Factors affecting voluntary residential mobility in Windsor and Niagara Falls.

Joseph J. Cimer
University of Windsor

Follow this and additional works at: https://scholar.uwindsor.ca/etd

Recommended Citation
https://scholar.uwindsor.ca/etd/2061

This online database contains the full-text of PhD dissertations and Masters' theses of University of Windsor students from 1954 forward. These documents are made available for personal study and research purposes only, in accordance with the Canadian Copyright Act and the Creative Commons license—CC BY-NC-ND (Attribution, Non-Commercial, No Derivative Works). Under this license, works must always be attributed to the copyright holder (original author), cannot be used for any commercial purposes, and may not be altered. Any other use would require the permission of the copyright holder. Students may inquire about withdrawing their dissertation and/or thesis from this database. For additional inquiries, please contact the repository administrator via email (scholarship@uwindsor.ca) or by telephone at 519-253-3000ext. 3208.
NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopy de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.
FACTORs AFFECTING VOLUNTARY RESIDENTIAL MOBILITY
IN WINDSOR AND NIAGARA FALLS

by

Joseph J. Cimer

A Thesis
Submitted to the Faculty of Graduate Studies and Research
through the Department of Geography
in Partial Fulfilment
of the Requirements for the
Degree of Masters of Arts at the
University of Windsor

Windsor, Ontario, Canada

(c) Joseph J. Cimer, 1991
The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-315-72786-1
FACTORS AFFECTING VOLUNTARY RESIDENTIAL MOBILITY
IN WINDSOR AND NIAGARA FALLS

ABSTRACT

by

Joseph J. Cimer

A central hypothesis of the stress-resistance model of intra-urban residential mobility is that when a household moves from one home to another, it adjusts its stress and its consumption disequilibrium for its "old" home. In this study, these adjustments after moving are hypothesized as being revealed in its comparative satisfactions for the attributes of its "old" and "new" homes. One hundred and thirty five household members in Windsor and seventy four in Niagara Falls who had moved either out of or into neighbourhoods during the period of 1984 to 1989 were surveyed about their reasons for moving, and their comparative satisfactions. Consistent with the literature on residential mobility, their most important reasons for moving were to adjust their "old" home's size and layout, and to accommodate changes in their family composition. Fewer than 15% of the movers were less satisfied with either their "new" home's dwelling unit, neighbourhood, or area, in comparison with their "old" home's. A series of logistic regressions are used to infer the attributes producing the significant changes in their residential stresses and consumption disequilibria.
ACKNOWLEDGEMENTS

I would like to express my sincere gratification to my academic advisor of this thesis, Dr. A.G. Phipps. Without his guidance, this document would not have been accomplished. Also, thanks to those persons who acted as proof readers and general support throughout the writing of this paper.
TABLE OF CONTENTS

ABSTRACT iii
ACKNOWLEDGEMENTS iv
LIST OF TABLES vi
LIST OF FIGURES vii
LIST OF APPENDICES viii

CHAPTER PAGE

1. INTRODUCTION 1

2. LITERATURE REVIEW 4
  2.1 ECONOMIC MODELS 5
  2.2 BEHAVIORAL MODELS 11
  2.3 FORMALIZING STRESS AND CONSUMPTION DISEQUILIBRIUM 14
  2.4 REFINED STRESS-RESISTANCE MODEL 15

3. METHODOLOGY 21
  3.1 SURVEY 21
  3.2 RESPONDENTS 25

4. RESULTS AND DISCUSSION 31
  4.1 REASONS FOR MOVING 31
  4.2 COMPARATIVE SATISFACTION SCORES 34
  4.3 LOGISTIC REGRESSIONS OF COMPARATIVE SATISFACTION 39
    4.3.1 RESIDENTIAL STRESS VARIABLES 41
    4.3.2 CONSUMPTION DISEQUILIBRIUM VARIABLES 42
    4.3.3 RESISTANCES 46
    4.3.4 LIFE IN THE OVERALL 47

5. CONCLUSION 52
  5.1 THEORETICAL FINDINGS 52
  5.2 APPLICATION FOR POLICY 55
  5.3 PROBLEMS AND FUTURE RESEARCH 56

REFERENCES 58

APPENDIX 1. 63

VITA AUCTORIS 71
LIST OF TABLES

TABLE PAGE
1. GENERAL RESPONDENT PROFILE 29
2. MEAN IMPORTANCE OF FACTORS CONTRIBUTING TO MOVES FROM THE "OLD" ADDRESS 32
3. MEAN SATISFACTION WITH THE ATTRIBUTES OF THE CURRENT DWELLING IN COMPARISON WITH THE PREVIOUS HOME 36
4. MEAN SATISFACTION WITH THE ATTRIBUTES OF THE CURRENT NEIGHBOURHOOD IN COMPARISON WITH THE PREVIOUS HOME 37
5. MEAN SATISFACTION WITH THE ATTRIBUTES OF THE CURRENT AREA IN COMPARISON WITH THE PREVIOUS HOME 38
6. LOGISTIC REGRESSION ANALYSIS OF LIKE NEW DWELLING UNIT MORE OR LESS THAN OLD DWELLING UNIT 43
7. LOGISTIC REGRESSION ANALYSIS OF LIKE NEW NEIGHBOURHOOD MORE OR LESS THAN OLD NEIGHBOURHOOD 44
8. LOGISTIC REGRESSION ANALYSIS OF LIKE NEW AREA MORE OR LESS THAN OLD AREA 45
9. LOGISTIC REGRESSION OF UPSET OR PLEASED AT TIME OF THE MOVE 49
10. LOGISTIC REGRESSION OF LIFE BETTER OR WORSE AT NEW ADDRESS 50
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SAMPLE SURVEY OF COMPARISON OF &quot;OLD&quot; AND &quot;NEW&quot; DWELLING UNIT</td>
<td>22</td>
</tr>
<tr>
<td>2. SAMPLE SURVEY OF COMPARISON OF &quot;OLD&quot; AND &quot;NEW&quot; NEIGHBOURHOOD</td>
<td>23</td>
</tr>
<tr>
<td>3. SAMPLE SURVEY OF COMPARISON OF &quot;OLD&quot; AND &quot;NEW&quot; AREA</td>
<td>24</td>
</tr>
<tr>
<td>4. WINDSOR MOVER SAMPLE</td>
<td>26</td>
</tr>
<tr>
<td>5. NIAGARA FALLS MOVER SAMPLE</td>
<td>27</td>
</tr>
</tbody>
</table>

vii
# LIST OF APPENDICES

<table>
<thead>
<tr>
<th>APPENDIX</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. HOUSEHOLD MOVEMENT SURVEY</td>
<td>63</td>
</tr>
</tbody>
</table>

viii
FACTORS AFFECTING VOLUNTARY RESIDENTIAL MOBILITY
IN WINDSOR AND NIAGARA FALLS

CHAPTER 1
INTRODUCTION

Residential moves by households can significantly alter the urban form of the built environment. The most apparent effects occur when people move from one neighbourhood to another. Over time for example, a neighbourhood may attract elderly in movers and witness younger family out movers. The result may be changing municipal servicing demands such as transit, parks or street lighting. The changes to the city become eminently important to planners and policy makers who should have at the least a practical interest in the reasons for household mobility. Concurrently, the spatial distribution of families and the associated reasons for their location will be of theoretical interest to geographers. Numerous studies have addressed the issue of intra-urban residential mobility collectively adding to the knowledge of the relocation process. Recent research has modelled the movement process in either an economic or behavioral framework. This investigation attempts to link the two frameworks to discover the reasons attributable to the decision making process for a new location.

Households change residential locations to suit their needs. The consensus among recent mobility research is that households will try to maximize their consumption of housing
relative to their residential utility function (Phipps, 1989a). The utility function approach assumes that a household has a budget for housing similar to its budget for other goods. In order to maximize the utility, the total household budget allocated for housing is required to be exhausted (Goodman, 1976). For example, changes to the household in its life cycle, income or aspirations for housing will push the household out of maximum utility. The relocation by the household to a new home is the most likely action to obtain the desired utility.

Economic and behavioral models embody the two theories of mobility that attempt to measure the specific changes in a household which determine relocation. However, their conceptual parameters and measurements are clearly different. Economic models tend to predict how a household will monetarily diverge from its equilibrium level with housing and how this might influence the decision to move. Behavioral constructs assume a household's dissatisfaction with housing through residential stresses. This study hypothesizes that the economic and behavioral considerations underlying a move can be measured jointly in a refined stress-resistance model.

Based on a review of the literature, it is hypothesized that movers experienced significant stresses and/or disequilibria to produce a move to the current address, and that these stresses and disequilibria had been reduced by relocation. Furthermore, it is hypothesized that their
resistances to relocation were not significant in keeping the households at the old address. However, in the present study, all moves were voluntary suggesting that resistances may have already been low.

Operationally in this study, the stress-resistance model was calibrated with a series of logistic regressions assessing the mover's comparative satisfactions for their new dwellings, neighbourhoods and areas as well as their overall satisfaction with the old location. Five logistic regression models uncovered the relocation motivations of 135 and 74 households in Windsor and Niagara Falls, respectively, between 1985 and 1989. The respondent's experiences with moving collected through questionnaires provided the data for the investigation.

The following section will expand on the theoretical model used for the study as well as provide the background for its refinement. The data collected for the study are described in the next major section. The results for the respondents and the regression analyses are given in Chapter 4. Finally, the concluding chapter discusses the results and provides possible policy applications and extensions of the research.
CHAPTER 2
LITERATURE REVIEW

There are two streams of research into residential mobility; economic and behavioral. Both have their roots in some form or another in inter-regional migration studies (Bennett and Gade, 1979). Similar to population migration, economic benefits from household relocation were considered for relocation within a city. An example of this is Goodman's (1976) assessment of workplace mobility where households will relocate to economically benefit from proximity to employment.

At the same time, researchers have developed an interest in the behaviours of a household when moving which economic models only marginally addressed (Bennett and Gade, 1979). In his seminal work, Rossi (1980) attempted to find the behavioral reasons why families moved. Rossi, collecting individual level data to assess household complaints with housing and family conditions, concluded that the family life cycle was the most important factor contributing to relocation. In 1965, Wolpert devised a behavioral model of the decision to relocate which more systematically addressed Rossi's conclusions. Since then, additional models have been developed, contributing greatly to the behavioral understanding of the residential relocation process (Brown and Moore, 1970). The following examines the economic and the behavioral models and suggests the combination of the two frameworks into a refined stress-resistance model of
residential mobility.

2.1 Economic Models

Economic models assume that a household's movement is based on its utility for housing in terms of housing expenditures such as search costs, transaction costs and price of a new dwelling (Boehm and Ihlanfeldt, 1985; Goodman, 1976; Hanushek and Quigley, 1978; Weinberg, Friedman and Mayo, 1981). One economic study of mobility simply stated that "if the dollar value of the benefits derived by moving to a new dwelling unit exceeds the costs associated with that move, a household will be more likely to move (Quigley and Weinberg, 1977, p.56)". Hanushek and Quigley (1978b) devised a demand function for housing from this concept. They suggested that households having similar demographic characteristics or experiencing a change in demand will either consume housing or other goods. Additionally, adjustments and transaction costs associated with the action of moving contribute to the demand in such a way that moves only occur if increased utility to the household is perceived.

Researchers have termed a household's differing expenditures on housing from its actual and its budget constrained optimum level as its consumption disequilibrium (Goodman, 1976; Hanushek and Quigley, 1978b; Onaka, 1983; Phipps, 1989a). Goodman (1976) suggested a household has an intrinsic optimum level of housing consumption. The
consumption level will be amended from time to time with changes in the household's composition, aspirations and budget. Changes can push the household out of the level of optimum utility of its consumption of housing. Additionally, the household has a budget constraint for housing as well as other goods. The household will then attempt to maximize its housing utility within its new budget limits or revised housing needs. Utility is only maximized when the household's total budget for housing is consumed. Goodman additionally noted that within the budget constraint, the costs of moving are imbedded. Transaction costs when dealing with real estate companies and banks, payments for moving services and even the lost income from time off work will be considered by the household in its relocation decision. Additionally, psychological factors, relating to breaking emotional ties with the old dwelling or family and friends of the old neighbourhood, will be considered in the relocation decision. Both contribute significantly to an overall calculated adjustment in housing consumption. Thus, a new location should represent a sizable positive alteration in consumed housing.

The central assumption of the economic models, namely that monetary values provide the sole basis for decision making by the household becomes suspect when considering how to measure the psychological costs involved (Clark and White, 1990). For example, Weinberg, Friedman and Mayo (1981)
assigned a "tenure discount" of $23 per month, expressed as a negative exponential after 10 years of residence, in their study of Pittsburgh and Phoenix. Goodman (1976), assuming that psychological costs accumulated over time, included age and the year of the previous move into the determination of such costs. Because the allocation of a monetary value to the relationship between a family and a dwelling unit is subjective, the true value of such costs can only ever be estimated.

Other researchers have extended the concept of housing expenditure in an attempt to more accurately predict movers. Clearly, the budget constraint of a household is the salient point in specifying moves. Onaka (1983), therefore, suggested calculating housing prices into the consumption disequilibrium of a household to more realistically predict housing consumption. With this, housing preferences become discernable. Similarly, Weinberg, Friedman and Mayo (1981) calculated housing services into their model. Here, the market price of specific housing services indicate to the household if the move will reduce consumption disequilibrium. Essentially their model suggested different housing markets will demand different prices for certain services. In this manner, their model is applicable to any market and accounts for differences between markets.

The findings of the analyses of these economic models have reported the dwelling, neighbourhood and area attributes,
as well as the situational characteristics of the household as being the sources of housing consumption deficiencies. Most commonly cited are the space and the number of rooms in the home to meet the requirements of the household. Both Goodman (1976) and Onaka (1983) found that household crowding resulted in a move to a larger dwelling. However, in Goodman's investigation, moves were predominantly made to larger houses mainly by families who would not have been considered crowded before relocating. Still, Boehm and Ihlanfeldt (1986) established large increases in the family, defined as two or more persons, induced mobility. Conversely, decreases in the family size can produce moves (Weinberg, 1979). In such cases, Weinberg (1979) documented that the interior space and quality of the dwelling provided suboptimum utility with housing consumed, and caused relocation.

The major inference drawn from these findings about housing space and number of rooms is that there exists a relationship between declining utility and changes in the family life cycle. When family members leave the household, excess space is created; when new family members "arrive" in the household, more dwelling living space is required. Both instigate changes in the household's utility for different sized homes, and therefore potentially alter its housing consumption. Indeed, Onaka (1983) found that while larger households were less mobile than smaller ones, the former gained greater utility from their moves.
Neighbourhood and area attributes have also been shown to influence the household's propensity to move (Weinberg, 1979). For example, a declining neighbourhood contributed to a household relocating elsewhere (Boehm and Ihlanfeldt, 1986). Likewise, an increase in neighbourhood quality increased housing consumption without increasing expenditure, thereby maintaining housing equilibrium (Weinberg, 1979). Also, a household in a better quality neighbourhood was less likely to move than a household in a poor quality neighbourhood (Boehm and Ihlanfeldt, 1986). Alternatively, Weinberg (1979) posited that an increase in the quality of a neighbourhood induced mobility since housing prices increased in the area. A household owning a home could then compensate the costs of a move with capital accumulated from a sale of the dwelling.

Area attributes have been represented by the accessibility to work and service concerns of a household. A poor accessibility to employment may require the household to consume less housing in exchange for commuting costs (Goodman, 1976). With the change of employment by members in the household, relocation may result to offset these costs. However, Goodman had reported that accessibility concerns minimally affect mobility.

A household's economic situation can also influence mobility. Increases in income may motivate a household to move to a new location in order to increase their consumption of housing (Goodman, 1976). Conversely, a decrease in income
will force a household no longer able to consume the same amount of housing into a lower consumption location (Goodman, 1976). Middle income households were found to be the most mobile class in Weinberg's (1979) study, possibly because they are the most able to better their economic position through mobility. Indeed, Clark, Deurloo and Dieleman (1984) suggested previous home owners moved into more expensive housing which was financed by accumulated equity from previous moves. Further, Clark and his colleagues found income dictated the choice of tenure, renter or owner, and the type of housing consumed. Other researchers suggested owners viewed their homes as an asset which, if necessary, financed moving costs (Boehm and Ihlanfeldt, 1986). As such, Boehm and Ihlanfeldt (1985) suggested that a household's income change had no real effect on mobility. Instead, renter-to-owner mobility changes resulted from home ownership being viewed as more economically stable. Ioannides (1987) corroborated Boehm and Ihlanfeldt's findings and also posited inflation fuelled renter to owner tenure changes. Substantiating evidence put forth by Weinberg, Friedman and Mayo (1981) stated that loose housing markets with high vacancies projected high mobility patterns and lower moving costs to those households that moved. Weinberg (1979) found similar results which suggested that owners take advantage of the best economic climates to maximize investments.
2.2 Behavioral Models

In contrast to economic models, Brown and Moore (1970) conceptualized a household's move as being driven by the search for better place utility, "which essentially measures an individual's level of satisfaction or dissatisfaction with respect to a given location (p. 1)". When place utility is suboptimum to the household's expectations, the rational behaviour is to relocate. The action required to relocate involves both the search and choice of a new location providing optimum or at least a higher level of place utility from the previous dwelling. Thus, during the initial decision to move, the household assesses its utility with the present location. In doing so, the household computes its residential stresses in comparison to its housing aspirations. The difference between a household's aspiration with housing, or aspiration place utility, and its experienced place utility is defined as residential stress (Brummell, 1979). Secondly, after a search of available vacancies, the household will know more clearly whether a reduction in stress can be attained by relocation. If vacancies do not meet expectations and the household does not move, it may then re-evaluate its aspirations. Throughout the process, the passage of time may change the stresses or aspiration level of the household as well.

A household constantly evaluates its present position with housing over its aspirations. The comparisons are often
done subconsciously after the household recognises alternative locations within its "action space"; the area where the household collects ideas for housing needs and aspirations (Wolpert, 1965). Most likely, the household's action space will be the immediate area where its members commute or travel daily. Contact with relatives, friends and the media will additionally provide the household with information inducing it to evaluate its place utility.

The stresses found to cause mobility from a behavioral standpoint are generally similar to economic theories where dwelling unit, neighbourhood, and area attributes are paramount. The predominant dwelling unit attribute deals with inadequate living space. In their summary of 20 studies of residential mobility, Clark and Onaka (1983) found that nearly 20 percent of all moves resulted from space considerations. Also, in one third of the households surveyed by Goodman (1979), new household formation or changes in marital status induced movers to desire more space. Clark, Deurloo and Dieleman (1984) more specifically linked space to the propensity of moving. Interestingly, the birth of a child into the household restrained mobility, suggesting home owners anticipated the need for space, and acted accordingly prior to the child's birth. Those that did not move prior to a birth, however, relocated shortly thereafter. Brummell (1979) in his model stated that housing preferences in family oriented households were strongly dictated by space
considerations. Consumer oriented households had other, possibly income dependent considerations. The space in the dwelling, therefore, is important to the household both in a physical and a social sense. To date however, the social need, where sex of children in the family will dictate, for example, additional bedrooms, can only be inferred from other studies.

Living space considerations have been found to be an impetus to mobility in other research as well. Phipps (1982) found the number of rooms to be a cause of dwelling dissatisfaction and thus of mobility. The death of a spouse or a divorce, often signifying the end of a life cycle, was found to lead to excess space, and therefore mobility (Abu Lughod and Foley, 1966; Brummell, 1979). Further, the condition of the dwelling unit can also contribute to a move. Michelson (1977) noted that a general dislike of the occupied home produced a desire to attain a more suitable dwelling. Substantiating evidence from Phipps (1982) found stress with the decor of the old home led to seek a new residence.

Non-economic neighbourhood and area attributes have also been found to influence the mobility decision. The most significant neighbourhood attributes include its general accessibility to schools, shopping and other facilities (Goodman, 1979; Jud and Bennett, 1986; Michelson, 1977; Phipps, 1982; Speare, Goldstein and Frey, 1975). Movers perceived a high quality neighbourhood as having an equally
high quality public school (Jud and Bennett, 1986). In essence, a high priced dwelling bought accessibility to better education for children in the household. However, the high price also deterred the decision to move if beyond the households budget for housing. On the other hand, Goodman (1979) found school quality important only to a small fraction of the respondents in his study. Accessibility of the new neighbourhood was found to be more important. Speare, Goldstein and Frey (1974), however, found accessibility to be insignificant.

The quality of housing in a neighbourhood may also serve as the impetus to mobility. For example, Michelson (1977) and Phipps (1982) found that cleanliness and upkeep of a neighbourhood, respectively, acted as significant stressors to relocation. Michelson also noted that the type of people in a neighbourhood desirable to the household contributed to moves.

2.3 Formalizing Stress and Consumption Disequilibrium

In this study, the aforementioned changes in attributes and situational variables are expressed in the terminology of the refined stress-resistance model of residential mobility (Phipps, 1989a). Attribute stress is defined for each attribute of the current home at either time t, $S_{k,t}(x_m)$, or $t+1$, $S_{k,t+1}(x_m)$. Each of these attribute stresses is the difference between the household's utility for its
budget-constrained most preferred b^th level of the attribute, U_k(x_{mb}), and its experienced level, U_k(x_{m1}): i.e., S_{k,1}(x_{m1}) = (u_k(x_{mb}) - u_k(x_{m1})). As the overall stress for the current home S_{k,1}(X_1), is the importance weighted \{b_{k,m}\} composite of these stresses for the home's attributes, i.e., Sum_m (b_{k,m} s_{k,1}(x_{m1})), the worsening in the one salient attribute may transmit into a worsening overall stress now or later.

Concurrently, economic consumption disequilibrium is defined as the divergence between a household's actual expenditures or imputed rents for its current home, and its equilibrium expenditures on its budget-constrained most preferred housing. The magnitude of this divergence in economic utilities may not correspond with a specific household's level of overall stress. This is represented, for example at time t by p_t(X_{b,1}) - p_t(X_{1,1}); where \{p_t\} are the prices for the attributes of homes, and the \{b\} and the \{I\} levels of the attributes are, respectively, the budget-constrained most preferred levels, and the experienced levels in the current homes, as defined above.

2.4 Refined Stress-Resistance Model

The hypothesis is that a household will think of moving only if its widening consumption disequilibrium and its worsening residential stress at time t (or projected for t+1) exceed its threshold level for each, and its resistances to moving, R_{k,1}(X_1). These household resistances are the possibly
substantial economic and psychological costs of moving; they range from money, time and effort necessary to search for another suitable home, to the severing of attachments with the old neighbourhood. In general, therefore, the household's likelihood of moving at time $t$, $M_{k,t}(X_l)$, is expressed as:

$$M_{k,t}(X_l) = f[S^*_{k,t}(X_l), \ p_x(X_{k,t}) - p_x(X_{l,t}), \ R_{k,t}(X_l), Y_{k,t}].$$  \hspace{1cm} (1)$$

The $\{Y_{k,t}\}$ are the household's situational constraints which are possibly independent of its budget constraint, such as its length of residence, stage in the family life cycle, education of members, and the occupations of its primary wage earners.

Even though the household's relatively weak resistances may not be constraining it from moving to adjust its significantly worsening stress, and/or its widening consumption disequilibrium, it will not move unless it finds "new" and "better" available homes within its budget constraint. As it inspects these vacancies, the further prediction is that the household will attempt to choose a new $j^{th}$ home within its budget constraint that maximally reduces its stress and/or consumption disequilibrium with its "old" home's attributes. In general, its probability of moving from its "old" to a "new" home is a function of the economic and behavioral differences between the homes' attributes:

$$M_{k,t}(X_j \ X_l) = f[(S^*_{k,t}(X_j) - S^*_{k,t}(X_l)), \ p_x(X_{j,t}) - p_x(X_{l,t}), R_{k,t}(X_j), Y_{k,t}]$$  \hspace{1cm} (2)$$

In summary, the household's decision to move is related
to its utilitarian and economic differences between the attributes of the "old" and "new" homes, its resistances, and its situational variables. Based on the preceding literature review, behavioral attributes of household's "old" and "new" dwelling unit include the interior size and layout, the interior and exterior condition, and the lot size; the economic attributes as represented by the recurring costs of living there, and the potential as an investment. The social attributes of the neighbourhood include the characteristics of the neighbouring people and the land-use environment around the ten-to-twelve houses seen from the front and backyards; the economic attribute is the social prestige of neighbouring houses. The behavioral attributes of the area within one-half to one mile of the homes are the accessibilities to elementary and high schools, and other people and activities; the economic attribute is the social prestige of the area.

To fit the stress-resistance model and test the hypotheses, either direct measures of a household's old home and new home stresses and its consumption disequilibria or indirect comparative satisfaction scores are required. While the former requires long term longitudinal direct observations, the latter can be accomplished through retrospective surveying procedures. The latter of the two was the method adopted for the study.

Operationally, the stress-resistance model was calibrated using logistic regression analysis. This type of analysis
differs from a general linear regression analysis with the
dependent variable subjected to a logistic transformation.
With the logistic regressions, a two step method first
involved a linear stepwise regression procedure where the
dependent variables had a logistic transformation. The
statistically significant variables uncovered at probability
<0.05 in the first step became the initial parameters for a
non-linear logistic regression. The initial parameters were
iteratively calibrated for maximum likelihood with an
untransformed dependent variable. The final regression
equation appeared as:

$$\log \frac{Y_i}{1-Y_i} = B_0 + B_1X_1 + B_2X_2 \ldots + B_kX_k$$

(Clark and Hosking, 1986) (3)

More specifically the stepwise regression and non-linear
logistic regressions were computed by means of an SPSS-X
statistical program. As mentioned, the first step was to
compute a stepwise regression to eliminate frivolous variables
from entering the logistic equation and streamline the
computational process. Five stepwise procedures were run for
the different dependent variables. All the stepwise
regressions were found to have met the assumptions of
regression. However, from a plot of the residuals of the
regression, it became apparent that the stepwise procedure had
predicted out of range. Therefore, the second step, to
transform the data to a 0 to 1 range similar to the 0 to 100
scale data, was adopted. However, to do so, ordinary least squares procedures applied to a regression equation would violate the assumption of equal variance (Clark and Hosking, 1986). Also, the ordinary least squares method could produce predicted values on an negative infinity to infinity range, exceeding the 0 to 1 transformation range. Therefore, the regression equation was reformulated as depicted in equation (3) above.

Instead of the ordinary least squares method, a maximum likelihood method was used. This involved using the coefficients from the stepwise procedure as initial parameters for the logistic equation. Next a loss function iteratively computed the maximum likelihood of the parameters in the logistic regression equation. Between 9 and 12 major iterations were needed for each of the five regression models.

Three of the logistic regression analyses assessed the respondents' comparative satisfaction for their new locations versus their old dwelling, neighbourhood and area. Additionally, two models generally assessed their overall satisfaction with the move with "life better or worse now" and "pleased or upset at time of move" as dependent variables. Following in from the conceptual stress-resistance model, each logistic regression model potentially contained either dwelling, neighbourhood or area response scores, the associated resistances, and the controlling situational variables. The following chapter discusses in detail the data
collection procedures.
CHAPTER 3

METHODOLOGY

3.1 Survey

The methodology was designed to collect a sample of movers' reasons for moving to test the hypotheses that (1) movers experience divergent sources of stress and consumption disequilibrium in moving and (2) that these were consistently greater than resistances creating inertia to stay. A questionnaire collected mover responses in relation to their old and new dwelling, neighbourhood and area. Primarily, comparative satisfaction questions related to the mover household their reduced stress of the current dwelling, neighbourhood and area over the old. Specifically, the dwelling attributes, including "size and number of rooms" and "interior decor and layout" as behavioral characteristics, and economic attributes were rated on a 0 to 100 scale. At the low end of the scale, 0 represented a "like current dwelling a lot less", 50 a "same", and 100 a "like current dwelling a lot more" (see Figure 1). Additionally, economic characteristics of the household's dwelling requirements were asked. The "investment potential", "property taxes" and "costs of maintenance and repair" of the current dwelling from the old were also rated on the same 0 to 100 scale.

The neighbourhood and area attributes were similarly rated on the scale where 0 represented a "like less" score, 50 represented the "same" and "like more" represented 100.
SECTION III: YOUR CURRENT HOUSE AND NEIGHBORHOOD

Now, let's talk about your current home, and see how it compares with your old address.

15. First, let's compare your "old" and "new" dwellings. Use this scale to judge whether you like the characteristics of your current dwelling more or less than your "old" dwelling's.

<table>
<thead>
<tr>
<th>like current dwelling</th>
<th>like current dwelling</th>
<th>like current dwelling</th>
<th>like current dwelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>lot less</td>
<td>less</td>
<td>same</td>
<td>more</td>
</tr>
</tbody>
</table>

Write a score between 0 and 100 in each of the boxes.

1. size/number of rooms .................................................
2. interior decor and layout ............................................
3. interior maintenance to fixtures, floors, ceilings, walls, etc............................................
4. exterior maintenance to siding, windows, eaves, roof, etc............................................
5. yard space ....................................................................
6. separation between neighboring houses ................................
7. investment potential ....................................................
8. property taxes ............................................................
9. electricity and utility bills ...........................................
10. costs of maintenance and repair .....................................

16. In general terms, do you like living in your current dwelling more or less than your old dwelling. Place an X on this line.

<table>
<thead>
<tr>
<th>like current dwelling</th>
<th>like current dwelling</th>
<th>like current dwelling</th>
<th>like current dwelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>lot less</td>
<td>less</td>
<td>same</td>
<td>more</td>
</tr>
</tbody>
</table>

0 25 50 75 100
17. Second, let's compare your "old" and current neighborhoods. Define these neighborhoods in terms of the ten to twelve houses which you could see from your front and backyards.

As before, use this scale to judge whether you like the characteristics of your current neighborhood more or less than your "old" neighborhood's.

<table>
<thead>
<tr>
<th>like current neighborhood</th>
<th>like current neighborhood</th>
<th>like current neighborhood</th>
<th>like current neighborhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>a lot less</td>
<td>less</td>
<td>same</td>
<td>more</td>
</tr>
<tr>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
</tr>
</tbody>
</table>

Write a score between 0 and 100 in each of the boxes.

1. friendliness and helpfulness of neighbors
2. similarity of neighbors to your family
3. neighborhood cleanliness and upkeep
4. social prestige of the neighboring houses
5. safety of the neighborhood for children and adults
6. amount of trees and landscaping
7. availability of parking and absence of traffic
8. absence of apartments and/or commercial facilities
9. absence of street noise
10. absence of rundown houses

18. In general terms, do you like living in your current neighborhood more or less than your old neighborhood?
Place an X on this line.

<table>
<thead>
<tr>
<th>like current neighborhood</th>
<th>like current neighborhood</th>
<th>like current neighborhood</th>
<th>like current neighborhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>a lot less</td>
<td>less</td>
<td>same</td>
<td>more</td>
</tr>
<tr>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
</tr>
</tbody>
</table>
FIGURE 3

19. Third, let's compare your "old" and current areas. Define these areas or neighborhoods as the houses, stores and other places within a half to one mile of your home.

Once again, use this scale to judge whether you like the characteristics of your current area more or less than your old area's.

<table>
<thead>
<tr>
<th>like current area a lot</th>
<th>like current area less</th>
<th>like current area more</th>
<th>like current area a lot</th>
<th>less</th>
<th>same</th>
<th>more</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>0</td>
<td>25</td>
<td>50</td>
</tr>
</tbody>
</table>

Write a score between 0 and 100 in each of the boxes.

1. your feeling of belonging to the community ..............
2. nearness to friends and relatives ......................
3. adequacy of public transit or access to "freeways".....
4. access to elementary school ............................
5. access to high school ..................................
6. access to doctors/clinics and stores/malls ............
7. accessibility to work .................................
8. absence of industrial or other incompatible activities.
9. access to parks and playgrounds ......................
10. social prestige of the area ..........................

20. In general terms, do you like living in your current area more or less than your old area? (Place an X on this line).

<table>
<thead>
<tr>
<th>like current area a lot</th>
<th>like current area less</th>
<th>like current area more</th>
<th>like current area a lot</th>
<th>less</th>
<th>same</th>
<th>more</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>0</td>
<td>25</td>
<td>50</td>
</tr>
</tbody>
</table>

21. What is the likelihood of your family or household moving from your current home in the next two years? (Place an X on this line).

<table>
<thead>
<tr>
<th>highly unlikely</th>
<th>unlikely</th>
<th>maybe/maybe</th>
<th>likely</th>
<th>highly likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

24
Similarly, behavioral and economically motivated responses were in these sections. The neighbourhood behavioral oriented questions represented the households perceived needs from the surroundings such as "friendliness of neighbours" and "cleanliness of the neighbourhood". Economically, "social prestige of the neighbourhood" and "absence of rundown houses" elated the respondent's awareness of the physical condition that reflected on housing costs (see Figure 2). Behavioral characteristics of the area were presented as "feeling of community or belonging to the area" and "accessibility to friends and relatives" (see Figure 3). Economic characteristics in the areas again reflected the desire for economic stability through real estate as represented by such questions concerning "social prestige of the area" and "absence of industrial or other incompatible activities" (see Figure 3).

Additional sections in the survey were the importance to move questions (see Section I, Question 7, Appendix 1) and the respondents' situational characteristics as represented by demographic questions (see Section V, Appendix 1).

3.2 Respondents

Four neighbourhoods in the City of Windsor represented a sample of in/out-movers for the total population (see Figure 4). Movers in these neighbourhoods were identified from the Windsor City Directory in the years 1985-1989. A hand
FIGURE 5

NIAGARA FALLS
MOVER SAMPLE

STUDY NEIGHBOURHOODS

MOVER DIRECTION

SCALE

0 1 2 3 Km
delivered questionnaire was distributed to those households, with a mail back return. 135 respondents, representing a 20 percent random sample of the total movers of the neighbourhoods, form the Windsor mover sample.

For the Niagara Falls population, one neighbourhood potentially comparable to those in Windsor was identified, and all the households living there in fall 1990 were approached to participate in responding (see Figure 5). Only those households that had moved in the previous five years were eligible to complete the questionnaire. All other households were by-passed. With a mail back return, seventy-four questionnaire were collected. Therefore a total of 209 questionnaires from both cities represent the data for the present study.

Incidentally, all the respondents voluntarily moved from their previous address to the present. Movers required at least some basic level of income to overcome the costs involved in moving. In this regard, the mover sample does not homogeneously represent the total mover population in the cities studied.

In general, the respondents were owners at their previous address (68 percent) and had children below the age of 18 in the household (65 percent). Forty five percent have at least one member with a university education and 53 percent earned more than $45 000 annual household income (see Table 1). Figures 4 and 5 summarize the distances and directions for
<table>
<thead>
<tr>
<th>Factor</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renter at previous address</td>
<td>31.6</td>
</tr>
<tr>
<td>Owner at previous address</td>
<td>68.4</td>
</tr>
<tr>
<td>Children below age 18 in the Household</td>
<td></td>
</tr>
<tr>
<td>- no</td>
<td>34.9</td>
</tr>
<tr>
<td>- yes</td>
<td>65.1</td>
</tr>
<tr>
<td>University education</td>
<td></td>
</tr>
<tr>
<td>- no</td>
<td>54.5</td>
</tr>
<tr>
<td>- yes</td>
<td>45.5</td>
</tr>
<tr>
<td>Annual income greater than $45,000</td>
<td></td>
</tr>
<tr>
<td>- no</td>
<td>47.4</td>
</tr>
<tr>
<td>- yes</td>
<td>52.6</td>
</tr>
<tr>
<td>Tenure length at old address</td>
<td></td>
</tr>
<tr>
<td>&lt; 5 years</td>
<td>50.2</td>
</tr>
<tr>
<td>&gt; 5 years</td>
<td>49.8</td>
</tr>
<tr>
<td>Moves during last 5 years</td>
<td></td>
</tr>
<tr>
<td>- once to present home</td>
<td>71.3</td>
</tr>
<tr>
<td>- more than once</td>
<td>28.7</td>
</tr>
<tr>
<td>Search time to find present home</td>
<td></td>
</tr>
<tr>
<td>- 3 months</td>
<td>55.0</td>
</tr>
<tr>
<td>&gt; 3 months</td>
<td>45.0</td>
</tr>
<tr>
<td>Out of pocket expenses</td>
<td></td>
</tr>
<tr>
<td>&lt; $500</td>
<td>49.8</td>
</tr>
<tr>
<td>&gt; $500</td>
<td>50.2</td>
</tr>
<tr>
<td>Time to plan for the move</td>
<td></td>
</tr>
<tr>
<td>- 3 months</td>
<td>48.3</td>
</tr>
<tr>
<td>&gt; 3 months</td>
<td>51.7</td>
</tr>
<tr>
<td>Upset at the time of the move</td>
<td></td>
</tr>
<tr>
<td>- no</td>
<td>59.9</td>
</tr>
<tr>
<td>- yes</td>
<td>41.1</td>
</tr>
</tbody>
</table>
some of the households that moved within Windsor and Niagara Falls, respectively. Approximately 82% of the total sample is represented in the figures. The remainder of the sample either did not indicate their "before" location or were movers from outside of the city boundaries. Generally, no distinct movement pattern is distinguishable for either city sample. The longer distance, cross-city moves are approximately a 10 kilometre straight line distance. Short-distance moves originated from as close as the same neighbourhood. The respondents in the Windsor sample averaged 3.81 kilometres in their moves while the Niagara Falls respondents had a mean relocation distance of 3.39 kilometres.

In sum, the mobility pattern depicted reveals little of the decision to move. Aggregate questionnaire responses in the following section point to those reasons affecting the relocation decision. More formally, the logistic regression analysis assessed the dissatisfaction and consumption disequilibrium of the movers.
CHAPTER 4

RESULTS AND DISCUSSION

As previously indicated, this section discloses the aggregate respondent levels of the reasons for moving, and the logistic regression analyses. The logistic regressions of the respondents' comparative satisfactions for their "old" and "new" dwelling units, neighbourhoods and areas are used infer their stresses and/or consumption disequilibrium after their moves. Additionally, an inquiry into the mover's overall satisfaction with life from before to after relocation completes the discussion.

4.1 Reasons For Moving

In their reasons for moving, the household's were influenced by both behavioral and economic motivations (see Table 2). Consistent with the behavioral literature, life cycle attributes involving family composition and home size had a mean score nearing 0.50 (Onaka, 1983; Rossi, 1980). Relative to other variables, moves to adjust the size of the dwelling represented a strong motivation for relocation with a 10 point higher mean score than the next highest ranking variable. None the less, considering no less than 18 other variables had a potential as a reason for moving, adjusting the size of the dwelling clearly compares predominantly. At the same time, a mean score of 0.36 for the "style or layout of the home was unsatisfactory" suggests the old home was
TABLE 2. MEAN IMPORTANCE OF THE FACTORS CONTRIBUTING TO MOVES FROM THE "OLD" ADDRESS

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean score</th>
<th>Conf. Int.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home was too small or large</td>
<td>0.46</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>The style or layout of the home was unsatisfactory</td>
<td>0.36</td>
<td>+/- 0.02</td>
</tr>
<tr>
<td>Change in family composition due to birth, death, divorce, departure of kids</td>
<td>0.32</td>
<td>+/- 0.02</td>
</tr>
<tr>
<td>You wanted to be nearer to some facility such as school, doctor, stores, hospital, or church, and/or friends or relatives</td>
<td>0.30</td>
<td>+/- 0.02</td>
</tr>
<tr>
<td>Wanted to switch to become an owner/renter</td>
<td>0.21</td>
<td>+/- 0.01</td>
</tr>
<tr>
<td>Change in job or job location</td>
<td>0.21</td>
<td>+/- 0.01</td>
</tr>
<tr>
<td>Neighbourhood deterioration associated with different types of people moving in</td>
<td>0.20</td>
<td>+/- 0.01</td>
</tr>
<tr>
<td>You wanted to be nearer to an elementary or high school</td>
<td>0.16</td>
<td>+/- 0.01</td>
</tr>
<tr>
<td>Expectation of profit from sale of old house</td>
<td>0.16</td>
<td>+/- 0.01</td>
</tr>
<tr>
<td>Change in family income</td>
<td>0.15</td>
<td>+/- 0.01</td>
</tr>
<tr>
<td>Traffic or parking problems</td>
<td>0.12</td>
<td>+/- 0.01</td>
</tr>
<tr>
<td>Increase in rent, mortgage or property taxes</td>
<td>0.11</td>
<td>+/- 0.00</td>
</tr>
<tr>
<td>Your home's condition was too poor</td>
<td>0.09</td>
<td>+/- 0.00</td>
</tr>
<tr>
<td>Neighbourhood crime or safety problems</td>
<td>0.09</td>
<td>+/- 0.00</td>
</tr>
<tr>
<td>Neighbourhood deterioration associated with apartment or commercial construction</td>
<td>0.07</td>
<td>+/- 0.00</td>
</tr>
<tr>
<td>Pressure from neighbours or realtors or others to sell your house or to move from the neighbourhood</td>
<td>0.06</td>
<td>+/- 0.00</td>
</tr>
<tr>
<td>Anticipated demolition or conversion of your house</td>
<td>0.04</td>
<td>+/- 0.00</td>
</tr>
<tr>
<td>Notice from landlord to move or end of lease</td>
<td>0.03</td>
<td>+/- 0.00</td>
</tr>
<tr>
<td>Your friends were moving out</td>
<td>0.02</td>
<td>+/- 0.00</td>
</tr>
</tbody>
</table>

Note: 0.0 = "unimportant", 0.5 = "important", 1.0 = "extremely important".
inadequate in its layout for changing household functions, possibly due to the addition or departure of children which received a mean score of 0.32.

Economic reasons for moving were also evident in respect to high mean importance scores. Thus consistent with the literature, a relatively strong mean importance of 0.21 for owners changing their previous renting status, and households moving closer to employment were observed. Additionally, a potential decreasing profit from the sale of the home caused by a declining neighbourhood prompted some movers, as shown by a moderately strong mean score of 0.20. Consistent with this was a 0.16 mean score for profit from the sale of the home. The general economic climate of the study period may have allowed homeowners to increase their housing aspirations and benefit financially. The movers may also be attempting to evade high rent, property taxes or a home with costly maintenance. The 0.11 mean score for "increase of rent, mortgage or property taxes" and 0.09 mean score for "your home's condition was poor" are reasonable scores encouraging out movement. As others have noted (Weinberg, et. al., 1981; Weinberg, 1979), an increase in family income may bring about a change in residence, as corroborated by the mean score of 0.15. Stronger still were mean scores for movers wanting to be closer to a school and moving from an area with traffic or parking problems. Both scores were moderately strong and point to movers relocating from a dwelling with traffic
congestion and accessibility concerns that may affect potential resale value.

4.2 Comparative Satisfaction Scores

Fewer than 15 percent of the respondents were less satisfied with their new home after their move from the previous location. Movers' reducing their residential stress and consumption disequilibrium from the old to the new location is evident in the mean scores with respect to the dwelling unit, neighbourhood and area. Table 3 presents the mover satisfaction with the new dwelling as compared to the old. Strong behavioral satisfaction scores are represented in the new dwelling's size and number of rooms represents movers' satisfaction with a 0.71 mean score. A parallel to this is evident with the interior decor and layout, a 0.70 score, being significantly better liked than the old homes'. The exterior yard space further added to the behavioral satisfaction with moving.

Economic considerations are also related to the satisfaction, primarily with investment potential obtaining a high 0.69 mean score response. Maintenance, both interior and exterior added to an "equalization" in housing consumption with moving to a new dwelling. Further, separation between houses appears to economically enhance the income potential of the new location and, thus relocation. It received a "like a little better", 0.59, mean score. Property taxes, however
obtained universal less satisfaction receiving a comparatively lower score which may suggest the new dwellings' income potential and low maintenance. Larger lot size, as evident through separation between houses, was possibly traded off for higher tax payments.

The behavioral satisfaction attributes with the neighbourhood are depicted in Table 4. The behavioral satisfactions obtained the highest mean scores for which "neighbourhood cleanliness and upkeep" was the primary concern. The new neighbourhood also provided a relatively comfortable location for the household with a mean score of 0.67. A still relatively strong mean score for the friendliness of the new neighbourhood over the old most likely aided the strong opinion of the new neighbourhood. Lastly, the satisfaction with the new location appears to have been minimally affected by the similarity of neighbours to the respondent family members. The comparatively lower mean score may suggest less importance. Researchers have suggested that movers tend to relocate where neighbours are similar to themselves (Knox, 1987; Speare, Goldstein and Frey, 1975). On the other hand, relocation to a perceived higher quality neighbourhood may provoke a perceived higher "class" of neighbours. However, the 0.54 mean score in this category only marginally suggests this. With this perception, moving to a better neighbourhood may counter previous findings.

Economic factors are also represented in Table 4. Most
<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean Score</th>
<th>95% Conf. Int.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size and/or number of rooms</td>
<td>0.71</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Interior decor and layout</td>
<td>0.70</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Investment potential</td>
<td>0.69</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Yardspace</td>
<td>0.67</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Exterior maintenance to siding, windows, eaves, roof, etc.</td>
<td>0.59</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Separation between neighbouring houses</td>
<td>0.59</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Interior maintenance to fixtures, floors, ceilings, walls, etc.</td>
<td>0.58</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Electricity and utility bills</td>
<td>0.47</td>
<td>+/- 0.02</td>
</tr>
<tr>
<td>Costs of maintenance and repair</td>
<td>0.47</td>
<td>+/- 0.02</td>
</tr>
<tr>
<td>Property taxes</td>
<td>0.04</td>
<td>+/- 0.00</td>
</tr>
</tbody>
</table>

* 0.0 = "satisfied with current dwelling a lot less", 0.5 = "same", 1.0 = "satisfied with current dwelling a lot more".
TABLE 4. MEAN SATISFACTION WITH THE NEIGHBOURHOOD ATTRIBUTES OF THE PRESENT HOME IN COMPARISON WITH THE PREVIOUS HOME*  

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean Score</th>
<th>95% Conf. Int.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighbourhood cleanliness and upkeep</td>
<td>0.70</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Safety of the neighbourhood for children and adults</td>
<td>0.67</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Social prestige of the neighbourhood houses</td>
<td>0.65</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Amount of trees and landscaping</td>
<td>0.65</td>
<td>+/- 0.02</td>
</tr>
<tr>
<td>Absence of rundown houses</td>
<td>0.65</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Absence of apartments and/or commercial facilities</td>
<td>0.65</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Availability of parking and absence of traffic</td>
<td>0.64</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Friendliness and helpfulness of neighbours</td>
<td>0.62</td>
<td>+/- 0.02</td>
</tr>
<tr>
<td>Absence of street noise</td>
<td>0.61</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Similarity of neighbours to your family</td>
<td>0.54</td>
<td>+/- 0.02</td>
</tr>
</tbody>
</table>

* 0.0 = "satisfied with current neighbourhood a lot less", 0.5 = "same", 1.0 = "satisfied with current neighbourhood a lot more".
<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean Score</th>
<th>95% Conf. Int.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequacy of public transit or access to freeways</td>
<td>0.69</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Access to parks and playgrounds</td>
<td>0.67</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Social prestige of the area</td>
<td>0.65</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Access to elementary school</td>
<td>0.64</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Access to doctors/clinics and stores/malls</td>
<td>0.61</td>
<td>+/- 0.02</td>
</tr>
<tr>
<td>Nearness to friends and relatives</td>
<td>0.60</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>Absence of industrial or other incompatible</td>
<td>0.50</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to high school</td>
<td>0.60</td>
<td>+/- 0.02</td>
</tr>
<tr>
<td>Your feeling of belonging to the present</td>
<td>0.59</td>
<td>+/- 0.02</td>
</tr>
<tr>
<td>community</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessibility to work</td>
<td>0.57</td>
<td>+/- 0.02</td>
</tr>
</tbody>
</table>

* 0.0 = "satisfied with current area a lot less", 0.5 = "same", 1.0 = "satisfied with current area a lot more".
obvious of the economic concerns is the social prestige gained through relocation. Also suggestive of social prestige are the attributes "amount of trees and landscaping", "absence of apartment and/or commercial facilities" and "absence of street noise" projecting relatively consistent mean scores to other economic attributes. Together, they suggest the new neighbourhood is attractive for investment purposes. Similar economic attributes to those of the neighbourhood are evident in the mean satisfaction scores of attributes with the new area over the old (see Table 5). Social prestige obtained a 0.65 mean score as well as 0.60 for "absence of industrial or other incompatible activities". Both suggest the general area of relocation yielded economic benefits.

Mean satisfaction scores with the behavioral attributes, however, were somewhat unlike those of the neighbourhood results. Accessibility to parks, schools, services and friends and relatives dominated the general satisfaction concerns of the respondents. Most notable was "adequacy to public transit or access to freeways" which received a mean score of 0.69. While accessibility generally is regarded as minimally affecting mobility (Dzus and Romsa, 1977), the respondents here have given it at least some regard.

4.3 Logistic Regressions of Comparative Satisfaction

The formal investigation of those attributes which have the most effect on residential mobility were assessed through
a series of logistic regressions. The independent variables for each were the comparative satisfaction attributes for the respondent's old and new dwelling units, neighbourhoods and areas. Additional overall satisfaction logistic regressions were formulated for "upset or pleased at the time of the move" and "life better or worse at the new address" as dependent variables. All these logistic regressions potentially included the respective comparative satisfaction attribute scores, their resistances and the respondent situational variables. The stepwise regression and logistic regression analysis acceptably met the assumptions of regression. After the stepwise procedure established significant variables, a logistic regression was conducted. The need for a logistic regression procedure was inferred from a plot of the residuals of the regression in the stepwise procedure to enable a prediction in zero to one dichotomous range and to avoid heteroscedasticity difficulties. Quite acceptably, between 2 and 6 variables had statistically significant coefficients in each logistic regression (at probability level of <0.05). The adjusted comparative satisfaction for the mover households' "new" dwelling units, neighbourhoods and areas were associated with both residential stress and consumption disequilibrium variables. Between 35% and 53% of the total variance in these logistic regressions was explained.

That moves were voluntary can be substantiated by the lack of constraints on movers. While a negligible amount of
respondents acknowledged involuntary mobility (i.e. 5 percent indicating home demolition influenced move and 6 percent recorded other pressures to move), the decision to move was influenced by other factors. Additionally, approximately 50 percent of the movers experienced relatively low out of pocket expenses less than $500, had 3 months or more to plan for the move, and 55 percent had about one month to find their new location; all of which suggest low resistance to mobility.

The following subsections outline the results for the residential stress, the consumption disequilibrium and resistances variables. Also included is a subsection as the respondent's overall satisfaction with life from before to after relocation.

4.3.1 Residential Stress Variables

The movers comparative satisfactions for their new dwelling units, neighbourhoods and areas are presented as residential stresses in Tables 6, 7 and 8. First, the respondents' higher satisfaction for the new dwelling unit over the old significantly correlated with "like new size/number of rooms more or less than the old dwelling's". Second, they reduced residential stresses from the old neighbourhood to the new with "like friendliness of new neighbours more or less than old neighbours" and "like parking of new neighbourhood more or less than old neighbourhood". Finally, their "like new area more or less then old area" corresponded positively with "like feeling of belonging to
community in new area more or less than old area's". All the residential stress attributes had a positive relationship which suggests a consistent decrease of stress from the old location to the new.

The inferences that can be drawn from residential stress variables link relocation to the family life cycle. Behaviorally, the respondents appear to have progressed to a family stage where additional number of rooms are required for family members. Also, the layout of the new dwelling unit may include larger bathroom space, thereby alleviating congested living arrangements present in the old home. The friendliness and availability of parking in the new neighbourhood further suggests that neighbours are similar to themselves in terms of their life cycles and that respondents were less concerned with traffic at the new location, possibly for safety reasons. Corroborating this is the feeling of community in the new area.

4.3.2 Consumption Disequilibrium Variables

Additionally, the results in Tables 6, 7 and 8 identify mover consumption disequilibrium with respect to their new dwelling units, neighbourhoods and areas. A reduction in consumption disequilibrium with the new dwelling unit from the old corresponded with "like investment potential of the new dwelling more or less than old dwelling". The neighbourhood attribute that correlated with consumption disequilibrium of "like new neighbourhood more or less than old neighbourhood"
<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Like new size/number of rooms more or less than old dwelling</td>
<td>1.55</td>
<td>0.46</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>(0.0 = &quot;much less&quot;, 0.5 = &quot;same&quot;, 1.0 = &quot;much more&quot;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like layout of new home more or less than old dwelling's</td>
<td>1.12</td>
<td>0.47</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>(0.0 = &quot;much less&quot;, 0.5 = &quot;same&quot;, 1.0 = &quot;much more&quot;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like investment potential of new dwelling more or less than old dwelling</td>
<td>1.16</td>
<td>0.35</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>(0.0 = &quot;much less&quot;, 0.5 = &quot;same&quot;, 1.0 = &quot;much more&quot;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like electric/utility bills of new dwelling more or less than old dwelling</td>
<td>-0.21</td>
<td>0.40</td>
<td>&gt; 0.05</td>
</tr>
<tr>
<td>(0.0 = &quot;much less&quot;, 0.5 = &quot;same&quot;, 1.0 = &quot;much more&quot;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upset or pleased at the time of move from old address</td>
<td>1.03</td>
<td>0.35</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>(0.0 = &quot;very upset&quot;, 0.5 = &quot;indifferent&quot;, 1.0 = &quot;very pleased&quot;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood of move from current dwelling in next two years</td>
<td>-0.66</td>
<td>0.26</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>(0.0 = &quot;highly unlikely&quot;, 0.5 = &quot;maybe/maybe not&quot;, 1.0 = &quot;highly likely&quot;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept constant</td>
<td>-1.47</td>
<td>0.42</td>
<td>&lt; 0.05</td>
</tr>
</tbody>
</table>

Explained Variation = 49.4% @ Significance = 0.0000
<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Like friendliness of new neighbours more or less than old neighbours (0.0 = &quot;much less&quot;, 0.5 = &quot;same&quot;, 1.0 = &quot;much more&quot;)</td>
<td>1.42</td>
<td>0.42</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Like cleanliness of new neighbourhood more or less than old neighbourhood (0.0 = &quot;much less&quot;, 0.5 = &quot;same&quot;, 1.0 = &quot;much more&quot;)</td>
<td>1.22</td>
<td>0.46</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Like parking of new neighbourhood more or less than old neighbourhood (0.0 = &quot;much less&quot;, 0.5 = &quot;same&quot;, 1.0 = &quot;much more&quot;)</td>
<td>1.43</td>
<td>0.33</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Upset or pleased at the time of move from old address (0.0 = &quot;very upset&quot;, 0.5 = &quot;indifferent&quot;, 1.0 = &quot;very pleased&quot;)</td>
<td>1.16</td>
<td>0.31</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Likelihood of move from current dwelling in next two years (0.0 = &quot;highly unlikely&quot;, 0.5 = &quot;maybe/may not&quot;, 1.0 = &quot;highly likely&quot;)</td>
<td>-0.52</td>
<td>0.25</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Family income (0 = &quot;less than $45 000&quot;, 1 = &quot;greater than $45 000&quot;)</td>
<td>0.36</td>
<td>0.21</td>
<td>&gt; 0.05</td>
</tr>
<tr>
<td>Children 0 to 18 years old in the household (0 = &quot;no children&quot;, 1 = &quot;children&quot;)</td>
<td>0.50</td>
<td>0.21</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Intercept constant</td>
<td>-2.48</td>
<td>0.50</td>
<td>&lt; 0.05</td>
</tr>
</tbody>
</table>

Explained Variation = 52.9% @ Significance = 0.0000
<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Like feeling of belonging to community in new area more or less than old area's (0.0 = &quot;much less&quot;, 0.5 = &quot;same&quot;, 1.0 = &quot;much more&quot;)</td>
<td>1.18</td>
<td>0.31</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Like social prestige in new area more or less than old area's (0.0 = &quot;much less&quot;, 0.5 = &quot;same&quot;, 1.0 = &quot;much more&quot;)</td>
<td>1.81</td>
<td>0.33</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Upset or pleased at the time of move from old address (0.0 = &quot;very upset&quot;, 0.5 = &quot;indifferent&quot;, 1.0 = &quot;very pleased&quot;)</td>
<td>0.97</td>
<td>0.28</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Intercept constant</td>
<td>-1.34</td>
<td>0.31</td>
<td>&lt; 0.05</td>
</tr>
</tbody>
</table>

Explained Variation = 35.0% @ Significance = 0.0000
was "like cleanliness of new neighbourhood more or less than old neighbourhood". Lastly, the affiliation with the new area over the old related to consumption disequilibrium with "like social prestige of the new area more or less than old area's". Once again, the consumption disequilibrium attributes all a had positive relationship suggesting an increased consumption with housing at the new location.

The relationship between the attributes and consumption disequilibrium suggested that the households attempted to better their financial security through a move. The investment potential of the dwelling unit from the old to the new was strengthened. The new neighbourhood projected a cleaner, more livable environment than the old, suggesting a better quality neighbourhood. Further, the social prestige the movers obtained at the new location increased from the old area. Therefore, the move allowed greater consumption of housing and reduced the consumption imbalance prior to relocation.

4.3.3 Resistances

Incidentally, all stepwise regressions of the dependent variables of the neighbourhood and area potentially included resistance variables keeping a household from moving from the old address. Most notable was a negative relationship between the "length of residence at the old address" regressed against being "upset at the time of the move". Clearly a lengthy period of residence at the old home produced a psychological
attachment created a desire to remain there. Additional inertia in the logistic regression for "life better or worse at the time of the move" was found with negative relationship to the "satisfaction with available houses at the time of the move". The psychological attachment to the old dwelling, therefore, could have been compounded by the lack of suitable vacancies. Finally, consistent with the logistic regression findings for "like new dwelling more or less than the old dwelling", "like new neighbourhood more or less than old neighbourhood" and "like new area more or less than old area" was "upset or pleased at the time of the move". However, the positive relationship suggests that the households had either stronger stresses or consumption disequilibria than resistances to the move. Similarly, the households' "likelihood of moving in the next two years" found significance, but also a negative relationship, in "like new dwelling unit" and "like new neighbourhood". In sum, however, these resistances were weak in comparison to stresses on household mobility. Most likely, the pressures to move outweighed the resistances which resulted in the move to the present dwelling.

4.3.4 Life in the Overall

Tables 9 and 10 summarize the overall comparative satisfactions with the respondent's moves from the old address to the new. Undoubtedly, the old home contributed to greater stress since the new location was preferred by the
respondents. The factors that contributed to movers not being upset when they moved were relatively few (see Table 9). The new homes' layout allowed for an ease in the transition to the new location. Further, renters moving into owner status were pleased with the decision, evident with a positive correlation. Not significantly correlated, however, was the length of residence at the old home implying that duration of stay does not contribute to a psychological attachment to the old home. This moves against Goodman's (1976) proposition that duration of stay at the old address will produce psychological inertia to stay.

The households judged that their lives were better at the new address on two accounts (see Table 10). First, the new dwelling significantly factored in which suggests overall stress had been reduced by moving. Secondly, the old neighbourhood contributed to housing stresses which was decreased with the move to the new neighbourhood. Additionally, the likelihood of moving in the next two years did not become a significant attribute, verifying the satisfaction with the present location.

To illustrate the movers overall improved comparative satisfaction from their old location to the new, the predicted satisfaction was computed using equation (3) by substituting mean scores for the attributes into the coefficients for each model. The households predicted a relatively weak score of 0.51 for dependent variable "upset or pleased at the time of
<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Like layout of new home more or less than old dwelling's</td>
<td>0.85</td>
<td>0.32</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>(0.0 = &quot;much less&quot;, 0.5 = &quot;same&quot;, 1.0 = &quot;much more&quot;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenure class at old home (0 = &quot;owner&quot;, 1 = &quot;renter or other&quot;)</td>
<td>0.45</td>
<td>0.21</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>Length of residence at old home</td>
<td>-0.32</td>
<td>0.21</td>
<td>&gt; 0.05</td>
</tr>
<tr>
<td>(0 = &quot;5 years or less&quot;, 1 = &quot;greater than 5 years&quot;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept constant</td>
<td>0.34</td>
<td>0.19</td>
<td>&gt; 0.05</td>
</tr>
</tbody>
</table>

Explained variation = 8.0% @ significance = 0.0000
<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Like new dwelling more or less than old dwelling (0.0 = &quot;much less&quot;</td>
<td>1.50</td>
<td>0.36</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>0.5 = &quot;same&quot;, 1.0 = &quot;much more&quot;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like new neighbourhood more or less than old neighbourhood (0.0 =</td>
<td>1.54</td>
<td>0.42</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>0.5 = &quot;much less&quot;, 0.5 = &quot;same&quot;, 1.0 = &quot;much more&quot;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of moves in the last 5 years (0 = &quot;once to current address&quot;,</td>
<td>0.32</td>
<td>0.18</td>
<td>&gt; 0.05</td>
</tr>
<tr>
<td>1 = &quot;more than once&quot;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with available houses (0.0 = &quot;very dissatisfied&quot;, 0.5</td>
<td>-0.40</td>
<td>0.33</td>
<td>&gt; 0.05</td>
</tr>
<tr>
<td>= &quot;indifferent&quot;, 1.0 = &quot;very satisfied&quot;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood of move from current dwelling in next two years (0.0 =</td>
<td>0.23</td>
<td>0.15</td>
<td>&gt; 0.05</td>
</tr>
<tr>
<td>0.0 = &quot;highly unlikely&quot;, 0.5 = &quot;maybe/maybe not&quot;, 1.0 = high</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>likely&quot;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept constant</td>
<td>-1.20</td>
<td>0.29</td>
<td>&lt; 0.05</td>
</tr>
</tbody>
</table>

Explained variation = 43.1% @ significance = 0.0000
the move." On the other hand, a score of 0.75 predicted value for "life better or worse at the new address" suggests that the new location did significantly alter the household's satisfaction with housing. Together, they are considerably strong predictors that the households are generally more satisfied at the new location as compared to the old.

Similarly, the additional dependent variables were subjected to the same equation to obtain the predicted scores. On the "like current dwelling unit/neighbourhood/area" range, the computed predictions are relatively high with 0.82, 0.79 and 0.76 scores, respectively. All figures highly represent relative improved satisfaction with the moves. However, the best possible prediction obtained by the addition of respective standard deviations to the attributes of each model produced markedly improved satisfactions with 0.94, 0.95 and 0.91 scores on the same "like current dwelling unit/neighbourhood/area" range, respectively. Therefore, while the overall comparative satisfactions are initially in the "like more" than the old range, the best possible response rate increased, nearing a "like much more" score.
CHAPTER 5
CONCLUSION

This study utilized a refined stress-resistance model which integrated the economic and behavioral variables hypothesized to account for household moves. Individual level voluntary mover responses of 135 and 74 households of Windsor and Niagara Falls, respectively, provided comparative satisfaction data for the empirical analysis.

5.1 Theoretical Findings

The hypotheses were confirmed by respondent mean scores on their retrospective satisfaction with the current location over the old and the logistic regressions applied to the responses of mover households. First, the stress reduction associated with behavioral models was evident by households' satisfaction with the new homes' size and number of rooms, the neighbourhoods' friendliness of neighbours and parking, and the areas' sense of belonging. The household's sense of equilibrium with housing consumption associated with economic models was apparent with renters becoming owners and households satisfaction with the dwellings' investment potential and the areas' social prestige.

Second, the resistances to moving were relatively few in comparison to the stresses. In fact, the decision to move was only constrained by the quality and availability of houses when searching for a new home. The attribute "upset at the
time of the move" appeared significant in all but two of the regression results. However, in each case a positive correlation suggests the psychological attachment to the old home was weak.

Third, overall dissatisfaction had been reduced by moving. Indeed, approximately 14 percent were less satisfied with their new dwelling over the old home and a similar proportion, 12 percent, were less satisfied with the current neighbourhood. Even so, only 6 percent felt their life was worse now than before the move. The main stress that induced moves were a dissatisfaction with the size and number of rooms and the layout/decor of the old home. Strong inferences about changes in the family life cycle can be made from this finding which is also the primary mobility factor cited in the literature. Additionally, a dissatisfaction with the old neighbourhood and area, specifically in the sense of friendliness of neighbours, cleanliness of the neighbourhood, a feeling of belonging and the social prestige persuaded the households to find a more suitable location. While some researchers discount the effects of neighbourhood characteristics as unimportant in the mobility decision (Dzus and Romsa, 1977), the results suggest their inclusion in these respondent households' utility function. Further, even though the movers had reduced the stresses associated with housing, it appears the household's traded off higher utility payments and, possibly, accessibility. Accessibility to
parks, stores and clinics had relatively high mean satisfaction scores at the present home over the old location, however, they did not factor into the logistic regression analysis. Perhaps the relative mid-sized nature of the cities and the availability of personal automotive transportation would explain the discrepancy. This should not be surprising since accessibility has historically been a weak predictor of mobility in past studies (Dzus and Romsa, 1977).

The results are not dissimilar from those of research on mobility in the past. In general, corroborating ideas of changing life cycles of households can be concluded here, as with past studies (Clark, Deurloo and Dieleman, 1984; Clark and Onaka, 1983; Phipps, 1989; Rossi, 1980). Movements for the increase of the number of rooms invariably points to life cycle changes since the addition of family members to the household most likely caused such residential stress. Birth of a child most likely caused the life cycle changes since the households desired a new location with safety for the family. However, the results also suggest that in addition to the family life cycle factor, profit motivation is also a large contributing factor to household moves. Surely a family will want an economically secure future, especially when a new child enters the family, which may be attained through investing in residential real estate. However, as Deurloo, Dieleman and Clark (1988) suggested, families may be moving systematically as they secure profits from sales of their
previous dwellings. This economic potential for moving will surely continue to shape the urban and rural landscape, and should stimulate further study.

5.2 Applications for Policy

In this study, a process of mobility has been identified which has clear policy implications. The results imply that movers relocate to larger, more expensive homes. Their chosen dwellings have more rooms and an abundance of parking in the area which require a considerable amount of urban land. The behavioral need for larger housing and the economic desire for income potential of dwellings can only increase the necessity for land consumption. In this regard, even though the present research investigated movements within cities, relocation to suburban or rural areas appears to be implied even in the face of household size declining in the past decade with projections for continued decreases (Aggar, 1990). The consistent desire for larger dwellings certainly should be disconcerting to planners, enough to take countering actions. Lastly, the Province of Ontario's Policy Statement on Affordable Housing (1988) should be viewed as a supporting application of the results here. As mentioned, larger more expensive housing has been sought by the respondents in this study. The application of provincial policy will certainly continue since incentives and demand for smaller housing does not seem apparent. While past theories have suggested the
supply at the high end of the housing scale will produce a filtering down effect for lower cost housing, an applicable study to the City of Windsor discounted such claims (Dzus and Romsa, 1977). The policy implications here should seriously consider attempting to alter housing desire to more closely match needs.

5.4 Problems and Future Research

In conclusion, several questions concerning the methodology and results linger. Initially, the refined stress-resistance model incorporates economic and behavioral contexts. However, it is unable to distinguish the degree to which a household will relocate due to residential stress or consumption disequilibrium. Further, the model fails to account for rationalizing behaviours of households. This is especially applicable to the consumption disequilibrium a household faces. An economic household would have perfect information to help relocation decisions based on limited knowledge. The households in this study may have had varying degrees of information.

Additionally, the analysis under logistic regressions and aggregate level data produced some inconsistencies. While the findings were acceptably similar, supplementary variables were not mutually supportive. For example, accessibility attributes had strong mean scores, however did not produce any
significant variables in the "like area more or less than old" logistic regression. Indeed, as had been concluded in the past literature, accessibility may not be an important dissatisfaction attribute. However, different types of analyses may produce alternative results.

Not withstanding the fact that voluntary movers were under investigation, the significant variables found supported the hypothesis. However, in future investigations, more differing study populations depicting longitudinal movements may produce stronger results. Researchers have suggested if a true description of household mobility is investigated, both the stress and consumption disequilibrium at the new and old home is necessary (Harris and Moore, 1980). Indeed, before and after analyses over a longer time period may be fruitful.
REFERENCES


Phipps, Alan G., 1989b. "Intended-Mobility Responses to Possible Neighbourhood Change in an American, a British and a Canadian Inner-Urban Area". Tijdschrift voor Economische en Sociale Geografie, 80, 1, 43-57.


APPENDIX 1

HOUSEHOLD MOVEMENT SURVEY
Feel free to leave out any question that invades your privacy.

SECTION 1: YOUR PREVIOUS HOME.

1. First things first, what was the address of your "old" home previous to this one:

<table>
<thead>
<tr>
<th>House No.</th>
<th>Street Name</th>
<th>Town/City</th>
</tr>
</thead>
</table>

2. Where was this "old" home of yours located? (Check the box that best applies).

- in the same neighborhood as your current one
- in Windsor/Essex
- in Ontario
- outside of Province

3. How long did you live at your old address? (Check the appropriate box)

- up to 6 months
- 1 year
- up to 2 years
- up to 5 years
- more than 5 years

4. Were you the owner, renter, or other at your "old address"?

- owner
- renter
- other

5. How well do you remember living there? (Place an X on the line below which reflects your level of recall).

<table>
<thead>
<tr>
<th>can't remember</th>
<th>remember some</th>
<th>so-so</th>
<th>quite well</th>
<th>very well</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

6. How many times have you moved during the last 5 years? (Check the appropriate box).

- once to your present home
- two or three times
- more than three times

7. How important were each of the following factors in your decision to move from your "old address"? (Use the scale below to estimate your importance scores).

<table>
<thead>
<tr>
<th>unimportant</th>
<th>somewhat important</th>
<th>important</th>
<th>very important</th>
<th>extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

Write a score between 0 and 100 in each of the boxes.

1. Your old home was too small or too large..........

2. Change in family composition due to birth, death, divorce, or departure of kids, etc..................

3. Increase in rent, or increase in mortgage payments or property taxes ..................................

4. You wanted to be nearer to some facility, such as school, doctor, stores, hospital, or church, and/or to friends and relatives ..........................
5. Change in job or job location ..........................
6. The style or layout of your old home was unsatisfactory ..........................
7. Neighborhood deterioration associated with different types of people moving in ..........................
8. Anticipated demolition or conversion of your house. ..........................................
9. You wanted to switch to become an owner or a renter. ......................................
10. Pressure from neighbors or realtors or others to sell your house or to move from the neighborhood ..........................
11. Your home's condition was too poor ..........................
12. Neighborhood crime or personal safety problems ..........................
13. Notice from landlord to move or end of lease ..........................................
14. You wanted to be nearer to an elementary or a high school ..........................
15. Expectation of profit from sale of your house ..........................................
16. Neighborhood deterioration associated with apartment or commercial construction ..........................
17. Your friends were moving out ..........................
18. Change in family income ..........................
19. Traffic or parking problems ..........................
20. Other - please specify ________________________________

8. In a general way, how upset were you at the time of the move, with having moved from your "old address?" (Place an X on this line).

<table>
<thead>
<tr>
<th></th>
<th>very upset</th>
<th>upset</th>
<th>indifferent</th>
<th>pleased</th>
<th>very pleased</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

9. How frequently have you visited friends, stores or other places in your old neighborhood since you moved out? (Check the appropriate box).

<table>
<thead>
<tr>
<th>never</th>
<th>once or irregularly</th>
<th>about once</th>
<th>about once twice</th>
<th>a month</th>
<th>a week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. When you think back about life in your old house and neighborhood, is your life now better or worse than then? (Place an X on this line).

<table>
<thead>
<tr>
<th>very much worse now</th>
<th>worse now</th>
<th>same</th>
<th>better now</th>
<th>very much better now</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

65
SECTION II: THE MOVE FROM YOUR "OLD ADDRESS"

The questions in this section are concerned with your move from old address and with your success in finding a new home.

11. How long before you moved from your old address did you plan to move, or were you told to move? (Check the appropriate box).

   less than 1 month  about 1 month  about 2 months  about 3 months  more than 3 months

12. About how much time did it take to find your current home? (Check the appropriate box).

   less than 1 month  about 1 month  about 2 months  about 3 months  more than 3 months

13. Approximately how much were your total out-of-pocket expenses for moving? (Check the appropriate box).

   less than $500  between $500 and $2500  between $2500 and $5000  between $5000 and $10,000  more than $10,000

14. In the time you spent looking for a new home, were you generally satisfied or dissatisfied with the types and numbers of houses that were available? (Place X on the line).

   very dissatisfied  dissatisfied  indifferent  satisfied  very satisfied  +  +  +  +  +

   0  25  50  75  100

SECTION III: YOUR CURRENT HOUSE AND NEIGHBORHOOD

Now, let's talk about your current home, and see how it compares with your old address.

15. First, let's compare your "old" and "new" dwellings. Use this scale to judge whether you like the characteristics of your current dwelling more or less than your "old" dwelling's.

   like current dwelling  like current dwelling  like current dwelling  like current dwelling  +  +  +  +

   lot less  less  same  more  lot more

   0  25  50  75  100

Write a score between 0 and 100 in each of the boxes.

1. size/number of rooms ....................................

2. interior decor and layout ................................

3. interior maintenance to fixtures, floors, ceilings, walls, etc. ................................

4. exterior maintenance to siding, windows, eaves, roof, etc. ................................

5. yardspace ..............................................

6. separation between neighboring houses ................

66
7. investment potential ...........................................
8. property taxes ..............................................
9. electricity and utility bills .................................
10. costs of maintenance and repair ..........................

16. In general terms, do you like living in your current dwelling more or less than your old dwelling? Place an X on this line.

<table>
<thead>
<tr>
<th>like current dwelling a lot less</th>
<th>like current dwelling less</th>
<th>like current dwelling same</th>
<th>like current dwelling more</th>
<th>like current dwelling a lot more</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

17. Second, let's compare your "old" and current neighborhoods. Define these neighborhoods in terms of the ten to twelve houses which you could see from your front and backyards.

As before, use this scale to judge whether you like the characteristics of your current neighborhood more or less than your "old" neighborhood.

<table>
<thead>
<tr>
<th>like current neighborhood a lot less</th>
<th>like current neighborhood less</th>
<th>like current neighborhood same</th>
<th>like current neighborhood more</th>
<th>like current neighborhood a lot more</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

Write a score between 0 and 100 in each of the boxes.

1. friendliness and helpfulness of neighbors ............
2. similarity of neighbors to your family ..............
3. neighborhood cleanliness and upkeep .................
4. social prestige of the neighboring houses ..........
5. safety of the neighborhood for children and adults...
6. amount of trees and landscaping .....................
7. availability of parking and absence of traffic ....
8. absence of apartments and/or commercial facilities ...
9. absence of street noise ..............................
10. absence of rundown houses ...........................

18. In general terms, do you like living in your current neighborhood more or less than your old neighborhood? Place an X on this line.

<table>
<thead>
<tr>
<th>like current neighborhood a lot less</th>
<th>like current neighborhood less</th>
<th>like current neighborhood same</th>
<th>like current neighborhood more</th>
<th>like current neighborhood a lot more</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>
19. Third, let's compare your "old" and current areas. Define these areas or neighborhoods as the houses, stores and other places within a half to one mile of your home.

Once again, use this scale to judge whether you like the characteristics of your current area more or less than your old area's.

like current area a lot  like current area less  like current area more  like current area a lot
less + + + +

0 25 50 75 100

Write a score between 0 and 100 in each of the boxes.

1. your feeling of belonging to the community ...............

2. nearness to friends and relatives ..........................

3. adequacy of public transit or access to "freeways".......

4. access to elementary school ..............................

5. access to high school ......................................

6. access to doctors/clinics and stores/malls ..............

7. accessibility to work .....................................

8. absence of industrial or other incompatible activities.

9. access to parks and playgrounds ..........................

10. social prestige of the area ..............................

20. In general terms, do you like living in your current area more or less than your old area? (Place an X on this line).

like current area a lot  like current area less  like current area more  like current area a lot
less + + + +

0 25 50 75 100

21. What is the likelihood of your family or household moving from your current home in the next two years? (Place an X on this line).

highly unlikely  unlikely  maybe/maybe not  likely  highly likely

+ + + +

0 25 50 75 100
SECTION IV: NEIGHBORHOOD SCHOOLS

One reason that we are surveying people who live or lived in specific neighborhoods in Windsor is that each had a recently closed elementary school. Regardless of whether you have school-age children or not, think about your attitudes toward education and schooling before you answer the next questions.

22. Think about the characteristics of a nearby school, and judge the importance of each one listed below using the following scale:

<table>
<thead>
<tr>
<th>unimportant</th>
<th>somewhat important</th>
<th>important</th>
<th>very important</th>
<th>extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

Write a score between 0 and 100 in each of the boxes.

1. your child or children attend a school .................

2. you use a school for adult, evening, or socializing activities........................................

3. the nearness of a school adds to the value of your home ..................................................

4. A nearby school provides open or recreational space....

5. Other ................................................................

23. How much has or did the closing of a school influence your move to your current address? (Place an X on this line).

<table>
<thead>
<tr>
<th>none</th>
<th>a little</th>
<th>somewhat</th>
<th>lots</th>
<th>extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

SECTION V: YOU AND YOUR FAMILY

Finally, we would like to collect some information about your family or household. Remember that you can omit any question that invades your privacy.

24. How many of your family or household are in each of these age groups?

<table>
<thead>
<tr>
<th>0-4 years</th>
<th>5-18 years</th>
<th>19-24 years</th>
<th>25-34 yrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>35-50 years</th>
<th>51-65 years</th>
<th>more than 65 yrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

25. Check the appropriate box(es) for the highest levels of education attained by the adults in your family or household.

Elementary School \ High School \ Technical/vocational Institute \ University

26. What is (are) the occupation(s) of your household's primary wage earner(s)
27. How long have you lived at your current address? (Check the appropriate box.)

Less than one year  Between 1 and 2 yrs.  Between 2 and 5 yrs.  5 years or more

28. Check the box that best represents your total family or household income for the past twelve months.

$0 - $15,000  $15,000 - $30,000  $30,000 - $40,000  $45,000 - $60,000  $60,000 - $75,000  $75,000 and over

29. Thank you for answering our questions. Do you have any other comments about your experiences with housing in Windsor that you would like to add?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

30. If you would like to eventually receive a copy of the results of this survey, please write your name and address here:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Have a Good Day! Thank you very much for your help!
VITA AUCTORIS

NAME: Joseph J. Cimer

PLACE OF BIRTH: Windsor, Ontario

YEAR OF BIRTH: 1965

EDUCATION:

Assumption High School, Windsor, Ontario
1979-1984

University of Windsor, Windsor, Ontario
1984-1989, B.A.

University of Windsor, Windsor, Ontario
1989-1991, M.A.