inner city tenants are likely to be among the poorest households in the urban area, it is also reasonable to suggest that the volume of enforced moves, especially for rent delinquency, will be highest in these areas. A second consequence of the failure to invest is that neighboring households will be adversely affected by the blighting influence of the deteriorating rental property. This is likely to lower the place utility of households and thus they can be expected to exhibit higher rates of residential mobility.

The situation is reversed in peripheral areas of the city, where landlords are able to pursue a long-run maximisation strategy as a result of the greater availability of mortgage funding, the lower risks and the higher rates of return on capital. The net result for the
housing consumer is that the environment is more stable and place utility is not reduced, as it is in the inner city areas. The likelihood of residential mobility decisions being predicated on a decline in environmental quality is consequently reduced.

The impact on consumers of these investment decisions is only one aspect of the influence of landlord decision-making on the behavior of households. More important, and less frequently identified, are the non-economic decisions which directly affect the search behavior and residential choice decisions of the household. These decisions include: the selection of media through which to advertise vacancies; restrictions on the use or occupancy of a dwelling unit; and the selection of tenants.

The choice of an advertising medium to disseminate information about available vacancies is the only aspect of institutional behavior incorporated in the residential relocation model posited by Brown and Moore. They view this decision as a function of the costs of advertising in various media, their areal coverage and the probability that a given vacancy will be filled using a particular medium. Given these three considerations, landlords are likely to adopt very different strategies in advertising vacancies. The conservative strategy is one of cost minimization. This is most likely to be pursued by small-scale entrepreneurs, who advertise individual units on an irregular basis through neighborhood newspapers or modest 'for rent' signs at the site of the vacancy. Large-scale landlords have a wider range of media potentially available to them, as a function of their scale.
Prominent display advertising in metropolitan newspapers and on large hoardings are more likely to be favored by landlords with many units.

These scale differences have three important consequences. First, these large-scale entrepreneurs reach a much wider audience in advertising their vacancies. This means that households who adopt even the most passive means of searching have access to information about these vacancies. The small-scale landlord achieves more limited areal coverage designed frequently to furnish information to households who are actively searching for vacancies. Secondly, the wider dissemination of vacancy information by large-scale landlords increases the odds that a particular vacancy will be filled. Finally, it is important to recognise that households tend to receive more complete information from the display advertising favored by large-scale landlords. This is critical because it helps to minimise the uncertainty felt by the household during its search and thus gives large-scale operators a comparative advantage over their smaller-scale counterparts in renting their properties.

Restrictions on the use or occupancy of a particular dwelling effectively exclude that dwelling from consideration by groups of households who might otherwise have found it suitable. Such restrictions are normally placed on the dwelling by the landlord. They vary from quite legal restrictions to those which are discriminatory in effect, if not in intent. The devices used to restrict various groups of tenants have been thoroughly discussed by Mercer and Foley.
Families with children are clearly disadvantaged in their search for a new residence in the rental sector because a large number of vacancies expressly exclude them. A survey of landlords in Schenectady, New York, indicated that 55% of the landlords of vacant apartments objected to renting to households with children. Additionally, the same survey revealed that 53% of the landlords were unwilling to rent vacant units to households with pets. For both these groups, decisions by landlords thus restrict their searches to less than half of the potential vacancies.\(^\text{17}\)

The rationale for these restrictions appears to be both economic and social. The economic costs of allowing either children or pets are likely to be felt in terms of increased maintenance costs, higher cleaning costs and the like. The social costs are likely to be in the form of increased noise and disturbance to neighbors, which may generate dissatisfaction on the part of other tenants. These economic and social costs can be avoided by judicious tenant selection and the strategy of excluding certain types of household is a relatively rational one for the landlord. At the same time, such a policy places significant constraints on the search behavior of many households.

These restrictions are perfectly legal but there are others, in the process of tenant selection, which are illegal. The reluctance of many landlords to rent to minority tenants falls into this category. The Schenectady survey found that 65% of landlords with vacant apartments objected to renting to blacks and that 36% of the landlords would 'under no circumstances' rent to them.\(^\text{18}\) The prejudice among landlords is borne out by Denton who concludes that
the vast majority [of apartment owners] discriminate, and almost all believe that their white tenants will leave if they rent any of their apartments to minority families. Their usual tactics are delay and red tape [for the minority prospect].

Furthermore, Denton argues that discrimination usually does not take the form of outright refusal to rent to minorities. Rather, it involves the establishment of rigid requirements and the use of delaying tactics to hold off minority households until white tenants can be found.

The result of this pervasive discrimination is that minority households are significantly constrained in their search for rental housing. The reasons for the behavior of landlords are complex, but Foley suggests three reasons why minority households are excluded from a large number of opportunities. The landlords, in Foley's words,

may seek to protect what they take to be the interests of present and prospective majority-white tenants; they may be unfavorably influenced by stereotypes about housing maintenance by minority tenants; and they may believe that minority households, once admitted, will stimulate pressures for further minority tenancy.

This nicely illustrates the mixture of social and economic motives which are advanced for the exclusion of particular groups of tenants. The widespread reluctance to rent to minority households presents the most extreme case of exclusionary tenant selection, but it underscores the importance of the gatekeeping role exercised by landlords. Extending the logic slightly, it is easy to conceive that any household may be excluded from any vacancy if it is deemed to be 'undesirable' or 'unsuitable' by the landlord.
The Behavior of Realtors

The behavior of realty firms has generally been conceived in the same terms as the behavior of landlords, with the firm being viewed as economically rational. The economic aspects of realtor's decisions have thus been examined at length while the important social dimensions of their behavior have been relatively neglected.

The conventional view of realty firms is that they serve primarily as coordinators in the housing market, bringing together households who are looking for a new residence and households who are planning to sell their present residence. The realtor receives a fee (generally a flat rate percentage of the sale value) for successfully negotiating the transfer of property rights. For most realtors, this represents the bulk of their income, but they may also realise a profit by actually buying homes and reselling them.21

The conventional view of the realtor's role in the housing market also suggests that the industry is perfectly competitive. Each realtor is seen as attempting to maximise his income in the face of competition from a large number of fellow realtors. Given this assumption, the logical implication is that the realtor will foster the maximum possible number of transactions within the housing market. The greater the number of transactions he performs, the higher his income will be. The market outcome of this maximising strategy by realtors would inevitably be very high rates of turnover within the market.

The empirical evidence to support this rational view of realtor behavior comes almost entirely from cases where realtors have been instrumental in accelerating the process of neighborhood transition
by fostering white selling.\textsuperscript{22} We regard this as the limiting case, and even in these instances, there is some evidence to suggest that the role of the realtor is not the ruthless one portrayed in the literature.\textsuperscript{23}

There are significant reasons for doubting whether either the assumption of a perfectly competitive market or the assumption of economically rational behavior can be upheld. The argument that each realtor is part of a perfectly competitive market is simply not tenable in a spatial context. While there are, obviously, a very large number of realty firms in large urban areas, it must be recognised that many specialise, both in terms of the types of property with which they deal and in terms of the areas in which they operate. Furthermore, many real-estate firms are small-scale and based in a particular neighborhood. This undermines the view that the market can be regarded as perfectly competitive and suggests instead that realtors can more accurately be regarded as spatial monopolists. In addition, there is reason to believe that the motives of neighborhood realtors may depart significantly from the normative assumption of rational economic behavior.

The motives of real-estate brokers who operate wholly within a neighborhood setting are likely to include a dominant concern for neighborhood maintenance. These realtors have a vested interest in maintaining the stability and vitality of the neighborhood and ensuring that housing is bought by households who do not depart markedly from community norms. This translates into a concern for an orderly market process and one which maintains the characteristics of
the neighborhoods in which they live and from which they derive their business. Such realtors are subject to social and economic pressures from friends and neighbors if they introduce 'undesirable' households into the neighborhood. It is therefore in the best interest of the realtor to complete transactions with households who are acceptable to the community rather than jeopardising his future business by introducing households who are not. The market outcome in these cases does not lead to high turnover rates since it is in the interests of the realtor to preserve the social and economic characteristics of the neighborhood.

The concern with neighborhood maintenance can be seen as declining as the scale of operation of the realty firm increases. It is reasonable to suggest that large realty firms, doing business throughout the urban area, will come closer to the ideal of economic rationality than do the neighborhood realtors. However, individual brokers within these firms may be just as concerned with neighborhood maintenance as their small-scale counterparts if they conduct transactions within particular areas of the city.

This general desire to maintain stable neighborhood characteristics (except in the cases discussed earlier) has significant implications for the housing consumer who uses the services of a realtor during the search for a new residence. Much of the discussion in the literature has centered on the failure of realty firms to provide equal housing opportunities or service to minority households, especially in white neighborhoods. The scope of the problem is evinced by the results of a survey in Pittsburgh which indicated that 53% of the realtors
questioned had never shown black households vacancies in all-white areas and that 79% had never actually completed a transaction with a black household in a predominantly white area. The failure of realtors to show black households vacancies in white areas has been characterised as one of the 'ethics' of the real-estate profession by Brown and has led Denton to conclude that,

by and large, the vast majority of realtors still believe in residential segregation and believe that to maintain their control of the market for used homes they must find ways to prevent minority prospects from finding housing in all-white neighborhoods.

In addition, Denton suggests that since the enactment of Fair Housing legislation realtors have resorted to tactics including "poor salesmanship, ignorance and ineptitude on the part of intermediaries, failure to show property to good advantage and other non-purposive errors," to prevent integration.

These practices constitute deliberate devices to restrict the search space of minority households. While the impact on household search behavior is most marked when minority households are involved, there is some evidence to suggest that the behavior of realtors is extremely influential in conditioning the patterns of search of all households who deal with them. This contention is supported by the results of studies conducted by Palm. Three of her conclusions are of particular interest. First, she demonstrates that realtors, as a group, tend to have reasonably consistent perceptions of which areas in the city contain housing in an appropriate price range for various hypothetical families. The principal implication is that realtors tend
to select areas of the city which they feel would be appropriate to the socio-economic status of the client. This is completely consistent with our view that one of the dominant motives of realtors is the preservation of neighborhood social structure to ensure orderly market operation.

A second conclusion from these studies is that realtors tend to have systematic biases in their recommendations concerning vacancies, even when they have no pecuniary incentive to do so. As Palm notes, the pattern of individual areas strongly overrecommended is clearly local. Realtors within companies have a strong tendency to recommend areas close to their offices and their own company listings, regardless of the social class or family status of the hypothetical family. This conclusion is particularly interesting since Palm interviewed only real estate brokers drawn from the largest realty companies. This group could logically be assumed to have the most complete information about the vacancy surface within the city and yet their recommendations exhibited substantial spatial biases. It seems reasonable to conjecture that the recommendations of neighborhood-based realtors will be even more spatially restricted.

The third important finding is that real estate companies have limited coverage of the urban area. No company in the two cities surveyed (Minneapolis and San Francisco) conducted transactions over the entire urban area and none dealt with residential property in all price ranges. This finding also supports the argument that the market for the services of realtors is not perfectly competitive.

While Palm indicates that her analysis does not necessarily provide direct evidence that the behavior of realtors affects
residential search behavior and the residential choice decision, the implications of her findings for consumers are readily apparent. First, since realtors have limited images of the distribution of opportunities within the urban area, they are likely to show clients vacancies in only a relatively restricted segment of the market. The choice of a realty company by the household therefore implies a limit to the spatial extent of the search. Secondly, the perception of the realtor as to the 'appropriate' neighborhood for a particular household is likely to be significant in determining the area or areas in which the household is shown vacancies. This can be thought of as a steering process, guiding the search into particular neighborhoods. Finally, there is likely to be a distance-decay in the location of vacancies shown to the household away from the sales office of the realtor. Each process has a spatial impact on the search. Spatial decision-making in these circumstances may be as much a product of the attitudes, perceptions and knowledge of the realtor as of the household.

The Behavior of Banks and Other Lending Institutions

Decisions made by financial institutions have profound impacts on the structure and growth of the housing market. Their decisions touch on almost every aspect of its operation yet the effects of these decisions have been almost completely ignored in the geographic literature. The most obvious interface between the housing consumer and these institutions comes as a result of decisions on the financing of home mortgages. Mortgage financing represents the most direct impact on the consumer. However, banks and other lending institutions
indirectly affect all housing consumers as a result of their general lending policies within the urban area.

The most cogent discussion of the role of these institutional actors has been provided by Harvey. He suggests that the principal function of financial institutions is the regulation of the flow of funds within the market. He argues that lending decisions are made on the basis of a preference for investments that can be expected to provide a high and secure yield and that protect and improve the value of existing investments. Since home financing is one of many potential outlets for funds, banks and other financial institutions are in a position to stimulate certain types of urban activities at the expense of others.

The spatial expression of this behavior is that financial institutions have channelled the bulk of their mortgage financing into the expanding suburban fringe and have provided very little financing for the purchase of inner-city property. The only qualification to this generalisation is that within the inner-city middle- and high-income neighborhoods have been favored over low-income ones. This policy is rational in purely economic terms since suburban investments offer higher yields and lower risks than those in the inner-city. The implementation of this policy, however, has frequently involved the blanket refusal by lending institutions to provide mortgage financing within well-defined geographic areas of the city - a practice referred to as 'red-lining'.
Outside red-lined areas, the income of the potential borrower and the site characteristics of the property determine the probability that an application for mortgage financing will be approved. The significance of borrower characteristics is illustrated by Boddy. His study shows that a low percentage of mortgage applications from semi-skilled or unskilled workers are approved by either public or private sources of home financing. These lending policies are rationalized by a feeling that lower socio-economic status groups have less income stability than higher socio-economic status groups. The characteristics of the property also enter into the lending decision. Private financial agencies tend to provide funding for the purchase of recently constructed detached or semi-detached homes of relatively high value. This strategy reflects a prevailing concern with the security of the investment in Boddy's view.

In analysing the reasons for the denial of mortgage financing, this same study showed that more than forty per cent of the applications rejected were a result of the financial attributes of the borrower, though only one third of these were because of insufficient income. A third of the rejected applications were on the basis of attributes of the property, while only slightly more than ten per cent of those rejected were because the characteristics of the area were unsuitable.

The direct impact of financing decisions on the housing consumer can be related to the importance of neighborhood, property and borrower characteristics. On the basis of the available evidence, lower income households attempting to purchase older property in some areas of the city are least likely to have access to funds. The indirect impacts
of financing decisions are also of considerable significance in terms of their effect on the behavior of households. This is particularly the case in inner-city areas where the lack of investment by financial institutions coupled with inadequate maintenance by landlords has the effect of reducing the place utilities experienced by households. This, in turn, is likely to generate higher rates of mobility among households in these areas, consistent with empirical observations.

The Behavior of Government Agencies

The role of government agencies in the housing market, and their influence on consumer decision-making, is more complex than the interfaces between the consumer and other institutional actors. The principal reason for this is that government occupies a unique dual role in the market by being both a consumer of land and the arbiter of disputes between other users of land. In each of these roles, decisions made by local government agencies are more influential than those of any other group of actors in shaping spatial patterns of activities within metropolitan areas.

The following discussion focusses only on the impacts which local government decisions have on household behavior. These are most apparent in three areas: the power to control and regulate land uses; the provision of public goods within jurisdictions; and the ability to regulate or impede the flow of information within the housing market. Analysing only local government decisions, of course, neglects the impact which state and federal government officials have on the housing market and the effects of their decisions on housing
consumers. Their most important effects are in the supply of housing and its financing: the former through the provision of public housing; the latter through the provision and guarantee of mortgage loans. In the context of U.S. metropolitan areas, ignoring government intervention on the supply side of the market is not critical because public housing accounts for only a small fraction of the market. The more serious omission is the failure to consider the role of government agencies as providers and guarantors of mortgages. In this instance, however, as Harvey has argued, the policies pursued by agencies like FHA have essentially complemented the lending policies we have discussed with reference to the private sector. Since the effects on housing consumers are the same, there is no need to reiterate the argument presented in the preceding section.

The Regulation and Control of Land Use

Local governments possess an array of devices which can be used to regulate or control land use. The most important of these is undoubtedly zoning, used by virtually every urban community in this country. In addition to zoning, local governments are able to use building codes, housing codes, subdivision regulations, occupancy permits and local ordinances to control land use within their jurisdictions.

The ostensible purpose of zoning is to allow for the orderly development of land. By its very nature, zoning is exclusionary. It is designed to preclude certain types of land uses from given areas and it has become an ideal tool for municipalities who wish to
exclude apartments, low-income housing and other undesirable forms of land use. The exclusion of housing designed for households of lower socio-economic status has been pursued particularly by suburban communities and the aggregate impact has been to restrict the availability of housing for these households to certain segments of the metropolitan area. At the level of the individual household, pursuing its search, the spatial restriction on the availability of vacancies of particular types is seen as a constraint on household search behavior.39

The residential mobility decisions of households may also be affected by decisions made in the public sector. For example, local government decisions on the location of city activities may involve the purchase of existing residential property. This institutes enforced moves by impacted households whose homes are destroyed for urban renewal or expressway construction.40 Less obtrusively, zoning ordinances which allow noxious land uses to enter a neighborhood, reducing place utility, may be influential in persuading the household to make a decision to move.

The Provision of Public Services

One of the principal responsibilities of local governments is to provide a variety of public goods and services within its jurisdiction, including such things as public education, police and fire protection, street maintenance, parks and frequently water supply and sewers. There is no doubt that the quality of these services vary from one
jurisdiction to another within major metropolitan areas, and these disparities have provided the basis for a theory about migration between political jurisdictions.

This thesis, put forward by Tiebout,\textsuperscript{41} suggests that households who are dissatisfied with the pattern of public service provision within their locality will seek out a jurisdiction which satisfies their preferences for the consumption of public goods. Since different municipalities have different levels of public service provision, the price of housing in the better-served areas will tend to be higher than in jurisdictions with lower levels of public services. Therefore, households buying into high-service areas will have to pay a premium (entry price) in order to obtain housing within these areas.

A number of assumptions within the Tiebout model deserve comment. First, he assumes that consumers are fully mobile and can thus move to the community which best satisfies their patterns of preference. In the light of the restrictions we have discussed earlier in this chapter, this is not a tenable assumption. Secondly, and equally untenable, is the assumption that households have perfect information about the revenue and expenditure patterns of different jurisdictions, and react to them. Finally, implicit in Tiebout's argument is the premise that consumers are actually concerned with levels of public service provision when they choose a new residence. This has not been adequately demonstrated.\textsuperscript{42}

The decline in the quality of public services has frequently been given as a major reason for the movement of households from central city to suburban jurisdictions. Any reduction in the quality
of services such as public education and police protection can be
cognised as leading to a decline in the quality of the household's
residential environment and consequently enhances the probability that
a household will decide to move. Dissatisfaction with levels of
 provision is likely to be differentially felt. Middle-income house­
holds with children are not only liable to be concerned by a decline
in the quality of public education but also have the resources to
move and thus better satisfy their preferences for public goods.
Lower-income households with children may be equally concerned with
decreasing quality but they are less likely to have the resources to
translate this concern into action. Other households with few demands
for public services are obviously going to experience little reduction
in their place utility if the quality of such services declines.
The salience of public services to the household is thus of crucial
importance.

If the provision of particular public goods is salient to the
household, this concern should be evident in its search behavior.
Following Tiebout's logic, areas to be searched will be those which
meet the needs of the household and the search is likely to be con­
fined to one or a very small number of political jurisdictions, if
this is the case. There is no evidence on this question, but it seems
reasonable to suppose that the quality of education may be one of the
more important criteria used by households in evaluating different
municipalities.
Control of Information about Vacancies

One of the more recent innovations developed by municipalities to control the operation of the housing market within their jurisdictions has been the enactment of ordinances to control the flow of information about vacancies.\(^43\) The principal mechanism has been a ban on the display of 'for sale' signs on properties which are available. This prohibition on display advertising appears to have been used principally by inner suburbs to stabilise neighborhoods which are perceived to be undergoing or about to undergo racial transition.\(^44\) This type of ordinance is thus frequently covertly racial in intent.

The effects of such prohibitions are two-fold. First, they make it more difficult for an existing owner-occupier to sell his property by removing a simple and cheap means of advertising the availability of a vacancy. This forces the household to use either newspaper advertising or the services of a realtor. Newspaper advertisements are the least efficient means of advertising a vacancy according to previous empirical research.\(^45\) If the household uses the services of a realtor, the realtor occupies a gatekeeping role that enables him to exclude minority households from the vacancy and thus preserve the socio-economic status of the neighborhood, consistent with our earlier discussion of realtor behavior in the market. Secondly, the ban on the display of 'for sale' signs impedes the search behavior of households who utilise this source of information in their search for a new residence. It seems reasonable to posit that this restriction will have the greatest impact on low- to moderate-income households seeking to buy a home and that minority households will be
disproportionately affected. These groups are not only more likely to search in inner suburban areas, where housing is generally less expensive, but are also more likely to use display advertising as their chief source of information about vacancies.

A Structural Model of the Housing Market

In the preceding discussion, we have identified a set of processes by which institutional actors affect the residential mobility and residential choice decisions of households. It is important to reiterate that our objective was solely to examine these links rather than to explore the interactions between the institutional decision-makers or the aggregate effects of their policies on urban spatial structure. One can clearly argue that the importance of decisions by financial institutions and the effects of decisions by local and national government agencies are of far greater significance at a macro-scale than we have suggested here. Their policies and programs are in large measure responsible for the overall spatial structure of the city and for the form of the housing market.

In order to provide an effective model of decision-making in the housing market the interactions between the various actors need to be incorporated. We have done this in Figure 2:2, presented on the following page. This structural model is designed to illustrate how various actors interact with one another in the operation of the housing market. This conception can be regarded as an extension and an amplification of the linked models described earlier in this chapter. The principal difference is that the range of decision-makers is much
A STRUCTURAL MODEL
OF THE HOUSING MARKET
greater and thus the model is much more holistic in its treatment of relevant market processes. This conception is not designed to examine the behavior of each set of actors in detail. To some extent, this has been done elsewhere. Developer decisions have been modelled by Kaiser and Weiss. Lending decisions have been conceptualized by Smith, and elaborate models of the residential mobility and residential choice decisions of households have been developed by a number of authors.

Each of these models were designed to examine the behavior of an elemental decision-maker. None of them adequately specify the relationships between that decision-maker and the other actors in the market. At a general level, the conception we present does so. This model tends to stress the importance of the decisions made in the financing sector and by the public agencies involved in the housing market. Decisions made by government agencies appear to have the widest impact, materially affecting each of the other decision-makers. Likewise, decisions made by banks and other lending institutions have widespread impacts on virtually every sector of the market. By contrast, among the institutional actors, the decisions of landlords and real estate agents appear to have the most limited impact on the overall operation of the housing market since they interact principally with the housing consumer.

As we have illustrated in the discussion in the bulk of this chapter, the behavior of households is significantly constrained by the decisions made by institutional actors within the housing market. Their decisions thus provide an essential context in which to view
household behavior. Since it is household decision-making which is the principal empirical concern of this study, we shall now turn to consider in detail conceptual models of the residential mobility and residential choice decisions.
Footnotes - Chapter II


7. Ibid., p. 76.


12. Ibid, pp. 36-38.

13. See the excellent discussion of this point in W.G. Grigsby, et al. (1971), Housing and Poverty, Institute for Environmental Studies, University of Pennsylvania.


17. N.A. Mercer (1962), op. cit., p. 49.

18. Ibid., p. 49.


21. See the discussion presented by D. Harvey (1972), op. cit., p. 36.

22. We see this situation as being the only one in which realtors adhere to the tenets of rational economic behavior by stimulating turnover of the housing stock.

23. The realtors who are most frequently involved in 'block-busting' generally operate outside of the area undergoing racial transition under normal circumstances.


30. ibid, p. 277.


32. Demonstrated in the recent study of eight housing markets reported in Perceptions of Risk: The Banker's Myth, National Information and Training Center, Chicago (1978).

33. Figuratively, if not literally, the practice of putting red lines around certain areas of the city where investment conditions are considered to be sufficiently poor to preclude investment. The process is also referred to as 'blacking'.


36. ibid, p. 66.

37. Government intervention on the supply side is clearly more critical in Western European countries, where the overall role of the government in the housing market is much greater. For the impact on the housing consumer, see F. Gray (1976), "Selection and Allocation in Council Housing," Transactions of the Institute of British Geographers, 1, pp. 34-46 and H. Bird (1976), "Residential Mobility and Preference Patterns in the Public Sector of the Housing Market," Transactions of the Institute of British Geographers, 1, pp. 20-33.


39. This has generally been discounted by previous authors, as, for example by J.W. Simmons (1968), op. cit. in his discussion of the spatial aspects of the housing market.

40. The volume of these moves is relatively small, but they still constitute a significant fraction of the total number of moves within major metropolitan areas. One estimate for Chicago suggests that approximately seven per cent of all moves were the result of relocations to make way for city activities. See Community Renewal Program (1964), "Housing and Urban Renewal Progress Report," Chicago.


44. ibid.


48. These models are discussed in Chapter Three.
CHAPTER III

MODELS OF THE RESIDENTIAL RELOCATION PROCESS

The material reviewed in the second chapter, dealing with the impact of institutional behavior on household decision-making, was designed to provide a context for the residential relocation process. The purpose of this chapter is to examine models of the residential mobility and residential choice decisions. This discussion draws heavily on the seminal work of Brown and Moore and Wolpert, who provide behavioral models of household decision-making.

A household, in this instance, can be defined as an individual or group of individuals occupying a discrete dwelling unit. The selection of the household as the appropriate unit of analysis demands little explanation and can be justified on three counts. The first, and most obvious, is that the household is the smallest meaningful unit of analysis. Secondly, except in the case of a household being forced to move through eviction or destruction of its dwelling, it is the household which is able to exercise conscious, though constrained, choices in deciding whether to move and in choosing a new residential location. As a result, there is a clear need to understand why households make particular locational decisions, in order to facilitate the construction of aggregate models, which are more closely tied to these micro-level decisions. Finally, conceptualising residential relocation...
In terms of a household's response to its environment, provides a much sounder basis for evaluating planning decisions which alter the urban environment, allowing for the prediction of household responses.

In existing behavioral models of residential relocation, the household has been viewed as making two separate, though related, decisions. These are the decisions to move from the current residence (residential mobility) and the selection of a new residence from among available alternatives (residential choice). The distinction between these decisions, and their implied sequence, can be regarded as conceptually useful and it is maintained in the following discussion. However, in practice, the sequence of the decisions may be blurred, since they may be taken simultaneously or, indeed, a new residence may be found before a concrete movement decision is made. Keeping this caveat in mind, we shall now turn to consider behavioral models of the residential relocation process.

Behavioral Models of Residential Relocation

A number of critical concepts are characteristic of models of household decision-making. In conceptualisations of both the decision to move and the choice of a new residence, the household is viewed as 'satisficing,' making decisions that are intendedly rational. The key concept which emerges from this conception is that of 'place-utility.' This has been defined in a variety of ways. For instance, Wolpert has suggested that it "refers to the net composite of utilities which are derived from the individual's integration at some position in space." The definition advanced by Simmons is somewhat broader. He defines
place utility as "the measure of attractiveness or unattractiveness of an area relative to alternative locations, as perceived by the individual decision-maker, and as evaluated according to his particular needs." The most explicit and extensive construction has been put forward by Brown and Longbrake. They view place utility as a function of the household's experience and attainments at its present (and all past) residential sites and its vicarious experience and attainments derived through acquaintances, mass media and other information sources, all of which operate to create a set of expectations. The degree to which these are satisfied at a particular site is one measure of the utility of that place.

Despite the differences in emphasis exhibited by these definitions, there is general agreement that the household's subjective evaluation of its dwelling's site and situation characteristics, relative to its needs, (i.e. its place utility) enters into both the decision to move and the choice of a new residence. The residential mobility decision is structurally the more simple, and behavioral models have seen it as a household's response to dissatisfaction with its current place utility. Thus, if the household's place utility falls below a subjectively-defined level, it is likely to make the decision to move and initiate the search for a new residence.

Conceptions of the residential choice process have recognized three phases in the process. In the first phase, the household establishes an aspiration region. This specifies a set of characteristics desired by the household. These criteria are then used as a yardstick to evaluate the vacancies found during the search phase. In this second stage of the residential choice process, the gathering and utilisation of information have been regarded as critical. In the
intra-urban context, the household has an image of the city based on the information it has previously acquired. This has been termed the household's awareness space.\textsuperscript{11} It refers to "those locations within the total urban space about which the intended migrant household has knowledge (or knowledge above some threshold level) before the search begins."\textsuperscript{12} Based on these perceptions of the urban area, the household then acquires information about specific vacancies by sampling information channels. This utilization of information is a basic component of the household's search space, which "is contained within its awareness space and defined by the environmental and locational criteria of its aspiration region."\textsuperscript{13} The third phase of the residential choice decision involves the evaluation of vacancies found during the search and the possible choice of a new dwelling. To be considered satisfactory a vacancy must have characteristics which fall broadly within the aspiration region. At the same time, if a vacancy is acceptable, the household must evaluate it against its current utility. This involves an estimation of the expected place utility of the prospective dwelling, and introduces the notion of comparative place utility.

The summary presented above serves to illustrate the major components of behavioral models of intra-urban residential relocation. We shall now turn to consider in detail the model suggested by Brown and Moore,\textsuperscript{14} which draws extensively on the work of Wolpert.\textsuperscript{15}
The Brown and Moore Model

The Residential Mobility Decision

The decision to move has been broadly conceived as a response by the household to a perceived imbalance between its needs and the environmental offerings at the current residence. The environmental offerings, in this setting, represent a combination of the site and situation attributes of the present dwelling. The subjective evaluation of these characteristics has been termed the household's place utility. This is clearly related to the needs of the household. The decision to move represents one possible reaction by the household to either a change in the needs of the household or to a change in the environmental offerings, which result in a lowering of the household's place utility to an unacceptable level.

Any disparity between the household's needs and the current environmental offerings are conceived as stressors. These are stimuli emanating from the environment which are perceived as disruptive or threatening to the household, and which lower the place utility which it experiences. These stressors give rise to a state of stress. Brown and Moore note, however, that both the perception of what constitutes a stressor and the response to stressful situations are to some extent unique to a particular household. The extent to which these stressors can be absorbed by the household is thus highly variable, depending on the nature of the stressor as well as the characteristics of the household.

Faced with a state of stress, the household has two available options. The household may decide to cope with and reduce the
stress in situ, either by amending its need set (presumably a down-
ward adjustment) or by restructuring the environment. The attempt
at an in situ adjustment has two possible outcomes. If it is
successful, the household will not move; if the corrective action does
not lead to an acceptable level of place utility, or if further
changes take place in the need set or the environmental offerings,
the household may decide to move. The decision to move may, of course,
be made without any intervening attempt at adjustment, and this
represents the second option open to the household. In either case,
the decision to move leads the household into the second stage of
the residential relocation process; the search for a new residence.
The structure of the residential mobility decision is shown in
Figure 3:1.

The Residential Choice Decision

Once the household has made a decision to move, it embarks on the
search for an acceptable alternative dwelling. As has been indicated
above, the residential choice decision is substantially more complex
than the decision to move, since it involves three conceptually
distinct steps. These are the specification of an aspiration region,
incorporating the mix of site and situation characteristics which the
household perceives as acceptable; the search for vacancies which
satisfy these criteria; and the evaluation of vacancies and choice of
a new residential location. These stages will be discussed separately,
though they are welded together in the conceptualisation suggested by
Brown and Moore, given in Figure 3:2.
Figure 3:1  THE DECISION TO SEEK A NEW DWELLING

Figure 3:2  THE RESIDENTIAL RELOCATION DECISION

Source: Adapted From Brown and Moore (1970): 111
(a) The Specification of the Aspiration Region:

Prior to a search of the urban environment for suitable vacancies, the household has to establish a set of criteria by which to judge those vacancies. The specification of relevant attributes, and their acceptable ranges, form the household's aspiration region. This may be regarded as a re-definition of the household's need set, and thus related to both the environmental stressors which generated the decision to move and to the values attached to various site and situation characteristics by the household. Relevant characteristics may include representative items such as accessibility, physical characteristics of the neighborhood, services and facilities, social environment and individual site and dwelling characteristics. The role of the aspiration region is to define,

- a range or subset of values for each criterion variable (depending on whether the variable is measured continuously or discretely) as acceptable. If a vacancy possesses a characteristic whose value falls outside the acceptable range, the vacancy is automatically excluded from further consideration.

In the Brown and Moore model the aspiration region is represented as a vector of characteristics, with upper and lower limits set, used to evaluate the vacancy characteristic vector, which contains the relevant criteria for each vacancy found during the search. The specification of the criteria and their acceptable values is subjective, and furthermore, the number of pertinent criteria in the aspiration region can be expected to be small. In part, this is because the individuals in the household have limited cognitive utilities and cannot make judgements on a wide variety of criteria. Also, there
empirical evidence which suggests that variables which may be objectively considered as discrete may be subjectively collapsed to a small number of dimensions. The functions of the aspiration region are two-fold. First, it helps to structure the household's search behavior and secondly, it provides a base against which to evaluate the vacancies found by the household.

(b) The Search for a New Residence:

The Brown and Moore formulation places very heavy emphasis on the household's "utilisation of and reaction to a variety of information sources or channels," in its search for a new dwelling. Identified as critical elements in the search phase are; the information initially possessed by the household; the information about specific vacancies obtained through various information channels; the manner in which the household utilises its information; and time, which may significantly affect the search process.

The information possessed by the household before it begins a search of the urban environment for specific vacancies has been termed its awareness space. This is a generalised cognition of the urban area, derived from the household's pattern of direct and indirect contacts. Direct contacts with the environment accrue from the activity pattern of the household, and provide it with first-hand information. By contrast, indirect contacts are vicarious, deriving from friends, neighbors, other inter-personal contacts and various mass media. Together these comprise the household's awareness space. This image of the urban area is neither complete in its coverage, nor is it
necessarily objectively accurate. Further, the awareness space comprises information concerning only relatively gross aspects of the urban area, and does not relate to specific vacancies.

Thus, while the awareness space of the household yields general perceptions of the urban area, which may provide a locational basis for the search, information about available vacancies is obtained from information channels. These have typically been divided into four groups; mass media, particularly newspapers in this instance; specialised agencies, notably real estate agents; display advertising, using billboards and signs; and personal contacts, including information relayed by friends, co-workers and relatives. The household may use these singly or in combination to elicit information about housing alternatives.

A significant aspect of the household's utilisation of information channels is that the choice of a source (or sources) injects biases into the search process. Brown and Moore suggest three types of biases that can be readily identified. In the first instance, the information is available. Secondly, each information concerning a particular vacancy will be available selectively; to those who choose the appropriate information source. This is exacerbated by a third source of bias. At least some of the information channels can be expected to exhibit pronounced distance-decay characteristics, so that the probability of information about a given vacancy being available to the household is inversely related to its distance from the household.

Despite these biases, the utilisation of information is critical in the formulation of the household's search strategy. It has been
argued that

the search is organised primarily in locational terms, (with) attention being focussed on selected areas within the city. Areas are selected on the basis of a) their perceived situational characteristics and b) the household's subjective evaluation of the probability of finding vacancies satisfying their site criteria. These areas are then searched for vacancies satisfying the specific site characteristics desired.28

In this process, the household's awareness space serves to filter out neighborhoods and areas which are not perceived to satisfy the situation criteria within the aspiration region. The household's search space thus represents only a portion of its awareness space.

The utilisation of information is critical in the formulation of the household's search strategy. The framework presented by Brown and Moore differs markedly from the conventional view that the household is the passive recipient of information.29 Instead, the household is viewed as "an active element (which) samples available information channels with varying intensity,"30 subject to a series of constraints. These include the household's subjective assessment of its likely success using a particular information channel, the perceived effort associated with the use of a given search strategy and the influence of time on the pattern of search behavior.

If the household is successful in locating one or more suitable vacancies within its search space and utilising its chosen information source or sources, it will then move into the final phase of the residential choice decision. However, if the household is unable to uncover any vacancies falling within its aspiration region, it has several options available. The household may, for instance, choose to
discontinue the search because it cannot find a suitable alternative, and attempt to make an in situ adjustment, either by restructuring its need set or by altering its environment. Alternatively, the household may continue its search without amending its search space, the information sources it samples or the structure of its aspiration region, under the Micawberish assumption that 'something will turn up.' On the other hand, the household may intensify its search, covering the search space more thoroughly or sampling the same information sources more vigorously.

Other alternatives are possible. The household's search space may change through time, with some of the initial areas deleted and new areas added. This can be seen as the result of a learning process. Similarly, the information channels used by the household may change as the search progresses. Finally, in response to unsuccessful results, the household may revise its aspiration region, presumably downward, so that more vacancies fall within an acceptable range.

If changes in the household's search strategy are unsuccessful, it may make additional changes or simply abandon the search and remain at its current location. However, assuming that the original search strategy, or an amended one, enables the household to locate one or more vacancies within its aspiration region, the household is then in a position to evaluate the alternatives and choose a new residential location.
(c) The Choice of an Alternative Residence:

The evaluation of vacancies falling within the aspiration region of the household, and the ultimate choice of a new residence, receive little attention in the Brown and Moore formulation. The structure of the choice process is outlined in Figure 3:2. If a single suitable vacancy is found, and is expected to yield a higher place utility than the current residence, it will be chosen by the household. In the event that the household is able to uncover two or more suitable vacancies, Brown and Moore suggest that the household will establish a subsidiary aspiration region. These additional criteria are then used as the basis for evaluating which of the alternatives is considered most suitable by the household.

Appraisal of the Brown and Moore Model

There are several aspects of the Brown and Moore conceptualisation which merit comment. The framework they suggest has three major strengths. First, it is a genuinely behavioral formulation, which stresses the decisions made by a relevant set of actors in the housing market. Viewing household behavior in this framework provides a much sounder basis for understanding why households decide to move and how they go about searching for a new residence. In this respect it contrasts favorably with ecological formulations, which have few process implications. Furthermore, an understanding of household decision-making lays the foundation for a meaningful evaluation of the effects of planning policies which significantly affect the characteristics of the environment. A second notable strength of the
model is that the household is viewed as 'intendedly rational' in both the decision to move and the search for, and choice of, a new residence. The limited ability of the household to calculate the costs and benefits of its actions and its finite knowledge of the urban area are incorporated into the model as a set of behavioral constructs. These include the concepts of 'place utility,' the 'aspiration region,' 'awareness space' and 'search space.' These make explicit the household's imperfect knowledge of, and ability to evaluate, alternatives. The third significant strength of the conceptual model is that the household's decisions are represented as sequential and hierarchical.\textsuperscript{31} The model structure is extremely clear, and the distinction between the decision to move and the search for a new residence is conceptually useful, as is the breakdown of the search process into three separate stages.

These general strengths are balanced, to some extent, by significant weaknesses in the model. Two generic criticisms have been noted earlier. Like other behavioral models, the Brown and Moore formulation is inadequate because it focusses almost exclusively on consumer behavior and neglects the behavior of other actors in the housing market. The authors recognise that the owners of vacancies, and real estate brokers who frequently act for them, pursue strategies in disseminating information about vacancies. They suggest that,

\begin{quote}
the utilisation of a particular information channel by the owner of a given vacancy is a function of such variables as his subjective evaluation of success in filling the vacancy by using a given channel, the cost or effort involved in using a given channel and the time remaining until the vacancy must be filled.\textsuperscript{32}
\end{quote}
Their strategies give rise, in the author's view, to two sources of bias in the flow of information concerning vacancies; first, because specific realtors deal only in a particular type of residence; and secondly, because many real estate brokers have defined territories and this implies some socio-economic bias with respect to their clientele. The specific effects of these biases are not discussed, and the roles of other institutional actors are ignored.

A second general criticism focusses on the nature of the model itself. The model is conceptual in intent, and it has not proved easy to translate it into an operational format. The inherent difficulty with this, and other behavioral models, is that elements such as 'place utility' and 'awareness space' are subjectively defined and difficult to measure. Empirical research has tended to concentrate on the more tractable aspects of the reasons for moving, the information acquisition behavior of the household and its search behavior. This is not in itself a criticism of the model: merely a reflection of the difficulty of putting it into an operational framework.

There are a number of more specific and direct criticisms of this model, however. One assumption of the model is that the household's change of residence is strictly voluntary. This ignores the relatively large volume of intra-urban moves which are, to a greater or lesser degree, involuntary. Moore has proposed a typology which repairs this omission, suggesting that the household's decision to move may be motivated in four ways. These are: (a) a situation in which the decision is directly imposed on the household, e.g. urban renewal, eviction, or destruction of the dwelling unit: and
(b) one in which a move becomes virtually inevitable because of changes in family structure, e.g. marriage and divorce, or changes in economic circumstances, e.g. substantial income changes and employment transfers. These would be considered forced moves. Voluntary moves result from either: (c) a change in place utility as a result of changed housing needs (though not as drastic a change as in (b) or a deterioration in the household's environment, exemplified by the household's changing demands for space or changes in the social composition of the neighborhood, or (d) where the decision to move is stimulated by the awareness of better housing opportunities which exist within the urban area. 35 These categories provide an exhaustive classification, though as Moore notes, the difference between (b) and (c) is one of degree rather than kind, and "the push factors of category (c) frequently operate in conjunction with the pull factors of category (b)." 36 The model framework covers categories (b) and (c). Neither categories (a) nor (d) are adequately reflected in the Brown and Moore formulation, though clearly, in the case of a forced move, the decision to move is not made by the household; it is imposed upon it.

A second set of criticisms relate to the conceptualisation of the household's residential choice decision. Three specific areas of weakness can be pinpointed. The first is the highly generalised specification of the aspiration region; the second is the lack of any explicit spatial model of the search process; while the third concerns the overly simple interpretation of the actual choice decision. These will be considered in turn. (1) The Specification of the Aspiration Region:
The conceptual model proposed by Brown and Moore is undoubtedly correct in considering that the household establishes a set of criteria against which to evaluate dwellings it finds. These criteria, referred to as the aspiration region, encompass the mix of site and situation characteristics desired by the household. The authors' suggest that the household's needs are multidimensional, and they propose five types of criteria which may be included in the aspiration region. There is no attempt to specify the particular configuration of attributes stressed by different classes of households, though Brown and Moore suggest that the identification of systematic differences is a valid research goal. Their argument, however, provides no insights into why and how such systematic differences might occur.

This problem has been addressed by Riemer. He contends that, as some desires are satisfied the concern of the family turns to other items of need. Size and number of rooms may not be high on the scale of preferences as long as the family does not have a bathtub. Once tolerable occupancy standards have been achieved, the housewife will begin to consider the adequacy of storage facilities. Where lower middle-class standards are fairly well satisfied, the family will begin to feel the need for a second bathroom. Needs appear, are satisfied, and fade out, only to make place for new needs. A lack of desire for storage facilities may mean that present facilities are adequate, but it may also mean that other needs are so much more urgent that not much thought is given to the need for storage space.

This argument brings to light two potential sources of variation in the aspiration regions of different types of households. The obvious implication is that a hierarchy of concerns can be identified, ranging, in Riemer's example, from the lack of a bathtub at the lowest level to the provision of a second bathroom at the highest.
These expected variations would seem to be a function of the household's life cycle stage, its housing experience and its income. Household income acts as a constraint on the aspiration region. In the actual search process, it separates the attainable from the desirable, a fact which has not been recognised by surveys examining movement intentions.

The second implication that can be drawn from Riemer's statement is that while some criteria will be explicit in the formulation of the aspiration region, other equally important criteria may be implicit. This has presented a major difficulty in survey research designed to explore the criteria used by the household in evaluating dwellings. Rossi, in his seminal work, has recognised this difficulty in commenting that,

although the specifications acknowledged by the households cover a fairly wide range of criteria of choice, it can easily be seen that this information is not complete . . . other criteria were employed which only appear as tacit assumptions.

This observation seems particularly applicable to the choice between owning and renting, which is rarely specified as part of the aspiration region. It also goes a long way towards explaining why housing costs are mentioned relatively infrequently as a household specification: cost considerations are implicit rather than explicit.

The thrust of the argument pursued here is that the conception of the aspiration region developed by Brown and Moore is not sufficiently detailed. It fails to provide any rationale for variations in the aspiration regions of different types of households, though systematic variations can be expected as a function of life cycle
stage, housing experience and household income. Furthermore, the model does not distinguish between implicit and explicit aspects of the aspiration region. (2) The Search for a New Residence: The Brown and Moore model places very heavy emphasis on the role of information in the household's search for a new dwelling. The household is seen as possessing background information about the general characteristics of the urban area and more specific information on a set of vacancies, acquired as it searches. The suggestion in the model is that the household uses its awareness space to filter out known portions of the urban area which do not possess the accessibility characteristics or social environment desired by the household. This has led to the suggestion that the search is organised in locational terms, with the search space represented as a sub-set of the awareness space. While the conception recognises that the search space is likely to be biased in a number of respects, there is no formal specification of the effects of these biases on search behavior. The only significant spatial variable introduced into the model is the characteristic distance-decay in the quantity and quality of the information available to the household. In view of the suggested distance bias in both the household's awareness space and in the information it acquires about specific vacancies (particularly through personal contacts), the spatial pattern of the search should be concentrated around the origin location.

This is implicit in the Brown and Moore model, but they do not provide an explicit spatial model of the search nor do they suggest an appropriate rationale for concentration of the search around the
origin. A formal set of rules governing search behavior have been proposed by Cyert and Marsh, and have been discussed in a spatial context by Golledge and Brown and Rogers. The posited sequence falls into three stages: (1) a search in the neighborhood of the problem situation i.e. the present residence; (2) a search in the neighborhood of the current alternative; and (3) if the neighborhood search does not succeed, the use of progressively 'more distant' search procedures. Such a sequence would undoubtedly give rise to a spatial bias in the pattern of search behavior.

The major problem is to identify the cause of this projected sequence. In part, it may be attributed to the bias in awareness space and information flows suggested by Brown and Moore. The costs of the search process may provide a partial explanation, also. As Rogers has noted, "there are distinct psychologic and economic costs to searching the supply environment for 'better' solutions." Equally plausible as an explanation, and an element suggested by Wolpert, is that the search is organised so as to minimise uncertainty in the residential choice decision. Under this aegis, the household can be expected to search for a new dwelling within areas whose situation characteristics are known, presumably close to the present residence. This has pronounced advantages to the household, providing an environment of relative certainty and reducing the complexity of the search process.

While it is not immediately clear which of these explanations account for observed patterns of search behavior, the available empirical evidence undoubtedly lends credence to the general thesis
that the household searches its immediate neighborhood for suitable vacancies. However, for the minority of households who cite neighborhood characteristics as the primary reason for moving, a different pattern of search is probable, with 'more distant' vacancies being sought. For these households, the pattern of search activity should be markedly more dispersed than that of other voluntary movers.

The lack of an explicit model of search behavior is a weakness in the overall conception of the Brown and Moore model. The ideas presented in this section are designed to extend the model and provide a more rigorous definition of the likely spatial pattern of search behavior. (3) The Residential Choice Process: The process of choosing a new residence from among suitable vacancies which have been discovered during the search is inadequately treated in the Brown and Moore model. They do not discuss the choice process in the text, and develop it only sketchily in their model. (Figure 3:2). This apparently assumes that the household is faced with several possible alternatives simultaneously. In response to this situation, the household establishes a subsidiary aspiration region, and then selects the 'most satisfactory' dwelling.

This construction neglects the fact that households consider alternative dwellings sequentially and do so under conditions of uncertainty. This idea has been best expressed by Moore in a later work. He argues that when an acceptable vacancy is discovered, the household is faced with a dilemma of taking that opportunity or looking for a more desirable vacancy knowing that (a) more desirable vacancies probably exist in the urban area; (b) he may not find one in a reasonable amount
of time; and (c) the acceptable vacancy he has discovered might be taken by someone else while he is looking for something better.\textsuperscript{51}

The most probable strategy under these circumstances is a conservative one in which the household takes the first vacancy which is within its aspiration region. The empirical evidence which shows that households generally consider few vacancies lends support to this view.\textsuperscript{52}

However, the limited number of dwellings examined may also reflect the prior screening of vacancies or the scarcity of dwellings falling within the household's aspiration region.\textsuperscript{53}

This construction is useful in understanding why households generally examine a restricted sub-set of vacancies, but does not answer the crucial question of how households decide among alternatives. A number of theoretical models of choice under uncertainty have been proposed, but the most appropriate model, in this instance, is Tversky's theory of elimination by aspects.\textsuperscript{54} This construct can be applied not only to the final choice of a specific dwelling, but also to overall search process. Consistent with the discussion in the preceding section, the choice of tenure and the specification of cost constraints would appear to be aspects which organise the search, though these tend to be implicit rather than explicit criteria. In contrast to previous models, the Tversky model is probabilistic and does not assume on a priori ordering of attributes\textsuperscript{55} in the choice process. Given this formulation, it becomes important to research the decision rules which govern the choice of a new residence, looking at both the expressed reasons for choice of the particular dwelling.
and also the reasons for rejecting other alternatives. This point has been generally neglected in previous discussions of the residential choice decision.\textsuperscript{56}

**Alternative Behavioral Models**

One further dimension of the choice process merits consideration. The necessarily close relationship between the aspiration region of the household and its choice criteria has been somewhat obscured because they have been treated separately in the preceding discussion. However, it is evident that both are related to the underlying value structure of the household. This raises the possibility that housing consumers may be categorised on the basis of their values as well as their attitudes to housing. In this context, it has been suggested that,

migration can be regarded as a variant of consumer behavior, in that the mover is attempting to purchase a suitable product to satisfy his recognised needs.\textsuperscript{57}

Two interesting approaches using household values as a basis for a typology of consumers (migrants) have been developed. The more recent derives from the work of Kotler.\textsuperscript{58} He suggests five models of buyer behavior, four of which have some applicability to housing decisions.\textsuperscript{59} Respectively, these are, the Marshallian economic model, the Pavlonian learning model, the Freudian psychoanalytic model, and the Veblenian social prestige model. Each is discussed briefly below, and some implications for the structure of the aspiration region and the household's choice criteria are suggested.
The Marshallian model of 'rational economic man' has been typically used as the behavioral basis for constructing models of the urban housing market. Housing choice, under the assumptions of this model, results from the conscious calculation of costs and benefits by a consumer who is seeking to maximise his utility. This rational consumer is assumed to have perfect information about all available opportunities, and can therefore reach an optional locational decision. This model primarily serves a normative function. As has been indicated above, the assumptions of invariant consumer preferences, complete ability to calculate the costs and benefits, and perfect information about all available alternatives cannot be sustained in a behavioral model. A more realistic set of behavioral postulates can be developed in a modified Marshallian model, stressing 'boundedly rational' behavior. Under these assumptions, the household attempts to optimise, though without either the ability to calculate all costs and benefits or complete information about all possible opportunities. Decisions are thus made under conditions of uncertainty and the household chooses a 'satisfactory' rather than an optimal outcome. The effects of uncertainty on the search process have been explored above, and the purpose here is to establish the choice criteria which might be utilised by the Marshallian consumer. In line with the precepts of economic models of mobility, the choice criteria could be expected to include housing costs, the size of the dwelling unit and accessibility to place of work.

In contrast to the Marshallian consumer, the Pavlovian consumer has been generally neglected. For this type of consumer, the
specifications of the aspiration region and the choice criteria are likely to represent a response to satisfactory past experience with housing. The Pavlovian household will attempt to reinforce successful housing experience, by replicating those characteristics of its previous home (or homes) which it has learned will satisfy its need set. Conversely the household will eschew aspects of any unsuccessful housing experience.

Two categories of households might be expected to fit the pattern of the Pavlovian learning model. In-Migrant households, particularly those who moved as the result of job transfers, would seem likely to seek to replicate previous housing experience. More tentatively, it can be suggested that newly-formed households may attempt to replicate previous successful experience, subject to budget constraints.

For the Freudian consumer, the aspiration region and the choice criteria illustrate that housing fulfills symbolic, as well as economic and functional needs. It is not easy to speculate how these symbolic needs enter into the choice process, but symbolic fulfillment may play a considerable role in the desire to own or the specification of a large lot as part of the household's aspiration region. The symbolic value of home-ownership needs no elaboration, and the importance of the household yard has been attested to by Abu-Lughod and Foley. They state that,

symbolically . . . the private yard grants a certain psychological isolation and . . . a feeling of possession, of being 'master of all I survey.' The latter may appear ludicrous, if, objectively, all that is surveyed is a lot 50 x 100 feet, subjected to all sorts of municipal regulation. But a
symbol devoid of operative value is still a symbol, and in this case a potent one.\textsuperscript{62}

A similar construction might be placed on the image of a 'swinging bachelor pad' desired by a single person household. The psychological gratification provided by a dwelling, and its ability to satisfy the household's sub-conscious needs and desires is generally unlikely to be specified as part of the household's aspiration region. Despite this, the symbolic value of the dwelling needs to be borne in mind in analysing the residential choice decision.

The fourth and final type of consumer suggested by Kotler is the Veblenian model. Such households adopt choice criteria which conform to the norms of the cultural milieu in which they make their decisions, or to more specific standards of a sub-culture. Choice criteria in the Veblenian case thus conform to those of groups the household wishes to imitate. This is roughly coincident with the view that housing decisions are a function of 'social choice' rather than 'economic competition.'\textsuperscript{63} The predominant desire among households for a single family home in the suburbs could also be construed in terms of the Veblenian model.

In general, the choice criteria stressed by the Veblenian consumer could be expected to include heavy emphasis on the type of people who live in the neighborhood, the quality of housing in the neighborhood and the reputation of the neighborhood. An emphasis on situation variables is thus likely to characterise the choice criteria of the Veblenian consumer. It can also be expected that a high proportion of moves from city to suburbs will be made by this type of consumer.
The typology of consumers proposed by Kotler has some parallels with the second classification of households according to life-style aspirations, attributable to Bell. Different attitudes towards life-style have been viewed as capable of engendering different types of movement responses, though the emphasis of his study was on preferences for suburban living. He defines four types of households on the basis of their life-style aspirations. These ideal types are: (1) family-oriented consumers, who emphasise the welfare of their children; (2) a career orientation, represented by households who are expressing a desire for upward social mobility; (3) consumption-oriented households; and (4) consumers with community-oriented aspirations, who stress the benefit of interaction with people sharing similar values.

The final category suggested by Bell appears to be equivalent to the Veblenian consumption pattern proposed by Kotler. In both constructs emphasis is placed on the social composition of the neighborhood and the ability to adhere to group norms. The consumption-orientation would seem to most closely accord with the Marshallian consumer. The remaining two life-style groups proposed by Bell are perhaps best regarded as variants on the Veblenian consumer. The upwardly mobile households, in moving to the suburbs, are attempting to conform to their peer group norms, though a suburban home may also fulfill symbolic needs for this group. The family oriented life-style is more difficult to categorise, but despite the emphasis on the welfare of the children, it is imitative and reflects a desire to conform to groups norms. Three of the four categories proposed by
Bell are therefore, wholly or partially, Veblenian: the fourth represents the Marshallian consumer.

These constructions are presented as complementary to the Brown and Moore approach. The values of the household may have some impact on the decision to move but are likely to play a much greater role in the choice of a new residence. It is in this area that the Brown and Moore model is weakest and these alternative models are most valuable in providing an alternative framework for the decision.

Having set out the structure of these alternative behavioral models, we shall now turn to consider the empirical evidence on the decision to move and the choice of a new residence.
Chapter III - Footnotes


3. In studies of most other discretionary household purchases the logical unit of analysis would be the individual. In the case of households containing two or more adults, however, the residential relocation process appears to be the product of a joint decision, particularly among married couples. See the evidence provided by D.J. Hempel (1974), "Family Buying Decisions: A Cross-Cultural Perspective," Journal of Marketing Research, 11, pp. 295-302.


5. This follows the argument presented by E.G. Moore (1972), Residential Mobility in the City, Association of American Geographers, Resource Paper 13, Washington, D.C., p. 4.


7. J. Wolpert (1965), op. cit., p. 163.


10. This has been designated the 'threshold reference point' by J. Wolpert (1966), "Migration as an Adjustment to Environmental Stress," *Journal of Social Issues*, 22, pp. 92-102. It may be regarded as the boundary between what are considered acceptable and unacceptable levels of place utility. If place utility falls below this point, the household will either decide to move or attempt an in situ adjustment.

11. This is the term used by L.A. Brown and E.G. Moore (1970), op. cit. It corresponds to the notion of 'action space' suggested by J. Wolpert (1965), op. cit., defined as the set of place utilities which the individual perceives and to which he responds.


13. Ibid., p. 8.


15. J. Wolpert (1965), op. cit.

16. The conception of environmental offerings is very broad, encompassing the characteristics of the dwelling unit, the neighborhood in which it is situated and its relative location within the urban area. The household's valuation of these attributes may change as a result in objective changes in the needs of the household or as a result of perceived changes in the quality of the environment. Among the environmental changes likely to reduce the place utility of the household are changes in the racial or ethnic composition of the neighborhood, residential and commercial blight and changes in accessibility relationships. For further evidence on this aspect of the residential mobility decision, see R. Boyce (1969), "Residential Mobility and Its Implications for Urban Spatial Change," *Proceedings of the Association of American Geographers*, 1, pp. 22-26 and J.B. Lansing and G. Hendricks (1967), *Automobile Ownership and Residential Density*, Survey Research Center, University of Michigan. Changes in the needs of the household which would be classified as objective include changes in family size or composition, employment changes and changes in the socioeconomic status of the household. These changes have been discussed by P.H. Rossi (1955), op. cit., especially pp. 124-151.
17. The definition of 'stress' has been the subject of considerable debate in psychology literature, and there is no operational definition which has proved totally satisfactory. In A. Speare (1974), "Residential Satisfaction as an Intervening Variable in Residential Mobility," *Demography*, 11, pp. 173-188, he substitutes the term 'dissatisfaction' for 'stress' to avoid the connotation of mental stress.

18. This choice of strategies, to move or to attempt an in situ adjustment echoes the argument presented by A.O. Hirschman (1970), *Exit, Voice and Loyalty*, Cambridge, Mass. though the contexts are widely different.

19. Such adjustments might include an addition or repairs to the current residence, or the formulation of a neighborhood pressure group to prevent deleterious changes in the local environment. Only limited information exists on this point and it is not clear to what extent these adjustments may be substitutes for residential mobility. However, it seems reasonable to argue that home owners are generally more capable of making in situ adjustments than renters. See, for example, the evidence presented in C.W. Minshall (1967), *A Model of Residential Site Selection: The Jewish Population in Columbus, Ohio*, unpublished Ph.D. dissertation, The Ohio State University. It has also been suggested that the probability of an in situ adjustment increases the length of residence. See G.C. Myers, et al. (1967), "The Duration of Residence Approach to a Dynamic Stochastic Model of Internal Migration: A Test of the Axiom of Cumulative Inertia," *Eugenics Quarterly*, 14, pp. 121-126.


23. This has been discussed by G.A. Miller (1956), "The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information," *Psychological Review*, 63, pp. 81-97.

24. In the more specific context of preferences for residential neighborhoods, see the work of G.L. Peterson (1967), "A Model of Preference: A Quantitative Analysis of the Visual Appearance of Residential Neighborhoods," *Journal of Regional Science*, 7, pp. 19-32 who used factor analysis to determine the dimensions of preference. The major dimensions which emerged were 'harmony with nature' and the 'physical quality of the neighborhood.'


29. This has been a characteristic assumption of models of the diffusion of innovations and of models of migration which have incorporated information flows.


32. L.A. Brown and E.G. Moore (1970), op. cit., p. 9. It should be noted that these are the same variables suggested as characterising the household's search behavior. This conception is rather weak and ignores the motives of the selling agent. It is difficult to see how the length of time remaining before the vacancy must be filled can seriously be considered as a variable. There is no imperative in filling a vacancy, and the costs of not filling it can, in any event, be directly measured in terms of foregoing rent. Similarly the costs of advertising a vacant dwelling are readily calculable. The only source of uncertainty is related to the probability of filling a vacancy using a particular advertising medium. The environment of the seller is thus one of relative certainty when compared to the household's in its search for a new residence.

33. ibid., p. 7 for a discussion of the biases in information flows.

34. E.G. Moore (1972), op. cit., p. 4.

35. The last category is analogous to the 'windfall' category of moves suggested by P.H. Rossi (1955), op. cit., pp. 160-161 and p. 216.


38. ibid., p. 148.


40. This separation is important and is not generally found in surveys which ask which criteria would be preferred by the household. In a theoretical context, the work of R.L. Wilson (1962), "Livability in the City: Attitudes and Urban Development," pp. 359-399 in Urban Growth Dynamics in a Regional Cluster of Cities, F.S. Chapin and S.F. Weiss (eds.), and the work of G. Hoinville (1971), "Evaluating Community Preferences," Environment and Planning, 3, pp. 33-50 have recognised the need to incorporate budget constraints into hypothetical models of residential preferences.


42. Curiously, however, the decision to change tenure is frequently cited as a reason for the decision to move.

43. It would seem, on the basis of available evidence, that housing costs remain implicit until the household has to choose between two or more dwellings with approximately equal expected place utilities. At that point, costs bear heavily in the choice decision, as P.H. Rossi (1955), op. cit., p. 164 has pointed out.

44. The assumption is that households will automatically exclude portions of the urban area, about which it has no information, from consideration. The validity of this assumption is questioned by the findings of K.J. McCracken (1975), "Household Awareness Space and Intra-Urban Migration Search Behavior," Professional Geographer, 27, pp. 166-170.


48. This second step is more difficult to interpret in the case of the search for the new residence. Two constructions are possible. First, if the 'current alternative' is regarded as the present residence, the step is wholly unnecessary since it duplicates the first one. The second approach would be to regard the first broadly suitable alternative uncovered in the search as the starting point for this second stage.


51. E.G. Moore (1972), op. cit., p. 16.

52. See, for example, the evidence presented by E.W. Butler, et al. (1969), op. cit., especially p. 41. The data they present indicate that 60% of the households surveyed seriously considered only one dwelling during the search.

53. See the discussion in E.G. Moore (1972), op. cit., p. 19.


55. This contrasts with lexicographic models in which a fixed ordering of attributes is assumed.

56. A very similar line of argument can be found in P.H. Rossi (1955), op. cit., pp. 163-169.


59. The Hobbesian decision-making model is omitted from the discussion since it is not applicable to household behavior, unless the motives of one or more members of the household are at variance with those of the household as a whole.
60. The characteristic assumption has been that households trade-off two goods, land and location. This is particularly well articulated in the work of W. Alonso (1960), op. cit.

61. This is the framework proposed by J. Wolpert (1965), op. cit.


CHAPTER IV
THE RESIDENTIAL RELOCATION PROCESS: EMPIRICAL EVIDENCE

In the last chapter we examined models of household decision-making from a purely conceptual standpoint. The models of the residential mobility and residential choice decisions we reviewed, with the amendments we have suggested, provide an adequate framework for analysing household attitudes and behavior. However, these conceptions do not provide any substantial insight into what factors influence these household decisions, nor does the discussion in the previous chapter provide any evidence on variations in the attitudes and behavior of different groups of households. These two issues will be considered in this chapter.

The purpose of this chapter is to examine various interpretations of the residential relocation process, to evaluate the strengths and weaknesses of each view and to critically review the empirical evidence. The chapter is divided into three sections. These correspond with differing interpretations of residential change. The first section is devoted to considering the predominant interpretation. This view holds that changes of residence are a function of the changing set of household needs generated by successive stages of the household's life-cycle. An alternative explanation, evaluated in the second section, is that housing costs act as a constraint on household behavior. The ability of the household to adjust its housing
to its aspirations is thus limited. As this constraint is relaxed
the household is able to align its housing more closely to its needs.
The final interpretation of the residential relocation process is
couched in terms of the recent residential history of the household
and its current tenure preference. Housing experience and desired
tenure status are treated as independent explanatory variables.

Before turning to evaluate these three interpretations, there
are three general comments we should interpose. First, given the
enormous range of empirical evidence on residential relocation our
purpose is to review only a limited sub-set of all of the literature.
We shall examine only studies which bear directly on the three
alternative explanations. Secondly, and related to the first point,
we shall give only limited consideration to studies which have posed
hypothetical questions about residential mobility and residential
choice decisions, since the responses are judged to be an inadequate
guide to behavior. Finally, in presenting the evidence, there is a
clear need for caution. The studies were conducted at different times.
They examined different populations of movers in varying spatial and
temporal contexts. The purposes of each survey and the types of
questions asked differed considerably. The length of time between
the move and the interview also varied very considerably. All of
these factors contribute to the diversity of findings which have
characterised research on intra-urban migration.
Life-Cycle Stage

The most consistent interpretation of the residential relocation decision is that it is "the process by which families adjust their housing to the housing needs generated by shifts in family composition which accompany life-cycle changes."¹ This contention is supported by virtually every major study of the residential relocation process. The case has been most forcefully stated by Simmons who argues that "life-cycle changes account for at least five of the eight or nine moves which might be expected in a lifetime."² He further asserts that life-cycle related moves produce high rates of mobility throughout the city.

The explanation of changes of residence as a function of the changing needs of the household as it progresses through its life-cycle is consistent with the structure of the Brown and Moore model.³ The needs engendered by life-cycle changes are clearly likely to reduce the place utility of the initial residence and thus precipitate a decision to move. This construction also accords with the objective changes in needs identified by Moore in his typology of moves.⁴ There are several points in the life-cycle of a typical household where changes in the composition of the household can be expected to generate sufficient stress to render a move highly probable. The most clear-cut example is in the case of marriage. In approximately ninety per cent of the cases, households formed by marriage establish a separate dwelling unit, according to Speare.⁵ Residential relocation is also likely to occur as the result of the changing needs accompanying
the birth of a child, the movement away from the family home by young adults or the death of a spouse. These life-cycle events represent discrete changes in the needs of the household. The more gradual changes in needs associated with growing children may also lead to a reappraisal of the current residence.

The definition of the life-cycle status of the household has generally involved a combination of three variables: the age of the head of the household, the marital status of the household and the number of persons in the household. These provide an adequate definition, though more recent work has incorporated dynamic elements such as the duration of marriage and the length of time since the latest birth. We can generalise the three initial components into a set of life-cycle stages by amending the size of household to indicate simply the presence or absence of children. We show this idealized life-cycle in Figure 4:1. The age of the head of the household is indicated by Y (young), O (middle-aged) or E (elderly). The marital status of the household is indicated by M (married) or S (not currently married). The presence of children is denoted by C. This model deals with a set of relatively typical life-cycle changes, and is designed to illustrate these patterns rather than the atypical stages generated by divorce or the early death of a spouse. The implicit assumption is that most households conform to the sequence involving marriage, child-rearing and the eventual departure of the children from the family home.
Figure 4:1  IDEALIZED LIFE CYCLE STAGES

Source: Author
This typical sequence of life-cycle changes is undoubtedly linked to the discrete changes in household needs identified earlier. The only difficulty with this schema is that a large number of households do not appear to conform to this 'typical' pattern. Abu-Lughod and Foley, for example, have suggested that "between 17 and 20 per cent of all households do not conform to the family cycle . . . . since minor children have never been part of the household." They further argue that one household in six can be classified as 'broken' as the result of death, divorce or separation. At minimum, on the basis of this estimate, one third of all households do not adhere to the ideal pattern of changes we have suggested. This finding indicates at least a need for caution in interpreting moves solely in life-cycle terms, though one could presumably argue that some of these events could be construed in life-cycle terms.

Laying aside this difficulty, the conception of residential relocation primarily as a function of changes in the life-cycle of the household has tended to stress the importance of changing demands for space. The household's need for space increases most rapidly in the early stages of the life-cycle, stabilizes and then declines as the size of the household contracts. This suggests that younger households should have the highest rates of mobility and that older households should show a declining probability of moving. This interpretation is sustained by age-specific mobility rates which are highest between the ages of eighteen and twenty-five. Thereafter, they decline to reach low and relatively stable levels beyond the age
of forty-five. In aggregate the life-cycle interpretation is further supported by the large number of young children involved in changes of residence in a given year.  

Inference from these aggregate data concerning individual motives is clearly fraught with considerable difficulties. The mobility rates do support the life-cycle interpretation, but we need to examine studies of individual households in order to determine whether these decisions are, in fact, directly related to the changing needs of the household. We shall first consider the residential mobility decision.

**The Decision to Move**

While there is general agreement in the literature that the residential mobility decision is linked to the life-cycle stage of the household, there are some surprising contradictions in the empirical evidence. With regard to life-cycle stage, Rossi purports to show that mobility decreases as the age of the head of the household increases and increases as the size of the household increases. He argues, in fact, that both the age and size of the household are independently related to the probability of moving. The evidence he presents has been sharply criticised by Morgan on two grounds. First, since Rossi did not include any statistical tests, it is impossible to assess the strength of the relationships or their statistical significance. Secondly, when tenure is controlled for, the relationship between size of household and mobility disappears.
The original findings of Rossi's work have been supported by Speare. His results indicated that the age of the head of the household and the life-cycle stage of the household were independently related to residential mobility. The value of life-cycle stage as a predictor of mobility is disputed by Butler, Sabagh and Van Arsdol who found that the age of the head of the household was a significant variable but that the life-cycle stage was not. This finding, in turn, is not supported by Leslie and Richardson who found that neither age of the household nor its life-cycle stage were effective predictors of residential mobility. The diversity of results obtained from these studies illustrates the empirical confusion which exists in the literature on residential mobility.

The strongest evidence in support of the life-cycle interpretation of residential mobility is provided by Rossi. In the sample survey he conducted, 45 per cent of the respondents indicated that space complaints were the primary reason for their decision to move and an additional 19 per cent gave this as a contributor factor in their decision. The importance of space complaints as a reason for the decision to move is also attested to in the surveys conducted by Branch and Cullingworth. Unfortunately, in none of these surveys are the results disaggregated in such a way as to enable us to relate the need for more space (or less space) directly to the life cycle stage of the household.

The evidence on the relationship between the reason for moving and the life-cycle stage of the household is predominantly inferential,
if we rely on Rossi's evidence. The only clear demonstration of a relationship linked to the life-cycle is when he examines the differences between households whose size had increased and those which had experienced no change. In the former group, 71 per cent indicated that the need for more space was the reason for their move: in the latter group, the figure was 33 per cent.19 It is important to recognise, however, that because of the unequal size of these groups, almost half of the households who complained about the space in their initial residence had not experienced any change in household composition or size.20 The fact that households which experienced a change in size are more prone to cite space needs as the primary reason for their decision to move leads Rossi to conclude that,

enlargement of family size is the most frequent cause of space dissatisfaction, almost independently of the objective density of occupancy. Families seem to adjust to a particular level of density (whether it be high or low), but the addition of a new person tends to create feelings of overcrowding even when objectively there is enough space for all.21

The only study which directly addresses the question of the variations in the reason for moving by life-cycle stage is the research reported by Speare, et al.22 Their findings are shown in Table 4:1. Households are divided into six life-cycle stages. Four ever-married groups are distinguished by age and these are contrasted with households formed by marriage and a category referred to as 'never married'.23 The authors do not attempt to control for size of household nor do they distinguish between households with children and those without children present.
A number of the results provide evidence which is consistent with the life-cycle interpretation of residential mobility. In the 'just married' group of households, 94 per cent of the respondents gave their marriage as the primary reason for their decision to move. The role of space needs is clearly evident in this table. Among households between the ages of eighteen and forty-four, the need for more space was cited by 18.1 per cent of the respondents as the primary reason for the decision to move. This ranked second only to the desire to buy or build a new residence among these households. Among married households over the age of forty-five, 8.0 per cent of the respondents indicated that they moved because their initial dwelling was too large. Both findings are consistent with the life-cycle interpretation. They are reinforced by data from the same study showing that ever-married households between 18 and 44 increased the mean number of rooms in their dwelling as a result of the move, while those over the age of 45 reduced the amount of space in the unit.24

The tentative support lent to the life-cycle explanation should not obscure the relatively small numbers of households giving reasons which can be directly related to life-cycle considerations. The most important reason given by the sample as a whole was the desire to buy a new home or build one. This was a particularly important reason for moving among ever-married households up to the age of forty-four,
Table 4:1 REASONS PERSONS LEFT PREVIOUS ADDRESS,  
BY LIFE-CYCLE STAGE

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Never Married</th>
<th>Just Married</th>
<th>Ever Married by Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>18-29</td>
</tr>
<tr>
<td>Eviction/D of housing</td>
<td>15.0</td>
<td>0.7</td>
<td>10.0</td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marriage</td>
<td>3.6</td>
<td>94.0</td>
<td>3.7</td>
</tr>
<tr>
<td>Divorce/Br</td>
<td>23.7</td>
<td>1.7</td>
<td>12.0</td>
</tr>
<tr>
<td>Other</td>
<td>7.2</td>
<td>0.3</td>
<td>3.2</td>
</tr>
<tr>
<td>Housing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too Small</td>
<td>6.2</td>
<td>0.7</td>
<td>19.6</td>
</tr>
<tr>
<td>Too Large</td>
<td>2.1</td>
<td>0.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Poor Style/Quality</td>
<td>11.4</td>
<td>0.3</td>
<td>10.8</td>
</tr>
<tr>
<td>Costs Too High</td>
<td>4.6</td>
<td>0.0</td>
<td>5.4</td>
</tr>
<tr>
<td>To Buy or Build</td>
<td>6.7</td>
<td>1.3</td>
<td>22.8</td>
</tr>
<tr>
<td>Neighborhood</td>
<td>6.2</td>
<td>0.3</td>
<td>4.5</td>
</tr>
<tr>
<td>Job Related</td>
<td>7.2</td>
<td>0.7</td>
<td>3.5</td>
</tr>
<tr>
<td>Other</td>
<td>6.2</td>
<td>0.0</td>
<td>3.7</td>
</tr>
<tr>
<td>n =</td>
<td>194</td>
<td>299</td>
<td>540</td>
</tr>
</tbody>
</table>

Source: Speare, Goldstein and Frey (1974): 235
and remained the most important primary reason for the move among married households up to the age of 64. This finding is supported by the work of Barrett. He found that 27 per cent of the households in his sample gave the desire to own as the primary reason for their move, compared to 24 per cent citing the need for more space and 2 per cent indicating that they needed less space. It is difficult to reconcile these results with the life-cycle interpretation since there is no obvious link between the desire to own and the life-cycle characteristics of the household.

The interpretation of the majority of moves in life-cycle terms is further confounded by the large numbers of discretionary movers in many samples. We have already noted that almost half of the households in Rossi's study who indicated that they felt the need for more space had experienced no change in household size. If we examine the results shown in Table 4:1 we can see that dissatisfaction with the style or quality of the dwelling, with the neighborhood or with housing costs accounted for 20 per cent of the primary reasons for the decision to move among all households. It is relatively easy to explain why housing costs bear more heavily in the decisions of households over the age of 65. These households not only have lower incomes, on average, as a result of retirement but also are the most likely to experience severe income losses as a result of the death of a spouse. These moves may just as plausibly be linked to income as to life-cycle considerations.

There is no simple explanation for the variations in the proportion of the life-cycle groups citing neighborhood or dwelling unit
dissatisfaction as the primary reason for their decision to move. There is no intrinsic reason why either should be associated with any particular stage of the life-cycle, yet they are most prevalent among ever-married households between the ages of 45 and 64, accounting for 22.5 per cent of all moves. With the exception of the 'just married' group, they account for at least 15 per cent of all moves in every other life-cycle stage. This suggests that these sources of dissatisfaction may reflect changes in the attitudes of households towards their housing rather than being related to any changes in the needs of the household generated by changes in its life-cycle status. A similar construction could be placed on the desire to own which appears to be the most important motive for the decision to move among younger married households.

These findings cast considerable doubt on the alleged importance of the household's life-cycle stage in its decision to move. Marriage appears to be the only well-defined point in the life-cycle at which a move is invariably made. The birth of a child is certainly likely to heighten household dissatisfaction with space, but this does not explain why many young households who experience no change in household size use inadequate space as their rationale for the decision to move. There is some evidence from older households that the departure of mature children leaves the household with too much space, but these represent only a minority of households in this life-cycle stage. Finally, the death of one partner is also a factor in the relatively high percentage of elderly households citing family reasons for the decision to move. These must be weighed against the larger numbers of
moves which do not appear to be related to the life-cycle of the household, which we have viewed as a product of either income constraints or changes in the attitudes of households towards their housing. We shall return to these in later sections. In the meantime we shall consider variations in the search and evaluation process which are associated with the life-cycle stage of the household.

The Aspiration Region

There have been virtually no attempts made to examine differences in the characteristics of household aspiration regions as function of life cycle stage. The evidence is again primarily inferential and derives from the work of Rossi. In discussing the specifications held by the household as it embarked on its search for a new residence, he suggests that the household is likely to stress unsatisfactory aspects of its former home in delineating the attributes it desires in its new one. He supports this with three findings. Households who complained about inadequate space in their former home specified space needs as an important component of their aspiration regions more frequently than households who did not (64% to 46%). Similar results were obtained in examining the relationships between complaints and aspirations with respect to housing costs (38% to 17%) and with respect to neighborhood characteristics (68% to 35%). The principal implication is simply that there will be a relationship between the dissatisfaction felt by the household at its initial residence and the criteria employed in the aspiration region.
On the basis of our earlier discussion of the variations in the reasons for moving by life-cycle stage, this finding is suggestive of possible variations in the structure of household aspiration regions. We can expect, for example, that young households will tend to stress space needs as a more significant component of their aspiration regions than older households. Housing costs are likely to play a more prominent role in the aspiration regions of households at late stages of their life cycle. Neighborhood characteristics will be of greatest concern to households who are in the middle stages of their life-cycle, as will the style or quality of the dwelling unit. The prominence of these factors is simply a reflection of their importance to these groups of households in their decision to move.

For households whose reasons for moving are not related to the characteristics of their former dwelling unit or its location, there is no clear evidence on the likely structure of their aspiration regions. We can anticipate, however, that recently married households will tend to stress privacy as an important component of their aspiration regions, together with attributes such as the interior design of the dwelling and the ease of access of its location. Similarly, we can posit that households who elect to change their tenure will exhibit distinctive aspirations. In these cases, we can anticipate a strong measure of concern for neighborhood characteristics. These would include the condition of other dwellings in the vicinity of the residence, the socio-economic status of the neighborhood, the exterior design of the home and the size of the yard. Since the desire
to change tenure is most marked among households in the early and middle years of the life-cycle, we would expect neighborhood characteristics to be cited most frequently by these groups.

In assessing the overall importance of various attributes to households, the available evidence suggests that dwelling unit characteristics are the most prominent components of household aspiration regions. The importance of criteria in the search for a new residence among Rossi's sample is shown in Table 4:2. As one might expect, given the importance of space dissatisfaction in the decision to move, space requirements were the most important single attribute cited by households as a specification. These were mentioned by 51 per cent of the households, barely surpassing design requirements, mentioned by almost twice as many respondents as location, which was the third-ranking item. Housing costs were significant in the aspiration regions of only a fifth of the sample. These four attributes accounted for 73 per cent of all responses.

These findings should again be interpreted cautiously. Households were asked only to identify the important characteristics they desired in looking for a new residence. The listing is therefore incomplete, as Rossi recognises when he points to the tacit assumptions which underpin the aspiration region. Furthermore, no attempt is made to identify the differing aspirations of groups at various points in the life-cycle. The evidence we have presented provides only a partial picture of the possible variations in the structure of a household aspirations as a function of the life-cycle stage of the household. There is clearly a need for more research on this topic.
Table 4:2 IMPORTANCE OF CRITERIA IN THE SEARCH FOR A NEW RESIDENCE

I. Specific Dwelling Unit Attributes

- Particular Space Dimensions: 51
- Particular Design Requirements (heating, layout, utilities, etc.): 50
- Costs (rent, maintenance or purchase price): 19
- Other Dwelling Unit Attributes: 16 (b)

II. Specific Neighborhood Characteristics

- Social Composition: 6
- Location: 26
- Other Neighborhood Attributes: 9

III. Other Considerations: 5 (c)

IV. Vague Considerations: 13 (d)

V. None ('looking for anything'): 5

a. The wording of the question which elicited these responses was "What were the important things you had in mind about a place when you were looking around?"

b. "Other Dwelling Unit Attributes" included such qualities as cleanliness (mainly referring to furnished units), details of construction (frame, brick, detached, attached), and so on.

c. "Other Considerations" consisted primarily of availability.

d. "Vague Considerations" included such responses as 'a better apartment', 'nicer neighborhood', etc. In part the large number of vague responses indicates poor interviewing since such responses ideally should be followed with probes to bring out specific details. But, in large part, the high proportion of such responses indicates the difficulty respondents felt in verbalising such matters.

Source: Adapted from P.H. Rossi (1955): 154
Household Search Behavior

As we have suggested in the previous chapter, the search behavior of households can be divided into two phases: the acquisition of information and the inspection of vacancies. There is no evidence of variations in household search behavior as a function of its life-cycle stage. No study has addressed the question and there are no a priori reasons for assuming that the life-cycle status of the household will have an independent effect on either the sources of information used in the search or the spatial and temporal characteristics of the search. We view variations in search behavior as a function of the socio-economic status of the household and its tenure preference, rather than its life-cycle stage. These variations will be discussed in the appropriate sections.

The Residential Choice Decision

The most extensive empirical treatment of the residential choice decision is again attributable to Rossi, though his findings deal with the entire sample rather than with disaggregated groups. At first sight, the findings presented in Table 4:3 may appear to be somewhat paradoxical in view of the expected relationship between the structure of the aspiration region and the criteria used in the selection of a new residence. It may be recalled, for example, that housing costs were cited by only 19 per cent of the respondents as an important part of their aspiration regions, yet 60 per cent of the households rated their chosen dwelling superior to others they had considered in terms of housing costs. Similarly, qualities such as
Table 4:3  RATING OF CHOSEN DWELLING AGAINST OTHERS CONSIDERED

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Better</th>
<th>Worse</th>
<th>No Different</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs</td>
<td>60</td>
<td>17</td>
<td>23</td>
</tr>
<tr>
<td>Outside Appearance</td>
<td>50</td>
<td>22</td>
<td>28</td>
</tr>
<tr>
<td>Transportation to Work</td>
<td>42</td>
<td>11</td>
<td>47</td>
</tr>
<tr>
<td>Neighborhood Reputation</td>
<td>38</td>
<td>11</td>
<td>51</td>
</tr>
<tr>
<td>Number of Rooms</td>
<td>37</td>
<td>17</td>
<td>46</td>
</tr>
<tr>
<td>Kind of People in N'hood</td>
<td>31</td>
<td>8</td>
<td>61</td>
</tr>
<tr>
<td>Nearness to Friends</td>
<td>31</td>
<td>17</td>
<td>52</td>
</tr>
<tr>
<td>Nearness to Relatives</td>
<td>29</td>
<td>18</td>
<td>53</td>
</tr>
<tr>
<td>Schools</td>
<td>28</td>
<td>8</td>
<td>64</td>
</tr>
<tr>
<td>Open Space/Gardens</td>
<td>28</td>
<td>27</td>
<td>45</td>
</tr>
<tr>
<td>Garage/Parking Space</td>
<td>19</td>
<td>12</td>
<td>69</td>
</tr>
</tbody>
</table>

aSample size is 247, since only households who looked at more than one dwelling are included.

bThe comparison is with the second best dwelling examined.

Source: Adapted from P.H. Rossi (1955): 164 and 168
outside appearance and transportation to work, which were not generally regarded as significant components of the aspiration region featured fairly prominently among the attributes considered to be better at the chosen location. By contrast, space needs (represented by number of rooms) were markedly less important, despite their role in the decision to move and their emergence as a critical facet of the aspiration region. The lack of congruence between these results and the specifications held by the household are reconciled by Rossi on the grounds that all dwellings examined satisfy the major elements in the aspiration region. They are therefore judged on secondary criteria such as costs, outside appearance and transportation to work. This argument is consistent with Tversky's model of choice in which alternatives are eliminated by aspect. 30

These results indicate only the features of the chosen dwelling considered to be superior or inferior to others which were examined. On the question of why a particular residence was chosen, there is considerable disagreement on the importance of various choice criteria. Consistent with the rating of the chosen dwelling, Rossi found that housing costs were the most important reason for the selection of the residence. Costs were cited by 42 per cent of the households in his sample. 31 This finding does not accord with the results obtained in two other studies. Abu-Lughod found only 20 per cent of the households gave housing costs as the reason for their choice, with 38 per cent citing housing characteristics and 35 per cent location as their primary reason. 32 Speare, et al. reported that fractionally under 10 per cent of the households in their sample proffered housing costs as
the principal reason for their decision. Reasons related to family or friends accounted for 27 per cent of the choices, followed by almost 16 per cent who gave neighborhood attributes as the reason for the selection of the new residence.33

These findings provide no clear indication of a pattern in the reasons used in the selection of the new dwelling. In part, the differences reflect the different sample designs used in the studies. In part, they reflect the differences in the phrasing of the questions, and in the characteristics of the samples. However, it is clear that none of these studies provide evidence which demonstrates that the life-cycle interpretation of the residential relocation process is useful in analysing the reasons for the choice of the new residence.

If we examine the relationship between the life-cycle stage of the household and its reasons for selecting the new residence more closely, there is some indication of variations in decision-making. These variations are shown in Table 4:4, in which Speare, et al.'s findings are broken down into life-cycle categories. As we indicated in the preceding discussion, more than a quarter of the sample gave reasons related to family or friends. This is misleading as an index of the residential choice decision, since it appears to reflect the peculiar wording of the question which asked the reasons for moving to the new residence rather than the reason for choosing it. Many households thus responded in terms of their reasons for moving.

Discounting these responses, there are some significant differences in the reasons given by various life-cycle groups. Reflecting the importance of inadequate space in their decision to move, ever-married
Table 4:4  REASONS FOR MOVING TO THE PRESENT RESIDENCE,
BY LIFE CYCLE STAGE

<table>
<thead>
<tr>
<th>Reason</th>
<th>Never Married</th>
<th>Just Married</th>
<th>Ever Married by Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>18-29</td>
</tr>
<tr>
<td>Family or Friends(a)</td>
<td>44.1</td>
<td>48.5</td>
<td>22.0</td>
</tr>
<tr>
<td>Housing</td>
<td>21.3</td>
<td>18.9</td>
<td>43.3</td>
</tr>
<tr>
<td>More Room</td>
<td>5.5</td>
<td>3.3</td>
<td>12.3</td>
</tr>
<tr>
<td>Less Room</td>
<td>1.5</td>
<td>0.7</td>
<td>0.9</td>
</tr>
<tr>
<td>Costs Reasonable</td>
<td>4.0</td>
<td>9.0</td>
<td>12.1</td>
</tr>
<tr>
<td>Better Condition, Style or Level</td>
<td>9.4</td>
<td>4.7</td>
<td>9.0</td>
</tr>
<tr>
<td>To buy or Build</td>
<td>1.0</td>
<td>1.3</td>
<td>9.0</td>
</tr>
<tr>
<td>Neighborhood(b)</td>
<td>9.9</td>
<td>10.3</td>
<td>15.5</td>
</tr>
<tr>
<td>Access(c)</td>
<td>10.4</td>
<td>10.6</td>
<td>9.2</td>
</tr>
<tr>
<td>Availability</td>
<td>11.4</td>
<td>11.0</td>
<td>9.4</td>
</tr>
<tr>
<td>Other Reasons</td>
<td>3.0</td>
<td>0.7</td>
<td>0.6</td>
</tr>
<tr>
<td>n =</td>
<td>202</td>
<td>301</td>
<td>544</td>
</tr>
</tbody>
</table>

\(a\)Includes persons moving to be near relatives or friends, because of marriage, divorce or family breakup, or because housing was bought or received from a relative. This category also includes 21 respondents aged 18 or over who said they moved because their parents moved.

\(b\)Includes a few cases where the residence came with the job.

\(c\)Respondents replied that they had moved to the housing unit because it was the only one available or that they saw an ad or heard it was for rent.

households between 18 and 44 were more likely than other groups to stress the increase in space as their choice criterion. Conversely, the smaller amount of space in the new residence was cited by households above the age of 45, though only very small proportions of these households indicated it was the reason for their move to the new residence. In each group of ever-married households, neighborhood characteristics were more frequently identified than space considerations. These were most important to households in the middle stages of their life-cycle, though even among young married households neighborhood attributes were the most frequently cited reason for the move to the new residence. These young households, together with the oldest group of ever-married households, were more prone than other life-cycle groups to indicate reasonable costs as their reason.

The two older ever-married stages contained relatively high proportions of households intimating that the design of the unit was the principal reason for its selection. Access characteristics and availability were cited almost uniformly across the six life-cycle groups.

It is difficult to explain many of these differences in purely life-cycle terms. Only the findings on household space needs provide material which is consistent with a life-cycle interpretation of residential relocation. Even here, only a small proportion of the households in the relevant stages use this as their principal choice criterion. The majority of the variation in the residential choice decision across life-cycle stages is more readily explicable in terms of the income level of the household and its tenure preference, both
of which affect its attitudes towards housing. We shall now turn to consider the impact of income on the residential mobility and residential choice decisions.

Income Level

The life-cycle interpretation of the residential relocation process has been challenged by Morgan.\textsuperscript{34} Pointing to the contradictory evidence on the relationship between life-cycle stage and residential mobility, he argues that the relaxation of income constraints in the years after family formation may provide an equally valid explanation. The essence of his argument is simple. Newly established households are not able to satisfy their housing preferences because they are constrained by income. As their income rises, these households will attempt, in Morgan's view, to bring their housing into line with their aspirations as quickly as possible. To counter the argument that household needs change most rapidly during this early stage of the life-cycle, Morgan submits that the amount of space occupied by the household will correspond quite closely to the cost of the unit. The gradual relaxation of cost constraints allows the household to move to a larger dwelling which better satisfies its preferences.

While there is a dearth of evidence on the impact of changes in income through time, there are some indications that income does play a role in the household's residential mobility and residential choice decisions. We shall first examine the evidence on the decision to move.
The Decision to Move

In contrast to the considerable, but contradictory, evidence concerning the role of life-cycle changes, the impact of income constraints on the decision to move is more muted. Where costs are cited as the principal reason for the decision to move, the household is almost invariably seeking housing which is cheaper. The volume of such moves is small. Complaints about housing cost have accounted for no more than 12 per cent of the primary reasons for moving in any survey. Rossi and Barrett both reported 12 per cent: Speare, et al. found less than 5 per cent of households moved for this reason: Cullingworth's findings suggest an even lower figure of barely 3 per cent. These results would tend to impute that housing costs are a relatively limited factor in the decision to move, and hence that household income plays a very limited role.

This construction is unsound. These households represent the antithesis of Morgan's argument. They move because they have suffered a loss of income or because their housing costs have increased. This latter point would be most typical of renters, who have little control over the changes in their housing costs.

The importance of the relaxation of income constraints is most strongly affirmed by the large number of households seeking to switch from renting to owning. As we have indicated in our earlier discussion, there is no obvious link between the desire to own and the stage of the household's life-cycle, though the motive is most frequently expressed by young married households. The decision to change tenure
is clearly related to the financial capabilities of the household. The higher the household's income the more probable that it will be able to finance the transition from renting to owning. Therefore, we would expect that this motive would be expressed most frequently by higher income households.

Household income also intrudes into the residential mobility decision in more subtle ways. The relative frequency of complaints about neighborhood characteristics and the style or design of the housing unit among older households may indicate nothing more than changes in the household's preferences for its residential environment. Households with higher incomes are able to adjust their changing preferences more readily than low-income households, who are more constrained by income.

The income level of the household is thus seen as explaining some of the variations in the reasons for the decision to move. However, the influence of income as a factor in the residential relocation process is likely to be greatest in the search for, and the evaluation of, vacancies. If we accept Morgan's argument, the increase in household income through time will allow it to exercise greater latitude in defining an acceptable set of vacancies and thus in its selection of a new residence.

The Aspiration Region

There is a considerable amount of direct and indirect evidence to support the view that the household's income affects the structure of its aspiration region. On a conceptual level, we can suggest that as
income increases, the household will turn its attention away from satisfying basic needs and will instead emphasise less basic attributes of its residential environment. This is consistent with Rietmer's argument discussed in the preceding chapter. As a corollary, we can argue that higher income households may implicitly be just as concerned with basic needs but, because of their higher incomes, they can guarantee that the housing they select will satisfy these criteria and so they introduce other, more ephemeral, considerations.

In the discussion of the relationship between the structure of the household aspiration region and life-cycle stage, we have noted the general importance of dwelling unit attributes. This is confirmed by Herbert in his small-scale study examining the aspirations of households in high- and low-cost areas. His findings are shown in Table 4.5. While this study used the characteristics of residential areas rather than the characteristics of households as the control variable, it is reasonable to presume that these are related. The high cost areas will contain relatively high income households: the low-cost areas, lower income households.

The salience of dwelling unit attributes is emphasised by the fact that dwelling unit size was the most highly rated attribute by both samples. In the high cost area, design of the dwelling unit received the second largest number of 'very important' responses, though neighborhood characteristics were rated highly by almost three-quarters of the sample. In the low-cost areas, the evidence points to a much higher level of concern with access characteristics. Access to work was rated very important by 30 per cent of the respondents and access
Table 4:5 CRITERIA USED IN THE SEARCH IN HIGH- AND LOW-COST AREAS

<table>
<thead>
<tr>
<th></th>
<th>High Cost Area</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Low Cost Area</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwelling Size</td>
<td>59</td>
<td>27</td>
<td>8</td>
<td>6</td>
<td>0</td>
<td></td>
<td>44</td>
<td>8</td>
<td>10</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Dwelling Design</td>
<td>44</td>
<td>27</td>
<td>8</td>
<td>9</td>
<td>12</td>
<td></td>
<td>15</td>
<td>19</td>
<td>10</td>
<td>19</td>
<td>37</td>
</tr>
<tr>
<td>Neighborhood</td>
<td>18</td>
<td>56</td>
<td>11</td>
<td>12</td>
<td>3</td>
<td></td>
<td>19</td>
<td>11</td>
<td>7</td>
<td>15</td>
<td>48</td>
</tr>
<tr>
<td>Status</td>
<td>12</td>
<td>15</td>
<td>34</td>
<td>18</td>
<td>21</td>
<td></td>
<td>7</td>
<td>15</td>
<td>15</td>
<td>19</td>
<td>44</td>
</tr>
<tr>
<td>Access to Shops</td>
<td>18</td>
<td>21</td>
<td>22</td>
<td>18</td>
<td>21</td>
<td></td>
<td>37</td>
<td>19</td>
<td>18</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>Access to Work</td>
<td>0</td>
<td>29</td>
<td>18</td>
<td>15</td>
<td>38</td>
<td></td>
<td>30</td>
<td>19</td>
<td>6</td>
<td>4</td>
<td>41</td>
</tr>
<tr>
<td>Near to Family</td>
<td>9</td>
<td>18</td>
<td>8</td>
<td>18</td>
<td>47</td>
<td></td>
<td>15</td>
<td>4</td>
<td>3</td>
<td>26</td>
<td>52</td>
</tr>
<tr>
<td>Near to Friends</td>
<td>3</td>
<td>6</td>
<td>20</td>
<td>27</td>
<td>44</td>
<td></td>
<td>11</td>
<td>11</td>
<td>7</td>
<td>15</td>
<td>56</td>
</tr>
</tbody>
</table>

*Scale runs from 5 (very important) to 1 (irrelevant). Figures in this table are in percentages.

Source: D.T. Herbert (1973): 46
to shopping by 37 per cent. In the high-cost areas the equivalent figures were 0 and 18 per cent, respectively. Somewhat surprisingly, status considerations were not of substantially greater importance to households in high-cost areas, though only 21 per cent of these households rated it as irrelevant compared to 44 per cent in the low-cost areas. Nearness to family and friends was unimportant in both areas.

The significance of access to lower income households is confirmed in a carefully structured hypothetical study by Wilson. He introduced budget constraints into a game designed to elicit the trade-offs households were willing to make between residential density and access to facilities. The majority of respondents chose moderately low residential densities over good access to facilities in this constrained situation. When allowed to make fresh choices with unlimited resources, access variables generally declined sharply in importance.

There is relatively clear evidence that the features desired by the household will vary as a function of its income. We can expect that low-income households will place a much greater premium on accessibility. We can anticipate that higher income households will be more concerned with the design of the dwelling unit and the characteristics of the neighborhood. The importance of housing costs as a constraint will be most marked among low-income households and will be progressively reduced as income rises.

Household Search Behavior

The sources of information used by samples of households have been the subject of considerable scrutiny, though little has been directed specifically at the variations in use attributable to household income.
Research on the use and effectiveness of information sources has generally followed the model of Rossi's seminal research.\(^{42}\) He identified two important properties of these information channels. The first was the proportion of households who use a given information medium in their search (usage): the second was the ratio of successful to total users (effectiveness). The findings from Rossi's survey are shown in Table 4:6, indicating both the usage and effectiveness of different media for his aggregated sample. The only difficulty with the measurement of effectiveness is that it does not distinguish households who use one source from those who use multiple sources. Clearly, if a household only uses one source, it must be successful using that source. This index does not address this problem.

The results shown in Table 4:6 demonstrate unequivocally that the most widely used media are not necessarily the most effective. Newspapers were utilised by more than three-fifths of the sample, but were successful in locating the chosen vacancy in only 29 per cent of the cases. Direct searching for vacancies and real estate agents were both used by at least half the sample, yet neither were very effective. Personal contacts, on the other hand were both widely used and extremely effective. Almost half of the sample reportedly found their new homes as a result of information supplied by friends, relatives and coworkers. Windfalls were the most effective source used by households in the sample. These were vacancies uncovered without any formal search. This source was used successfully by four of every five households who obtained
Table 4:6  USE OF INFORMATION SOURCES IN THE SEARCH

<table>
<thead>
<tr>
<th>Source</th>
<th>% Using Source</th>
<th>% Successfully Using Source</th>
<th>Index of Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspapers</td>
<td>63</td>
<td>18</td>
<td>.29</td>
</tr>
<tr>
<td>Personal Contacts</td>
<td>62</td>
<td>47</td>
<td>.76</td>
</tr>
<tr>
<td>Walking/Riding Around</td>
<td>57</td>
<td>19</td>
<td>.33</td>
</tr>
<tr>
<td>Real Estate Agents</td>
<td>50</td>
<td>14</td>
<td>.28</td>
</tr>
<tr>
<td>Windfalls</td>
<td>31</td>
<td>25</td>
<td>.81</td>
</tr>
</tbody>
</table>

Source: P.H. Rossi (1955): 161
information in this way. The average number of sources used by households in Rossi's sample was 2.63.\textsuperscript{44}

Rossi not only investigated the usage and effectiveness of different sources of information, but he also suggested that both would vary as a function of the social status of the household. His findings are summarized as follows,

Low status . . . . households tended to find their new places through personal contacts and direct search, while upper status persons used the newspapers and real estate agents more frequently and more effectively.\textsuperscript{45}

He argues further that

the apparent preference of low status families (in two study areas) for more informal information sources may be more realistically a function of the kinds of dwellings handled by real estate agents or advertised in newspapers. Low priced rental or purchase housing may not be listed as often with agents or advertised in newspapers.\textsuperscript{46}

This latter statement draws attention to two important points. First, it illustrates the interactions between the owners of vacancies and realtors, on the one hand, and the household, on the other. The strategies adopted by institutional decision-makers in marketing vacancies has a clear impact on the household's search behavior. Secondly, it suggests that the relationship between income and search behavior is mediated by the type of housing being sought, and by its price. Lower income households tend to use more informal sources of information because vacancies of the type they are seeking are not advertised through formal sources. The converse is true for higher income households.
The propositions put forward by Rossi are, in part, supported by Herbert. Respondents in this study rated media in terms of their importance in the search and were then asked how they found out about their residence. The ratings of the importance of various media are shown in Table 4:7. The most striking feature, according to Herbert, is that formal sources of information were rarely used. The purely informal method of 'looking around' was rated the most important source by households in the high-cost area. It was second only to information provided by friends and relatives in the proportion of very important responses among households in the low-cost area. The major distinction between the sub-groups was that households in the high-cost area used the services of realtors more frequently.

The information sources successfully used by households showed a more consistent pattern. Among households in high-cost areas, 39 per cent found their new home by looking around, 25 per cent were successful using personal contacts, 17 per cent used information from real estate agents and only 11 per cent found their new home as a result of newspaper advertisements. Personal contacts were the most successful source in low-cost areas. They were successfully used by 53 per cent of the households, compared to 21 per cent who looked around, 13 per cent who used newspaper advertisements and only 8 per cent who obtained information about their new home from realtors.

The key finding is that lower income households tend to use interpersonal sources of information more successfully than higher income households. The principal difference between the thesis put forward
Table 4:7  RATING OF THE IMPORTANCE OF INFORMATION SOURCES, BY AREA

<table>
<thead>
<tr>
<th>Source</th>
<th>High Cost Area</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Low Cost Area</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Newspapers</td>
<td>18</td>
<td>9</td>
<td>21</td>
<td>12</td>
<td>40</td>
<td>11</td>
<td>7</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Real Estate Agent</td>
<td>32</td>
<td>9</td>
<td>15</td>
<td>9</td>
<td>35</td>
<td>11</td>
<td>19</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Work Contacts</td>
<td>6</td>
<td>9</td>
<td>24</td>
<td>15</td>
<td>46</td>
<td>11</td>
<td>4</td>
<td>4</td>
<td>26</td>
</tr>
<tr>
<td>Friends/Family</td>
<td>32</td>
<td>15</td>
<td>9</td>
<td>12</td>
<td>32</td>
<td>37</td>
<td>11</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Looking Around</td>
<td>47</td>
<td>18</td>
<td>9</td>
<td>3</td>
<td>23</td>
<td>33</td>
<td>26</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Normal Trips</td>
<td>9</td>
<td>6</td>
<td>35</td>
<td>15</td>
<td>35</td>
<td>4</td>
<td>11</td>
<td>30</td>
<td>7</td>
</tr>
</tbody>
</table>

*aScale runs from 5 (very important) to 1 (irrelevant). Figures in this table are in percentages.*

Source: D.T. Herbert (1973): 45
by Rossi and the empirical results obtained by Herbert is that it is the higher-status group who used direct searches more frequently. This probably reflects the different contexts in which the studies were undertaken.

In terms of the spatial and temporal characteristics of the search, there are a number of differences which are likely to be characteristic of households at different income levels. We can suggest that as household income rises, the number of dwellings examined during the search will increase. Similarly, we can expect that the household's search space will increase in area as income constraints are relaxed. There is no evidence to support or refute the first proposition. The anticipated increase in the search space as a function of income does not appear to be strongly supported by the work of Brown and Holmes. On the basis of a sample of recent movers in Cedar Rapids, they concluded that middle-class families and lower-class families renting duplexes had the largest search spaces with respect to the initial residence. The smallest search spaces were associated with upper-middle-class households and lower-class renters in multi-family dwellings. The authors interpret these findings in terms of the availability of different types of dwellings, a factor which has been generally neglected in previous work.

The search behavior of the household does, however, appear to show some variation as a function of income. The use of information sources and their effectiveness does vary with income, though the relationship is perhaps more directly with the type of housing sought
by different income groups. The number of dwellings examined during the search is conceived to be a direct function of household income. The search space of the household does not appear to be directly related to income.

The Residential Choice Decision

Unlike the other phases of the residential choice decision, the variations in the criteria used in choosing a new residence have not been examined thoroughly. The only empirical evidence is derived from Herbert. 51 His study showed that costs were particularly critical to households in low-cost areas. For fully 50 per cent of these households, costs were the clinching factor in the decision. This compares to only 10 per cent of households in the high-cost areas. We can reasonably infer that the importance of housing costs as a choice criterion will decline as income increases.

Aside from the importance of costs, respondents in low-cost areas generally cited more basic attributes of the dwelling as the reason for their choice than did those in high-cost areas. The state of repair, the presence of a bathroom and modernization were the three most widely used criteria in the low-cost areas: additional rooms, large lot size and a modern design were the most frequent responses in the high-cost area. These differences illustrate nicely the effects of income constraints on the residential choice decision.

Since respondents were asked only about the dwelling unit, the range of responses is relatively limited. Had other factors been included, access would probably have emerged as an influential
factor in the choices of households in low-cost areas and neighborhood characteristics would have been singled out by high-cost households.

Tenure Status

The importance of tenure status in explaining residential relocation has been recognised in many studies. There is agreement that renters are generally more mobile than owners. Attempts to explain the relationship between tenure and mobility have been articulated from two perspectives. First, it has been argued that renters typically incur lower costs than owners when they move. Owners have a strong economic commitment to their dwelling from the moment they move. Renters do not. The strength of the financial ties between an owner and his dwelling, together with the social and psychic costs of moving, help to explain why owners do not display a consistent inverse relationship between length of residence and mobility. At a somewhat different level, it has been argued that renters are more mobile than owners because they have less ability to absorb stress and effect changes in their residential environments. The legal rights enjoyed by owners and the fact that they generally have more space allows owners more latitude in making in situ adjustments. Both the lower costs of moving and the limited possibilities for adjustment appear to be helpful in explaining the observed relationship.

There is a great deal of survey evidence to suggest that there is overwhelming preference for ownership among current renters. We
have already reviewed evidence suggesting that the most important single reason for moving is the desire to change tenure. This has led one author to observe that "renters who prefer to own are considerably more mobile than renters preferring to rent." This observation implies strongly that the change in the tenure preference of the household may be equally useful as an explanatory variable in examining the residential relocation process.

The variations in residential mobility are likely to be matched by differences in the residential choice decisions of prospective owners and renters. We can anticipate that the aspiration regions of owners and renters will be dissimilar. Their patterns of information source use and the spatial and temporal characteristics of their search behavior will also be different. Finally there will be variations in the choice criteria they employ. We shall examine these variations in the following sections.

The Decision to Move

Once again, the most informative source of evidence on the motives for the decision to move among owners and renters is Rossi's study. His findings, summarized in Table 4:8, indicate that owners are more likely than renters to cite neighborhood characteristics as the principal reason for their decision to move. Renters, on the other hand, are more prone to cite housing costs as their primary motive. In the third category, space complaints, there is no significant difference in the proportion of owners and renters. Indeed, if all reasons are considered, a higher proportion of owners cited dissatisfaction with space. This is contrary to the conventional
Table 4:8 TENURE STATUS BEFORE THE MOVE AND THE PRINCIPAL REASON FOR MOVING, AMONG VOLUNTARY MOVERS

<table>
<thead>
<tr>
<th>Reason for Moving</th>
<th>% Owners</th>
<th>% Renters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space Complaints</td>
<td>42</td>
<td>44</td>
</tr>
<tr>
<td>Neighborhood Complaints</td>
<td>35</td>
<td>12</td>
</tr>
<tr>
<td>Cost Complaints</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Other Complaints(^a)</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>n =</td>
<td>37</td>
<td>197</td>
</tr>
</tbody>
</table>

\(^a\) Other reasons for moving were not reported by Rossi.

Source: Adapted from P.H. Rossi (1955): 149
argument that owners have more space and a greater degree of control over the use of their space.

Ignoring the finding with regard to the importance of space complaints, Rossi argued that,

owners and renters can be found to be particularly sensitive to those aspects of their former dwelling over which they had little control. Owners exercise little control over the characteristics of their neighborhood. Renters, in contrast, have little control over their costs.56

This explanation is plausible enough, but alternative constructions can be attached to these findings. On the question of costs, we can legitimately suggest that owners tend to have higher incomes than renters and are thus less likely to be subject to cost constraints. Similarly, owners are considerably more sensitive to neighborhood characteristics because they have a direct bearing on the future value of their property. In addition, as Rossi noted,

families moving up the 'occupational ladder' are particularly sensitive to the social aspects of location and use residential mobility to bring their residences into line with their prestige needs . . . . some of the households who were strongly dissatisfied with their housing's social environment were expressing the way in which their home no longer fitted in with their social aspirations.57

This interpretation rests uneasily in the general framework of life-cycle related moves espoused by Rossi. What he is, in fact, conceding is that many owner-occupiers may have distinctly Veblenian motives for their decision to move, unrelated to their life-cycle.

The importance of attitudes to housing is further evinced by the large numbers of renters who cite the desire to change tenure as the reason for their move. These may be concerned, as we have noted before, with the social status conferred by ownership or may simply
be concerned with ownership as an investment. Regardless of the motive, there are undoubtedly a large number of renters who prefer ownership and who translate this desire into a decision to move.

Aside from the desire for ownership, there are a number of other reasons for the decision to move which would seem to be characteristically associated with renting. It seems reasonable to suppose, for example, that renters are more likely to be forced to move than owners, since they have less control over their dwellings. For the same reason, renters are also viewed as being more likely to cite dissatisfaction with the design or upkeep of their dwelling unit as the principal reason for their decision to move. By contrast, owners are viewed as more likely to move because their initial residence is too large, though this motive has a strong life-cycle component to it.

The Aspiration Region

If we follow the logic developed in the previous sections dealing with the structure of household aspiration regions, we can suggest a strong relationship between the reasons for moving and the attributes which play an important role as specifications in the search. This would indicate that among potential owners the characteristics of neighborhoods would be highly significant. Similarly, among renters, the costs of housing would be a significant concern. The amount of space desired by the household would not exhibit any marked variation between owners and renters.

Advancing the argument a step further, we can anticipate differences in the structure of aspirations as a function of the household's
previous housing experience. Renters who turn to ownership will differ from households who already own. This latter group presumably draw on their previous housing experience in developing their aspiration regions. They attempt to replicate desirable past attributes and alter only those elements which were unsatisfactory in the previous dwelling. Households who have not previously owned cannot draw upon their previous experience. They are therefore likely to stress the costs of the dwelling and its basic attributes, such as interior design, more heavily than households who have previously owned. While both 'old' and 'new' owners will place a high premium on neighborhood attributes, we expect that these will be more frequently cited by previous owners.

Among renters, not only will housing costs be more significant, but we can also anticipate that the locational characteristics of the dwelling will play a much more emphatic role. Access to place of work would seem to be particularly critical to renters. This combination of costs and access suggests that renters will typically be more Marshallian in their decision-making.

There is not a great deal of evidence to support these contentions. The Veblenian interpretation of residential moves by owners is supported in the study by Arminger, in which he found that considerations related to the neighborhood and its status were of considerable salience to intra-urban movers. Support for the view that renters are more concerned with access characteristics comes from Abu-Lughod. The majority of the inferences cannot, however, be
directly supported from previous work. They do, however, provide a reasonable starting point for developing hypotheses concerning the variations in the structure of household aspiration regions.

Household Search Behavior

There is considerably more evidence on the differences in household search behavior as a function of tenure status. Renters and owners use different information sources and these sources vary in their effectiveness. The number of dwellings examined during the search is generally much greater for owners. It is only in examining the search space of households that there appear to be no significant differences between the two tenure groups.

According to the evidence presented by Rossi, owners used real estate agents and newspapers more frequently and more effectively than renters. Renters were more frequently reliant on information gleaned from personal contacts and obtained by direct searching of the environment. The widespread use of realtors and their effectiveness as sources of information among owners is confirmed by Barrett. The only dissent from this view is advanced by Speare, et al. who found that only 13 per cent of owners indicated that realtors were their major source of information. This compares to 69 per cent of the households in Barrett's study who used the services of real estate agents. Barrett also confirms the widespread use of newspapers among owners, though the effectiveness of newspapers is markedly low. Again, this is not confirmed in the results reported by Speare, et al.
The only area in which there is complete consensus is in the use of interpersonal sources of information, used more frequently by renters than owners, in a ratio of about two to one. Information derived from these sources also appears to be more effective for renters.

There is agreement in the literature that households generally examine relatively few dwellings during the search. Butler, et al., for example, found that forty per cent of the households they interviewed had only examined the dwelling they chose.\(^6\) This figure concords with the figure given by Rossi.\(^6\) There are several reasons for presuming renters will have less extensive search spaces than owners. As we have already indicated, ownership involves a very substantial financial commitment on the part of the household and the search could thus reasonably be construed to be both careful and thorough. Also, since there is a great deal more variety in the characteristics of owner-occupied units, it could be expected that owners would expend more time and examine more dwellings than renters. Furthermore, the more widespread use of formal sources of information by owners would tend to lengthen the search.

There is clear evidence that owners do examine more dwellings than renters. This was demonstrated first by Rossi and there is no subsequent evidence to refute his findings.\(^7\) Almost half of the renters in his sample examined only one dwelling, while two-thirds of the owners examined 'several places'. In the sample of owners interviewed by Barrett, 50 per cent of the households indicated that they had examined six or more homes, while 9 per cent claimed to have
examined thirty or more. However, they could recall an average of
only 3.0 dwellings they had inspected and the modal category for the
number of houses examined was between two and four. The brevity of
the search leads Barrett to conclude that

once the decision to buy was made, only a brief and
casual survey of alternative sites was made. The
lack of a thorough search is the major character­
istic of the searcher's behavior.68

This conclusion is borne out if the temporal characteristics of the
search are examined. The modal length of the search in Barrett's
study was one month.69 Among owners in the Rhode Island sample, the
modal category was two to three months: among renters it was less
than two weeks.70

These findings show consistently longer searches involving the
inspection of more vacancies among owners. However, the searches are
not as long nor as thorough as might be imagined. It would be
reasonable to suppose that owners should also characteristically
have larger search spaces than renters. This does not appear to be
confirmed. In analysing the search behavior of owners, Barrett has
reported the median search cluster was between one-half and three-
quarters of a mile and the modal class was less than a quarter-mile.71
This is borne out by Brown and Holmes's results.72 The search spaces
of households in their study were small, and did not differ across
sub-groups in the population.
The Residential Choice Decision

There is again a paucity of evidence on variations in the residential choice decisions of owners and renters. On the basis of our earlier discussion of the structure of aspiration regions, we can posit some probable variations. Housing costs are likely to weigh most heavily in the residential choice decisions of renters. It is possible that costs may also be significant in determining the selection of the new residence by first-time owners. We can anticipate that renters will be more sensitive to the location of their new residence. Owners, by contrast, will show a much greater propensity to cite neighborhood characteristics as the reason for their choice. They are also expected to consider specific design features of the new dwelling in making their selection.

Summary

In considering these three alternative explanations of the residential relocation process, we have omitted many variables from consideration. The choice of life-cycle stage, income level and tenure status was dictated by the fact that these three variables appear to account for a large proportion of the variation in the characteristics of the residential relocation decision. We have treated these variables as being independent. They are not. However, each contributes uniquely to the residential mobility and residential choice decisions of households and we can therefore justify their separation.
Life-cycle stage, income and tenure have been the most thoroughly documented of the variables affecting household decision-making and yet it is quite obvious from our review that there are many gaps in the literature. In the analysis which follows, some of these omissions will be repaired.
Footnotes - Chapter VI


8. This assumes that divorce and separation are treated as life-cycle events. Typically, they have not been.

9. These cannot, of course, be construed as purposive moves on the part of the children. On the volume of moves, see, for example, A. Speare, et al. (1974), op. cit., p. 129.


15. P.H. Rossi (1955), op. cit.

16. ibid., p. 139.


20. Calculated from Table 8.7 in P.H. Rossi (1955), op. cit., p. 144.


23. The term seems to have been used rather loosely since 23.7 per cent of the households in this category reported divorce as the reason for moving and 3.7 per cent reported marriage.


27. See the discussion in P.H. Rossi (1955), op. cit., on the specifications desired by the households in his sample, particularly pp. 153-159.


29. ibid., pp. 163-171.


34. B. Morgan (1973), op. cit.

35. P.H. Rossi (1955), op. cit., p. 139.
36. F.A. Barrett (1973), op. cit.


38. J.B. Cullingworth (1965), op. cit., p. 28 and p. 80.


42. P.H. Rossi (1955), op. cit., pp. 159-162.

43. It should be noted that the sum of values under the heading '% successfully using source' should be 100%. In Rossi's table, the value actually totals 125%. This finding brings into question the index of effectiveness which is derived from the values in this column.

44. P.H. Rossi (1955), op. cit., p. 161. The figure is obtained by summing the percentage values found in the first column of Table 9:5.

45. ibid., p. 162.

46. loc. cit.

47. D.T. Herbert (1973), op. cit.

48. This finding is probably a function of the different contexts of the two studies. It also reflects the much greater mobility of the 1973 sample as opposed to the 1955 one.


50. This has been expressly dismissed by some authors including J.W. Simmons (1968), op. cit. as having no impact on search behavior.


53. This has been referred to as the 'axiom of cumulative inertia'. It was suggested by G.C. Myers, R. McGinnis and G. Masnik (1967), "The Duration of Residence Approach to a Dynamic Stochastic Model of Internal Migration: The Axiom of Cumulative Inertia," Eugenics Quarterly, 14, pp. 121-126. The evidence that owners do not conform to the axiom is supplied by A. Speare (1970), op. cit.

54. P.H. Rossi (1955), op. cit., p. 70.

55. Ibid., pp. 148-150.

56. Ibid., p. 148.

57. Ibid., p. 179.

58. L.E. Arminger (1966), Toward a Model of the Residential Relocation Process: A Study of Recent and Prospective Buyers of New and Used Homes, M.A. Thesis, Department of City and Regional Planning, University of North Carolina, Chapel Hill.


60. P.H. Rossi (1955), op. cit., pp. 159-162.

61. F.A. Barrett (1973), op. cit.


63. F.A. Barrett (1973), op. cit.


67. Loc. cit.


71. F.A. Barrett (1976), op. cit., p. 185.

The literature reviewed in the previous chapter provides the foundation for the development of the research design for this study. The aim of the research is to examine differences in the attitudes and behavior of different groups of households. The purpose of this chapter is to focus on the questions to be addressed in this research project, the data requirements for the study, the methods adopted to acquire the data and the characteristics of the sample of recent movers on which the analysis is based.

The initial section of the chapter deals with the objectives of the research and the types of data needed to fulfill these objectives. In the second section we present a set of testable hypotheses concerning variations in household decision-making. This discussion draws heavily on the literature review in the preceding chapter and relates to the objectives delimited in the first section of this chapter. Following the presentation of the hypotheses, we turn to consider the sampling framework used in the study. This third section includes a discussion of the efficacy of alternative frameworks and provides a justification for the use of data on recent movers furnished by a local utility company. The fourth section deals with the design of the sample. This was a disproportionate random sample, stratified
by tenure to ensure that owners were adequately represented in the design. Households who were selected to be interviewed were administered a carefully constructed questionnaire designed to explore a number of facets of their residential relocation decisions. The construction of the questionnaire and the items included within it are discussed in the fifth segment of this chapter. The final section deals with the characteristics of the sample and the rates of response, both to the survey itself and to individual questions within the interview schedule.

**Research Objectives**

As we indicated in the introduction, the empirical component of this research is generally more narrowly focused than the conceptions we have presented. The analysis is designed to explore, in a systematic fashion, variations in the attitudes and behavior of groups of households. In the literature review, we have identified three variables which are expected to influence the residential mobility and residential choice decisions of households. The life-cycle stage of the household is particularly critical in terms of its effect on the residential mobility decision. The evidence on variations in the residential choice decision, associated with the household's life-cycle, is far less complete. The income level of the household is viewed as more critical in the search and evaluation process, since the posited relaxation of cost constraints allows the household greater latitude in its selection of a new residence. However, we have noted that cost constraints may play a role in the decision to
move. The impact of tenure on the residential relocation process is more pervasive. Our review of literature suggests that the tenure status of the household prior to the move will affect the decision to move: the tenure status sought by the household will affect its behavior and attitudes in searching for a new residence.

These three variables are not viewed as conflicting, but rather as complementary in explaining household decision-making. Each contributes uniquely to the behavior and attitudes of the household, though there are clearly some points at which these explanatory variables mesh together in an interactive fashion. For the purposes of our analysis, we will generally treat them as being independent, principally because the limited size of our sample precluded joint consideration of the variables.

In the analysis which follows we shall examine variations in the reasons for the decision to move, the structure of household aspiration regions, the search behavior of the household and the criteria used in the selection of the new residence as a function of these three explanatory variables. In contrast to previous studies, we will pursue the analysis by examining successive phases of the relocation decision for each variable. The more typical approach has been to examine each decision separately. This has resulted in a loss of coherence, since there are substantial relationships between the various phases of the residential relocation decision. Examining the decisions sequentially for each variable allows the research to deal with the connections between, for example, the decision to move
and the attributes of the aspiration region or the aspiration region and the choice criteria used by the household. This approach can be characterised as an 'attributes by decisions' matrix rather than the more standard 'decisions by attributes' treatment.

There are two other points we should make about the general characteristics of this research project before we turn to consider the hypotheses. First, it was our intention at the outset to consider the institutional impact on various groups of households. In general, our data do not allow to do so very effectively. Some comments are interspersed in the analysis, but for the most part we have not effectively measured the impact of their decision on household behavior. Secondly, we had also intended to analyse the spatial characteristics of household search behavior. Again, the data obtained from our survey was generally of insufficient quality to allow us to examine pattern of search behavior and thus we have restricted our analysis to consideration of the use of information sources by households and the number of dwellings which households examined.

The hypotheses presented in the next section are designed to explore variations in the characteristics of household decision-making in the relocation process. They are behavioral and the data required to test them was provided by the sample survey which is described in the remaining sections of this chapter.

Hypotheses

The hypotheses presented in this section derive principally from the review of literature in the preceding chapter. They are arranged
by attribute rather than by decisions and we shall present the hypotheses concerning variations in decision-making by life-cycle stage in the first sub-section.

**Life Cycle Stage**

The hypotheses presented under this heading differ slightly for those in the remaining two sub-sections in that no hypotheses are developed concerning variations in household search behavior. Recalling our earlier discussion, we argued that there were no a priori reasons why search behavior should vary by life-cycle stage and that variations attributable to life-cycle stage would be a function of other variables, particularly the tenure preference of the household.

**Decision to Move**

Drawing on the work reviewed earlier, we propose that:

1) Households with children will cite the need for more space with greater frequency than households with no children.

2) Young married households will be more likely to express dissatisfaction with the space available in their original residence than older married households.

3) Young married households will be more likely to cite the desire to change tenure than older married households.

4) Older married households will cite dissatisfaction with the dwelling unit as their principal reason for moving more frequently than young households of all types.
5) Younger households will be more prone to cite changes in their housing costs or income as the reason for the move.

6) Dissatisfaction with neighborhood characteristics will be more prevalent in the decisions of older households than younger ones.

Aspiration Regions\textsuperscript{2}

1) Older households will rate neighborhood attributes more highly than younger households of all types.

2) Young married households will rate access variables more highly than older married households.

3) Households with children will rate neighborhood services and physical facilities more highly than households with no children.

4) In a more general sense, we hypothesize that the overall differences in the structure of household aspiration regions will be a function of the proximity of the life-cycle stages being compared. Households most similar in life-cycle stage will have the most similar aspiration regions: the most dissimilar structures will be found in comparing households furthest removed from one another in life-cycle terms.

The Residential Choice Decision\textsuperscript{3}

1) Housing costs will be used more frequently as the principal choice criterion by young households.
2) Young households will cite locational needs more frequently than older households as the primary reason for their choice of the new residence.

3) Households with children will be more likely than those without children to cite space requirements as the primary reason for their decision.

4) Older households will use neighborhood attributes as the principal criterion for their choice more frequently than younger households.

**Household Income**

**The Decision to Move**

1) The importance of cost or income constraints as a reason for moving will decline with income.

2) As household income increases, the propensity of households to give a desire to change tenure as the principal reason for their decision to move will increase.

**Aspiration Regions**

1) As household income rises, the importance of access variables as characteristics of the household's aspiration region will decline.

2) The salience of neighborhood attributes will increase as household income increases.

3) There will be a progressive increase in the importance of dwelling unit attributes within the aspiration region as
household income increases.

4) In more general terms, we hypothesize that the greater the difference in the income of groups, the greater will be the contrasts in the overall structure of their aspiration regions.

Search Behavior

1) The use of inter-personal sources of information will decline with increasing income.

2) The use of realtors as sources of vacancy information will increase with increasing household income.

3) The use of newspapers will increase as household income increases.

4) The use of direct searches will increase as household income rises.

5) Personal contacts will be the most effective source of information employed by each income group.

6) Newspapers will be the least effective source of vacancy information for all groups and will decline in effectiveness with income.

7) The number of dwellings examined in the search will be directly related to household income.

The Residential Choice Decision

1) Housing costs will decrease in importance as the principal criterion for the choice as household income increases.
2) Location will be used most frequently as the criterion for the choice by low income households and will decline in importance as income increases.

3) Neighborhood characteristics will be used most frequently by high income households and will increase in importance as income increases.

4) The citation of dwelling unit attributes as the principal reason for the selection of the new residence will increase as household income increases.

Tenure Status and Housing Experience

The Decision to Move:

1) Renters will be more likely than owners to cite cost factors as being the reason for their decision to move.

2) Owners are more likely than renters to cite dissatisfaction with the neighborhood as the principal reason for their decision to move.

3) There will be no difference between owners and renters in the role of dissatisfaction with space as a reason for the move.

Aspiration Regions:

1) Renters will place a much greater emphasis on access characteristics than owners.

2) Owners will rate neighborhood characteristics as being more significant than renters.
3) There will be no differences between owners and renters in their appraisal of dwelling unit attributes.

4) There will be no differences in the structure of the aspiration regions of continuing owners and new owners.

5) There will be no differences in the structure of the aspiration regions of new renters and continuing renters.

Search Behavior

1) Owners will use newspapers more frequently than renters.

2) Owners will use direct searches more frequently than renters.

3) Renters will use inter-personal sources of information more frequently than owners.

4) Owners will derive information from specialized agencies more frequently than renters.

5) Inter-personal sources will be most effective for renters.

6) Real estate agents will be the most effective source of vacancy information for owners.

7) Renters will examine fewer dwellings than owners.

The Residential Choice Decision

1) Renters will be more likely to cite locational considerations for their choice of a new residence.

2) Renters will use costs as their principal choice criterion more frequently than owners.
3) Owners will cite neighborhood characteristics as the primary reason for their choice more frequently than owners.

4) Owners will stress the exterior design of the dwelling as a reason for its selection more frequently than renters.

The Sampling Framework

Previous studies of intra-urban migration have tapped a rich diversity of sources to identify a population of recent movers. These sources have included directories published by commercial organizations, telephone directories or information on new telephone connections, gas or electric utility records, data on real property transactions and school district records. While none of these is an ideal source of migration data, each has some merit as a sampling framework. In this study the choice between alternative frameworks was dictated by three considerations. The primary concern was to provide the most accurate record of recent changes of residence within the metropolitan area as a basis from which to draw the sample. This was, however, tempered by two additional considerations: the ease of access to the information from the chosen data source and the cost of obtaining information concerning changes of residence.

With regard to the criteria of easy access and low cost, published sources were initially favored. Commercial directories for the city and its suburbs appeared to have two significant advantages as a source of data. First, these yearly publications identify new
or changed listing and thus provide a record of recent moves. Their second major virtue is that they cover the study area relatively completely, though many of the unincorporated areas in Franklin County are not included from the tabulations. There omissions would have reduced the relevant population by slightly more than 7 per cent (Table 5:2). While this would have impaired the completeness of the framework, it was less serious than other difficulties which were evident in these data.

The principal problem in using the directories derives from the way in which the data are compiled. In the first instance, the collection of data for the directories occurs before the end of June in a given year, while the directories are not published until November. There is thus a five month lag between collection and publication, which builds a substantial bias into the listings. This difficulty is compounded by the fact that different parts of the urban area are canvassed between February and June, so that the time lag may actually be up to nine months! This uneven method of data collection gives rise to double listings in some areas, with the same household enumerated at two different addresses, and to the listing of vacancies where none have existed for eight or nine months. A second source of difficulty arises because large numbers of dwellings in the enumeration are listed simply as 'student housing' or are categorised as 'no return'. Furthermore, the rate of vacancies suggested by the directories is well in excess of the expected rate. Each of these reduces the completeness of the listings and produces biases which make city directories of questionable use as a sampling framework.
Two other possible sources of data were quickly rejected. Property records were eliminated because they were neither readily available nor were they a complete record of all moves. While they provide adequate coverage of owner-occupied moves, they could not be used as a base for sampling renters. Pupil transfer records were rejected on the same criterion: they covered only a limited segment of the population.

Given these limitations, the choice of a sampling framework lay between various types of utility company data. Changes of address furnished by the local gas utility were rejected at an early stage because they provided the least complete coverage of any of the public utility sources. However, both telephone and electric company data were seriously considered as possible sampling frameworks. The immediate advantages of using telephone company data were two-fold. First, the data were readily available in published form. Secondly, a complete record of changes of listing in the twelve month period ending in May, 1974 could be gleaned from the Criss-Cross Directory for the Columbus metropolitan area, or from telephone company sources. The Criss-Cross directory had the advantage of being an accessible published source which referenced all telephone listings by address and name of subscriber and indicated new or changed telephone connections.

The ease of access to these data were balanced by other considerations. First, these listings share the same flaw as the Commercial Directories. Criss-Cross listings are compiled in May but are not
published until October or November. This lag was not critical and could not have been overcome at some cost by resorting to telephone company records. However, a more critical problem is presented by the volume unlisted numbers. There is no wholly reliable estimate on the percentage of households with unlisted telephone numbers in the Columbus metropolitan area, but evidence from this research indicates that the rate is close to 10 percent. While this appears to be significantly lower than in other major cities, it nonetheless injects a substantial bias into the data and reduces the efficacy of telephone listings as a sampling framework. Using the Criss-Cross Directory, it is also not possible to distinguish between dwellings which have no telephone and those which have unlisted numbers. The former account for an estimated 8% of all households in Franklin County. It seems reasonable to argue that both the distribution of households with no telephone and those with unlisted telephone numbers will exhibit marked social and spatial biases and this was the primary reason for rejecting telephone listings as a potential sampling framework.

The most accurate sampling framework was provided by records obtained from the local electric utility company. While data on changes of address are not published, and therefore are less accessible than other possible sources, they had several overwhelming advantages. The billing changes covered the whole of the study area. They were also made available in the form of a computerised listing of the names and current addresses of all households whose billing had been changed in the period from January 1 to June 30th, 1974. The listings
included only households who were still resident at their new billing address on December 1, 1974. The data therefore excluded multiple moves during the sampling period and moves which took place between July 1 and November 30th, 1974 among households who had moved in the previous six months. This introduced a small degree of bias but it was of a much lower order of magnitude than comparable rates from either commercial directories or telephone listings.\(^{17}\)

The listings provided by the electric company fulfilled the key requirement of providing the most accurate data on changes of address. The data were the most complete. They covered the study area exhaustively and supplied information on movers who could not be identified from any of the other sources. The sample of recent movers was therefore drawn from electric company records.

The Sample Design

The computerised list of changes in billing furnished by the Columbus and Southern Ohio Electric Company contained 29,430 names and addresses. This listing included all changes of address among residential consumers in Franklin County. However, it also included newly-built homes and those under construction, where electrical connections had been established, housing held by government agencies and vacant housing held by realty companies. As a result of a thorough check of the data, 2334 housing units in these categories were excluded from the sampling framework, since they obviously involved no change of residence. These are shown in Table 5:1. The total number of changes of residence, with these exclusions, was 27,096.
Table 5:1  LISTINGS DELETED FROM THE SAMPLING FRAMEWORK

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Listings</td>
<td>29430</td>
</tr>
<tr>
<td>Billings to: Households</td>
<td>27096</td>
</tr>
<tr>
<td>Residential Developers/Builders</td>
<td>1079</td>
</tr>
<tr>
<td>Investment &amp; Realty Companies</td>
<td>547</td>
</tr>
<tr>
<td>Apartment Complex Vacancies</td>
<td>502</td>
</tr>
<tr>
<td>FHA/HUD/CMHA</td>
<td>154</td>
</tr>
<tr>
<td>Others</td>
<td>52</td>
</tr>
<tr>
<td>Total Excluded</td>
<td>2334</td>
</tr>
</tbody>
</table>

Source: derived by author from listings supplied by the Columbus and Southern Ohio Electric Company.

Having eliminated the listings where no change of residence was indicated, the second task was to decide on a procedure for sampling from the population of recent movers. Three different types of sampling design were considered. The easiest design which could have been adopted would have been a simple random sample of a designated fraction of the population of recent movers. This was rejected because the renters in the sample would have outnumbered the owners in a ratio of almost five to one, as is demonstrated in Table 5:2. It was for similar reasons that an areal stratification of the population was rejected as a basis for sampling. If an areal stratification had been adopted, the problem of the imbalance between renters and owners would not have been eliminated and two additional problems would have been created. First, there was no a priori basis for a
division of the population into areal units, and such a division would therefore have been highly arbitrary. A more serious drawback in constructing a locationally-based sample is that such a design amplifies the demands on sample size, particularly if the area is divided into relatively small zones. The sample design that was adopted, involved a stratification of the sample by tenure. Equal-sized samples of owners and renters were drawn. This design ensured that sufficient data would be collected from owners, who constituted only 17.0% of all movers. It also provided an unequivocal basis for stratification, in contrast to any areal design.

Table 5:2 AREAL AND TENURE CHARACTERISTICS OF THE SAMPLING FRAMEWORK

<table>
<thead>
<tr>
<th>Destination of Move</th>
<th>%</th>
<th>Tenure Status</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Columbus</td>
<td>76.6</td>
<td>Owner-occupied</td>
<td>17.0</td>
</tr>
<tr>
<td>Incorporated Suburbs</td>
<td>16.1</td>
<td>Rented</td>
<td>83.0</td>
</tr>
<tr>
<td>Unincorporated areas in Franklin County</td>
<td>7.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Moves</td>
<td>100.0</td>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>

Sources: data on destinations of moves supplied by the Columbus and Southern Ohio Electric Company; data on tenure status as a result of the move calculated by the author from the R.L. Polk Directories for the City of Columbus and for suburban areas in Franklin County. This table excludes all the listings deleted in the previous table.

The principal difficulty in stratifying the sample by tenure was that tenure status in most cases could not be determined directly.
from the listings supplied by the electric company. Every valid listing was therefore checked against a city directory to ascertain whether the dwelling was owner-occupied or rented at the time the directories were compiled. Many dwelling units in unincorporated areas were not covered by these directories, and these were allocated on an ad hoc basis. Most of the dwelling units in unincorporated areas were in new subdivisions and these were assumed to be owner-occupied, unless there was a clear indication to the contrary. The remaining dwelling units not covered by the directories were assumed to have the same tenure status as the majority of other dwellings on the same street. Almost 2500 listings had to be allocated in this fashion because they were not included in the commercial directories. The product of this check of addresses were lists of 4618 owner-occupied units and 22478 rented units.

Samples of 250 were drawn from each of these lists. The overall design was thus a disproportionate stratified random sample. The sample was stratified by tenure. It was disproportionate because the sampling fraction for owners was much greater than for renters, and it was random because, within each strata, every household had an equal probability of being chosen.

The Questionnaire Design

The final phase of the research design was the development of a survey instrument. The interview schedule was carefully designed to provide the data necessary to test the behavioral hypotheses presented earlier in this chapter. The development of the questionnaire was
the most crucial phase of the entire research design, since the
quality of the data obtained from the sample survey and hence the
reliability and validity of the results were contingent upon the
clarity and salience of the questions.

Several considerations entered into the overall design of the
questionnaire. The first was the length of the survey instrument.
It was decided that this should not exceed thirty minutes in length.
This was sufficiently long to enable the interview to explore all
aspects of the residential relocation process and to build up rapport
with the respondent. The second constraint was that the questionnaire
had to be suitable for delivery over the telephone. This limited
the options available in framing some questions and meant that the
number of open-ended questions in the survey was minimized. This not
only reduced the difficulty of administering the questionnaire but
also facilitated the coding of the data. Finally, in contrast to
some other surveys, the questions were designed to focus on the
preferences of the household and the decisions it made during the
period between its decision to move and its choice of a new residence.
This raised two difficult issues, common to all surveys relying on
respondent recall. First, since some households had made their
residential relocation decisions up to a year prior to the interview,
it was clear that some respondents would have difficulty in recalling
specific attributes, such as the characteristics of their search
space and the criteria they used in evaluating dwellings found during
the search. Secondly, again as a function of the time lapse, it was
quite probable that some households might volunteer currently
acceptable attributes of their residence as the reasons for its selection rather than attributes which were salient at the time the decision was actually made.

The final interview schedule contained 109 items, broadly grouped in five categories. The content of the survey covered: the demographic and socio-economic characteristics of the household; the reasons for the decision to move; the structure of the household's aspiration region; household search behavior; and the criteria used to evaluate vacancies. A small number of items in the final version of the questionnaire were revised as a result of the pre-test of the instrument and two items of marginal importance were deleted. The actual interview schedule used to derive the data for the analysis is presented in Appendix A. The five sections of the questionnaire were of varying length, reflecting the differing importance of the content areas and the ease of acquiring relevant data on each facet of household decision-making. Each section of the questionnaire will be considered in turn.

Questions concerning the demographic and socio-economic status of the household were designed to furnish information on the dependent variables used in the analysis: life-cycle stage, income and past and present tenure preference. The life-cycle stage of the household was established on the basis of responses to three questions. Respondents were asked to give the number of persons in the household, their ages and their relationship to one another. On this basis, households were classified into groups by the age of the head of the household (under 35, 35-64 and 65 or older), by relationship (married or not
currently married) and by the presence or absence of children. Additionally, households in which the respondent was currently unmarried were distinguished by size of household to separate single person households from those where groups of unrelated individuals were present.

The final question in the survey asked the respondent to disclose the total household income in the preceding year. Responses were pre-coded into five categories. For the first four categories, an interval of $5000 was used. The final category included households with incomes in excess of $20000 per year. These five income groups were utilised for the purposes of analysis.

The past and present tenure preferences of the household were obtained from the responses to three questions. Early in the interview respondents were asked about their tenure status before the move. Households which had established a residence for the first time as a result of the move were treated separately from former owners and former renters. Later in the questionnaire, respondents were asked to specify the tenure status they sought while looking for a new residence. Households who indicated that they considered both owning and renting were then asked to specify which they had chosen. Responses to these questions were the basis for the four-fold typology of residential histories in which households who retained their tenure status were distinguished from those who switched. This classification was used in portions of the analysis.
The decision to move was examined on the basis of two questions. Both were open-ended. Respondents were asked first to identify the primary reason for their decision to move. Then they were asked if there were any additional reasons for their decision. Responses to these questions were classified into fourteen groups which were used in the analysis.

The longest section of the questionnaire was designed to elicit information on the characteristics of the household's aspiration region. This section consisted of twenty-six pre-coded questions together with a smaller set of open-ended ones. In the pre-coded section, twenty of the questions asked the respondent to rate the importance of a particular attribute in their search for a new residence on a three-point scale, assessing whether each was very important, moderately important or not important. In six instances this format was modified. In these cases, the assessment of the importance of an attribute was prefaced by a question designed to find out whether the chosen dwelling had that attribute. These pre-coded questions included dwelling unit, neighborhood and access characteristics.

In addition to these pre-coded items, households were also asked to specify the tenure status they were seeking and the range of housing costs they were willing to incur. Following our earlier discussion, both of these were seen as important characteristics of the aspiration region. The questions on tenure status have been discussed earlier, but the questions on housing costs have not been examined. For both owners and renters, a sequence of three openended
questions were designed to elicit the maximum price or rent the household contemplated, the minimum it expected to expend and the actual purchase price or rent. Renters in the sample were also asked whether their rent included any utilities and whether they rented furnished or unfurnished premises.

The fourth section of the questionnaire examined the search behavior of the household. This section was divided into two parts. The first dealt with the information sources used by the household to find vacancies; the second dealt with the characteristics of the search. To obtain data on the information sources used in the search, respondents were asked to indicate which of eight possible sources they had used. If the respondent indicated a source had been used, he was then asked to assess its importance in providing useful information about vacancies. To guard against the possibility that other sources had been used, the final question in the section asked the respondent whether he had obtained information in any other way. Given an affirmative answer, the respondent was asked the nature of the source and its importance in providing information on vacancies.

As an internal consistency check, households were asked how they had found out about their new residence at a later point in the questionnaire. This was a relatively simple device to validate the accuracy of the previous responses and it also served to distinguish the most critical information channel for households who judged two or more sources to have been important in the search.
The characteristics of the search were examined through a series of open-ended questions. Households were asked to estimate how long they had spent searching for their new residence, how many dwellings they had examined and how many of these they had seriously considered. Respondents who indicated that they had examined more than one dwelling were then asked three questions focusing on their search behavior. The first question asked the respondents to identify areas within the county in which they had examined vacancies. For each of the areas mentioned, interviewees were then asked about the specific location of vacancies they had examined. This progression from general to specific was designed to foster the respondent's recall.

The third question in the sequence is more properly included in the final section of the questionnaire which investigated the criteria used by the household in evaluating dwellings found during the search. For each alternative recalled in answer to the second question, the respondent was asked to indicate why this dwelling had been rejected. Later in the survey, the household was given the opportunity to explain why it had chosen its present residence. Respondents were asked to indicate the primary reason for their selection and then any additional reasons. These reasons were grouped into seven major categories in the analysis of the residential choice decision.

The Sample Characteristics

Interviews were conducted between January 31 and March 21, 1975. The total number of telephone interviews completed was 369. Nine interviews were partially completed, but were terminated by the
respondent and a total of 122 households who had been chosen as part of the sample could not be reached or refused to participate in the survey. Details of these are given in Table 5:3.

Despite the care taken in stratifying the sample, the number of completed interviews included considerably more renters than owners (56.1% as opposed to 43.9%). In part, this reflected the higher number of refusals, terminated interviews and listing errors among owners. It also was a product, to some extent, of the high volume of unlisted telephone numbers among owners. These were balanced, to some degree, by the larger numbers of renters who had no telephones, who could not be reached in four call-backs or who had had their telephones disconnected. Additionally, in the classification of dwellings during the process of stratification, twenty dwellings were wrongly identified. All but one of these was erroneously identified as owner-occupied.

Among the households responding to the survey, the majority were headed by individuals under the age of 35. These accounted for 270 of the 369 households in the sample (73.2%). The largest group were young married households with children (102, 27.6%), followed by young married households with no children (83, 22.5%) and young single person households (56, 15.2%). Households headed by individuals aged between 35 and 64 comprised 23.6 per cent of the sample. Of these 87 households, 47 were married with children (12.7% of the sample) and 27 were married with no children present (7.3%). Only 12 households were headed by persons over the age of 65 and these
Table 5:3  COMPLETED INTERVIEWS AND NON-RESPONSES

<table>
<thead>
<tr>
<th>Sample Listings</th>
<th>Total</th>
<th>Owners</th>
<th>Renters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Listings</td>
<td>500</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Completed Interviews</td>
<td>369</td>
<td>162</td>
<td>207</td>
</tr>
<tr>
<td>Terminated</td>
<td>9</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Total Interviews</td>
<td>378</td>
<td>170</td>
<td>208</td>
</tr>
<tr>
<td>Respondent Refused to be Interviewed</td>
<td>28</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>Total Contacted</td>
<td>406</td>
<td>191</td>
<td>215</td>
</tr>
<tr>
<td>Unlisted Telephone Numbers</td>
<td>49</td>
<td>29</td>
<td>20</td>
</tr>
<tr>
<td>No Telephone Listing/No Response in Four Call-Backs</td>
<td>30</td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td>Telephone Disconnected</td>
<td>11</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Listing Errors (No Move)</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Total Not Contacted</td>
<td>94</td>
<td>41</td>
<td>53</td>
</tr>
<tr>
<td>TOTAL</td>
<td>500</td>
<td>232a</td>
<td>268a</td>
</tr>
</tbody>
</table>

aNineteen dwelling units listed as owner-occupied in the R.L. Polk Directories or allocated to that group in unincorporated areas were occupied by households who were renters. One apartment listing was occupied by the owner of the building.

Source: Survey conducted by Author
accounted for only 3.3 per cent of the sample. These were excluded from the analysis, together with the other life-cycle stages represented by fewer than twenty observations. The distribution of respondents by life-cycle stage is shown in Table 5:4.

Table 5:4 LIFE-CYCLE CHARACTERISTICS OF THE SAMPLE

<table>
<thead>
<tr>
<th>Status, Size &amp; Age Relationship</th>
<th>Young</th>
<th>Middle</th>
<th>Old</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>185</td>
<td>74</td>
<td>8</td>
<td>267</td>
</tr>
<tr>
<td>with children</td>
<td>102</td>
<td>47</td>
<td>0</td>
<td>149</td>
</tr>
<tr>
<td>no children</td>
<td>83</td>
<td>27</td>
<td>8</td>
<td>118</td>
</tr>
<tr>
<td>Not Currently Married</td>
<td>83</td>
<td>15</td>
<td>4</td>
<td>102</td>
</tr>
<tr>
<td>single person</td>
<td>56</td>
<td>8</td>
<td>4</td>
<td>68</td>
</tr>
<tr>
<td>unrelated adults</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>with children</td>
<td>12</td>
<td>7</td>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>268</td>
<td>89</td>
<td>12</td>
<td>369</td>
</tr>
</tbody>
</table>

Source: Calculated by Author

The income groups most heavily represented in the sample were those with incomes between $5000 and $14999 per year. One hundred and four households reported incomes between $10000 and $14999 per year (28.2%), while 100 households indicated that their household incomes were between $5000 and $9999 in the previous year (27.1% of the sample). Only 25 households reported their income for 1974 to be less than $5000
per year (6.8%), while 120 households responded that they had incomes in excess of $15000 per year. Sixty-nine respondents gave their income for the previous year as being between $15000 and $19999 per year and these accounted for 18.7 per cent of the sample. Households with incomes of $20000 per year or higher represented 13.8 per cent of the sample (51 households). Twenty respondents did not know or refused to divulge their income and these cases were again excluded from the analysis.

While the overall response rate to the survey was moderately high, the response rate on individual questions was generally extremely high, as is shown in Table 5:5. On only one question did the rate of refusal exceed five per cent of the respondents and this was the traditionally problematic question of the actual price paid for the chosen residence by owners. The only other question marked by a relatively high rate of refusal was the one on household income, which 4.1 per cent of the households declined to answer. Two sets of questions were characterised by large numbers of 'don't know' responses. The minimum price or rent that the household expected to pay for its new dwelling could not be specified by 31 respondents (8.4% of the sample). This presented no significant problem in the analysis since the question was only designed to establish the sub-market searched by the household. The second question generating large numbers of 'don't know' responses was that asking the household to specify the reasons for its decision to reject vacancies found during the search. It should be noted that the values in Table 5:5 for both this question and the one relating to the reasons for the choice of the new residence
Table 5:5  NON-RESPONSE RATES FOR INDIVIDUAL QUESTIONS

<table>
<thead>
<tr>
<th>Reason for Moving</th>
<th>Refused</th>
<th>%</th>
<th>Don't Know</th>
<th>%</th>
<th>Non-Response</th>
<th>%</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason for Moving</td>
<td>1</td>
<td>0.3</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>0.3</td>
<td>369</td>
</tr>
<tr>
<td>Maximum Price (Owners)</td>
<td>3</td>
<td>1.9</td>
<td>8</td>
<td>4.9</td>
<td>11</td>
<td>6.8</td>
<td>162</td>
</tr>
<tr>
<td>Minimum Price (Owners)</td>
<td>3</td>
<td>1.9</td>
<td>16</td>
<td>9.9</td>
<td>19</td>
<td>11.7</td>
<td>162</td>
</tr>
<tr>
<td>Actual Price (Owners)</td>
<td>9</td>
<td>5.6</td>
<td>1</td>
<td>0.6</td>
<td>10</td>
<td>6.2</td>
<td>162</td>
</tr>
<tr>
<td>Maximum Rent (Renters)</td>
<td>4</td>
<td>1.9</td>
<td>4</td>
<td>1.9</td>
<td>8</td>
<td>3.8</td>
<td>207</td>
</tr>
<tr>
<td>Minimum Rent (Renters)</td>
<td>4</td>
<td>1.9</td>
<td>15</td>
<td>7.2</td>
<td>19</td>
<td>9.1</td>
<td>207</td>
</tr>
<tr>
<td>Actual Rent (Renters)</td>
<td>6</td>
<td>2.9</td>
<td>1</td>
<td>0.5</td>
<td>7</td>
<td>3.4</td>
<td>207</td>
</tr>
<tr>
<td>Reason for Choice</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
<td>0.5</td>
<td>2</td>
<td>0.5</td>
<td>369</td>
</tr>
<tr>
<td>Reason for Rejection</td>
<td>0</td>
<td>0.0</td>
<td>18</td>
<td>5.7</td>
<td>18</td>
<td>5.7</td>
<td>314a</td>
</tr>
<tr>
<td>Household Income</td>
<td>15</td>
<td>4.1</td>
<td>5</td>
<td>1.4</td>
<td>20</td>
<td>5.5</td>
<td>369</td>
</tr>
</tbody>
</table>

a55 households who indicated that they looked at only one dwelling are excluded.

Source: Survey conducted by Author

tend to understate the severity of the problem of vague or highly general responses. This is the same problem identified by Rossi in his Philadelphia sample. The large numbers of vague responses are partly a function of insufficient probing by interviewers, but also reflect the considerable difficulty which respondents have in verbalizing the criteria they employed in reaching a decision. A further difficulty which became apparent only when the data were being coded was that households, in general, had extreme difficulty in recalling the locations of the dwellings they had inspected during the search. This
vitiated the possibility of testing any hypotheses concerning the spatial characteristics of household search behavior.

The final step before proceeding to the analysis of the data was the coding of the information from the surveys. A coding scheme was developed for each of the open-ended questions. Data from the interview schedules were transferred onto computer cards. Analyses of the variations in decision-making by life-cycle stage, income and tenure preference were performed partly at the University of Missouri – St. Louis and partly at the University of Wisconsin – Oshkosh. The results of these analyses are presented in the following chapters.
Footnotes-CHAPTER V

1. The hypotheses in this section are drawn from our earlier discussion. See the work of A. Speare, et al. (1974), Residential Mobility, Migration and Metropolitan Change, Cambridge, Mass.: Ballinger, especially pp. 235-237.

2. These hypotheses are drawn from the findings presented by P.H. Rossi (1955), Why Families Move: A Study in the Social Psychology of Urban Residential Mobility, Glencoe, Ill.: The Free Press, pp. 157-159 in which he argues for the relationship between complaints leading to the move and specifications in the aspiration region.

3. The hypotheses concerning the residential selection are derived directly from the work of A. Speare, et al. (1974), op. cit., p. 235.

4. The evidence to support these hypotheses is relatively weak as we indicated in the discussion in Chapter 4. No study heretofore has examined variations in the reasons for the decision to move as a function of income level.


6. The basis for this set of hypotheses is the work of P.H. Rossi (1955), op. cit., pp. 159-162.

7. The empirical evidence supporting these hypotheses is given in D.T. Herbert (1973), op. cit.

8. These hypotheses are designed to test the findings that were presented by P.H. Rossi (1973), op. cit., pp. 148-150.

9. The argument underlying the development of these hypotheses is primarily deductive. Little direct evidence exists on variations in the aspiration regions of owners and renters.

10. These hypotheses are derived from the findings of D.T. Herbert (1973), op. cit., and P.H. Rossi (1955), op. cit., pp. 159-163.

11. Little empirical work has been done on these variations. Thus, the hypotheses represent inferences drawn up on the basis of slight and generally indirect evidence.

13. The Criss-Cross directories are derived directly from published telephone directories. Their principle advantage over the telephone directory is that listings are arranged by address.

14. This is a low estimate in comparison to others which have been made for U.S. cities. The rate for Los Angeles, for example, appears to be approximately 33 per cent.

15. Estimated on the basis of the total number of households showing no telephone listing and subtracting the estimated rate of unlisted numbers.

16. These were obtained from the Columbus and Southern Ohio Electric Company.

17. The utility company estimated that it services 99 per cent of all households in the County.

18. This introduced a slight element of bias into the sample design, accounting for the larger proportion of renters who were contacted.

19. The respective sampling fractions were 1: 18.4 for owners and 1: 89.8 for renters. We thus interviewed almost 5 per cent of all recent movers among owners and slightly more than 1 per cent among renters.
CHAPTER VI

RESULTS AND ANALYSIS - LIFE CYCLE STAGE

The results of our survey and the analysis of the variations in the residential relocation process as a function of the life-cycle stage of the household are presented in this chapter. For reasons we indicated earlier, only five life-cycle stages were identified and utilised in the analysis. These were: single person households, aged under 35 (YS); married couples, under the age of 35, with no children (YM); married couples in the same age range with children (YMC); married households between the ages of 35 and 64 with no children present (OM); and the same cohort with children (OMC). These five groups represented slightly in excess of 85 per cent of the households in our sample. The remaining 14.6 per cent were excluded from the analysis.

After reviewing the literature, we suggested that there were likely to be significant variations, attributable to life-cycle, in the reasons for the decision to move, the structure of household aspiration regions and in the choice criteria employed to evaluate vacancies. No hypotheses were put forward with regard to variations in search behavior as a function of the life-cycle status of the household. The hypotheses are examined in the following sections, beginning with consideration of the reasons for the decision to move.
The Decision to Move

The life-cycle stage of the household has been viewed as a powerful predictive variable in the analysis of the residential mobility decision. The results from our survey are shown in Table 6:1. For the sample as a whole, the need for more space was marginally the most important reason cited for the decision, narrowly eclipsing changes of employment and the desire to change tenure. As expected, the responses indicating the need for more space were differentially distributed across the life-cycle stages. More than 36 per cent of young married households with children and 34 per cent of older married households with children gave this as a reason for their decision to move.

We had hypothesized two sets of variation associated with the need for more space. Households with children were seen as more likely to be space-constrained than households with no children present. This hypothesis is confirmed by our data. Pairing the responses of households in the two groups, a chi-square value of 9.04 was obtained. This is statistically significant at the .01 level. The second hypothesis was that young married couples would evince the need for more space more frequently than older households. This hypotheses was not confirmed on the basis of our survey results. The chi-square value was 1.33, and while the relationship was in the anticipated direction, it was significant only at the .30 level. These results are not consistent with the findings of Speare, et al.\(^1\), in which there is an apparent relationship between the age of the head of the household and the frequency with which the need for more space was cited
<table>
<thead>
<tr>
<th>Reasons</th>
<th>YS</th>
<th>YM</th>
<th>YMC</th>
<th>OM</th>
<th>OMC</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forced Moves</td>
<td>7.1</td>
<td>2.4</td>
<td>2.0</td>
<td>0.0</td>
<td>2.1</td>
<td>3.0</td>
</tr>
<tr>
<td>Changed Household Size/Composition</td>
<td>19.6</td>
<td>27.7</td>
<td>9.8</td>
<td>3.7</td>
<td>17.0</td>
<td>17.9</td>
</tr>
<tr>
<td>Changed Employment/Job</td>
<td>21.4</td>
<td>18.1</td>
<td>21.6</td>
<td>14.8</td>
<td>34.0</td>
<td>21.1</td>
</tr>
<tr>
<td>Changed Income/Costs</td>
<td>19.6</td>
<td>7.2</td>
<td>4.9</td>
<td>3.7</td>
<td>2.1</td>
<td>8.9</td>
</tr>
<tr>
<td>Needed More Space</td>
<td>8.9</td>
<td>19.3</td>
<td>36.3</td>
<td>0.0</td>
<td>34.0</td>
<td>21.4</td>
</tr>
<tr>
<td>Needed Less Space</td>
<td>3.6</td>
<td>1.2</td>
<td>0.0</td>
<td>14.8</td>
<td>2.1</td>
<td>3.3</td>
</tr>
<tr>
<td>Wanted Change of Tenure</td>
<td>7.1</td>
<td>24.1</td>
<td>29.6</td>
<td>22.9</td>
<td>12.8</td>
<td>20.9</td>
</tr>
<tr>
<td>Investment Equity</td>
<td>5.4</td>
<td>7.2</td>
<td>5.9</td>
<td>11.1</td>
<td>2.1</td>
<td>6.8</td>
</tr>
<tr>
<td>Wanted More Privacy</td>
<td>7.1</td>
<td>2.4</td>
<td>4.9</td>
<td>0.0</td>
<td>4.3</td>
<td>5.2</td>
</tr>
<tr>
<td>Upkeep/Landlord Complaints</td>
<td>5.4</td>
<td>2.4</td>
<td>2.9</td>
<td>11.1</td>
<td>4.3</td>
<td>4.1</td>
</tr>
<tr>
<td>Dwelling Unit Dissatis.</td>
<td>12.5</td>
<td>13.3</td>
<td>14.7</td>
<td>25.0</td>
<td>17.0</td>
<td>16.3</td>
</tr>
<tr>
<td>Neighborhood Dissatis.</td>
<td>21.4</td>
<td>14.5</td>
<td>13.7</td>
<td>14.8</td>
<td>12.8</td>
<td>15.5</td>
</tr>
<tr>
<td>Locational Dissatis.</td>
<td>12.5</td>
<td>10.8</td>
<td>11.8</td>
<td>14.8</td>
<td>12.8</td>
<td>13.0</td>
</tr>
<tr>
<td>Windfall/Built</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.7</td>
<td>4.3</td>
<td>0.8</td>
</tr>
<tr>
<td>Other</td>
<td>0.0</td>
<td>3.6</td>
<td>6.9</td>
<td>0.0</td>
<td>4.3</td>
<td>3.5</td>
</tr>
</tbody>
</table>

\[ n = 56 \quad 83 \quad 102 \quad 27 \quad 47 \quad 368 \]

Source: Survey conducted by author
as a reason for the move. The controlling variable in defining the need for more space apparently is the presence of children in the household, rather than the age of the head of the household. Inferentially, at least, this finding lends support to Rossi's notion\textsuperscript{2} that the size of the household may be an important variable, since we have compared two person households with those containing three or more individuals in this analysis. Tentative support for this interpretation is provided by the finding that young married couples are significantly more likely than one person households to cite the need for more space. This is shown in Table 6:2. This table shows the results of paired comparisons between life-cycle groups (except older married households with no children) on the importance of space needs as a reason for the mobility decision. This emphasises the differences between households with children present and those with none.

On the basis of Speare, et al.'s findings,\textsuperscript{3} we hypothesized that younger households would be more likely than older households to cite the desire to change tenure as the reason for their move. This hypothesis is not confirmed by our data. There was no significant difference between the two groups of younger and older married households. Older married households with children were significantly less likely to cite this as a reason for their move, but this was solely a function of the large proportion of these households who were already owners. Controlling for tenure, the relationship disappeared.

On the importance of dwelling unit attributes in the decision to move, we can concur with Speare, et al.'s findings.\textsuperscript{4} Dissatisfaction
Table 6:2  THE IMPORTANCE OF SPACE NEEDS AS A REASON FOR MOVING:

PAIRED COMPARISONS OF LIFE-CYCLE STAGES.\(^a\)

<table>
<thead>
<tr>
<th>Life Cycle Stage</th>
<th>YS</th>
<th>YM</th>
<th>OMC</th>
<th>YMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young, single</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Young, married</td>
<td>2.79</td>
<td>-</td>
<td>(.10)</td>
<td></td>
</tr>
<tr>
<td>Older, married, children</td>
<td>9.94</td>
<td>3.52</td>
<td>(.01)</td>
<td>(.10)</td>
</tr>
<tr>
<td>Young, married, children</td>
<td>13.71</td>
<td>4.37</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.001)</td>
<td>(.05)</td>
<td>n.s.</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)Values in this table are the calculated chi-squares. Figures in parentheses are the levels of statistical significance. The designation n.s. indicates no statistically significant relationship.

Source: Calculated by author

with the dwelling unit was expressed more frequently by older married households than by younger ones. The chi-square value was 6.08, significant at the .02 level. The difference, however, is almost entirely accounted for by the high proportion of older households with no children present who gave this as a reason for moving. There was no statistically significant difference between the responses of the other three married groups of households. Comparisons between older
married households and the same cohort with children, younger households with children and younger households with no children yielded chi-square values of 6.53, 11.41 and 11.95, respectively. The latter two were significant at the .001 level, while that comparing the older married groups was statistically significant at the .02 level. Older married couples were also more likely than young single person households to cite dissatisfaction with the dwelling as a reason for their decision (chi-square, 10.53, significant at the .01 level).

On the issue of costs, we had anticipated that younger married households would be more cost-constrained than older households. We expected, therefore, that they would cite changes in income or housing costs more frequently. This thesis is not confirmed by our study. The only group in which cost constraints appear to play a substantial role in the decision to move are young, single person households. The majority of their responses indicated that an increase in the rent had been the precipitating factor in their decision. In this respect they were significantly different from either of the young married groups of households. The chi-square value obtained in comparing young single and young married households was 4.80. This was significant at the .05 level. The comparison between young, single person households and young married households with children yielded a value of 8.63, which exceeded the tabled value for significance at the 1 per cent level. No comparisons were made with older married because of the small number of cases involved. These findings appear to suggest that young, single person households are more sensitive to increases in rent than
other groups. They are also more likely than other households to be forced to move. Taken together, these indicate that young single persons are more affected by institutional decisions than any other group of households in our sample.

The final hypothesis concerning life-cycle variations in the decision to move was that dissatisfaction with neighborhood characteristics would be more prevalent among older married households. This was based on an admittedly weak relationship demonstrated by Speare, et al.\(^5\) Our data indicate no statistically significant relationships between life-cycle stage and dissatisfaction with the neighborhood. Rather surprisingly, in the light of the hypothesized direction of the relationship, it was young single households in our sample who were most likely to cite dissatisfaction with their neighborhood as a factor in their decision to move. Otherwise, there was considerable uniformity in the pattern of responses dealing with neighborhood reasons for the move.

Aspiration Regions

In developing hypotheses about variations in the structure of household aspiration regions by life cycle stage, we anticipated that variations would be a function of the distance between life-cycle groups. The largest number of differences in the importance of attributes would, we hypothesized, be among groups furthest removed from one another in the life-cycle. In addition, we suggested specific sources of variation which were likely to occur as a function of the age of the head of the household or as a function of the presence of children.
Before turning to consider these hypotheses, we should examine the overall pattern of preferences for attributes, shown in Table 6:3. The entries in this table show the proportion of households in each life-cycle stage who rated the item in question as being 'very important' among the things they considered when they began to search for a new residence. As could be anticipated on the basis of Rossi's work, dwelling unit attributes were the most prominent in the aspiration regions of the average household in the sample. Most neighborhood attributes were ranked moderately high by the sample as a whole, while access attributes were of quite limited importance.

These general comments conceal a significant amount of the variation in the criteria incorporated in aspiration regions at households at differing stages of their life-cycle. One of the hypotheses we proposed was that older households will have a stronger preference for neighborhood characteristics than younger households. Inspection of Table 6:3 reveals that there are a number of neighborhood attributes which older respondents rated very important more frequently. These included the quietness of the neighborhood, its reputation, the kind of people living in the neighborhood and, to a more limited extent, the condition of other dwellings in the neighborhood. Significant differences in the responses of pairs of life-cycle groups are given in Table 6:4. Only two neighborhood attributes were identified with significant differences in the structure of household aspiration regions by age. Older households were more prone to rate the reputation of the neighborhood highly than younger married households. The calculated chi-square value for the relationship was 9.06, significant
Table 6:3  ATTRIBUTES RANKED AS VERY IMPORTANT, BY

<table>
<thead>
<tr>
<th>Attribute</th>
<th>YS</th>
<th>YM</th>
<th>YMC</th>
<th>OM</th>
<th>OMC</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Arrangement</td>
<td>25.0</td>
<td>33.7</td>
<td>30.4</td>
<td>59.3</td>
<td>39.1</td>
<td>33.9</td>
</tr>
<tr>
<td>Size of Rooms</td>
<td>47.3</td>
<td>61.0</td>
<td>57.4</td>
<td>55.6</td>
<td>70.2</td>
<td>57.2</td>
</tr>
<tr>
<td>Inside Appearance</td>
<td>66.1</td>
<td>80.7</td>
<td>67.6</td>
<td>77.8</td>
<td>72.3</td>
<td>71.3</td>
</tr>
<tr>
<td>Age of Building</td>
<td>33.9</td>
<td>26.5</td>
<td>28.3</td>
<td>34.6</td>
<td>39.1</td>
<td>30.6</td>
</tr>
<tr>
<td>Outside Appearance</td>
<td>46.4</td>
<td>51.8</td>
<td>55.4</td>
<td>74.1</td>
<td>55.3</td>
<td>52.6</td>
</tr>
<tr>
<td>Size of Yard/Grounds</td>
<td>30.2</td>
<td>38.0</td>
<td>44.1</td>
<td>44.4</td>
<td>57.8</td>
<td>38.8</td>
</tr>
<tr>
<td>Amount of Storage Space</td>
<td>50.0</td>
<td>54.2</td>
<td>62.7</td>
<td>51.9</td>
<td>74.5</td>
<td>60.7</td>
</tr>
<tr>
<td>Privacy</td>
<td>78.6</td>
<td>67.5</td>
<td>47.5</td>
<td>63.0</td>
<td>61.7</td>
<td>63.4</td>
</tr>
<tr>
<td>Quietness of Neighborhood</td>
<td>42.9</td>
<td>45.1</td>
<td>40.2</td>
<td>59.3</td>
<td>60.9</td>
<td>45.8</td>
</tr>
<tr>
<td>Friendliness of Neighbors</td>
<td>33.9</td>
<td>25.9</td>
<td>27.3</td>
<td>38.5</td>
<td>28.9</td>
<td>28.5</td>
</tr>
<tr>
<td>Reputation of Neighborhood</td>
<td>55.4</td>
<td>45.1</td>
<td>57.4</td>
<td>70.4</td>
<td>73.3</td>
<td>54.5</td>
</tr>
<tr>
<td>Kind of People in N'hood</td>
<td>34.5</td>
<td>43.2</td>
<td>41.4</td>
<td>55.6</td>
<td>50.0</td>
<td>40.1</td>
</tr>
<tr>
<td>Condition of Other Dwell'gs</td>
<td>41.1</td>
<td>56.6</td>
<td>63.7</td>
<td>66.7</td>
<td>74.5</td>
<td>56.1</td>
</tr>
<tr>
<td>Amount of Traffic</td>
<td>28.6</td>
<td>32.5</td>
<td>57.8</td>
<td>48.1</td>
<td>54.3</td>
<td>42.8</td>
</tr>
<tr>
<td>Quality of Local Schls.</td>
<td>11.3</td>
<td>21.8</td>
<td>65.0</td>
<td>23.1</td>
<td>59.6</td>
<td>37.4</td>
</tr>
<tr>
<td>Access to Parks/Opn Spce.</td>
<td>9.1</td>
<td>25.3</td>
<td>30.7</td>
<td>11.1</td>
<td>19.1</td>
<td>24.1</td>
</tr>
<tr>
<td>Access to Other City Areas</td>
<td>54.5</td>
<td>59.0</td>
<td>43.1</td>
<td>37.0</td>
<td>51.1</td>
<td>49.6</td>
</tr>
<tr>
<td>Access to Friend/Relatives</td>
<td>30.4</td>
<td>29.3</td>
<td>20.6</td>
<td>33.3</td>
<td>13.0</td>
<td>24.9</td>
</tr>
<tr>
<td>Access to Pub. Transit</td>
<td>26.8</td>
<td>17.1</td>
<td>15.7</td>
<td>22.2</td>
<td>24.4</td>
<td>21.4</td>
</tr>
<tr>
<td>Access to Work</td>
<td>58.9</td>
<td>65.1</td>
<td>47.1</td>
<td>38.5</td>
<td>51.1</td>
<td>54.7</td>
</tr>
</tbody>
</table>

Source: Calculated by author
at the .02 level. Older households were also more likely to cite quietness as a desired neighborhood feature. The calculated chi-square value was significant at the .05 level. The individual comparisons in Table 6:4 reveal the source of these variations. Both groups of older married households were distinguished from younger households with no children in their stress on the importance of the reputation of the neighborhood. They were, however, not distinguished, on the importance of this variable, from young households with children. The converse is true of the quietness of the neighborhood. Both groups of older married households placed more emphasis on this than young married households with children, but neither were significantly more likely to emphasize neighborhood quietness than young married couples with no children. The hypothesis on the greater salience of neighborhood attributes to older households is thus partially supported.

The hypothesis that young married households would be more concerned with access attributes is only weakly supported by our data. Younger married households had a stronger predilection for access to other areas of the city than older married households, but the relationship was significant only at the .10 level, with a chi-square value of 5.80. When the ratings of individual pairs of life-cycle stages are compared, a number of significant differences in the importance of access variables emerge. Young married households with no children showed a much stronger preference for access to work than either young married couples with children or older households with no
Table 6:4 SIGNIFICANT DIFFERENCES IN THE RANKING OF ATTRIBUTES AMONG MARRIED HOUSEHOLDA

<table>
<thead>
<tr>
<th>Attribute</th>
<th>YM/ OM</th>
<th>YM/ YMC</th>
<th>YM/ OMC</th>
<th>OM/ YMC</th>
<th>OM/ OMC</th>
<th>YMC/ OMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Arrangement</td>
<td>5.57</td>
<td>7.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.10)</td>
<td>(.05)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Privacy</td>
<td>9.96</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.01)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Space</td>
<td></td>
<td>7.18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.05)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount of Traffic</td>
<td>14.80</td>
<td>8.31</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.001)</td>
<td>(.02)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of Education</td>
<td>42.37</td>
<td>20.44</td>
<td>30.29</td>
<td>15.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td>(.001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N'hood Reputation</td>
<td>5.58</td>
<td>9.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.10)</td>
<td>(.01)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N'hood Quietness</td>
<td></td>
<td></td>
<td>6.48</td>
<td>8.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.05)</td>
<td>(.02)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access Other Areas</td>
<td>9.27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.01)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access Parks/ Open Spaces</td>
<td></td>
<td></td>
<td>6.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.05)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to Work</td>
<td>11.62</td>
<td>9.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.01)</td>
<td>(.01)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Values in this table are the calculated chi-squares. Figures in parentheses are the levels of statistical significance.

Source: Calculated by author
children present. This latter group was also significantly less likely than young married households with children to use access to parks and open spaces as a specification within its aspiration region. While these differences do indicate a measure of variation in the importance of access variables, the relationship is not as strong as anticipated.

The third hypothesis we proposed was that households with children would be particularly sensitive to characteristics which have a direct impact on the welfare of children. Two variables were seen as particularly critical: the quality of education in local schools and the amount of traffic on neighborhood streets. On the basis of our data, this hypothesis can be sustained. Married households with children invariably ranked quality of education far higher as a criterion than households in which children were not present. Both life-cycle groups with children were also significantly more concerned with the amount of traffic on neighborhood streets than young households with no children. The failure to demonstrate a statistically significant relationship between households with children and older married households with no children is not viewed as confounding the hypothesis. The older married couples appear to be expressing their preference for a quiet residential environment. The demonstrated relationship between the presence of children in the household and high ratings of these variables suggests that many of these households are representative of the familistic orientation
suggested by Bell. Furthermore, our finding with respect to the importance of education lends some credence to the Tiebout hypothesis, though not only in the case of households with children.

The final and more general hypothesis tested in this section is that differences in the structure of aspiration regions will be a function of the distance in notional terms between various life-cycle. To provide some additional evidence on this point, we show the significant differences associated with various attributes when comparing young single person households with others in our sample in Table 6:5. The differences between the criteria employed by young single households are marked when compared to the findings we have reviewed. They differ from older married households with children on no fewer than eight criteria. In each case, the criterion was more important to the older married households with children. The comparison with young married households with children is also quite striking, despite the fact that three dwelling unit attributes cease to be significant. The importance of privacy to young single households is also stressed and significantly distinguished the two groups. By contrast, the differences between young single person households and older married households is small, with the latter exhibiting greater concern for the arrangement of rooms in the unit and the condition of other dwellings in the neighborhood. Young married households with no children, who could be expected to have aspirations most similar to young single households under the logic of our argument, diverge only with regard to the importance of access to parks and open spaces.
Table 6.5  **SIGNIFICANT DIFFERENCES IN THE RANKING OF ATTRIBUTES: YOUNG SINGLE PERSONS AND OTHER LIFE-CYCLE STAGES**\(^a\)

<table>
<thead>
<tr>
<th>Attribute</th>
<th>YM</th>
<th>YMC</th>
<th>OM</th>
<th>CMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Arrangement</td>
<td>9.32</td>
<td>(.01)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Rooms</td>
<td>5.70</td>
<td>(.10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Yard/Grounds</td>
<td>15.58</td>
<td>(.001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Space</td>
<td>6.46</td>
<td>(.05)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Privacy</td>
<td>14.32</td>
<td>(.001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N'hood Quietness</td>
<td>7.71</td>
<td>(.05)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condition of Other Dwellings</td>
<td>10.35</td>
<td>6.39</td>
<td>12.84</td>
<td>(.01)</td>
</tr>
<tr>
<td>Traffic</td>
<td>23.47</td>
<td>(.001)</td>
<td>14.89</td>
<td>(.001)</td>
</tr>
<tr>
<td>Quality of Education</td>
<td>64.05</td>
<td>(.001)</td>
<td>35.89</td>
<td>(.001)</td>
</tr>
<tr>
<td>Access Parks/Open Spaces</td>
<td>10.66</td>
<td>16.79</td>
<td>7.94</td>
<td>(.01)</td>
</tr>
</tbody>
</table>

\(^a\)Values in this table are the calculated chi-squares. Figures in parentheses are the levels of statistical significance.

Source: Calculated by author
If we examine the results shown in Table 6:4 again, we can further substantiate the argument that the closer two life-cycle stages are, the greater the similarity in the structure of their aspiration regions. We have noted that older married households with children differ only on the criterion of education from their contemporaries without children. We have also noted that young and older married households with children rank only one attribute differently: the quietness of the neighborhood. The only adjacent life-cycle stages which show marked variations are young married households with children and those without children and young married households with no children and older married households of the same type. In the former case, there are two sources of variation. The child-oriented factors of the quality of education and the amount of traffic are incorporated into the specifications of the households with children. The young households with no children tend to retain two of the more important components of the young single household's aspiration regions: privacy and access to work. These drop considerably in significance after children enter the household. The differences in the aspiration regions of younger and older married couples with no children reflects the fact that they are not as close in life-cycle terms as we have suggested in Figure 4:1. If the household goes through a typical sequence of life-cycle changes, young married households will be two links removed from older households with no children. It is unreasonable to treat them as adjacent stages because for the majority of households children will be born and reared in the intervening years.
The general similarity between the aspiration regions of closely related life-cycle groups and the relative dissimilarity between more distant stages suggests that there is a definite and identifiable progression in the aspirations of the household as it moves through the life-cycle. Young single persons rank privacy and access relatively highly. Young married persons retain these and add considerations such as inside appearance and size of rooms. When children are born, privacy and access characteristics become less important and child-oriented neighborhood concerns predominate. Among older married households with children neighborhood status attributes emerge as important together with dwelling unit attributes such as the size of rooms and the storage space in the dwelling, both of which are life-cycle related. Older married couples with no children place a high premium on the arrangement of rooms within the dwelling and on its outside appearance. The ranking of neighborhood attributes like the friendliness of neighbors and the kind of people in the neighborhood are above average, while most other neighborhood attributes decline somewhat in importance. If there is an Achilles' heel in this argument, it is the magnitude of the differences between young single person households and older married households with no children present. These are nominally the furthest removed life-cycle stages and yet the structure of the aspiration regions of the two groups differs only slightly. While we cannot verify on the basis of our limited data, it seems that the aspiration regions of elderly households very closely resemble those of young single households. In effect we come
full circle to the point where the oldest households in our sample resemble the youngest in terms of their aspirations.

The Residential Choice Decision.

The final phase of the residential relocation process is the selection of a new residence. The primary reasons for the choice of the new residence by households at different life-cycle stages are given in Table 6:6. All reasons for the selection are given in Table 6:7. On the basis of our earlier discussion in the literature review, we proposed six hypotheses concerned with variations in the reasons for the selection of the new residence.

Our initial expectation was that housing costs would weigh more heavily in the residential choice decisions of young single and young married households. This presumption is tentatively confirmed by our findings. From our data, young married households with children appear to be the most cost-constrained group. Costs are the primary criterion for the residential choice in 30.3 per cent of these cases and are mentioned as a factor in the decision by 52.0 per cent of young married households with children. These households are significantly distinguished from each of the remaining groups except young single person households in their propensity to cite costs as the key factor in their decision. The chi-square values and their levels of significance are shown in Table 6:8. Young single person households also used costs more frequently in their decisions than older married households with children. Young married households with no children were not significantly more likely to cite housing costs than either of the older
Table 6:6 PRIMARY REASON FOR CHOOSING THE NEW RESIDENCE,
BY LIFE CYCLE STAGE<sup>a</sup>

<table>
<thead>
<tr>
<th>Criterion</th>
<th>YS</th>
<th>YM</th>
<th>YMC</th>
<th>OM</th>
<th>OMC</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space Requirements</td>
<td>5.4</td>
<td>10.8</td>
<td>14.7</td>
<td>11.5</td>
<td>22.2</td>
<td>13.6</td>
</tr>
<tr>
<td>Dwelling Interior</td>
<td>14.3</td>
<td>13.3</td>
<td>8.8</td>
<td>11.5</td>
<td>17.8</td>
<td>11.7</td>
</tr>
<tr>
<td>Dwelling Exterior</td>
<td>3.6</td>
<td>9.6</td>
<td>8.8</td>
<td>7.7</td>
<td>11.1</td>
<td>8.9</td>
</tr>
<tr>
<td>Neighborhood</td>
<td>12.5</td>
<td>19.3</td>
<td>20.6</td>
<td>23.1</td>
<td>17.8</td>
<td>16.6</td>
</tr>
<tr>
<td>Location</td>
<td>25.0</td>
<td>20.5</td>
<td>10.8</td>
<td>7.7</td>
<td>11.1</td>
<td>16.9</td>
</tr>
<tr>
<td>Housing Costs</td>
<td>25.0</td>
<td>18.1</td>
<td>30.3</td>
<td>11.5</td>
<td>8.9</td>
<td>21.8</td>
</tr>
<tr>
<td>Availability</td>
<td>3.6</td>
<td>3.6</td>
<td>2.0</td>
<td>3.8</td>
<td>3.8</td>
<td>3.3</td>
</tr>
<tr>
<td>Other Reasons</td>
<td>10.7</td>
<td>4.8</td>
<td>3.9</td>
<td>23.1</td>
<td>8.9</td>
<td>7.0</td>
</tr>
</tbody>
</table>

n = 56 83 102 26 45 367<sup>b</sup>

<sup>a</sup>Values in this table are percentages.

<sup>b</sup>Excluding two respondents who could not give a reason for their selection of the residence.

Source: Survey conducted by author
Table 6:7  **ALL REASONS FOR CHOOSING THE NEW RESIDENCE, BY LIFE CYCLE STAGE**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>YS</th>
<th>YM</th>
<th>YMC</th>
<th>OM</th>
<th>OMC</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space Requirements</td>
<td>19.6</td>
<td>34.9</td>
<td>35.3</td>
<td>19.2</td>
<td>40.0</td>
<td>31.6</td>
</tr>
<tr>
<td>Dwelling Interior</td>
<td>30.4</td>
<td>50.6</td>
<td>42.2</td>
<td>34.6</td>
<td>55.6</td>
<td>42.8</td>
</tr>
<tr>
<td>Dwelling Exterior</td>
<td>23.2</td>
<td>27.7</td>
<td>31.4</td>
<td>38.5</td>
<td>42.2</td>
<td>31.9</td>
</tr>
<tr>
<td>Neighborhood</td>
<td>37.5</td>
<td>42.2</td>
<td>48.0</td>
<td>42.3</td>
<td>57.0</td>
<td>43.0</td>
</tr>
<tr>
<td>Location</td>
<td>55.4</td>
<td>44.6</td>
<td>38.2</td>
<td>11.5</td>
<td>31.1</td>
<td>38.7</td>
</tr>
<tr>
<td>Housing Costs</td>
<td>41.1</td>
<td>39.8</td>
<td>52.0</td>
<td>26.9</td>
<td>26.7</td>
<td>41.4</td>
</tr>
<tr>
<td>Availability</td>
<td>12.5</td>
<td>6.0</td>
<td>6.9</td>
<td>3.8</td>
<td>4.4</td>
<td>9.3</td>
</tr>
<tr>
<td>Other Reasons</td>
<td>23.2</td>
<td>20.5</td>
<td>10.8</td>
<td>50.0</td>
<td>24.4</td>
<td>18.5</td>
</tr>
<tr>
<td><strong>n =</strong></td>
<td>56</td>
<td>102</td>
<td>83</td>
<td>26</td>
<td>45</td>
<td>367</td>
</tr>
</tbody>
</table>

*Figures in this table are percentages.*

Source: Survey conducted by author.

Groups of households. The difference between young single person households and young married couples with children, on the one hand, and young married couples with no children, on the other, can be explained, we suspect, primarily as a function of the large number of households in which both spouses worked full-time. This enabled many
Table 6:8  **SIGNIFICANT DIFFERENCES IN THE PRIMARY CRITERION FOR CHOICE, BY LIFE CYCLE STAGE**

<table>
<thead>
<tr>
<th>Paired Life-Cycle Stages</th>
<th>Space Requirements</th>
<th>Housing Costs</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>YS/ YMC</td>
<td>3.13 (.10)</td>
<td></td>
<td>5.49 (.02)</td>
</tr>
<tr>
<td>YS/ OM</td>
<td></td>
<td></td>
<td>3.38 (.10)</td>
</tr>
<tr>
<td>YS/ OMC</td>
<td>6.33 (.02)</td>
<td>4.50 (.05)</td>
<td>3.14 (.10)</td>
</tr>
<tr>
<td>YM/ YMC</td>
<td></td>
<td>3.73 (.10)</td>
<td>3.35 (.10)</td>
</tr>
<tr>
<td>YM/ OMC</td>
<td>2.99 (.10)</td>
<td></td>
<td>7.55 (.01)</td>
</tr>
<tr>
<td>YMC/ OM</td>
<td></td>
<td>5.59 (.02)</td>
<td></td>
</tr>
<tr>
<td>YMC/ OMC</td>
<td></td>
<td>7.95 (.01)</td>
<td></td>
</tr>
</tbody>
</table>

*Values in this table are calculated chi-squares. Figures in parentheses are the levels of statistical significance.*

Source: Calculated by author

of the households in this group to change their tenure, as we have shown in Table 6:1.

The second hypothesis tested was that younger households would show a greater proclivity to cite access or locational characteristics as the principal reason for their decision to move. This hypothesis is partially validated by our survey. Young single person households used location as the principal criterion significantly more frequently than any other life-cycle except young married households without
children. This latter group were, in turn, significantly more prone to cite locational characteristics than either of the life-cycle groups with children. This finding is consistent with the results we obtained earlier in examining the structure of household aspiration regions. It is also notable that this contradicts the rather weak relationship evinced in Speare, et al. which showed households in the later stages of their life-cycle using location as a choice criterion more frequently than other groups.\(^{10}\) It is, however, consistent with the more general evidence supplied by Ross\(^{11}\) and Abu-Lughod.\(^{12}\)

The third hypothesis was that space requirements would be used as the choice criterion more frequently by households with children. The findings here are broadly consistent with the results obtained in evaluating the reasons for the decision to move. Space requirements are, however, used more consistently by older households with children. Comparison of the reasons reported by this group and others revealed two significant relationships. Young households with no children and young single households were both less likely to give space needs as the primary reason for their decision. The latter group were also less likely than young married households with children to use space as the principal determinant in their selection. The importance of space needs to older households with children reinforces our finding concerning the structure of their aspiration regions. It should also be noted that this group were most likely to reject possible alternatives because they had insufficient space.
The remaining three hypotheses were rejected. Older households were not found to be more prone to use neighborhood attributes in their selection decision, despite the importance of neighborhood attributes in the construction of their aspiration region. We can conjecture that older households may use neighborhood characteristics as a screening device in the search, so that all the residences they consider will satisfy their undoubted preference for particular neighborhood characteristics. On the importance of availability as a reason for the choice of the new dwelling, our findings concord with those of Speare, et al. In neither study was there a significant relationship between life-cycle and the factor of availability. We should note in passing that our results indicate a much smaller proportion of households citing this factor than that reported by Speare, et al.13 On the basis of their findings, we also hypothesized that the interior design of the dwelling unit would be a more important criterion for older households. The survey results do not support that proposition. There were no significant differences between any pairs of life-cycle groups in their propensity to report that interior design was the principal reason for their choice.

Summary

The evidence we have presented in this chapter provides a coherent view of the decisions made by households at different stages of their life-cycles. There are clearly a number of significant relationships recorded, but the general tenor of the findings does not
very strongly support the overall conception that residential relocation is largely a function of life-cycle and that all else is embellishment and detail. Rather, the evidence we have presented suggests the need to look for alternative variables to explain the phases of the relocation decision. We will turn next to consider the role of income in household decision-making.
Footnotes - CHAPTER VI


4. loc. cit.

5. loc. cit.


CHAPTER VII

RESULTS AND ANALYSIS - INCOME LEVEL

Variations in household income have been posited as a significant source of differences in the structure of household decision-making. The intent of this chapter is to examine the relocation process to determine the extent of these variations. In the analysis which follows five income groups are used. These range from low-income households whose earnings did not exceed $5000 per year to high income households with incomes in excess of $20000 per year. The three intermediate categories are designated moderately low ($5000-$9999), moderate ($10000-14999) and moderately high ($15000-19999). The analysis includes the decisions made by 349 households. Twenty households in the sample either did not know or refused to divulge their income and these were omitted from the analysis.

The relaxation of income constraints through time has been suggested as alternative to the life-cycle interpretation of the residential relocation process. In examining this argument, we have suggested that the level of household income will produce variations in each phase of the residential mobility and residential choice decision. We shall turn first to consider the role of income in the decision to move.
The Decision to Move

On the basis of the sparse empirical evidence we reviewed in Chapter 4, we suggested only two potential sources of variation in the reasons for moving among households of differing income levels. Both are demonstrably related to the income level of the household. We posited that the proportion of households citing changes in household income or housing costs as a reason for the move would decline with income. Secondly, we argued that as household income rose so would the probability of a move being predicated on the desire to change tenure. The results of our survey are found in Table 7:1.

The first hypothesis, on the declining importance of changes in household income or housing costs, was not wholly supported by the data presented in this table. The lowest income group was undoubtedly the most likely to cite cost or income constraints as a reason for the decision to move. These households were three times more likely to do so than the sample as a whole and changes in income or costs were the most frequent reason they gave. The proportion of households experiencing cost or income changes declines with income until we reach the moderately high income group, when it increased. This apparent inconsistency is explained by the fact that we did not differentiate changes in income by their direction. More than half of the households in this category reported that it was increased income which allowed them to move. This removes the inconsistency.
Table 7:1  REASONS FOR THE DECISION TO MOVE, BY INCOME

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Low</th>
<th>Mod. Low</th>
<th>Mod.</th>
<th>Mod. High</th>
<th>High</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forced Moves</td>
<td>8.0</td>
<td>4.0</td>
<td>3.9</td>
<td>0.0</td>
<td>2.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Changed Household Size/ Composition</td>
<td>16.0</td>
<td>23.0</td>
<td>14.6</td>
<td>17.4</td>
<td>13.7</td>
<td>17.9</td>
</tr>
<tr>
<td>Changed Employment/ Job</td>
<td>8.0</td>
<td>15.0</td>
<td>24.3</td>
<td>18.9</td>
<td>33.3</td>
<td>21.1</td>
</tr>
<tr>
<td>Changed Income/Costs</td>
<td>28.0</td>
<td>11.0</td>
<td>5.8</td>
<td>10.1</td>
<td>0.0</td>
<td>8.9</td>
</tr>
<tr>
<td>Needed More Space</td>
<td>24.0</td>
<td>24.0</td>
<td>18.5</td>
<td>24.6</td>
<td>15.7</td>
<td>21.4</td>
</tr>
<tr>
<td>Needed Less Space</td>
<td>4.0</td>
<td>4.0</td>
<td>1.0</td>
<td>2.9</td>
<td>3.9</td>
<td>3.3</td>
</tr>
<tr>
<td>Wanted Change of Tenure</td>
<td>4.0</td>
<td>8.0</td>
<td>24.3</td>
<td>33.3</td>
<td>25.5</td>
<td>20.9</td>
</tr>
<tr>
<td>Investment/Equity</td>
<td>8.0</td>
<td>7.0</td>
<td>8.7</td>
<td>7.2</td>
<td>0.0</td>
<td>6.8</td>
</tr>
<tr>
<td>Wanted More Privacy</td>
<td>12.0</td>
<td>6.0</td>
<td>3.9</td>
<td>1.4</td>
<td>5.9</td>
<td>5.2</td>
</tr>
<tr>
<td>Upkeep/Landlord Complaint</td>
<td>0.0</td>
<td>9.0</td>
<td>3.9</td>
<td>0.0</td>
<td>2.0</td>
<td>4.1</td>
</tr>
<tr>
<td>Dwelling Unit Dissatis.</td>
<td>20.0</td>
<td>9.0</td>
<td>19.4</td>
<td>21.7</td>
<td>17.6</td>
<td>16.3</td>
</tr>
<tr>
<td>Neighborhood Dissatis.</td>
<td>20.0</td>
<td>19.0</td>
<td>11.7</td>
<td>14.4</td>
<td>15.7</td>
<td>15.5</td>
</tr>
<tr>
<td>Locational Dissatis.</td>
<td>24.0</td>
<td>15.0</td>
<td>11.7</td>
<td>14.4</td>
<td>5.9</td>
<td>0.8</td>
</tr>
<tr>
<td>Windfall/Built</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.4</td>
<td>3.9</td>
<td>0.8</td>
</tr>
<tr>
<td>Other</td>
<td>0.0</td>
<td>4.0</td>
<td>6.8</td>
<td>0.0</td>
<td>2.0</td>
<td>3.5</td>
</tr>
<tr>
<td>n =</td>
<td>25</td>
<td>100</td>
<td>103</td>
<td>69</td>
<td>51</td>
<td>368</td>
</tr>
</tbody>
</table>

Source: Survey conducted by author
The elimination of households whose income had increased produced a pattern of consistent decline in the importance of cost or income constraints. Nonetheless, only the lowest income households were significantly more prone to cite these reasons. They were distinguished from each of the other groups in the sample for which chi-square tests were performed. Comparison with the moderately low group yielded a chi-square value of 4.69, significant at the 5% level. Comparisons with the moderate and moderately high groups had calculated values of 10.83 and 10.80, both significant at close to the .001 level. Moderately low income households were not significantly more likely than other groups to cite cost or income constraints as reason for the move, so that our initial hypothesis cannot be totally accepted.

The second hypothesis is generally confirmed by our data. The proportion of households indicating a desire to change tenure as a motive for the decision to move increased from the low to the moderately high group. The proportion declined, however, in the highest income group. In evaluating this evidence, we have to remember that we have not controlled for tenure. If we examine the proportion of former renters who wanted to change tenure, the relationship is not changed but the proportions do change markedly, as is shown in Table 7:2. Almost 83 per cent of renting households in the moderately high income group moved because they wanted to own. This compares to only 46 per cent in the highest income group and 34 per cent in the moderate income group. The reasons for the very strong preference for ownership among moderately high income renters and the lesser preference
Table 7:2 PROPORTION OF RENTERS CITING THE DESIRE TO CHANGE TENURE, BY INCOME

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Low Mod. All Renters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>5.0 11.1</td>
</tr>
<tr>
<td>Mod. Low</td>
<td>33.8 82.5</td>
</tr>
<tr>
<td>Mod. High</td>
<td>46.4 34.5</td>
</tr>
<tr>
<td>High</td>
<td>34.5</td>
</tr>
</tbody>
</table>

n = 20 72 74 40 28 246

Source: Calculated by author

among high income households are not very clear. Our findings would seem to indicate that a relatively large segment of high income renters prefer to rent. It should be noted that the upper income group contained a high proportion of households whose moves were inter-urban, however. This may help to account for the anomalous finding.

Testing these differences for statistical significance, we find that moderately high income renters are, not surprisingly, distinguished from renters in each of the other income groups. These differences, using the chi-square test, were statistically significant at the 1% level with high income renters and at the .001 level with the remaining groups. Both the high and moderate income groups were significantly more likely than either of the lowest income groups to cite the desire to change tenure as a reason for the move. These findings indicate a sharp break between the lower two and the upper three income groups.
Households below the $10000 income level were unlikely to cite the desire to change tenure. Above the $10000 income level households demonstrated a relatively high propensity to change tenure. This can certainly be interpreted as consistent with Morgan's argument on the impact of the relaxation of cost constraints. The two lowest income groups cannot afford to own. Households with higher incomes can translate their preference for tenure into action because they have the resources to do so.

Aspiration Regions

As in the previous chapter, we have elected, in developing hypotheses about the variations in the structure of household aspiration regions by income, to present one relatively general hypothesis and several more specific ones. In the general case, we have anticipated that differences in the overall structure of aspiration regions will be related to the differences in income. Therefore, we would expect that the lowest income households would have aspiration regions which were most similar to the next lowest group and least similar to the highest income group, and so on. We will evaluate the evidence on this general hypothesis at the end of this section. In the meantime, we will consider the evidence on variations in the importance of various elements of the aspiration region as a function of income. Table 7:3 shows the pattern of very important responses among the income groups.
### Table 7:3  ATTRIBUTES RANKED AS VERY IMPORTANT, BY INCOME

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Income Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Room Arrangement</td>
<td>28.0</td>
</tr>
<tr>
<td>Size of Rooms</td>
<td>32.0</td>
</tr>
<tr>
<td>Inside Appearance</td>
<td>60.0</td>
</tr>
<tr>
<td>Age of Building</td>
<td>36.0</td>
</tr>
<tr>
<td>Outside Appearance</td>
<td>44.0</td>
</tr>
<tr>
<td>Size of Yard/Grounds</td>
<td>24.0</td>
</tr>
<tr>
<td>Amt. of Storage Space</td>
<td>40.0</td>
</tr>
<tr>
<td>Privacy</td>
<td>76.0</td>
</tr>
<tr>
<td>Quietness of N'hood</td>
<td>48.0</td>
</tr>
<tr>
<td>Reputation of N'hood</td>
<td>44.0</td>
</tr>
<tr>
<td>Kind of People in N'hood</td>
<td>44.0</td>
</tr>
<tr>
<td>Cond'n of Other D'ings</td>
<td>32.0</td>
</tr>
<tr>
<td>Amount of Traffic</td>
<td>32.0</td>
</tr>
<tr>
<td>Quality of L'cal Sch'ls</td>
<td>20.0</td>
</tr>
<tr>
<td>A'ss to Parks/Open Spcs.</td>
<td>28.0</td>
</tr>
<tr>
<td>A'ss to Other Areas</td>
<td>56.0</td>
</tr>
<tr>
<td>A'ss to Friends/Rel.</td>
<td>48.0</td>
</tr>
<tr>
<td>A'ss to Public Transit</td>
<td>48.0</td>
</tr>
<tr>
<td>A'ss to Work</td>
<td>36.0</td>
</tr>
</tbody>
</table>

Source: Survey conducted by author
The three hypotheses in this section derive from the work of Herbert. On the basis of his findings, we have suggested that the importance of access variables will decrease as income rises, that the importance of neighborhood characteristics will increase with increasing income and that the importance of design features of the dwelling will also increase as income rises. Significant differences in the ranking of attributes by pairs of income groups are given in Table 7:4.

In evaluating the patterns of preference for access characteristics, we can tentatively support the hypothesis that they decline in influence as income increases. Both access to friends and relatives and access to public transportation declined monotonically with income. The remaining three variables, however, did not produce a significant pattern of variation with increasing income. Access to work was actually least important to low income households. Differences between income groups were examined using the chi-square test. Statistically significant differences were obtained in ten cases. Access to friends and relatives was a more important component of the aspiration regions of low income households than of the three highest income groups. Moderately low income households also ranked this variable more highly than either the moderately high or high income groups. The lowest income group evinced a much greater concern with access to public transportation than any of the three highest income groups. Each of these findings is consistent with the hypothesized relationship.
Table 7.4 SIGNIFICANT DIFFERENCES IN THE RANKING OF ATTRIBUTES BY INCOME

Paired Income Groups

<table>
<thead>
<tr>
<th></th>
<th>Low with</th>
<th></th>
<th></th>
<th>Mod. Low with</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Mod. Low</td>
<td>Mod.</td>
<td>High</td>
</tr>
<tr>
<td>Room Arrangement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside Appearance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Yard/Grounds</td>
<td>6.93</td>
<td>7.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.05)</td>
<td>(.05)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Space</td>
<td>4.72</td>
<td></td>
<td>6.39</td>
<td>5.98</td>
</tr>
<tr>
<td></td>
<td>(.10)</td>
<td></td>
<td>(.05)</td>
<td>(.10)</td>
</tr>
<tr>
<td>Reputation of N'hood</td>
<td></td>
<td></td>
<td>6.26</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.05)</td>
<td></td>
</tr>
<tr>
<td>Cond'on of Other Dwe'gs</td>
<td></td>
<td></td>
<td>13.19</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.01)</td>
<td></td>
</tr>
<tr>
<td>Amount of Traffic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of L'al Scls.</td>
<td>10.14</td>
<td>7.34</td>
<td></td>
<td>8.67</td>
</tr>
<tr>
<td></td>
<td>(.01)</td>
<td>(.05)</td>
<td></td>
<td>(.02)</td>
</tr>
<tr>
<td>Access Friends/Relatives</td>
<td>7.08</td>
<td>11.52</td>
<td>13.03</td>
<td>9.39</td>
</tr>
<tr>
<td></td>
<td>(.05)</td>
<td>(.01)</td>
<td>(.01)</td>
<td>(.01)</td>
</tr>
<tr>
<td>Access Public Transit</td>
<td>9.01</td>
<td>11.49</td>
<td>14.29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.02)</td>
<td>(.01)</td>
<td>(.001)</td>
<td></td>
</tr>
<tr>
<td>Access to Work</td>
<td>4.95</td>
<td></td>
<td>5.05</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.10)</td>
<td></td>
<td>(.10)</td>
<td></td>
</tr>
</tbody>
</table>

*Values in this table are calculated chi-squares. Figures in parentheses are the levels of statistical significance.

Source: Calculated by author
The relationship between the importance of access to work and household income level was not as hypothesized. Moderately low and moderately high income households were both significantly more likely than low income ones to rate access to work as being an important criterion. This unexpected relationship can be explained as a function of the fact that the low income group contained very few respondents who worked full-time. They were mainly students or retired persons. Clearly, these households were not likely to use this access variable in delimiting their aspiration regions.

The other two hypotheses were not supported by our survey. The importance of neighborhood characteristics did not vary significantly with household income. Of the fifty paired comparisons between ratings and income levels, only two produced significant differences. The reputation of the neighborhood was more salient to moderate income households than to low income ones. The condition of other dwellings in the neighborhood was weighed more heavily by moderately high income households than by low income ones.

The design of the dwelling unit did not vary materially across household income groups. Again the limited differences which existed were between the lowest two and the highest three income groups. The arrangement of rooms and the inside appearance of the dwelling distinguished moderately low from high income households. Storage space was less important to the lowest income group than to moderately low, moderately high or high income households. Similarly, the size of the yard or grounds was rated more favorably by moderate and moderately
high income households than by the lowest income group. These relatively modest variations do not allow us to accept the hypothesis. There is, in fact, surprising and unexpected uniformity in the rating of dwelling unit attributes across income groups.

We can extend this comment further and apply it to the entire structure of the aspiration region. We hypothesized that differences in income would produce increasing variation in the attributes stressed by respondents. This is not confirmed by our data. Income differences appear to play a very limited role in the making of the aspiration region. The upper three income groups did not differ significantly in their rating of any attribute. The comparison between the lowest income groups yielded only two significant differences. The only major differences which emerged in our analysis were between the lower two and the upper three income groups. The principal distinguishing feature is the importance attached to access variables among the lower income households.

Household Search Behavior

The hypotheses developed in Chapter 5 with regard to variation in household search behavior fall into three groups. The majority deal with the use of information sources in the search. We posited that the use of newspapers, real estate agents and direct searches would increase with income, while the use of personal sources would decline. The second set of hypotheses concerned the effectiveness of these information sources. We suggested, in this regard, that personal sources of information would be the most effective for each of the
income groups and that newspapers would be the least effective for each income level. In addition, we suggested that the effectiveness of newspapers would decline with income. The final hypothesis concerned the number of dwellings inspected during the search. Our hypothesis was that this would increase with increasing household income.

Our findings on the use of information media in the search are given in Table 7:5. In evaluating the four hypotheses we have proposed our data indicate that only one of them can be upheld. The proportion of households using the services of real estate agents rose steadily from 12 per cent in the lowest group to 64.7 per cent in the highest income group. Using the binomial test for the differences of proportion each of the three highest income groups were more likely than either of the lowest to use real estate agents in their search at the 1% confidence level or higher using two tailed tests. The highest income households were also significantly more likely to use realtors than the moderate income households in the sample. Here the relationship was significant at the 10 per cent level.

The remaining three hypotheses concerning the utilization of information sources can each be rejected on the basis of our data. There were no significant variations with income in either the use of newspapers or the use of friends or coworkers as sources of vacancy information. The other inter-personal source, information supplied by relatives produced one weakly significant difference. Low income households were more likely than moderately high income households to
Table 7:5 INFORMATION SOURCES USED IN THE SEARCH, BY INCOME

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Low</th>
<th>Mod. Low</th>
<th>Mod.</th>
<th>Mod. High</th>
<th>High</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspapers</td>
<td>52.0</td>
<td>63.0</td>
<td>61.5</td>
<td>62.3</td>
<td>56.9</td>
<td>58.8</td>
</tr>
<tr>
<td>Realtors/Agents</td>
<td>12.0</td>
<td>33.3</td>
<td>50.0</td>
<td>56.5</td>
<td>64.7</td>
<td>44.7</td>
</tr>
<tr>
<td>Friends/Coworkers</td>
<td>48.0</td>
<td>44.0</td>
<td>43.3</td>
<td>36.2</td>
<td>37.2</td>
<td>41.7</td>
</tr>
<tr>
<td>Relatives</td>
<td>20.0</td>
<td>17.0</td>
<td>16.3</td>
<td>5.8</td>
<td>13.7</td>
<td>14.1</td>
</tr>
<tr>
<td>Billboards/Signs</td>
<td>16.0</td>
<td>42.0</td>
<td>43.3</td>
<td>33.3</td>
<td>37.3</td>
<td>37.7</td>
</tr>
</tbody>
</table>

Values in this table are percentages

Source: Survey conducted by author

obtain information in this way. The use of direct search did not conform to our expectations. Direct searches were most often used by moderate income households rather than high income households as we had posited. The only significant pattern of usage was that low income households were less liable to use this source than any other income group. A mere 16 per cent of all the low income households used direct searches. In the remaining groups at least a third of the households did so.

The hypotheses on the effectiveness proved more difficult to test. While the measure of information source use designed by Rossi is adequate, his measure of effectiveness is not. The measure of
effectiveness is derived by dividing the number of households using a given information source to locate the vacancy they chose by the total number of households who used that source. This is ineffective because it does not control for households who only use one source. Such households, assuming they find a new residence, must always be successful users of the source. To alleviate this problem, we developed a refined measure which included only households who used more than one information channel in their search in both the numerator and denominator of the index of effectiveness. The results obtained using Rossi's measure and the revised measure are shown in Table 7:6.

On the basis of the revised measure we are able to reject the hypothesis that personal sources will be the most effective in all income groups. Binomial tests for the differences in proportion in each income group revealed no instance in which personal sources were significantly more effective than other sources. Surprisingly, it was in the upper income groups that personal sources were most effective. This tends to contradict Rossi's assertion that these sources were most effective for lower income households. The effectiveness of newspapers as a source of information is generally small, but we cannot accept the hypothesis that newspapers are the least effective source, using binomial tests. Nor, on the basis of our data can we accept the hypothesis that the effectiveness of newspapers declines with income. On the contrary, our data suggests that the effectiveness of newspapers tends to increase with income.
Table 7:6  EFFECTIVENESS OF INFORMATION SOURCES: ROSSI'S MEASURE AND THE REVISED MEASURE

ROSSI'S MEASURE

Income Level

<table>
<thead>
<tr>
<th>Source</th>
<th>Low</th>
<th>Mod. Low</th>
<th>Mod.</th>
<th>Mod. High</th>
<th>High</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspapers</td>
<td>53.8</td>
<td>36.5</td>
<td>29.7</td>
<td>46.5</td>
<td>27.6</td>
<td>35.9</td>
</tr>
<tr>
<td>Realtors/Agents</td>
<td>n.c.</td>
<td>39.4</td>
<td>50.0</td>
<td>56.4</td>
<td>51.5</td>
<td>50.3</td>
</tr>
<tr>
<td>Friends/Cowork's</td>
<td>83.3</td>
<td>52.3</td>
<td>28.9</td>
<td>52.0</td>
<td>47.4</td>
<td>48.7</td>
</tr>
<tr>
<td>Relatives</td>
<td>100.0</td>
<td>64.7</td>
<td>41.1</td>
<td>50.0</td>
<td>28.6</td>
<td>53.9</td>
</tr>
<tr>
<td>Billb'ds/Signs</td>
<td>n.c.</td>
<td>59.5</td>
<td>71.1</td>
<td>43.5</td>
<td>57.8</td>
<td>61.9</td>
</tr>
</tbody>
</table>

REVISED MEASURE

<table>
<thead>
<tr>
<th>Source</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspapers</td>
<td>0.0</td>
<td>21.6</td>
<td>21.0</td>
<td>36.1</td>
<td>25.0</td>
<td>21.9</td>
</tr>
<tr>
<td>Realtors</td>
<td>n.c.</td>
<td>28.6</td>
<td>40.9</td>
<td>41.4</td>
<td>36.0</td>
<td>37.4</td>
</tr>
<tr>
<td>Friends/Cowork's</td>
<td>n.c.</td>
<td>38.2</td>
<td>22.0</td>
<td>50.0</td>
<td>44.4</td>
<td>36.8</td>
</tr>
<tr>
<td>Relatives</td>
<td>n.c.</td>
<td>53.8</td>
<td>23.0</td>
<td>n.c.</td>
<td>28.6</td>
<td>43.9</td>
</tr>
<tr>
<td>Billb'ds/Signs</td>
<td>n.c.</td>
<td>54.1</td>
<td>66.7</td>
<td>31.6</td>
<td>29.4</td>
<td>53.9</td>
</tr>
</tbody>
</table>

n.c. indicates fewer than five cases. These values were not computed.

Source: Calculated by author
Having rejected all three of our hypotheses about the effectiveness of information sources, we shall turn to consider the final hypothesis that the number of dwellings examined during the search will increase with income. This proposition is sustained on the basis of our findings, shown in Table 7:7. The mean number of dwellings looked at rose from 4.80 in the lowest income group to 13.27 in the highest. There was a sharp break between the moderately low and moderate income groups. The former examined an average of 6.58 dwellings, the latter more than 11. The hypothesis was tested using the chi-square test, combining the responses into five groups rather than the seven presented in the table. The calculated value was 37.68, with 16 degrees of freedom, significant at the 1% level.

Both the finding that higher income households use real estate agents more frequently and the finding that they examine more dwellings during the search would appear to be a function of the types of dwellings being sought. Controlling for tenure, a different pattern emerged for renters. It was renters in the moderate income group who actually had examined the greatest number of dwellings. The number declined from 8.06 in this group to 6.69 in the highest group. Low income renters, not surprisingly had even shorter searches. Among owners the only significant differences were between the moderately low income group and the three higher groups. Variations in the tenure status sought thus provide an added explanatory factor.
<table>
<thead>
<tr>
<th>Income Level</th>
<th>Low</th>
<th>Mod. Low</th>
<th>Mod.</th>
<th>Mod. High</th>
<th>High</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1</td>
<td>8</td>
<td>17</td>
<td>17</td>
<td>5</td>
<td>5</td>
<td>55</td>
</tr>
<tr>
<td>2-3</td>
<td>9</td>
<td>24</td>
<td>13</td>
<td>14</td>
<td>4</td>
<td>70</td>
</tr>
<tr>
<td>4-5</td>
<td>1</td>
<td>25</td>
<td>20</td>
<td>8</td>
<td>5</td>
<td>62</td>
</tr>
<tr>
<td>6-10</td>
<td>4</td>
<td>16</td>
<td>24</td>
<td>20</td>
<td>16</td>
<td>84</td>
</tr>
<tr>
<td>11-15</td>
<td>2</td>
<td>10</td>
<td>8</td>
<td>8</td>
<td>5</td>
<td>37</td>
</tr>
<tr>
<td>16-20</td>
<td>1</td>
<td>5</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>26</td>
</tr>
<tr>
<td>21+</td>
<td>0</td>
<td>3</td>
<td>14</td>
<td>8</td>
<td>10</td>
<td>35</td>
</tr>
</tbody>
</table>

| Mean         | 4.80 | 6.58    | 11.16 | 11.83     | 13.27 | 9.60         |
| n            | 25   | 100     | 104   | 69        | 51    | 369          |

| Renter Mean  | 4.87 | 5.56    | 8.06  | 7.72      | 6.69  | 6.50         |
| n            | 24   | 79      | 51    | 25        | 13    | 207          |

| Owner Mean   | n.c. | 10.42   | 14.15 | 14.15     | 15.53 | 14.62        |
| n            | 1    | 21      | 53    | 44        | 38    | 162          |

*Values in the body of this table are numbers of households.

*n.c. indicates the mean value was not computed.*

Source: Survey conducted by author
The Residential Choice Decision

The empirical evidence reviewed in the fourth chapter suggested four possible sources of variation in the criteria used in the residential choice decision. We hypothesized that housing costs would decrease in importance as income rose, that location or access characteristics would be less important to higher income households, that neighborhood attributes would be cited more frequently as income increased and that the interior and exterior design of the dwelling unit would also be more salient to higher income households. The findings of our survey are presented in Table 7:8, showing the principal reason for the selection of the new residence and Table 7:9 in which all reasons for the choice are included. Significant differences in the choice criteria employed by households are given in Table 7:10.

The hypothesis that housing costs would be used as the principal choice criterion with decreasing frequency as income increased is broadly sustained by our data. Housing costs are used most frequently by low income households and the proportion of responses declines with income, in general. The principal exception is in the case of moderately high income households. In this group, the percentage of households giving costs as the primary reason for their choice rises sharply. The explanation for this inconsistency is that almost half of the households in this income bracket were first-time home buyers. The price of the dwelling appears to have been a particularly important consideration for these new owners. As we
Table 7:8  PRIMARY REASON FOR CHOOSING THE NEW RESIDENCE, BY INCOME$^a$

<table>
<thead>
<tr>
<th>Reason</th>
<th>Low</th>
<th>Mod. Low</th>
<th>Mod.</th>
<th>Mod. High</th>
<th>High</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space Requirements</td>
<td>12.0</td>
<td>12.0</td>
<td>14.4</td>
<td>14.5</td>
<td>19.6</td>
<td>13.6</td>
</tr>
<tr>
<td>Dwelling Interior</td>
<td>8.0</td>
<td>10.0</td>
<td>10.6</td>
<td>10.1</td>
<td>21.6</td>
<td>11.7</td>
</tr>
<tr>
<td>Dwelling Exterior</td>
<td>4.0</td>
<td>6.0</td>
<td>12.5</td>
<td>8.7</td>
<td>9.8</td>
<td>8.9</td>
</tr>
<tr>
<td>Neighborhood</td>
<td>8.0</td>
<td>10.0</td>
<td>18.3</td>
<td>25.7</td>
<td>17.6</td>
<td>16.6</td>
</tr>
<tr>
<td>Location</td>
<td>40.0</td>
<td>24.0</td>
<td>13.5</td>
<td>13.0</td>
<td>5.9</td>
<td>16.9</td>
</tr>
<tr>
<td>Housing Costs</td>
<td>28.0</td>
<td>26.0</td>
<td>18.3</td>
<td>25.7</td>
<td>17.6</td>
<td>21.8</td>
</tr>
<tr>
<td>Availability</td>
<td>0.0</td>
<td>6.0</td>
<td>3.8</td>
<td>1.4</td>
<td>0.0</td>
<td>3.3</td>
</tr>
<tr>
<td>Other Reasons</td>
<td>8.0</td>
<td>6.0</td>
<td>8.7</td>
<td>2.9</td>
<td>13.7</td>
<td>7.0</td>
</tr>
<tr>
<td>n =</td>
<td>25</td>
<td>100</td>
<td>103</td>
<td>69</td>
<td>51</td>
<td>367$^b$</td>
</tr>
</tbody>
</table>

$^a$Values in this table are in percentages.

$^b$Excluding two respondents who could not give a reason for their selection of the residence.

Source: Survey conducted by author

anticipated the highest income group was the least likely to cite housing costs as the principal factor in its decision. In this respect, households with incomes over $20000 were significantly distinguished not only from the two lowest income groups, but also from the moderately high income group.
Table 7:9 ALL REASONS FOR CHOOSING THE NEW RESIDENCE, BY INCOME

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Low</th>
<th>Mod. Low</th>
<th>Mod. High</th>
<th>High</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space Requirements</td>
<td>12.0</td>
<td>30.0</td>
<td>36.5</td>
<td>31.9</td>
<td>31.4</td>
</tr>
<tr>
<td>Dwelling Interior</td>
<td>40.0</td>
<td>39.0</td>
<td>43.3</td>
<td>39.1</td>
<td>60.8</td>
</tr>
<tr>
<td>Dwelling Exterior</td>
<td>16.0</td>
<td>20.0</td>
<td>43.3</td>
<td>29.0</td>
<td>33.3</td>
</tr>
<tr>
<td>Neighborhood</td>
<td>44.0</td>
<td>35.0</td>
<td>37.5</td>
<td>58.0</td>
<td>47.1</td>
</tr>
<tr>
<td>Location</td>
<td>64.0</td>
<td>50.0</td>
<td>33.7</td>
<td>30.4</td>
<td>23.5</td>
</tr>
<tr>
<td>Housing Costs</td>
<td>60.0</td>
<td>46.0</td>
<td>34.6</td>
<td>44.9</td>
<td>29.4</td>
</tr>
<tr>
<td>Availability</td>
<td>8.0</td>
<td>16.0</td>
<td>10.6</td>
<td>2.9</td>
<td>2.0</td>
</tr>
<tr>
<td>Other Reasons</td>
<td>12.0</td>
<td>16.0</td>
<td>18.3</td>
<td>8.7</td>
<td>27.5</td>
</tr>
</tbody>
</table>

n = 25 100 103 69 51 367

Values in this table are percentages

Source: Survey conducted by author

The hypothesis that location would decline in importance with increasing household income is clearly supported by our data. Access considerations accounted for 40 per cent of all of the primary reasons given by low income households, and 64 per cent of these households mentioned locational considerations as a factor in their decision. This constrasts with the 5.9 per cent of high income households who
Table 7:10  **SIGNIFICANT DIFFERENCES IN THE PRIMARY CRITERION FOR CHOICE, BY INCOME**

<table>
<thead>
<tr>
<th>Paired Income Groups</th>
<th>Location</th>
<th>Housing Costs</th>
<th>Neighborhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low and Moderate</td>
<td>9.20 (.01)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low and Mod. High</td>
<td>8.28 (.01)</td>
<td></td>
<td>3.14 (.10)</td>
</tr>
<tr>
<td>Low and High</td>
<td>13.13 (.001)</td>
<td>2.84 (.10)</td>
<td></td>
</tr>
<tr>
<td>Mod. Low and Moderate</td>
<td>3.73 (.10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mod. Low and Mod. High</td>
<td>3.25 (.10)</td>
<td></td>
<td>6.37 (.02)</td>
</tr>
<tr>
<td>Mod. Low and High</td>
<td>7.22 (.01)</td>
<td>3.80 (.10)</td>
<td></td>
</tr>
<tr>
<td>Mod. High and High</td>
<td></td>
<td>3.40 (.10)</td>
<td></td>
</tr>
</tbody>
</table>

*Values in this table are calculated chi-squares. Figures in parentheses are the levels of statistical significance.*

Source: Calculated by author

gave as the main reason for the selection of the new residence. In analysing the significance of these differences both the low and moderately low income groups were more likely to cite locational attributes as the reason for their choice than any of the three highest income groups. Locational attributes were more critical in this respect than costs in distinguishing the decision-making of lower and higher income households.
The posited increase in the importance of neighborhood attributes with increasing income was rejected. While neighborhood attributes did increase in importance with income up to the moderately high income level, the only significant differences were between this group and the lowest and moderately low income households. The final hypothesis that the interior design would be used with increasing frequency as income rose was also rejected. No significant differences in the propensity of various income groups to cite interior design were found.

In assessing these results, we can suggest that the strong emphasis on housing costs and location among lower income households is consistent with the view that they are Marshallian consumers. Their locational decisions accord well with the conventional models of residential choice in which access and housing costs are balanced. The choice criteria used by higher income households appear to be more Veblenian, given the higher levels of importance attached to neighborhood characteristics. This is particularly the case among moderately high income households. Fifty-eight per cent of these households cited neighborhood reasons as a factor in their decision. At the same time, this group also evinced a higher level of concern with housing costs. We might argue, therefore, that these are cost-constrained Veblenian consumers.

Summary

The impact of income in the residential relocation decision provides some contradictory evidence. The findings on the decision
to move would appear to support Morgan's argument concerning the importance of the relaxation of income constraints, particularly as it relates to purchase decisions. The actual selection of a new residence also gives some indication of the importance of income constraints. The demonstrated importance of locational and cost criteria among lower income households are again consistent with argument espousing income constraints. Our findings on the structure of household aspirations provide a somewhat different picture. The most striking finding is that there are no differences between any of the three higher income groups on the rating of any attribute. The only major differences are between the lower two and the higher three income groups. Since the preponderance of the former are renters and the bulk of the latter are owners, we need to consider the impact of the tenure preference of the household on its decision-making.
Footnotes - CHAPTER VII

1. This is after deleting those households in the moderately high income group who indicated an increase in income allowed them to make the move.


5. The grouped responses used in the calculation of the chi-square value are 0-1 dwellings, 2-3, 4-10, 11-20 and 21 or more dwellings. The reduction in the number of categories was made so as to assure that few of the cells had fewer than five entries.

6. See, for example, the argument developed by W. Alonso (1960), "A Theory of the Urban Land Market," Papers and Proceedings of the Regional Science Association, 6, pp. 154. We might note that space needs are the third most critical factor in the choice of the new residence by low income households and these are explicitly introduced by Alonso.

7. B. Morgan (1973), op. cit.
CHAPTER VIII

RESULTS AND ANALYSIS - TENURE STATUS

In the preceding chapters, we have had to qualify a number of our findings on the grounds that the tenure preference of the household, which varies with income and life-cycle stage, may be the principal cause of differences in household decision-making. The results presented in this chapter address the question of the variations in attitudes and behavior associated with tenure. In our sample, 84 households were owners before the move and 245 were renters. Thirty-seven households established a residence for the first time as a result of the move. Among the households who owned prior to the move, 66 maintained their tenure while 18 switched to renting. The equivalent figures for renters were 154 continuing to rent and 94 opting for owner ownership. Among the 37 households who had not maintained a separate residence, only two became owners. Thus, 162 households in our sample were owners after the move and 207 were renters.

The Decision to Move

The most telling empirical evidence on the variations in the reasons for the decision to move has been provided by Rossi. His argument, in essence, is that households will cite those factors over which they have least control as the reason for their decision. He
demonstrated that renters were more prone to cite cost complaints and owners were more sensitive to neighborhood characteristics. He found no difference in the proportion of renters and owners citing space complaints. These findings provide the basis for the three hypotheses to be tested in this section. The responses of both owners and renters are shown in Table 8:1.

The hypothesis that renters will be more likely to cite housing cost or income changes as the reason for their decision to move can be upheld on the basis of our data. No owners cited this as the primary reason for their move and of the 32 households who indicated it was a factor in their decision, 30 were renters. The calculated chi-square value was 6.69, statistically significant at the 1% confidence level.

Our findings do not indicate support for the second proposition, that owners are more sensitive to neighborhood characteristics than renters. There was no statistically significant difference between the number of owners and renters citing neighborhood factors as influential in their decision. We can, however, support Rossi's finding that the need for more space does not display any significant variation with tenure. Somewhat surprisingly, but consistent with Rossi's overall results, the need for more space was given as a reason more frequently by owners than by renters. This tends to contradict the assumption that because owners generally have more space and because they have greater control over it that they will be
Table 8:1  **REASONS FOR THE DECISION TO MOVE, BY TENURE STATUS**

<table>
<thead>
<tr>
<th></th>
<th>Owners</th>
<th></th>
<th>Renters</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Primary</td>
<td>All</td>
<td>Primary</td>
<td>All</td>
</tr>
<tr>
<td>Forced Moves</td>
<td>0.0</td>
<td>0.0</td>
<td>4.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Changed Household Size/Composition</td>
<td>14.0</td>
<td>24.4</td>
<td>9.4</td>
<td>12.2</td>
</tr>
<tr>
<td>Changed Employment/Job</td>
<td>24.4</td>
<td>26.7</td>
<td>14.7</td>
<td>16.3</td>
</tr>
<tr>
<td>Changed Income/Costs</td>
<td>0.0</td>
<td>1.2</td>
<td>7.3</td>
<td>12.2</td>
</tr>
<tr>
<td>Needed More Space</td>
<td>16.3</td>
<td>26.7</td>
<td>13.9</td>
<td>21.6</td>
</tr>
<tr>
<td>Needed Less Space</td>
<td>7.0</td>
<td>8.1</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Wanted Change of Tenure</td>
<td>4.7</td>
<td>7.0</td>
<td>17.6</td>
<td>27.8</td>
</tr>
<tr>
<td>Investment/Equity</td>
<td>9.3</td>
<td>12.8</td>
<td>2.0</td>
<td>5.8</td>
</tr>
<tr>
<td>Wanted More Privacy</td>
<td>0.0</td>
<td>1.2</td>
<td>3.3</td>
<td>4.9</td>
</tr>
<tr>
<td>Upkeep/Landlord Complaints</td>
<td>0.0</td>
<td>1.2</td>
<td>3.3</td>
<td>5.3</td>
</tr>
<tr>
<td>Dwelling Unit Dissatis.</td>
<td>4.7</td>
<td>17.4</td>
<td>8.6</td>
<td>17.6</td>
</tr>
<tr>
<td>Neighborhood Dissatis.</td>
<td>7.0</td>
<td>20.9</td>
<td>4.9</td>
<td>15.9</td>
</tr>
<tr>
<td>Locational Dissatis.</td>
<td>8.1</td>
<td>16.3</td>
<td>7.3</td>
<td>12.2</td>
</tr>
<tr>
<td>Windfall/Built</td>
<td>2.3</td>
<td>2.3</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Other</td>
<td>2.3</td>
<td>4.7</td>
<td>1.6</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Values in this table are percentages

Source: Survey conducted by author
less sensitive to space requirements. It should be noted that owners were significantly more likely than renters to cite the need for less space a reason for the decision to move.

If we examine the findings presented in Table 8:1, four points stand out quite clearly. First, almost 28 per cent of the renting households indicated that one of their reasons for moving was to change their tenure. Only 7 per cent of the owners did so. Secondly, fewer than half the owners in the sample gave reasons related to dissatisfaction with their initial dwelling as the primary factor in their decision to move. Slightly more than a quarter moved because of changes in employment. Thirdly, the impact of institutional decision-making was more evident in the case of owners than renters. Remembering that almost all of the moves involving changes in income or costs were in response to increases in rent, we can suggest that almost 20 per cent of the rental households in the sample moved as a result of institutional decisions. Finally, the impact of the relaxation of cost constraints is not only evident in the numbers of households seeking to change tenure, but is also evinced by the relatively large fraction of the households in the sample who cited equity or investment considerations. This was particularly significant among existing owners.

Aspiration Regions

The pattern of responses to the questions concerning the importance of various attributes to owners and renters are shown in Table 8:2. We had hypothesized that renters and owners would differ
<table>
<thead>
<tr>
<th>Importance to</th>
<th>Owners</th>
<th>Renters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Very</td>
<td>Mod.</td>
</tr>
<tr>
<td>Room Arrangement</td>
<td>70</td>
<td>57</td>
</tr>
<tr>
<td>Size of Rooms</td>
<td>101</td>
<td>54</td>
</tr>
<tr>
<td>Inside Appearance</td>
<td>110</td>
<td>36</td>
</tr>
<tr>
<td>Age of Building</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>Outside Appearance</td>
<td>100</td>
<td>47</td>
</tr>
<tr>
<td>Size of Yard/Grnds</td>
<td>86</td>
<td>55</td>
</tr>
<tr>
<td>Storage Space</td>
<td>103</td>
<td>45</td>
</tr>
<tr>
<td>Privacy</td>
<td>91</td>
<td>54</td>
</tr>
<tr>
<td>Quietness</td>
<td>76</td>
<td>63</td>
</tr>
<tr>
<td>Friendliness</td>
<td>46</td>
<td>71</td>
</tr>
<tr>
<td>Reputation</td>
<td>100</td>
<td>47</td>
</tr>
<tr>
<td>Kind of People</td>
<td>71</td>
<td>64</td>
</tr>
<tr>
<td>Other Dwellings</td>
<td>115</td>
<td>34</td>
</tr>
<tr>
<td>Traffic</td>
<td>91</td>
<td>48</td>
</tr>
<tr>
<td>Local Schools</td>
<td>90</td>
<td>28</td>
</tr>
<tr>
<td>Access Parks</td>
<td>43</td>
<td>58</td>
</tr>
<tr>
<td>Access Other Areas</td>
<td>75</td>
<td>53</td>
</tr>
<tr>
<td>Access Friends</td>
<td>33</td>
<td>42</td>
</tr>
<tr>
<td>Access Pub. Transit</td>
<td>31</td>
<td>30</td>
</tr>
<tr>
<td>Access to Work</td>
<td>75</td>
<td>49</td>
</tr>
</tbody>
</table>

Source: Survey conducted by author
on a number of attributes, with renters placing a heavy premium on access characteristics and owners a higher emphasis on neighborhood characteristics. We hypothesized there would be no difference between the groups in the ranking of dwelling unit attributes. Significant differences are shown in Table 8:3.

On the basis of our survey, we cannot accept the hypothesis that renters rate access characteristics more highly than owners. Of the five access variables tested, only one yielded a statistic which was significant. It must be conceded, however, that the significant variable, access to work, is the most important of the variables on which the respondents were questioned. The evidence in Table 8:3 allows us to accept the hypothesis that owners are more likely than renters to include neighborhood characteristics in their aspiration regions. Six of the seven neighborhood attributes produced significant differences between owners and renters, and all were preferred by owners. The one exception was the kind of people living in the neighborhood. Particularly striking differences occurred in the rating of the condition of other dwellings in the neighborhood, the amount of traffic in the neighborhood and the quality of local schools. In the former two cases, the relationship holds even if we control for the presence of children in the household. The very strong relationship between quality of local schools and tenure status disappears, however, when this control is applied.
Table 8:3  SIGNIFICANT DIFFERENCES IN THE RANKING OF ATTRIBUTES, BY TENURE

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Rated More Highly by</th>
<th>Chi-square</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Arrangement</td>
<td>Owners</td>
<td>12.36</td>
<td>.01</td>
</tr>
<tr>
<td>Inside Appearance</td>
<td>Renters</td>
<td>6.61</td>
<td>.05</td>
</tr>
<tr>
<td>Outside Appearance</td>
<td>Owners</td>
<td>13.16</td>
<td>.01</td>
</tr>
<tr>
<td>Size of Yard/Grounds</td>
<td>Owners</td>
<td>52.53</td>
<td>.001</td>
</tr>
<tr>
<td>Privacy</td>
<td>Renters</td>
<td>8.84</td>
<td>.02</td>
</tr>
<tr>
<td>Neighborhood Quietness</td>
<td>Owners</td>
<td>4.86</td>
<td>.10</td>
</tr>
<tr>
<td>Friendliness of N'bors</td>
<td>Owners</td>
<td>7.67</td>
<td>.05</td>
</tr>
<tr>
<td>Reputations of N'hood</td>
<td>Owners</td>
<td>10.93</td>
<td>.01</td>
</tr>
<tr>
<td>Conditions Other Dwellings</td>
<td>Owners</td>
<td>26.03</td>
<td>.001</td>
</tr>
<tr>
<td>Amount of Traffic</td>
<td>Owners</td>
<td>33.98</td>
<td>.001</td>
</tr>
<tr>
<td>Quality of Local Schools</td>
<td>Owners</td>
<td>57.43</td>
<td>.001</td>
</tr>
<tr>
<td>Access to Work</td>
<td>Renters</td>
<td>10.24</td>
<td>.01</td>
</tr>
</tbody>
</table>

Source: Calculated by author

In contrast to the hypothesis that there would be no difference in the ranking of dwelling unit attributes, there were several on which the tenure groups were distinguished. Owners showed a stronger preference for outside appearance and the arrangement of rooms, as well as the size of the yard or grounds. Renters were significantly more prone to give high ratings to privacy and to the interior
appearance of the unit. We can argue that the importance attached to outside appearance and to the size of lot are simply extensions of the general concern with neighborhood characteristics evinced by owners. The size of the yard, for instance, has an obvious relationship to the type of neighborhood in which the property is located and the outside appearance has little to do, per se, with housing quality.

Owners and renters do not differ significantly on the importance of the two space variables. The differences in the rating of dwelling unit attributes appear consistent with the thesis that constrained choices will be directed towards securing necessities, like privacy and inside appearance, while freer choices will concentrate on attaining less basic items, such as the particular arrangement of rooms.

Carrying the analysis a step further, we can test to see whether any differences exist between households who change their tenure status and those who maintain it as a result of the move. For the purposes of analysis, we have distinguished four groups: owners both before and after the move (OO); renters who switched to owning (RO); owners who switched to renting (OR); and pre- and post-move renters (RR). Significant differences in the rating of attributes by paired groups are shown in Table 8:4. The two hypotheses we have suggested are: there will be no difference in the rankings of the OO and RO groups; and there will be no difference in the rankings of attributes between the OR and RR groups. In constructing these hypotheses we
Table 8:4  **SIGNIFICANT DIFFERENCES IN THE RANKING OF ATTRIBUTES, BY HOUSING EXPERIENCE (values)**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Paired Groups</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OO-RO</td>
<td>RR-RO</td>
<td>OO-OR</td>
<td>RR-OR</td>
<td>RO-OR</td>
</tr>
<tr>
<td>Room Arrangement</td>
<td>12.86</td>
<td>14.49</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.01)</td>
<td>(.001)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside Appearance</td>
<td>9.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.01)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of Yard/Grounds</td>
<td>30.99</td>
<td>13.72</td>
<td>7.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.001)</td>
<td>(.01)</td>
<td>(.05)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age of Building</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.45</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(.05)</td>
</tr>
<tr>
<td>Outside Appearance</td>
<td>6.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.05)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Space</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.06</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(.05)</td>
</tr>
<tr>
<td>Privacy</td>
<td>9.15</td>
<td>8.88</td>
<td></td>
<td>9.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.05)</td>
<td>(.05)</td>
<td></td>
<td>(.05)</td>
<td></td>
</tr>
<tr>
<td>Friendliness of N'bors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9.29</td>
<td>12.02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.01)</td>
<td>(.01)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reputation of N'hood</td>
<td>7.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.05)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condition of Other Dwellings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12.72</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.01)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount of Traffic</td>
<td>14.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.01)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of Local Schools</td>
<td>45.88</td>
<td></td>
<td></td>
<td>5.63</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.001)</td>
<td></td>
<td></td>
<td>(.10)</td>
<td></td>
</tr>
<tr>
<td>Access to Work</td>
<td>5.12</td>
<td></td>
<td></td>
<td>9.03</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.10)</td>
<td></td>
<td></td>
<td>(.05)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Calculated by author
have assumed that the RO group will differ from the RR group and that the OR group will differ from the OO group.

The differences between continuing owners and new owners are not very marked. Continuing owners place heavier emphasis on the reputation of the neighborhood and the arrangement of rooms in the dwelling. The new owners generally rank access to work more highly than households who have previously owned. A similar picture emerges when comparing continuing renters and households who switched to renting from ownership. These latter households showed a higher level of preference for the size of the yard or grounds with the rental unit, the friendliness of neighbors and the quality of local schools. Otherwise, there were no significant differences between the two groups.

If we contrast this with the considerable dissimilarities between continuing renters and former renters and between continuing owners and former owners, these differences seem relatively insignificant. However, since there are differences in the aspiration regions of continuing and new owners and differences between continuing and new renters we are forced to reject the hypotheses. These differences are suggestive, however. The decision to change tenure appears to be accompanied by changes in attitude on the part of the household. Former renters who want to own have aspiration regions which diverge relatively slightly from the aspirations of continuing owners. Households switching from owning to renting adjust their aspirations to accord with those of continuing renters. On the other hand, there are considerable contrasts between households who had the same tenure status before the move, but differed in status after it.
Household Search Behavior

Previous research has shown marked differences in the use of information sources by owners and renters and has also indicated that there are variations in the effectiveness of sources for the two groups. We have suggested that owners will use newspapers more frequently than renters, that they will use direct searches more frequently and that they will use specialized agencies with greater frequency. Renters, on the other hand, were expected to use inter­personal sources more frequently than owners. These hypotheses will be examined in turn. The results of our survey are summarized in Table 8:5.

We can reject the hypothesis that owners use newspapers as sources of vacancy information more frequently than renters. Not only is the hypothesis not confirmed, on the basis of our evidence it should be reversed. Using the binomial test for differences in proportion, renters were significantly more likely to use print media to obtain information, with the difference significant at the 10 per cent level.

Examining the data in Table 8:5, we can also reject the hypothesis that direct searches are used more frequently by owners. The difference in the proportion of households in the two groups acquiring vacancy information in this way was small. Again, a larger proportion of renters actually used direct searches, though the difference was not significant. There is no doubt that we can accept the third hypothesis. Owners are overwhelmingly more likely to use
Table 8:5 INFORMATION SOURCES USED IN THE SEARCH AND THEIR EFFECTIVENESS, BY TENURE

<table>
<thead>
<tr>
<th>Source</th>
<th>OWNERS Rossi's Revised</th>
<th>RENTERS Rossi's Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E.I.</td>
<td>E.E.</td>
</tr>
<tr>
<td>Newspapers</td>
<td>53.7</td>
<td>29.9</td>
</tr>
<tr>
<td>Realtors/Agents</td>
<td>81.5</td>
<td>53.8</td>
</tr>
<tr>
<td>Friends/Coworkers</td>
<td>32.7</td>
<td>30.2</td>
</tr>
<tr>
<td>Relatives</td>
<td>11.7</td>
<td>26.3</td>
</tr>
<tr>
<td>Billboards/Signs</td>
<td>35.8</td>
<td>63.8</td>
</tr>
</tbody>
</table>

Values in this table are percentages.

Source: Survey conducted by author

realtors in their search for vacancies. More than four owners in five enlisted the help of a real estate agent: fewer than one in six of the renters in the sample did so. Not surprisingly, this difference was statistically significant at the .001 level.

The final hypothesis on the use of information sources was also confirmed. Renters were markedly more likely to glean information about vacancies from friends or coworkers, though not from relatives. Almost 49 per cent of the renters received information from friends and acquaintances, whereas less than a third of the owners found out about vacancies in this way. The difference was statistically significant at the .001 level using the binomial test.
The effectiveness index (E.I.), using both Rossi's formula and the revised version we suggested, is shown in Table 8:5. We had posited that inter-personal sources would be the most effective for renters and that real estate agents would be the most effective for owners. Before turning to consider these, we should note the very substantial differences in the effectiveness indices, particularly for the use of newspapers among renters. Using Rossi's measure, newspapers were apparently very effective with a value of 40.0. However, once we take into account the fact that 33 of the 52 renting households who found their new homes through newspaper advertisements had used newspapers exclusively, the actual rate of success is a mere 19.6 per cent. This illustrates concretely the weakness of the original index.

Using the revised index as the basis for the testing of the two hypotheses we can accept neither. Among renters, relatives were the most effective source of information, but not significantly more effective than direct searching. The hypothesis that inter-personal sources are the most effective for renters is therefore not sustained. Among owners, the hypothesis concerning the effectiveness of realtors is completely confounded. Direct searches were significantly more effective than any other means, confirming Herbert's finding and refuting Rossi's.5

The final hypothesis about household search behavior was that renters would examine fewer vacancies than owners. The relevant data
are shown in Table 8:6. This table includes not only a comparison of
the numbers of dwellings examined by owners and renters but also a
more detailed breakdown by price range or rent level. On the general
hypothesis that renters would examine fewer dwellings we can provide
confirmation of the results of earlier studies. Renters do examine
fewer dwellings, on average. The mean value for renters was 6.50
dwellings, the average for owners was 14.62. The differences between
the two groups were most pronounced at the extremes of the spectrum.
More than 20 per cent of the renters examined only the dwelling they
chose: only 2.4 per cent examined more than 20 units. This compares
to 7.4 per cent of owners who examined a single dwelling and 18.5
per cent who had extensive searches. Examining the distribution as a
whole the calculated value of chi-square was 42.36, with six degrees
of freedom, significant at the .001 level.

There were clear variations in the number of dwelling examined
by owners and renters within different price strata. Dividing each
tenure group into high, medium and low value units, we can see a
steady progression in terms of the number of dwellings examined.
This suggests, if nothing more, that there are substantial variations
in the thoroughness of the search associated not only with the tenure
status sought but also with respect to the price or rent of the dwell-
ings falling within the aspiration region. This places a question
mark against the suggestion by Brown and Holmes that there is
considerable uniformity in migrant search procedure.
Table 8:6  NUMBER OF DWELLINGS EXAMINED, BY TENURE STATUS AND PRICE OR RENT LEVEL

<table>
<thead>
<tr>
<th></th>
<th>0-1</th>
<th>2-3</th>
<th>4-5</th>
<th>6-10</th>
<th>11-15</th>
<th>16-20</th>
<th>21+</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owners</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>under $25000</td>
<td>3</td>
<td>11</td>
<td>10</td>
<td>11</td>
<td>7</td>
<td>3</td>
<td>6</td>
<td>10.14</td>
</tr>
<tr>
<td>$25000-34999</td>
<td>4</td>
<td>8</td>
<td>7</td>
<td>13</td>
<td>8</td>
<td>4</td>
<td>9</td>
<td>15.47</td>
</tr>
<tr>
<td>above $35000</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>16</td>
<td>4</td>
<td>7</td>
<td>15</td>
<td>18.43</td>
</tr>
<tr>
<td>Renters</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>under $130</td>
<td>15</td>
<td>20</td>
<td>10</td>
<td>11</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>4.98</td>
</tr>
<tr>
<td>$130-159</td>
<td>16</td>
<td>10</td>
<td>16</td>
<td>13</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>5.72</td>
</tr>
<tr>
<td>$160 or more</td>
<td>11</td>
<td>15</td>
<td>12</td>
<td>17</td>
<td>9</td>
<td>6</td>
<td>3</td>
<td>8.08</td>
</tr>
<tr>
<td>Total Sample</td>
<td>55</td>
<td>70</td>
<td>62</td>
<td>84</td>
<td>37</td>
<td>26</td>
<td>35</td>
<td>9.60</td>
</tr>
</tbody>
</table>

Source: Survey conducted by author

These results may be explained, in part, by the differences in information sources used by households in the various strata. However, it is equally probable that some of the variation accrues from the differences in the structure of household aspiration regions. Households using few relevant criteria can be presumed to have shorter searches than those households who attempt to consider a wider range. Given the evidence we have on the differences in the preferences of
owners and renters it seems reasonable to argue that some of the difference in the number of dwellings examined can be explained in these terms.

The Residential Choice Decision

The primary reason for the choice of new residences, dividing the sample by tenure, are given in Table 8:7. We had advanced four hypotheses about the residential choice process. We viewed renters as more likely to cite locational reasons for their selection. We also hypothesized that renters would cite cost considerations more frequently. Owners, on the other hand, were seen as more prone to use neighborhood characteristics in arriving at their choice. In addition, in view of the importance afforded the exterior design features in the aspiration region, they were also viewed as being more likely to cite these features as being influential in their selection.

The first hypothesis, concerning the importance of locational characteristics to renters, can be accepted on the basis of our findings. More than 25 per cent of all renters gave this as the primary reason for their choice compared to slightly more than 6 per cent of the owners in the sample. This reinforces our earlier finding regarding the greater likelihood that renters would cite access to work as a key component of their aspiration regions.
Table 8:7 PRIMARY REASON FOR CHOOSING THE NEW RESIDENCE, BY TENURE

<table>
<thead>
<tr>
<th>Reason</th>
<th>Owners</th>
<th>Renters</th>
<th>Chi-square value &amp; significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space Requirements</td>
<td>13.0</td>
<td>14.0</td>
<td></td>
</tr>
<tr>
<td>Dwelling Interior</td>
<td>15.4</td>
<td>8.7</td>
<td>3.99 (.10)</td>
</tr>
<tr>
<td>Dwelling Exterior</td>
<td>9.3</td>
<td>8.7</td>
<td></td>
</tr>
<tr>
<td>Neighborhood</td>
<td>21.6</td>
<td>12.5</td>
<td>5.38 (.05)</td>
</tr>
<tr>
<td>Location</td>
<td>6.2</td>
<td>25.1</td>
<td>23.34 (.001)</td>
</tr>
<tr>
<td>Housing Costs</td>
<td>23.5</td>
<td>20.3</td>
<td></td>
</tr>
<tr>
<td>Availability</td>
<td>0.0</td>
<td>5.8</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>11.1</td>
<td>4.8</td>
<td></td>
</tr>
</tbody>
</table>

n = 162 207

Source: Survey conducted by author

The second hypothesis cannot be accepted on the basis of our survey findings. Housing costs were used more frequently as the principal factor in the selection process by owners than by renters. This was contrary to the direction of the relationship we had posited, even though the difference was not statistically significant. The hypothesis that neighborhood characteristics will be used more frequently in the choice of the new residence by owners can be sustained.

Neighborhood characteristics ranked narrowly second to housing costs
Table 8:8 ALL REASONS FOR CHOOSING THE NEW RESIDENCE.

BY TENURE

<table>
<thead>
<tr>
<th>Reason</th>
<th>Owners</th>
<th>Renters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space Requirements</td>
<td>29.6</td>
<td>37.7</td>
</tr>
<tr>
<td>Dwelling Interior</td>
<td>50.0</td>
<td>36.2</td>
</tr>
<tr>
<td>Dwelling Exterior</td>
<td>41.4</td>
<td>23.2</td>
</tr>
<tr>
<td>Neighborhood</td>
<td>51.9</td>
<td>33.8</td>
</tr>
<tr>
<td>Location</td>
<td>21.0</td>
<td>52.7</td>
</tr>
<tr>
<td>Housing Costs</td>
<td>42.5</td>
<td>39.6</td>
</tr>
<tr>
<td>Availability</td>
<td>0.0</td>
<td>15.9</td>
</tr>
<tr>
<td>Other</td>
<td>23.5</td>
<td>12.6</td>
</tr>
</tbody>
</table>

n = 162 207

Source: Survey conducted by author

as the most frequent factor cited as being critical in the decision, and were the most frequent if all responses are included (Table 8:8).

The final hypothesis was that exterior design would be used more frequently as a choice criterion by owners. This hypothesis can be rejected. There was no statistically significant difference between owners and renters in this regard. We should note, however, that there were a large volume of secondary responses indicating exterior design was considered and interior design features significantly differentiated the two groups.
The overall pattern of responses to the questions about the reasons for the choice of a new residence are again suggestive of distinctly different types of decision-making. The trilogy of housing costs, location and space requirements accounted for almost 60 percent of the primary responses among renters. These reasons are the three major elements in classical models of residential location and renters therefore appear to be predominantly Marshallian in their decision-making.

Owners present a somewhat more complex picture. The importance of neighborhood characteristics, and the large number of secondary responses dealing with the exterior design of the dwelling, point to typically Veblenian consumers. However, this cannot conceal the substantial importance of housing costs as a criterion in the choice of the new residence. The salience of housing costs for large numbers of households suggests that they may more correctly be viewed as cost-constrained Veblenian consumers.

**Summary**

The evidence we have presented in this chapter provides some of the most clear-cut distinctions we have seen. Particularly significant are the vast differences in the structure of household aspirations associated with its tenure choice. Similarly, there are considerable variations in the residential choice decision. The characteristics of household search behavior, however, show relatively few variations, particularly with regard to information source usage.

2. ibid., p. 149.

3. Including households who were forced to move, households citing an increase in housing costs or dissatisfaction with the upkeep and households who complained about the landlord. We have also discounted multiple responses by the same household to arrive at the figure.


6. Values were determined from the responses to questions asking the price or rent level at the new dwelling.

CHAPTER IX

OVERVIEW AND ASSESSMENT

In the previous eight chapters we have examined a considerable volume of theoretical and empirical work concerning households migration decisions. This study has attempted to examine how and why households make their decision to move and by what methods they select their new residence. The purpose of this final chapter is to provide an integrated view of the principal findings of this study, to evaluate the models we have proposed and to suggest future directions which research on migration might take.

The Principal Findings

The empirical evidence we have presented in the previous three chapters sheds considerable light on the decisions made by households during the residential relocation process. Much of the evidence is not consistent with earlier research findings. A number of the hypotheses tested in this study have not been examined before, and thus cannot be compared with any earlier work. In some cases, changes in measurement or in the types of questions asked vitiate the possibility of comparison. Nonetheless, we shall attempt to summarize our findings, dealing with the decisions made by households of different types and beginning with the decision to move.
The Decision to Move

The key finding in this section is that the majority of moves are not associated with the changing needs of the household accompanying life-cycle changes. Fewer than a third of the households in our sample appear to fall directly within the framework of life-cycle changes. The majority of these reported changes in household size or composition as the reason for their move or an increase in space needs associated with an increase in household size. A considerably larger number of moves appear, on the basis of our findings, to be the product of changes in attitude on the part of the household. Most decisive is the decision to change tenure, but we might also include the quite large number of households who gave the need for more space as their reason, even though they had experienced no objective changes of need. The importance of changes in attitude is also evinced by the proportion of households citing dissatisfaction with the dwelling unit, the neighborhood or with location as a reason for their decision.

The large group of respondents who reportedly moved because they wished to change tenure, taken with the smaller numbers of households who gave changing costs, changing income or the desire to invest as the reason for their decision, provide substantial evidence to support the view that income constraints play an important role in the residential mobility decision. The role appears to be at least equal to that played by life-cycle changes, on the basis of our evidence.
This view is supported when the sample is divided by income. The desire to change tenure is most characteristic of households with incomes in excess of $10000 per year and is widespread among renters with incomes above $15000. These households have the capability to consider a change of tenure and frequently translate their desires into a decision to move. Lower income households are evidently the most cost constrained, with rising housing costs being a significant factor among renting households for their decision to move.

The most surprising finding, though it replicates the conclusions of earlier work, is that owners are just as likely as renters to cite the need for more space as a reason for their decision to move. This can be partially explained by the relatively high proportion of owners in this category who had experienced a recent change in household size, but it leaves unanswered the question of why the remaining owners felt that space was their most pressing need.

Our findings on the reasons for the decision to move support the minority view that a reevaluation of the life-cycle interpretation is warranted. The ability of the household to satisfy its preferences for housing are constrained by the household's income. The tightening of income constraints or their relaxation appears to explain more than a third of the moves among households in our sample. Income constraints are most effective in the decisions made by renters. We should also note that renters appear to be substantially impacted by institutional decisions. Our estimate is that at least 20 per cent of the moves by renters can be related to decisions made by other actors in the market.
Household Aspiration Regions

For the sample as a whole, the principal conclusion of our investigation of the structure of household aspiration regions is that dwelling unit characteristics are the most prominent specifications. Neighborhood attributes are generally ranked of moderate importance, while access characteristics are relatively unimportant to the majority of the households. These consensual statements, however, conceal significant variations which become apparent when the sample is broken down into sub-groups.

The principal divide registered in our study is between the aspirations of owners and renters. Owners place a substantially higher premium on neighborhood characteristics and the exterior design of the dwelling. Renters, by contrast, express a stronger preference for basic attributes of the dwelling unit, such as privacy and interior appearance, and for access to work. In addition, our findings indicate substantial variations between households who started with the same tenure, but switched as a result of the move. By the same token, there were relatively few differences between households who began with different tenure but finished with the same one. These findings provide some substantial evidence that the tenure choice of households has a marked impact on the aspirations they exhibit. We should note, of course, that the decision to change tenure is a discrete event forcing the household into a major reevaluation of its needs.
We had anticipated that the differences between owners and renters would be reflected in the structure of the aspiration regions of different income groups. This was not the case. There were no significant variations among the three highest income groups in terms of the structure of their aspiration regions. The only variations recorded were between the three highest and the two lowest income groups, suggesting that there is a plateau in the aspirations of the household once its income reaches the critical level of $10000 per year.

The variations in the structure of household aspirations with changing life-cycle stage are less marked than in the case of tenure, but appear to show a definite pattern. Needs that are stressed in the years immediately after family formation give way to other needs as the household adjusts to having children and rearing them. These in turn are supplanted after children leave the family home. These relatively gradual changes through time contrast with the sharp break which occurs when the household decides to change its tenure.

The high priority attached to neighborhood and exterior design among owners provides evidence of the social choice view of residential relocation. In their aspirations, owners are distinctly Veblenian. The evidence provided by renters is less clear, but the importance of access to work provides a hint that renters are more Marshallian in their decision-making. This latter point is confirmed when we examine the reasons for the choice of the new residence.
Search Behavior

The results from our study of some attributes of household search behavior break relatively little new ground, generally providing confirmation of previous findings.

The more widespread use of specialized agencies by owners and by households with increasing income levels was wholly expected. The more general use of interpersonal sources was also anticipated. However, the general lack of variation in the use of newspapers and direct searches both by income and tenure status contravened our hypotheses.

The effectiveness of various media, using the revised and refined measure, produced more surprising results. In examining hypotheses about variations in the effectiveness of different sources of information, we rejected each of the five we proposed. Our findings do not indicate discernible patterns in effectiveness as a function of the income level or tenure preference of the household.

Households in the sample examined relatively few vacancies during their search for a new residence. The average household claimed to have examined 9.6 vacancies. Renters examined fewer vacancies than owners. Higher income households examined more than lower income, though the relationship disappeared among renters when tenure was applied as a control. Among renters and owners, the higher the value or rent of the dwelling being sought, the greater the number of dwellings examined. These findings concord with our expectations.
The explanation for these findings on search behavior are seen as a product of three variables. The groups of households who typically had the shortest searches, lower income renters, also had the fewest specifications within their aspiration regions. Only a few criteria needed to be satisfied before these households made their decision. Short searches were also characteristic of households who used one information channel exclusively in their search or who used informal sources more frequently to uncover alternatives. Finally, the anomalous finding that moderate income renters have longer searches than higher income households gives some indication that we need to consider supply constraints as a factor in the search behavior of the household. The shorter searches of both low and high income renters may reflect shortages in the supply of dwelling units in the appropriate price ranges. The impact of supply is further borne out by the finding on the residential choice decision that the availability of the dwelling was a reason for its selection in almost 16 per cent of the cases among renters.

The Residential Choice Decision

Our findings on the selection of the new residence indicate a considerable diversity in the criteria applied. No one set of criteria dominated. Housing costs were the most important primary criterion for the entire sample, followed by neighborhood and locational characteristics. If all reasons for the decision are included, factors related to the neighborhood narrowly oust the interior design of the dwelling unit. Housing costs run a close third in importance.
The apparent uniformity in the rating of attributes which were influential in the residential choice decision is belied by the substantial between-group differences in the sample. Young single person households, young married couples, low income households and renters consistently used locational characteristics as a reason for their choice. Low income households and those headed by young persons tended to cite housing costs more frequently than other groups. Somewhat surprisingly renters did not show a greater propensity to cite costs than owners. Neighborhood attributes were of significantly greater importance to owners than renters and were of considerable importance to moderately high income owners.

The dominance of the criteria of location and housing costs among low income households and among renters provides a strong basis for the argument that both groups are Marshallian in their decision-making. They contrast in this respect with owners, and to a lesser extent high income households, who can be characterised as cost-constrained Veblenian households. The considerable importance attached to neighborhood characteristics in their aspiration regions and their residential choice decisions lends credence to this thesis.

The only point at which life-cycle considerations directly interject in the choice of the new residence is among households with children. They have a considerably higher propensity to cite space needs than households without children, though significant differences are only evident when they are compared to young, single person households.
Overall, our findings do indicate the need to reappraise the conventional wisdom with respect to the migration decision. The residential mobility process is not dominantly one in which the household adjusts its housing to the needs engendered by changes in its life-cycle status. Our study provides some support for the view that income constraints, frequently linked to changes in household preferences, play at least as large a role as life-cycle considerations. In the search for, and evaluation of, alternative dwellings the income level of the household and its tenure preference appear to be much more critical than its life-cycle stage in differentiating households.

Strengths and Weaknesses of this Study

While it is always difficult to provide a detached perspective on a project of this magnitude, there are a number of significant strengths and weaknesses in the design and operation of this project which merit comment. At a conceptual level, we can suggest two substantial improvements over previous research. First, in developing our conceptualization we have moved away from the dominant views of the housing consumer as sovereign. Household decisions are affected by the behavior of other actors in the housing market and it is therefore necessary to model the interactions between them in order to arrive at a more holistic model of the residential mobility and residential choice decisions. We have done this by presenting a skeletal model which goes well beyond the linked models which have been developed previously.
A second significant strength of the design, at a conceptual level, is that it improves previous models of the residential choice process through a series of amendments. The more tightly-knit argument on the structure of household aspiration regions, the incorporation of an explicit spatial model of search behavior linked to the notion of uncertainty reduction, and the development of a model for the evaluation of alternatives found during the search, are all seen as significant improvements.

The empirical portion of this research is also characterised by significant strengths. We have been able to trace the impact to each of the three explanatory variables on each of the household decisions. This provides a more coherent approach than that evinced in many previous studies. The use of the 'attributes by decisions' approach rather than examining decisions in a more fragmented way is seen as helpful in relating the various phases of household decision-making.

These strengths are offset by some significant problems. In the empirical study, we have not been able to provide a large amount of evidence on the effects of institutional decision-making, particularly with respect to the residential choice decision. Neither have we been able to test our spatial model of search behavior. The data provided by our survey was inadequate to test any meaningful hypotheses on spatial patterns of search behavior.
In a more general way, we have not been able to establish conclusively the independent effects of our three explanatory variables. Ideally, we would have controlled for all combinations of these variables in assessing the importance of differences in attitude and behavior. Our sample was sufficiently small to preclude such a detailed breakdown, though it would clearly have been desirable. Aside from this, the general operational design of the survey was highly satisfactory. The sample was carefully drawn. The framework for the survey was extremely accurate. The questions in the survey instrument, with very few exceptions, elicited appropriate data. The design of some questions signalled a notable departure from previous practice, notably in obtaining information on the price or rent paid by the household. Most notably, the survey was directed towards recent movers, rather than examining the hypothetical preferences of households or examining the behavior of households who moved well before the interview was conducted.

**Future Research**

There are three broad avenues of future research which are suggested by this study. The first continues the focus on the motives and aspirations of the household. The second is directed to consideration of the impact of institutional decision-making on household behavior, while the third, outside the context of the present study, deals with the interactions between the various institutional decision-makers in the housing market.
This study has provided a relatively comprehensive view of household decision-making in the migration process. Despite this, one of the primary needs is to replicate certain portions of this study which are not supported by any other substantive material. In addition, more detailed study of the household's search behavior is clearly necessary. To combat the problems associated with respondent recall, a diary method in which respondents can record the location of dwellings examined and their reactions to the dwelling could provide a more successful alternative to our approach. This would also yield usable information on why alternatives were rejected and would thus provide a more appropriate test of evaluation criteria used by the household in making its residential selection.

There is an evident need for more research on the relationship between consumer and entrepreneurial decision-making in the housing market. We have not considered, in this research, the impact of realtor or landlord decisions on household behavior. These are interfaces which could profitably be explored and are consistent with our structural model of the housing market.

The final area which merits further investigation is the analysis of the interactions between the various institutional actors in the housing market, and the spatial outcomes of their policies. Geographers have been somewhat remiss in ignoring these key sets of decision-makers. The analysis of their behavior could yield significant dividends in terms of enhancing our understanding of changes in the spatial structure of urban areas.
APPENDIX A

THE QUESTIONNAIRE
Hello! I'm (your name) from the Ohio State University. We're conducting some research on why people move and how they find out about new places to live. We're interviewing a scientifically selected sample of people in Franklin County, and we'd be grateful for your co-operation. This interview will only take a short time. Naturally, all of the information you give us will be kept strictly confidential.

1. First of all, I'd like to ask you when you moved in at your current address?

<table>
<thead>
<tr>
<th>Month</th>
<th>Year</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1:05-06</td>
</tr>
</tbody>
</table>

(if the respondent moved there prior to January 1974, terminate the interview by saying: "I'm sorry. My office must have made a mistake. We're only supposed to interview people who have moved within the last year or so. Sorry to have troubled you.")

2. Before you moved to where you live now, did you live in a house, an apartment, or what?

<table>
<thead>
<tr>
<th>Option</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 House</td>
<td>1:07</td>
</tr>
<tr>
<td>2 Apartment</td>
<td></td>
</tr>
<tr>
<td>3 Other (specify)</td>
<td></td>
</tr>
</tbody>
</table>

3. How long did you live there?

<table>
<thead>
<tr>
<th>Length</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 less than 6 months</td>
<td>1:08</td>
</tr>
<tr>
<td>2 6 months - 1 year</td>
<td></td>
</tr>
<tr>
<td>3 1 - 2 years</td>
<td></td>
</tr>
<tr>
<td>4 2 - 5 years</td>
<td></td>
</tr>
<tr>
<td>5 more than 5 years</td>
<td></td>
</tr>
</tbody>
</table>

4. Did you own your former home, did you rent it, or what?

<table>
<thead>
<tr>
<th>Option</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Own</td>
<td>1:09</td>
</tr>
<tr>
<td>2 Rent</td>
<td></td>
</tr>
<tr>
<td>3 Other (specify)</td>
<td></td>
</tr>
</tbody>
</table>
5. What was the exact street address of your former home? (if an apartment, be sure the respondent specifies the number)

.................................................................

6. What was the major reason for your decision to move? (probe)

.................................................................

.................................................................

.................................................................

.................................................................

Were there any other reasons?

.................................................................

.................................................................

.................................................................

Anything else?

.................................................................

.................................................................

7. When did you seriously begin to look for a new place to live? (specify)

.............  ...........

month   year
8. One of the major things we're concerned with in this study is how people find out about vacancies while they're looking for a new place to live. I'd like you to think back to when you were looking for a new place to live, and tell me how important each of the following information sources were to you. Let's start with television.

1. Did you get any information about possible vacancies from (medium)?
   (if the answer is no, go to the next medium)

2. Was the information you got from (medium) very important, moderately important or not important in helping you find suitable vacancies?

<table>
<thead>
<tr>
<th>(1)</th>
<th>Yes</th>
<th>No</th>
<th>(2)</th>
<th>VI</th>
<th>MI</th>
<th>NI</th>
<th>DK</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Television</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>B. Radio</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>C. Newspapers</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>D. Realtors</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>E. Friends or people at work</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>F. Relatives</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>G. Billboards and Signs</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

   (if rated VI or MI, ask: Which newspapers?)

   (if rated VI or MI, ask: Which firm?)

   (if rated VI or MI, ask: Did they live in the neighbourhood you moved into?)

   Yes  7  8  No

   (if rated VI or MI, ask: Did you drive around, walk around, or what?)

   .................................................................
9. Did you find out about vacancies in any other way? (Branch)
   5 No (go to 11)
   4 Yes

10. Using the same scale as before, would you say a source was very important, moderately important or not important in helping you to find suitable vacancies?
   1 Very important
   2 Moderately important
   3 Not important
   9 Don't know

11. When you first started looking for a new place to live, were you interested in looking only at houses, only at apartments, at both houses and apartments, or what? (Branch)
   1 Houses only (go to 14)
   2 Apartments only (go to 14)
   3 Both houses and apartments
   4 Other (specify) ................................................................. (If only 1 type mentioned, go to 14)

12. Did you eventually choose a house, an apartment or what?
   1 House
   2 Apartment
   3 Neither (explain) .................................................................

13. What made you choose (a house rather than an apartment, an apartment rather than a house)?
   ........................................................................................................
   ........................................................................................................
14. How did you find out about your present home?

15. Were you looking for a place to buy, a place to rent, or what?  (Branch)
   1 Place to buy
   2 Place to rent
   3 Either (ask: Do you own or rent your present residence?)
      4 Own
      5 Rent (go to 20)

16. What was the maximum price you would have been prepared to pay for a home?

   $ ............

17. What was the minimum price you would have expected to pay for the sort of home you were looking for?

   $ ............

18. Approximately how much did you actually pay for your present home?

   $ ............

19. How much would you have been willing to pay for your present home?  (Branch)

   $ ............ (go to 25)

20. (Renters only) What was the maximum rent you would have been prepared to pay?

   $ ............ per month

21. What was the minimum you would have expected to pay for the type of place you were looking for?

   $ ............ per month
22. What was the monthly rent when you moved into your present home?

$ ................ per month

23. Does the rent of your present home include utilities such as gas, electricity or water? (Circle each of the appropriate items)

1 includes gas
2 includes electricity
3 includes water
4 none

24. Do you rent your present home furnished or unfurnished?

1 Furnished
2 Unfurnished

25. Sometimes people who are looking for a new place to live feel pressured because they don't have enough time to look for vacancies, or because they have a deadline to meet. Do you feel that you had enough time to find a suitable place to live?

1 Yes
2 No (ask: How did this affect your choice of a new place to live?)

26. While you were looking for a new place to live, how many places did you actually go inside and look at? (specify the number)

27. How many of those did you seriously consider moving into?
28. This next question is very important to the success of the project, so I'd like you to think back and try to remember the location of vacancies where you actually went inside and looked around.

(1) First, in which areas of the city did you actually look at vacancies? (list these on the left: for each area mentioned, ask (2))

(2) Whereabouts in (area) were you shown around vacancies? (probe to establish the street and/or nearest intersection) (For each specific location mentioned, ask (3))

(3) Why did you decide not to move to (location)?

<table>
<thead>
<tr>
<th>AREA</th>
<th>LOCATION</th>
<th>REASON REJECTED</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>
29. What was the most important reason for choosing your present home? (probe)

........................................................................................................................................
........................................................................................................................................
Were there any other reasons? ............................................................................................
........................................................................................................................................

30. Now I'd like to ask you some questions about your present home. How many rooms are there, excluding bathrooms?

........................

32. When you were looking for a new place to live, would you have preferred to get one with more rooms, with fewer rooms, or was that number satisfactory for you when you moved here?

1 More rooms
2 Fewer rooms
3 Satisfactory
9 Don't know

33. How many bedrooms do you have in your present home?

........................

34. Was the number of bedrooms very important, moderately important, or not important in your choice of your present home?

1 Very important
2 Moderately important
3 Not important
9 Don't know
34. When you were looking for a new place to live, would you have preferred to get one with more bedrooms, with fewer bedrooms, or was the number you have satisfactory when you moved here?

1  More bedrooms
2  Fewer bedrooms
3  Satisfactory 9  Don't know

35. (Read each question and then ask F or G)

F. Was that very important, moderately important or not important in the choice of your present home?

G. Would you have preferred to have (facility), or didn't it matter much to you?

<table>
<thead>
<tr>
<th></th>
<th>F.</th>
<th></th>
<th>G.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VI</td>
<td>MI</td>
<td>NI</td>
<td>DK</td>
</tr>
<tr>
<td></td>
<td>F.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Do you have a dining room which is completely separated from other rooms in your present home?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 1  | Yes (ask F) | 3 | 4 | 5 | 6
| 2  | No (ask G) | 7 | 8 | 9 |
| B. Do you have a family room or recreation room? |   | | |   |
| 1  | Yes (ask F) | 3 | 4 | 5 | 6
| 2  | No (ask G) | 7 | 8 | 9 |
| C. Do you have a basement? |   | | |   |
| 1  | Yes (ask F) | 3 | 4 | 5 | 6
| 2  | No (ask G) | 7 | 8 | 9 |
| D. Do you have air-conditioning? |   | | |   |
| 1  | Yes (ask F) | 3 | 4 | 5 | 6
| 2  | No (ask G) | 7 | 8 | 9 |
36. (For each item, ask: Was (item) very important, somewhat important or not important in your choice of your present residence?)

<table>
<thead>
<tr>
<th>Item</th>
<th>VI</th>
<th>SI</th>
<th>NI</th>
<th>DK</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The way the rooms are arranged?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>B. The size of the rooms?</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>C. The inside appearance?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>D. The age of the building?</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>E. The outside appearance?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>F. The size of the yard?</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>G. The amount of storage space?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>H. The amount of privacy?</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
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</tbody>
</table>

37. People seem to have different opinions on how important various neighbourhood characteristics are when they're choosing a new place to live, so I'd like to find out what things you felt were important. First of all, is your former home in the same neighbourhood as your present one?

1  Yes
2  No
38. (For each item, ask: When you were looking for a new place to live, was (item) very important, somewhat important or not important in your decision to choose the neighbourhood you live in now?)

<table>
<thead>
<tr>
<th>Item</th>
<th>VI</th>
<th>SI</th>
<th>NI</th>
<th>DK</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The quietness of the neighbourhood?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>B. The friendliness of the neighbours?</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
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<tr>
<td>C. The reputation of the neighbourhood?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>D. The kind of people who live in the neighbourhood?</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
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<tr>
<td>E. The condition of other houses and apartments in the neighbourhood?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>F. The amount of traffic on the street?</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
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<tr>
<td>G. The quality of education in the neighbourhood schools?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>H. Access to parks and open spaces?</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
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<tr>
<td>I. The ease of access to other parts of the city?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>J. Access to friends and relatives?</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>K. Access to public transportation?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>L. Access to work?</td>
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</table>
39. Just a couple more questions. We're interested in finding out why different people make different decisions about where to live, so I'd like to ask you some questions about the people who live in your household. Please remember that all the information you give us will be kept strictly confidential.

(1) First, I'd like you to list the names of all the people who live in your household, starting with yourself. (List the names on the left, code the sex of each person, and then ask (2) through (4) for each person, omitting (2) for the respondent.)

(2) What is (name's) relationship to you?

(3) How old (were you, was name) on (your, his, her) last birthday?

(4) (if the person is over 5) What was the last year of school (you, name) completed?

<table>
<thead>
<tr>
<th>Name</th>
<th>Sex</th>
<th>Relationship</th>
<th>Age</th>
<th>Last year of school</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Respondent</td>
<td></td>
<td></td>
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<td>2</td>
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<td>10</td>
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</table>

40. How many members of your household work full-time? (Branch)

........ (if none, go to 43)
41. What (is that person's occupation, are their occupations)?

42. Where (is that person, are those people) employed?

43. What is your race?

44. Just one final question. What was your household's approximate total income for 1974 - was it less than $5,000, between $5,000 and $10,000, between $10,000 and $15,000, between $15,000 and $20,000, or was it more than $20,000?

1 less than $5,000
2 between $5,000 and $10,000
3 between $10,000 and $15,000
4 between $15,000 and $20,000
5 more than $20,000
8 Don't know
9 Refused

Thank you very much! You've been very helpful!
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