# RESIDENTIAL MOBILITY IN MONTREAL, 1861-1901

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## ABSTRACT

Residential change is a pervasive condition of North American society. In a lifetime, a person may go through many decisive and interrelated changes in occupational status, family situation and dwelling-place. This research tests the relationships among three major processes: residential mobility, social mobility, and family formation in Montreal between 1861 and 1901. Using sample households from three cultural communities: French Canadian, Irish Catholic, and British Protestants, it was determined that the majority of households were highly mobile, yet remained within a compact geographical area. Mobility is seen as a response to a changing set of needs and opportunities, and families facilitated adjustment through extensive networks of kinship and neighbouring.

Studies of present-day household mobility provide a well-developed set of theories, on which several hypotheses were based. Multivariate regression analysis was performed using the binomial logit model to assess the relative effects of ethnicity, tenure, occupational status, age, household size, marital status and rent, on rates of household persistence.

## RÉSUMÉ

Le changement résidentiel est un aspect dominant dans la société nord-americaine. Durant sa vie, une personne peut faire plusieurs changements importants qui touchent son emploi, sa vie de famille et son domicile. Cette recherche met a l'épreuve la relation entre trois processus importants, que nous retrouvons à Montreal entre 1861 et 1901, soit: la mobilité résidentielle, la promotion sociale et la vie conjugale. En utilisant un échantillon stratifié sur le plan culturel, nous retrouvons trois groupes: les Canadien français, les Irlandais catholiques et les Britanniques protestants. Il a été constaté ces familles étaient pour la plupart très mobiles mais ne s'aventuraient pas au delà aire géographique restreinte. La mobilité de la famille est vue comme une réponse besoins nouveux aux opportunités nouvelles. Les familles s'adaptent et ajustement ent leur logement en mobile et un réseau étendu d'alliances de voisinage et de parenté.

Les études sur la mobilité résidentielle d'aujourd'hui fournissent une série de théories bien développées et un fondement pour plusiers hypotheses. L'analyse multi-variée a été exécuté en utilisant le modèle "binomial logit" afin d'évaluer les effets relatifs de plusiers facteurs, dont l'ethnicité, la tenure, le statut professionel, l'age, la taille de la famille, l'état civil et le loyer, sur le taux de persistance de la famille.

## TABLE OF CONTENTS

## LIST OF TABLES

## LIST OF FIGURES

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## INTRODUCTION

Residential change is a pervasive condition of North American life. It is estimated that approximately one-fifth of Canadians change their address each year (Quigley and Weinberg, 1977; Knox, 1987). In a lifetime, a person may go through many decisive and interrelated changes in occupational status, family situation and dwelling-place. The purpose of this research is to test the relationships among three major processes: residential mobility, social mobility, and family formation.

The time period of 1840 to 1900 is chosen because Montreal was undergoing rapid industrialization. The population increased tenfold, and surges of immigration brought three predominant groups of people to the city: rural French Canadians, Protestants from the British Isles, and Irish Catholics, each with its own distinct social characteristics. A large market and labour pool were created as a result of this massive immigration. Industrialization affected the way in which people were drawn into the urban economy. The labour process was divided into ever more specialized tasks in which the positions people held differed according to age, gender and ethnicity.

The duplex/triplex habitat created in the late nineteenth-century forms an important component of the present housing stock, and Montreal has remained exceptional among Canadian cities in the size of its low-rent market, the high level of tenancy, and the frequency of household moves (Choko and Harris, 1990; Harris and Choko, 1988; Hertzog and Lewis, 1986; Lewis, 1990). For low-income households, moving is an important adaptive strategy, and the rental market (even with the convention of a 12-month lease) offers a degree of freedom to a household under a severe budget constraint. As policies favouring home ownership are extended into low-income and social housing sectors, we need to know more about the resilience of low-income households and their strategic use of rental housing. The life-course approach permits integrated analysis of residential mobility with family formation, work life and the journey to work.

The contribution of this thesis is twofold: first, it gives insight into an historical process of international significance, and second, it provides methods and insights into a problem of continuing present-day interest: how low-income households adjust their

housing situation to cope with the budget constraint.

This study is organized into five chapters. The opening chapter reviews the scholarly literature on residential and social mobility to provide a theoretical background for the research project. The emphasis of this review is on present-day household mobility. Recognizing however, that there are several important differences between twentieth- and nineteenth-century societies, insights from research on the nineteenth-century are also presented. Several hypotheses were formulated based on past research.

The second chapter deals with the methodological considerations of the research project. A description and critical review of the sources available for mobility research is included. While studies of present-day household mobility provide a well-developed set of theories and a good body of empirical regularities (Clark, 1982; Bourne, 1981; Clark and Moore, 1980; Golledge, 1980, Brown and Moore, 1970), historical applications have been limited by the quality of information available. Among the best historical studies are those reported in Dennis (1984), Katz (1975), Sennett (1970), and Thernstrom (1973). To fill this void, Montreal has unique records, in its parish registers and its rental tax roll and I am working from an entirely new type of sample: a life-time trace for a thousand couples married in Montreal between 1840 and 1900. Thanks to this database, with full reconstitution of families, their addresses and rents, I am in a position to take a new methodological approach with a life course perspective (Alter, 1988), and to test for the nineteenth-century context, hypotheses derived from the literature of present-day moves, such as: moving as a response to changes in marital status and family size and to changes in social position.

Chapter three presents the findings from tests of household persistence on various subsets of the Montreal population. Persistence rates were calculated for various classifications of social status, tenure type, and for each cultural community. Moving behaviour was also examined at several stages in the life-cycle, and persistence rates were analyzed according to marital status, household size, and age of the household head. Multivariate analysis was performed using the logit model, and results are reported for the effects of several explanatory variables - tenure, age,

occupational status, household size, marital status, and ethnicity - on the dependent variable persistence.

Chapter four deals with the spatial characteristics of moves and movers. The origins and destinations of moves by households from each cultural community were examined for each decade of study. The second half of chapter four deals with the question of social mobility. Intra-generational social mobility was examined in relation to residential mobility, in that status changes were associated with household moves. Inter-generational social mobility was also examined, that is, status change from father to son to grandson.

The final chapter provides several case studies of genuine households from each cultural community. These cases provide support for the findings reported in chapters three and four, as well as contemplate other factors which may effect a households decision to move, emphasizing the relationships of kinship and co-residence on mobility behaviour. The thesis is concluded with a brief discussion of significant findings of the research project.

## CHAPTER 1: LITERATURE REVIEW AND FORMULATION OF HYPOTHESES

In a lifetime, a person may go through many decisive and interrelated changes in occupational status, family situation and dwelling-place. Mobility research examines the relationships among residential mobility, social mobility, and family formation. The purpose of this review is to provide a theoretical background to the study of mobility, and to identify and assess the literature pertaining to these three processes. While studies of present-day household mobility provide a well-developed set of theories and a good body of empirical regularities (Clark, 1982; Bourne, 198.; Clark and Moore, 1980; Golledge, 1980; Short, 1978; Quigley and Weinberg, 1977; Brown and Moore, 1970; Simmons, 1968), historical applications have been limited by the quality of information available. Among the best historical studies are those reported in Dennis, 1984; Katz et al., 1982; Sennett, 1970; and Thernstrom, 1964; 1973. The following review of residential mobility and family formation literature emphasizes studies of present-day household mobility. Recognizing however, there are several important differences between twentieth and nineteenth-century societies, insights from the nineteenth-century are also presented. The pattern of most historical research has been to study residential mobility as one element in a broader study of social mobility (Thernstrom, 1964; Sennett, 1970; Katz, 1972; 1975; Katz et al., 1982; Blumin, 1969). In several notable exceptions the theme of residential mobility has been central (Knights, 1969; 1971; Thernstrom and Knights, 1971; Chudacoff, 1972; Doucet, 1972; Dennis, 1977). Examples of both types will be examined. The review concludes with an examination of the literature on social mobility in the nineteenth-century.

### THEORETICAL BACKGROUND

Residential mobility is the act of changing from one residence to another. Over 700 articles were published on the topic in the 1970s alone (Clark, 1982). This work has been dominated by behavioural geographers, and the main research foci have been the decision to move to a new dwelling and the search for, and choice of, a new home (Golledge, 1980; Flowerdew, 1976; Brown and Moore, 1970). James Simmons (1968) provided the first adequate review of residential mobility literature, with "Changing Residence of the City"; ranging from science-behaviouralism (10 flow

dyads) to hints of humanism (individual perceptions); it highlighted the weaknesses of the scattered literature which used a largely non-spatial approach to what is basically a spatial process. As behavioural geography brought its strong focus on process, the study of urban-social geography began one of its 'sea-changes' and Simmons' paper became one of the catalysts of this change (Herbert, 1992). Before Simmons' (1968) review, there were two landmark empirical studies: Peter Rossi's (1955) Why Families Move, and Julian Wolpert's (1965) "Behavioural aspects of the decision to migrate". Rossi (1955) and Wolpert (1965) were the first scholars to incorporate the behavioural approach to mobility. Rossi (1955), a sociologist, initiated the first detailed survey of households which examined the relocation process. Wolpert (1965) focused on the behavioural aspects of the decision to move and he introduced the concepts of 'place utility' and 'action space', and the idea of 'satisficing' instead of optimizing behaviour. Brown and Moore (1970) formalized these concepts of 'place utility' and 'action space' into a two-stage model of residential moves as responses to stress. If the level of stress created by changing needs and expectations is greater than the household's threshold level and if higher place utilities are observed in alternative locations then a decision to move is made. The model also considers the actual move and incorporates the definition of an 'aspiration region' - the type and location of housing which is acceptable to the household, the search for and examination of vacancies and choice of a particular home (Brown and Moore, 1970). The important development of their model, and subsequent studies in this vein, was that households were treated as autonomous decision making units.

Neo-Marxian theory may also prove pertinent here, in that class distinctions are considerable in Montreal for this period. Marxian theorists criticized the behavioural approach for its excessive emphasis on individual choice, as well as its inadequate attention to the constraints which social structures imposed on choice. Studies using a behaviouralist approach such as those by Rossi (1955), Wolpert (1965) and Brown and Moore (1970) have been accused of "psychologism" - a tendency to reduce complex social and historical trends to individual psychological processes (Jackson and Smith, 1984). Harris and Moore (1980) have been

particularly clear in articulating the need to assess the larger impacts of mobility. One of the aims of this research, as it should be in future studies, is to examine household mobility within the constraints of wider structures.

## RESIDENTIAL MOBILITY LITERATURE

About 20 percent of the residents in the United States and Canada change their address each year (Quigley and Weinberg, 1977; Short, 1978; Knox, 1987; Johnston, 1971b; Simmons, 1968). According to Short (1978), only about 10 percent of British households move each year. Although many of these moves are made by a small number of highly mobile persons, fully 40 percent of all North American households move within a period of three and a half years, 50 percent of the entire population moves within a five-year period, and almost two-thirds move within a period of eight and a half years (Quigley and Weinberg, 1977; Simmons, 1968). It seems possible late nineteenth-century urban residents were even more mobile, as Knights (1971) suggests that mid-nineteenth century annual mobility rates in Boston probably exceeded one-third.

Residential mobility is a selective process. Households of different types are not equally mobile. Some have a propensity to move quite often; others, having once gained entry to the housing system, never move at all, thus lending a degree of stability to the residential mosaic (Knox, 1987). Having said this, it is important to begin to answer the questions: who moves? why do they move? and where do they move?

## TENURE STATUS, DISTANCE, AND HOUSEHOLD INERTIA

The "first great theme" of the nineteenth-century city is transiency (Katz, 1972, p.230). What separates the nineteenth-century experience of residential mobility from the twentieth-century experience is the high level of transiency (Dennis, 1977;1984; Knights, 1969; Doucet, 1972). The terms persistence, turnover, and transiency are defined as follows: persistence is the proportion or percentage of a population remaining in an area of prescribed limits (i.e. city, ward, street or dwelling) after a given period of time (usually a decade). Turnover is defined by Knights (1968) as being the sum of all population movements or shifts, into an area (including births) and all outward movements (including deaths). It has also been

defined loosely as (100% - p), where 'p' represents persistence. After natural increases and decreases, transiency is the phenomenon responsible for population turnover. Residential mobility is basically intra-urban transiency, while migration is inter-urban transiency. Katz (1972) describes transients as "people passing through the city, remaining for periods lasting between a few months and a few years" (p.231). The term "transiency" has been used to describe intra-urban mobility and inter-urban or out-migration, but usually has referred to the latter.

Many urban historians have dealt with out-migration as a major factor of urban residential mobility (Thernstrom, 1964; Thernstrom and Knights, 1969; Knights, 1969; 1971; Katz, 1972). Thernstrom (1973) reasoned that transients, or out-migrants may have constituted a sort of "permanent floating proletariat" (p.4) who mostly drifted from one city to another. According to Dennis (1984) contemporary observers assumed "a transient population was an uncontrollable and potentially dangerous population...[as] you could not create a community out of constantly changing ingredients" (p.250).

Persistence is used as a measure of the stability of communities. Most studies of geographic mobility suggest a highly volatile nineteenth-century population with less than half of the residents remaining in any community for a full decade (Weber, 1976). Griffen (1969), Thernstrom (1964), and Worthman (1971) found ten-year persistence levels to be less than 45, 41 and 34 per cent in Poughkeepsie, Newburyport and Birmingham respectively. Similarly, rates of outward migration in Omaha, Nebraska, exceeded 68 percent between 1880 and 1900 (Chudacoff, 1972). To anyone not acquainted with studies of nineteenth-century cities, non-persistence rates of this magnitude may seem astoundingly high. They are however, quite average. Parkerson's (1982) review of published research from record-linkage studies of 68 different communities shows that in 40 of the communities the 10-year rate of non-persistence varied between 60 and 80 percent. The average rate for all 68 communities was 62 percent (Parkerson, 1982).

Knights (1969) in studying the "the plain people of Boston" found yearly persistence rates at around two-thirds, and believed perhaps even a half of the city's population entered and left every year or two. This study documents the volatility

of the population in nineteenth-century America. Considered by Katz (1972) to be the "most careful students of transiency to date" (p.230), Thernstrom and Knights (1969) from their study of Boston, Mass. found "far more people lived within the city in the course of a year than the census taker could find present at any specific time" (Katz, 1972, p.230). The 1880 census listed the population of Boston as 363,000, and the 1890 census reported a population of 448,000, however, during those ten years Thernstrom and Knights approximate that about 1.5 million different people actually lived within the city. The same levels of transiency characterized the population of Hamilton, Ontario (Katz, 1972, p.230). Both Boston and Hamilton, were filled with what Thernstrom and Knights referred to as "men in motion", as "transiency formed an integral and international feature of the nineteenth century society and one not immediately altered by industrialization" (Katz, 1972, p.231). Indeed, change was truly the order of the day.

The collective weakness of most research in this field, is the scope of the persistence tests. For the most part, studies have calculated rates of persistence at the macro or inter-urban level. Few studies of nineteenth-century cities (Boston an exception) have looked at persistence rates at the micro, or more personal level of intra-urban moves. Persistence rates in the majority of studies reflect the proportion of 'stayers', in the city, or conversely, they reflect the level of out-migration or transiency. Too few studies actually determine persistence rates at a single address, thus providing revealing insights towards intra-urban residential mobility.

Another point of contention comes with the confusion of the terms "turnover", "persistence", "transiency", "mobility" and "migration" in past research. Turnover has often been defined as 100%-Persistence; transiency, mobility or migration all being equal to turnover minus non-persistence caused by natural decreases (deaths). Migration is a term commonly used to describe inter-regional, inter-urban or long-distance population movements, while mobility traditionally describes intra-urban or local moves. Transiency is a term that has been used to describe both migration and mobility, but more commonly defines inter-urban, out-migration. Also, the terms mobility, migration and transiency have often been used to describe turnover, in previous research that has not adequately controlled for natural decreases. Study

periods of 10 and 20 years are quite a long time, and death must have been responsible for a great deal of non-persistence. A more accurate picture of persistence and true transiency, migration or mobility, should include only "survivor" households - those families that have not suffered household dissolution due to death; an especially meaningful factor in the nineteenth-century city.

Owner-occupation is "an integral and significant element in a continental culture of possessive individualism" (Choko and Harris, 1990). It is the tenure to which most North Americans have aspired and towards which they have been encouraged to aspire (Choko and Harris, 1990). Home ownership is a primary indicator of personal achievement and social status.

As Doucet (1972) has shown for Hamilton, Ontario, home ownership does not appear to have been very common during the late nineteenth century, finding slightly more than one-third of households listed as home owners in the 1872 assessment rolls. An even lower level of owner-occupation existed in Montreal, where home ownership has long been rarer than in other cities (Choko and Harris, 1990). Since the middle of the nineteenth-century, Montreal has been recognized as a 'city of tenants' (Ames, 1897; Copp, 1974; Choko, 1980; Hertzog and Lewis, 1986; Harris and Choko, 1988; Choko and Harris, 1990; Lewis, 1990; Hanna, 1986). There are pronounced differences between owners and renters. The modern literature consistently reports that homeowners move less often than renters (Abu-lughod and Foley, 1960; Pickvance, 1973, 1974; Rossi, 1955; Speare et al., 1974; Weinberg, 1975; Quigley and Weinberg, 1977; Boyce, 1971; Short, 1978; Bourne; 1981; Clark, 1982; Ley, 1983; Knox, 1987; Morrow-Jones, 1988). Cadwallader (1981) was able to establish that housing type (i.e. tenure and size characteristics) is consistently the single most important determinant of residential mobility, with the lowest rates of mobility being associated with neighbourhoods dominated by owner-occupied and single-family dwelling units. While fully 40 percent of urban dwellers in North America are said to move within a three and a half year period, renters are about four times more likely to have relocated than owners during this time (Quigley and Weinberg, 1977). The higher rates of mobility for renters are quite logical since the transaction costs of owning are substantially higher than those of renting. Of

homeowners, Simmons (1968) has noted "for these people investment creates a higher threshold to be overcome before moving, and ownership itself may indicate a psychological commitment to an area" (p.626). When you own your place of residence, your attachment to home grows stronger (Morrow-Jones, 1988; Harris and Hamnett, 1987; Harris et al., 1981).

Home ownership seems to have a similar effect on persistence in nineteenth-century cities as it does in the present day. Worthman (1971) claimed differences in the persistence of working men in Birmingham can be associated with ownership of real estate (p.186). In Birmingham, as in Newburyport and Poughkeepsie, property owners more often stayed a decade (Worthman, 1971; Thernstrom, 1964; Griffen and Griffen, 1977). Chudacoff (1972) believed renting bred impermanence. In nineteenth-century Omaha, he found the "vast majority of those who moved or emigrated within five years had rented their places of residence" (Chudacoff, 1972, p.59). In many instances ownership was associated with residential stability. Chudacoff (1972) discovered that most people who occupied the same place over relatively long periods of time, owned their own homes. The correlation between property ownership and persistence in the communities of Warren, Newburyport, Poughkeepsie, Birmingham, and Omaha suggest that possession of real estate was an important factor in the stability of many nineteenth-century cities.

A strong relationship is also thought to exist between property mobility and rates of persistence (Weber, 1976), but there remains debate over the primary cause; whether persistence leads to the eventual acquisition of property, or the shift to homeowner status causes a person to remain due to emotional and financial attachments. According to Thernstrom (1964), between one-third and one-half of workmen in Newburyport, were able to report some property holdings after ten years of residence in the city; after twenty years the proportion of owners had risen to 63 percent in one group and 78 percent in another. Weber (1976) argued a positive relationship between persistence and social mobility: the longer workers resided in the community, the greater their chances of accumulating wealth, mainly in the form of property (Weber, 1976). Glasco (1978) believed, "while the persisters had only a slight occupational advantage over the non-persisters, they had a distinct advantage

in terms of property ownership" (p.155). He saw the non-persisters as "economic failures", unstable both economically and residentially (Glasco, 1978).

There is a considerable literature describing and attempting to explain the distance and direction bias of residential mobility (Adams, 1969; Adams and Gilder, 1976; Quigley and Weinberg, 1977; Bourne, 1981). In virtually every study, most moves are relatively short (Bourne, 1981; Knox, 1987; Doucet, 1972). "Most of the observed mobility behaviour of American households is not of an inter-regional character" (Quigley and Weinberg, 1977, p.41); it includes relocations within the same county or within the same metropolitan area. Intra-urban mobility (within cities) accounted for three times as many moves as inter-urban migration (between cities) (Quigley and Weinberg, 1977). Similarly, Simmons (1968) claimed about two-thirds of all moves occur within counties, many of them within the same neighbourhood or on the same block, but "longer moves determine most of the growth or decline of population in different parts of the city" (p.622).

Longer distance moves tend to be much less frequent and are primarily related to job changes (Bourne, 1981). Further, "long moves are more common among members of skilled and professional occupations than among unskilled and manual workers" (Bourne, 1981, p.133). The distances involved in intra-urban mobility depend to a certain extent on the overall size of the city concerned. Variability in distance moved is generally best explained by income, and previous tenure, with higher-income, owner-occupier households tending to move furthest (Bourne, 1981; Knox, 1987).

Almost all research indicates that most moves are short, within familiar territory, and reflect satisfaction with the neighbourhood as well as with the location with respect to the urban structure. Indeed, "The best factor for predicting the location of a new residence is the location of the former house" (Simmons, 1968, p.640). Lansing and Mueller (1967) established that two-fifths of those who are heads of households in the United States are living within 25 miles of their birthplaces, and almost two-thirds are living within 100 miles of their birthplaces (Quigley and Weinberg, 1977). Simmons (1968) claimed "the most powerful regularity is the tendency to relocate near the origin" (p.649). Geographers such as

Johnston (1971a) have generally ascribed this to the 'friction of distance' on human spatial behaviour. For the nineteenth century, Doucet (1972) established that "the relative shortness of most of the moves can, in part, be explained by two closely related facts regarding late nineteenth century urban areas; namely, their compactness and the lack of inexpensive modes of mass transportation" (p.36).

The length of moves reveals something about the radius of search for new housing during the late nineteenth century (Doucet, 1972). When people move to a new residence, the location choice draws on the reliable knowledge of the city available to the mover (Adams, 1969, Dennis, 1984). In his seminal study of Philadelphia, Rossi (1955) found that almost 50 percent of all housing units were obtained through personal contact. Families in higher social classes tend to move farther. More of them move outside the neighbourhood, outside the central city, and outside the metropolitan area. According to Simmons (1968), the evaluation procedures of the higher classes "are more apt to be more thorough and to embrace a more complex set of constraints" (p.642). Indeed, it is true that members of higher classes are likely to have access to a greater number of information sources from which to form a thorough investigation of housing alternatives, however, it is doubtful that they experience constraints of a higher degree than those of the lower classes. Besides the lack of complete information on available housing options, people may make short distance moves to maintain spatial familiarity, or social contacts. The tendency to choose destinations in the same neighbourhood may reflect the requirements, voluntary or involuntary, of being near people of similar origin or interest, or of access to certain institutions.

The direction of a move is also affected by the size of the city, as well as perception of surroundings. Adams (1969) asserts: movers "confine their residential choices to their own sector of the city, preferring familiar but distant neighbourhoods within the home sector over unknown but proximate alternatives in neighbouring sectors" (p.308).

Persuasive evidence suggests that prior mobility is strongly correlated with current mobility (Knox, 1987; Speare et al., 1974; Goldstein, 1958; Knights, 1969; Morrison, 1967; Johnston, 1971a;1971b). According to the principle of 'cumulative

inertia', the longer a family remains in a location the less likely it is to move (Short, 1978; Speare, 1970). The tendency to remain in a dwelling reflects emotional attachments to neighbourhood and social networks, as well as to the dwelling itself. The family maintains a reluctance to sever increasingly strong ties in favour of the 'unknown quantity' of life elsewhere (Moore, 1972; Knox, 1987).

In contrast, the actual experience of moving home probably reinforces the propensity to move. Wolpert (1966) defined two types of households: 'movers' and 'stayers'. Goldstein (1958, p.211) found that while remaining within any one city or neighbourhood, past movers changed address more frequently than stayers. During an average of ten years' residence in Norristown, Pennsylvania the persons moving through the community lived at many more addresses than the stayers. Goldstein's work highlighted the nature of this mover/stayer philosophy for he identified "that in-migrants to a community were more likely to be out-migrants than were long-term residents, and also that the in-migrants/out-migrants were the most mobile element while they were within the community" (Johnston, 1971b, p.16). Morrison (1967) has extended the mover/stayer philosophy originally used by Wolpert (1966), by showing that propensity to move is a function of both length of residence and age of household head.

**SOCIO-ECONOMIC STATUS AND RESIDENTIAL MOBILITY**

Past research suggests that workers employed in low-skilled occupations tend to move more frequently than their higher-skilled counterparts. Longer moves however, are more often associated with members of skilled and professional occupations than with unskilled and manual workers (Bourne, 1981). Worthman (1971) discovered for nineteenth-century Birmingham, Alabama that the majority of working men who came to the city did not settle there permanently,"most of these migrants worked for a few years, or even months or days, and then left the city to seek employment elsewhere, replaced by other migrants who would repeat this pattern" (p.181). Thernstrom (1973) reported for Boston, that less than half of the unskilled labourers listed in the city on the census of 1850, 1860, or 1870 remained there for as much as a decade. Over half of Warren, Pennsylvannia's day labourers also left the community during their first decade of residency (Weber, 1976). In the

Yorkville neighbourhood of Toronto, Doucet (1972) found only 6.6 percent of the lower class households in his nineteenth-century sample remained in the same residence for more than ten years.

In turn, persistence has been shown to relate directly to job success or "occupational mobility". Katz et al. (1982) discovered that more than half the men who remained in Hamilton during its early industrialization changed occupational rank at some time, and Worthman (1971) discovered after a 20 year period in Birmingham, more than half of the persisting workers had risen to non-manual jobs (p.196). Weber (1976) believed the "ability to persist in the community carried with it marked advantages" (p.52), as occupational mobility for those remaining in Warren always exceeded mobility of one-decade residents. Many researchers believed that persistence in a given community led to eventual success through occupational rewards - promotion for the patient, however, analysts have seldom considered that perhaps it was the promotion itself that caused the worker to remain in a given community, and not the other way around.

Katz (1972) noted that although the "transients approximated the rest of the population in age and composition, they differed in one critical respect: wealth" (p.231). He determined that within every occupational category, the people who remained within the city were wealthier. Therefore, "it was the poorer merchants, shoemakers, lawyers, and even the poorer labourers who migrated most frequently" (Katz, 1972, p.231).

The fact that non-persisters were usually of lower status is indisputable. What Katz et al. (1982), Worthman (1971), and Weber (1976) do not mention is what happened to the non-persisters after they left. It is quite possible that the non-persisters moved to different communities and experienced great leaps in occupational mobility. These people may have migrated to take advantage of better job offers in other regions. Hardy (1983) claims: "In short, there seems to have been nothing distinctive about the non-persisters that entailed for them a competitive disadvantage in chances of career mobility" (p.842). Hardy (1983) surmised that out-migrants, rather than being permanent members of a floating proletariat, settled elsewhere and probably experienced career trajectories mirroring persisters.

There is no consensus on the effects of accessibility and workplace location on propensity to move. In modern literature, the occupation of the head of the household is a poor predictor of mobility (Quigley and Weinberg, 1977; Goldstein and Mayer, 1964; Long, 1972; Morrison, 1972), and almost all of the early studies reject job location as an important reason for moving (Rossi, 1955). Whether a change of work place is associated with a change of residence is at present only a matter of speculation (Johnston, 1971b). According to Simmons (1968), "Although few people move in order to be closer to their jobs, the place of employment may act as a constraint when it comes to selecting a dwelling" (p.646). While sociologists tend to argue that accessibility and work-related reasons provide only minor impetus for residential mobility (Goldstein and Mayer, 1964; Speare et al., 1974), economists detect a much stronger relationship. Brown (1975) reported that a decrease in accessibility to workplace increases the probability of moving for both renters and owners. Similarly, Weinberg (1975) established that the likelihood of a move is much greater when there has been a change in workplace within the same metropolitan area (Quigley and Weinberg, 1977).

Morrison (1972) discovered that the unemployed had higher mobility rates than those who were employed. Similarly, Weinberg (1975) found that the recently unemployed experienced an increase in mobility, while the newly employed saw a decrease in mobility. Fredland (1974) however, found the opposite to be true. Brown (1975) discovered quite peculiar results for the unemployed: as the number of months of unemployment rose residential mobility increased for renters, but decreased for owners. This may reflect the higher transaction costs for owners, or that they were tied in to a mortgage, or they did not want to give up the remaining financial security they maintained by owning their own home. Goldstein (1970) reported that residential mobility declined with the length on the job. With job stability came residential stability, meanwhile, retiring seems to increase mobility (Fredland, 1974; Brown, 1975) perhaps a result of no longer having to remain close to place of employment.

Rossi (1955) associated mobility with the actual and perceived difference in social class between residents and their neighbours. "Since urban areas are strongly

differentiated with respect to class, a person who changes his [or her] social status might be expected to change the location of his [or her] residence" (Simmons, 1968, p.631). Lipset and Bendix (1959) found "that only 30 percent of North Americans leave the social class in which they were raised, and hence residential relocation is required only once in the lifetime of a third of the population" (Simmons, 1968, p.632). Goldstein (1958) found that less than one-half of those people he studied shifted status during a period of ten years. Even if a more complex set of social-class categories were used, so that almost everyone changed categories, only one move in a lifetime would be explained by social mobility (Simmons, 1968). The majority of residential moves are made within areas of similar status (Clark, 1976; Short, 1978). According to Goldstein and Mayer (1961) about 80 percent of intra-urban mobility occurs within census tracts of the same socio-economic status or adjacent status groups (Short, 1978).

The relationship between income and residential mobility is a complex one, and many inconsistencies exist among the reported results. Abu-Lughod and Foley (1960), Kain and Quigley (1975) and Doucet (1972) all claimed that non-movers have higher incomes than movers. Conversely, Fredland (1974) provided results to suggest a slight increase of mobility with income, perhaps due to a wider range of options. Quigley and Weinberg (1977) and Brown (1975) report that rising income increases mobility for both owners and renters, but decreases in income seem to have no effect. Weinberg (1975) has suggested that this relationship appears to have an inverted U-shape - with mobility highest in the middle income range.

**ETHNICITY, KINSHIP AND RESIDENTIAL MOBILITY**

Ethnicity, it is argued, has had a profound effect on persistence rates. According to Hardy (1983) non-persisters were more likely to be foreign born (predominately German and Irish). The persistence rates of native residents in nineteenth-century Boston, exceeded those of immigrants in each decade. Knights (1969) found that during the period 1830 to 1860, the foreign born stayed less than half the length of time as the native-born. Katz (1972) claimed that "Only about 9 percent of Hamilton's workforce had been born in Canada West. The rest were immigrants...It was, thus, in a double sense that the people of Hamilton were 'men

in motion'" (p.233).

There has been an inadequate examination of the effects of "ethnicity" and cultural differences in past research. The definition of ethnic as "foreign-born" may not refer to cultural differences, but reflect the operation of a process of "cumulative inertia" as explained earlier. The foreign-born have, by definition, already made one long-distance move in their lifetime, and are therefore, more likely to make another. A proper examination of the effects of ethnicity on persistence must look at total persistence rates subdivided by cultural group, whether the family was foreign- or native-born. This task is perhaps more feasible in a nineteenth-century city such as Montreal; one with three distinct cultural communities.

An important factor acting as a tie to a certain location may be the strength of a household's community and personal links. People with few personal or associational ties to a community should have a lower resistance to diffusion, and therefore, a much higher rate of mobility than those with many such links (Johnston, 1971b). Johnston has suggested "that when they do migrate, unless the move is an involuntary one, members of well-developed kinship networks will move shorter distances than will non-members, in order to retain their membership and its benefits" (1971b, p.17). Gans' (1962) work on an Italian community of Boston, for example, has shown the necessity for spatial propinquity among network members. Johnston (1971b) provides evidence that extensive kinship networks existed in small districts of rural England, "especially among farming families, and that members of these networks tend to remain at the same place (or in the same local area) for very long periods" (p.25).

Kinship ties are extremely difficult to measure, especially in historical research. Johnston (1971b) used a surrogate measure of kinship to perform his study. The possession of a surname which is common in the person's home district was used as a surrogate for actual kinship ties. The method of using common surnames only infers the potential for kinship, but was presumed by Johnston to be an excellent representation. Johnston (1971b) discovered: "If the assumption that possession of common surnames represents kinship links is true, therefore, then such people are clearly less migration-prone than the total population" (p.21). This measure is rather

presumptuous, and virtually useless in a nineteenth-century city the size of Montreal, where duplicate surnames were quite common and did not always necessitate a family relation.

Frequent attempts to account for variations in residential mobility have often used easily measured attributes of the population such as age, sex, marital status and tenure rates. Although Johnston's (1971b) methods are simplistic, his work identifies the need to incorporate another variable - the existence of kinship networks which, albeit much more difficult to measure, act to impede widespread mobility.

**FAMILY FORMATION AND THE HOUSEHOLD LIFE CYCLE**

Surprisingly little research has been generated which examines the urban-social geography of historical times using the life-cycle perspective. In determining the effects of family life-cycle changes on household mobility we turn to the literature of present-day behaviour. While making careful assumptions about the nineteenth-century, it is especially important to consider the applicability of modern life-cycle analysis to nineteenth-century conditions. Nineteenth-century society is not altogether different from today, yet several peculiarities existed. The most prominent example being the shorter life span. The notion of "adolescence" is a modern one. Extent of schooling and financial dependence has lengthened; life expectancy is now longer, widowhood more prolonged, and divorce and separation are much more frequent. In a sense, families of the nineteenth-century more accurately fit what has been described as a "normal life-cycle", however, this life-cycle was accelerated and households spent less time in each stage.

A major concept used in residential mobility research is the household life cycle, represented by the changing demographic characteristics of a household as it progresses through stages from formation to dissolution. The impact of these stages on moving is found in the expansion and contraction of family size. The family life cycle interpretation attributes a prominent role to housing needs (space requirements) and desires generated by changing family composition and social status (Chevan, 1971).

Researchers also find it a convenient organizing procedure for gathering or ordering their longitudinal data on the family. The family life-cycle approach is

particularly helpful in its emphasis on the importance of compositional and size effects on family situation - an area that most historians have neglected (Vinovskis, 1977). There are many different versions of this model, which leads to difficulties in making comparisons (more popular models can be found in Rossi, 1955; Abu-lughod and Foley, 1960; Johnston, 1971a; Speare, 1970). Probably the most extensively used model is the one developed by Evelyn Duvall (1967) which has eight stages based on shifts in the size and composition of the family, as well as changes in social roles within the family. Speare (1970) also believed that the life-cycle had an important influence on mobility behaviour. He argued that a "normal life cycle" was characterized by the following 6 stages:

**1. Young unmarried - aged under 45 and never married, widowed, separated or divorced.**
**2. Just married - the year of marriage**
**3. Young married - oldest child under age 5, or childless and respondent under age 45.**
**4. Married with school age children - oldest child 5 or older, youngest child under 18.**
**5. Older married - Youngest child over 18, or childless and respondent aged 45 or over.**
**6. Older unmarried - aged 45 and over and never married, widowed, separated, or divorced.**

Others such as Rodgers (1962) have tried to improve upon this model by including as many as 24 stages in their family-cycle model, which becomes incredibly cumbersome to operationalize (Vinovskis, 1977).

Evidence from numerous studies has shown certain stages of the family life cycle to be major determinants of moving. Rossi (1955) evaluated a number of reasons for moving but discovered that the family life cycle occupies a central position in initiating moves. Simmons (1968) discovered that within a moderately growing city more than half of the intra-urban mobility results from the changing housing needs generated by the life cycle. He determined that five of the eight or nine expected lifetime moves are associated with life cycle needs and changes (Simmons, 1968). McCarthy (1976) attributes six or seven moves in an adult North American's life to events associated with the family life cycle.

## AGE, GENDER, MARITAL STATUS, HOUSEHOLD SIZE, HOUSEHOLD COMPOSITION AND MOBILITY

By now it has been demonstrated that residential mobility is a highly selective process. The most consistently reported result in mobility research is the inverse relationship between the age of the household head and mobility (Abu-Lughod and Foley, 1960; Rossi, 1955; Speare et al. 1974; Quigley and Weinberg, 1977; Weinberg, 1975; Speare, 1970; Pickvance, 1974). Simmons (1968) confirmed the well-established ideal, finding that most moves are made at the early stages of the life cycle; the predominant age category for head of moving households being 20-30. The average intra-urban mover belongs to a newly formed household setting up a house for the first or second time (Short, 1978). Long (1972) also discovered age of household head to be of overwhelming importance in determining whether or not a family moves. He found that "the one-year residential mobility rate for men who are under 25 years old and who head husband-wife families is 61 percent, a rate which drops to 7 percent at ages 55-64" (p.372).

Age of household head also has a distinct effect on the type of tenure they choose. As confirmed in the previous section above, the mobile are more often renters than owners. Since younger households move more often than older households it is not unreasonable that younger households are more often renters. Clark et al. (1984) concurred that people who are younger are more likely to rent than own, but they also advised that "there is considerable variability across the tenure and age categories" (p.30). Bourne (1981) identified that "Some young and many older households do own their housing, but the wealthy often rent, and those of lower (current) income do live in expensive housing" (p.147).

Increasing age tends to bring increasing residential stability. The propensity to move declines with age since increasing age and length of residence in one dwelling lead to strong emotional attachments to the dwelling (Speare, 1970; Knox, 1987; Short, 1978). The process of "cumulative inertia" has been examined in a previous section. Munro (1987) believes that this pattern of persistence with age may also be a result of increasingly conservative behaviour amongst older individuals. Pickvance (1974) described this pattern candidly: "older people have a weak

predisposition to be owner occupiers, independent of their marital status, and hence, [tend] to be less mobile" (p.184). Perhaps older households - households at a later life-cycle stage are attracted to the security and stability associated with home ownership, and therefore have a higher rate of persistence.

Fredland (1974) also found that age affected mobility at a declining rate - but, that the age of the household head is not as important for homeowners as for renters in determining mobility (Quigley and Weinberg, 1977, p.52). Short (1978) believed that "age selectivity of movement is a function of the nature of the housing market. Many young households are unable or unwilling to move ...into owner occupation...and tend to live in privately rented accommodation" (p.431).

Simmons (1968) understood that the housing and access requirements of various life cycle groups dominate the patterns of flow. The massive number of intra-urban residential moves largely reflects the high rates of mobility of a few age groups (Simmons, 1968). According to Munro (1987), "not only age per se affects mobility but also the impact of changing family situation and these changes which do not occur at the same age for all individuals" (p.40). Speare (1970) recognized that there are considerable differences in mobility rates by age and by life-cycle stage which are not the result of either differences in length of residence or differences in tenure status. Persons of the same age but at different life cycle stages are often quite different in their mobility behaviour. Speare (1970) tried to identify the effects of age and life cycle independently and found that both factors exert an important and separate influence on migration (p.454). Chevan (1971) used a modification of Speare's procedure to analyze mobility, and found similar results to support Speare's claim. In their own model, Yee and Van Arsdol (1977) found that family life cycle transitional points appear to have a greater influence than age by itself. Pickvance (1974) also discovered that the effect of age is weaker than that of life cycle. Not all researchers have supported these findings. In contrast, Long (1972) found that a person's age is a more powerful predictor of movement within and between regions than personal or household characteristics. Goodman (1976) argued that the net effect of the age of the head of the household is more than double the effect of the life-cycle stage. He agreed with Speare (1970) that life cycle did indeed have an

independent influence separate from age, but showed that some of the effects were contrary to previous findings, for example "the net effect of being young and single on the propensity to move is actually negative" (p.864).

Men have relatively higher rates of mobility than women. Doucet (1972) discovered that the average age that men left home in nineteenth-century Toronto was 25, for women this was later. In the nineteenth-century, women were likely to remain in the home of their parents longer than men (Alter, 1988; Doucet, 1972), more often until marriage, and men are more likely than women to move out of the city and, within the urban space, to move further from their parents (Gauvreau, 1991). Goldstein and Mayer (1964) demonstrated for the modern day that it is short distance migration that has been heavily female. Alter (1988) however, claimed that for the nineteenth-century "cities seem to have been magnets for unmarried women" (p.79). Thus, a large number of young women migrated long distances to the city, primarily to find work in domestic occupations. This option was particularly popular among young Irish women (Katz, 1975; Lees, 1979). Long (1972) found that families headed by women constitute approximately 10 or 11 percent of all families. This figure would be much higher for the nineteenth-century, when rates of widowhood were considerably higher. Although it seems to play a role, the exact effect of sex of the head of household has remained unclear in previous research (Quigley and Weinberg, 1977).

The first step in family formation is marriage. Change in marital status by definition results in a change in residence for at least one partner, but in our society (especially the nineteenth-century) often for both partners. There is substantial agreement that recent change in marital status increases the probability of making a move (Chevan, 1971; Speare, 1970; Quigley and Weinberg, 1977; Munro, 1987). Fredland (1974) and Goldstein (1970) both found that the never-married are less likely to move than the ever-married. People who do not marry are likely to remain in the home of their parents for a longer period of time. Speare (1970) substantiates this claim by determining that "If we ignore the year of marriage in which most persons move, we see that mobility in the next few years of marriage is considerably higher than the mobility of the 'young unmarried' despite the fact that the 'young

married' are on the average older than the 'young unmarried'" (p.453). Hardy (1983) on the other hand, claimed that non-persisters are more likely to be unmarried, however, it is not explicit whether Hardy (1983) controls for age. It is important to examine age at marriage as a factor in predicting residential mobility. Michael Katz (1972) discovered that his figures for age of marriage in Hamilton, contradicted existing stereotypes of early marriage among the people of preindustrial society. He established that "men and women married relatively late, later probably than most people do today" (Katz, 1972, p.248). Doucet (1972) confirmed this finding, noting for Toronto, that the late nineteenth century seems to have been a period of late marriages. He found this to be especially true of males where only 41.9 percent of the males between the ages of twenty-one and thirty-one were married. Doucet (1972) found that most people got married in their late twenties or early thirties.

Most households move in the first year following marriage (Speare, 1970; Speare at al, 1974; Pickvance, 1973). Glick and Parke (1965) reported that "all but 13% of the married couples in 1960 who had been married less than a year had established a separate home" (p.198). Speare (1970) claimed that the resettlement process which is initiated with marriage, is often not completed with the original move to establish a new home for the newly married couple. Household mobility is indeed highest in the first years of marriage. Chevan (1971) claimed that rates of moving decline sharply during the early years of marriage and more slowly after the tenth year. Rates of moving decline most during the first nine years of marriage and in the sixth to ninth years they are half of what they were during the first three years (Chevan, 1971, p.453), and in almost 10 more years rates of moving are halved again. At only one long period, from the 25th through 36th years of marriage, do the rates of mobility stabilize (Chevan, 1971). Chevan (1971) suggested that "the demonstration of a relationship between moving and duration of marriage begs the question of what accounts for this relationship" (p.454). This connection is possibly explained by the fact that being married usually leads to owner-occupation which, in turn, leads to lower rates of mobility (Pickvance, 1973, p.184).

Another explanation may be family expansion and the presence of school-age children. It is believed that the presence of school-age children increases one's ties

to a particular community and therefore reduces mobility (Speare, 1970). Married couples with children are less mobile than those without children (G.S. Goldstein, 1970; Maisel, 1966; Long, 1971). The presence of dependents may also explain why Maisel (1966) finds that a couple is less likely to move than a single person. Chevan (1971) also identified, however, that "at any given marriage duration, the birth of children is associated with higher rates of moving" (p.451). This move usually occurs within a period of one year preceding, or following the birth (Newman, 1970), once additional space has been attained for the new family member, the family tends to remain in one place. For the nineteenth-century, Glasco (1978) seemed to "have the general impression that migration, by uprooting the population from its familiar environment of birth, acted as a dissolver of family ties" (p.156). Katz (1972), however, argued "many of the transients were heads of households, not, as we might suspect, primarily young men drifting around the countryside" (p.231).

Speare (1970) established that when divorce, separation, or death breaks the marriage union, the probability of making a move is substantially increased. Divorce and separation were virtually unheard of in the nineteenth-century, but widowhood was common, especially among females, and men tended to remarry more promptly than women (Bradbury, 1984; Alter, 1988). Goodman (1976) ascertained that nearly a third of all local moves are associated with new household formation, marriage or divorce, whereas Quigley and Weinberg (1977) determined that about 24% of all moves made in a year seemed to have been made by families whose head of household changed in the same year, therefore, a quarter of relocations were associated with separation, divorce, death, or the formation of new households. Speare et al. (1974) found that the mobility rate of those currently married is lower than that of those who are separated or divorced; also, that this rate decreases with duration of marriage (controlling for age and tenure type). Remarriage is an important life-cycle event to consider. Accordingly, Speare et al. (1974) also concluded that rate of mobility increases with the number of previous marriages. Maisel (1966) found that a widowed person is less likely to move than a married couple of similar age. In the nineteenth-century persistence rates of widows may not be as high as they are today, considering that widowhood was much more frequent,

and could occur much more unexpectedly leaving women with little time to prepare for sudden independence.

Household movement has been shown to be related to changes in family size (Alter, 1988; Morrow-Jones, 1988; Newman, 1970; Abu-Lughod and Foley, 1960; Rossi, 1955). The relationship however, is ambiguous. Arguments have been made for both a positive and negative relationship. A positive relationship with family size has been argued; that moves occur as the family expands, with mobility highest among households with the most children (Newman, 1970), with adjustments undertaken in anticipation of increased need for space (Alter, 1988; Knox, 1987; Bourne, 1981; Newman, 1970). Of the most frequently cited reasons for moving, it is commonly agreed that the most significant and widespread is related to the household's need for dwelling space (Abu-Lughod and Foley, 1960; Knox, 1987). Rossi (1955) found that 45% of all moves in Philadelphia were stimulated by life cycle changes in the family which made the size of the home no longer compatible with the needs of the household. Simmons (1968) believes that more than half of all moves are associated with life cycle adjustments, and the most common reason for voluntary moves is the need for more space for a growing family. Chevan (1971) found that "in any given period the birth of children is associated with higher rates of moving for that period, and the more children born, the higher are the rates of moving" (p.454). This reasoning is supported by Long (1972), who concluded that "it seems reasonable that a house is likely to be considered too small or inadequate when many children are present than when only a few are present" (p.371). Newman (1970) saw mobility reach one maximum among singles and the childless, but among parents, varying directly with family size, reaching a second maximum among those with 3 or more children. Rossi (1955), Weinberg (1975), and Kain and Quigley (1975) also found that mobility rates increased with family size.

Newman (1970) finds evidence for rational marginal decision-making in the joint timing of births and housing adjustment, in: 1) a slower pace of family building during periods of mobility; 2) a larger proportion of respondents moving before rather than after a birth; and 3) an apparent selectivity of timing in moves preceding a birth. Rudel (1987) discovered that some women, in response to an economic

squeeze, increased participation in the labour force, and may have delayed childbearing until they were able to purchase a home. Newman (1970) found that nearly 60% of the moves associated with a birth were found to precede that birth, suggesting that more than half of the housing adjustment mobility was undertaken in anticipation of increased need for space. This type of housing adjustment mobility, in anticipation of a birth, usually involves only a short distance move (Newman, 1970). Indeed, previous research implies that the effect of family size may be different for short- and long-distance moving, and the probability of moving locally is directly related to the number of children present (Long, 1972). It is possible that large family size induces local mobility as most local moves represent a search for different housing, often induced by increases in family size (Rossi, 1955).

Rudel (1987) has established that growth in the size of the family triggered moves from rented to owner occupied housing. This may match a kind of income and savings cycle, with this move as a self-fulfilling credit control; as well, the move towards property ownership provides a perceived financial security for the family. Paralleling the family life cycle is a housing life cycle (Clark and Onaka, 1983; Rudel, 1987). Couples start out in a small rental apartment, occasionally move into a larger apartment, then eventually move into owner-occupied housing, and ultimately 'trade-up' into a larger, owner-occupied house. In old age, couples may move back into smaller units. In each instance of mobility a change in household size and composition precipitates a change in housing type (Clark and Onaka, 1983). In other words, a family life cycle change triggers a housing cycle change (Rudel, 1987; Abu-Lughod and Foley, 1960; Rossi, 1955). For instance, households at the early stages of the life cycle may prefer a location downtown, but with the arrival and growth of children they may place less emphasis on accessibility and more emphasis on an environment perceived as conducive to the rearing of children (Short, 1978; Michelson, 1977).

The previous logic has demonstrated that a majority of moves among married couples can be attributed to life cycle changes which make the size of the home no longer compatible with the needs of the household. In the nineteenth-century we must extend this logic to consider the decrease in size of the family due to death.

The death of a spouse not only decreases the family size and need for space, but affects the economic viability of the household and may initiate a move to share a household, or at least to move closer to parents, adult siblings or adult children (see Hareven, 1982). Although these moves are not often made until the family is broken up by illness or death (Simmons, 1968), households at the middle and later stages of the life cycle may make a move to a smaller home due to a decrease in space requirements associated with the growth and departure of children (Short, 1978).

In contrast to the discoveries mentioned earlier, modern studies have also demonstrated a trade-off between investment in family formation and migration. Some research has shown that family-building should be slower among the frequent movers, and increase in family size actually decreases mobility. Fredland (1974) discovered that a smaller family of 2-4 persons was more mobile than a larger family. Newman (1970) also discovered that mobility reached a maximum among the childless.

Several researchers have found that married couples without children are more geographically mobile than those with children. Maisel (1966) and Long (1972) found that the number of children is inversely related to the probability of migrating. Studies have generally shown that long-distance migrants have smaller families than non-migrants. Long (1972) observed the probability of moving long distance as inversely related to the number of children in the family. Long (1972) also determined that the incremental effect of additional children on mobility is typically less than the effect associated with going from no children to one child. Long (1972) saw a decline in mobility after the first child is born, thus supporting Chevan's (1971) observation that "it is the first child who puts the greatest strain on available space because this child ushers in household furniture and appliances unnecessary in the childless home" (p.455).

It has also been discovered that family size adds locational biases according to housing densities in different parts of the city (Ley, 1983), and that "the changes in the life cycle both precipitate movement and determines the destination of this movement" (Short, 1978, 427). Keeping all counter arguments and conflicting research in mind, it seems that the consensus believes that local mobility is highest

amongst the childless and largest families, while long-distance moves are made most frequently by the childless and smallest families.

More important, perhaps, than the number of people in a household, is the variation in the composition of households (Quigley and Weinberg, 1977). Rossi (1955) originally proclaimed "the major function of mobility to be the process by which families adjust their housing to the housing needs that are generated by the shifts in family composition that accompany life changes" (p.4). Rossi's formulation has remained the standard point of departure for all subsequent research.

Age of children appears to be a principal source of migration differentials (Long, 1972). Families with children of school age are less residentially mobile than families without children of school age (Rossi, 1955; Simmons, 1968; Speare, 1970; Long, 1972). Long (1972) discovered that families with children of school age only, repeatedly have a residential mobility rate of about half that of families with no children or children of preschool age only" (p.382). The presence of school-age children restricts household mobility, they represent ties to a particular neighbourhood, community, or school district. Couples without children are in some respects more free to move. Long (1972) found that the incremental effect of an additional child beyond the first one was typically less than the first. Long (1972) however, did not find any systematic relationship between the number of children and local mobility. He also discovered that "female family heads with children are generally more geographically mobile than male family heads (wife present) at the same age and with the same number and ages of children present" (Long, 1972, p.371), thus supporting the theory that mobility is higher among households that have experienced separation, divorce or widowhood. Speare et al. (1974) also found that the presence of school-age children decreased mobility for homeowners, but not for renters.

In contrast to the results above, Glasco (1978) discovered for nineteenth-century Buffalo, that "the decision to migrate was not unduly affected by the presence of young children" (p.168). Similarly in modern studies, Morrison (1972) reported that additional school-age children did not lead to decreased mobility; and the results of research by Fredland (1974) also implies that family composition is not very

important in determining mobility.

**CHALLENGING THE LIFE CYCLE**

While many researchers praise the life cycle method, others are not thoroughly convinced of the importance of the life cycle in determining residential behaviour. In a study of residential mobility in England, Coupe and Morgan (1981) focus on the role of the life cycle in residential mobility and conclude that while changes in household or its residential environment "may be a necessary condition for mobility...they are not a sufficient explanation of that mobility" (p.213). Housing needs may be dependent on residential history (Coupe and Morgan, 1981) or conditioned by housing market and institutional characteristics external to the household (Murie, 1974; Clark and Onaka, 1983). Patterns of mobility behaviour may be the result of factors other than those associated directly with the dynamic of the family life cycle. Adams and Gilder (1976) observed that households often undergo changes in their family status at the same time as they experience changes in income and social status, therefore it is precarious to explain mobility exclusively in terms of one or the other, as quite different factors may also be at work. For example, housing demand for owner-occupiers is associated with life cycle stage, but not independently of the income and wealth reserves of each stage (Clark and Onaka, 1983). Clark and Onaka (1983) also believe that "such an approach ignores the possibility that a change in household size may alter preference for the entire bundle of housing attributes, including housing type and neighbourhood quality, as well as housing space" (p.48). Brown and Moore (1970) added that an unmet housing need may also be a result of changes in the housing environment as well as the household. As Murie (1974) argues, the fact that the household life cycle indicates housing needs does not imply that the housing system distributes resources according to need. Constraints and inertia factors may prevent housing adjustments in accordance with the life cycle (Clark and Onaka, 1983). Clark and Onaka (1983) do, however, admit that it is apparent that various expressions of housing adjustment are the main incentives for intra-urban moving: the desire for more space, for tenure change, and for cheaper dwellings are the most significant components explaining people's relocation behaviour, however, a significant number of moves are also

generated by changes in household characteristics - "changes which are not directly associated with initial housing dissatisfaction" (p.55). Coupe and Morgan (1981) argue that the emphasis on age and life cycle stage has tended to overstate their importance compared to others that are equally meaningful and assert that the desire for more space for its own sake or for prestige reasons seems to be far more important than has generally been recognized, nonetheless "changing space needs associated with the family life cycle changes are the most important single stimulus for intra-urban mobility" (p.213). There is widespread agreement that the most important determinant of intra-urban residential mobility is the family life cycle, but observe far less agreement on the definition and measurement of that cycle (Quigley and Weinberg, 1977). It is the difficulties in formulating a consistent definition of the life cycle that causes them to doubt its usefulness in modelling mobility behaviour. Similarly, Clark and Onaka (1983) observe that the inconsistencies in definition and problems in measurement have led to the suggestion that specific measurements of housing dissatisfaction (rather than general discussions of the life cycle) provide clearer insights into mobility behaviour (Clark and Onaka, 1983). This behavioural alternative suggested by Clark and Onaka (1983) may be appropriate for modern studies of mobility based upon survey data, but is inapplicable, and in fact, impossible for mobility studies of the nineteenth-century, where personal survey data are simply not available.

Another problem that has been forwarded with using the life cycle is that not all people pass through a complete and normal life cycle. There is great diversity; with some people marrying several times and some who never marry or never have children, or become divorced or separated. (Munro, 1987; Pickvance, 1974). The growth of non-traditional households has brought into question the applicability of a standard household history (Clark and Onaka, 1983). The growth of non-traditional households, however, appears to be primarily a modern day phenomena. Nineteenth-century households fit the standard life cycle model much more comfortably than families of today. It has also been argued that the model seems restricted to middle income households; for those households with restricted housing choices, Short (1978) believes it to be largely irrelevant. Several researchers would disagree with Short's

claim. Although restrictions are apparent, whether they be financial or locational, the set of housing alternatives is usually great enough to provide the freedom of choice, especially in a tenant oriented housing market such as that of nineteenth-century Montreal.

Pickvance (1974) used an incredibly crude measure of life cycle, that being "married vs unmarried" and believes there is too much difficulty in knowing at what point a family moves from the child-bearing to child-rearing stage, that is at what point one can be certain no more children will be born. The "life course" method of analysis is a derivative of the life cycle approach and has been used by researchers such as Alter (1988), and Hareven (1982; 1977) as a response to such problems. Reconstitution of families with several comprehensive data sources allows the researcher to trace households over the entire life course. Long (1972) sees that past studies have produced somewhat inconclusive results partly because of their reliance on data samples that have been far too small to provide adequate cross tabulation (p.371). This is a problem that can be easily overcome, and is no reason to abandon the life cycle approach to explaining mobility, nonetheless, Clark (1982) believes it to be clear that "we can no longer make a simple link between household life cycle changes and housing space requirements" (p.30). As with any model of reality, the family life cycle model has inherent shortcomings, however, recognition of its weaknesses does not prescribe its abandonment but rather calls for its use in a more discriminating way.

**SOCIAL MOBILITY IN THE NINETEENTH-CENTURY**

Social mobility has commonly been defined as "the movement between classes or the relative improvement in the position of one group relative to others" (Katz et al., 1982, p.158), or how individuals perceived an improvement in their situation. While most families did not change their social status radically, we can expect to find some upward and downward mobility, and to see it expressed in household moves. A move to a street of higher average rent, or a dwelling of larger size can be interpreted as an improvement in purchasing power and social status.

## TENURE, ETHNICITY, OCCUPATIONAL STATUS, FAMILY STATUS AND SOCIAL MOBILITY

It is expected that acquiring a home (real wealth) also enabled homeowners to improve their class position. Although it tied couples to a mortgage, and may have hindered long-distance job changes, ownership was perceived as an increase in the relative status and security of a family (Harris and Pratt, 1993; Harris and Hamnett, 1987; Katz et al., 1982; Katz, 1975). Past research has shown that people of higher socio-economic status are more likely to own their home than to rent. Conversely, manual workers are more likely to rent than to own. According to Weber (1976), in 1870, before the industrialization of Warren, Pennsylvannia, 79 per cent of Warren's unskilled workers were landless. During this same period, nearly 60 per cent of white-collar workers living in Warren, Pennsylvannia owned their own homes (Weber, 1976), and controlled most of the property in the community. In Hamilton, between 1851 and 1852, the most affluent 10 percent of the population impressively held roughly 88 percent of the wealth represented by the possession of property (Katz, 1972).

Following the industrialization of many cities, the possession of property proved to be possible for those workers who had enough patience to remain in one community. Thernstrom (1964) found surprising conclusions after his careful trace of the economic position of hundreds of working class families in Newburyport, Massachussets. He discovered that a substantial segment of the Newburyport labouring class advanced themselves occupationally, but more striking is the fact that so many managed to accumulate significant amounts of property while still labourers. Griffen and Griffen (1977) revealed for Poughkeepsie, New York that at any census during the decades after 1850, a quarter or more of the city's proprietors had been employed at manual work ten years earlier. Weber (1976) similarly discovered for Warren, Pennsylvannia that all groups of manual workers who remained in the community for any length of time enjoyed significant property mobility; within twenty years approximately one-half of the day labourers owned property. These results attest to the presence of considerable opportunity for blue-collar workers during industrialization. As Thernstrom (1964) pointed out in Poverty and Progress, those urban working men able to secure steady employment and to acquire property

enjoyed an important kind of success in the struggle for existence in nineteenth-century America (Worthman, 1971).

Katz et al. (1982) recognized that the acquisition of a home provided security and modest assets and furthermore, "Working people saw a home of their own as a signal achievement, a circumscribed though significant form of social mobility" (p.158). It has also been professed that the purchase of homes by workers, especially in the twentieth century, "contributed to the accumulation and centralization of the capital whose skewed distribution makes possible the perpetuation of inequality" (Katz et al., p.158). Owning a home, though often a source of comfort and security in old age, may have prevented many working people from moving on in search of higher paying work, engaging in militant action, or resisting reductions in their pay (Katz et al., 1982). Harris and Pratt (1993) debate the assertion of a universal desire for property ownership, stressing instead, the social foundations of the desire for home ownership, especially its roots in public policy. It has been questioned whether property ownership actually contributes to social mobility, however, there is no straightforward, unequivocal answer to this question. Katz et al. (1982) do however, conclude that:

> If mobility is defined as movement between classes or the relative improvement in the position of one group relative to others, then home ownership had little impact. However if social mobility is defined as an individual's perceived improvement in his life situation, then home ownership was indeed consequential. (p.158)

Past studies have demonstrated a strong relationship between ethnicity and social status. Katz et al. (1982) discovered for Hamilton, that "Despite a considerable amount of individual movement between jobs and even between ranks, the occupational structure and the relationships between work and ethnicity remained relatively fixed" (p.171). In their five-city study (of Hamilton, Ontario; Philadelphia, Pennsylvannia; and Kingston, Buffalo, and Poughkeepsie, New York), Hershberg et al. (1974) recognized that "this description of relationship between ethnicity and occupation is important in illuminating a time of both massive immigration and industrialization" (p.211). They discovered more similarity in that relationship than

anticipated, given the significant differences between their study cities in location, length of settlement, size, rate of growth, and ethnic composition (Hershberg et al., 1974). They also noted that the striking similarity they found between cities in the relation of ethnicity and occupation, complemented the findings of Stephan Thernstrom (1964).

Thernstrom (1964) found that in the working classes foreign birth or foreign parentage played a crippling role in occupational mobility, (though not in accumulating property). Thernstrom found non-natives to have a high rate of out-migration; but for those immigrant and native workers and their sons who remained, substantial material improvement or 'property mobility' (the acquisition of personal and real estate) and occupational mobility (from unskilled to semiskilled and skilled work). According to Sennett (1970), the foreign family suffered a similar occupational experience in the middle class homes of Union Park, Chicago.

In Union Park, "Foreign-born fathers had a quite variable work experience, more unstable than that of the native-born in establishing class positions over the course of time" (Sennett, 1970, p.228). Thernstrom (1964) found that the immigrant workman of Newburyport was markedly less successful than his native counterpart in climbing out of the ranks of the unskilled. For the city of Boston, 1890-1940, Thernstrom (1969) again recognized, "not only did the foreign-born start more often at the bottom; they were less often upwardly mobile after their first job, and those who started well were more prone to lose their middle class positions and end up in a manual job" (Thernstrom, 1969, p.141).

The majority of studies report that in the nineteenth-century city, the native-born worker held almost all of the white-collar, professional, and entrepreneurial positions (Glasco, 1978; Weber, 1976; Thernstrom, 1964; Sennett, 1970; Worthman, 1971; Hopkins, 1968). There are several valid explanations for this occupational pattern, and according to most interpretations differences in the occupational distributions of immigrant groups of varying ethnicity can be largely explained by differences in the skills and financial resources they bring with them, by the timing of immigration and the nature of the economy the immigrants tried to penetrate (Darroch and Ornstein, 1980). Each new wave of immigrants is seen to take its

position at the bottom rungs of an occupational ladder, leaving room for and perhaps encouraging the occupational advancement of older immigrant groups and ultimately allowing the native-born to enjoy the best chances of occupational advancement in an expanding economy (Thernstrom, 1973; Darroch and Ornstein, 1980; Porter, 1965). Several researchers, including Porter (1965) and Darroch and Ornstein (1980) have concluded that "the historical succession of immigrant populations and the responses of the larger society were basic elements in the development of the class structure of Canada" (Darroch and Ornstein, 1980, p.306). These authors believe that the "vertical mosaic" was a reality in nineteenth-century Canada.

There has been an inadequate examination of the effects of "ethnicity" and cultural differences in past research of residential and social mobility. The definition of ethnic as "foreign-born" may not adequately describe true cultural differences. This definition is an inherent limitation of the U.S. census as a primary data source. The variable of foreign-born is only one generation deep, and does not allow examinations of culture groups for second and third generations of immigrants. The proper examination of different ethnic communities depends on a versatile sampling procedure that allows easy distinction of individual group members.

The Irish of the nineteenth-century have been the focus of a great deal of research. John Porter (1965) with his 'vertical mosaic' thesis viewed the conditions of nineteenth-century labour markets as particularly conducive to sorting immigrant groups into characteristic occupational positions and gave the Irish Catholics as an example: "The Irish Catholics in rejecting land ownership or trades as a way of life provided cheap labour for construction, and became an urban proletariat" (Porter, 1965, p.63).

Katz (1972) discovered for nineteenth-century Hamilton, Ontario that of the various immigrant and religious groups, the Irish and the Catholics fared the worst: 47 percent of the working population born in Ireland were poor as were 54 percent those who were Catholic, and in terms of birthplace, it was the native Canadians and Americans who fared the best in Hamilton. Katz (1975) persuasively argues for the 1851-61 decade, ethnic and immigrant status were essential aspects of social inequality. In nineteenth-century Hamilton, being English-born and a member of the

Church of England or being a Canadian-born Presbyterian went hand in hand with power, privilege, and occupational opportunity (Katz, 1975; Darroch and Ornstein, 1980). Conversely, Katz argues that "being an Irish Catholic immigrant in this commercial city meant more than a limited opportunity, it meant near pauperization" (Katz, 1975, p.67). In accepting claims such as Katz's about the Irish, one must realize that these were a group of people who likely had just arrived to Canada within the previous 6 to 8 years, thus the classification 'Irish' in past research has almost always referred to Irish-born, and rarely native-born of Irish roots. The Irish in Philadelphia and Warren (Pennsylvannia), as well as Buffalo, Poughkeepsie and Kingston (New York), were also over-represented in the unskilled occupations and vastly under-represented in the white-collar and professional occupations. While native-born Americans, as might be expected, dominated the white-collar occupations and were highly under-represented in the low blue-collar categories (Glasco, 1978; Weber, 1976; Hershberg et al., 1974). The Irish in Warren, "most likely began their careers as unskilled labourers and remained in that low-skill, low-pay classification throughout their lives...[and experienced] minimal opportunity in both occupational mobility and property holdings" (Weber, 1976, p.86).

It is quite common in commenting on the nineteenth century to suggest that the Irish Catholics were predominantly urban, proletarianized, and a largely impoverished population (Porter, 1965; Lees, 1968;1979; Katz et al., 1982; Darroch and Ornstein, 1980). In Canada, in 1871, 28 percent of all Irish Catholics were labourers or semi-skilled workers; while the national proportion of labourers or semi-skilled workers was 18 percent (Darroch and Ornstein, 1980). Katz (1975) reported that in 1861 fully 59 percent of the Irish Catholics were 'simple' labourers and only 20 percent skilled artisans. Lees (1968) discovered, "despite their undeniable concentration in low-skilled jobs" (p.368) improvement occurred in every part of the city except central London, where they continued to move into the least profitable, least skilled jobs. Lees (1979; 1968) also ascertained that even though sons as a group were most heavily concentrated at the bottom of the occupational ladder, they had the best chance to move up into jobs of higher status. Not only did the Irish at different stages of their working lives exhibit different patterns of occupational

success, but contrary to the stereotype of the immobile lower class, the position of the group as a whole improved over time, however, Lees' (1968) data also revealed that a degree of downward social mobility existed, especially among skilled artisans and shopkeepers.

The rapid growth of Montreal (tenfold between 1840 and 1900), and the rate of immigration into the city are evidence that the city was perceived as a place of opportunity and a chance to succeed. We might therefore expect to find a net balance of upward social mobility of individuals in their lifetimes, and a high proportion of married couples who manage to improve their social status over a career lifetime. It is debatable however, as to whether a "rags-to-riches" pattern was apparent in Montreal, since scholars in other cities have so strongly contested the issue.

In Paterson, New Jersey, Gutman (1968) declared that as a group, the developers of the Paterson locomotive industry experienced enormous occupational mobility in their lifetimes. In one generation - often in a few years, men jumped class lines and rose rapidly in status and prestige. Almost all started in life as skilled artisans and had risen to become foremen or superintendents of large new manufacturing enterprises (Gutman, 1968). In Omaha, Nebraska: "Not only did some men follow the rags-to-riches path, but also many more achieved enough success to provide comfortable, though not luxurious, lives for themselves and their families" (Chudacoff, 1972, p.98). Worthman (1971) confirmed for Birmingham, Alabama that their existed "significant opportunities to rise on the occupational ladder, to accumulate a modest amount of property, and to move from the inner city to a more pleasant residential neighbourhood" (p.207). For manual workers in Warren, Pennsylvannia during the town's era of industrialization (1870s), Weber (1976) expressed some doubts: "to say that a few men could achieve mobility despite backgrounds of poverty fails to provide convincing evidence of an open system in which one's willingness to work hard insured success" (p.33).

The controversy continues because of the serious difficulties of defining and measuring social mobility. The most obvious way of achieving lifetime social mobility is through professional success, which may be expressed by a change of occupational

title (Doorn and Van Rietbergen, 1990; Hauser, 1982; Hershberg et al., 1974; Thernstrom, 1973,1968; Chudacoff, 1972; Knights, 1971; Sennett, 1970). Katz et al. (1982) recognized for Hamilton, "Well over half the men who remained in the city for twenty years changed their occupational rank at least once" (p.171), and concluded: "Occupational mobility by and large reshuffled the same people into different ranks" (Katz et al., 1982, p.170).

Based on a comparison of occupational titles of a sample of workers and their sons in Newburyport, Massachussetts between 1850 and 1880, Thernstrom (1964) concluded that "while these labourers and their sons experienced a good deal of occupational mobility, only in rare cases was it mobility very far up the ladder" (p.114), as the barriers against moving more than one notch upward were fairly high. Not a single instance of mobility into the ranks of management or even into a foremanship position was discovered, not one met the test of the rags-to-riches ideology (Thernstrom, 1964). The most common form of social advancement was upward mobility within the working class, eventually the acquisition of a small amount of property. "The climb into a non-manual occupation was not impossible for the unskilled workman but it was achieved by only a tiny minority" (Thernstrom, p.103). Worthman (1971) reports significant rates of upward occupational mobility for Birmingham's white working men, but, most of it "within craft lines: a building tradesman became a contractor, a machinist was promoted to foreman" (Worthman, 1971, p.193). Similarly, Blumin (1969) for Philadelphia revealed with regard to upward mobility, "the most prominent pattern is the tendency for change to occur within situs, that is, between closely related occupations" (p.175).

Other studies tend to reinforce Thernstrom's conclusions about the degree of opportunity present in nineteenth-century America. Manual workers in Boston, Massachussets, both before and after the Civil War, in Poughkeepsie, New York, between 1850 and 1880, in Warren, Pennsylvannia, between 1880 and 1910, and in Norristown, Pennsylvania, from 1910 to 1950 - all enjoyed modest advances within the working class stratum.

There has also been great debate over the effects of family size on social mobility. Sennet (1970) reported: "the shape of mobility in work and residence was

drawn by the nature of the families themselves; their intensity, as measured by family size and form, determined the kind of experience the Union Park family members had in the city at large" (p.164).

It has already been mentioned earlier that families with children of school age tend to be less residentially mobile than families without children of school age. Couples without children are in some respects more free to move. The birth of a new child puts pressure not only on the availability of space, but also exerts a strain on family finances (Chevan, 1971). In support of this logic, Katz (1972) reports that entrepreneurial white collar groups had fewer children than manual labourers. He surmised that families of higher socioeconomic status practised some form of birth limitation.

Conversely, Sennett (1970) found in Union Park (Chicago) that workers from larger families were "more favourably placed on the socioeconomic ladder" (p.165) and made great advances in their lifetime, and the next generation: "by 1890 nearly a third of them were executives and professionals, and virtually none were manual labourers" (p.166). The heads of smaller households retained a level of 25 to 27 percent manual labourers (Sennett, 1970), and experienced more frequent downward mobility; "Whereas about 25 percent of clerical workers from small families were downwardly mobile into manual labor over the decade, only 3 percent from the larger families were; there were no instances of such downward mobility among clerical workers from exceptionally large families" (p.168). Over the course of fourteen years, both fathers and sons from large families were upwardly mobile to a greater degree than the same generation in small families (Sennett, 1970)

The social question in these findings on mobility is: Why family size should have mattered at all? Sennett (1970) compares the intense, nuclear families with the more diverse, extended homes of Union Park. Members of larger families are in a more favoured position in case of job loss or widowhood. They have more relatives to help cope with the loss of purchasing power that leads to downward social mobility. They have a network of relationships and information which gives them an advantage for occupational mobility. Even in nineteenth-century employment circles it was not 'what you know, but who you know'.

Several researchers have indicated that it is not merely the size of the family which effects social mobility, but the form of the family as well. In the majority of nineteenth-century cities, nuclear household structure predominated (Griffen and Griffen, 1977). Talcott Parsons professed "that the social mobility characteristic of modern industrial societies is incompatible with a traditional extended family and that the evolution of the nuclear family was a highly functional adaptation to the opportunities and demands of the industrial order" (Griffen and Griffen, 1977, p.144). Griffen and Griffen (1977) claim that few observers challenge Parsons' contention that "the classical extended family is antithetical to social mobility" (p.144).

Sociologists Sussman and Litwak have pointed out that "modified extended-family relationships, far from being incompatible with inter-generational mobility, may be a more functional adaptation than the isolated nuclear family" (in Griffen and Griffen, 1977, p.145). Sennett (1970) has also challenged Parsons' contention. Sennett (1970) revealed that "The fathers and sons in extended families were more upwardly mobile in their jobs than fathers and sons in nuclear families" (p.170). Katz (1972) also found similar information for the city of Hamilton. During Sennett's (1970) period of study for Union Park, "the whole class of unskilled labourers disappeared from the group of extended family sons." (Sennett, 1970, p.170)

The sons of either family form, did not follow their father's footsteps, but had a distinctive occupational pattern of their own. The sons from extended families had a more favourable work experience than sons from nuclear families, while fathers from extended families had a more favourable occupational history than fathers from nuclear ones (Sennett, 1970). In comparison, families of small size produced work patterns in both generations similar to families of nuclear form; families of large size produced patterns similar to families of extended form (Sennett, 1970. p.178).

Why was the extended family head so much more successful than the head of the nuclear family? Griffen and Griffen (1977) offer one explanation in that, "the extended family played an important role in business entrepreneurship" (p.145). The family clearly predominated as a known source of capital for Poughkeepsie's more substantial firms. According to Griffen and Griffen (1977): "At least one partner in 153 of the 249 firms, or 61% depended on relatives for part or all of his investment

in the business" (p.150). As with larger families, the extended family also provided extended networks of business relationships and business information, which led to a marked advantage in the business world.

**INTER-GENERATIONAL MOBILITY**

Inter-generational, vertical social mobility denotes upward mobility between generations (from grandfather to father to son). Researchers have had great difficulty in agreeing on a uniform procedure for estimating inter-generational movements. The most common method of determining inter-generational mobility has been to compare occupations of father and son, at the same ages, to see if the son has followed in his father's footsteps. Occupations of women have been virtually neglected in previous social mobility research[1]. Dennis (1984) however, did consider the position of women to the extent that changes in marital status affected social mobility, as he hypothesized: "in a dynamic class structure inter-occupational patterns of marriage may reflect social mobility rather than the breadth of class consciousness" (p.197). That is, marriage between a labourer and the daughter of a craftsmen may indicate upward mobility by the labourer, and downward mobility by the craft family, or the existence of a working class that embraced both groups (Dennis, 1984).

Griffen and Griffen (1977) discovered that approximately one-fifth of all sons who became partners with their fathers chose to leave rather than to continue in the family business. The sons of Poughkeepsie often held quite different jobs than their fathers. They found continuity between generations to be especially weak (Griffen and Griffen, 1977). Sennett (1970) claimed that the sons of Union Park also did not follow their fathers' footsteps. Dennis (1984) discovered that a good deal of upward social mobility existed between generations and asserted: "the clerks and agents of late Victorian Britain were the sons of factory workers or artisans" (p.193). Doucet (1972) determined that almost one-quarter (24.1%) of the sons had higher status occupations than their fathers. Similarly, in the majority of cases, Dennis (1984) found "either the sons of labourers became part of the burgeoning army of clerical and sales workers, or sons of middle class parentage entered the professions" (p.45). Thernstrom (1964) found that among those fathers who were upwardly mobile into skilled occupations, some of their sons were able to achieve skilled status, but in

almost all cases there was a "ceiling" of mobility so that it was exceedingly difficult for either generation to move into non-manual labor of any kind. Katz et al. (1982) believed that "Even though the impact of the father's occupation diminished, it still remained powerful and was by far the most influential determinant of a son's occupation" (p.191).

**DOWNWARD MOBILITY**

Few modern studies comment on downward social mobility. It is generally believed that downward mobility was more present in the nineteenth-century than it is today (Harris and Hamnett, 1987). Gutman (1969) for Paterson, New Jersey, 1830-1880, believed many had failed in comparison to the number who succeeded. Katz et al. (1982) on the other hand, found the rate of upward and downward occupational movement in Hamilton was about equal.

Chudacoff (1972) discovered the "consistently low incidence of occupational 'skidding' on the part of white-collar workers separates Omaha, a relatively new and medium-size city, from older and larger American cities" (p.100). Chudacoff (1972) also found that many of those who experienced downward mobility in Omaha, were small proprietors who, for one reason or another, lost their establishments and took manual jobs. Conversely, Griffen and Griffen (1977) confirmed "only a small minority of those who achieved proprietorship subsequently lost status by shifting to manual work in Poughkeepsie" (p.148).

Katz et al. (1982) found that patterns of downward occupational mobility in Hamilton were quite similar to the recognized patterns of upward mobility in that most of it covered a very short distance, and by and large people did not leave their class. In the late nineteenth-century Philadelphia, Blumin (1969) discovered that average upward mobility follows no stable progression, but rather rises and falls with each decade, whereas downward mobility, on the other hand, increases in magnitude each decade. Blumin (1969) seeks to explain this gradual increase in downward mobility as a result of the expansion of the lower classes towards the end of the century, through immigration and natural increases the city's lower classes were growing significantly faster than the rest of its population.

## HYPOTHESES FOR RESEARCH

The first questions to ask when studying residential mobility are: Do movers differ from those who stay put? How long did they stay? Where did they go when they left, and how far? From present-day behaviour I propose a set of expectations for my nineteenth-century sample population, considering the impact on household mobility of factors such as age, income, home ownership, and changes in workplace.

First of all, the modern literature consistently reports that homeowners move less often than renters (Morrow-Jones, 1988; Knox, 1987; Ley, 1983; Clark, 1982; Bourne, 1981; Boyce, 1971). As a consequence we would expect to observe lower rates of mobility in neighbourhoods where owner-occupied and single-family dwellings predominate. When you own your place of residence, your attachment to home grows stronger (Morrow-Jones, 1988; Harris and Hamnett, 1987; Harris et al., 1981). Accordingly, people of higher socio-economic status are more likely to be homeowners, and are therefore likely to move less often.

In nineteenth-century Montreal, three major cultural communities were present, and permit tests of behaviour. I anticipate finding distinct class and cultural differences, and complex relationships of kinship. Since most Protestants were of higher socioeconomic status than most Irish Catholics and French Canadians, I expect to find that they are more likely also to be homeowners and make fewer local moves. They may nevertheless make more long-distance moves, since English-speaking residents have a wider range of employment opportunities in North America, and the higher-rent Protestants had elaborate business networks. The anticipated net effect is for higher-income, owner-occupier, English-speaking households to show a greater tendency to leave the city.

Most moves are made over short distances (Clark, 1982; Bourne, 1981), consistent with a classic 'distance-decay' effect. In nineteenth-century Montreal we expect to find more moves made within neighbourhoods rather than between neighbourhoods. The longer a family remains in one location the less likely it is to move, representing a process of 'cumulative inertia' (Knox, 1987). The tendency to remain in a dwelling reflects emotional attachments to neighbourhood, and social networks, as well as to the dwelling itself. In the nineteenth century the parish is an

important social network, and in all three communities one can hypothesize that kinship ties are also strong, and that adult individuals will remain close to households of their parents, adult siblings, and grown children, producing local networks of neighbouring kin. Given high death rates, and the number of parents left in the 'Old World' or rural areas, I expect to find a strong pattern of proximity between households of siblings (Darroch and Ornstein, 1984; Laslett, 1973), also, in all three groups, a pattern of joint or successive moves by siblings.

The first step in family formation is marriage. Change in marital status by definition results in a change in residence for at least one partner, but in our society often for both partners. I hypothesize that people who do not marry are likely to remain in the home of their parents for a longer period of time; however, once they leave home, they become more mobile. I expect to find single households more mobile than married couples.

Spatial location has been shown to be closely related to changes in family size (Alter, 1988; Morrow-Jones, 1988; Newman, 1970; Abu-Lughod and Foley, 1960; Rossi, 1955). A positive relationship with family size has been argued, the probability of moving increases as family expands, with mobility highest among households with three or more children (Newman, 1970), with adjustments undertaken in anticipation of increased need for space (Alter, 1988; Knox, 1987; Bourne, 1981; Newman, 1970). This type of housing adjustment mobility, in anticipation of a birth, usually involves only a short distance move (Newman, 1970). In this logic, a majority of moves among married couples can be attributed to life cycle changes which make the size of the home no longer compatible with the needs of the household In the nineteenth-century we must extend this logic to consider the decrease in size of the family due to death. The death of a spouse not only decreases the family size and need for space, but affects the economic viability of the household and may initiate a move to share a household, or at least to move closer to parents, adult siblings or adult children (Hareven, 1982). Widowhood was common in the nineteenth century, especially among females, and men tended to remarry more promptly than women (Bradbury, 1984; Alter, 1988). Widowhood at a later stage in life may also trigger a move to one of various 'way stations' in Montreal, notably boarding houses

(Duchesne, 1990). Mobility rates are expected to be high in this population.

Modern studies have also demonstrated a tradeoff between investment in family formation and migration. Housing market trends and cycles show a direct relationship between housing supply and tempo of family formation (Newman, 1970). I hypothesize that family-building should be slower among the frequent movers, residential relocation rates highest among the childless, and younger households move more frequently than older households (Doorn and Van Rietbergen, 1990; Morrow-Jones, 1988; Knox, 1987).

While most families did not change their social status radically, we can expect to find some upward and some downward mobility, and to see it expressed in household moves. A move to a street of higher average rent, or a dwelling of larger size can be interpreted as an improvement in purchasing power and social status. It is expected that a significant percentage of households consistently moved to higher-status streets. It is expected that acquiring a home (real wealth) also enabled homeowners to improve their class position. Although it tied the owner to a mortgage, and may have hindered long-distance job changes, ownership was perceived as an increase in the relative status and security of a family (Harris and Hamnett, 1987; Katz et al., 1982; Katz, 1975).

I expect to find that older couples will be of higher social status than younger couples, and will therefore move less often. Since child-rearing has a negative effect on the availability of savings, a couple will face a limitation to social mobility with the birth of a child. The married couple may achieve an increase in social mobility as the child leaves home, or becomes employed. Consequently, couples with young children are less likely to be upwardly socially mobile than couples with older children. Older children take less time to care for, and may also provide an extra income to the family. Therefore, it is believed that intra-generational social mobility is strongly related to life-cycle stage and family formation.

The rapid growth of Montreal (tenfold between 1840 and 1900), and the rate of immigration into the city are evidence that the city was perceived as a place of opportunity. We might therefore expect to find a net balance of upward social mobility of individuals in their lifetimes, and a high proportion of married couples

who manage to improve their social status over a career lifetime. The most obvious way of achieving lifetime social mobility is through professional success, which may be expressed by a change of occupational title (Doorn and Van Rietbergen, 1990; Hauser, 1982; Hershberg et al., 1974; Thernstrom, 1973,1968; Chudacoff, 1972; Knights, 1971; Sennett, 1970). Only a very small proportion of moves are associated with a change in socioeconomic status (Ley, 1983). Therefore a change in occupational title will not necessarily signal an immediate residential change. We might expect to see upwardly mobile families make a shift from renting to owning, and then stop moving when they have acquired a home.

It is believed that downward mobility was more present in the nineteenth-century than it is today (Harris and Hamnett, 1987). As a result of job loss and widowhood, to cope with the loss of purchasing power that leads to downward social mobility, we will see moves to share a home with adult relatives (Alter, 1988). It is also hypothesized that inter-generational social mobility was more present in the nineteenth-century than intra-generational mobility. I expect to see a significant amount of status improvement from father to son to grandson.

In a lifetime, the average person goes through many decisive and interrelated changes in occupational status, family situation and dwelling-place. This literature review has demonstrated the relative strength of these relationships. Strong connections have been shown to exist between residential and social mobility, and family formation. A shift in one of these three processes has a significant effect on the other two. The modern literature provides a firm theoretical background to the study of historical mobility. Nineteenth-century moving behaviour has been mirrored by that of the present day, with minor exceptions. It is reasonable therefore, to make careful predictions about certain historical processes based on modern literature.

## CHAPTER 2: METHODOLOGICAL CONSIDERATIONS

Of the many historical studies of social and geographical mobility of cities, none has adequately researched Montreal. There is an abundance of excellent raw material available for researching historic Montreal. Before attempting any extensive study, it is necessary to examine the reliability and validity of each source individually. The primary data sources utilized in this research project include the usual sources available for research in most North American cities - census records, tax assessment rolls, and city directories, as well as two exceptionally comprehensive sources available in - water tax rolls and parish records. These records provide the most complete information remaining from "a society that is inaccessible to personal interview and that has left us a far from complete record of its transactions" (Blumin, 1968).

Most studies of the nineteenth-century city rely on one basic source for quantitative data and enhance it with material from various qualitative sources. The approach of this thesis is slightly unconventional in that it uses record-matching in order to reconstruct a suitable data base. This research is an attempt to quantify history. In some situations, quantification yields more reliable information than can be gained by impressionistic methods of studying the urban past (Stelter, 1972). The use of quantitative methods should permit comparisons with other studies of urban history.

### EVALUATING PRIMARY DATA SOURCES FOR HISTORICAL RESEARCH

The major source of primary data used in this thesis is the City of Montreal rental tax rolls (or rôles d'evaluation). The rental tax assessment (or taxe locative) was also known as the "water tax" as it was established by the City of Montreal in order to raise funds for the expansion of the city water works in 1846, and remained to tax each household for the supply of water. In imitation of the taxe locative in France, Montreal was one of the few cities in North America where tenants were directly assessed, and this explains why Montreal is one of few cities to have a list of both owners and tenants available annually. The enumerators went from house to house every summer beginning in 1847.

Property tax assessment records are one of the most useful, and widely used,

sources of information about the social geography of North American cities (Goheen, 1970; Katz, 1975; Harris, Levine and Osborne, 1981; Doucet, 1976; Weaver, 1978). Annually, they list every property in the city. Among other things, they record the name of the occupant, his (occasionally her) occupation, religion, whether the home was tenant or owner-occupied, the assessed value of the building and land, and for tenants in Montreal, a rental value and, for owner-occupiers, an estimated market value for rent based on the space occupied. This rental value, essentially unique to Montreal, has not been analyzed in past research nearly as much as the property tax assessment, due to lack of availability. Assessments provide what Goheen (1970) asserts as "a systematic and comprehensive inventory of the economic and social characteristics of the population and its environment" (p.93).

The information on occupation gives us a good idea of the types of people living at a particular address, on a particular street or in an entire neighbourhood. The information on assessed building and rental values gives us useful clues as to the quality of housing and also the income of the occupant. The tax paid by each household is a direct indicator of the value of the home. Rent is an excellent measure of living standard. The rent each group can pay determines what kind of dwellings they could afford, and in what streets they could live. Income data for the nineteenth-century are scarce; however, values from assessment rolls are probably the best possible surrogate for income. The years of the assessment records that will concern this research are 1848, and five year intervals from 1861 to 1901 inclusively.

The census is another valuable source of historical information. Included in the census manuscripts are the names of all members of the household, their ages, relation to head of household, place of birth, mother tongue, ethnic origin, occupation, employment status, number of people in the house, and often other additional information. The 1901 census, for the first time, offers information on the number of rooms in the dwelling and the year's income of each wage-earner in the household. While the published tables from the Census of Canada are of limited value - they contain few cross-tabulations, and categories vary from one census to the next, the original nominal records have greater potential. The records for Montreal have, on the whole, survived. (There is little for 1851, fragments for 1825, no

manufacturing census except 1871). The census is considered to be one of the most accurate and comprehensive sources of data available for studying social history. The census is a superior source of data on the social position of Montreal families. Information from the manuscript census was gathered in ten year intervals from 1861 to 1901.

City directories are one of the most convenient and sensitive sources of data by which local change can be traced. City directories list all household heads in the city. They are organized alphabetically in two ways: by street name and numbers (in Montreal since 1864), and by surname. By looking under the relevant street names, it is easy to obtain a list of householders who lived in a particular neighbourhood. Since they are available every year, they can document short term change. One of the most useful pieces of information in the directory is occupational title (if, of course the person is employed). For some individuals it gives the name of the business rather than the occupational title. This applies mostly to business partners, managers, and white-collar jobs.

Montreal is unique in its abundance of exceptionally complete parish records. Data are available from both Catholic and Protestant churches, although Catholic records seem to be better (Olson, 1986). They recorded baptisms, burials, and marriages, following the rules of the Council of Trent (1563). From these records, information can be obtained on names and occupations of parents, as well as name, sex, date of birth and date of baptism of child, time of death, county and parish of origin for marrying couple and their parents, and of course, parish and religion. Parish records give fascinating insight into the cultural background of their congregations.

The primary sources utilized in this research project are census records, tax assessment rolls, city directories, and parish registers. The reliability of these sources for historical research has been debated previously in several studies (Lewis, 1990; Olson, 1989, 1986; Thach, 1987; Hanna, 1986; Hanna and Olson, 1983; Levine, 1984; Cross and Dudley, 1972), but their suitability for a study of geographic and social mobility remains to be examined.

Tax assessment rolls (or the roles d'evaluation) are available for Montreal

from 1847 onward. Most years of the tax rolls for Montreal and its suburbs are found in the archives of the l'Hotel de Ville, Montreal, with the exception of the records for the suburb of Westmount, which can be found in Westmount City Hall. Tax evaluations were not available for some adjoining municipalities in early years. The population of these suburban municipalities however, were relatively small, and it is believed that very few sample households were missed. Lewis (1990) discovered that there are a significant number of households missing from the tax rolls of 1847; also the subsequent five years have proven to be weak, but the following years are excellent. Consequently, use of the 1848 tax roll data was dropped from the analysis. Hanna and Olson (1983) have used the water tax rolls in their research on nineteenth-century Montreal, and have found them to be very complete. A mere 2% of household listings in 1881 did not indicate a rental value, and only in a small number of cases was the occupation of the household head missing from the assessment records.

As with most sources of information on the nineteenth-century, the user must question the extent of under-enumeration of working-class households, and the thoroughness of the enumerators. There is a serious lack of information concerning the occupations of women, and the only clues to ethnicity are surnames and a variable for religion - Catholic, Protestant, or Other. In some suburban districts (Saint Henri, Saint Louis de Mile End, Hochelaga, Delorimier, Sainte Cunegonde, Ville Emard, and Notre Dame-des-Grace), the tax records indicate age of the household head, but the occurrence of this variable is too infrequent to be useful on its own.

It is clear that the assessments for Montreal were subject to various influences and alterations, and the assessors' abilities have been questioned (Levine, 1984). Enumerators had a tremendous amount of arbitrary power in the determination of the assessment. Where enumerators were more conscientious and had a reliable knowledge of the local real estate market, this is not a serious problem for historical research, but where enumerators were less competent, the arbitrary figures they chose to invent could seriously influence our results (Hanna and Olson, 1983). Another potential problem with the work of the enumerators is the language barrier.

There is no way of telling how many were bilingual, or spoke only French or only English. The result is many names and occupation titles that appear in the records are either slightly, or grossly, misspelled, or altogether wrong. This type of error may have also arisen in my transcription of the tax roll. The records were hand written, in bound ledgers, or worse, transferred to microfilm. Unfortunately, the enumerator's handwriting is not always easily legible and in a few cases (particularly the 1860s), it was impossible to be completely sure what was written. With these criticisms up front, scholars have taken for granted that they were accurate because the law demanded they be accurate (Doucet, 1976; Katz, 1975). They are considered more accurate than city directories (Levine, 1984), and despite the aforementioned concerns, they provide a valuable source for the study of mobility.

City directories have often been neglected in the past, as they have been considered unreliable (Harris, 1986). In Montreal, City Directories were published annually, by the firm of Robert Mackay from 1842 to 1862 (with the exceptions of 1846 and 1851), and from 1863 to the present day, by the publishing company of John Lovell, for private businesses, for profit. For this reason, they tend to underestimate low-income people and those who move often, and therefore tend to give poor coverage to areas with high tenancy rates and possibly those with a high proportion of immigrants (Harris, 1986; Stelter, 1972). Thach (1985) discovered from a study of Irish household heads in Montreal that the farther one descends the occupational ladder, the weaker the representation in the city directories. From the 1861 census, he located 67% of white-collar occupations in the city directory, 62% of skilled-workers, and only 52% of semi-skilled and unskilled workers (Thach, 1985). Lewis (1985), in a similar study to Thach's, found comparable retrieval rates for the 1900, 1901 and 1902 city directories, successfully tracing 60% of blue-collar workers, and 66% of white-collar workers, however when using a less restrictive, more flexible definition for matching his retrieval rate escalated to 93%. In his study of Newburyport, Massachussetts, Thernstrom found that 45% of labouring families listed in the federal census of 1850 do not appear in the city directories of 1849 and 1851 (Thernstrom, 1964, p.31). In an early test of their validity, Goldstein (1954) provided positive evidence to support the use of city directories in that the directories for

Norristown, Pennsylvannia provided 93% coverage in 1910, and after 1930 virtually 100% of census entries could be traced to the directories, with no bias towards white-collar occupation groups. The directories for Montreal seem to underestimate the Unitarian and Irish Catholic population (Thach, 1985), as well as the role of women (Olson, 1986). Although less comprehensive than the census, they are more sensitive to change, and they are easier to use than the assessment records. They are easily accessible to the public in most major libraries. The city directories are an excellent supplement to the tax rolls.

The biggest drawback to the census is its infrequency. The census was taken only at ten-year intervals. This makes it difficult for short term analysis. It nevertheless provides a check for consistency against more recurrent sources. The illegibility of many enumerators' handwriting, combined with the failure to standardize spelling, were sources of error discovered with many censuses of nineteenth-century cities (Kelly, 1974), and Montreal is no exception. The manuscript census of 1901 contains an income question, and number of rooms, but these useful features are not available for earlier years.

Parochial records are fairly comprehensive, yet often plagued by illegibility. For Montreal, however, these records are very legible, and they are entirely accessible, because they were forwarded as the "civil registration" (état civil); no permission is required for use of the Quebec records prior to 1900, housed in the Archive Nationale du Québec in Montreal. (For the early twentieth century we were given permission to use records of the Palais de Justice). Different parishes have varying degrees of completeness; some parish registers have been criticized for under-enumeration (Thach, 1987), however, the significance of this under-enumeration is debatable. Protestant data, which was collected from several different congregations, are not as thorough as the Roman Catholic records. Nearly half of the occupations were not included, and the mother's maiden name was often omitted, which makes record-matching much more difficult. Parish registers also fail to give exact home location of households and their rents. Despite their difficulties as a single source of data, they act as a valuable supporting data source for mobility.

## RECORD LINKAGE: CREATING A COMPOSITE DATA BASE

The sample population used for this research was composed of twelve surnames and includes over 1000 families, comprised of approximately 300 Irish Catholics, 300 Protestants and 400 French representative of the three communities[2]. The specific housing analysis performed here is based on substantially smaller clan samples (see tables 1 and 2). I have information on most households and individuals of selected surnames from five censuses (1861, 1871, 1881, 1891, and 1901), nine tax rolls at five-year intervals (1861-1901), as well as elaborate detail of family life events from the parish registers, and annual addresses from city directories.

No other city in nineteenth-century North America kept records of this calibre for three culturally distinct societies. For each couple of the twelve "clan" surnames, we have the date and place of marriage, their ages (dates of birth), the address and rental value of their successive dwelling places (and occasionally businesses), ethnicity, religion, mother tongue, their dates of birth and the births of their children, and for

TABLE 2.1

**SAMPLE SIZES BY CULTURAL COMMUNITY**
**NUMBER OF HOUSEHOLDS IN TAXROLL AND CENSUS**

| YEAR | French | | Irish | | Prot | | Total | |
|---|---|---|---|---|---|---|---|---|
| | TAX | CENSUS | TAX | CENSUS | TAX | CENSUS | TAX | CENSUS |
| 1861 | 88* | 84* | 42 | 49 | 49 | 54 | 179* | 187* |
| 1866 | 90* | - | 37 | - | 50 | - | 177* | - |
| 1871 | 86* | 78 | 45 | 50 | 49 | 53 | 180* | 181 |
| 1876 | 113* | - | 49 | - | 57 | - | 219* | - |
| 1881 | 99 | 109 | 61 | 62 | 69 | 60 | 229 | 231 |
| 1886 | 107 | - | 59 | - | 67 | - | 233 | - |
| 1891 | 127 | 131 | 73 | 74 | 67 | 60 | 267 | 265 |
| 1896 | 145 | - | 88 | - | 83 | - | 316 | - |
| 1901 | 173 | 170 | 89 | 81 | 104 | 110 | 366 | 361 |

TABLE 2.2

**CULTURAL COMMUNITY AS PERCENTAGE OF SAMPLE HOUSEHOLDS**

| YEAR | French | Irish | Prot | Total |
|---|---|---|---|---|
| 1861 | 49.1* | 23.5 | 27.4 | 100 |
| 1866 | 52.1* | 20.6 | 27.3 | 100 |
| 1871 | 47.4* | 25.7 | 26.9 | 100 |
| 1876 | 50.2* | 22.9 | 26.9 | 100 |
| 1881 | 42.7 | 26.9 | 30.4 | 100 |
| 1886 | 45.6 | 25.9 | 28.5 | 100 |
| 1891 | 46.9 | 28.1 | 25.0 | 100 |
| 1896 | 46.2 | 28.0 | 25.8 | 100 |
| 1901 | 47.3 | 24.3 | 28.4 | 100 |

* Weights of the French sample were increased by 100% in the totals of 1861 and 1866, and by 50% in total for 1871 and 1876, in order to represent the overall ethnic composition of the city.

each son or daughter the death and/or marriage. Marriage of a son creates a new family in the sample, and to close the record on the original couple, we have the dates of death.

The reconstitution of families was done from collection of all the birth records, all the marriage records, and all the death records of individuals of the sample surnames in Montreal and its suburbs between 1840 and 1920. Each of the aforementioned data sources has inadequacies, or biases. The accuracy of a particular source can be checked against another (usually the census). In an example for Montreal, Cross and Dudley (1972) used a restrictive method to check a sample from the 1871 census, and found only 60% of the census names in the street directories. Record linkage involves comparison of large numbers of records (each record containing everything known about an individual) obtained from one historical source with the records obtained from a second source (Kelly, 1974). Records are first developed through a careful process of transcription from a specific data source to a paper record of all relevant information, and then entered into a comprehensive computer data file. Linkage is essentially a process of elimination. It is a process whereby, where a record from the first source is virtually identical to a record from the second source, it is accepted; otherwise it is considered incomplete and left for further comparison, or is eventually but reluctantly, eliminated. Problems arise when trying to trace households with identical names; for example (hypothetical), the several different Joseph Tremblays and Patrick Brennans who might appear in the data base. This problem is especially evident with the slightly under-represented Irish catholic population, where only one surname was used to compile the sample, and a small array of given or "first" names was popular. The problem of matching tax roll entries is further aggravated by an intense geographical concentration, where we can see several labourers named Pat Brennan living within a few blocks of one another. When comparing individuals in different data sources, an extra effort is made to look for matching variables other than name, such as occupation, age or spouse's name.

The process of record linkage can be overwhelming when dealing with thousands of records, as in this case, and is done with the aid of a computer. The process is semi-automated in that most of the linkage is done by hand, with help from

the computer to perform various sorts on the data to speed the linkage procedure. Fully automated matching was basically impossible due to the difficulties that arise with the presence of common names, the countless variations in spelling of names, the language barrier, and the illegibility of enumerator's handwriting in ledgers and microfilms. There have been many studies of the systems of record linkage or family reconstitution available to the historian (see Steckel, 1988; Bouchard, 1986). The important thing to remember when developing a system for matching records is the requirements of comparability - the ability to correlate results with previous studies, and the argument of validity - the necessity to tailor your method to the peculiarities of the available data.

The "reconstitutable minority" are those individuals or families for which records are available and complete. After the data base is fairly complete, one major problem still exists. In limiting the number of individuals whose experience of registration conforms to your system of reconstitution, there is a possibility that these results will be based on a biased, unrepresentative sample of the population (Levine, 1976). Sample sizes as mentioned above are most constraining for the Irish Catholic population. Although some adjustment was made to ensure adequate representation of each of the three cultural communities[3], Irish catholics remain slightly under-represented, aggravated by the reasons mentioned earlier - small number of first names, and geographical compactness. In the Protestant sample, because half of the ten surnames were unusual and were dying out by the end of the century, we may be under-representing the stream of later Protestant immigrants and the poorest stratum of the protestant community by 1901. Although the French Canadian sample relies on only one surname, descending from a single immigrant family of the seventeenth-century, it is probably the most accurate in representing the cultural group. While the choice of surnames was derived from the 1859 cohort and stratified to permit comparisons among three subgroups, they can be added together to provide a rough representation of the entire population[4].

**CALCULATING PERSISTENCE**

Persistence, as it is defined here, refers to "the lack of movement". Persisters are "stayers" - people who continue to exist at the same location over a period of

time. Rates of persistence are ratios or percentages of the number of subjects (usually households) in a delineated region who remain at the same address compared to the total number of subjects or households in that region as a whole, over a given period of time (in this case 5, 10, and 15 years).

Addresses, rents, occupation titles and other descriptive information were gathered for clan families on a ward by ward basis from the rental tax rolls of Montreal and its suburbs in five year intervals from 1861 to 1901, and were then entered directly into a computer file, in ASCII format. The address sequences were further checked against entries from Lovell's city directories; and supplemented with addresses reported in burial records, and censuses. Addresses are generally reported on Catholic cemetery records, kept at Notre Dame church. Many addresses are reported in the manuscript censuses of 1871 and 1901. Matching with burial records also helped to verify households who ceased to exist in the sample due to death, and not out-migration. Further details in nominal censuses of 1861, 1871, 1881, 1891 and 1901 allowed the identification of widows or servants who may have moved into other households.

The addresses were then coded by "street segments", the stretch of housing on both sides of a street, subdivided by the intersection of a cross street (see Hanna and Olson, 1983). The segment is represented by a four-digit numerical code. Each segment contains at least 30 households, and is reasonably homogeneous. To keep segments of comparable size in later years, when streets grew in population density, segment codes were often subdivided into two or more separate codes (with consecutive numbers). By using such detailed units, it is possible to study mobility at the most personal level. Use of street segments however, by their nature, make it difficult to determine intra-segment mobility. For this test, exact street addresses are necessary; however, problems arise when working in detail with exact street addresses, especially for the nineteenth-century. During massive growth periods, many streets were renumbered, and changed names, causing confusion for the urban historian attempting a study of mobility (Doucet, 1972). While exact street numbers are "fuzzy" for my sample, street name changes were conscientiously monitored, and segment codes usually remained unchanged for their delineated areas, while new

codes were assigned to new blocks with extra care.

Individual clan entries were coded and subsequently grouped by their family ID numbers or "FRF$" codes; also a four-digit number. The first digit of the FRF$ code represents clan ethnicity, while the last three digits reveal specific family identity. This code allows for examination of persistence based on ethnicity, occupation and other demographic variables. To determine whether someone remained at the same address in consecutive years, a file was required which listed the family ID (FRF$) codes and respective street segment codes for each year together, for easy comparison. The separate files for each tax year were converted from ASCII to SYSTAT format and then sorted and merged into one comprehensive file by their common variable - the FRF$ code, using SYSTAT's horizontal concatenation option.

The consecutive segment codes for each household were then compared within SYSTAT to test for persistence. To perform this test, a program was developed which incorporated various BASIC commands available in SYSTAT's data editor. An example of the sort of commands used can be seen in the following statement:

**> IF SEG1861=SEG1866 AND SEG1861<>. THEN LET PERSIST6166$="STAY"**

Programming in BASIC allows one to execute several different transformations and calculations at the same time on the computer, thus saving a great deal of time which would have been spent on manual comparisons. After determining whether or not a family has moved, SYSTAT's tabulate option can be used to calculate the total percentage of movers versus stayers. The program can also be adapted to subdivide movers into separate categories of moves within the neighbourhood, within the ward, within the city, and out of the city. By using FRF$ numbers, the program can also subdivide examination groups to analyze persistence based on ethnic status; meanwhile occupational variables and rent values can also be added to the analysis.

While the opposite of household persistence is essentially household mobility, one cannot assume that mobility simply equals: 100% - persistence. Special care was taken in the handling of missing variables, so that two successive missing values were not treated as a "STAY", nor that a missing variable for the second year was simply considered as a move out of the city without further consideration. Many non-persister households fall into the "removal" category, as they simply disappear from

one study year to the next. Segments missing in the middle of an address sequence are very few, but are the most troublesome to this study. Most of the removal category, or disappearances, result from three possible scenarios, the first and most probable being that they moved out of the city; this was a frequent occurrence in the highly transient nineteenth-century city.

The second possible reason for clan disappearance is recording error - they fell through the cracks of municipal enumeration - bypassed by tax assessors, or overlooked between moves. Knights (1971) observed that census enumerators in nineteenth-century Boston, often missed corner houses, possibly in the belief that they would be canvassed by someone else assigned to the other street. Some households may have moved during an assessment period from an unenumerated to an already enumerated area, and therefore would have been missed. This is conceivable as the assessments were taken over a period of a few months during the summer, which also has long been the popular time to change residence in Montreal. These clan members may also have been overlooked during the process of transcription from tax roll volume to computer data file, as handwriting on the microfilms and original ledgers was often barely legible. This second factor, however, is considered to be negligible, as every effort was made to locate the few elusive households in supplementary data sources such as city directories, census, and parochial records to fill any possible gaps in our knowledge of the status of any particular household. It is believed that only a very small margin of families disappear from record, without having died or moved out of Montreal.

The third and most pronounced factor leading to a discontinuation of the household address sequence is death. Especially significant in the nineteenth-century, death disrupted the pattern of persistence in many households through widowhood, widowerhood, or household dissolution. Observing this reality, rates of persistence were recalculated for "survivor" households, those households where no death of a spouse had occurred. These scenarios are easily determined by an inspection of death dates gathered from the census and parish records. A separate file including the variables for year of marriage, death of first spouse and year of death of second spouse was merged with the file of street segments and analyzed with the use of

BASIC statements incorporated into the persistence test command file. Death was the cause of at least 7% of all households disappearing over five-years, which would otherwise be assumed to have migrated out of the city. The reliability of these corrections for death however, is questionable, as there are a number of missing death dates, or deaths that remain unmatched to a specific person; therefore, the proportion of households who seem to have migrated, but in fact died, would be much greater. Most death dates are available however, and it is important to incorporate this information in forming a more accurate picture of nineteenth-century mobility.

**DETERMINING SOCIAL POSITION**

There has been a tendency in empirical literature to use the terms occupational status and class interchangeably, without an adequate conceptualization of the relationship between the two (Lewis, 1985). Katz et al. (1982) make a sharp distinction between class and stratification. "Class is an analytic category with which the social structure is defined. Stratification describes the divisions within the class structure, the complex rank ordering of people in each class such as by wealth, ethnicity, and property" (p.39). Ranking by occupation is another method of ordering people in each class; however, as Lewis (1985) has noted, "occupation is a phenomenon which operates in the market place and exists independently of class ... Occupations can often be aggregated into class categories, but class is not reducible to occupation" (p.91). In looking at mobility in relation to social position, this paper uses an occupational stratification system, based on Katz (1975). This is not a class analysis per se, but an analysis of occupational status; it basically divides occupations into three categories based on the white-collar/blue-collar distinctions. Income data, represented by rent statistics, are also utilized to provide a comprehensive examination of socio-economic status to the stratification procedure, particular to nineteenth-century Montreal.

All of the records available contain a reference to the occupation of the head of the household. As a means of discovering social mobility, scholars have generally relied on occupational titles, since a person's job is a prime indicator of his or her social status (Harris, Levine and Osborne, 1981; Griffen and Griffen, 1978). There

are certain methodological difficulties in quantifying such concepts as "status" and "prestige" (see Blumin, 1968), but occupation is considered a reasonably good surrogate for social class. Thernstrom (1964) recognized that "occupation may only be one variable in a comprehensive theory of class, but it is the variable which includes more, which sets more limits on the other variables than any other criterion of status" (p.84).

Thernstrom (1964) defines occupational mobility as a move from one to another of the four broad categories: unskilled manual occupations, semi-skilled manual occupations, skilled manual occupations, and non-manual occupations. Occupational mobility can be determined by tracing one's occupation over time. To do this, a system for occupational classification, or more particularly stratification, must be devised. Classification reduces the welter of individual occupations to manageable analytic categories (Hershberg et al, 1974). Social historians have used many different systems of stratification in previous studies, including strategies by Hershberg et al (1974), Katz (1975), Thernstrom (1964, 1973) and Armstrong (1972) to name a few of the more popular schemes. The ultimate system would be a synthesis of the more successful methods of the past; however, one of the main problems with previous studies is that social historians have used so many different methods of classification. Although it is important to tailor the system to the specific city, these differences have been shown to result in very large discrepancies between the results of different studies. Hershberg et al. (1974) recognized the necessity of comparability and collaborated on a project to discover uniformity in their ideas on classification. This issue seems to have been ignored since their single attempt. Hauser (1982) clearly illustrates the attending dilemma:

> As contemporary and historical studies of occupational stratification multiply, social scientists display continuing ambivalence about the invariance of occupational status hierarchies across time and space. On one hand, macro-social theories demand comparative study, for which common measurement tools are a necessity (Treiman, 1977; 1976; Sharlin, 1980) ... On the other hand, serious students of specific societies or communities - past or present - are sensitized by inclination, training, and experience to culturally or historically unique features of those settings; thus they are understandably reluctant to use a standard occupational status scale (p.111).

The decision to consider when studying occupational mobility in Montreal is comparability versus validity. To this end, two classification schemes were used in this study (see Table 2.3, and Appendix 2). The first and perhaps the most frequently used classification system to date, is that of Katz (1975); ranking occupations on a socio-economic scale from 1 to 5, with 1 being the highest (for my purposes the five rankings were collapsed to three: groups 1 and 2 were labelled "high" status; 3 and 4 were identified as "medium" status; and group 5 became "low" status). Katz's scale is valuable for its ability to make comparisons to previous studies of nineteenth-century mobility. The second major occupational classification scheme used in this thesis was fashioned from a 100% sample of the Montreal tax rolls specifically for the second half of the nineteenth-century. From the median rents of household heads of various occupations, we established a scale of occupational status. The occupations were ranked from 1 to 3 (high, medium, low), based on their median rent grouping. Thus, the second system of classification considers both a surrogate for household income, and occupational status as factors in determining a socio-economic rank.

Katz's (1975) classification scheme for the year 1860 can also be found in Hershberg et al (1974). They caution its use for the latter half of the nineteenth-century as they have not looked at how these rankings should be altered to account for the impact of industrialization. Hauser (1982), reacting to their scepticism, found that these rankings did not change very much at all; he found an estimated correlation between prestige in the mid-nineteenth century and the year 1925 at just .882/.93 = .95, although Katz argued that differences in the nature and organization of work had shifted over this period. Lewis (1985) discovered, for Montreal, between 1861 and 1901, that "Despite the tremendous changes taking place in the urban economy the occupational structure remained stable" (p.98). Therefore, it is reasonable to assume that Katz's (1975) classification system is just as representative of a society in 1901, as it was a society in 1861.

Thernstrom (1973) used a variant on the social-economic grouping of occupations devised by researcher Alba M. Edwards in the 1930s. He recognized that this was an important consideration, as he hoped to be able to compare his findings with those

of other investigators, so as to arrive at larger conclusions about mobility trends in the United States during the nineteenth-century (Thernstrom, 1973, p.287). Thernstrom was cautious, however, as the potential for comparative analysis opened up by use of a similar classification scheme, "would be of limited value if the scheme were not an adequate representation of the occupational hierarchy" (1973, p.293).

Although change of job titles is a reasonable indicator of social mobility, it would be inaccurate to assume it is the only one. According to Blumin (1968) "since no one would define social status in terms of occupation alone, we cannot accept the idea that a change in occupation constitutes, by definition a change in social status" (p.1). An unusual feature of the Montreal tax rolls allows us to refine the estimation of social mobility in the sample population. It evaluates the "rental value" on every dwelling, according to its size and market rent. The larger the floor area, the higher the tax, and, presumably, the higher the purchasing power and income of its inhabitants. The rental tax roll provides a value of the 'rent-paying capacity' of the sample families. Table 2.3 (see appendix 2) includes the variable "Median Rent" which represents a median rent statistic for each occupation in the tax rolls. This can be used as a control on the classification scheme used by Katz (1975) for inferring status from occupation, and also fulfils the "validity" requirement concerning certain researchers like Hauser (1982). By special permission, we have access to the census of 1901 which included an income question. The census lists incomes of every working person in the household, and therefore, allows for an estimation of "purchasing power" based on father's income, or total family income. The limitation of this feature is that it is only available for 1901; therefore, it is used primarily as a check on the interpretation of the rental tax surrogate. Also from the 1901 census, we can use the number of rooms variable; in combination with rents from the tax roll to provide a figure of rents per room which can also be used as a check on the interpretation of rents. Of course, there are potential risks in assuming a perfect correlation between financial status and house size; however, rent is assumed to be a fairly good surrogate for income.

This research uses four different methods of assessing social status: (1) Katz's (1975) occupational classification, (2) median rent of occupation, (3) rent per person,

TABLE 2.3

**SOCIAL STATUS CLASSIFICATION SCHEMES**

**1) Katz's (1975) Occupational Classification System**

| | |
|---|---|
| HIGH | 1) BOURGEOIS/PETITE BOURGEOISIE |
| | 2) WHITE COLLAR |
| MED | 3) SKILLED BLUE COLLAR |
| | 4) SEMI-SKILLED BLUE COLLAR |
| LOW | 5) UNSKILLED BLUE COLLAR |

**2) Median Monthly Rent Occupational Classification**

| | MEDIAN RENT | LOG MEDIAN RENT | # ROOMS |
|---|---|---|---|
| HIGH | $120 and over | 2.08 and over | 7 and over |
| MED | over $60 under $120 | 1.79 to 2.07 | 4 to 6 |
| LOW | $60 and under | 1.78 and under | 3 or less |

**3) Rent Per Person Classification**

| | RENT/PERSON | PERSONS/ROOM |
|---|---|---|
| HIGH | over $20 | less than 1 |
| MED | over $10, to $20 | from 1 to 2 |
| LOW | $10 and under | 2 or more |

**4) Categories of Total Family Income and Father's Earnings (1901)**

| | TOTAL INCOME | FATHER'S EARNINGS |
|---|---|---|
| HIGH | over $1000 | over $600 |
| MED | over $400 under $1000 | over $400 under $600 |
| LOW | $400 and under | $400 and under |

and (4) income. Each of the four systems, ranks households into one of three status groups: high, medium, or low. The status group boundaries were not arbitrary - specific criteria were used for each method. The median monthly rent statistics were calculated from a file including the occupational title and monthly rent of every household in the Montreal tax roll for the years 1881 and 1901. The boundaries used for the median rent classification system (listed in table 2.3) were calculated by analyzing printouts of all occupational titles, sorted by their median monthly rent. The categories basically illustrate the differences in rent paid by households employed in unskilled blue-collar ($60 or less), skilled or semi-skilled blue-collar ($60 to $120), and white-collar occupations (more than $120). The boundaries also roughly represent differences in size of lodgings - at roughly $20 rent per room they distinguish "low" as 3 or less rooms, "medium" as 4 to 6 rooms, and "high" as 7 or more rooms. The divisions for the rent per person classification were chosen in a

similar fashion. If $20 roughly represents the rent associated with one average sized room, then households paying less than $10 per person are living with more than 2 persons per room[5]. Households with 2 or more persons per room are overcrowded (by the nineteenth-century British standard [see Dennis, 1984]); overcrowding is representative of low-status households. Households paying between $10 and $20 rent per person are living with more than one person per room (crowded by modern standards), but less than 2 persons per room, and therefore, moderately comfortable by nineteenth-century standards these households are of medium-status. High-status households live in comfortable, non-crowded dwellings with less than one person per room, and therefore, pay $20 or more rent per person. The 1901 census income statistic was also used as an indicator of social status. Families making a total income less than $400 per year in 1901 were seriously impoverished, they would have found it very difficult to survive without taking in boarders or lodgers - they were definitely of low social status. More successful, middle-status families earned more than this amount per year; but to be truly prosperous, or high-status in the late-nineteenth century, total family income had to be higher than $1000. Approximately one-quarter of all sample households in 1901, were considered low-status, one-half were medium-status, and one-quarter high-status. In combination, these four methods provide a comprehensive description of social-status, more precise than a system relying on occupational titles alone.

Another problem that arises when using change of occupational titles to determine changes in social position is that of "job equivalency". The problem, as Katz (1972) notes, "was interpreting those (changed) titles; in which case did it signify a change of job, and in which case was it merely a use of an equivalent title?" (p.70). No historical study has treated the problem of response variability satisfactorily. Any historical analysis of nineteenth-century occupational data cannot avoid this problem of job equivalency. It seems that often, in nineteenth-century Montreal, people used two distinct yet equivalent terms to describe the same job at two different times (Hertzog, 1986)[6]. A few of the numerous possible title variations for the same job include: accountant-bookkeeper-cashier; carter-coachman-driver; roofer-tinner-tinsmith; carpenter-joiner; builder-contractor; advocate-lawyer; printer-lithographer-

typographer; and trader-dealer-grocer-merchant-storekeeper. While some of these variations suggest a degree of vertical mobility such as: clerk to grocer, grocer to dealer, and dealer to merchant; or bricklayer to mason, and mason to contractor, it is possible that the change in title is due to differences in reporting from year to year, or differences in the translation of title from French to English or vice versa (i.e. printer-typographer, or voyageur-traveller). To determine whether a change in occupational title has truly resulted in a change in social status, we must also consider changes in other variables such as income or tenure status. "Occupation is not an imperfect indicator of social position or social mobility. Nonetheless recognition of its ambiguities does not dictate its abandonment but rather calls for its use in a discriminating and careful way" (Katz et al, 1982, pp.160-1).

**MULTIVARIATE ANALYSIS: THE LOGIT MODEL**

Regression models are probably the most widely used statistical models in geographical research (Wrigley, 1976). A regression model can generally be defined as a model that embodies assumptions about a dependence relationship between one variable, the response or dependent variable, and one or more other variables, the explanatory or independent variables. Whilst most geographers are familiar with normal-theory regression models in which all variables are continuously distributed, many are less accustomed to models in which either the response variable, or one or more of the explanatory variables is a categorized variable (Wrigley, 1976). This analysis of residential mobility involves several explanatory variables that are categorical: tenure, occupational status, ethnicity, marital status, and some that are continuous: age, income, and household size. For methodological reasons[7], the continuous variables in this analysis were treated as categorical (ordinal) data. The nature of this analysis of household persistence is largely based on cross-tabulations, and requires a finite set of groupings. O'Brien (1992) has warned however, "any form of data analysis which involves the use of ordinal data is likely to be inadequate if the ordinal nature of the information is ignored" (p.285). As noted in the previous section, special care was taken in determining the categories to be used for the analysis of these variables (age, income, and household size); the classifications were not arbitrary. Age and household size were used as indicators of life-cycle stage. Age

was divided into three groups: 30 and under, 31 to 49, and 50 and over. The youngest group includes singles, and married couples which are childless, or with young children. The middle-aged group are married, living with older children; members who contribute to the total family income, and thus, increase the purchasing power of the family. The oldest group are often retired "gentlemen", widows or widowers, occasionally living in the homes of adult children. Household size categories were delineated as follows: small households of 4 or less members, medium-sized households with 5 or 6 members, and large households with 7 or more members. The mean household size fell from 6 persons in 1861, to 5 persons in 1871, and stayed that way until 1901.

The simplest categorized response variable is a random variable with only two possible outcomes. A special class of dependent variable is the proportion which by definition lies in the range 0 to 1, and the dichotomous variable which by convention takes either the value 0 or 1 (presence or absence, occurrence or non-occurrence). In such cases, when the dependent variable is expressed as a dichotomous variable, the classic regression model is inappropriate as a method for evaluating the fit of the model. Wrigley (1976, 1985) notes that categorical response variables in traditional regression models not only violate the assumption of a constant error variance but may also generate predicted values for the response variable which are uninterpretable. An ordinary linear regression model may estimate values of proportion 'p' outside the range 0 to 1 - values which clearly have no meaning. (N.B. for further discussion see Clark and Hoskings, 1986). In human geography, especially, dichotomous categorizations may be important. For example, when survey methods have been used, and responses are recorded as yes or no, it is important to be able to evaluate the probabilities of those categorical responses (Clark and Hoskings, 1986). The solutions offered to remove the perceived difficulties of categorical responses involve transforming them so that new linear additive models are specified instead of classic regression. This is the cumulative logistic transformation which leads to the logit model. The dependent variable is transformed to lie in the range of positive-infinity to negative-infinity, so that no matter what the estimate of the transformed variable from the regression model may

be, the estimate of 'p' is bound to lie in the range 0 to 1. This is achieved by the following transformation: y=ln(p/1-p). (For a more detailed discussion of concepts and mathematical basis of transformation, see Hosmer and Lemeshow (1989), O'Brien (1992), Wrigley (1985, p.28-9), or Clark and Hoskings (1986, pp.448-452)).

Logit regression was chosen for this analysis because the dependent variable, household persistence, is a dichotomous variable. Dichotomous variables are cases where the observed proportions can only realistically take on the value of 0 or 1, which will happen either naturally as in the case of data on infant mortality, or when an observed proportion is based on a sample size of one. Now if we observe whether an inadividual household moves or not, the proportion of times the household moves will be either one or zero. In actuality, we are observing a binomial random variable based on a sample size of one. If we have many such observations, it is possible, after using the logit transformation, to regress them against a set of independent variables to see the extent to which they explain residential mobility. In this particular case we have over 1700 observations, which can be regressed against six independent or "explanatory" variables: age, tenure, household size, marital status, ethnicity and occupational status.

Exploring the mobility patterns of a nineteenth-century city is a demanding task. The challenge lies in ensuring accuracy in the reconstitution of "a society that is inaccessible to personal interview and that has left us a far from complete record of its transactions' (Blumin, 1968). Historical researchers of Montreal are fortunate in that there is an abundance of excellent information available from various sources to study the city. Before attempting an extensive study using these data sources, the researcher must not be afraid to "look these gift horses in the mouth". Every data source has its own shortcomings. An examination of the reliability and validity of sources and methods of analysis elucidates potential biases and helps to alleviate them. Methods of data acquisition and record linkage must provide controls, to ensure the sample is representative of the entire population. Also, recognizing the importance of comparability allows the research to provide a basis for correlation with past and future studies, and thus, providing another justification for research.

# CHAPTER 3: HOUSEHOLD PERSISTENCE AND MOBILITY IN MONTREAL

High rates of household mobility are suggested by the low rates of persistence at an address. The persistence curves presented in this discussion represent the percentages of households remaining at the same street address five, ten and fifteen years after the start of a sample period. I also present "intra-city" population persistence rates - percentage of households whose continued presence within Montreal is known. I shall deal with five variables, the superficial relationships of persistence to each of them, and the apparent relationships among them. This will prepare us for problems of interpreting the multivariate analysis in terms of their inter-correlation and potential interaction effects.

## PERSISTENCE IN THREE CULTURAL COMMUNITIES

A preliminary look at persistence rates among the three predominant cultural communities provides interesting results. As we see in figure 3.1, based on table 3.1,

TABLE 3.1

**HOUSEHOLD PERSISTENCE BY CULTURAL COMMUNITY, 1861-1901**

Five Year Persistence (%)

| | French | Irish | Prot | All | N |
|---|---|---|---|---|---|
| 1861-1866 | 22.5 | 27.3 | 34.0 | 26.6 | 192 |
| 1866-1871 | 31.9 | 35.9 | 40.0 | 35.0 | 183 |
| 1871-1876 | 24.2 | 32.7 | 37.0 | 29.9 | 199 |
| 1876-1881 | 32.5 | 36.0 | 40.7 | 35.4 | 225 |
| 1881-1886 | 25.5 | 25.0 | 33.8 | 27.8 | 241 |
| 1886-1891 | 30.6 | 26.7 | 40.9 | 32.5 | 234 |
| 1891-1896 | 25.6 | 26.7 | 40.9 | 28.5 | 284 |
| 1896-1901 | 28.6 | 26.7 | 36.7 | 30.1 | 319 |

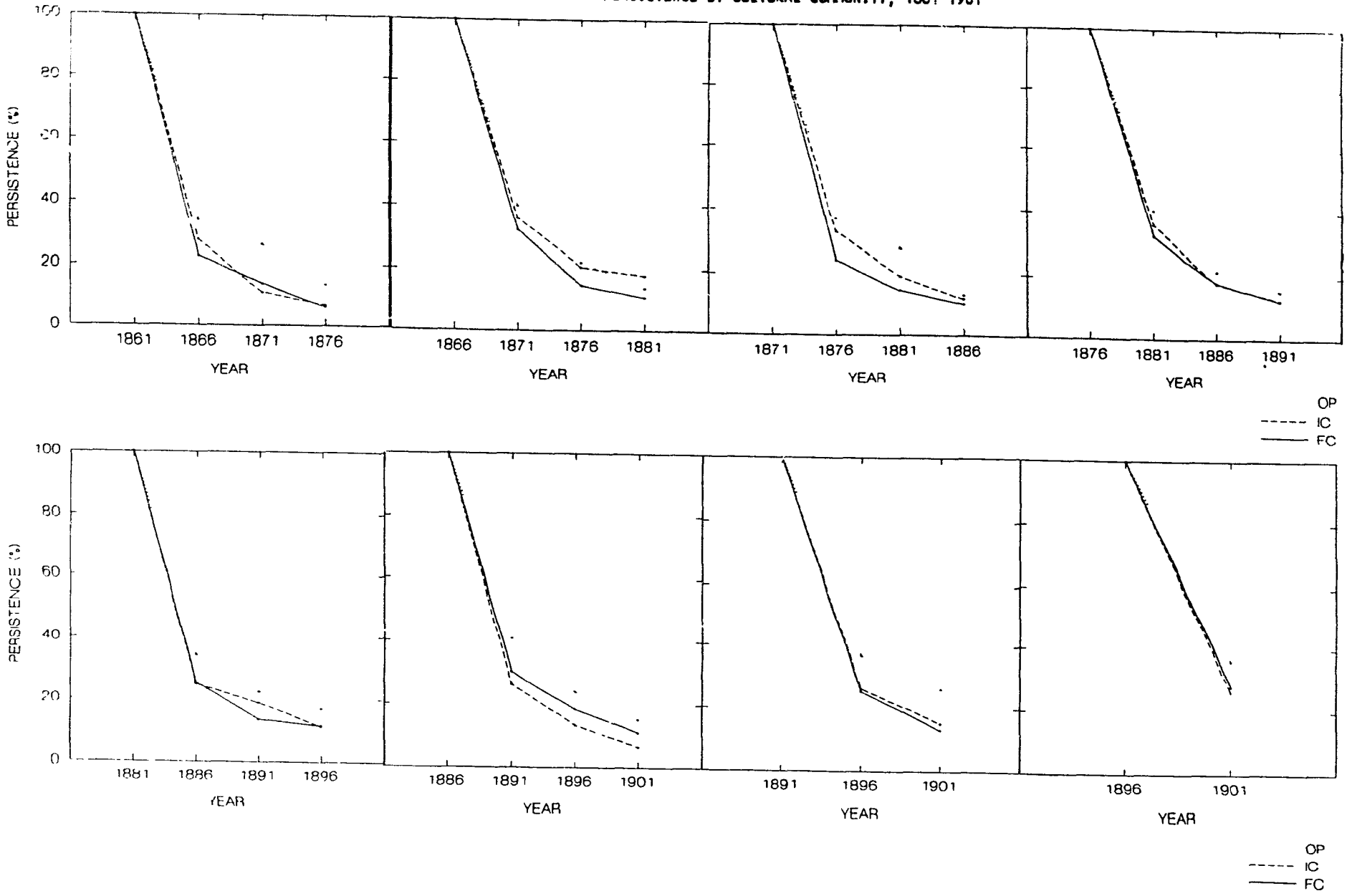
Ten Year Persistence (%)

| | French | Irish | Prot | All | N |
|---|---|---|---|---|---|
| 1861-1871 | 14.3 | 11.4 | 26.0 | 16.7 | 192 |
| 1866-1876 | 14.9 | 20.5 | 22.0 | 18.0 | 183 |
| 1871-1881 | 14.5 | 19.2 | 27.8 | 19.3 | 199 |
| 1876-1886 | 18.2 | 18.0 | 22.0 | 19.2 | 225 |
| 1881-1891 | 13.2 | 18.8 | 22.5 | 17.4 | 241 |
| 1886-1896 | 18.5 | 13.3 | 24.2 | 18.8 | 234 |
| 1891-1901 | 13.1 | 15.2 | 26.5 | 16.9 | 284 |

Fifteen Year Persistence (%)

| | French | Irish | Prot | All | N |
|---|---|---|---|---|---|
| 1861-1876 | 6.1 | 6.8 | 14.0 | 8.3 | 192 |
| 1866-1881 | 10.6 | 18.0 | 14.0 | 13.1 | 183 |
| 1871-1886 | 9.7 | 11.5 | 13.0 | 11.1 | 199 |
| 1876-1891 | 11.7 | 12.0 | 15.3 | 12.7 | 225 |
| 1881-1896 | 11.3 | 10.9 | 16.9 | 12.9 | 241 |
| 1886-1901 | 11.1 | 6.7 | 15.2 | 11.1 | 233 |

FIGURE 3.1 HOUSEHOLD PERSISTENCE BY CULTURAL COMMUNITY, 1861-1901



persistence rates for the three groups are fairly steady throughout the forty years of study. About one-third of Protestant households are still at the same address at the end of five years, one-quarter of French Canadian and Irish Catholic families. By the end of ten years, household persistence falls to approximately 25, 15 and 15 per cent respectively, and by the end of fifteen years to 15, 10 and 10 per cent. The higher rates of persistence among Protestant families are, arguably, attributable to their higher incomes, higher-status occupations and, as we shall see, their higher rates of home ownership. The test of these particular influences on persistence will require a multivariate analysis, which we will see later.

Figure 3.2, based on table 3.2, displays intra-city persistence for each cultural community. This measure, corrected for removal due to death, is roughly the inverse of out-migration from the city[8]. Protestant households also appear to have the lowest rates of out-migration, reflected in their high rates of intra-city persistence. Approximately three-quarters of them remained in Montreal over a given five-year period, whereas roughly two-thirds of French and three-fifths of Irish Catholic households remained. By the end of ten years, intra-city persistence falls to approximately three-fifths for Protestants and French, and to about one-half for the Irish, and by the end of fifteen-years to under three-fifths, one-half, and two-fifths for Protestant, French and Irish households respectively. Average ten-year persistence rates for Montreal during the period from 1861 to 1901, were roughly equal to 56.5%. Rates of persistence for nineteenth-century U.S. cities such as Poughkeepsie, Birmingham, Newburyport, and Omaha appear to be slightly lower, at just under half for each (Griffen, 1969, 1972; Worthman, 1971; Thernstrom, 1968; Chudacoff, 1972) (see figure 3.3, table 3.3). Tobey, et al. (1990) affirmed that "estimates vary, but there is little doubt that extensive geographic mobility has always marked the historical American social order" (p.1398). Decennial "intra-city" persistence ranged from a high of 71 percent in Indianapolis between 1880 and 1890 to a low of 15 percent in St.Louis from 1840 to 1850, although the majority of North American cities studied thus far showed decennial rates of intra-city persistence of less than 50 percent (Tobey et al, 1990)[9]. The persistence rates for most of these cities however, were not effectively corrected for deaths, and therefore, actual persistence should be

TABLE 3.2

**INTRA-CITY POPULATION PERSISTENCE BY CULTURAL COMMUNITY, 1861-1901**

Five Year Persistence (%)

| | French | Irish | Prot | All | N |
|---|---|---|---|---|---|
| 1861-1866 | 60.4 | 67.4 | 70.8 | 64.7 | 187 |
| 1866-1871 | 68.1 | 59.0 | 76.6 | 68.3 | 180 |
| 1871-1876 | 69.4 | 64.7 | 80.0 | 70.9 | 194 |
| 1876-1881 | 67.5 | 58.0 | 77.2 | 68.0 | 222 |
| 1881-1886 | 74.3 | 69.8 | 71.6 | 72.3 | 235 |
| 1886-1891 | 67.0 | 57.6 | 76.6 | 67.3 | 229 |
| 1891-1896 | 65.7 | 61.8 | 78.8 | 67.8 | 276 |
| 1896-1901 | 65.3 | 47.1 | 74.0 | 62.3 | 308 |
| 1861-1901 | 67.1 | 59.8 | 75.6 | 67.5 | 1831 |

Ten Year Persistence (%)

| | French | Irish | Prot | All | N |
|---|---|---|---|---|---|
| 1861-1871 | 56.3 | 60.5 | 69.8 | 60.4 | 182 |
| 1866-1876 | 57.5 | 44.7 | 64.4 | 56.5 | 173 |
| 1871-1881 | 61.3 | 56.0 | 78.7 | 63.7 | 190 |
| 1876-1886 | 55.3 | 50.0 | 67.3 | 57.1 | 217 |
| 1881-1891 | 62.4 | 58.1 | 61.5 | 61.0 | 228 |
| 1886-1896 | 57.7 | 52.6 | 69.4 | 59.6 | 223 |
| 1891-1901 | 52.7 | 43.8 | 73.8 | 55.1 | 265 |
| 1861-1901 | 57.3 | 52.0 | 69.0 | 59.0 | 1482 |

Fifteen Year Persistence (%)

| | French | Irish | Prot | All | N |
|---|---|---|---|---|---|
| 1861-1876 | 32.6 | 45.2 | 61.0 | 42.3 | 175 |
| 1866-1881 | 48.9 | 36.8 | 58.5 | 48.6 | 173 |
| 1871-1886 | 46.2 | 40.8 | 58.7 | 47.8 | 186 |
| 1876-1891 | 45.2 | 32.6 | 53.9 | 45.2 | 207 |
| 1881-1896 | 51.6 | 50.0 | 53.2 | 51.6 | 219 |
| 1886-1901 | 49.0 | 34.6 | 66.1 | 50.0 | 206 |
| 1861-1901 | 45.7 | 40.4 | 58.4 | 47.6 | 1167 |

slightly higher than reported[10]. Katz et al (1982) appear to be the first scholars to adequately control for death. They recalculated rates of persistence for "continuing" or "surviving" households - those households headed by the same individual or by his widow. Corrected rates of persistence in Buffalo, New York for the decade beginning 1845, were reported to be 60% for surviving household heads - a full 50-100% higher than would have been expected by other scholars (Katz et al, 1982). Rates of persistence in Hamilton however, were approximately 44% for the same period (Katz et al, 1892). Were there certain contextual factors (i.e. availability of housing) unique to Montreal, Buffalo and Indianapolis, that caused households to remain in these cities longer than in other nineteenth-century cities? The rate of household persistence in the nineteenth-century, Thernstrom (1973) has observed, varied little from place to place, or according to Katz et al (1982) with economic conditions.

FIGURE 3.2 INTRA-CITY PERSISTENCE BY CULTURAL COMMUNITY, 1861-1901

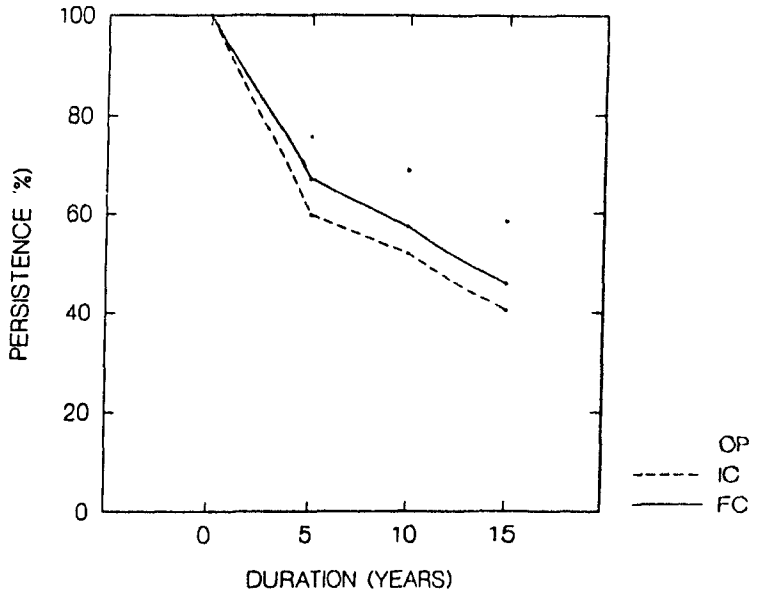



FIGURE 3.3 DECENNIAL INTRA-CITY PERSISTENCE RATES IN SELECTED CITIES, 1850-190

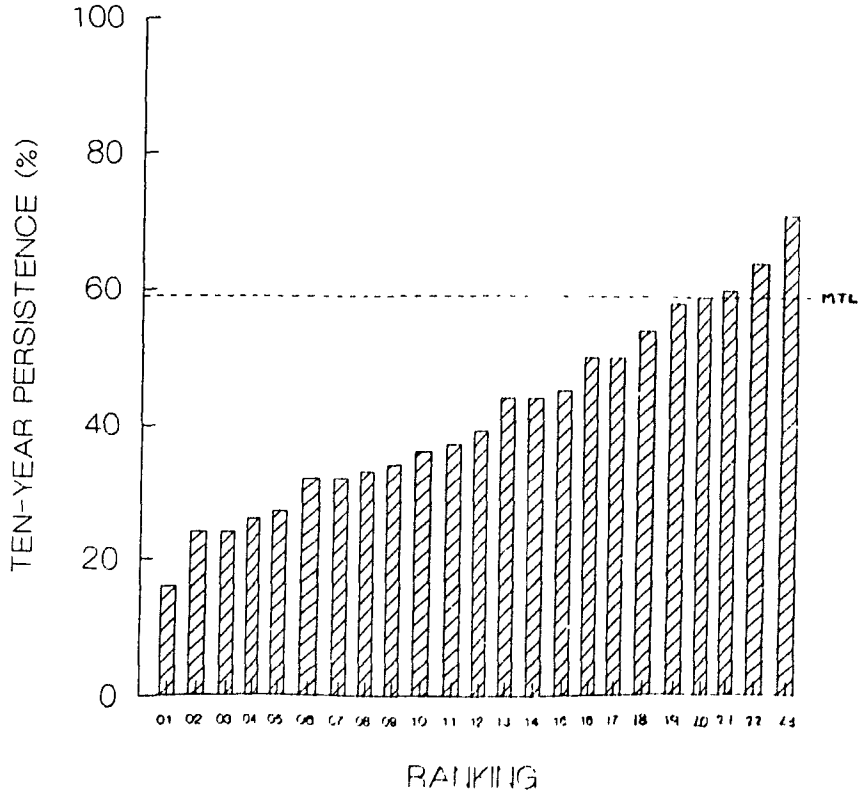


TABLE 3.3

**TEN-YEAR POPULATION PERSISTENCE (%) IN SELECTED CITIES, 1850-1901**

| RANK | CITY | DECADE | PERSISTENCE |
|---|---|---|---|
| 01 | South Bend, IND | 1860-70 | 16 (%) |
| 02 | Jacksonville, IND | 1860-70 | 24 |
| 03 | San Francisco, CA | 1850-60 | 24 |
| 04 | South Bend, IND | 1870-80 | 26 |
| 05 | Denver, COL | 1880-90 | 27 |
| 06 | Philadelphia, PA | 1850-60 | 32 |
| 07 | San Antonio, TX | 1870-80 | 32 |
| 08 | Houston, TX | 1850-60 | 33 |
| 09 | Worcester, MASS | 1850-60 | 34 |
| 10 | Salem, MASS | 1880-90 | 36 |
| 11 | Denver, COL | 1870-80 | 37 |
| 12 | Boston, MASS | 1850-60 | 39 |
| 13 | Omaha, NEB | 1880-90 | 44 |
| 14 | Hamilton, ONT | 1850-60 | 44 |
| 15 | Waltham, MASS | 1860-70 | 45 |
| 16 | Poughkeepsie, NY | 1870-80 | 50 |
| 17 | San Francisco, CA | 1880-90 | 50 |
| 18 | Los Angeles, CA | 1880-90 | 54 |
| 19 | Waltham, MASS | 1880-90 | 58 |
| 20 | MONTREAL, QUE | 1861-01 | 59 |
| 21 | Buffalo, NY | 1850-60 | 60 |
| 22 | Boston, MASS | 1880-90 | 64 |
| 23 | Indianapolis, IND | 1880-90 | 71 |

Sources: Boston, MASS (Thernstrom, 1973,p.222-223)
Buffalo, NY (Katz et al., 1982)
Denver, COL (Tank, 1978, p.211)
Hamilton, ONT (Katz, 1975, p.123; Katz et al., 1982)
Houston, TEX (Jackson, 1978, p.268)
Indianapolis, IND (Barrows, 1981, p.200)
Jacksonville, IND (Doyle, 1978, p.96n)
Los Angeles, CAL (Thernstrom, 1973, p.222-223)
Omaha, NEB (Thernstrom, 1973,p.222-223; Chudacoff, 1971)
Philadelphia, PA (Thernstrom, 1973, p.222-223)
Poughkeepsie, NY (Thernstrom, 1973, p.222-223)
Salem, MASS (Doherty, 1977, p.31)
San Antonio, TEX (Thernstrom, 1973, p.222-223)
San Francisco, CAL (Thernstrom, 1973, p.222-223)
South Bend, IND (Esslinger, 1975, p.43)
Waltham, MASS (Thernstrom, 1973, p.222-223)
Worcester, MASS (Doherty, 1977, p.31)

Thernstrom (1973) finds most striking the general similarity between the rates of persistence reported by historians, and not their differences. Studies of mobility have usually relied on one, or a combination of different sources, such as: city directories, census records, and tax assessments. The problems of record linkage must enter into any evaluation or comparison of rates of population persistence, because "with very few exceptions historians have used different rules to establish the identity between two people listed on two or more sources and, even more troubling, have not specified precisely the conditions they employed" (Katz et al, 1982). The variety of methods employed by historians, sociologists, and geographers hampers efforts to establish a single pattern of residential mobility. That is why the results reported for

decennial persistence in nineteenth-century Montreal are not very different from those reported for other nineteenth-century cities, and Thernstrom (1973) is correct to emphasize the general similarity in the rates reported by others, and not the differences between them.

As shown in figures 3.1 and 3.2, as well as several of the figures to follow, the majority of moves (or disappearances) appear to be made in the first five years of each study period, with persistence rates taking their greatest dive within five years of examination, and dropping moderately after ten and fifteen years. This pattern supports the modern conception of "cumulative inertia", in that the few households who remain after five years are much less likely to move in the next five, or ten years. In other words, the probability of moving is inversely correlated with length of residence. It is important to note however, that in the present sample, households that are considered to remain five years may have actually been at the same location for a much longer time, before the beginning of the sample period. Taking this into consideration, a more accurate measure of "cumulative inertia" can be determined, based on a revised sample of "new households" which have been at their present address for less than five years; the rates of household persistence at an address are seen in figure 3.4. (N.B. the study year 1861 is not included in this analysis as housing information is not adequate before this date). Approximately 22.1% of "new households" in Montreal remained at the same address after 5 years, 11.3% after ten years, and 8.0% were at the same address for at least 15 years. These rates of persistence are lower than rates for all households, "continuing" and "new", which equal 30.6% after five years, 18.0% after ten, and 11.6% after fifteen years. Examining the differences in persistence rates between the first five years, and the second and third five-year intervals, we can say with confidence, that most moves of "new households" were made in the first years of residence.

Put another way, the conception of "cumulative inertia" is portrayed in figure 3.5, which shows for each fifteen-year period the new household persistence rates for five year intervals, the percentage of five-year persister households which stayed five more years, and the percentage of ten-year persister households that stayed five years after that. The consistent upward trend of each slope indicates that the longer

FIGURE 3.4 PERSISTENCE RATES AMONG NEW HOUSEHOLDS, 1866-1901

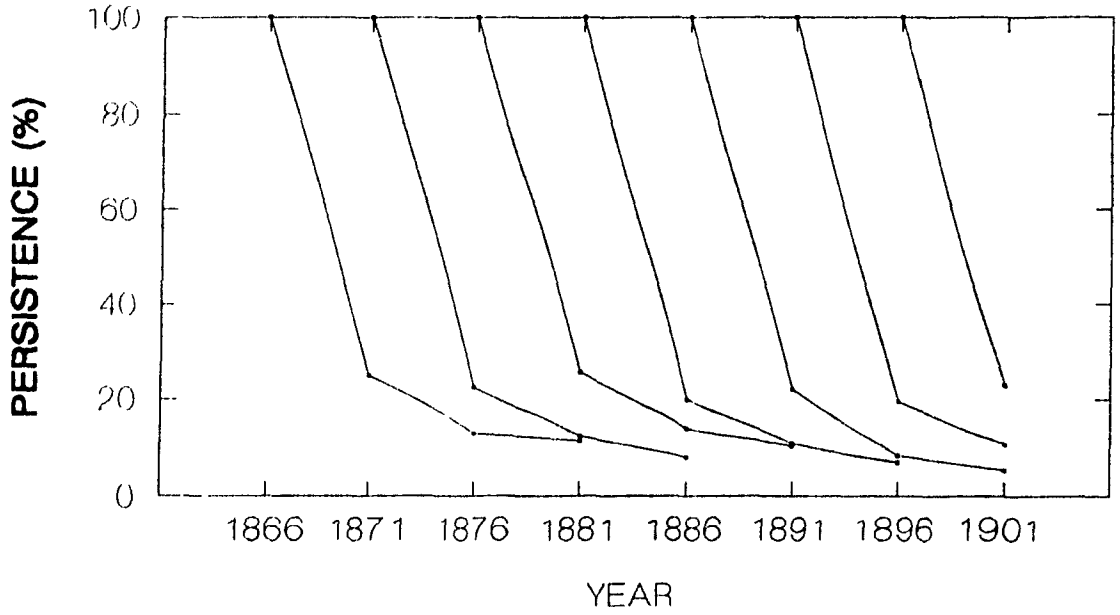



FIGURE 3.5 INDEX OF CUMULATIVE INERTIA FOR NEW HOUSEHOLDS, 1866-1901

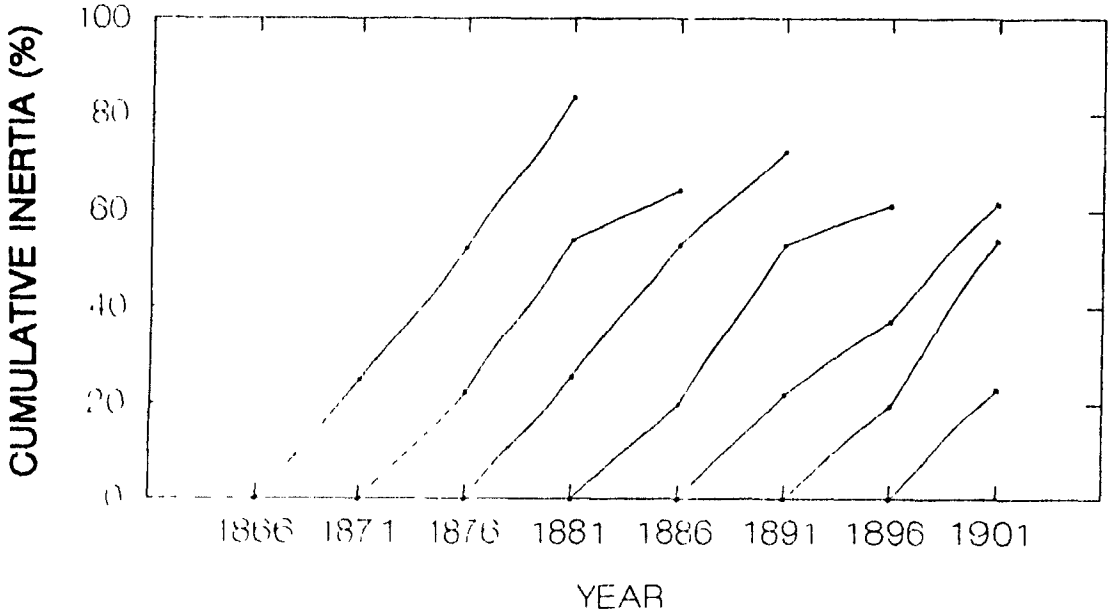


FIGURE 3.6 PERSISTENCE RATES AND CUMULATIVE INERTIA INDEX FOR NEW HOUSEHOLDS, 1866-1901

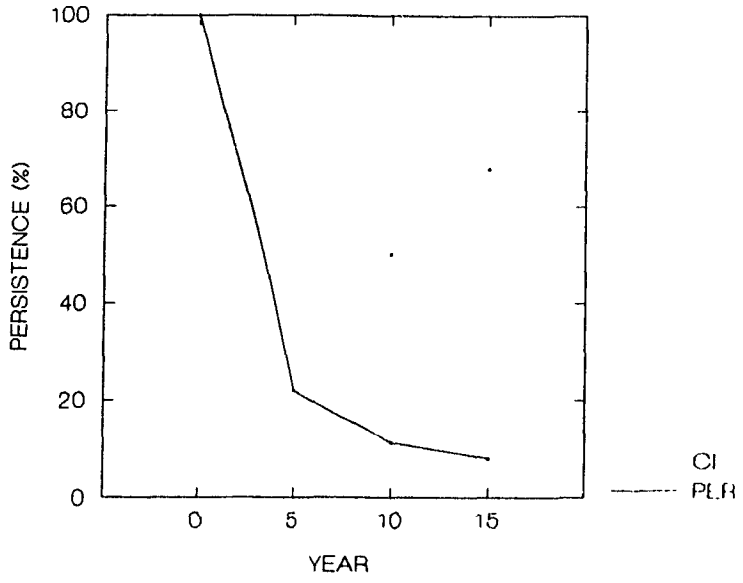
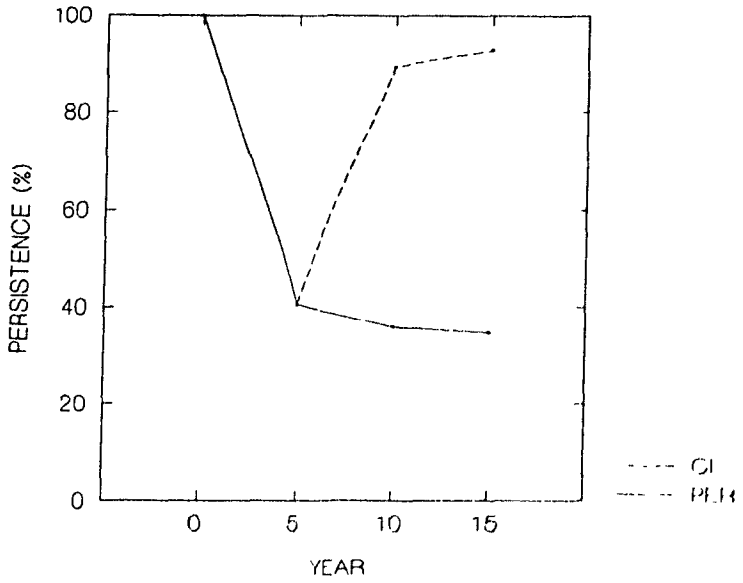



FIGURE 3.7 INTRA-CITY PERSISTENCE RATES AND CUMULATIVE INERTIA INDEX FOR NEW HOUSEHOLDS, 1866-1901



people remain at an address the less likely they are to move. Figure 3.6 shows the average persistence rates during the 1866-1901 period, for "new households" at an address (solid line), along with an index of "cumulative inertia" (dotted line). The dotted curve illustrates that of the 22.1% of "new households" who persisted at the same address after the initial 5 years, 50.3% of those households were there 5 years later, and 68.0% of those households staying ten years, remained at the same address five years after that, supporting the claim of "cumulative inertia" - the longer people remain at an address, the less likely they are to move, and most moves were made within five years of residing at an address.

Did the first five years in the city determine whether you were going to migrate or not? The test for "cumulative inertia" was repeated for intra-city or "city-wide" persistence among new households. In this analysis, "new households" were considered to be households that were new to the city due to recent immigration, or newly formed through marriage (see figure 3.7). Between 1866 and 1901, five-year persistence rates for "new households" within the city of Montreal were 40.6%, and fell to 35.8% after ten years, and 34.8% after fifteen years. In other words, almost three-fifths of "new households" left the city (or disappeared/dissolved) after their first five years in Montreal. Of the two-fifths (40.6%) which remained, only 10.7% disappeared from the sample after another five years, and after another five-years (15 years in the city), only 7.2% of those households could not be located within the city (92.8% persisted). It is likely that a significant portion of the 7.2% of households that appeared to have left the city, probably died. Therefore, it was indeed, the first five years of residence which determined whether a household migrated or not.

**PERSISTENCE AND TENURE STATUS**

Consistent with the modern literature, home owners moved less often than renters. Figure 3.8 (table 3.4) demonstrates that over the forty-year study period almost two-thirds of owner-occupiers were present at the same address at the end of five years, one-half at the end of ten years, one-third at the end of fifteen years. Remaining as tenant was only one household in four, one in ten, and one in twenty. The correlation between owner-occupancy and persistence in Montreal, confirms the hypothesis that tenure was an important factor in the stability of many people in

FIGURE 3.8 HOUSEHOLD PERSISTENCE BY TENURE STATUS 1861-1901

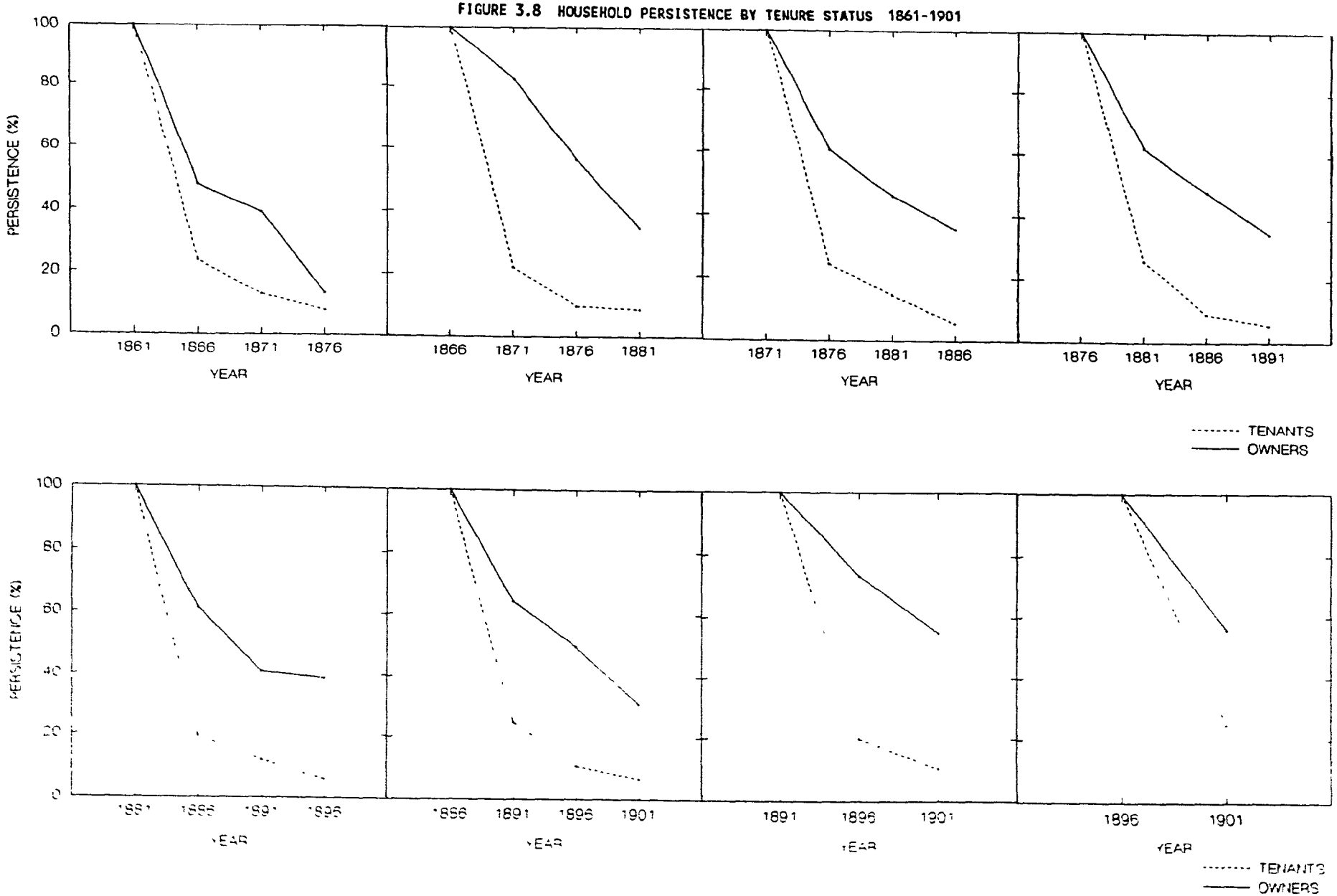


TABLE 3.4

**HOUSEHOLD PERSISTENCE BY TENURE STATUS**

Five Year Persistence (%)

| | Owners | Tenants | All | N |
|---|---|---|---|---|
| 1861-1866 | 47.8 | 23.5 | 27.4 | 142 |
| 1866-1871 | 82.6 | 22.1 | 32.5 | 127 |
| 1871-1876 | 60.7 | 24.6 | 30.7 | 166 |
| 1876-1881 | 62.2 | 26.3 | 33.9 | 174 |
| 1881-1886 | 61.2 | 19.3 | 27.5 | 241 |
| 1886-1891 | 64.3 | 24.9 | 32.0 | 231 |
| 1891-1896 | 73.7 | 20.0 | 27.3 | 278 |
| 1896-1901 | 56.1 | 24.7 | 30.4 | 316 |

Ten Year Persistence (%)

| | Owners | Tenants | All | N |
|---|---|---|---|---|
| 1861-1871 | 39.1 | 12.6 | 16.9 | 142 |
| 1866-1876 | 56.5 | 9.6 | 17.5 | 127 |
| 1871-1881 | 46.4 | 14.5 | 19.9 | 166 |
| 1876-1886 | 48.7 | 9.5 | 17.8 | 174 |
| 1881-1891 | 40.8 | 12.0 | 17.5 | 241 |
| 1886-1896 | 50.0 | 11.1 | 18.2 | 231 |
| 1891-1901 | 55.3 | 10.8 | 16.9 | 278 |

Fifteen Year Persistence (%)

| | Owners | Tenants | All | N |
|---|---|---|---|---|
| 1861-1876 | 13.0 | 7.6 | 8.5 | 142 |
| 1866-1881 | 34.8 | 8.7 | 13.5 | 127 |
| 1871-1886 | 35.7 | 5.8 | 10.8 | 166 |
| 1876-1891 | 35.1 | 5.8 | 12.1 | 174 |
| 1881-1896 | 38.8 | 6.3 | 12.9 | 241 |
| 1886-1901 | 31.0 | 6.9 | 11.3 | 231 |

nineteenth-century cities.

By examining the shape of the persistence curves for each tenure type, an intriguing pattern is evident, especially clear for the last thirty years of the study period. Persistence rates, as mentioned in the previous section, take their greatest fall within five years after the beginning of a household trace. This fall is much greater for tenant households than for owner-occupied households. The higher rates of mobility for renters are quite understandable since the transaction costs of owning are substantially higher than those of renting. This pattern suggests a noteworthy presence of "transients" in the ranks of tenancy. These tenants may be the "permanent floating proletariat" to which Thernstrom (1964, 1973) refers - restless migrants who moved to a city, and moved out shortly thereafter. Montreal was, after all, a way-point for immigrants coming from overseas, who may have made only a brief stay in the city before heading west. After ten and fifteen years the decline in

household persistence appears to be more comparable for both tenants and owners: almost three-quarters of the owners who stayed at the same address five years will stay five more years, and an almost equal proportion of those who stayed ten years, will stay five more years; while about half of the tenants who stayed at the same address five years, will be there five years later, three-fifths of those who stayed ten years will be at the same address fifteen years later. It is therefore, the tenant households who actually make the greatest increase in persistence over the fifteen-year period, and therefore it is unlikely that they may be considered a "permanent floating proletariat". When looking at "transiency" however, one cannot rule out the importance of the first five years of residence (as noted in section 3.1), as it is the first five years which determine whether a household is going to migrate or not, therefore, further analysis on out-migration and tenure was undertaken.

What proportion of the sample who remained in the city more than five, ten, or fifteen years were owner-occupiers? Do tenants just enter the city and then leave, or are the patterns of intra-city persistence and tenure status similar to patterns of household persistence and tenure status as described above? Owner-occupiers remained in the city at a rate of 83.0%, 78.3%, and 65.0% for five, ten and fifteen years respectively. Tenants on the other hand stayed at a rate of 71.0%, 54.7%, and 43.7% over five, ten, and fifteen years. In other words, of the 83.0% of owners who persisted for five years, 74.0% remained for another five years, and of those who remained ten years, 67.2% remained another five years. For the 71.0% of tenants who remained five years, 60.8% remained another five years, and of the tenants who lasted ten years in the city, 60.1% remained another five years. These results of "inertia" within the city, indicate that it is actually the owner-occupiers who seem to take the greatest drop in rates of intra-city persistence from five to fifteen years. Therefore, the concept of tenants as being a "permanent floating proletariat", just passing through Montreal, once again, is out of the question.

The longer a household stayed in the city, the greater its chances were of owning its home. Owner-occupancy rates in the sample averaged about 16.3% over the forty year period, while owner-occupancy rates for "new households" persisting at least five-years were equal to 20.1%, and equal to 23.4%, and 25.5% for ten and

fifteen-year persister households respectively. Owner-occupancy rates increased with length of residence. It is unclear from these results however, whether persistence in a city leads to home ownership, or whether home ownership causes a household to persist. To test this hypothesis, it is therefore necessary to determine what percentage of "new" households remaining five, ten, and fifteen years were able to change their tenure status - what percentage of tenants became owner-occupiers, and conversely, what percentage of owner-occupiers became tenants? The figures listed in table 3.5 represent the percentage of "new households" in each community who changed their tenure status from tenant to owner, owner to tenant, or made no tenure change after five, ten, and fifteen years of residence in the city. The value for "New Ownership Ratio" represents the owner-occupancy rate for new households after five, ten, or fifteen years of residence in the city, divided by the owner-occupancy rate in their first year of residence. Figures for the French community indicate that length of residency in Montreal increases the chances of becoming an owner-occupier, especially after ten and fifteen years. Owner-occupancy rates increase by a multiplicative factor of 1.06 after five years, 2.62 after ten years, and 3.00 after fifteen years. Length of residence however, appears to have no affect on chances of becoming an owner-occupier for Irish households. The owner-occupancy rate of new households in the Irish community remains the same after five, ten, and fifteen years of residence. The effect of the small number of tenant households that do achieve owner-occupancy status is equalled by the number of owner-occupants that fall into the ranks of tenancy. New households in the Protestant community exhibit a more complex behaviour. Rates of owner-occupancy actually fall after the first five years of residence, with a greater percentage of owners becoming tenants, than tenants becoming owners. After ten and fifteen years in the community however, Protestant households increase their chances of becoming an owner-occupier, as rates increase by a factor of 1.23 after ten years, and 1.40 after fifteen years. The results of this analysis appear to indicate that the chances of becoming owner-occupiers after five-years of residence in the city are minimal (negative for Protestant households), however, after ten and fifteen years in the city the chances of becoming an owner-occupier are significantly increased for French and Protestant

TABLE 3.5

**TENURE CHANGE BY NEW HOUSEHOLDS AND CULTURAL COMMUNITY, 1866-1901**

Five-Year Persistence in City

| | TENANT TO OWNER (%) | OWNER TO TENANT (%) | NO CHANGE (%) | NEW OWNERSHIP RATIO |
|---|---|---|---|---|
| French | 4.14 | 3.45 | 92.41 | 1.06 |
| Irish | 1.41 | 1.41 | 97.18 | 1.00 |
| Prot | 3.66 | 14.63 | 81.71 | 0.63 |

Ten-Year Persistence in City

| | TENANT TO OWNER (%) | OWNER TO TENANT (%) | NO CHANGE (%) | NEW OWNERSHIP RATIO |
|---|---|---|---|---|
| French | 9.52 | 0.95 | 89.53 | 2.62 |
| Irish | 2.00 | 2.00 | 96.00 | 1.00 |
| Prot | 14.55 | 9.09 | 76.36 | 1.23 |

Fifteen-Year Persistence in City

| | TENANT TO OWNER (%) | OWNER TO TENANT (%) | NO CHANGE (%) | NEW OWNERSHIP RATIO |
|---|---|---|---|---|
| French | 17.33 | 1.33 | 81.33 | 3.00 |
| Irish | 6.25 | 6.25 | 87.00 | 1.00 |
| Prot | 13.04 | 4.35 | 82.61 | 1.40 |

households, in fact, owner-occupancy rates tripled among French households that remained in the city for at least fifteen years. The length of residence in Montreal for Irish households however, appears to have no effect on their tenure status, or their ability to own their own home.

Throughout the forty-year period of study, Protestants, with their higher incomes, were always prominent as owner-occupants. If home ownership is indeed a primary indicator of personal achievement and social status, the Protestant community of nineteenth-century Montreal, attained considerable success. They owned, on average, one-quarter of the homes they occupied (24.4%), compared to 14.9 per cent for French Canadian and 10.3 per cent for Irish Catholic families (figure 3.9, table 3.6)[11]. Given the comparable modest means of French Canadian and Irish Catholic families (as we shall see in a moment), the higher rate of home ownership among French Canadian households is noteworthy. As Choko (1980; 1993) specifies for the 20th century, French Canadians seem strongly oriented to this option. Their rate (ranging from one-tenth to one-fifth over the forty years) is decidedly high relative to the Irish, a group more comparable in terms of socio-economic status. As suggested by David Hanna (1985), the explanation probably lies in their strong role in the building trades and the dominance of small-scale

FIGURE 3.9 OWNER-OCCUPANCY RATES BY CULTURAL COMMUNITY, 1861-1901

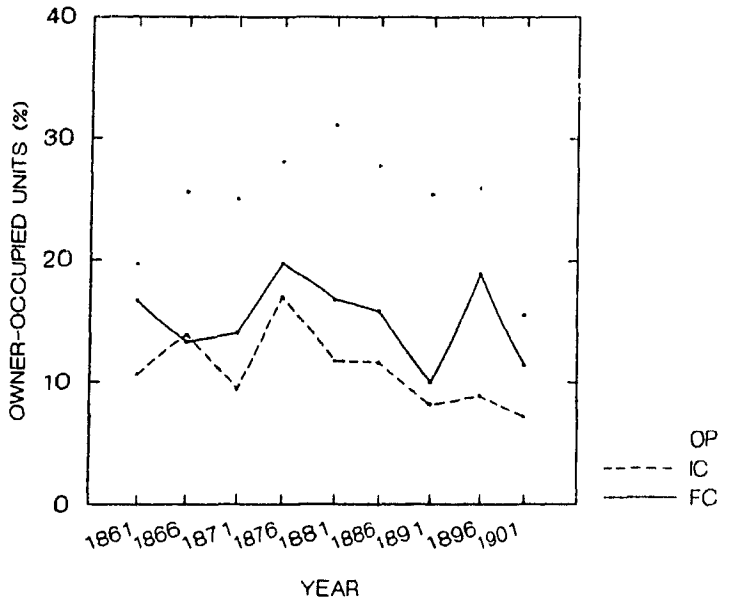



FIGURE 3.10 CULTURAL COMPOSITION OF OWNER-OCCUPANTS IN MONTREAL, 1861-1901

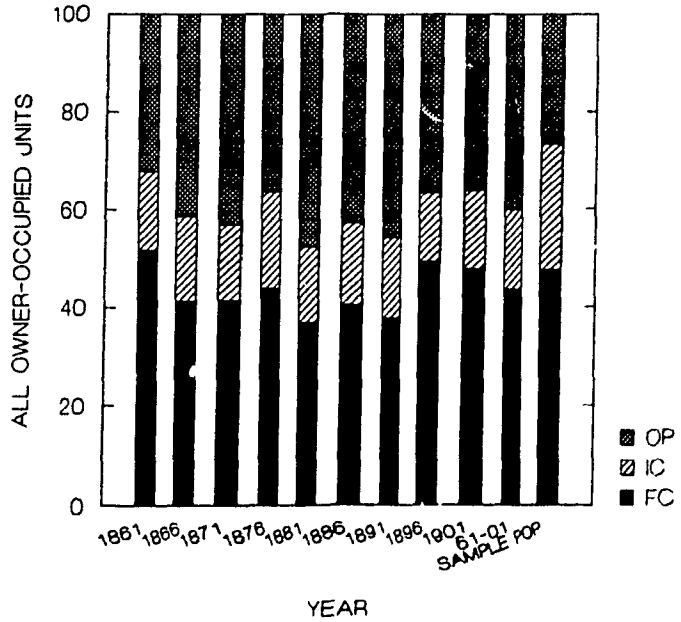


TABLE 3.6

OWNER-OCCUPANCY RATES (%) BY CULTURAL COMMUNITY

| YEAR | French | Irish | Prot | All |
|---|---|---|---|---|
| 1861 | 16.7 | 10.6 | 19.6 | 16.0 |
| 1866 | 13.3 | 13.9 | 25.5 | 16.8 |
| 1871 | 14.1 | 9.4 | 25.0 | 15.9 |
| 1876 | 19.7 | 17.0 | 28.1 | 21.3 |
| 1881 | 16.8 | 11.8 | 31.1 | 19.7 |
| 1886 | 15.9 | 11.7 | 27.7 | 18.1 |
| 1891 | 10.0 | 8.1 | 25.3 | 13.0 |
| 1896 | 18.9 | 8.9 | 25.9 | 17.9 |
| 1901 | 12.1 | 7.9 | 15.4 | 12.0 |

TABLE 3.7

CULTURAL COMPOSITION (%) OF OWNER-OCCUPANTS IN MONTREAL

| YEAR | French | Irish | Prot | All |
|---|---|---|---|---|
| 1861 | 51.6 | 16.1 | 32.3 | 100 |
| 1866 | 41.4 | 17.2 | 41.4 | 100 |
| 1871 | 41.5 | 15.4 | 43.1 | 100 |
| 1876 | 46.6 | 17.8 | 35.6 | 100 |
| 1881 | 36.8 | 16.3 | 46.9 | 100 |
| 1886 | 40.5 | 16.7 | 42.8 | 100 |
| 1891 | 36.9 | 18.4 | 44.7 | 100 |
| 1896 | 49.1 | 14.0 | 36.9 | 100 |
| 1901 | 46.7 | 15.5 | 37.8 | 100 |

entrepreneurs in the construction sector, at least until the turn of the century.

The dominance of the French population in Montreal; approximately one-half the city (see table 2.1) provides the basis for their strong presence in total owner-occupation. About two-fifths (43.6%) of all owner-occupied units in the sample were French (see figure 3.10, table 3.7)[12]. The Protestants as a population, although much smaller (about one-quarter) than the French, were responsible for approximately the same proportion (40.1%) of all owner-occupied homes in the sample. The Irish Catholics on the other hand, fared poorly over the forty-years, representing approximately a quarter of the sample population and owning a meagre 16.3% of the sample's owner-occupied units. Neither of the three cultural communities showed any signs of steady improvement in rates of owner-occupancy over the forty years. Owner-occupancy rates in nineteenth-century Montreal as a whole, were much lower than in other Canadian cities of the time. Toronto and Hamilton had owner-occupancy rates of around one-third (Katz, 1975; Doucet, 1972). Most of the Montreal housing stock in the nineteenth-century took the form of the 'duplex', and the legal framework of the time implied that at least half of all units would always be tenant-occupied.

## PERSISTENCE AND OCCUPATIONAL STATUS

In order to evaluate rates of household persistence in terms of occupational status, we will need to specify the measure of occupational status. As mentioned in chapter 2 (methodology), two methods were used to categorize occupational status: (1) Katz's (1975) system of occupational stratification, and (2) a classification of occupations based on their "median rent" status. In both systems, job titles were ranked into three categories: lower, middle and upper. Both methods of occupational stratification offer similar results with respect to persistence behaviour (see tables 3.8 and 3.9, figures 3.11 and 3.12). In every sample year, household heads in higher status occupations are much more likely to stay at the same address than households heads from the lower occupational ranks. In almost every sample year (except 1871, and 1866 for the Katz classification) household persistence is directly proportional to occupational status, in that persistence rates increase with increasing status of household head. Consecutive drops in persistence after ten and fifteen years appear to be comparable for each status group.

TABLE 3.8

**PERSISTENCE RATES BY OCCUPATIONAL STATUS (KATZ)**

Five Year Persistence (%)

| | Low | Medium | High | N |
|---|---|---|---|---|
| 1861-1866 | 11.8 | 30.4 | 38.5 | 129 |
| 1866-1871 | 30.4 | 34.0 | 32.4 | 104 |
| 1871-1876 | 25.0 | 36.9 | 28.3 | 147 |
| 1876-1881 | 23.8 | 23.0 | 50.0 | 143 |
| 1881-1886 | 19.5 | 26.0 | 36.5 | 211 |
| 1886-1891 | 15.4 | 31.2 | 46.8 | 194 |
| 1891-1896 | 22.2 | 23.0 | 35.7 | 250 |
| 1896-1901 | 26.7 | 25.6 | 40.5 | 269 |

Ten Year Persistence (%)

| | Low | Medium | High | N |
|---|---|---|---|---|
| 1861-1871 | 5.9 | 17.9 | 28.2 | 129 |
| 1866-1876 | 17.4 | 19.2 | 17.7 | 104 |
| 1871-1881 | 11.1 | 23.1 | 19.6 | 147 |
| 1876-1886 | 9.5 | 13.5 | 27.1 | 143 |
| 1881-1891 | 12.2 | 14.6 | 25.7 | 211 |
| 1886-1896 | 10.3 | 15.1 | 27.4 | 194 |
| 1891-1901 | 13.0 | 14.3 | 22.9 | 250 |

Fifteen Year Persistence (%)

| | Low | Medium | High | N |
|---|---|---|---|---|
| 1861-1876 | 0.0 | 8.9 | 15.4 | 129 |
| 1866-1881 | 8.7 | 10.6 | 17.7 | 104 |
| 1871-1886 | 8.3 | 12.3 | 10.9 | 147 |
| 1876-1891 | 4.8 | 9.5 | 16.7 | 143 |
| 1881-1896 | 2.4 | 12.5 | 17.6 | 211 |
| 1886-1901 | 5.1 | 10.8 | 17.7 | 194 |

FIGURE 3.11 PERSISTENCE RATES BY OCCUPATIONAL-STATUS (KATZ), 1861-1901

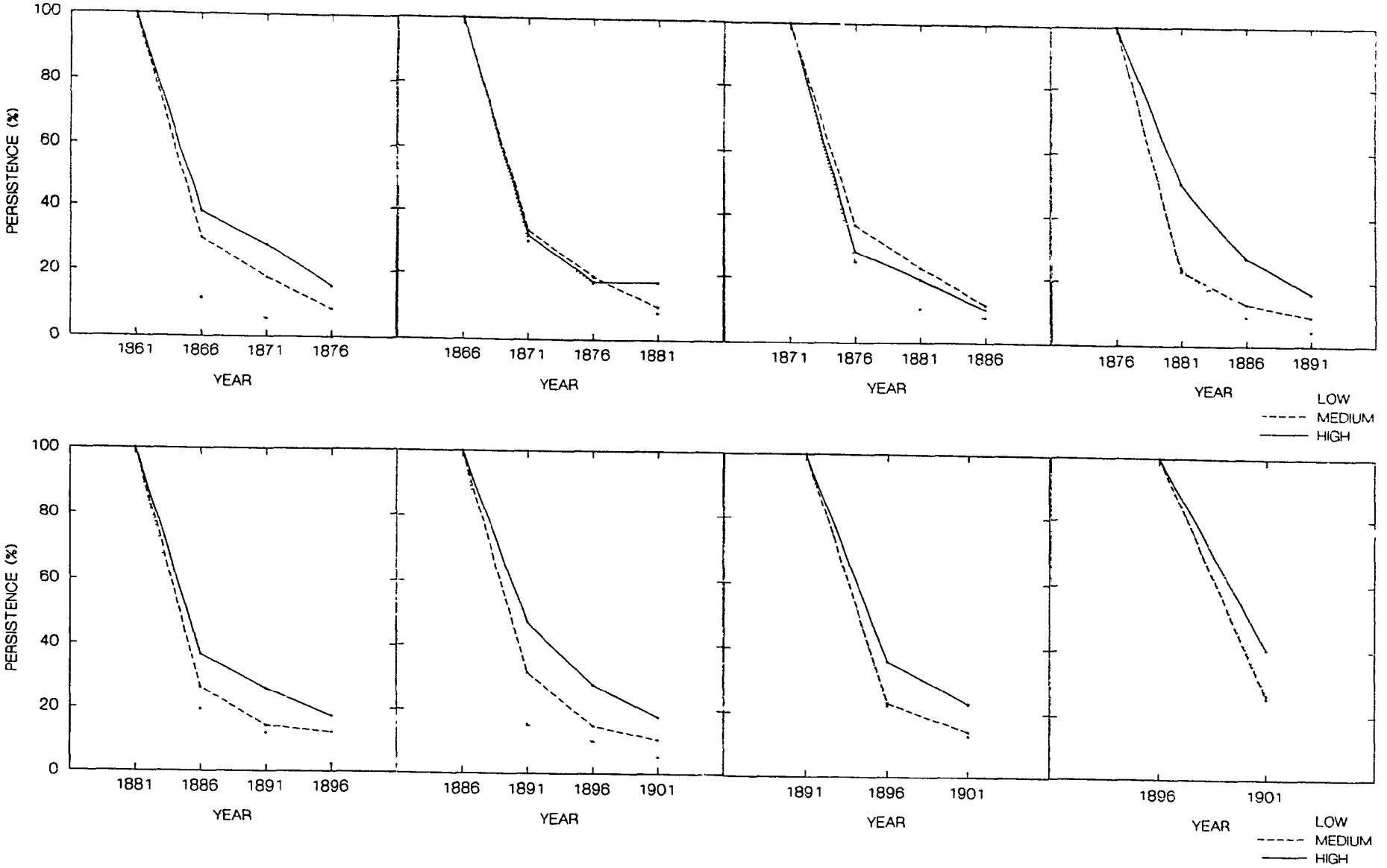


FIGURE 3.12 PERSISTENCE RATES BY OCCUPATIONAL-STATUS (MRENT), 1861-1901

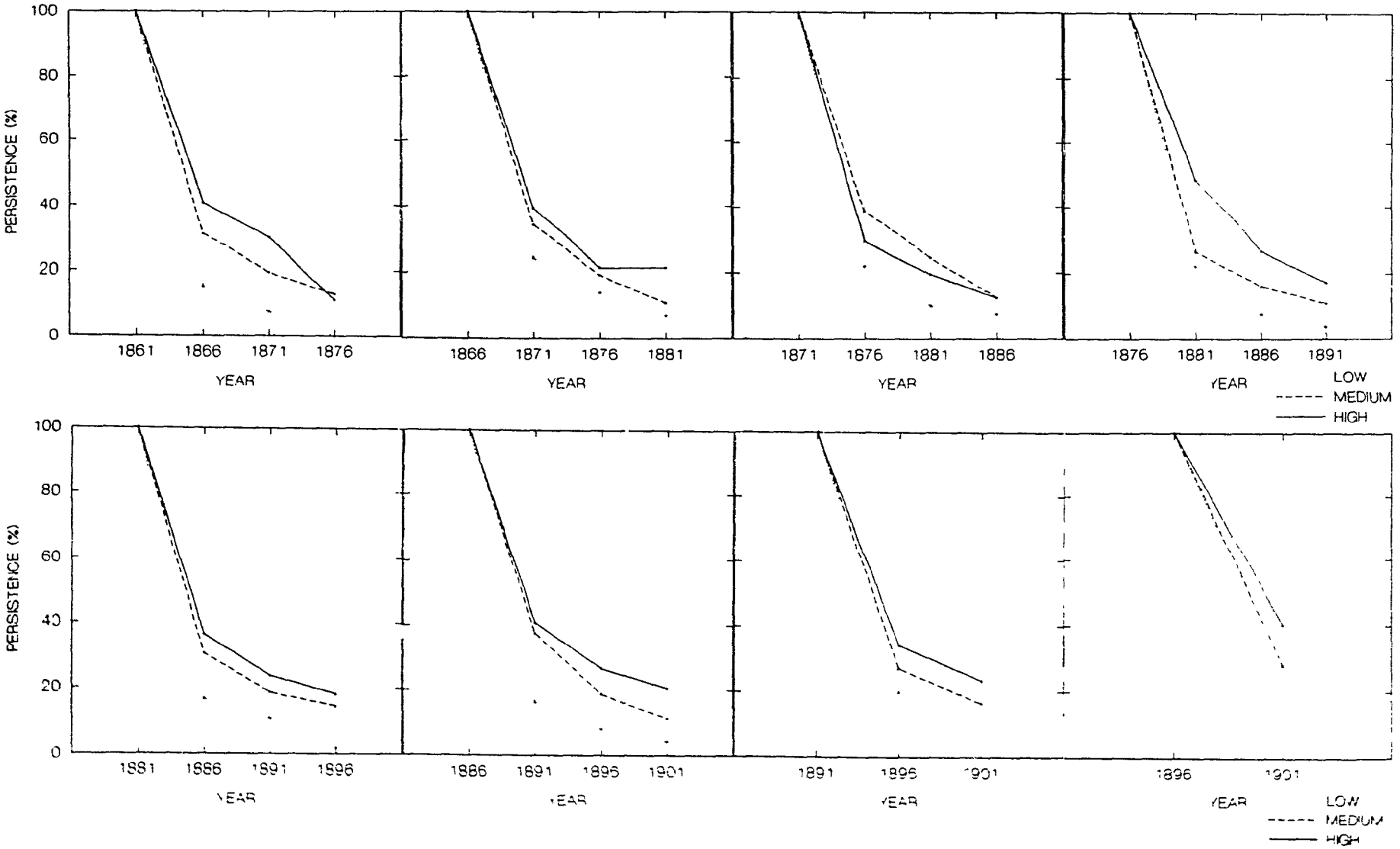


TABLE 3.9

**PERSISTENCE RATES BY OCCUPATIONAL STATUS (MRENT)**

Five Year Persistence (%)

| | Low | Medium | High | N |
|---|---|---|---|---|
| 1861-1866 | 15.0 | 30.7 | 40.7 | 129 |
| 1866-1871 | 24.1 | 34.0 | 39.3 | 104 |
| 1871-1876 | 22.0 | 38.5 | 29.3 | 147 |
| 1876-1881 | 22.2 | 26.7 | 48.8 | 143 |
| 1881-1886 | 16.7 | 30.4 | 36.4 | 211 |
| 1886-1891 | 16.3 | 37.5 | 40.8 | 194 |
| 1891-1896 | 19.7 | 26.8 | 33.9 | 249 |
| 1896-1901 | 24.2 | 27.8 | 40.3 | 269 |

Ten Year Persistence (%)

| | Low | Medium | High | N |
|---|---|---|---|---|
| 1861-1871 | 7.5 | 19.4 | 29.6 | 129 |
| 1866-1876 | 13.8 | 19.2 | 21.4 | 104 |
| 1871-1881 | 9.8 | 24.6 | 19.5 | 147 |
| 1876-1886 | 7.4 | 16.0 | 26.8 | 143 |
| 1881-1891 | 11.1 | 18.6 | 23.6 | 211 |
| 1886-1896 | 8.2 | 18.8 | 26.5 | 194 |
| 1891-1901 | 10.6 | 16.5 | 23.2 | 249 |

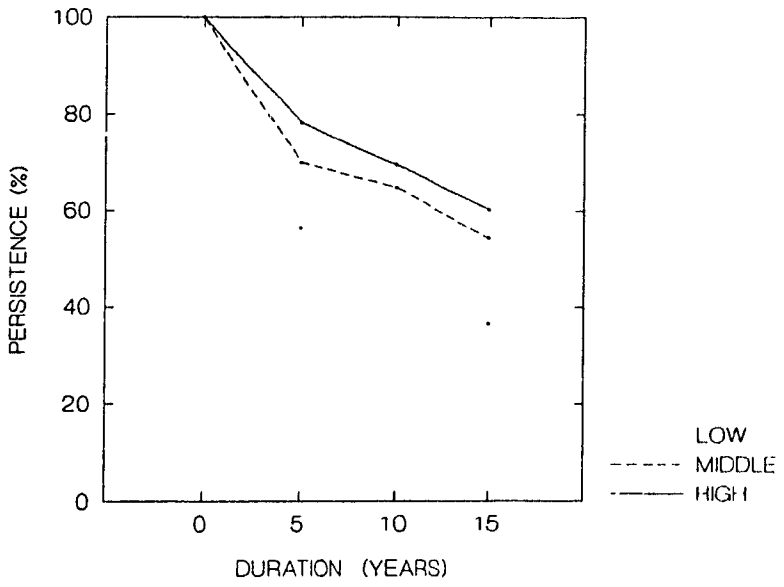
Fifteen Year Persistence (%)

| | Low | Medium | High | N |
|---|---|---|---|---|
| 1861-1876 | 6.9 | 10.6 | 21.4 | 129 |
| 1866-1881 | 8.7 | 10.6 | 17.7 | 104 |
| 1871-1886 | 7.3 | 12.3 | 12.2 | 147 |
| 1876-1891 | 3.7 | 10.7 | 17.1 | 143 |
| 1881-1896 | 1.9 | 14.7 | 18.2 | 211 |
| 1886-1901 | 4.1 | 11.5 | 20.4 | 194 |

Moves are more frequent among households headed by those employed in lower-status occupations, presumably because moves are an adaptive strategy by households suffering from a severe financial constraint. Lower-status households may move from one dwelling to another, adjusting the size of the dwelling and its other assets (location, structural and sanitary conditions), in response to changes in the composition and earning power of the household.

Figures for intra-city persistence, or its inverse, out-migration, also show that those household heads employed in lower-status occupations are less likely to remain in Montreal and therefore in theory, more likely to migrate out of the city over five, ten and fifteen-year intervals (figure 3.13 based on median rent classification). They are, however, also more likely to die sooner, which, if not detected, gives the appearance of out-migration, or "removal" from the city. Also, they are simply harder to capture, to identify and match. The reliability or sensitivity of the data in this case could lead us to believe a family has moved out of the city, when actually they may

FIGURE 3.13 INTRA-CITY PERSISTENCE RATES BY OCCUPATIONAL STATUS



have moved in with relatives, or both partners may have died.

Did there indeed exist a "permanent floating proletariat" in nineteenth-century Montreal, as Thernstrom (1964; 1973) has noted for Newburyport and Boston, Massachussetts? I would tentatively argue that the differences in rates of intra-city persistence, or out-migration between households of differing occupational status in Montreal, although explicit, are not large enough to support this claim. The ten-year persistence rates for workers of low occupational status in nineteenth-century Montreal, roughly parallels the rates of persistence for all households in nineteenth-century cities such as Boston, Poughkeepsie, Newburyport and Birmingham regardless of occupational-status. Were workers in nineteenth-century Montreal more successful than their U.S. counterparts? Montreal is usually considered a low-wage city of 'docile' workers. As mentioned earlier, most of the U.S. studies do not appear to adequately control for death, thus, rates of mobility in these cities are slightly inflated. Researchers of these cities also found it harder to capture the lowest-status, worker households. There is also the possibility that for French Canadians in this study (who represent over half of the sample and hence, will dominate the results), Montreal is the "end of the line" or "top of the line" destination, hence out-migration of the sample will be low. Modern studies of Canadian mobility suggest greater ease (and temptation) of out-migration for anglophones than francophones from Quebec. This is perhaps why it is the Irish who have the lowest rates of intra-city persistence; as a group the Irish are both anglophone, and comprised mostly of lower-status workers as we shall see below.

It has already been shown that persistence rates are affected by both occupational and cultural distinctions, and we have pointed to the interaction of the two scales. Let us now categorize the sample population by occupational status within each of the three cultural communities. Figure 3.14 shows the occupational stratification of the three cultural communities based on Katz's (1975) classification, and the median rent classification of occupations is represented in figure 3.15. The two classifications provide similar results. The Irish Catholic population dominated the lower status occupations (primarily labourers), especially in the earliest years of the study where approximately half of Irish household heads were employed in the

FIGURE 3.14 OCCUPATIONAL STATUS (KATZ) AND CULTURAL COMMUNITY, 1861-1901

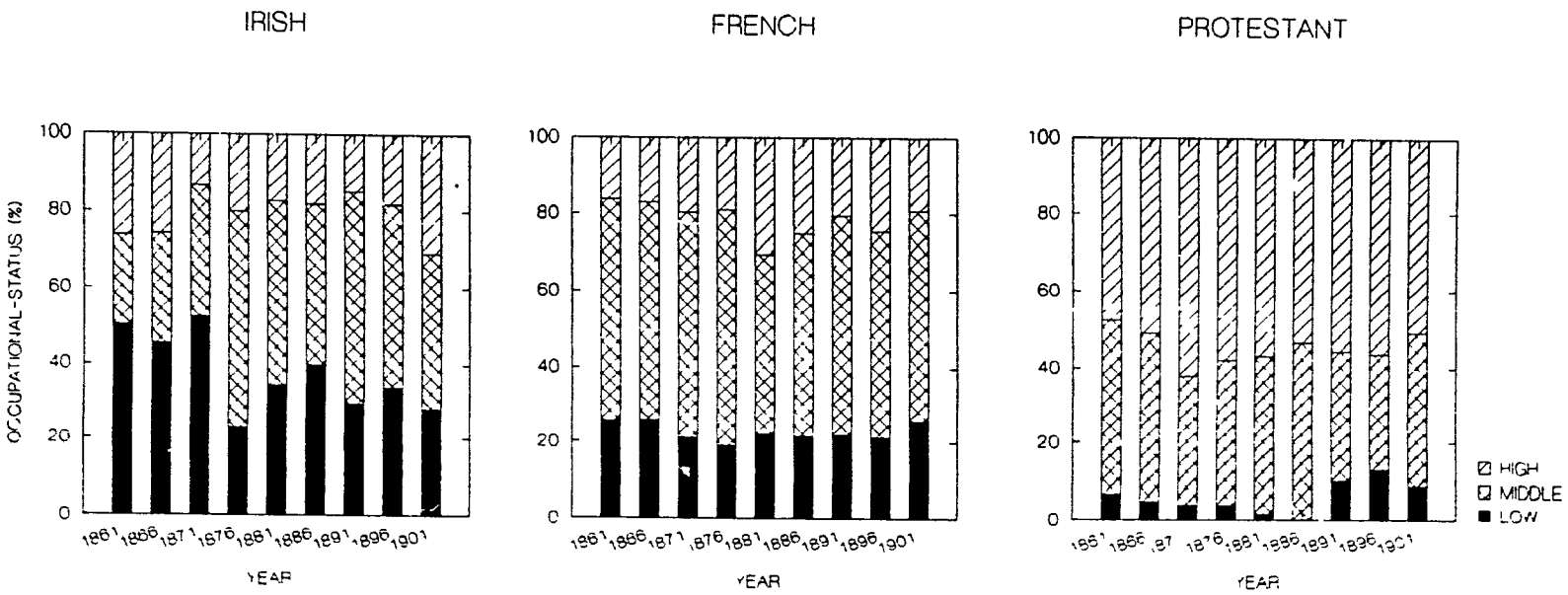
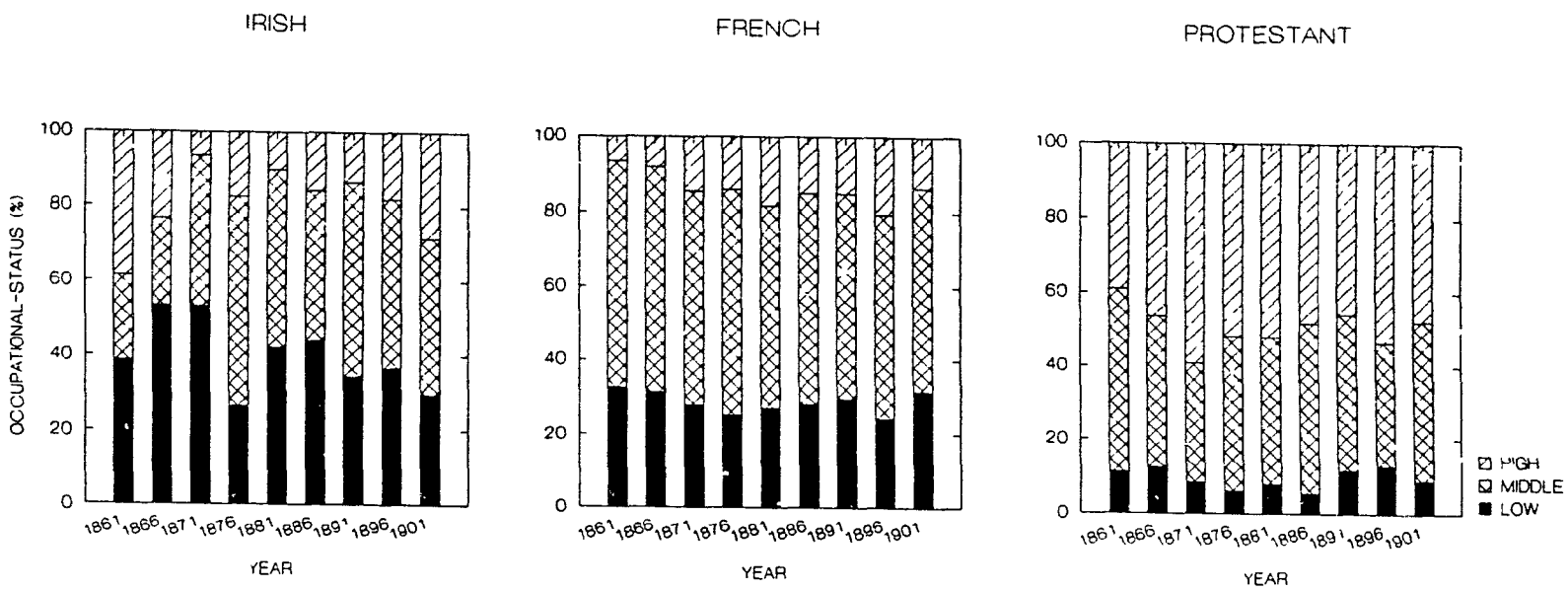


FIGURE 3.15 OCCUPATIONAL STATUS (MRENT) AND CULTURAL COMMUNITY, 1861-1901

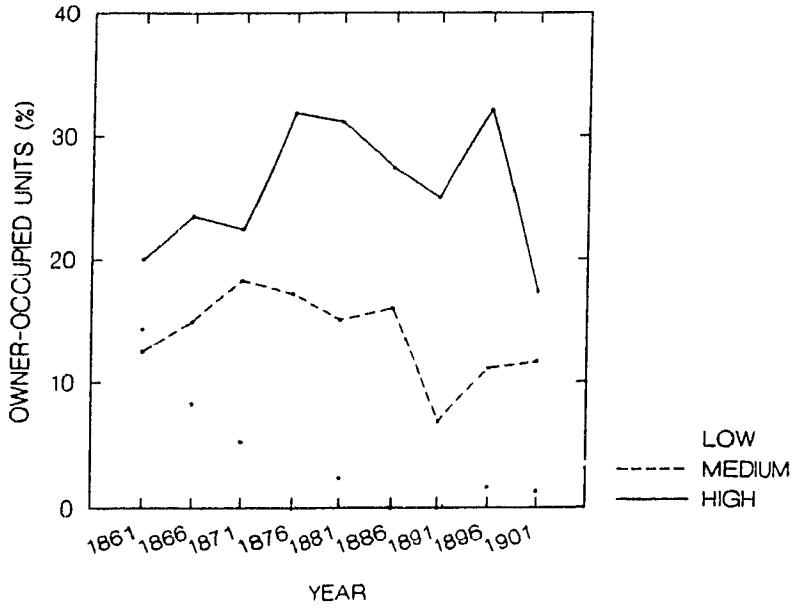


bottom rank. This observation for the Irish in Montreal mirrors their situation in U.S. cities of Boston, Buffalo and Philadelphia (Thernstrom, 1969, Glasco,1978; Burstein, 1981), as well as London, England (Lees, 1969). By 1876, however, the Irish Catholic population saw some improvement, with the largest percentage of the population now finding employment in middle rank occupations. Very few (less than one-third) of Irish household heads were ever employed in high-status occupations over the 40 years of study, but I would disagree with Katz's (1975) claims for nineteenth-century Hamilton, that being Irish Catholic in Canada meant "near pauperization". Katz (1975) was, however, talking about a different city and time period (1851-1861) than this research of Montreal. A great proportion of the Irish population in Montreal, and the rest of Canada, immigrated during the 1840s, and over twenty to thirty years appeared to make some degree of improvement in occupational status[13]. French Canadian households dominated the middle-status occupations, with well over 50% of household heads being employed in skilled and semi-skilled blue collar occupations. Similar to the Irish, the French had very few household heads in high-ranking positions. The Protestants dominated the upper ranks of employment. At least half of Protestant heads in each year between 1861 and 1901 were in high-status occupations. Even more striking is their virtual absence from the lower ranks, with less than 15% of household heads in any year being employed in low-status occupations.

Theory, as well as empirical reports from other cities and periods, lead us to anticipate a strong relationship between owner-occupancy and occupational status. The relative positions of the three cultural communities with respect to owner-occupancy and occupational status are a consequence, and it is not surprising that we see in figure 3.16 (table 3.10) a strong relationship between owner-occupancy and occupational status in Montreal. In every year [except 1861 for the Katz classification] the level of owner-occupancy is lowest among those in the lowest occupational ranks and highest among those in the highest-status occupations. Household heads employed in higher status jobs have more disposable income available to purchase a home, and they experience greater job stability, which is itself an enticement to stay in one location[14]. At the Grand Trunk and Canadian Pacific

FIGURE 3.16 OWNER-OCCUPANCY RATES BY OCCUPATIONAL STATUS, 1861-1901

(KATZ)




(MR)

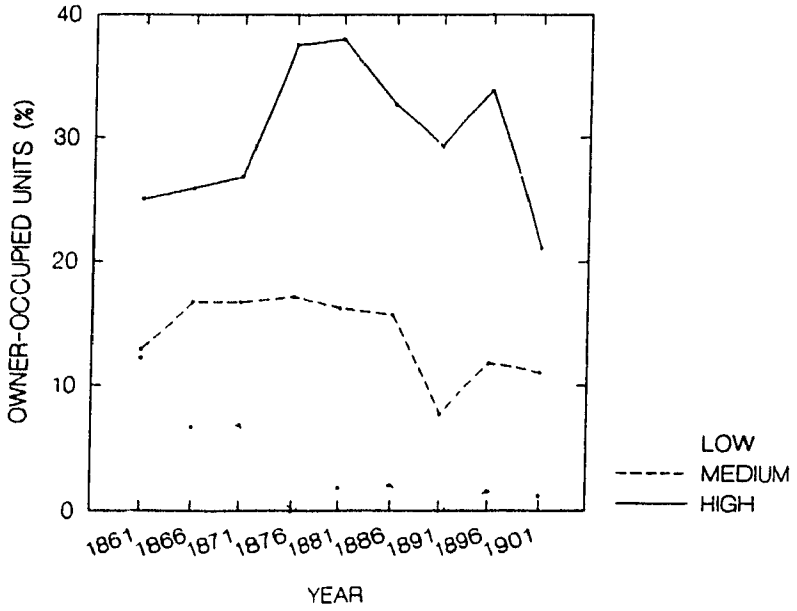


TABLE 3.10

**OWNER-OCCUPANCY RATES BY OCCUPATIONAL STATUS, 1861-1901**

**Median Rent Classification**

| | UPPER | MIDDLE | LOWER | N |
|---|---|---|---|---|
| 1861 | 25.0 | 12.9 | 12.2 | 131 |
| 1866 | 25.9 | 16.7 | 6.7 | 105 |
| 1871 | 26.8 | 16.7 | 6.8 | 151 |
| 1876 | 37.5 | 17.1 | 0.0 | 143 |
| 1881 | 37.9 | 16.2 | 1.8 | 218 |
| 1886 | 32.7 | 15.6 | 2.0 | 195 |
| 1891 | 29.3 | 7.7 | 0.0 | 256 |
| 1896 | 33.8 | 11.8 | 1.5 | 270 |
| 1901 | 21.1 | 11.0 | 1.2 | 341 |

**Katz's Classification**

| | UPPER | MIDDLE | LOWER | N |
|---|---|---|---|---|
| 1861 | 20.0 | 12.5 | 14.3 | 131 |
| 1866 | 23.5 | 14.9 | 8.3 | 105 |
| 1871 | 22.5 | 18.2 | 5.3 | 151 |
| 1876 | 31.9 | 17.1 | 0.0 | 143 |
| 1881 | 31.2 | 15.0 | 2.4 | 218 |
| 1886 | 27.4 | 16.0 | 0.0 | 195 |
| 1891 | 25.0 | 6.9 | 0.0 | 256 |
| 1896 | 32.1 | 11.1 | 1.7 | 270 |
| 1901 | 17.3 | 11.7 | 1.4 | 341 |

Railways for example (see Hoskins, 1986), managers and white-collar employees (a small percentage) received monthly salaries and stayed on with the company for several years. Running trades and skilled shop workers were paid weekly, and their hours and pay envelopes varied, and their persistence on the payrolls was moderate. Labourers "floated", were often hired for the day or the particular task, and have much lower rates of persistence in the job, and presumably in the city (Hoskins, 1986). Although home ownership or owner-occupancy was often perceived as a relative improvement in social status, it tied a family to a particular dwelling, thus it was not advantageous for many lower-status households (such as those headed by labourers employed by the railway), who used moving as an adaptive strategy.

## PERSISTENCE AND INCOME

Actual income figures are available only for the year 1901, from the manuscript census, and tests of persistence by income are therefore possible only for the 1896-1901 period. Persistence rates were determined for categories of both father's income and total household income, in the manner described in the Methodology chapter. An important bias exists when measuring income in the final year (rather than the starting year), which affects the results reported in figures 3.17

FIGURE 3.17 HOUSEHOLD PERSISTENCE BY FATHER'S INCOME, 1896-1901

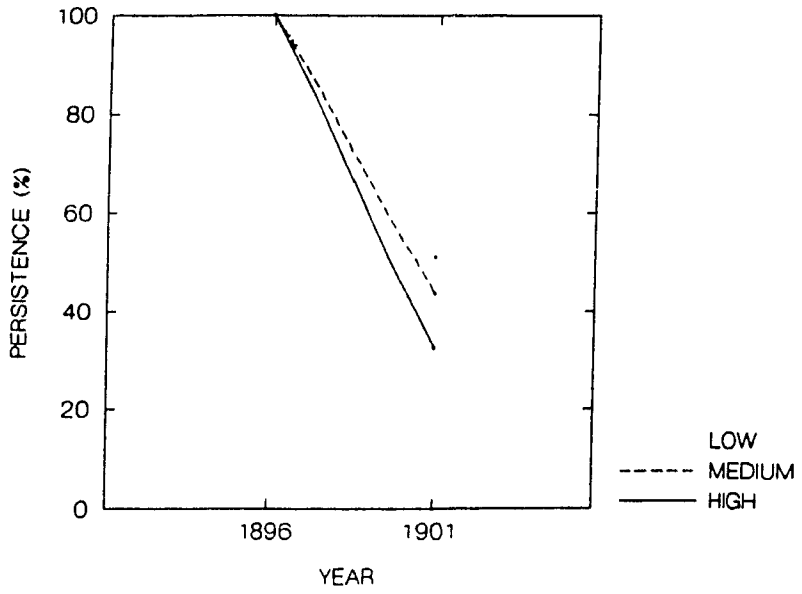
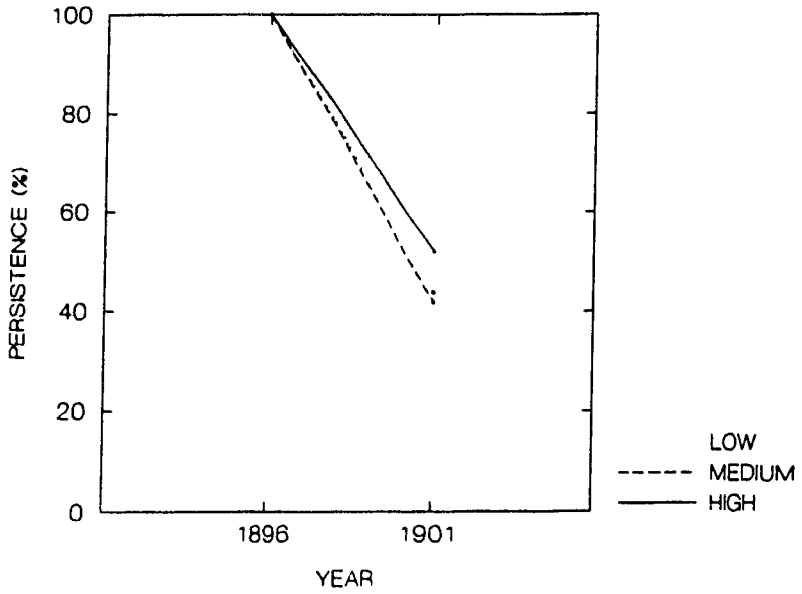



FIGURE 3.18 HOUSEHOLD PERSISTENCE BY TOTAL FAMILY INCOME, 1896-1901



and 3.18. Persistence and non-persistence in this case actually represent those who remain at the same address between 1896 and 1901, and those who have changed their address, but remained in Montreal. Therefore these graphs do not include out-migrants between 1896 and 1901, as their income statistic was not available. Figure 3.17 therefore, shows the percentage of households who remained at the same address, as a portion of all households that remained in the city, for different levels of father's income. The results of this test are quite peculiar in that persistence rates are inversely related to father's income - the lower the income, the higher the level of persistence, contrary to what was hypothesized. Figure 3.18 shows persistence rates and total household income. Household income is in a sense a better representation of total disposable income, as it includes possible income from a wife, working daughter, son, or other family member living under the same roof. In this case, persistence rates are highest among those families with the largest total incomes. This pattern is reasonable as it is the "additional" family income that often determines whether the family can afford to pay a higher rent, or higher rent/person.

Persistence rates were also calculated for several categories of surrogates of household income or financial status. Since rental values are available for the forty-year period, they provide a reasonable measure of purchasing power. The amount of money a household dispenses for shelter provides an excellent indicator of social status. Rent per person was also used as a surrogate for income. The amount a household paid for rent was divided by the number of persons in the household to determine a sort of "comfort factor" and generally a substitute for disposable income. The categories used (described in Methodology) roughly represent: households with 2 or more people per room ($10/person), 1 to 2 persons per room ($10-$20/person), and those households with less than one person per room (over $20/person) - Low, Medium, and High respectively. Figure 3.19 (table 3.11) demonstrates a complicated, yet consistent relationship between persistence and levels of rent per person. While behaviour in the medium category is erratic due to small sample sizes, in every sample year persistence is higher among the highest rent-per-person category than in the lowest rent-per-person category. Low-rent households are more mobile than high-rent households. This of course, is consistent with the earlier observation that

FIGURE 3.19 HOUSEHOLD PERSISTENCE AND RENT PER PERSON, 1861-1901

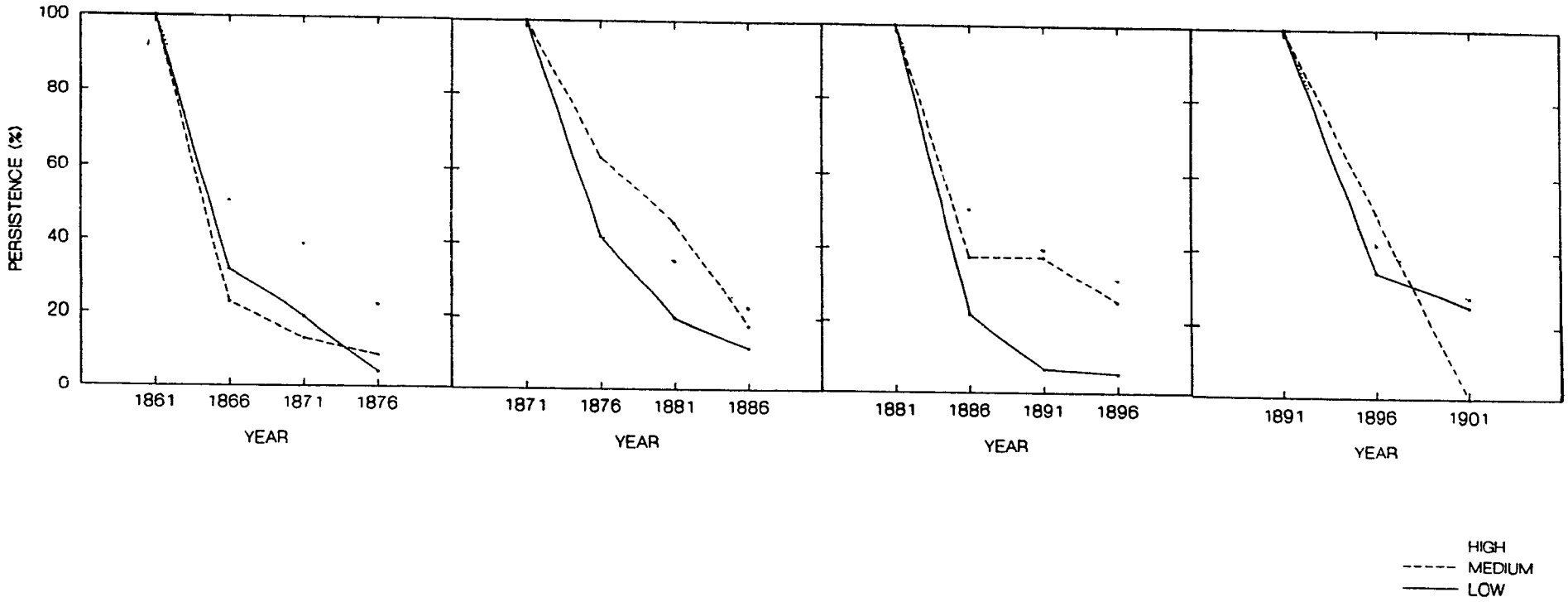


TABLE 3.11

**HOUSEHOLD PERSISTENCE AND RENT PER PERSON***

Five Year Persistence (%)

| | Low | Medium | High | N |
|---|---|---|---|---|
| 1861-1866 | 31.9 | 22.7 | 50.0 | 87 |
| 1871-1876 | 42.0 | 63.6 | 41.9 | 92 |
| 1881-1886 | 21.9 | 37.5 | 50.0 | 129 |
| 1891-1896 | 34.4 | 50.0 | 41.8 | 93 |
| 1896-1901 | 56.0 | 33.3 | 51.4** | 102 |

Ten Year Persistence (%)

| | Low | Medium | High | N |
|---|---|---|---|---|
| 1861-1871 | 19.2 | 13.6 | 38.9 | 87 |
| 1871-1881 | 20.0 | 45.5 | 35.5 | 92 |
| 1881-1891 | 6.9 | 37.5 | 39.6 | 129 |
| 1891-1901 | 25.0 | 0.0 | 27.3 | 93 |

Fifteen Year Persistence (%)

| | Low | Medium | High | N |
|---|---|---|---|---|
| 1861-1876 | 4.3 | 9.1 | 22.2 | 87 |
| 1871-1886 | 12.0 | 18.2 | 22.6 | 92 |
| 1881-1896 | 5.5 | 25.0 | 31.3 | 129 |

*Rent per person categories are delineated as follows:

Low = $10/person, which approximately corresponds to 2 or more people per room.
Medium = greater than $10 and less than $20/person, or roughly 1 to 2 per room.
High = rent more than $20/person, or less than 1 person per room.

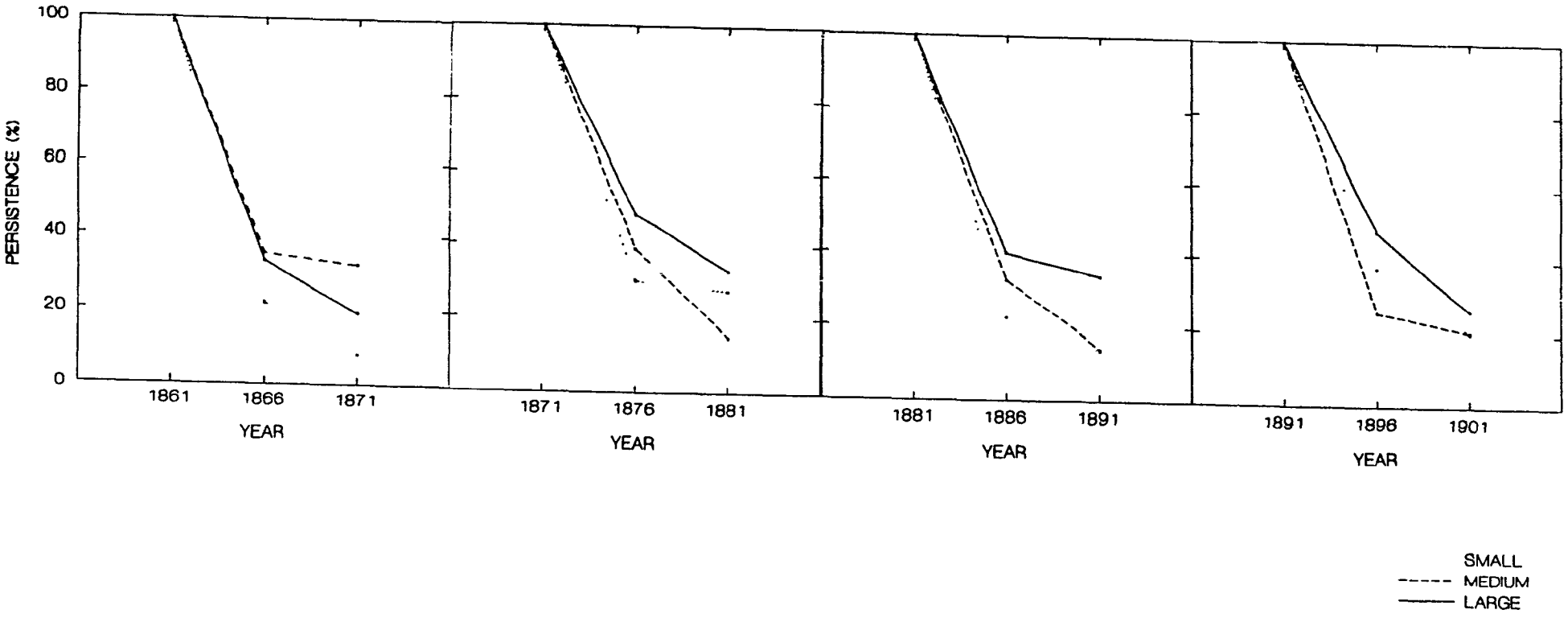
** This group can be further divided into two groups of high and elite. The elite group has a rent of more than $40/person, or less than 1/2 person per room - truly spacious accommodations. Persistence now becomes 42.1% for the high group, and 61.1% for the elite.

households of low-status occupations are more mobile. Montreal has a large rental market, and renting offered a degree of freedom to many financially strapped households. These households, although they did not have large disposable incomes, had plenty of alternative dwellings to choose from. Perhaps this is part of the reason for the high mobility of middle-rent households - the type of available housing stock. This pattern also suggests that the "comfort factor", or "place utility", of households with fewer persons per room is much higher than that of the overcrowded households with more than 2 persons per room. The crowded households make more moves,continually attempting to adjust to larger, more comfortable dwellings.

## PERSISTENCE AND HOUSEHOLD SIZE

Modern literature reports that the number of people in the household has a significant effect on household persistence. Figure 3.20, (table 3.12) displays this

FIGURE 3.20 PERSISTENCE AND HOUSEHOLD SIZE, 1861-1901



relationship for the period 1861-1901. Once again, if one ignores the values for medium-size households, a particular pattern is decipherable from the persistence curves of the largest and smallest households. The largest households have the highest rates of persistence - smaller households are much more mobile. This pattern could be, once again, a consequence of Montreal's available housing stock. The largest households (7 or more people) would have found it the most difficult to find lodgings large enough to satisfy all their members. The smallest households (4 or less) should have experienced little difficulty in finding a home to accommodate their small numbers.

TABLE 3.12

**PERSISTENCE AND SIZE OF HOUSEHOLD***

Five Year Persistence (%)

| | Small | Medium | Large | N |
|---|---|---|---|---|
| 1861-1866 | 21.7 | 35.3 | 33.3 | 99 |
| 1871-1876 | 30.6 | 39.1 | 48.5 | 115 |
| 1881-1886 | 22.2 | 32.7 | 40.0 | 168 |
| 1891-1896 | 37.7 | 25.6 | 47.4 | 146 |

Ten Year Persistence (%)

| | Small | Medium | Large | N |
|---|---|---|---|---|
| 1861-1871 | 8.7 | 32.4 | 19.1 | 99 |
| 1871-1881 | 27.8 | 15.2 | 33.3 | 115 |
| 1881-1891 | 14.3 | 14.6 | 34.0 | 168 |
| 1891-1901 | 20.3 | 20.5 | 26.3 | 146 |

*Household size is categorized as follows:

Small = Households of 4 or less people.
Medium = Households of 5 or 6 people.
Large = Households of 7 or more people.

Change in household size has also been said to have an affect on rates of persistence. The addition of a new member to the household often creates a need for additional space, which is best satisfied by a move to a larger dwelling. Decrease in family size may also trigger a move to a smaller, less expensive dwelling. The sample size for this test is perhaps too small to be confident of the significance of its results, but a general trend over the 40 year period does seem apparent (see table 3.13). Households which increase in size are much more likely to move than households who remain the same in size, or decrease in size. Moves can be interpreted as adjustments to the new size requirements of the household.

TABLE 3.13

**PERSISTENCE RATES AND CHANGE IN HOUSEHOLD SIZE**

Ten Year Persistence (%)

| | Decrease | Increase | No Change | N |
|---|---|---|---|---|
| 1861-1871 | 47.4 | 0.0 | 26.7 | 65 |
| 1871-1881 | 25.0 | 40.0 | 23.3 | 83 |
| 1881-1891 | 43.5 | 12.5 | 27.5 | 87 |
| 1891-1901 | 30.4 | 19.1 | 29.0 | 106 |
| 1861-1901 | 35.5 | 23.6 | 27.2 | 327 |

*Change in household size is determined as follows:
Decrease = number of persons in household in 2nd year less than 1st year minus 1.
Increase = number of persons in household in 2nd year greater than 1st year plus 1.
No Change = household size in year 2 same as year 1 (or plus or minus 1).

One peculiar result, is that shrinking households are less likely to move than households that remain roughly the same. These shrinking households probably have grown comfortable with their dwellings and opt out of moving back to smaller dwellings.Households decrease in size usually for two reasons: death, and the departure of grown children. Both of these scenarios in theory have a negative effect on the rent paying capacity of the household, depending on whether the person who died, or left the household contributed a substantial amount to the family income. Households generally shrink in size with age. However, age of the household head is here really an expression of life-cycle stage, and evidence suggests improved incomes, and therefore a higher rent paying capacity, as the household head reaches 45 or 50. This improved standard of living would permit greater housing satisfaction and therefore greater stability.

## PERSISTENCE AND AGE OF HOUSEHOLD HEAD

One of the most consistently reported results in modern mobility research is the inverse relationship between mobility and the age of the household head (Abu-Lughod and Foley, 1960; Rossi, 1955; Speare et al 1974; Quigley and Weinberg, 1977; Weinberg, 1975; Speare, 1970; Pickvance, 1974). Age of household head also had a significant effect on household persistence in nineteenth-century Montreal. Figure 3.21 (table 3.14) shows five, ten, and fifteen year persistence rates for three age categories, between 1861 and 1901. In every sample year older households show higher persistence rates than younger households. Evidence suggests that improvements in household income occur where the household head reaches 45 or 50. Youths, and adult children living at home contribute to the family income, and

FIGURE 3.21 PERSISTENCE AND AGE OF HOUSEHOLD HEAD, 1861-1901

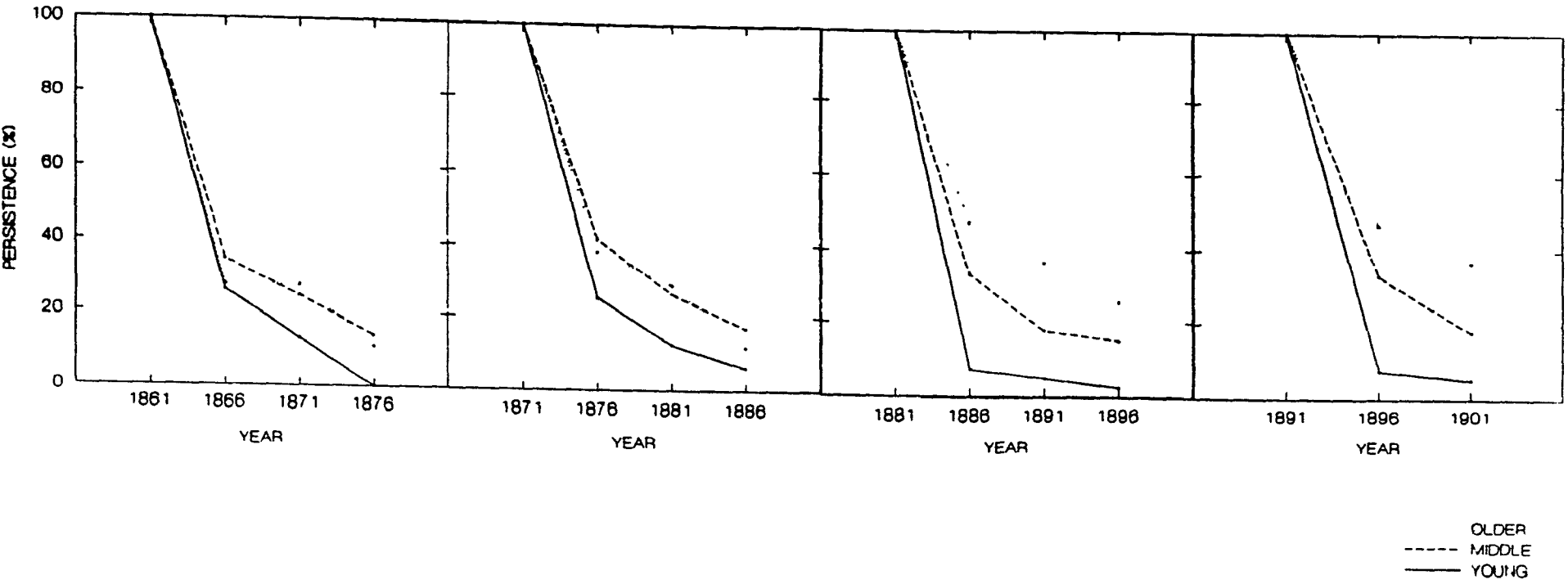


TABLE 3.14

**PERSISTENCE AND AGE OF HOUSEHOLD HEAD**

Five Year Persistence (%)

| | Young | Middle | Old | N |
|---|---|---|---|---|
| 1861-1866 | 26.1 | 35.1 | 27.8 | 98 |
| 1871-1876 | 25.0 | 41.5 | 38.1 | 123 |
| 1881-1886 | 7.1 | 32.9 | 47.3 | 170 |
| 1891-1896 | 9.7 | 44.3 | 50.0 | 150 |
| 1896-1901 | 18.2 | 38.4 | 57.0 | 176 |

Ten Year Persistence (%)

| | Young | Middle | Old | N |
|---|---|---|---|---|
| 1861-1871 | 13.0 | 24.6 | 27.8 | 98 |
| 1871-1881 | 12.5 | 26.2 | 28.6 | 123 |
| 1881-1891 | 4.8 | 17.8 | 36.4 | 170 |
| 1891-1901 | 6.5 | 26.2 | 29.3 | 150 |

Fifteen Year Persistence (%)

| | Young | Middle | Old | N |
|---|---|---|---|---|
| 1861-1876 | 0.0 | 14.0 | 11.1 | 98 |
| 1871-1886 | 12.0 | 18.2 | 22.6 | 123 |
| 1881-1896 | 2.4 | 15.1 | 25.5 | 170 |

*Age is categorized as follows:

Young = age of household head is equal to 30 years or less.
Middle = age of household head is greater than 30, but less than 50 years.
Old = age of household head is greater than 50 years.

an improved standard of living, and greater housing satisfaction and stability. In 1901 over one-quarter (26.8%) of older households (heads over 50), had a total family income over $1000, while only 17.0% of middle-aged families (heads aged 31 to 49), and 15.7% of young families (heads under 30 years) had an income over $1000. Modern literature suggests psychological factors as the cause of a type of "cumulative inertia" by age, the older the household, the less likely they are to move. In the nineteenth-century financial reasons often prevailed.

The oldest households in Montreal experience the greatest drop in persistence between 10 and 15 years. This pattern of non-persistence is probably almost entirely explained by the fact that the older households (50 and over), are dying out before the end of the fifteen-year trace. Many moves appear to be driven by vital events. Table 3.15 shows the large share of moves associated with the death of either husband or wife. Widowhood occurred more frequently, often earlier in life, in the nineteenth-century. Given the high risks of widowhood, ownership of a dwelling was valued above all as a form of life insurance[15]. Even when the husband is recorded

TABLE 3.15

**FIVE-YEAR PERSISTENCE RATES FOR NEWLY WIDOWED* WOMEN AND MEN**

| | HUSBAND DIES WIFE STAYS (%) | WIFE DIES HUSBAND STAYS (%) | N | NO DEATH SAMPLE STAYS (%) |
|---|---|---|---|---|
| French | 8.3 | 14.3 | 193 | 30.8 |
| Irish | 40.6 | 15.2 | 142 | 23.8 |
| Prot | 17.2 | 19.7 | 170 | 48.3 |
| Total | 21.4 | 16.4 | 525 | 33.3 |

*Newly widowed denotes spouse died within the previous five years

TABLE 3.16

**OWNERSHIP AMONG WOMEN, BY CULTURAL COMMUNITY**

| | Owner-Occupancy As % Of Household Heads | | Percentage Of All Owner-Occupants | |
|---|---|---|---|---|
| | WIDOWS | ALL | WIDOWS | WOMEN |
| French | 29.7 | 15.3 | 16.0 | 25.5 |
| Irish | 28.8 | 10.8 | 42.2 | 51.1 |
| Prot | 34.1 | 25.0 | 15.8 | 29.8 |
| Total | 30.5 | 16.8 | 20.4 | 31.7 |

as household head a small but appreciable share of the homes in our sample are listed as owned by the wife (see table 3.16). Negligible during the early years of our study, the strategy emerges toward the end of the nineteenth century. In the tax roll years 1886, 1891 and 1896, one-fifth of owner-occupied homes are listed in the wife's name (16.9 percent of French, 19.0 Irish, 28.6 protestant) even though her husband is usually listed as household head. This makes understandable the presence of a distinctive group of widows as home owners (one-fifth of all owners). Altogether nearly one third of owner-occupied property in the city was in the hands of women (including wives, widows and spinsters). Women who owned their home were more likely to remain there after the husband's death, and to reappear as heads of household. This is especially remarkable among the Irish, where most of the owner-occupants in the community are widows and persistence reaches forty-two percent among newly widowed women. While psychological factors are given attention in modern studies[16], in the nineteenth century the incentive of everyday security provides an adequate explanation.

## MODELLING PERSISTENCE USING MULTIVARIATE STATISTICAL ANALYSIS

The consistency of the results reported for persistence rates over the forty-year study period (as displayed in previous figures) made it feasible to collapse all of the five-year persistence tests (1861-66, 1866-71 ...), into one large sample of persisters and non-persisters. Tabulations were performed once again, using each variable individually, to test their particular effects on the rates of five-year persistence for the larger sample. The results of these persistence tests can be seen in table 3.17.

The same table also provides the resultant chi-square statistics associated with the analysis. The chi-square statistic calculates a measure based on the differences between observed values and expected values, for every point of the contingency table. The number of degrees of freedom is equal to n-1, which in each of these cases, is 2 (except for tenure, where DF=1). The chi-square statistics for the tabulations of persistence with tenure, ethnicity, age, and occupational status are all higher than 5.991 (critical value of chi-square for 95% confidence and 2 degrees of freedom), and associated p-values are low (below 0.05), therefore, in each case the null hypothesis that persistence is independent of the explanatory variable, is rejected. Household size is only borderline insignificant with a chi-square of 5.209, and p-value of 0.074, and therefore should not be ruled out, until further analysis. Marital status however, is clearly insignificant. The risks and limitations of relying purely on chi-square analysis for certain research have been noted in previous literature (Freund, 1988; Wrigley, 1985). "I fear that the first act of most social scientists upon seeing a contingency table is to compute chi-square for it. Sometimes this approach is enlightening, sometimes wasteful, but sometimes it does not go far enough" (Mosteller, 1968, p1.; in Wrigley, 1985, p.161).

Chi-square tests are useful for simple contingency tables. They do not tell us however, the individual effects of each explanatory (independent) variable when combined to form a comprehensive model of persistence. Therefore, multivariate regression analysis was also performed using the binomial logit model to assess the relative effects of several explanatory variables.

TABLE 3.17

FIVE-YEAR HOUSEHOLD PERSISTENCE RATES FOR VARIOUS SUBGROUPS, 1861-1901

| TENURE STATUS | PERSISTENCE (%) |
|---|---|
| Owner | 64.1 |
| Tenant | 23.7 |

Pearson Chi-square value (2 DF): 194.881
P-Value: 0.000

| AGE OF HOUSEHOLD HEAD | PERSISTENCE (%) |
|---|---|
| Young | 19.7 |
| Middle | 42.8 |
| Old | 47.7 |

Pearson Chi-square value (2 DF): 42.490
P-Value: 0.000

| OCCUPATIONAL STATUS (MEDIAN RENT CLASSIFICATION) | PERSISTENCE (%) |
|---|---|
| Low | 21.7 |
| Medium | 32.3 |
| High | 39.7 |

Pearson Chi-square value (2 DF): 29.914
P-Value: 0.000

| OCCUPATIONAL STATUS (KATZ'S CLASSIFICATION) | PERSISTENCE (%) |
|---|---|
| Low | 23.1 |
| Medium | 29.3 |
| High | 40.3 |

Pearson Chi-square value (2 DF): 29.446
P-Value: 0.000

| HOUSEHOLD SIZE | PERSISTENCE (%) |
|---|---|
| Small | 33.3 |
| Medium | 37.2 |
| Large | 43.3 |

Pearson Chi-square value (2 DF): 5.209
P-Value: 0.074

| MARITAL STATUS | PERSISTENCE (%) |
|---|---|
| Single | 11.1 |
| Married | 36.5 |
| Widowed | 38.6 |

Pearson Chi-square value (2 DF): 2.677
P-Value: 0.262

| ETHNICITY | PERSISTENCE (%) |
|---|---|
| French | 27.6 |
| Irish | 29.7 |
| Prot | 37.5 |

Pearson Chi-square value (2 DF): 14.493
P-Value: 0.001

## THE LOGIT MODEL

So far, it has been shown using bivariate techniques that several explanatory variables are important mobility differentials. The relative strength of each of these variables is yet to be determined. The variables selected for further analysis (ethnicity, tenure, occupational status, age, household size, marital status and rent) were chosen because the existing literature and the bivariate analyses presented above suggested them to be the most important. However, before attempting a full multiple regression, a set of simple regressions were run to further identify candidate variables.

Figure 3.22 is an example of the printed output associated with a logit regression using SYSTAT's LOGIT module, with PERSIST as the dependent variable and occupational status (Median Rent) as the independent variable. The output in

FIGURE 3.22

**OUTPUT FROM LOGIT ANALYSIS MODELLING PERSISTENCE WITH OCCUPATIONAL STATUS (MRC)**

BINARY LOGIT ANALYSIS

DEPENDENT VARIABLE: PERSIST
INPUT RECORDS: 1737
RECORDS FOR ANALYSIS: 1520
RECORDS DELETED FOR MISSING DATA: 217

SAMPLE SPLIT

| CATEGORY | CHOICES |
|---|---|
| RESP | 479 |
| REF | 1041 |
| | 1520 |

RESULTS OF ESTIMATION

LOG LIKELIHOOD: -931.84075

| PARAMETER | ESTIMATE | S.E. | T-RATIO | P-VALUE |
|---|---|---|---|---|
| 1 CONSTANT | -1.28621 | 0.12326 | -10.43456 | 0.00000 |
| 2 HIGH-STATUS | 0.86801 | 0.16070 | 5.40148 | 0.00000 |
| 3 MIDDLE-STATUS | 0.54807 | 0.14621 | 3.74841 | 0.00018 |

| PARAMETER | ODDS RATIO | 95.0% BOUNDS UPPER | LOWER |
|---|---|---|---|
| 2 HIGH-STATUS | 2.38216 | 3.26405 | 1.73854 |
| 3 MIDDLE-STATUS | 1.72990 | 2.30398 | 1.29887 |

LOG LIKELIHOOD OF CONSTANTS ONLY MODEL = LL(0) = -947.18066
2*[LL(N)-LL(0)] = 30.67981 WITH 2 DOF, CHI-SQ P-VALUE = 0.00000
MCFADDEN'S RHO-SQUARED = 0.01620

binary logit analysis begins with a listing of the dependent variable PERSIST, the sample size, and split between 0 (REFerence, or in this case non-persistence), and 1 (RESPonse, or persistence) for the variable PERSIST. Finally, the parameter estimates, standard errors, t-ratios (standardized coefficients), p-values and the log-likelihood are presented.

The results of a logistic regression are evaluated similarly to a linear regression. The estimate coefficients for parameters high-status and middle-status are large relative to their standard errors, reflected in high t-ratios (5.4 and 3.7 respectively), and therefore, occupational status appears to be an important predictor of persistence. The logit coefficient tells us how much the logit increases for a unit increase in the independent variable. However, the probability of a 0 or 1 outcome is a nonlinear function of the logit, and in this sense the interpretation of the coefficient is different from ordinary regression (see Steinberg and Colla, 1991).

The "odds-ratio" included at the end of the figure, is a more intuitively meaningful figure for each coefficient. The odds of the response is given by the formula p/(1-p), where p is the probability of response, and the so-called "odds-ratio" is the multiplicative factor by which the odds change when the independent variable increases by one unit.[17] In LOGIT, no parameter is estimated for the reference group, and the probability statistics and "odds-ratios" are calculated for each other category in relation to the reference group. In this example, the occupational status variable has 3 categories, the reference group is households with heads employed in low-status occupations. The odds of persisting increase by a multiplicative factor of 1.7 when employed in a medium-status occupation, and increase by a factor of 2.4 for household heads employed in high-status occupations. In other words, high-status heads are 2.4 times more likely to persist than low-status heads of household. Likewise, medium-status heads are 1.7 times more likely to remain at the same address. Since the lower and upper bounds of the odds-ratio confidence intervals are greater than one, occupational status has a statistically significant association with persistence (Steinberg and Colla, 1991).

Table 3.18 displays the respective t-ratios, p-values, and odds-ratios from the output in LOGIT, from the simple regression models estimating persistence with the

following independent variables: ethnicity, age, occupational status (Katz and Median Rent classifications), marital status, and household size. Increasing occupational-status appears to have a positive effect on household persistence. A comparison of the results from two separate models of occupational status: one using Katz's classification and the other using the median rent system of occupational classification (as shown in figure 3.22), indicate that the median rent system is more sensitive in predicting differences in household behaviour between status groups. The odds of

TABLE 3.18

**OUTPUT OF LOGIT ANALYSIS ESTIMATING PERSISTENCE WITH SINGLE INDEPENDENT VARIABLE MODELS**

INDEPENDENT VARIABLE: TENURE
REFERENCE GROUP: TENANTS

| PARAMETER | ESTIMATE | T-RATIO | P-VALUE | ODDS RATIO | CONFIDENCE INTERVAL |
|---|---|---|---|---|---|
| Owners | 1.74723 | 13.08892 | 0.00000 | 5.73866 | 7.45481 / 4.41758 |

INDEPENDENT VARIABLE: OCCUPATIONAL STATUS (MRC)
REFERENCE GROUP: LOW-STATUS

| PARAMETER | ESTIMATE | T-RATIO | P-VALUE | ODDS RATIO | CONFIDENCE INTERVAL |
|---|---|---|---|---|---|
| Mid-status | 0.54807 | 3.74841 | 0.00018 | 1.72990 | 2.30398 / 1.29887 |
| High-Status | 0.86801 | 5.40148 | 0.00000 | 2.38216 | 3.26405 / 1.73854 |

INDEPENDENT VARIABLE: OCCUPATIONAL STATUS (KATZ)
REFERENCE GROUP: LOW-STATUS

| PARAMETER | ESTIMATE | T-RATIO | P-VALUE | ODDS RATIO | CONFIDENCE INTERVAL |
|---|---|---|---|---|---|
| Mid-Status | 0.32589 | 2.09060 | 0.03656 | 1.38527 | 1.88029 / 1.02057 |
| High-Status | 0.81011 | 5.01443 | 0.00000 | 2.24817 | 3.08564 / 1.63799 |

INDEPENDENT VARIABLE: HOUSEHOLD SIZE
REFERENCE GROUP: SMALL

| PARAMETER | ESTIMATE | T-RATIO | P-VALUE | ODDS RATIO | CONFIDENCE INTERVAL |
|---|---|---|---|---|---|
| Medium | 0.16762 | 0.88621 | 0.37551 | 1.18248 | 1.71313 / 0.81621 |
| Large | 0.42426 | 2.27110 | 0.02314 | 1.52846 | 2.20426 / 1.05985 |

INDEPENDENT VARIABLE: MARITAL STATUS
REFERENCE GROUP: SINGLES

| PARAMETER | ESTIMATE | T-RATIO | P-VALUE | ODDS RATIO | CONFIDENCE INTERVAL |
|---|---|---|---|---|---|
| Married | 0.33400 | 1.21200 | 0.22600 | 1.39700 | 2.39700/ 0.81400 |

INDEPENDENT VARIABLE: ETHNICITY
REFERENCE GROUP: FRENCH

| PARAMETER | ESTIMATE | T-RATIO | P-VALUE | ODDS RATIO | CONFIDENCE INTERVAL |
|---|---|---|---|---|---|
| Irish | 0.10280 | 0.79939 | 0.42407 | 1.10827 | 1.42595 / 0.86136 |
| Protestant | 0.45588 | 3.69780 | 0.00022 | 1.57756 | 2.00875 / 1.23893 |

INDEPENDENT VARIABLE: AGE
REFERENCE GROUP: YOUNG

| PARAMETER | ESTIMATE | T-RATIO | P-VALUE | ODDS RATIO | CONFIDENCE INTERVAL |
|---|---|---|---|---|---|
| Middle Age | 1.11586 | 5.41581 | 0.00000 | 3.05219 | 4.57078 / 2.03813 |
| Old | 1.31548 | 6.21829 | 0.00000 | 3.72654 | 5.64127 / 2.46169 |

persisting are increased by a multiplicative factor of 1.73 when a household head is employed in a middle-status occupation (1.39 when using Katz), likewise for heads employed in high-status occupations the odds are increased by a factor of 2.38 (2.25 when using Katz), The p-values, and odds-ratios also indicate that the median rent classification is a more sensitive predictor. Inspection of t-ratios and odds-ratios for the model using ethnicity (cultural community) as the independent variable indicates that being of Protestant origin has a significant positive effect on persistence. Being a Protestant household increases the odds of persisting by a factor of 1.58, with lower and upper confidence bounds of 1.24 and 2.01 respectively. Being Irish Catholic only increases the odds of staying by a factor of 1.11, and since the confidence interval (lower and upper bounds) encompasses 1, there does not seem to be a strong effect on persistence. Increasing age of household also has a positive effect on rate of persistence: odds increase by a factor of 3.05 for middle-aged households, and by a factor of 3.73 for older households. When using two categories (young = under 45, old = over 45) for the age parameter, the odds of persisting increase by a multiplicative factor of 1.83 for older households. Tenure status has perhaps the strongest effect on rates of persistence, as most literature has suggested. Owner-occupiers are 5.73 times more likely to remain at the same address than tenants. Household size also appears to have a slight effect on persistence. The largest households, with 7 or more people, are 1.53 times more likely to persist than the smallest households with 4 or less members. The effect of the increase in odds (1.18) of mid-size households is less significant, as the confidence interval for the odds-ratio (0.82,1.71) includes 1.00. Marital status is the only variable tested that does not have a significant effect on rates of persistence, therefore substantiating the findings of the bivariate analysis and the chi-square statistics.

The output from the logistic regression of the dependent variable persistence, modelled with two independent, or explanatory variables indicated a strong degree of inter-correlation between independent variables. It is necessary to analyze persistence further, with all the independent variables together in a multiple regression model. Each variable used in single independent variable models of persistence with p-values lower than 0.05, and odds-ratio confidence intervals above

1.00, was then included in a model of persistence with several variables. This model included the independent variables: ethnicity, occupational status, tenure, age of household head, and household size, but not marital status; in other words: PERSIST = CONSTANT + ETH + TEN + OCC + AGE + HHS. Results of the logit analysis showed that household size had an insignificant effect on persistence when modelled with the other variables. Therefore, household size was removed from the model, and logit analysis was performed again with the four remaining independent

**FIGURE 3.23**

**OUTPUT FROM LOGIT ANALYSIS MODELLING PERSISTENCE WITH FOUR VARIABLES**

MODEL PERSIST = CONSTANT + ETH + OCC + AGE + TEN

BINARY LOGIT ANALYSIS

DEPENDENT VARIABLE: PERSIST
INPUT RECORDS: 1737
RECORDS FOR ANALYSIS: 965
RECORDS DELETED FOR MISSING DATA: 772

SAMPLE SPLIT

| CATEGORY | CHOICES |
|---|---|
| RESP | 393 |
| REF | 572 |
| | 965 |

RESULTS OF ESTIMATION

LOG LIKELIHOOD: -575.69370

| PARAMETER | ESTIMATE | S.E. | T-RATIO | P-VALUE |
|---|---|---|---|---|
| 1 CONSTANT | -2.07079 | 0.25476 | -8.12831 | 0.00000 |
| 2 HIGH-STATUS | 0.26619 | 0.22931 | 1.16079 | 0.24573 |
| 3 MIDDLE-STATUS | 0.49960 | 0.19805 | 2.52252 | 0.01165 |
| 4 IRISH | 0.35663 | 0.18405 | 1.93766 | 0.05266 |
| 5 PROTESTANT | 0.41354 | 0.17894 | 2.31106 | 0.02083 |
| 6 MIDDLE-AGE | 0.89231 | 0.21898 | 4.07490 | 0.00005 |
| 7 OLDEST | 1.05667 | 0.23283 | 4.53843 | 0.00001 |
| 8 OWNER | 1.57943 | 0.18476 | 8.54880 | 0.00000 |

| PARAMETER | ODDS RATIO | 95.0% BOUNDS UPPER | LOWER |
|---|---|---|---|
| 2 HIGH-STATUS | 1.30498 | 2.04548 | 0.83255 |
| 3 MIDDLE-STATUS | 1.64806 | 2.42972 | 1.11786 |
| 4 IRISH | 1.42850 | 2.04901 | 0.99590 |
| 5 PROTESTANT | 1.51216 | 2.14740 | 1.06484 |
| 6 MIDDLE-AGE | 2.44076 | 3.74903 | 1.58903 |
| 7 OLDEST | 2.87679 | 4.54037 | 1.82274 |
| 8 OWNER | 4.85221 | 6.96952 | 3.37812 |

LOG LIKELIHOOD OF CONSTANTS ONLY MODEL = LL(0) = -652.18894
2*[LL(N)-LL(0)] = 152.99047 WITH 7 DOF, CHI-SQ P-VALUE = 0.00000
MCFADDEN'S RHO-SQUARED = 0.11729

variables. The output from the model: PERSIST = CONSTANT + ETH + OCC + AGE + TEN can be seen in figure 3.23. The results of this model indicate thatall of the remaining variables have a significant effect on whether a household persists or not. Tenure status remains the most important differential of household persistence. Owner-occupiers were 4.85 times more likely to persist than tenants. Age is highly correlated with other variables, yet it remains highly significant. Middle-aged households were 2.44 times more likely to persist than young households, and the oldest households were 2.88 times more likely to persist than youngest households. The ethnic factor still remains significant, as Protestants were 1.51 times more likely to persist, and Irish Catholic households were 1.43 times more likely to persist than French Canadian households. Occupational-status had the weakest effect on household persistence when combined with the other three variables, and in fact, the effect of being employed in a middle-status occupation was stronger than the effect of being employed in a high-status occupation. Although occupational-status is highly correlated with the other variables, it remains an important variable.

Now that it is clear which variables are significant for predicting persistence, it is necessary to assess the particular model as a whole. How well does this model fit the data? This questions can be answered in LOGIT using the deciles of risk (DC) command which is invoked after estimating the model. The deciles of risk tables are used to assess predictive performance, and to detect influential and outlying observations with Pregibon regression diagnostics (see Pregibon, 1981). Figure 3.24 (an extension of figure 3.23) displays the output generated by the DC command for the present model. This table is produced by partitioning the sample into ten evenly spaced, probability groupings from 0 to 1. The row labelled CAT gives the end points of the cells defining each group, these can be specified or generated automatically. Within each cell is a breakdown of the observed and expected 0's (REF's) and 1's (RESP's). From the table it is apparent that observed totals are close to expected totals everywhere, also RESP totals gradually get higher, and REF totals gradually get lower as the probability approaches 1, indicating a good fit (Steinberg and Colla, 1991; Hosmer and Lemeshow, 1989; Pregibon, 1981).

**FIGURE 3.24**

**DECILES OF RISK TABLE FROM LOGIT ANALYSIS MODELLING PERSISTENCE WITH FOUR VARIABLES**

DECILES OF RISK

RECORDS PROCESSED: 965
SUM OF WEIGHTS = 965.00000

| | STATISTIC | P-VALUE | DOF |
|---|---|---|---|
| HOSMER-LEMESHOW | 3.33058 | 0.76636 | 6.00000 |
| PEARSON | 970.98269 | 0.36945 | 957.00000 |
| DEVIANCE | 1151.38740 | 0.00001 | 957.00000 |

| CAT. | | 0.10000 | 0.20000 | 0.30000 | 0.40000 | 0.50000 |
|---|---|---|---|---|---|---|
| RESP | OBS | 0.00000 | 24.00000 | 21.00000 | 109.00000 | 89.00000 |
| | EXP | 0.00000 | 22.04021 | 28.38716 | 106.44225 | 87.06312 |
| REF | OBS | 0.00000 | 117.00000 | 91.00000 | 198.00000 | 112.00000 |
| | EXP | 0.00000 | 118.95979 | 83.61284 | 200.55775 | 113.93688 |
| AV. PROB. | | 0.00000 | 0.15631 | 0.25346 | 0.34672 | 0.43315 |

| CAT. | | 0.60000 | 0.70000 | 0.80000 | 0.90000 | 1.00000 |
|---|---|---|---|---|---|---|
| RESP | OBS | 6.00000 | 23.00000 | 105.00000 | 16.00000 | 0.00000 |
| | EXP | 5.70931 | 21.50543 | 105.62705 | 16.22547 | 0.00000 |
| REF | OBS | 5.00000 | 9.00000 | 36.00000 | 4.00000 | 0.00000 |
| | EXP | 5.29069 | 10.49457 | 35.37295 | 3.77453 | 0.00000 |
| AV. PROB. | | 0.51903 | 0.67204 | 0.74913 | 0.81127 | 0.00000 |

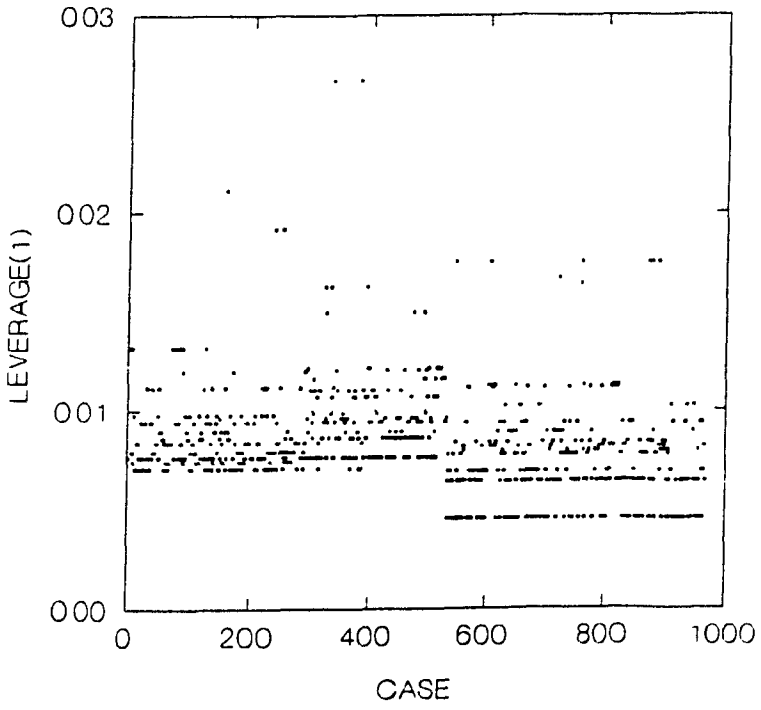
Before the model can be assuredly considered a good fit, another question remains to be answered: are the results unduly influenced by a handful of unusual observations? As Wrigley (1985) notes: "When using logistic/logit models in practical data analysis the geographer or environmental scientist must remain sensitive to the fact that a few data points can have a potentially large influence on the maximum likelihood fit of his [sic] models" (Wrigley, 1985, p.242).

It is, therefore, extremely useful to have diagnostics which indicate the effect of individual observations on the overall fit of the model and on the individual parameter estimates (Wrigley, 1985; Pregibon, 1981). These diagnostics can also be provided using deciles of risk analysis. If the DC command is preceded by a SAVE command in the program, a file containing regression diagnostics will be created. The file contains several variables including LEVERAGE(1): a measure of the influence of an observation on the model fit (see Hosmer and Lemeshow, 1989). As with the classic regression model, "no categorical regression analysis is complete without an inspection of the leverage values" (O'Brien, 1992, p.284). If the observed value for leverage is greater than twice the number of parameters divided by the number of

cases, then it is considered to be of high leverage, and thus influential to the model's fit. In this model, high leverage is observed by a value for LEVERAGE(1) greater than: 2 * 8 (parameters) / 965 (cases), or 0.017. To test whether those observations with high leverage unduly influenced the results, the model is estimated again until there are only a few observations with high leverage (less than 5%), and the results are examined for changes. For this model of persistence however, it can be seen right away by looking at figure 3.25 (a graph of the LEVERAGE(1) values associated with each observation or CASE), that a mere 5 observations out of 965, are greater than 0.017 and can be considered high leverage. Therefore, high leverage observations account for 0.52% (5/965) of all observations[18], which is less than 5% (95% confidence), and therefore the fit of the model is not unduly affected by unusual observations.

**FIGURE 3.25:**

**LEVERAGE VALUES OF OBSERVED CASES IN LOGIT ANALYSIS**



The results of the deciles of risk analysis provide adequate assurance that the proposed model of persistence is an excellent fit of the data. Household persistence in nineteenth-century Montreal can be adequately predicted by the model:

$\log (P_p/P_{np})$ = - 2.07079 + 0.26619 HIGH-STATUS + 0.49960 MID-STATUS + 0.35663 IRISH + 0.41354 PROT + 0.89231 MIDDLE AGE + 1.05667 OLDER + 1.57943 OWNER-OCCUPANCY

Results of the bivariate analysis with various explanatory variables indicated that tenure, ethnicity, age of household head, marital status, household size, and occupational status all had relative effects on rates of household persistence. The results of the bivariate tests suggest that households that persist in the same location are more likely to be owner-occupiers, Protestant, married, older, larger, and employed in higher status occupations. Bivariate analysis also determined that the explanatory variables were highly correlated with each other, such as occupational status and cultural community. Multivariate analysis was performed using the logit model to examine the separate effects of each explanatory variable on household persistence. The results of this analysis suggest that tenure status and age of household head have the strongest effect on whether a household moves or stays, while the effects of ethnicity and occupational status are less significant. The results of this multivariate analysis confirm the findings of other historians who have found that "home owning slows residential mobility and that occupational level (and implicitly, income and social status) fails to discriminate well ..." (Tobey et al, 1990, p.1409). This thesis confirms the influence of home ownership, while the effect of occupational-status on household persistence remains unclear.

# CHAPTER 4: SOCIAL MOBILITY AND THE GEOGRAPHY OF MOVES

Some moves are, I have argued, likely to reflect changes of social status, and we need, therefore, to consider the extent of such changes of "social mobility" in the sample. Social mobility is generally defined as the movement between classes, or the relative improvement in the social position of one group compared to another (Katz et al, 1982). In this chapter, social mobility is examined at the macro level, by looking at the extent of status changes in each cultural group; and at the individual level, by dealing with the lifetime mobility of households (intra-generational), and the shifts between fathers and their sons (inter-generational mobility) in each community. Intra-generational social mobility is defined as status improvements within one's lifetime, whereas inter-generational social mobility is defined as change in social position from father to son to grandson. Given the factor of immigration, we raise the question of foreign-birth versus native birth, as a possible influence on social position.

Social mobility has most commonly been estimated by analysis of occupational titles, since a person's job is a prime indicator of his or her social status (Harris, Levine and Osborne, 1981; Griffen and Griffen, 1978). Thernstrom (1968) recognized that "occupation may only be one variable in a comprehensive theory of class, but it is the variable which includes more, which sets more limits on the other variables than any other criterion of status" (p.84). The methodological problems of using occupational titles to evaluate intra-generational social mobility (i.e. job equivalency, variations in reporting title) were outlined in chapter 2. Using only a three-class categorization, these problems are formidable, even greater than initially expected, and thus, alternative forms of measurement were also used to evaluate mobility within a lifetime.

## SOCIAL STATUS IN THREE CULTURAL COMMUNITIES

Each cultural community saw some degree of improvement in status over time. Alternative estimates of housing and social environments indicate a trend to better housing and social environments by the end of the century, compared to households of the mid-century. This is also the case for individual households of relatively long

survival. Measures of occupational-status, as provided in chapter 3, do not effectively document this success. Occupational-status figures indicate that each community was fairly steady over the forty-years, with perhaps the Irish community making the most progress - climbing out of the ranks of low-status employment over time.

Other surrogates for social status such as rent, indicate a more positive picture of mobility in each community over time. Figure 4.1 illustrates the median rent value (in logs) by cultural community in five year intervals between 1861 and 1901. The amount a household pays for rent is a creditable indicator of purchasing power. The curves of this graph demonstrate a general trend upward over the forty-year period. The critical assumption here is the absence of inflation, and it is, we submit, a reasonable one. (The best contemporary discussion on the issue is found in assessors' testimony to the Royal Commission of 1887[19]). Protestant households consistently have higher rental values than Irish Catholic and French Canadian households. Irish Catholic households in 1861 have the lowest median rent values, but by 1901 they exceed the French.

Rent per person is perhaps a more accurate indicator of household comfort. Since the amount of rent paid for a dwelling is directly proportional to its overall size (floor area and number of rooms)[20], the amount of rent paid per person, represents the amount of space available per person, hence a "comfort factor". Figure 4.2 represents the median rent per person of households in each cultural community at ten year intervals. The trend in 1861 to 1901 is increasing rent per person. Irish Catholic households start out on bottom, paying the least amount of rent per person, and then gradually appear better off than the French by 1901. Protestant households again are consistently higher than the other two groups. Rent per person is an indicator of the level of crowding in a household. If $20 rent per room was an accurate estimate, then less than $10 rent per person, represents more than 2 persons per room, which is considered overcrowded by nineteenth-century standards (Ames, 1897). Between $10 and $20 per person roughly represents 1 to 2 persons per room, and therefore less crowded. Dwellings with less than 1 person per room (more than $20 per person) are spacious accommodations. Households with less than 1 person per room are extremely comfortable, and we can interpret this as a sign of higher

FIGURE 4.1 MEDIAN RENT AND CULTURAL COMMUNITY, 1861-1901

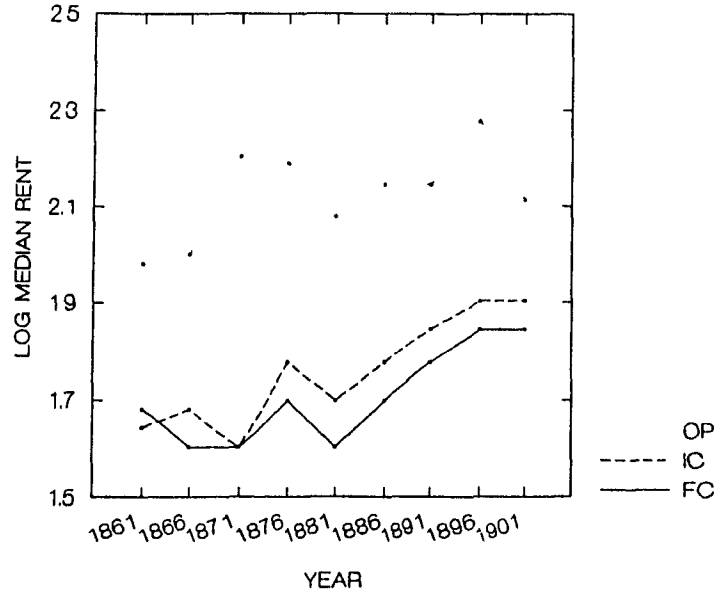



FIGURE 4.2 MEDIAN RENT PER PERSON AND CULTURAL COMMUNITY, 1861-1901

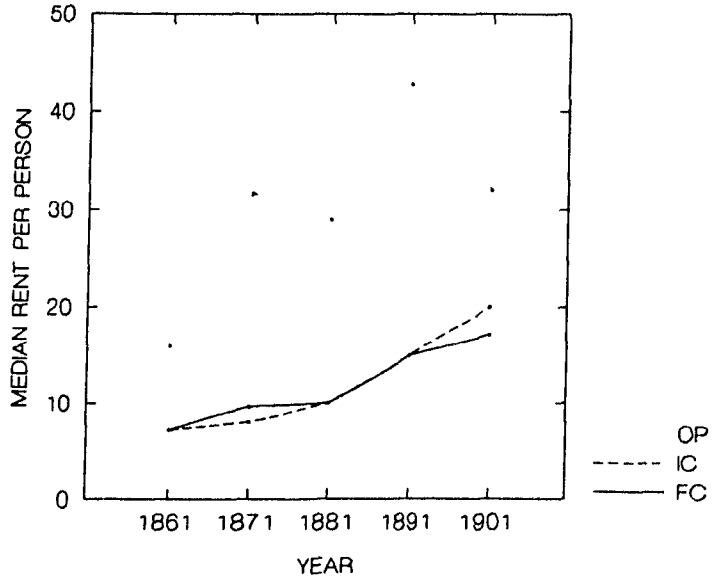
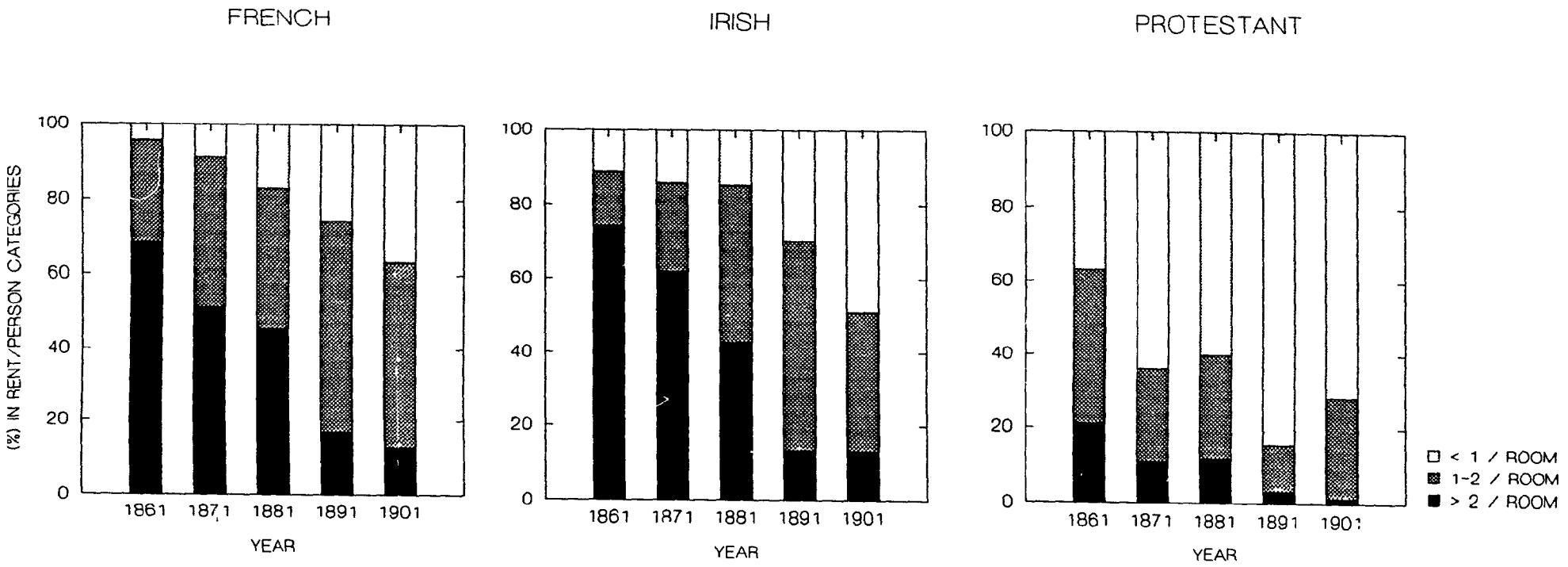


FIGURE 4.3 HOUSEHOLD SPACE AND CULTURAL COMMUNITY, 1861-1901



social status than households living in more cramped accommodations. If we look at figure 4.3, which shows the proportion of households in each community that fall into each of the three levels of household space (rent per person), we see that each community exhibits a positive upward trend. The proportion of households living in spacious accommodations increases. Once again, the graph shows Irish households notably worse off than the other two communities, but by 1901 they appear better off than the French, with a greater proportion of households living in more spacious dwellings. The majority of households in the French and Irish communities were living in cramped, over-crowded dwellings in mid-century, but by the end of the century averaged about one person per room. Protestants, on the other hand, had only one-fifth of households living in cramped dwellings in the mid-nineteenth-century, but by the end of the century the proportion of overcrowded households was negligible[21].

**INTRA-GENERATIONAL SOCIAL MOBILITY**

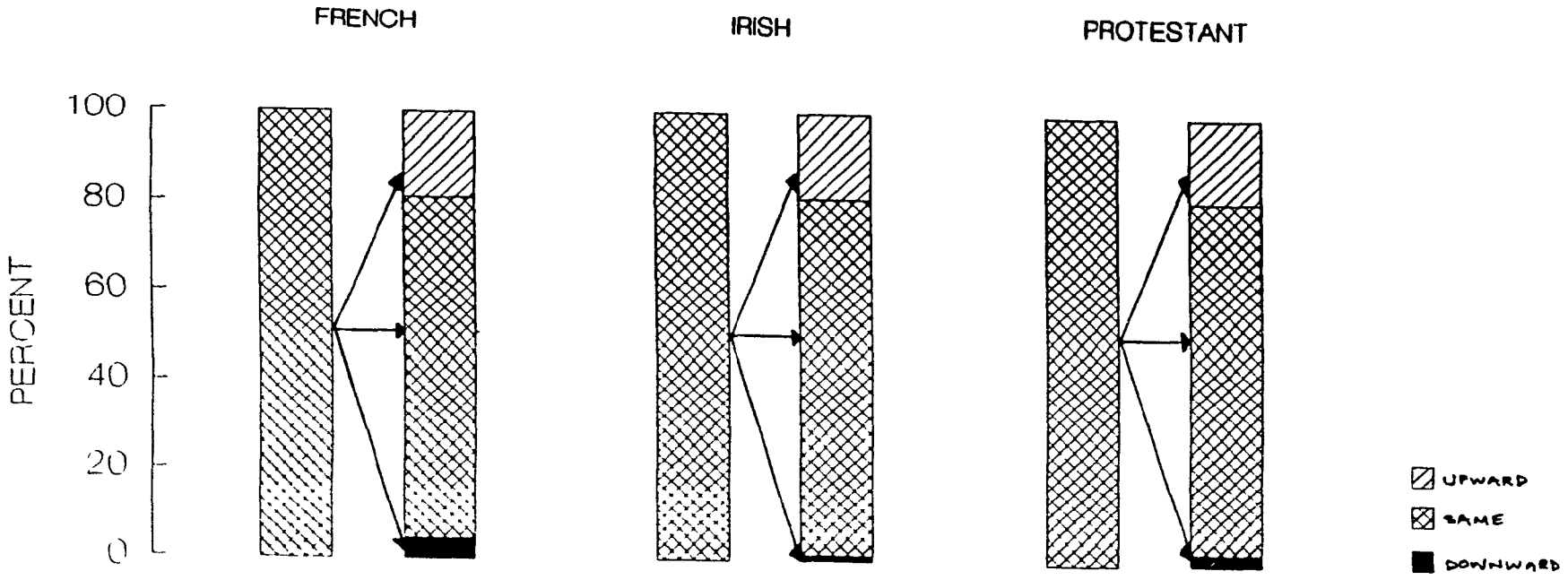
If, as argued above, rent is a good surrogate for household income and social status, and if families move in response to changes in the earning power of the household, we would expect to see in the same way, improvements in social position accompanied by residential relocation. The family's rent may be seen as a purchase of space, but the attempt to obtain a high-quality environment, and a more prestigious, respectable address to match a status image, would be better reflected in the average rent in the neighbourhood. Upward social mobility is reflected in movement to a street of higher average rent. A small percentage of households in the sample appeared to be upwardly mobile, as they consistently moved to street segments of higher median rent. I defined a household as upwardly mobile if it made at least two moves to streets of significantly higher median rent. Median rental values per street segment were compared for each individual, and if the difference was greater or lower by about 20%, then a change in status was registered[22]. A percentage difference was chosen versus an absolute difference as it represents a relative position change. (Because a $10 change from $20 to $30 is much more significant than a $10 change from $400 to $410). The figure log 0.075 was chosen as it is believed to be a decent threshold of change - it represents the difference in

rent from $80 to $95, $100 to $119, or $200 to $238, etc.[23], and since the change occurs twice, to $114, $143, $285 over 40%. This test requires that we have housing information for the family for at least fifteen years. Families for which we have less than three addresses were excluded from this particular analysis, as it would be unwise to assume that a household which has made only one move upward, is indeed upwardly mobile. Of the 255 households[24] that we could effectively trace for fifteen years or more, (therefore from 1861 to 1876 and beyond, or 1886 to 1901), one-fifth consistently improved their social environment, making two or more moves to higher rent streets (see figure 4.4). This figure was remarkably similar for each of the three major cultural communities (18.9% of French, 18.8% of Irish, and 18.7% of Protestant households).

Downward social mobility was also thought to be common in the nineteenth-century. Decreases in purchasing power of the family due to illnesses such as alcoholism, tuberculosis and death were constant reminders of a highly vulnerable nineteenth-century population. Downward mobility measured in moves to streets with lower median rent value, was less present however than upward social mobility. We see fewer households who experience a drop in social position than households who experience an increase in social position. A mere 3.1% of households that could be traced for at least fifteen years appeared to be downwardly mobile, 4.5% of French households, 1.4% of Irish households, and 2.7% of Protestant households. But this population may be much harder to keep track of: the widowed or orphaned living with relatives, the institutionalized (deaths in hospitals and asylums, victims of alcoholism - the unclaimed bodies). These people typically lose their status as heads of household, and therefore systematically disappear from record. The most downwardly mobile population, the truly down and out, are therefore lost from the over-all picture.

Are changes in social environment associated with changes in occupational-status? A small proportion of households that changed their social environment, also changed their occupational-status. About two-fifths of household heads which made moves to more prestigious streets also experienced a change in occupational title, and almost half of those title changes represented an upward shift in occupational

FIGURE 4.4 INTRA-GENERATIONAL MOBILITY AND CULTURAL COMMUNITY



status[25]. In each community, over three-quarters of household heads who moved to poorer streets had also changed their occupation, and almost three-quarters of those downwardly mobile heads who changed occupations, also dropped to a lower occupational class. Mobile households in each community had roughly the same occupational-status picture as the larger sample, but notable cultural distinctions existed with regard to downward mobility. Almost all of the moves made by Protestants to poorer streets were made by low-status households, whereas all of the moves by high-status Protestant households appeared to be to superior streets. Almost all of the moves by Irish and French households to inferior streets were also accompanied by a drop in occupational-status. Moves to higher-rent streets were most often made by household heads employed in middle and high-status occupations, with only a few low-status households being able to significantly improve their social environment. The "rags to riches" ideology does not explain the apparent social mobility among Montreal households. Surprisingly, widowhood was twice as often the cause of moves to higher rent streets, than to lower-rent streets. The probable cause for this trend was that most of the poorer widows moved in with relatives, and were therefore overlooked as they lost their status as household heads, whereas the widows who remained household heads were those who could financially afford to do so, and could also move to a better environment. Some widows recieved claims on insurance policies their husbands had taken out to support them in the event of widowhood. Many widows in this group (particularly Irish Catholics) were able to purchase a new home. Most notable improvements in the French community were made by household heads employed as carpenters and joiners who comprised almost half the households which moved to better streets.

In many instances homeownership was associated with residential stability. Owner-occupiers were much more likely to remain at one address than tenants, and the tenure composition of socially mobile households basically resembled the tenure composition of the entire sample. Approximately one-fifth of households which made moves to higher rent streets were owner-occupiers. Homeownership, I have argued, is a primary indicator of personal achievement and social status. It was hypothesized that upwardly mobile households would make frequent moves, and then settle in one

place after purchasing a home, and conversely, downwardly mobile households may lose their own home, and become tenants. Almost one-fifth of the mobile households in each community were owner-occupiers from the start (roughly the same as the larger sample). Owner households that made moves to more prestigious streets, remained as owner-occupiers. Moves by owner households to less prestigious streets, (although less than 5% of owners), were almost always accompanied by a downward shift to tenant status. Between one-tenth and one-fifth of French and Protestant households that moved to more prestigious streets also changed status from tenant to owner, whereas none of the moves associated with upward mobility in the Irish group was accompanied by a change in tenure. These rates of tenure change are not surprising, given the discussion in chapter 3 (recall table 3.5) regarding tenure mobility in the sample of 'new households'. It was noted that Protestant and French households that remained in the city for at least fifteen years greatly increased their chances of becoming homeowners (13% increase for Protestants and 17% increase for French households), while length of residence had no effect on the tenure status of Irish households. By definition, the group of households that had moved to more prestigious streets, had also existed in the city for at least fifteen years, therefore we would expect them to have at least the same chances of becoming owner-occupiers as the rest of the sample. The socially mobile group had in fact experienced roughly the same increase in owner-occupancy rates as the rest of the sample, and we would therefore be led to believe that their length of residence in the city was a major factor in their ability to become homeowners. The question that still remains to be answered is: whether length of residence in the city is the basis for success or whether improvements in social status motivate a household to remain in the city?[26] Thernstrom (1968) discovered that workers who remained in Newburyport for an extended period of time also experienced a significant degree of property mobility, but was unable to speculate whether the workers who left the city were any less successful.

Are these moves to better or worse social environments longer, or shorter than the average move? The distances of moves made by this small sample of households were similar to the average distance of moves made by households in the total

sample. The majority of moves were made over short distances, within the same district, or to an adjacent district. This pattern was especially clear for the socially mobile Irish group which made two-thirds of all status-changing moves within the same neighbourhood. In the French sample, almost two-thirds of all moves associated with downward mobility were made within the same district or to an adjoining district (roughly one-third to each), while the majority (three-fifths) of moves to more prestigious environments were to streets further away, in outlying districts. Protestant households moved the greatest distances to change their social environment - three-fifths of moves associated with upward or downward mobility were made to remote districts. Households that improved their social environment by relocating to streets of higher prestige, tended to move greater distances than the average mover in the Montreal sample, while households that experienced a reduction in social status, relocated to poorer streets within a compact geographical area. The differences in distances moved between the upwardly mobile and the downwardly mobile households are partially a result of the differing access to sources of information on available alternatives. Because the upwardly mobile group of movers appear to be of higher social-status to begin with, they also more likely have greater access to housing information, and given the dwindling supply of low-density housing in surviving inner-city enclaves, they were enticed to move further to newly built, exclusive neighbourhoods in suburban areas such as Westmount. Downwardly mobile households faced the constant necessity to move on because of the inability to pay the rent, which was, according to Ames (1897) "one of the sad features of poverty's lot" (p.74). They maintained more restricted fields of activity, and were dependent upon information supplied by workmates and neighbours; therefore it was not surprising that they remained within a short walk of the local parish or pub.

**INTER-GENERATIONAL MOBILITY: FATHERS AND SONS**

Inter-generational upward social mobility is defined as an improvement in social status from father to son, or father to son to grandson. To determine the extent of inter-generational mobility, occupational titles were examined for a set of fathers and sons for the Irish community, between 1861 and 1901[27]. An examination of occupational status, using median rent classification as explained in

chapter 2, revealed that 17.7% of fathers were employed in high-status occupations, 57.3% were employed in middle-status occupations, and 25.0% were employed in low-status occupations. Irish sons as a group were employed in higher-status occupations than their fathers, with 26.5% employed in high-status occupations, 45.5% in middle-status, and 28.0% in low-status occupations (see figure 4.5)[28]. Irish sons clearly followed in their father's footsteps, with 59.5% being employed in a same status occupation as their father, and more than one-quarter (26.2%) being employed in the identical occupation[29]. In the larger group of fathers and sons, more sons were employed in low-status occupations (28%) than fathers (25%). Looking however, at individual pairs, approximately 31.0% were employed in higher status occupations, while only one-tenth of sons (9.5%) failed to achieve the status of their fathers (see table 4.1, figure 4.6).

TABLE 4.1

INTER-GENERATIONAL OCCUPATIONAL MOBILITY IN FRENCH AND IRISH COMMUNITIES

| | Upward (%) | Same (%) | Downward (%) | N |
|---|---|---|---|---|
| French Sons | 31.3 | 56.2 | 12.5 | 160 |
| Grandsons | 43.8 | 50.0 | 6.2 | 32 |
| Irish Sons | 31.0 | 59.5 | 9.5 | 84 |

*28.8% of French sons, and 26.2% of Irish sons were employed in the identical occupation as their father. 25% of the French sons were employed in the same occupation as their grandfather.

A similar analysis of inter-generational mobility was performed on the French sample. A file containing 160 pairs of fathers and sons, and 35 sets of fathers, sons, and grandsons were identified. An examination of fathers' and sons' occupations indicates that there was a small degree of upward mobility between generations for the French community in Montreal. Approximately 5.9% of fathers were employed in high-status occupations, 64.1% were employed in middle-status occupations, and 30% of fathers were employed in low-status occupations. Sons as a group, were of higher status on average: 14.9% in high-status occupations, 64.9% in middle-status occupations, and 20.1% in low-status occupations (see figure 4.5). An upward trend in inter-generational mobility is confirmed when examining the titles of a set of grandfathers, who were of lower status than either fathers or sons with 31.4% employed in low-status jobs, 68.6% in middle-status, and a complete absence from the high-status ranking.

FIGURE 4.5 INTER-GENERATIONAL OCCUPATIONAL-STATUS IN IRISH AND FRENCH COMMUNITIES

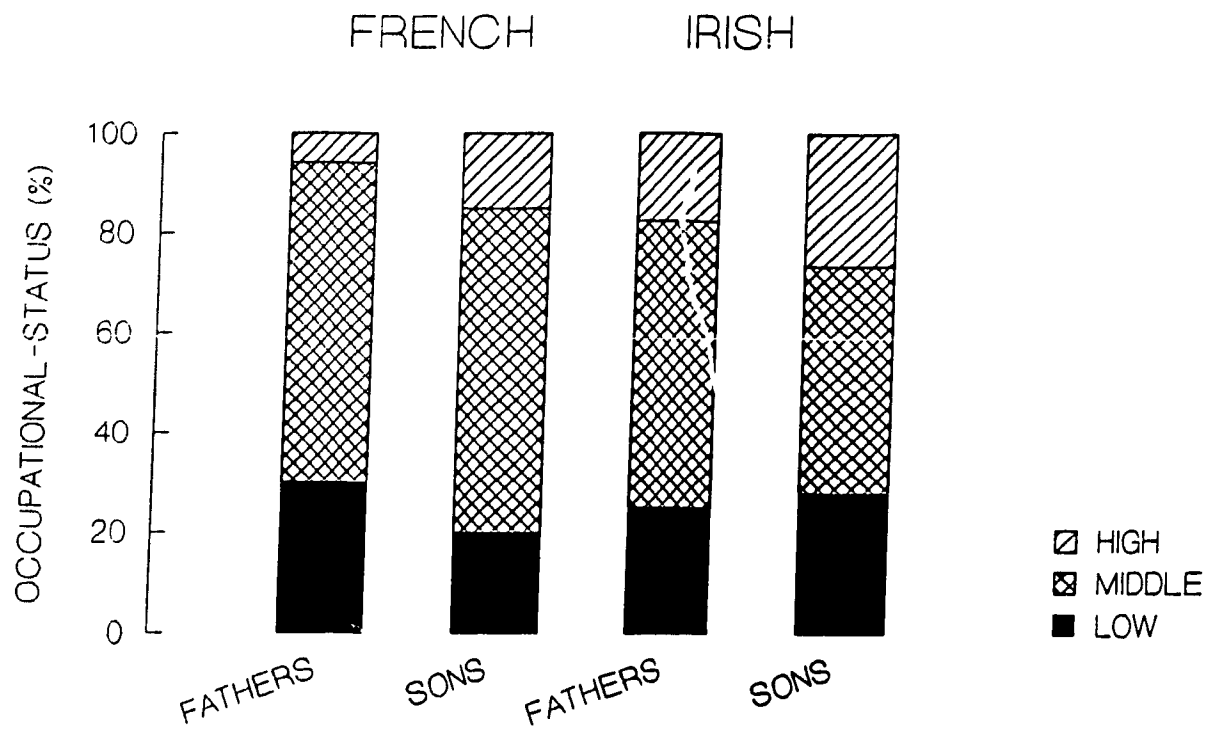
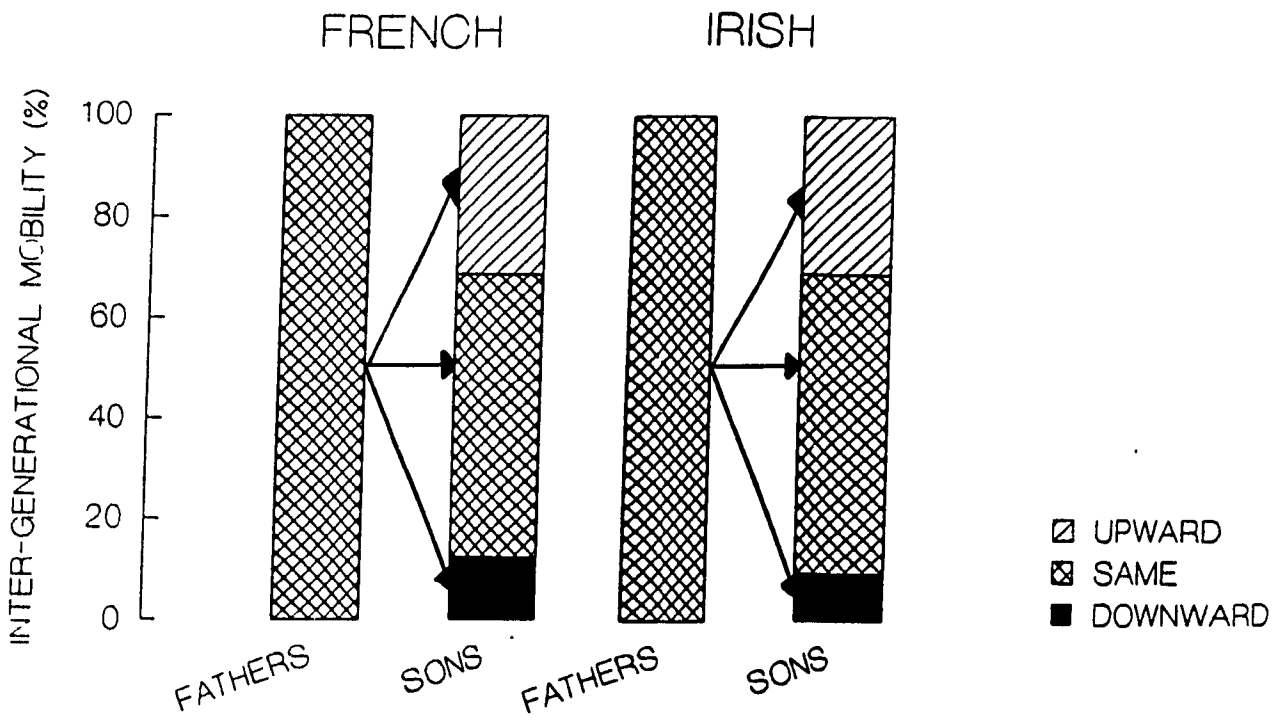



FIGURE 4.6 INTER-GENERATIONAL OCCUPATIONAL-MOBILITY IN IRISH AND FRENCH COMMUNITIES



The group of fathers and sons basically represent two different birth cohorts, fathers were born at the beginning to mid-century, while sons were born on average around the middle to late-century (although some fathers may also appear as sons). Each father on average, appears two to three times, given the number of working sons. There are several possibilities which may explain the observed pattern of occupational-status between fathers and sons. If there is no relationship between the occupation of father and son, and there was no trend in the economy, we would expect to see 6% of French sons employed in high-status occupations, 64% in middle-status, and 30% in low-status occupations, just as in the group of fathers. If occupation of son is unrelated to occupation of father, but the economy is generating a high overall standard, or if there is simply an upward mobility that exists with city experience due to native birth, we may expect to see 15% of all French households in the latter half of the century employed in high-status occupations, 65% in middle-status, and 20% in low-status occupations, such as the status picture for sons. In fact, the occupational-status picture of French households between 1861 to 1901 (referring back to figure 3.15) did improve slightly, but it is impossible to say whether this was a result of external economic factors, or improvement between generations, or both. To estimate status improvements without the bias of economic trends over time, it is possible to consider occupations of fathers and sons at one specific time however, an age bias would result from a time-specific measure, as it is inaccurate to compare a son's occupation at age 20, to his father's occupational achievement at age 40, as it has been shown that status usually improves with age. More detailed analysis must be performed before any distinct conclusions can be made.

When comparing the occupations of sons to the occupations of their fathers, pair by pair (figure 4.6, table 4.1), we find a somewhat more substantial shift upward. About half (56.2%) of the sons were employed in the same occupational rank as their fathers, and more than one-quarter (28.8%) in precisely the same occupation. Almost one-third of sons (31.3%) achieved a level of occupational success greater than their fathers, and only one-eighth (12.5%) could be considered downwardly mobile. The trend is continued over a third generation as 43.8% of grandsons where employed in higher-status occupations, while only 6.2% of grandsons were employed

in lower-status occupations than their grandfather.

Sons in the French and Irish communities experienced a similar degree of social mobility: about one-third of sons achieved a level of occupational success greater than their father, and one-tenth of sons were not as successful as their fathers, while sons from both communities were most likely to follow in their fathers' footsteps. Whether sons were better off than their fathers because of the upward trend in the general economy (except for depressions of 1873, and 1893), or because of their familiarity with the city due to native birth is still unknown.

**SOCIAL MOBILITY AND BIRTHPLACE**

Inter-generational mobility can also be inferred from an analysis of occupational status of both foreign-born and native-born workers. The majority of fathers were first generation immigrants, born in Ireland, Britain, or rural Quebec. Sons on the other hand, were primarily born in Canada, specifically Montreal. Immigrant status can be examined in relation to ethnic status to determine its effects on occupational status, and rates of persistence. Thernstrom (1964) found that foreign birth played a "crippling role" in occupational mobility in nineteenth-century Newburyport. Sennett (1970) found it equally hard for foreign-born workers to advance far up the occupational ladder in nineteenth-century Union Park, Chicago. The most distinguishing feature of foreign-born fathers in Union Park was their variable work experience, more unstable than that of the native-born (Sennett, 1970), and according to Ames (1897), households in nineteenth-century Montreal most often reported variability of work as the reason they were poor.

Immigrant status also had an effect on the level of occupational success achieved in the Irish Catholic community of Montreal. Foreign-born workers were less successful than workers born in Canada (see table 4.2). A mere one-tenth (10.3%) of household heads born in the "old country" were ever employed in high-status occupations, 62.4% in middle-status occupations, and 27.4% of foreign-born

TABLE 4.2

OCCUPATIONAL STATUS (MRC) OF IRISH-BORN AND CANADIAN-BORN IRISH CATHOLIC HOUSEHOLD HEADS

| Status | High (%) | Middle (%) | Low (%) | N |
|---|---|---|---|---|
| Irish-Born | 10.3 | 62.4 | 27.4 | 117 |
| Canadian-Born | 28.4 | 55.2 | 16.4 | 67 |

household heads never gained employment out of the ranks of low-status. Native-born Irish Catholic household heads reached the ranks of high-status more often (28.4%), and had fewer members employed in middle-rank occupations (55.2%) and low-status occupations (16.4%).

Immigrant status also had a profound effect on the opportunities for advancement within the French community. Table 4.3 provides evidence to support this claim, while figure 4.7 displays this effect graphically compared to the Irish and Protestant communities. Household heads who were born in Montreal were on average, employed in higher status occupations than household heads born outside Montreal. The native Montrealer group had 16.7% employed in high-status occupations, 63.8% employed in middle-status occupations, and 19.5% employed in low-status occupations, while status proportions were 7.5%, 63.5%, and 29.0% respectively for immigrant household heads. The family life-cycle stage one has reached by time of immigration has an effect on chances of securing employment in a high-status occupation. Over one-tenth (12.0%) of immigrants who came to Montreal as a child with parents were eventually employed in high-status

TABLE 4.3

OCCUPATIONAL STATUS (MRC) OF RURAL-BORN VS. MONTREAL-BORN FRENCH CANADIAN HEADS

| Status | High (%) | Middle (%) | Low (%) | N |
|---|---|---|---|---|
| Born in MTL | 16.7 | 63.8 | 19.6 | 138 |
| IM1 | 12.0 | 56.0 | 32.0 | 25 |
| IM2 | 7.4 | 77.8 | 14.8 | 54 |
| IM3 | 3.6 | 42.9 | 53.6 | 28 |
| Rural-Born | 7.5 | 63.6 | 29.0 | 107 |

*Immigrant status is defined as follows: IM1 as a child with parents, IM2 on own before marriage, IM3 married with own children or following children.
Rural-born represents all heads born outside Montreal (sum of IM1, IM2, and IM3).

occupations, while only 7.4% of immigrants who came on their own before marriage gained employment in a high-status occupation, and a mere 3.6% of immigrants who were already married, usually with children when they came to Montreal, ever achieved success in the form of a high-ranking occupation.

An examination of foreign-born versus native-born household heads in the Protestant community failed to provide any distinctions between the two groups (table 4.4, figure 4.7). Two-fifths of foreign-born heads (40.0%) and native-born heads (41.6%) were employed in high-status occupations. About half of all foreign-born

FIGURE 4.7 OCCUPATIONAL-STATUS OF FOREIGN-BORN VERSUS NATIVE-BORN HOUSEHOLD HEADS AND CULTURAL COMMUNITY

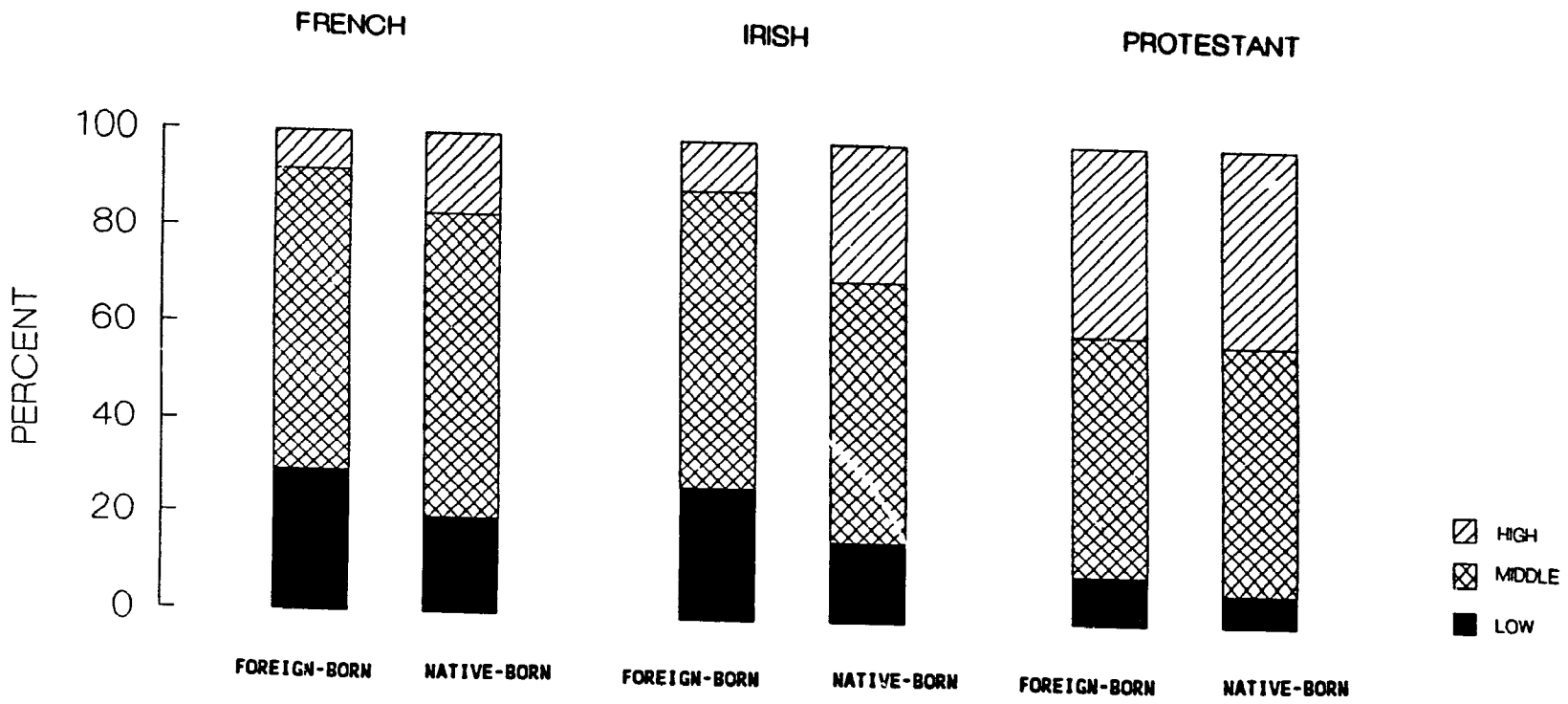


TABLE 4.4

OCCUPATIONAL STATUS (MRC) OF BRITISH-BORN AND CANADIAN-BORN PROTESTANT HOUSEHOLD HEADS

| Status | High (%) | Middle (%) | Low (%) | N |
|---|---|---|---|---|
| British-Born | 40.0 | 50.5 | 9.5 | 95 |
| Canadian-Born | 41.6 | 51.7 | 6.7 | 89 |

(50.5%), and native-born heads (51.7%) were employed in middle-status occupations, and less than one-tenth of both foreign-born (9.5%) and native-born (6.7%) were low-status workers. There appeared to be little difference in the level of occupational-status achieved between native-born and foreign-born Protestants. Protestant household heads born in England, Scotland, Ireland, or Wales came to Canada with considerable resources - sometimes wealth and skills. This distinction separated them from the Irish Catholic immigrants many of whom came to Canada virtually penniless.

In addition to the use of inter-generational occupational mobility as a surrogate for inter-generational social mobility, other variables such as rental value, father's earnings, and total family income can be added to the analysis. French household heads who were born outside Montreal, earned less in 1901 than household heads who were born in Montreal ($450 vs $520) (see table 4.5). The total income earned by their families was also less than families with heads born in Montreal ($500 vs $650). The median rental value paid by household heads born outside Montreal was the same as the median rent paid by their counterparts, at $40 each in 1881, and $60 each, in 1901.

Consistent differences in the income statistics of Irish-born and Canadian-born Irish Catholic household heads also appeared to exist. Using values from the 1901 census, we see that Irish-born fathers made less than Canadian-born fathers ($480 vs $500), but, the total family income of Irish-born family heads was higher than the total family income of families with Canadian-born heads ($663 vs $630). This peculiarity is primarily a result of the fact that the families of men born in the "old country" are on average, at a later stage of the life-cycle, they are older, and therefore have older children who can help contribute to the family income. This extra contribution to purchasing power may be the primary reason why Irish-born

TABLE 4.5

INCOME DIFFERENCES* BETWEEN RURAL-BORN AND MONTREAL-BORN FRENCH HOUSEHOLD HEADS, 1901

| | Father's Income ($) | Family Income ($) | Household Rent ($) |
|---|---|---|---|
| Rural-Born | 450 | 500 | 60 |
| Montreal-Born | 500 | 650 | 60 |

*values expressed here are group medians

TABLE 4.6

INCOME DIFFERENCES* BETWEEN IRISH-BORN AND CANADIAN-BORN HOUSEHOLD HEADS OF IRISH CATHOLIC ORIGIN, 1901

| | Father's Income ($) | Family Income ($) | Household Rent ($) |
|---|---|---|---|
| Irish-Born | 480 | 663 | 96 |
| Canadian-Born | 500 | 630 | 80 |

*values expressed here are group medians

TABLE 4.7

INCOME DIFFERENCES* BETWEEN BRITISH-BORN AND CANADIAN-BORN HOUSEHOLD HEADS OF PROT. ORIGIN, 1901

| | Father's Income ($) | Family Income ($) | Household Rent ($) |
|---|---|---|---|
| British-Born | 574 | 900 | 130 |
| Canadian-Born | 600 | 1000 | 130 |

*values expressed here are group medians

heads of household pay more in rent than household heads born in Canada ($96 vs $80). Protestant fathers born in Britain earn slightly less than fathers born in Canada ($574 vs $600). The total family income of British-born heads is also lower ($900 vs $1000). The rental value for British-born and Canadian-born households is however, about the same ($130). The results of these income tests for Protestants, as well as the tests for French and Irish, do not provide results drastically different from the results reported for the analysis of occupational status, therefore, in this case, occupational mobility is an adequate surrogate for social mobility.

Occupational status profiles of households in each cultural community shown in Chapter 3 (figures 3.14 and 3.15), do not suggest that the three communities were any more successful in 1901 than they were in 1861, except perhaps the Irish community. Several surrogates for social status, including rent, rent per person, and income, however, tell a different story. Households of each community in 1901, experienced greater residential satisfaction than households in 1861. The most

impressive feature of this change is that households became less crowded over time.

Results of tests for intra-generational mobility suggest that in each community nearly one-fifth of the households that could be traced in Montreal for at least fifteen years was upwardly mobile. About one-fifth of all households consistently made moves to higher-rent streets. It would be interesting to know whether the households that left the city experienced the same degree of social mobility as the households that remained in the city, to more accurately estimate the effect of length of residence. The level of success was roughly equal for households from each community. A considerable amount of inter-generational mobility also existed in nineteenth-century Montreal. Sons were more successful than their fathers in both the Irish and French Canadian communities. Montreal-born workers appeared to reach much higher levels of occupational achievement than foreign-born or rural-born workers, particulary in the Irish and French communities. The differences in occupational success rates of foreign-born versus native-born workers may be results of familiarity or favouritism. Workers born in Montreal are more familiar with the city and its businesses, and therefore perhaps have a greater knowledge of how to succeed in their local economy. Another major reason they have more success is a more effective web of connections. Examples of nepotism in the workforce are displayed in the sample case studies in chapter 5. Canadian-born workers have stronger place ties, have more friends and relatives in the region, and therefore a greater number of connections. The old saying, "It's not what you know, but who you know", indeed, describes an old practice. Birthplace had little effect on the occupational success rates observed among Protestant workers. Darroch and Ornstein (1980) explain the differences in occupational distributions of immigrant groups of varying ethnicity by the differences in the skills and financial resources they bring with them. Protestants were highly skilled, and well off financially when they arrived in Montreal, compared to the much poorer Irish Catholics, and French from rural Quebec.

## THE GEOGRAPHY OF MOVES

Chapter 3 has investigated the question of who moves. Multivariate analysis has accurately estimated that households which persist at the same address are more often owner-occupiers, older, Protestant, and higher-status than households that move. Another important question to be answered in any study of household mobility is: Where do households move? Spatial characteristics of actual moves are as important to this research as the question of which households move. We already know from an analysis of "city-wide" or "intra-city" persistence in chapter 3, that almost one-third of continuing households, and just over one-half of new households in the sample disappear from analysis in any five-year period. These disappearances are primarily the result of out-migration, death, and the complications of record-matching. The geographical destinations of this elusive group, (also known as the "removal" category), for whatever reason, are not available for analysis. The questions which remain to be answered are: What happens to the people who remain somewhere within Montreal, and, more specifically, how far do they move? Approximately one-half of French, and three-fifths of Protestant and Irish Catholic households which remain in Montreal over five years, also remain within the same street segment and in most cases presumably the same dwelling. What happens to the other half of French, and two-fifths of the Irish and Protestant households that did not remain in the same dwelling? Table 4.6 shows the destinations of the households whose presence in the city we can confirm over the next five years.

TABLE 4.6

DESTINATION OF MOVES WITHIN MONTREAL, 1861-1901

| | WITHIN SEGMENT | SAME DISTRICT | ADJACENT DISTRICT | NON-ADJACENT DISTRICT | N |
|---|---|---|---|---|---|
| 1861-71 | (61.5) | 5.4 | 55.4 | 39.2 | 148 |
| 1871-81 | (61.7) | 5.2 | 57.1 | 37.7 | 196 |
| 1881-91 | (56.8) | 16.5 | 48.6 | 34.9 | 252 |
| 1891-01 | (51.8) | 18.7 | 37.4 | 44.0 | 345 |

For each decade (1860s, 70s, 80s, and 90s), the values represent the percentages ofhouseholds which stay within the same street segment (as a proportion of all households that remained in the city); as well as percentages of households which move to another segment: within the same district, in an adjacent district, or in a

district further away (as a percentage of all within-city movers), in five-year study periods[30]. To facilitate examination, the city was divided into several districts (smaller than the administrative wards). Each district was collection of street segments, fairly homogeneous in socio-economic characteristics. A map of the districts of Montreal for 1901, can be seen in appendix 1. A move within a district could be anywhere in length between a few feet down a street, to three kilometres (the furthest possible move within district 41 - the largest district). Over-two-thirds of all districts were less than one kilometre from corner to corner (median 0.75 km), therefore a move within a district usually meant a move of less than 750 metres. A move to an adjoining district could be anywhere in length from 50 feet across a boundary road, to three and a half kilometres (the longest possible move between districts 41 and 40). The median distance between the furthest points of two neighbouring districts was approximately one and one-quarter kilometres, and the median distance from centre to centre of adjoining districts was approximately two-thirds of a kilometre. Therefore, a move between two neighbouring districts was probably about one kilometre in length. Moves to a non-adjacent district could have been anywhere from one-sixth of a kilometre (the shortest possible distance between districts 36 and 38), to ten kilometres, the distance between districts 57 and 58, or the width of the city in 1901. Moves of this sort were assumed to be more than one kilometre from origin. Figure 4.8 (based on table 4.6), displays these relocation decisions graphically, and it is apparent from the relative sizes of the rings that more people are staying within the same district by the end of the nineteenth-century. This is perhaps partly due to districts becoming more developed by the end of the century, leaving households a greater number of options within their neighbourhood. It is also apparent that more households are making more long-distance moves by the end of the century. Relocation decisions of the 1890s contribute to more households moving to districts further from their place of origin. One possible reason is that the population of Montreal increased rapidly during this period, and consequently the city also grew in area, pushing its limits further into the countryside. Figures 4.9 and 4.10 showing the location of households in the three cultural communities, in Montreal, in 1891 and 1901, as well as the average destination of movers illustrates an apparent

**FIGURE 4.8 DESTINATION OF MOVES WITHIN MONTREAL, 1861-1901**

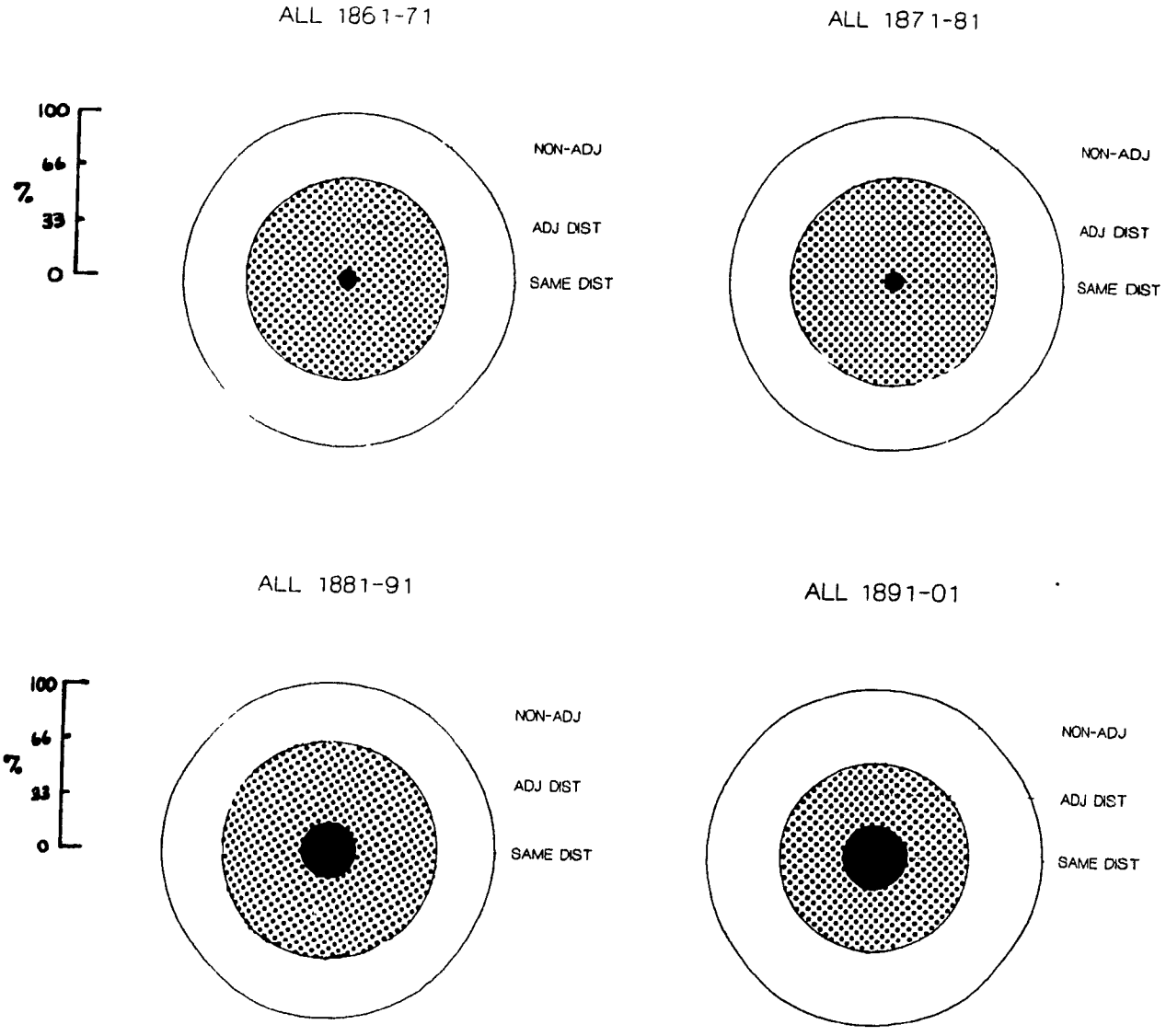


FIGURE 4.9 AVERAGE DESTINATION OF MOVES, 1881-1891 AND LOCATION OF SAMPLE HOUSEHOLDS, 1891

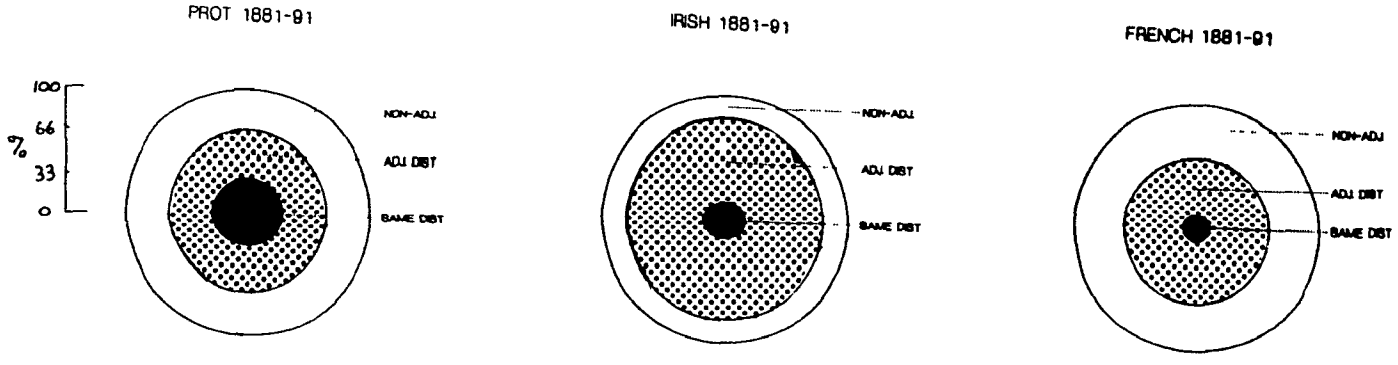
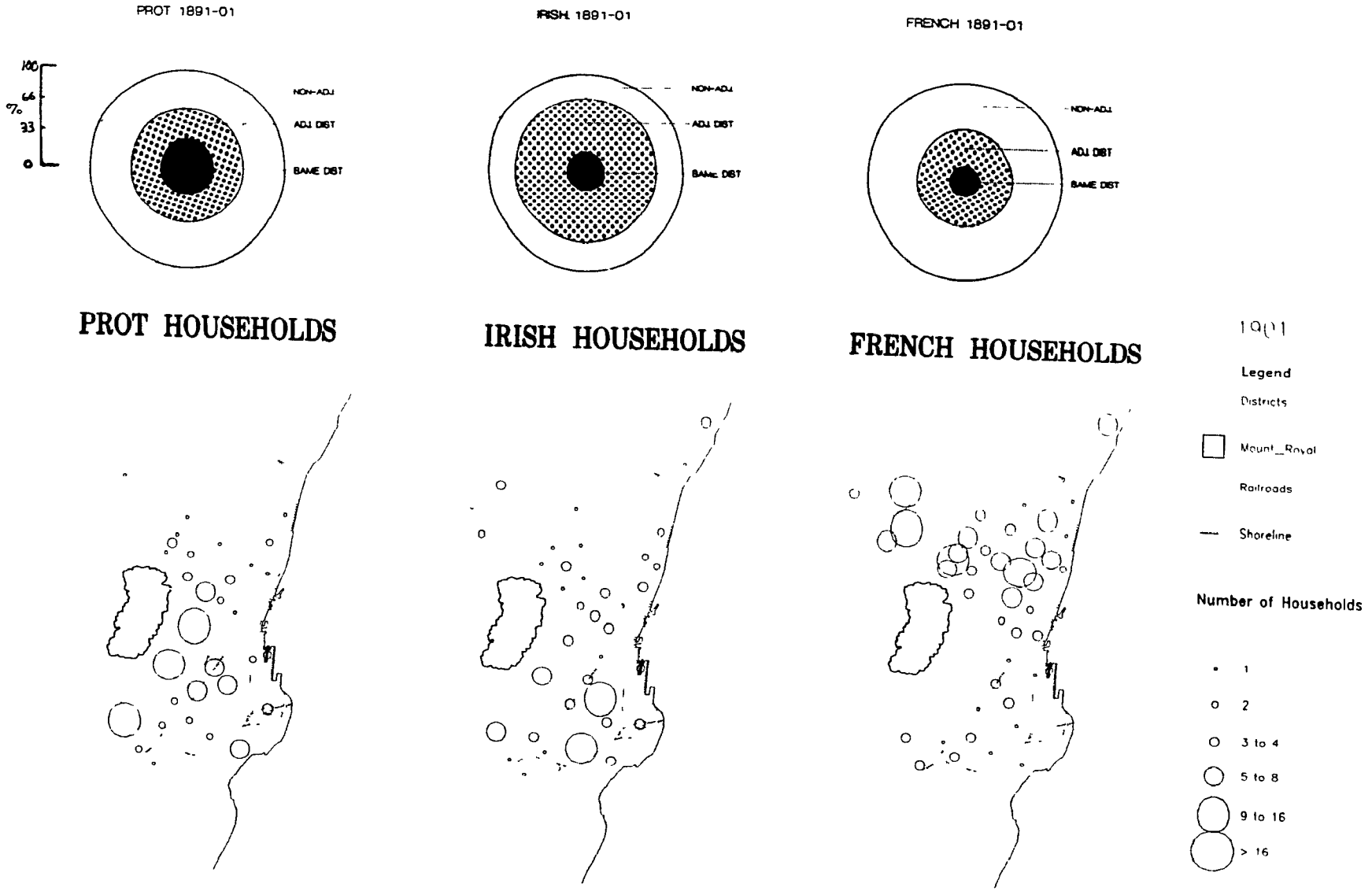


FIGURE 4.10 AVERAGE DESTINATION OF MOVES, 1891-1901 AND LOCATION OF SAMPLE HOUSEHOLDS, 1901



flow of population to the East, West and especially North, also the increased radius of the 'hole' in the 'doughnut' - the central business district becoming less populated, as well as the low-density district occupied by the wealthy and middle-class, and the increased allotment of land for railway yards. Technological developments in mass transportation brought the electric tramway to Montreal in 1891, which meant that salaried workers could live further away from their place of employment, and were not restricted to walking distance, which according to Hoskins (1986) was approximately 2 miles (3.2 km) in nineteenth-century Montreal.

Relocation behaviour is slightly different for households from each cultural community. Figures 4.11 and 4.12 (based on data in table 4.7) both display for the households whose presence within the city is known, the proportion who remain on the same street segment - most likely the same dwelling, as well as the proportion of households which moved to neighbouring streets within the same district, streets

TABLE 4.7

DESTINATION OF MOVES AND CULTURAL COMMUNITY, 1861-1901

FRENCH COMMUNITY

| | WITHIN SEGMENT | SAME DISTRICT | ADJACENT DISTRICT | NON-ADJACENT DISTRICT | N |
|---|---|---|---|---|---|
| 1861-71 | (55.1) | 4.5 | 54.5 | 40.9 | 48 |
| 1871-81 | (59.7) | 3.6 | 53.6 | 42.9 | 67 |
| 1881-91 | (51.7) | 10.7 | 48.2 | 41.1 | 116 |
| 1891-01 | (46.7) | 14.8 | 34.1 | 51.1 | 165 |
| 1861-01 | (51.5) | 10.8 | 43.3 | 45.9 | 394 |

IRISH COMMUNITY

| | WITHIN SEGMENT | SAME DISTRICT | ADJACENT DISTRICT | NON-ADJACENT DISTRICT | N |
|---|---|---|---|---|---|
| 1861-71 | (66.7) | 15.4 | 61.5 | 23.1 | 39 |
| 1871-81 | (64.8) | 10.5 | 68.4 | 21.1 | 54 |
| 1881-91 | (56.1) | 16.0 | 64.0 | 20.0 | 57 |
| 1891-01 | (58.8) | 18.2 | 54.6 | 27.3 | 80 |
| 1861-01 | (60.9) | 15.6 | 61.1 | 23.3 | 230 |

PROTESTANT COMMUNITY

| | WITHIN SEGMENT | SAME DISTRICT | ADJACENT DISTRICT | NON-ADJACENT DISTRICT | N |
|---|---|---|---|---|---|
| 1861-71 | (56.8) | 0.0 | 52.4 | 47.6 | 51 |
| 1871-81 | (61.3) | 3.3 | 53.3 | 43.3 | 75 |
| 1881-91 | (64.5) | 28.6 | 35.7 | 35.7 | 79 |
| 1891-01 | (55.0) | 26.7 | 31.1 | 42.2 | 100 |
| 1861-01 | (59.3) | 16.9 | 41.1 | 41.9 | 305 |

FIGURE 4.11 DESTINATION OF MOVES WITHIN MONTREAL BY CULTURAL COMMUNITY, 1861-1901

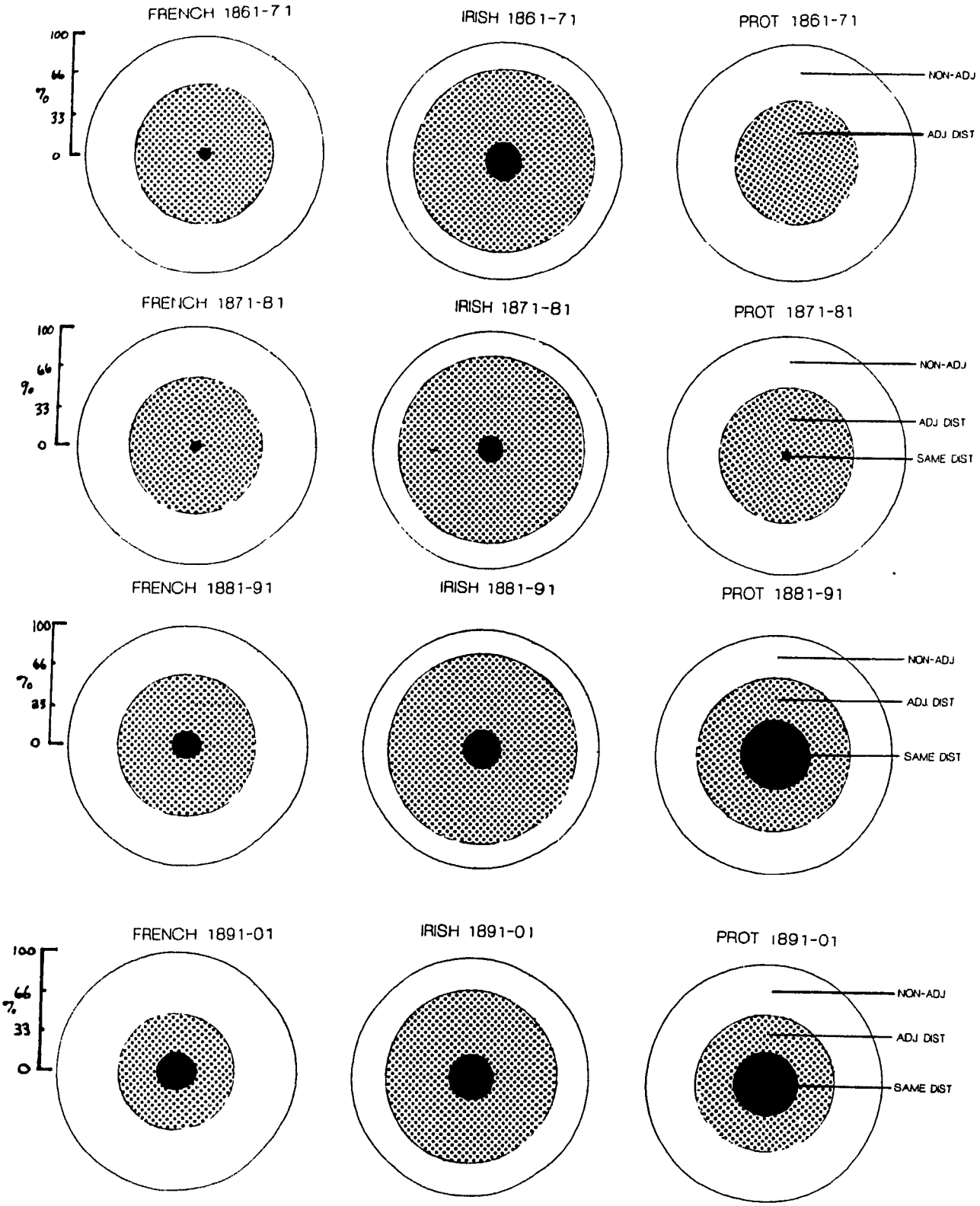
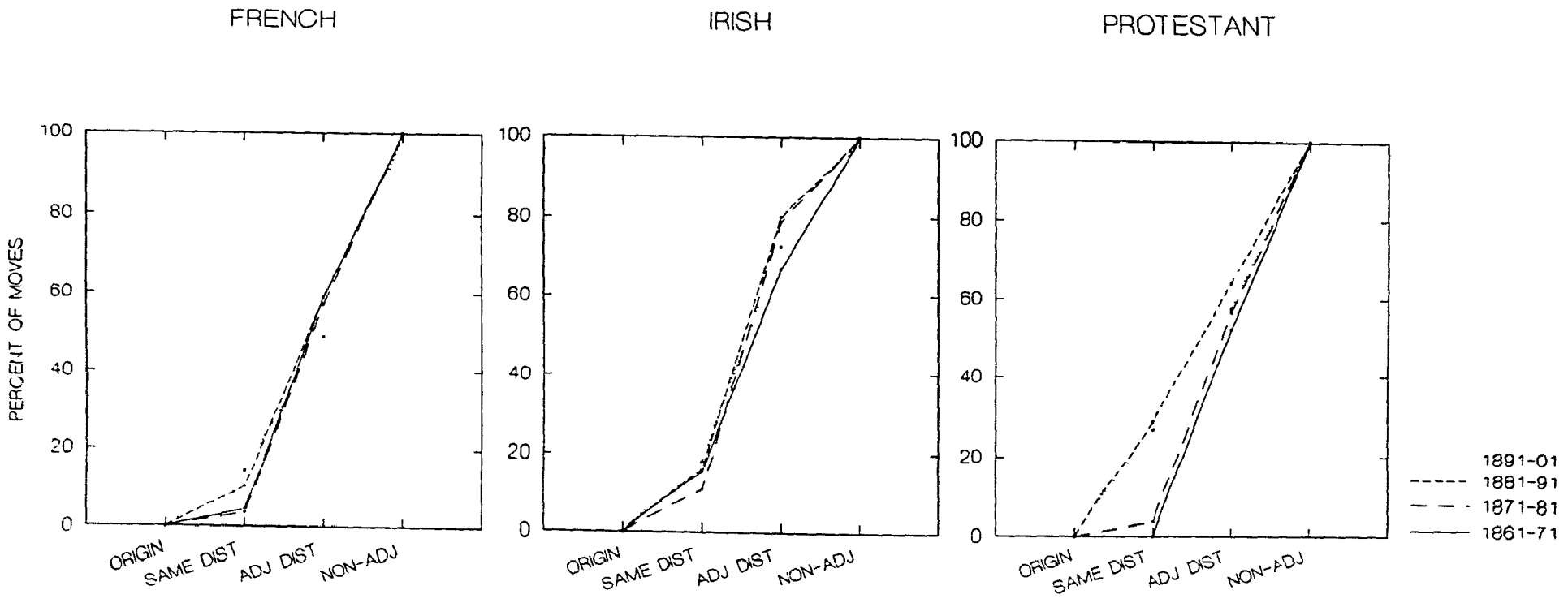


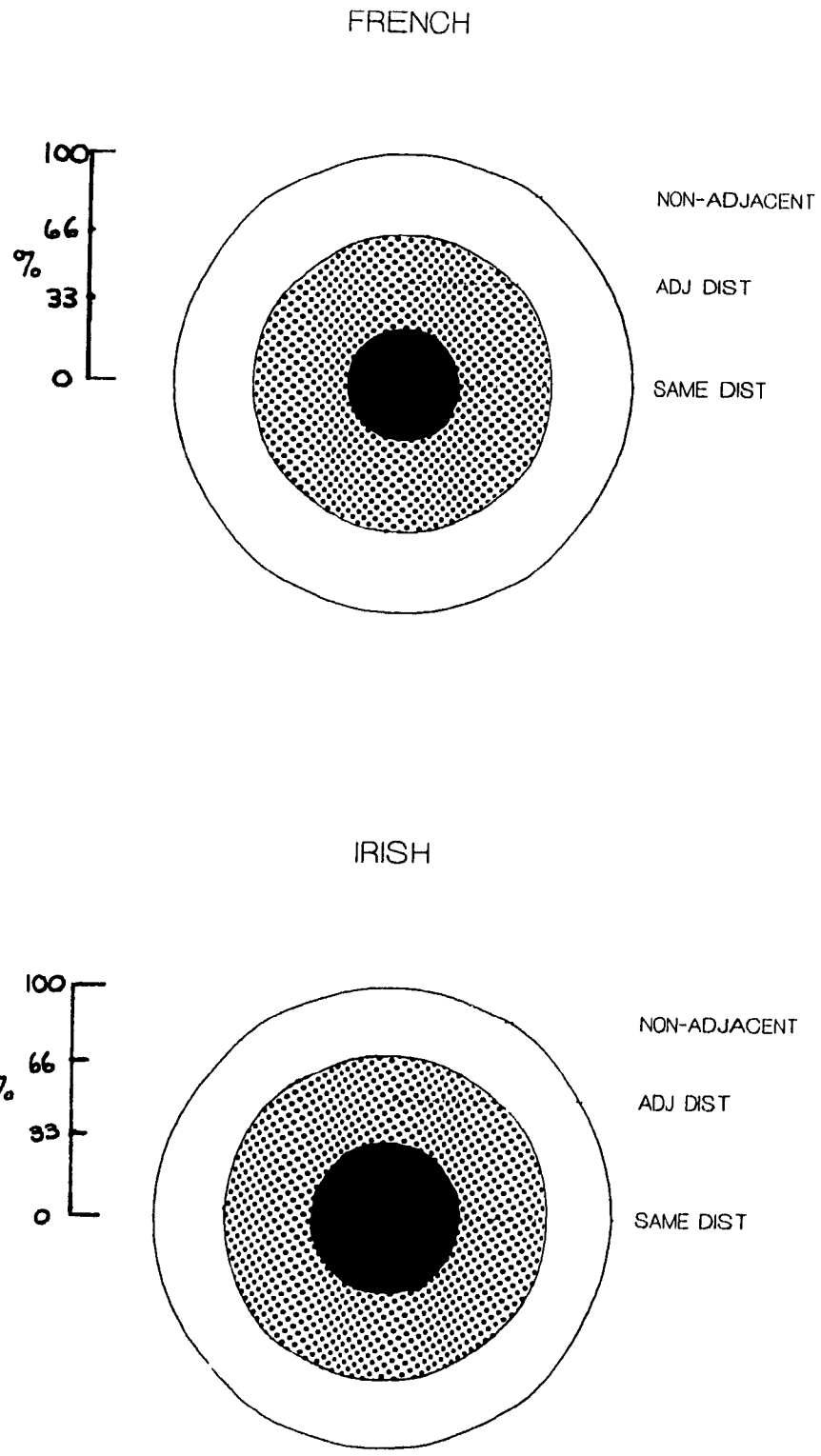
FIGURE 4.12 CUMULATIVE DISTRIBUTION OF MOVES WITHIN MONTREAL BY CULTURAL COMMUNITY, 1861-1901



within a neighbouring district, or to a district further away. The Irish sample was the most spatially concentrated population, making more moves within a short distance than any other group, while the French sample were more dispersed, making more long-distance moves within the city, further away from their points of origin. Protestant households tended to remain at the same address; however, compared to Irish Catholics - the other half of the anglophone community - Protestants were also likely to move further within the boundaries of the city. Almost three-fifths of allIrish and Protestant households, and half of all French households who remained in the city over a five-year period, stayed in the same street segment. Approximately 6% of all French, Irish, and Protestant households remaining in Montreal, moved to a neighbouring block within the same district. Another one-fifth of all households moved to a neighbouring district, adjacent to their former district. The remaining one-fifth of French and Protestant households and one-tenth of Irish households moved further, to a district not bordering their former district of residence.

The three major cultural communities in nineteenth-century Montreal were highly segregated. The Irish were the most spatially compact population in the city. They also appeared to migrate out of the city at a rate higher than any other community (as suggested in chapter 3), probably in search of labouring employment in other cities. They were the least skilled population in Montreal, had a greater proportion of household heads employed in lower status occupations, than French and Protestant workers. They located themselves next to their place of employment; although many labourers did not have a steady 'place of employment', Irish labourers tended to reside near the canal, or railway yards where many labouring jobs were found in Montreal. They located themselves near concentrations of 'living opportunities', yet could rarely afford to live in the centre of the city. Family and neighbourhood ties were especially strong in the Irish community. The strength of family ties in the Irish community is reiterated in figure 4.13, which displays the location of a group of sons, with respect to the location of their fathers. Almost one-third of the fathers (32.4%) lived in the same district as their sons, and almost two-fifths (38.2%) lived in a neighbouring district. Less than one-third (29.4%) in non-adjacent districts - which could have been just a kilometre away, or across town.

FIGURE 4.13 SPATIAL PROXIMITY OF FATHERS AND SONS IN FRENCH AND IRISH COMMUNITIES



When Irish households moved, they appeared to stay closer to their point of origin, and were less likely to stray from the familiarity of their present neighbourhood, parish, or homes of their family.

The French sample households on the other hand, made more long distance moves within the city than any other group. The most obvious reason for this pattern of relocation is that they had more places to go. Montreal in the nineteenth-century was highly segregated, and was almost two-thirds French, and the French population covered slightly more territory than the English-speaking Protestant or Irish Catholic enclaves. The French nevertheless had strong parish and kinship ties. The places of residence for a group of fathers and sons in the French community were also examined. The results of this analysis, also, shown in figure 4.13, confirm the hypothesis of a strong desire to be close to family. Almost one-quarter (23.7%) of sons and fathers examined lived in the same district, just a street or so away. Over two-fifths (41.2%) of this group resided in the same general neighbourhood - in an adjacent district. While just over one-third (35.1) of the father and son pairs lived further away, in a non-adjacent district.

The results of the geographical analysis are close to what was expected based on the modern literature. Modern literature supposes that most moves are short. The results of analysis in chapter 3 indicate that almost half of all moves were made out of the city, but this figure is most likely inflated, due to an incomplete account of deaths. Results of the present chapter accurately indicate that most moves within the city were over short distances; more moves were made within the same neighbourhood, rather than between neighbourhoods. Relocation decisions of the 1890s contribute to more households moving to districts further from their place of origin. It was suggested that a possible reason for the increase in average distance moved by households was that the population of Montreal increased rapidly during this period, and consequently the city also grew in area, pushing its limits further into the countryside. The electric tram was also introduced, and cheap mass transportation meant that a portion of the population was no longer restricted to live within walking distance of their workplace. Most households were extremely mobile, yet the majority of families still tended to remain within close proximity of their kin.

# CHAPTER 5: MOBILITY AND THE HOUSEHOLD ADJUSTMENT PROCESS

In the nineteenth-century, the family life-cycle ran at a much faster pace; lives were shorter, marriages ended sooner, and gross rates of family formation and family dissolution were high. As individuals pass through stages in the life cycle, the size of their household changes, the needs of its members change, and their earning capacity shifts. People at certain ages, or stages of the life cycle, are more likely to move; as well, modern literature has emphasized the importance of psychological attachments to dwelling and neighbourhood, in regard to the development of inertia with age. In fact, bivariate and multivariate analysis has shown that older households in nineteenth-century Montreal were more likely to persist than younger households. It was discovered that persisters were more likely to be older, married, Protestant, owner-occupiers, and of higher-occupational status than movers. Realistic examples of a few of the more stable families in each cultural community provide a "human face" to the present discussion, as well as insights into other forces involved in a household's decision to move or to stay.

## CASE STUDIES FROM THE PROTESTANT COMMUNITY

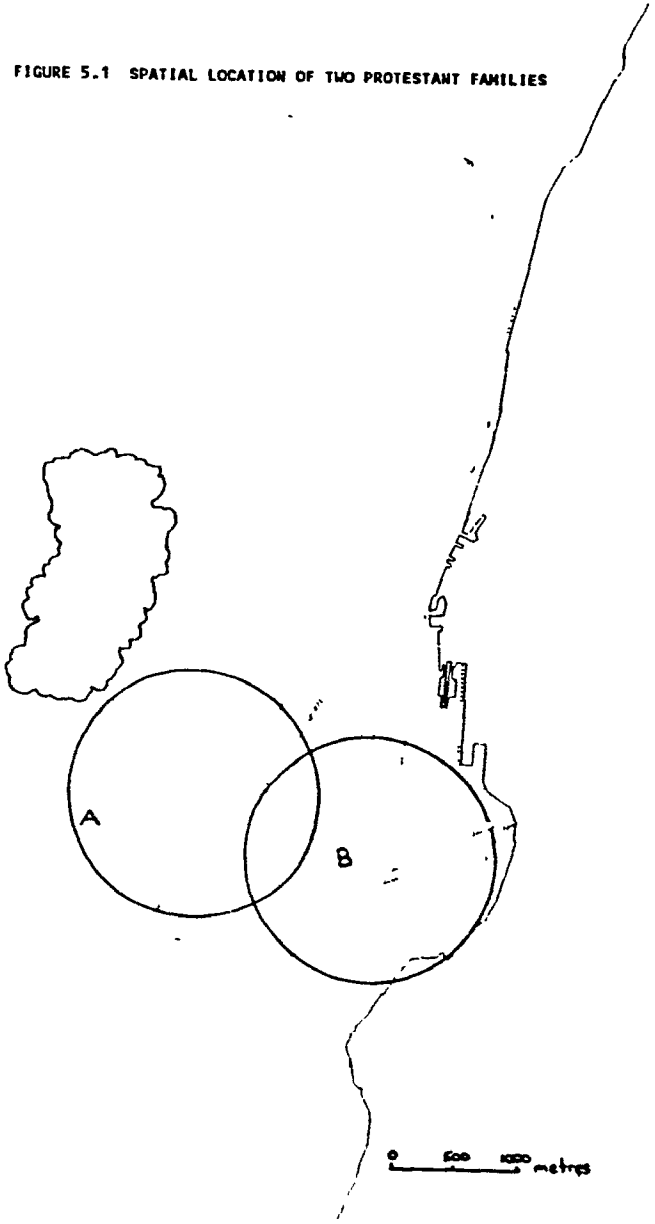
By looking at two families of Grand Trunk Railway employees - a clerical and a shop employee - we can discern some of the strategies characteristic of Montreal Protestant households. The GTR was one of the city's largest employers, supporting almost one-twelfth of the city's working population by the mid-nineteenth century. Hoskins (1986, 1989) discovered that in the 1880s more than 90 per cent of GTR workers lived within walking distance (3.2 km) of the rail yards. Although both families show strong stability of employment, we shall see a different kind of geographical mobility characterizing their different social mobility. Both families illustrate the significance of kin relations in the formation of employment networks and neighbourhood ties. Their residential behaviour demonstrates strong kinship ties in the succession and proximity of moves. Family members seem to show concern for one another at all times, whether it is in the form of occupational connections, or pulling together in times of crisis.

David and Maud arrived in Montreal from Ireland in 1883, with their three

children David W., Robert, and Harriet. Maud was 43, her husband 53, and their oldest child David W., was 20. They were members of the Church of England, and like most Montreal Protestants, they were middle-class. David was a white-collar worker, and although he experienced no visible change of occupation, he did exhibit a significant upward social mobility. David and his family consistently made moves to streets of higher median rent, and they experienced a consistent increase in the amount of dwelling space per person throughout their lifetime. Their family practised several strategies of household formation and re-composition which promoted this middle-class life-style. Like many migrants, they were most mobile in their first few years in Montreal. Figure 5.1 (A) shows the location of each home in which they lived. Upon arrival, they settled on Canning street[31] in St. Antoine ward (district 9). They rented this dwelling for about $120 a year, substantially above the average on the block ($80). The relatively high rental value (in the highest quartile of the urban population) suggests that they occupied a fairly large dwelling, probably 6 rooms, with more than one room per household member. The location was within walking distance (1.2 km) of the Grand Trunk Railway offices at 156 St. Etienne Street (district 2), where David worked as a clerk. In 1887 David and Maud moved to a bigger house, on St.Martin street. This move, slightly further from David's place of employment (1.5 km) but in the same district, began the family's transition to the suburbs. They paid $210 rental per year for their new house, a substantial increase. How could the family afford to pay such an increase, and live on this more prestigious street (median rent of $120)? David Sr. had now been with the company for a few years, and the level of job stability that he had achieved provided not only a degree of financial stability, but also the ability to "pull a few strings" at work, and get jobs for both of his sons in the clerk's office at the GTR.

When their son Robert married in 1890, he and Christine moved to their own home on St.Antoine street, a few blocks south of his parents, and a few blocks closer to his work at the GTR. They offset the cost of living on their own by taking in a boarder, Christine's younger brother Joseph who worked with Robert, David W. and their father, as a clerk in the audit office at the GTR. Like many newlywed couples, Robert and Christine were highly mobile in the first few years, moving a year later

FIGURE 5.1 SPATIAL LOCATION OF TWO PROTESTANT FAMILIES



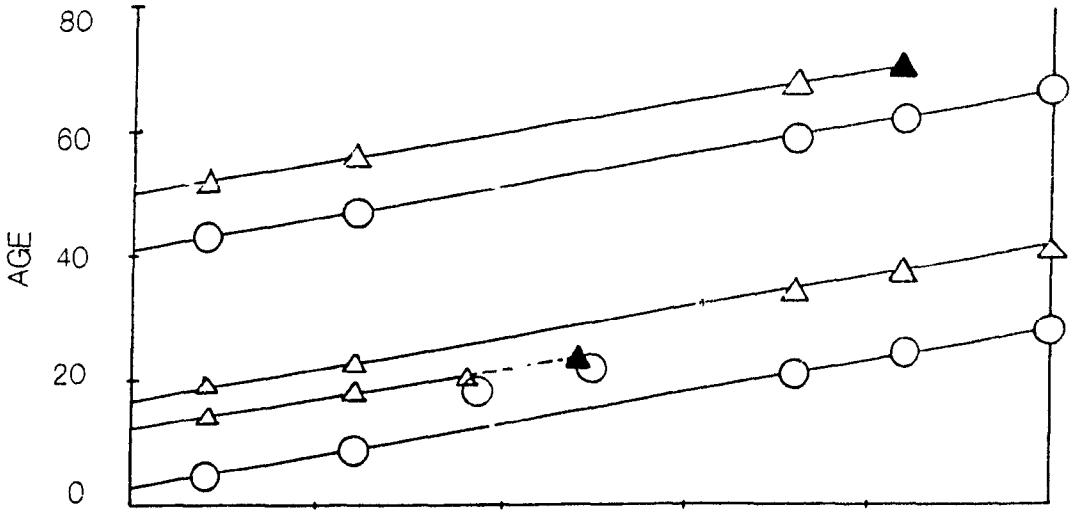

to Quesnel street, in the suburb of Sainte Cunegonde (district 50). About a year later they emigrated to the United States, where Robert passed away a year later at the age of 24.

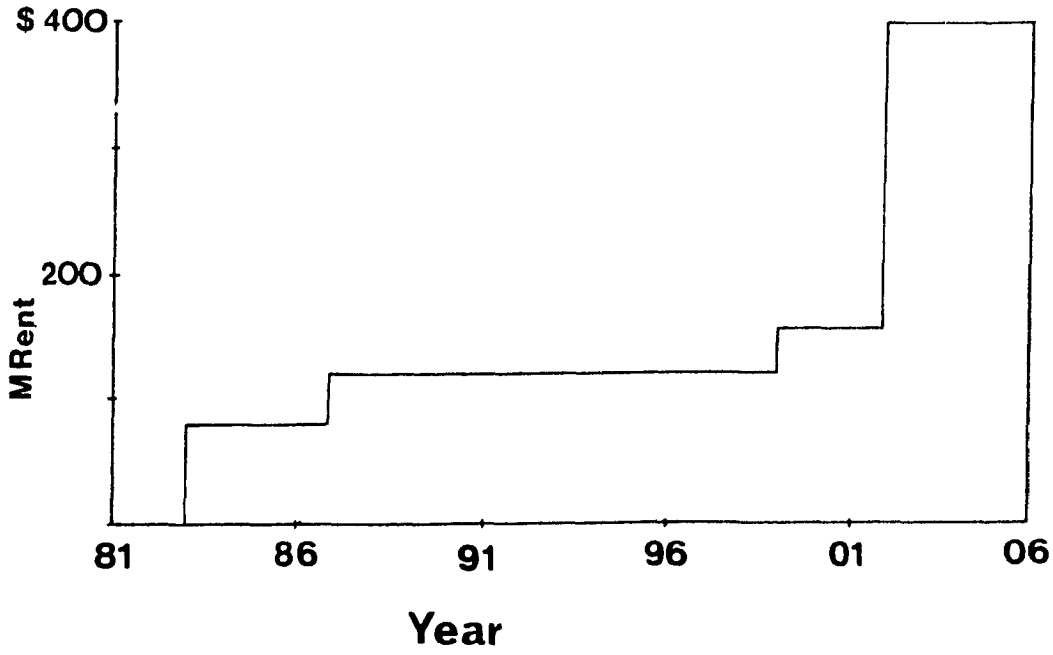
Meanwhile Robert's parents and siblings were still living on St.Martin, and in 1899 they moved further into the suburbs on St. Antoine street, in Sainte Cunegonde. By 1901, David Sr., now 70 years old, had retired from the GTR. David W. was still a clerk with the GTR, decidedly successful, earning $1200 a year, and his sister was earning a respectable salary of $400 from a career in teaching. A couple of years later when David Sr. passed away, David W. moved to the city's most prestigious and fast-developing suburb, Westmount (district 52). David W. postponed marriage until he had achieved a significant degree of success in his occupation, and he became a homeowner in his early forties. The Elm street house had a rental value equivalent of $370, about average for the neighbourhood. David W. was no longer within walking distance of his office, which was almost 3 km away, but the electrified tramway to work cost only thirty-eight cents per week, or $18 per year[32] - not a significant drain on his $1200 per year salary. A good education and stability of employment were factors which allowed David W. and his family to achieve a considerable degree of upward social mobility.

Figure 5.2 displays a profile of life events and housing of this family related to its mobility behaviour. From the top graph can be read the age of each member at the time of a move, the dates of deaths, marriages, or leaving home (dotted line denotes not living with subject household), and thus the number of people living in the home. The bottom graph displays the median rent of the street segment in which the family resides. The figure shows that this was a small family, and from the first they occupied a spacious dwelling. Robert married and moved out at an early age, but David W. and Harriet, by remaining in their parents' home, contributed to the rent and thus helped them move to larger, more spacious dwellings on higher-rent streets, and to make the transition from city to suburb, and from tenant to owner.

William and Ann are more typical of the blue-collar work force of the GTR. Both presbyterian, William was born in Scotland, Ann in England. Both came to Montreal at a very young age, and were married in 1849, when he was 25, and she

FIGURE 5.2 PROFILE OF LIFE-EVENTS AND HOUSING FOR THE HOUSEHOLD OF DAVID AND MAUD



was 20 years old. They had ten children and lived into their seventies. Figure 5.3 displays their life-event and housing profile, and Figure 5.4 a similar profile for son Thomas (A) and grandson Melvin (B). The complexity of the three graphs shows that the household adjustment process had to take into consideration numerous vital events such as: 18 births, 3 deaths, and the widowhood of both Ann and Kate. Household re-composition was not as straightforward as it was for the family of David and Maud. For William and Ann, co-residence was a strategy of survival.

William was a blacksmith by trade, and their first home was on Nazareth street (district 4), less than 2 km from the GTR shops were he worked. They were paying $68 annual rent (in 1861). While living in these modest accommodations (nevertheless well above the street median), Ann and William had seven children. In 1863, they purchased a home on Magdalen street (district 1), a couple of blocks (.5 km) from the railway shops. It is unlikely that this home was any larger than the first, as its rental value was only $66 (in 1871) and it was appraised at $1800. The family now consisted of 9 people living in a home that could not have contained more than 4 rooms; it was considerably crowded by any standard. The house stood however, on a more respectable street, and the transition from renters to owners must have been perceived as an improvement in social status and potential security for Ann in the event of widowhood. A negative aspect of this shift was the fact that ownership tied them to this particular dwelling, while the size of the household continued to increase, growing to 12 persons: Adam was born in 1864, twins in 1867. The oldest son Thomas, a blacksmith like his father, married Christine in 1873, and the newlyweds, unable to afford housing of their own, stayed with his parents. Like many young couples, Thomas and Christine immediately began a family of their own, while the question of privacy remains unanswered. Three infants were born in three years, and by 1879 the household had inflated to 15 people, including grandma Ann and grandpa William, nine children ranging in ages from 12 to 29 (Richard had since passed away), the daughter-in-law and three grandchildren. With Thomas and Christine expecting their fourth child, the family finally moved to a larger dwelling. William and Ann sold the house and purchased another on the same street, about twice the size of their previous home (rental value $140, and property value $2500)

FIGURE 5.3 PROFILE OF LIFE-EVENTS AND HOUSING FOR THE HOUSEHOLD OF WILLIAM AND ANN

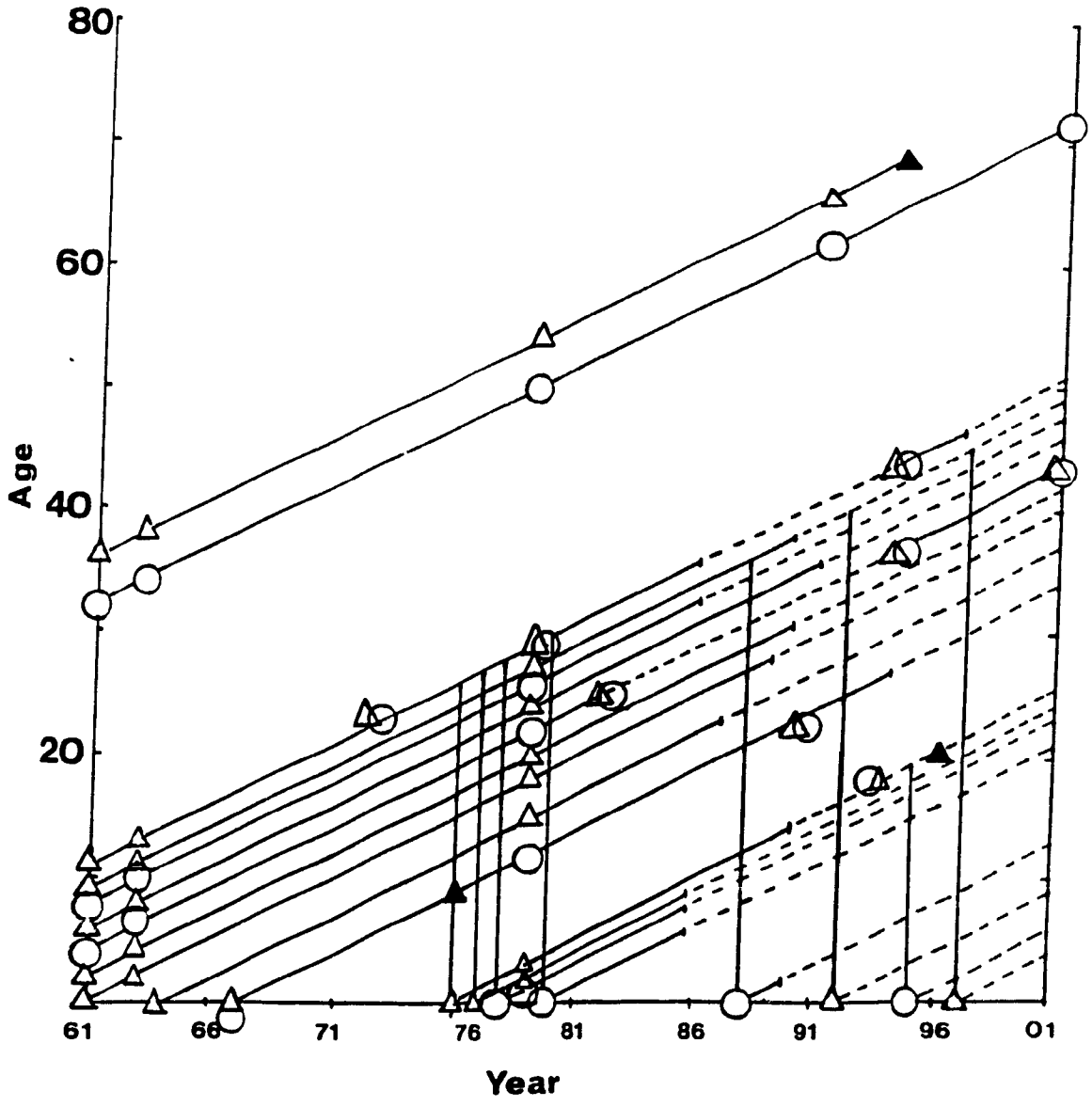
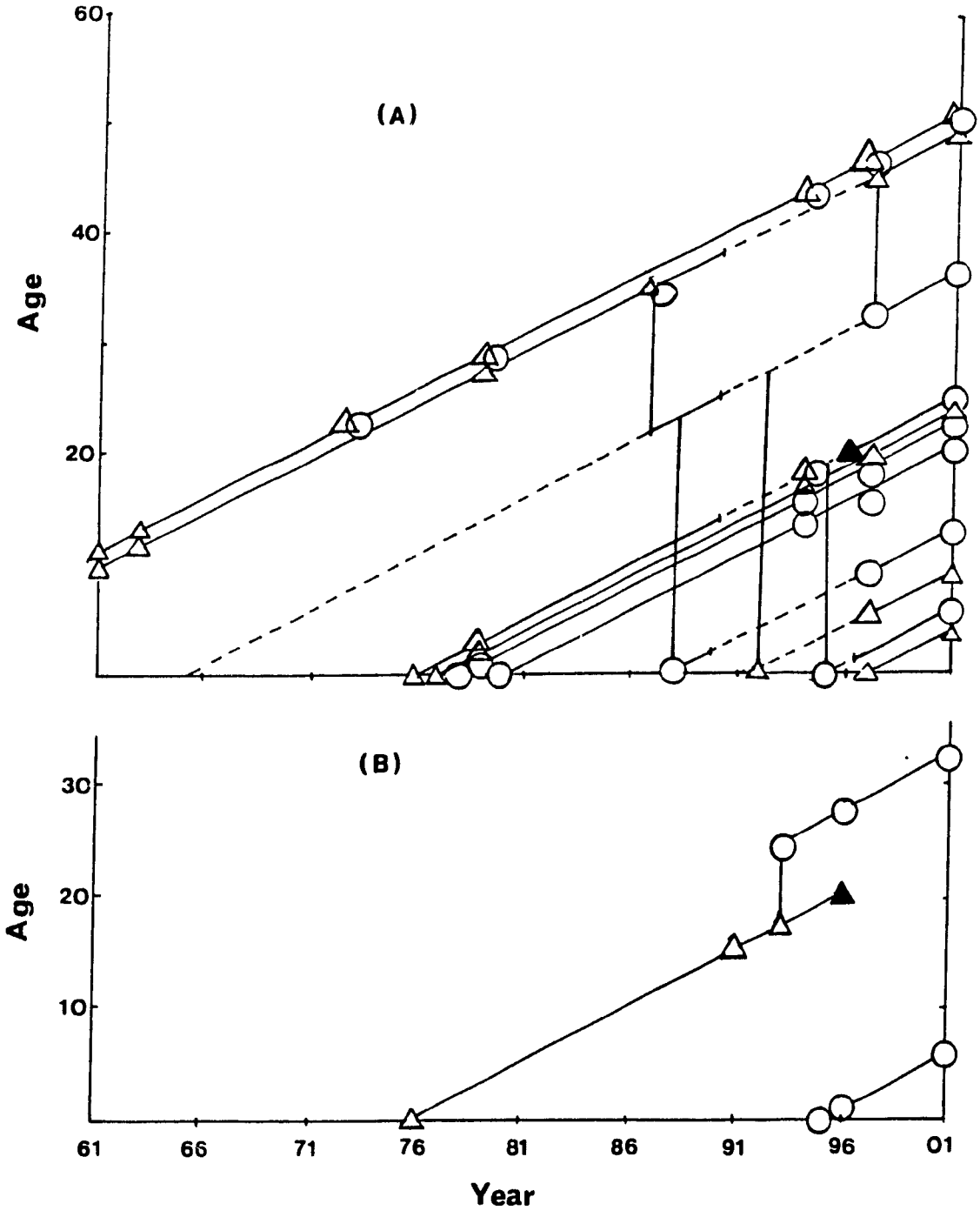


FIGURE 5.4 PROFILE OF LIFE-EVENTS AND HOUSING FOR THE HOUSEHOLDS OF THOMAS AND CHRISTINE AND MELVIN AND KATE



The heavier costs were most likely distributed among the five working children who were living at home with their parents. All of William's sons worked for the GTR: Thomas was a blacksmith, William an engine driver, George and John brakemen. Adam, the only white-collar employee of the family, was a clerk.

Despite the move to a larger dwelling, the household was still crowded. A few of the adult children eventually left to be married and to begin their own lives. William married Catherine, moved to Charron street and had three children. Their new home on Charron was in a neighbouring district (34) to his parents' home on Magdalen. Charles seems never to have married and stayed highly mobile, moving frequently, but within a compact area: in 1891, he moved to Shearer street (district 2), in 1893 to nearby Centre street, in 1897 to Grand Trunk street (35), in 1898 to St. Margaret (07), and eventually back to Magdalen street, a few doors from the home of his siblings and the home he had once occupied with his parents. John married Bridget (an Irish Catholic) in 1888. They lived together on Edinburgh street (34) for a year and then moved back to his parents' home on Magdalen; by that time, however, his parents had already moved, and left the home that they owned to Thomas, George and their families. In 1890 Ann and William had decided that they had spent enough years living with their children and grandchildren, and they moved to a smaller rental dwelling on Ash street (34) - a street which was newer and had a higher median rent ($120) than Magdalen street. Daughter Ann moved with them, bringing her new husband Ernest, a brass finisher from England, employed by the GTR. The household shrank in size to 4 persons. By 1892, Ann and Ernest moved to their own home on Wellington (34) street, a short walk away. After a lifetime of bearing and rearing children and grandchildren, Ann and William were finally alone in their home. Unfortunately, William did not have the opportunity to enjoy the peace of an empty house for very long, as he died in 1894.

Upon the death of her husband, Ann moved next door to live with Mary and her husband James, a recent immigrant from Scotland and a clerk in the mechanics' office at the GTR. We do not know whether Mary held a job, but throughout their married lives they resided close to her parents: first on Bourgeois close to James' office, in 1884 on Magdalen, a few doors from her parents; and in 1891, when her

parents moved to Ash street, they followed with little Robert. By 1896 Ann and Ernest were living a short walk away on Paris street, but in 1900 they made a major move (2.5 km), leaving the family neighbourhood, to Gordon avenue in the developing working-class suburb of Verdun.

The earlier residences of the sons-in-law indicates a common pattern of protestant immigrants as lodgers. Before marriage James boarded at the Royal Hotel on Wellington street and then on Grand Trunk (both in district 2), Ernest with a young couple on Charron street, not far from William and Catherine.

John and his family eventually left the house on Magdalen street in 1901 to live by themselves on Liverpool street, not far from Ash. Thomas and his family also eventually left the house on Magdalen street, and moved in with his mother and sister for a few years before joining his brother William and his family on Charron street (district 34, see figure 5.4). Thomas' son Melvin who became a brakeman like his uncles, moved out of the house on Magdalen street in his late teens, and for a year or so he boarded with a young couple (a brakeman and his wife) near the rail yards. Melvin married Catherine (an Irish Catholic) and they moved to Coleraine (12) street in 1893, where they lived until his death in 1896. Melvin's widow Catherine and their daughter Nellie just 2 years old, went to live with Melvin's parents on Charron street.

As Lauzon (1992) points out for the neighbouring Village of St. Augustin between 1871 and 1881, "la cohabitation pourrait donc être surtout une stratégie de nouveaux arrivants, de familles de migrants. Le partage de logements par des noyaux familiaux non apparentés serait dans tous les cas un phénomène marginal" (p.138). For the children and grandchildren of William and Ann, co-habitation was an important housing alternative, particularly at times when there were so few alternatives. Following the widowhood of Catherine, the dwelling on Charron now housed: William, his wife and three children; brother Thomas, his wife and three children, as well as Thomas' widowed daughter-in-law Catherine (Kate) and grand-daughter Nellie (see figure 5.3). Kate pulled her weight, contributing to the financial solvency of the household with earnings from her jobs as seamstress and operator. In 1901 she earned $300. The household was large, much like the situation of William and Ann 25 years earlier, but the house was larger.

William and Ann, as well as the families of their children, made several changes in residence over their lifetimes. These moves were never any great distance from the previous home, usually within a block or two (see figure 5.1 B). Moves were often precipitated by an increase in household size, and apparently an effort was made to remain close to Mom and Dad, or brother and sister. Death of a breadwinner motivated moves to co-reside with other family members. Widowhood brought Mom into the home of Mary, her married daughter. Widowhood also caused Kate and her daughter Nellie to move in with her in-laws Thomas and Christine, who were already co-residing with his brother William and his family. Short moves allowed family members to remain close to the place of employment - the GTR workers remained within walking distance (approximately 500 metres) of the shops. This was necessary since the $18-a-year car-fare, which seemed trivial to David in Westmount, represented a problem for the family of a brakeman, let alone a young mother like Kate who earned only $300 a year. As seen in figure 5.1 B (bottom), neighbouring, kin, and employment overlapped within a life radius of one kilometre.

**CASE STUDIES FROM THE IRISH COMMUNITY**

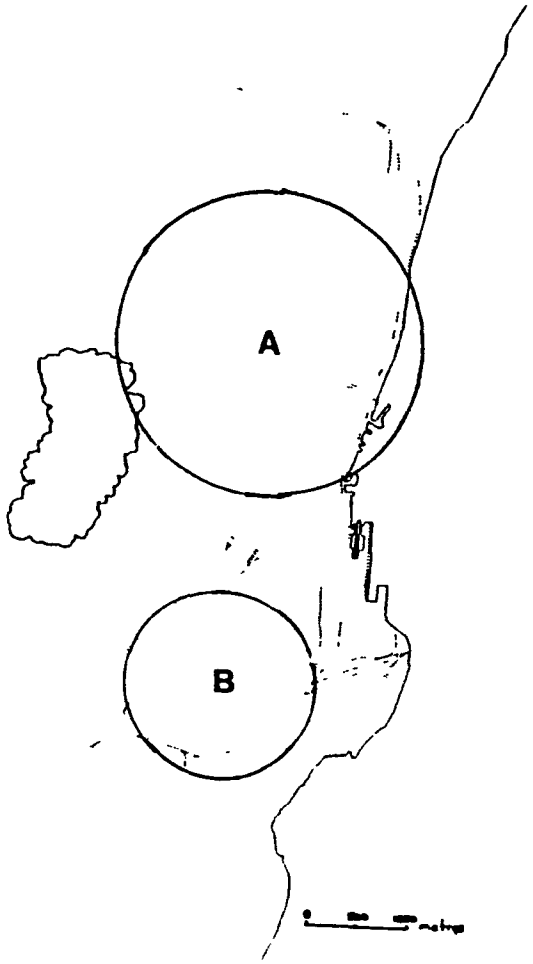
Families of a politician, a policeman and a machinist suggest the range of Irish Catholic households in nineteenth-century Montreal. As we shall see, Thomas the merchant/politician made very few moves in his lifetime, each to a larger, more expensive dwelling. The ups and downs of the policeman's family will show us a response to changes in workplace. And the machinist's family will remind us that family was an elastic structure, inflated or deflated, often without warning.

Thomas was one of the most influential Irish Catholics in nineteenth-century Montreal. His story provides the rare example of an Irish Catholic who broke into the ranks of the upper class. Thomas was born in Ireland in 1805 and immigrated to Canada in his 30s. He first settled on St.Antoine street (district 7) and developed a highly successful mercantile business on St. Peter street, with his brother. They were well established before the large arrival of the "ships of death" which in 1847 brought thousands of Irish catholics to Quebec and ultimately created the political base. Thomas, at considerable business sacrifice, entered politics, was elected as a Member of Parliament and was eventually named to the Senate. In the 1840s he was living on

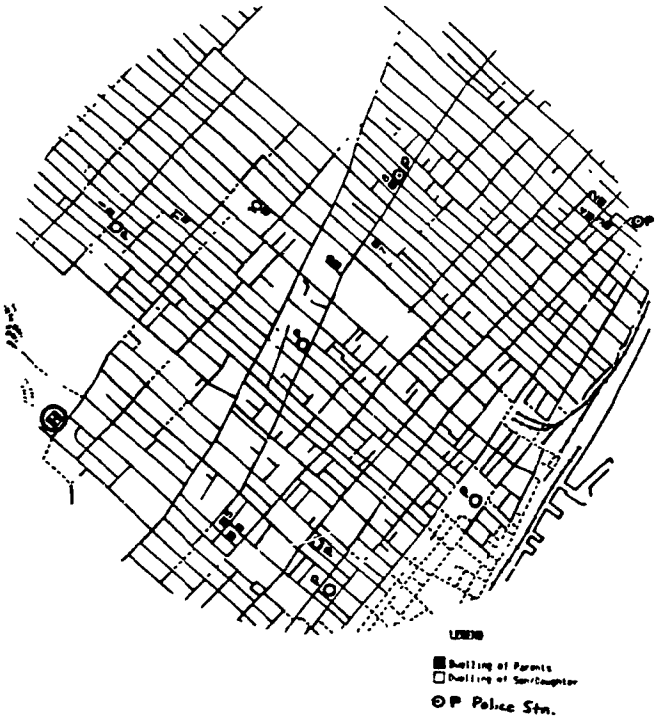
Beaver Hall Terrace, a high-rent street in district 12 (median rent $345), reserved for Montrealers of substance. Five years later he moved to Sherbrooke street (16), then back to Beaver Hall. Although he was not married, he never lived alone - he kept up to 8 or 9 servants at any time. In 1866 he moved to Peel street (district 12), where he rented a home for $440, and stayed there until 1875. He eventually did marry, to a woman his age (mid-sixties) from a wealthy family with Swiss connections and seigneurial rights to land in the Montreal area. It is interesting, and not unusual, that so wealthy a person chose to rent his dwelling. In 1875 Thomas finally purchased a home on Peel, valued between $20,000 and $25,000, with a rental value equivalent of $800 to $1000. Here he stayed until he died in 1889, and here his widow remained until 1901, when she died, also at the age of 84.

More conventional is the story of Cornelius and Bridget, who grew up in Ireland and immigrated to Canada in 1874 with their newborn son William, ready to begin their life together in the "land of opportunity". Cornelius secured a job as a police constable in the Village of St. Jean Baptiste, and their first home in Montreal was on St. Hypolite street, a few doors north of the police station. Two years later they moved to Papineau street (district 28 in St Mary ward, presumably due to his new post: City of Montreal police station #2 was located just around the corner on Craig street. They paid $30 rent per year for their new lodging, adequate for a young couple and a small child. Their second son John was born soon after the move, and with Bridget expecting their third child, they moved in 1878 to Papineau Square, a short walk south of their previous home (district 27). Figure 5.5 (A) displays the locations of their dwellings, as well as the locations of seven of the city's thirteen police stations. After the arrival of the next child, they moved to a more commodious dwelling, one street over, on Champlain (district 28), most likely a two-room dwelling ($40 rent, the norm in that street) - one bedroom for Mom, Dad and baby Johanna, and a common room with a stove, where the two boys probably slept. In August 1880 Cornelius Jr. was born, and in 1882, when Bridget was expecting their fifth child, they packed up and moved about 2 kilometres westward to Mayor street (St. Lawrence ward, district 15). Their new home was less than 500 metres north of the police station that had opened on St. George street that same year. Cornelius

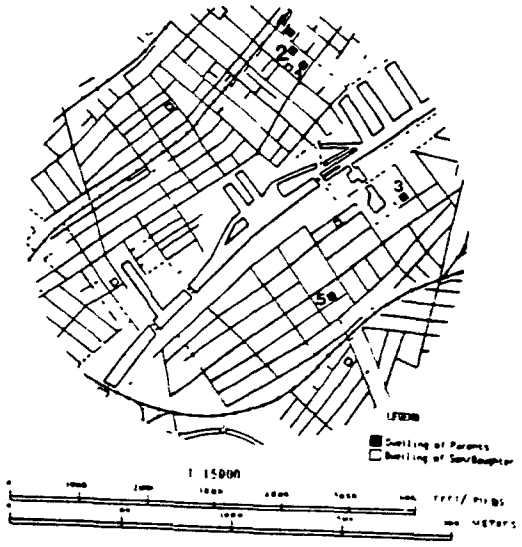
FIGURE 5.5 SPATIAL LOCATION OF TWO IRISH CATHOLIC FAMILIES




A



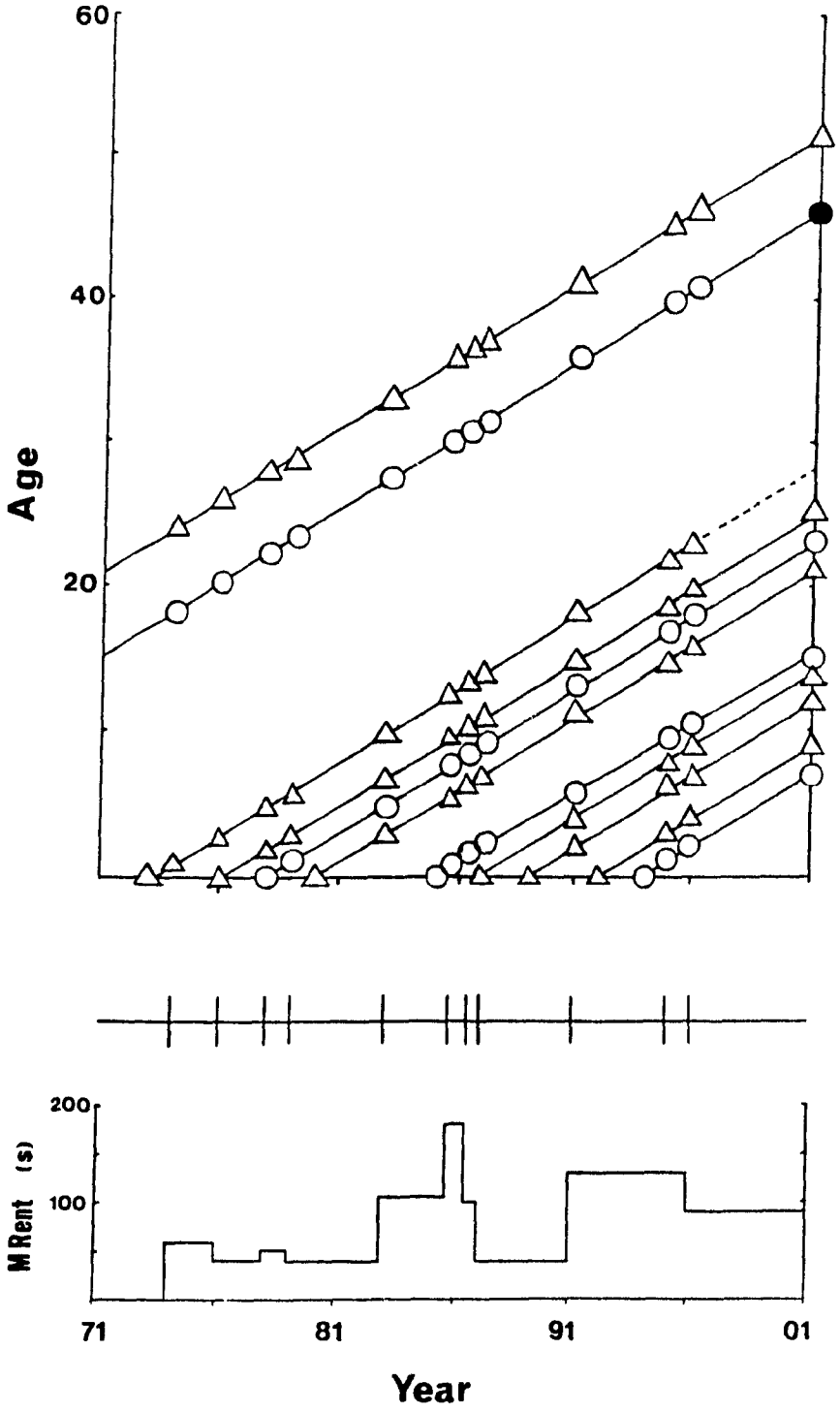

B



was probably reassigned to the new station. Annie was born shortly after the move; she died of diphtheria in January 1885, two months shy of her second birthday, and five months later Bridget had another baby girl named Anne in memory of the sister she had never known. The two boys William and John were now in school, aged 13 and 9 years respectively. Cornelius and Bridget moved twice the following year: the first move to City Councillors, just a step away, and the second move was just over a kilometre away to St.André street (24). Their home on St.André was their biggest yet, as they paid $100 rent. Cornelius had been with the force for over twelve years, and the relative financial security that came with persistence on the job earned him the chance to afford a more spacious dwelling, on a more prestigious street (median rent $100). This type of work meant frequent moves, and the next was east to Montcalm (district 25), a few metres away from police station #3 on the corner of Ontario and Beaudry.

We do not know why Cornelius in his forties left the police force, but by 1891 he was working as a sugar maker, and young William, a teenager, as a confectioner. Bridget was expecting their ninth child when they moved to Berri (district 25), and one more was born after. Rents were high in this neighbourhood, averaging $130, but they paid only $90. Although Dad was now just a labourer, additional income earned by William helped the family survive. Cornelius became a night porter for the Royal Victoria Hospital, on Pine Avenue (district 12). His experience as a police officer may have helped him acquire the job. The family moved further north on Berri (25), where they stayed for a year or two, before moving to Sanguinet (21) in 1896. They were now living roughly one kilometre from the hospital where Cornelius worked. They stayed there for several years and continued to pay $90 rental for their dwelling, which at 6 rooms, was quite large for the price. While Cornelius himself earned only $360 a year, the family income was supplemented by jobs of his children at the hospital: John, now aged 25, was an orderly, and earned as much as his father ($360), Johanna, aged 23, was a clerk earning $240 a year, and Cornelius Jr, at 21, a porter like his father, earned $144. The five other children were still in school. The total income of the family was $1104, which was a considerable sum considering they only paid $90 for rent, and perhaps a comparable amount for heat and other services;

FIGURE 5.6 PROFILE OF LIFE-EVENTS AND HOUSING FOR THE HOUSEHOLD OF CORNELIUS AND BRIDGET

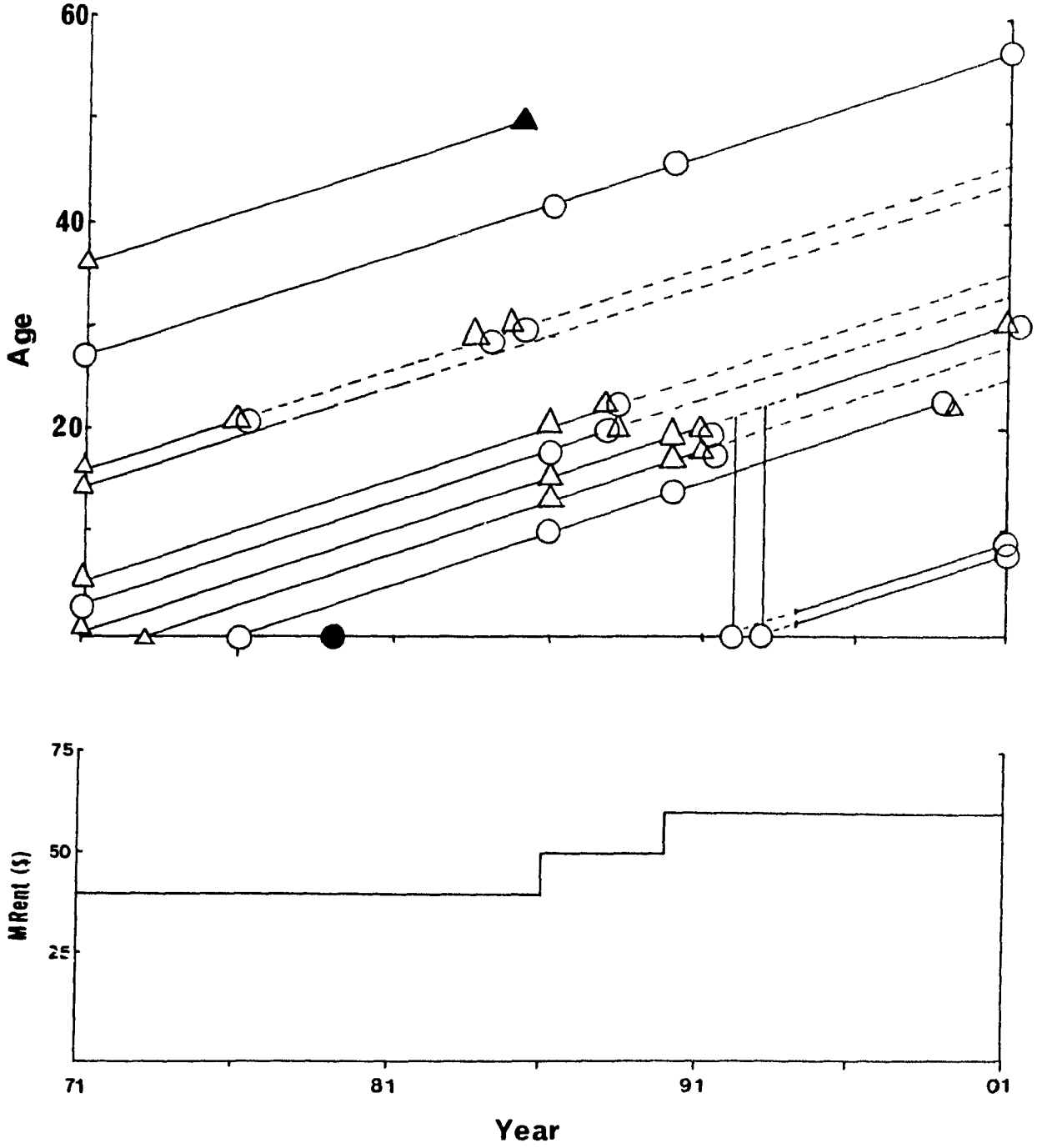


however it took their four incomes combined to equal what David the GTR clerk earned in a year. Just as the family had reached a more comfortable point in their lives, Mom grew weak with tuberculosis, and passed away in 1901, at age 46. Johanna eventually left the household (probably to get married), leaving Annie to take care of her father and siblings. Dad remarried in 1907, to another woman named Bridget. John, a waiter at 32, married the year after his father, and he died on his wedding day. Cornelius Jr. (a labourer) died at 33, and Andrew (a plumber) at 29. It was not uncommon in the Irish Catholic community for so many children to survive childhood and then to die as young adults, often from tuberculosis, sometimes leaving a young widow who most likely would never remarry.

Figure 5.6 provides a life-event and housing profile for the family of Cornelius and Bridget. The household moved, on average, every two and a half years, relocating as Cornelius changed his place of employment (see figure 5.5 A). Several moves occurred as necessary adjustments resulting from the new space requirements of an additional child. Many of these moves, as Newman (1970) has submitted from present-day observations, occurred *before* the birth of a child, in anticipation of need. We see a gradual increase in the status of the household as Cornelius entered his late 30s, then a sharp drop in his purchasing power when he left the police force to work as a labourer. The decrease in purchasing power was followed by a move to a street of lower median rent and lower prestige. When Cornelius acquired a job as a porter at the 'Royal Vic', the household moved again, to be closer to the hospital. As he entered his forties, the household improved its standard of living again - they moved to a more spacious home on a higher-rent street - thanks to the older children who were contributing to the family income, and to greater housing satisfaction and stability.

Patrick, a mechanic, and Elizabeth, had two children (James and William) by the time Patrick was 21. They moved a couple of times between homes on St. Joseph (district 3) and Guy streets (district 8). When Elizabeth passed away in August 1864, she was only 36 years old, and Patrick needed a mother for his children. In February he married Margaret, a gardener's daughter. Figure 5.5(B) displays the locations of Patrick's homes, first with Elizabeth, then with Margaret, as well as the

FIGURE 5.7 PROFILE OF LIFE-EVENTS AND HOUSING FOR THE HOUSEHOLD OF PATRICK AND MARGARET

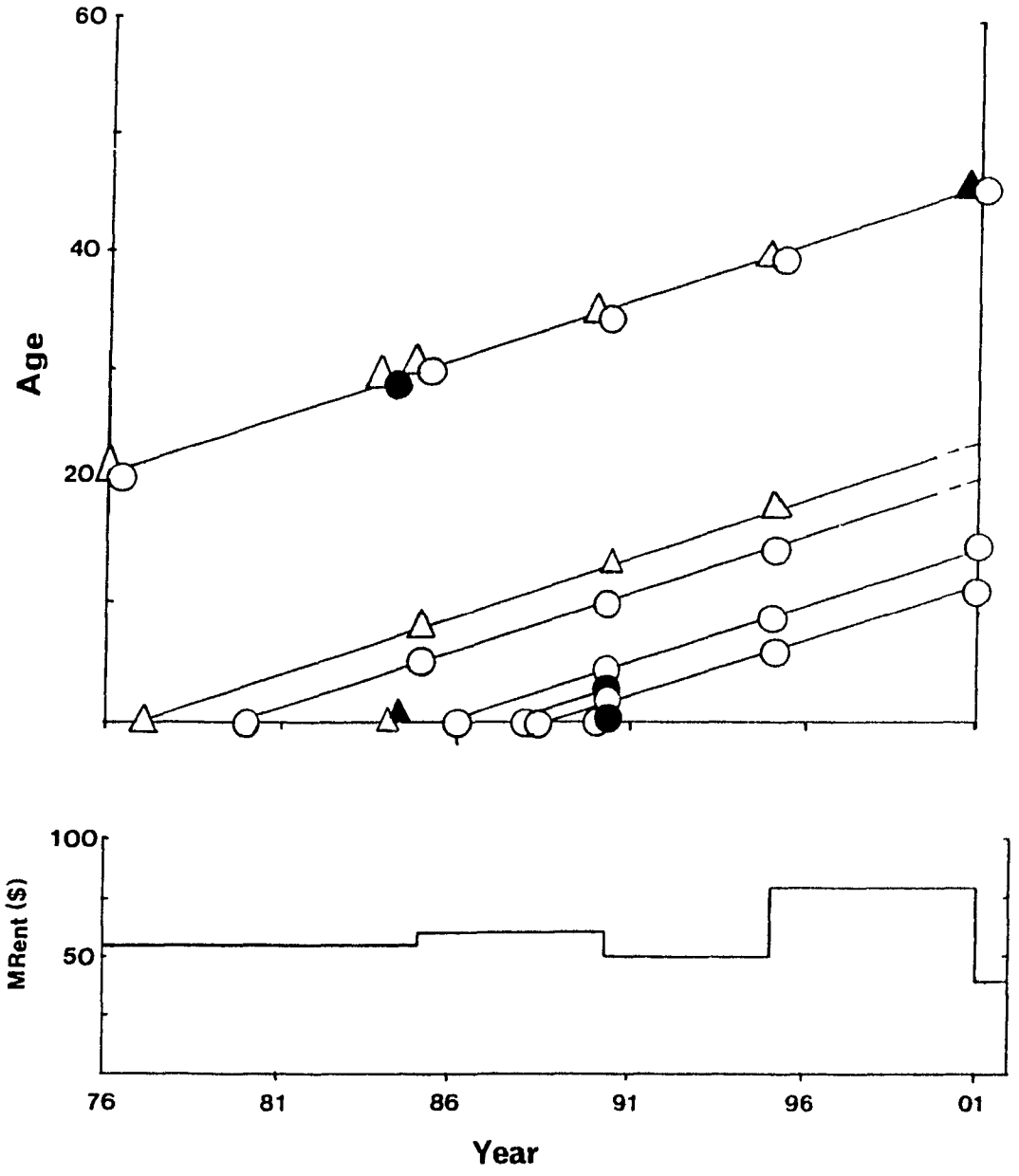


homes of his children who lived within a range of 2 kilometres. Figure 5.7 gives a profile of life-events and housing from 1871 to 1901. In the late 1860s, they sold their house on Guy street for $375 and migrated to Buffalo, New York, with William and James. While in the U.S., Margaret gave birth to her first child, Thomas, and they eventually moved back to Montreal, and settled in St. Gabriel, on Richardson street (district 2). Patrick found a job as a machinist, and they stayed at this location for most of their life together. Margaret helped raise William and James, as well as five of her own children in that house. They paid between $30 and $40 rent for this place, which most likely contained no more than two or three rooms. Their home was seriously overcrowded, as it accommodated nine people at one time.

In the 1870s James and William, working as cabinet makers, moved out. Patrick passed away in 1885, at age 50, and Margaret never remarried. It was relatively rare for Irish widows to remarry, and Margaret moved to a new dwelling on St. Albert (35) street in St. Gabriel, which she purchased for approximately $650, with the insurance policy. Like many Irish Catholic widows, she managed in this way to own the dwelling in which she lived. It was bigger than her previous home, with a rental value of about $50, and on a newer street in district 35 (see figures 5.7 and 5.8). Since five children lived with her, they were still at least two people per room. In 1888 her two eldest, Thomas and Elizabeth, married and moved out. Thomas and his wife migrated to Ontario, while Elizabeth and her husband stayed in St. Gabriel ward, and had seven children in ten years. About the time Margaret became a grandmother, she moved, with the three youngest, to another home of comparable size and value ($50-$60 rental equivalent, $600 value), a street or two away from Elizabeth on Chateauguay (35). David and Patrick married and moved out that year, but David moved back in with his mother and sister in 1893, bringing his wife Ellen and their two young children. Mary Ann married Napoléon, a French Canadian. So long as Margaret lived, her children continued to live nearby, moving in and out of her home. At this point, let us get further acquainted with Margaret's children, and their residential histories.

Figure 5.8 displays the demographic and residential profile of William the cabinetmaker and his family. He married Margaret in 1876, and moved to Dominion

FIGURE 5.8 PROFILE OF LIFE-EVENTS AND HOUSING FOR THE HOUSEHOLD OF WILLIAM AND MARGARET (AND ELLEN)



street (district 9, just north of his parents). They paid $70 rent for this place, already more than his father had ever paid for a home. They had three children, but, from complications at the third birth, Margaret and the baby died. (Margaret was 27.) William quickly found a new wife Ellen to care for him and his two children. About this time he had taken a job as a machinist, and moved from Dominion street eastward to St. Catherine street in St. Mary ward (district 28). Their new home was the only one such a distance from his step-mother and the rest of the family, but it was presumably closer to his new place of employment. They continued to live in French Canadian neighbourhoods. He had four daughters with his second wife Ellen, and in 1890, a month after Esther was born, the family of eight moved to a bigger home on Mignonne street (district 19). William was working at a sawmill. It was a high-density low-rent neighbourhood, and in the next year two of the little girls died. A few years later, the family moved to a better street (Dorchester, in district 14) and stayed there until William's death, from a "wound of the abdomen" in January 1901. By this time, John Joseph and Marie Louise, now 24 and 22 years old respectively, had moved out of their parent's dwelling. Ellen now widowed, moved to St. Hypolite street in Saint-Jean Baptiste Village (district 36), where she paid about $100 a year. (The average on the street was $40.) She lived with her two remaining daughters, Margaret (15 years) and Sarah (13 years), and as a day worker earned $500 that year. The family of William and Margaret once again shows the elastic nature of the household, as well as strategies used to cope with the death of the main breadwinner. This family is also an example of the resiliency which, out of necessity, became part of the fabric of everyday life; when faced with so much death, illness, and changes of home and occupation, men and women had no choice but to face these challenges of life, and to move on.

Thomas, like his father Patrick before him, left Montreal for a time. He and his wife Kate emigrated to Ontario, and came back about 1896 with three sons. Thomas took a job as a steam fitter, and they lived in a four-room house on Ste. Emelie street in St. Henri suburb (district 45). Their new residence was within walking distance of his mother's home on Chateauguay (35). In 1898 they had twins, one of whom survived, and subsequently two more children. Thomas was a fairly

successful fitter by this time, earning $440 in the year 1901, and employed as an electrician when he died at age 51.

Elizabeth Jane and her husband Daniel settled on Manufacturer's street (35). After the birth of their seventh child, they moved to a new, presumably larger, dwelling on the same street. Although Elizabeth Jane lived in several homes in her lifetime, she never left the neighbourhood. Generally, when families moved only for the purpose of accommodating a larger family, these moves were not over long distances.

When David Henry married in 1891, their first home on St.Catherine street (15) was quite large compared to any he had ever lived in before. They paid $120 rent per year for their new accommodations. David was a telegrapher like his brother Patrick Jr., and must have been saving diligently while living with his parents. Shortly after their first child was born, they moved to Richmond street (district 9), much closer to his mother. Perhaps they needed a babysitter, and after the second they moved back to Chateauguay to live with his mother, now widowed. Household recomposition of this nature was frequent in the nineteenth-century as many women outlived their husbands. Without a source of income they usually turned to their children for financial and emotional support. At the same time, living with Grandma resulted in more free time for Ellen, partially relieving her of the responsibilities of cooking, cleaning and child-rearing, and perhaps allowing her to work outside the home. This kind of arrangement was probably so frequent because it fulfilled the financial, emotional, and physical needs of both parties.

Patrick Jr. was the last to marry (at age 20). He and Elizabeth settled on Ryde street, just a few blocks away from his mother. In his job as a telegrapher he earned $440 in 1901, which was enough to afford the $70 rent on Ryde, and to feed their four children. A series of disasters hit the family: the father (age 35) and two little daughters died in 1907, the mother the next year (at 37) and the eldest child the following year, a month after her fifteenth birthday. David Albert, at 11, seems to have been the only survivor.

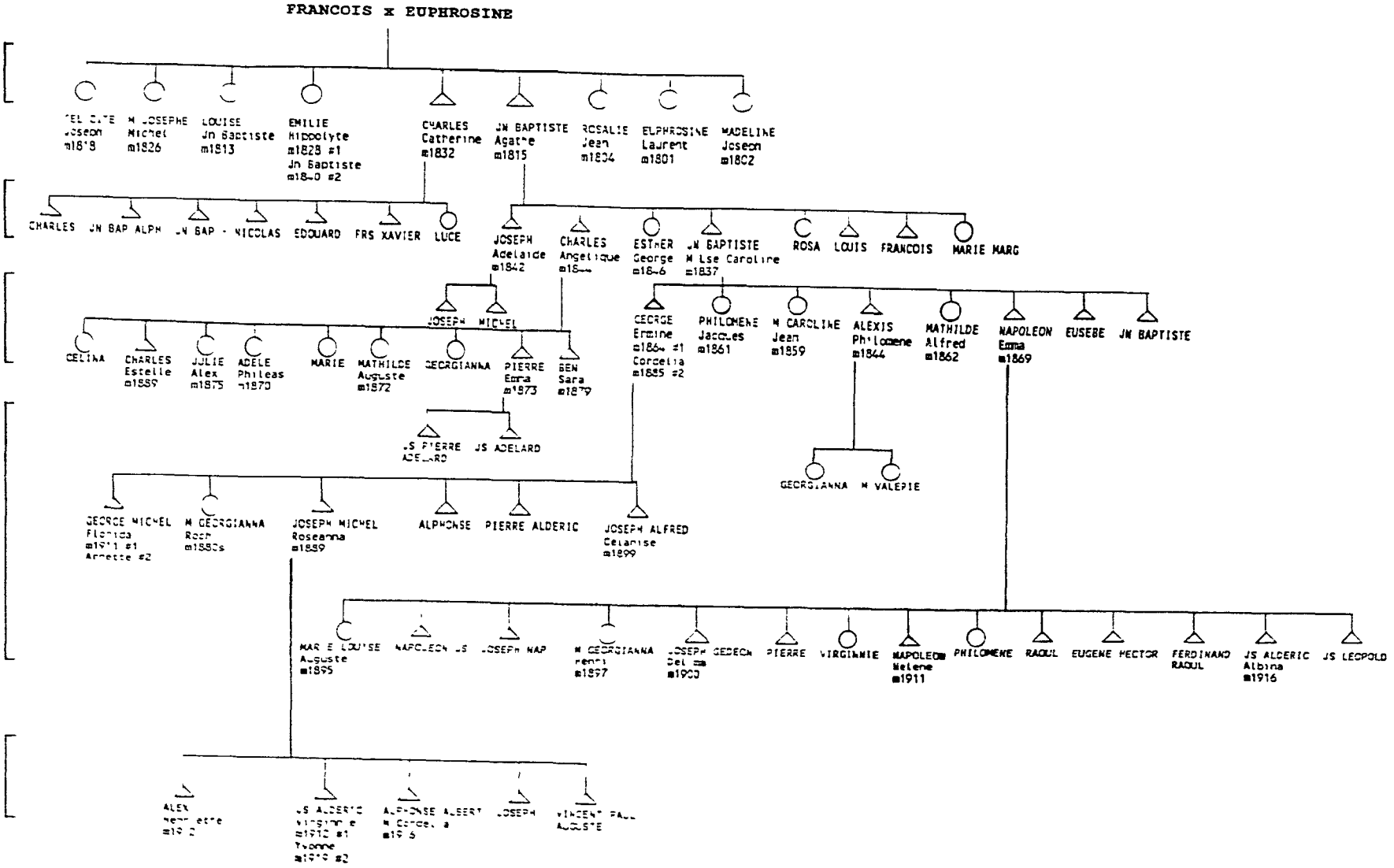
## CASE STUDIES FROM THE FRENCH COMMUNITY

Five generations of a French Canadian family provide several insights into the migratory process. Recent studies show that "la famille doit être perçue comme un élément fondamental, jouant un rôle actif dans les grandes transitions économiques et culturelles qui impliquent la migration et l'adaption à un nouveau milieu" (Gagnon, 1988, p.64)[33]. For the children and grandchildren of François and Euphrosine, kinship was a resource from which they could continually draw, in order to adapt to their new urban environment, and a constantly changing set of household demands and opportunities. Co-habitation, or the "doubling-up" of families, was a strategy often used to satisfy the terms of the landlord. The benefits of co-residence were occasionally overshadowed by the consequences of living in an over-crowded dwelling, or a high-density environment - a low degree of residential comfort, and sometimes a high level of infant mortality (see Thornton and Olson, 1991; Olson, Thornton and Thach, 1989). This coping strategy was especially common in response to a reduction in financial stability due to job loss or widowhood; the alternative was to move to a cheaper dwelling, in a less comfortable environment. Many changes in residence among family members were witnessed, most of which were short, and within close proximity to kin.

### FRANÇOIS, EUPHROSINE AND THEIR CHILDREN

François was a farmer who lived during the latter half of the eighteenth century, with his wife Euphrosine in Mascouche, a rural community approximately 30 kilometres from Montreal. While they spent all of their lives in the countryside, most of the nine children who grew up migrated to the city. While our records are incomplete for the earlier rural members, four generations were traced in Montreal (as shown in figure 5.9) to provide insights into the migratory patterns of the family, and the rural to urban transition. I will concentrate on the sets of grandchildren and great grandchildren, so that we can discover the kin relations in a neighbourhood context. While some couples made many moves, their loyalty to neighbourhood was very strong. When examining kinship in this manner, the reader should keep in mind that we are seeing only half the picture, because, as each individual marries, he or she becomes part of another family and gains a whole other network of kin.

FIGURE 5.9 GENEALOGY OF A FRENCH CANADIAN FAMILY



Jean Baptiste, one of the two sons, married Agathe in 1815, and they moved to Montreal in the late 1820s, and lived in St. Mary ward, where Jean Baptiste worked as a cooper. They brought with them three children and had five more in Montreal. Two of them died in childhood. When Jean Baptiste himself died in the 1840s, Agathe, now suffering from paralysis, went to live with their son Jean Baptiste and his family on St. Adolphe street, nearby. She passed away in 1861, at the age of 73. After forty years in Montreal, she had never moved out of St. Mary ward.

The other son Charles married Catherine in 1832, when he was 27 and she was 26. With a son named Edouard, born in 1847, we find them in 1860 in St. Mary West near his sister-in-law Agathe and her children. Charles and Catherine had six other children, but they all died very young. For ten years they rented a dwelling on Seaton street for $30 a year (district 28). Charles worked as a carter for most of his life, Edouard as a tanner. Edouard apparently never married and in 1866 was boarding with his parents on Seaton. In 1876, Charles and Catherine, both close to 70, were running a grocery, and they lived above the shop on Panet, just three blocks from the old place. On Panet they paid $60 a year for the apartment plus another 60$ for the grocery. Charles died in 1884 at age 80, Catherine seven years later at 86, still at the same address.

Of the seven daughters, five were living in Montreal in the 1840s, close to their mother and brothers. Euphrosine, the eldest, married a carriage maker in 1801 and (we do not know precisely when) moved into St. Mary ward. Émilie married a carter in 1828 and after his death (ten years later) she remarried a waterman. In the 1840s they were living on St. Catherine street, about half a kilometre further west than the rest of her family (district 23). Sisters Euphrosine, Félicité and Marie Josephe were all living with their husbands in Montreal, and belonged to the Irish parish St. Patrick's.

GRANDCHILDREN

I have not attempted to re-trace all branches in this complex family, but I have followed the six surviving children of Jean-Baptiste and Agathe as an example of residential behaviour of siblings. Jean Baptiste Jr., who had moved to Montreal as a teenager, married Caroline in 1837, and they lived in St. Mary ward near his parents.

Jean Baptiste worked as an engineer, Caroline as a seamstress. Over the next 14 years they had six healthy children and four who died at birth or very young. Short birth intervals and a high rates of infant mortality were characteristic of the French Canadian community in the nineteenth-century (see Thornton and Olson, 1991; Olson, Thornton and Thach, 1989). At seventeen Mary Caroline married and moved out, as did Alexis at about the same age. By 1861 George, age 22, was working as a peddlar, Philomène and Mathilde (20 and 14) were both milliners, and only 12-year-old Napoléon was still in school. The family owned their home, valued at about $400. Although it was a rather small home - $32 rental value, probably 3 rooms - they must have depended heavily on the supplemental income from the children, in order to afford payments and to keep a servant to care for the ailing grandmother. In the 1860s the last four children married, so that in 1871 the house was significantly less crowded. That year Caroline died. Jean Baptiste worked as a carpenter, and within two years he re-married, to Émilie, about 12 years younger. They continued to live in the same house. She lived until 1886, and, four years later at age 74, he died of pneumonia. At the time of his death he was an employee of the city.

Joseph lived all his life with his parents Jean Baptiste and Agathe in St. Mary ward. He was at various times a butcher, a sawyer, and a storekeeper. He married Adelaide in 1842, and they had two sons before he died, just three years after their marriage. His widow and children, presumably continued to live with his parents. The frequency of deaths at a young age in the nineteenth-century meant that many young men and women never knew life outside of their parents' home.

Charles, like his father, was a cooper[34], and he, too, lived with his parents in St. Mary ward for some years after his marriage to Angélique in 1844. By 1866 they were living on their own. Figure 5.10 displays the profile of their life-events and housing. In 1866 they were living on Jacques Cartier street in St. Jacques ward (district 24) with their nine children who ranged in age from 5 to 20 years. The house was dreadfully overcrowded. In 1870 18-year-old Adéle's new husband Phileas moved in, and they now had 13 people living in a house which consisted of no more than three or four rooms ($60 rent). From Jacques Cartier street, they moved to Boyer Lane in neighbouring St.Louis ward (district 19), where they paid even less ($40

FIGURE 5.10 PROFILE OF LIFE-EVENTS AND HOUSING FOR THE HOUSEHOLD OF CHARLES AND ANGELIQUE

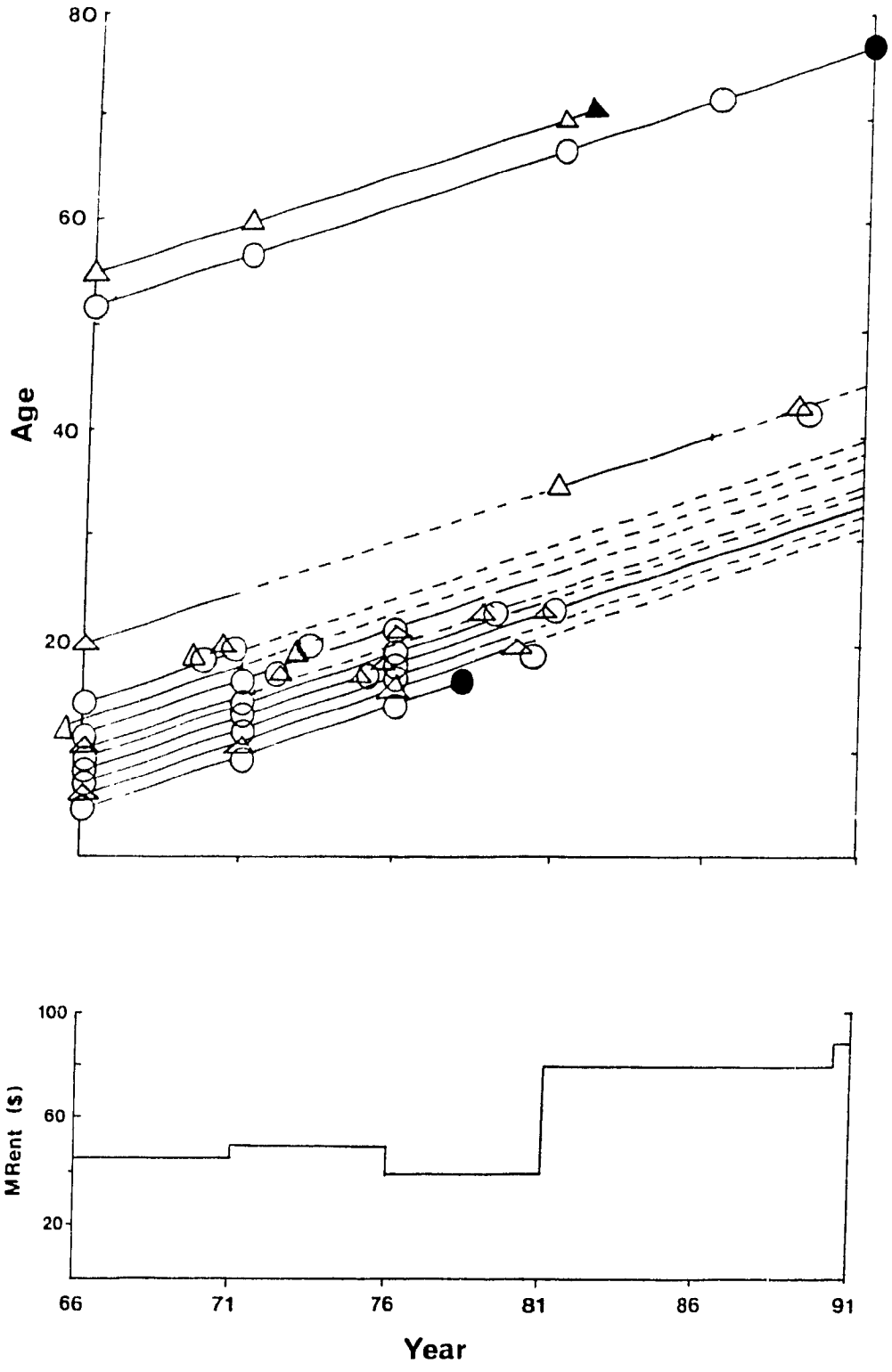
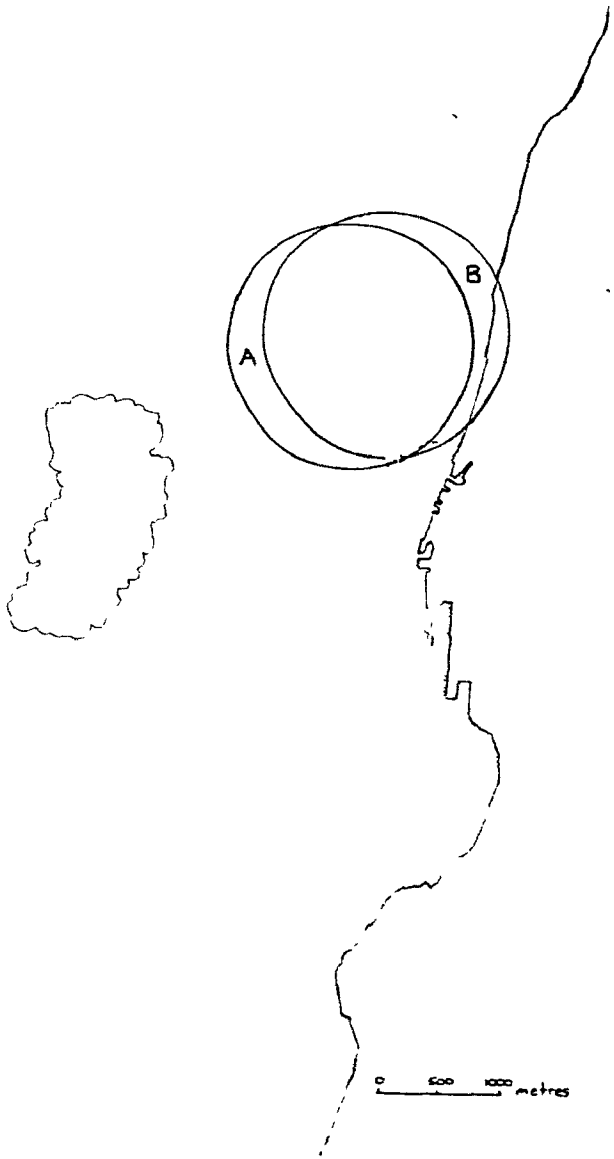


FIGURE 5.11 SPATIAL LOCATION OF TWO FRENCH CANADIAN HOUSEHOLDS




rent). Charles and Angélique no longer had the aid of Charles Jr's income, as he had moved out on his own, but all the daughters worked as dressmakers (except Célina who was still in school). Mathilde married at 18, Pierre at 19, and the two young couples promptly moved out. About the time Adéle and Phileas finally moved to a place on their own, Julie, only 17, married Alexandre, a shoemaker from France, and they boarded with Charles and Angélique. The next year they all moved back to St. Jacques ward, to Montcalm street, where they again rented a dwelling for $40. They still had ten people living in a two- or three- room house (see figure 5.10) in one of the highest-density streets in Montreal, subject to sewer problems, and in 1878 their youngest daughter Célina, died from typhoid, a disease transmitted by contamination of water and milk by human wastes.

The next year Ben married, and in 1881 Charles and Angélique moved back to Boyer Lane. They still paid $40 rent, but the size of the household had shrunk significantly. Charles Jr., also a cooper, was living with them at 36, still a bachelor, as well as Julie and her husband. The following year (1882) Charles Sr. passed away from respiratory trouble at age 65. When Charles Jr. married in 1889, unusually late in life, he moved next door. In 1891 Angélique, Julie and Alex moved to Mignonne, a more reputable street (median rent $90) in St. Jacques ward, and mother Angélique died shortly thereafter at 80.

Changes in residence appear to have been made as adjustments to the increasing need for household space. Most of these moves were very short, and all of the brothers and sisters were within 1 km of one another (see figure 5.11 A). Household strategies exhibited by Charles and Angélique include the operation of extended networks of kinship. The support given by Julie and Alex to Angélique once she was widowed, is an example of this. Co-residence of several families in the same apartment or the same duplex meant sharing the cost of heating and maintenance, or sharing a stove or privy. These practices were best regulated in a family context, and the duplex or triplex habitat, the most common form in Montreal, was ideally suited to this kind of joint household strategy. The benefits of co-residence however, are negated when the dwelling is not large enough. Contemporary industrialist and social reformer Herbert B. Ames (1897) claimed that "the closer

people live to one another...the shorter their lives were" (p.80) was a "universally admitted" truth. He believed in "the ideal home... where there are as many rooms allotted to a family as there are persons composing it" (p.40). Ames certainly would not have approved of Charles and Angélique's living conditions.

GREAT GRANDCHILDREN

Charles and Angelique, from their eight offspring, had at least two grandchildren by the time Angelique died in 1891. And from the half-dozen offspring of Jean Baptiste and Caroline, there were at least 22 grandchildren, about half of which survived until marriage. Since Caroline died in 1871, it was Émilie who "grandmothered" them. Let us look now at these two networks of great-grandchildren of François and Euphrosine.

Jean Baptiste's son George, when he married Ermeline in 1864, settled on St.Adolphe, a few doors from his parents. He worked a s sculptor of wood, and they had five children, the youngest of whom died of smallpox in 1872, before his fifth birthday. They were still living on St.Adolphe near grandpa when Ermeline died. George, at 56, remarried Cordelia, a woman ten years younger, and their first home together was on St. Elizabeth Terrace in St.Louis ward (district 18). They paid $50 rent for this dwelling. After the death of a premature baby, they had George Michael, and while he was still a tiny boy the first set of children was marrying and moving out.

Over time, George and his family left their roots in St. Mary ward and moved westward. Successive moves among siblings were exhibited by the sons, who together moved west to St. Henri, an industrial and railway suburb in rapid expansion. By this time the grandparents had died, and the changes of neighbourhood were associated with a change of occupational profile in the entire family. Joseph and his wife moved to St.Henri, as did Pierre Aldéric, a brakeman, who died a bachelor at 24. Joseph worked as a cigar maker, and when he became foreman at the cigar factory they were able to move from Delisle (54$ rent) to an eight-room dwelling in Park avenue (108$). They raised five sons.

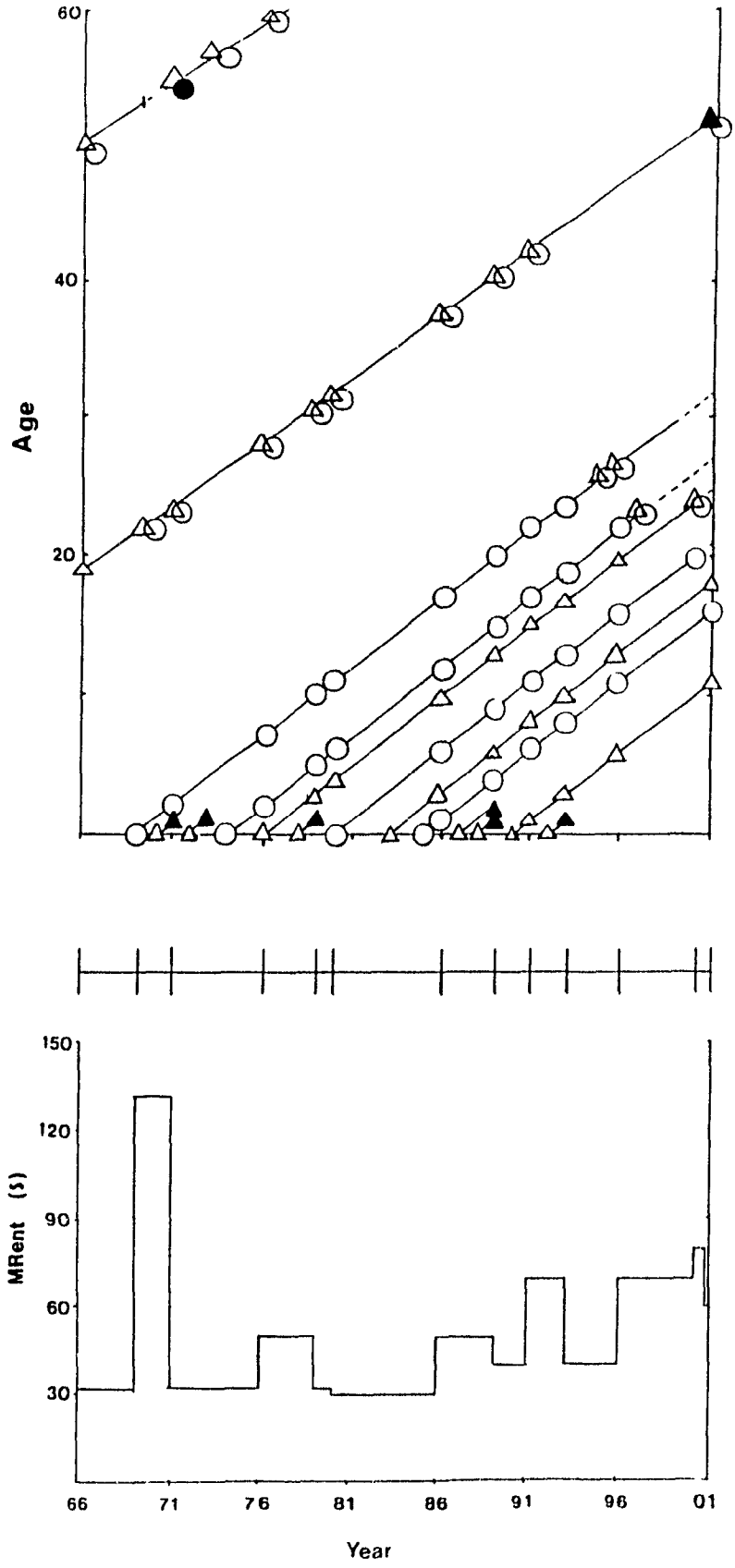
Meanwhile George himself had become a railway porter, and in 1896 he and Cordelia were living on St.Felix street North, close to Windsor station (district 8). They paid $40 for their dwelling. A few years later George was working as a labourer

and they moved to Forgue, in 1901 they to Versailles, George was earning $300 a year as a labourer, but George Michael's earnings as a 16-year-old plumber's apprentice covered the family's 50$ rent. Alfred and Celanire were paying $30 for the other apartment in the duplex.

All of the other children of Jean-Baptiste and Caroline (George's brothers and sisters) stayed in the east end where they were born[35]. But differences in the quality of housing reflected their different occupational situations. Philomène, at 20, made an advantageous marriage to Jacques, a bailiff. Their first home was on Fullum street (district 31). In 1871 Jacques was promoted, and was working as an excise officer. The year after his job change, they moved to Craig, still in St. Mary (district 27) but a somewhat higher-status street (median rental $50, compared with $30 on Fullum). They continued to move up: in 1880 on Guilbault (district 17), the following year on Arcade (district 36), a year on St. Paul (district 43) and back to Arcade - a white-collar and newly built area.

Contrasted with that is a son Napoléon, who worked as a labourer most of his life[36]. He married Emma in January 1869, and they moved to Craig street (district 27). Figure 5.12 displays the residential changes and life-events occurring during their lives together. They had 14 children in all, and were highly mobile within a compact geographical area, as can be seen in figure 5.11 (B). In 32 years of marriage, they made at least 13 changes in residence, which means one move every two and a half years. The first child Marie Louise was born two months after they were married. When the second was about six months old, they moved for a few months (in 1871) into the home of his grandfather Jean Baptiste on St.Adolphe street. The baby died of smallpox a few months after the move. Emma named the next boy for him, but he died, too, of scarlet fever. Of their ten boys and four girls, six boys died in babyhood. In 1876 the family of five was living on St.Catherine street (district 28). They paid $60 rent for this dwelling, which was their largest yet. After a birth in August 1878, Napoléon and Emma moved back to St.Adolphe street, a few doors from grandpa, and again the new baby died. Survival was difficult for Napoléon and Emma on St.Adolphe street. By 1881, they had another child and moved to a very low-rent dwelling in Champlain street ($24 rent, district 29). The dwelling, probably two

FIGURE 5.12 PROFILE OF LIFE-EVENTS AND HOUSING FOR THE HOUSEHOLD OF NAPOLEON AND EMMA



rooms, was crowded, for a family of six. In 1886 it had now grown to eight, and they rented a larger, more commodious dwelling for $50, six blocks east in Delorimier street (district 32). The next two infants died within five days of each other in October of 1889, while they were living on Panet street (district 28), two doors from Napoléon's niece Mary Georgianna and her husband. They were very fond of Georgianna, who was the godmother of one of their children. In 1891 they were renting a place on Desalaberry street for $60 (district 27), Napoléon at 40 was an iron worker, and the eldest daughter Marie Louise (21 years), helped pay the rent from her earnings as a milliner. About the time the last child was born (he died of bronchitis at 8 months), the older ones were marrying and moving out. Marie Louise and her husband settled on Plessis street (district 29) where her family had been living, but they then moved back to Desalaberry. About 1900, when the parents moved to Demontigny (district 19), they occupied a much bigger house than ever before; it had seven rooms, and only five people remained in the household. How could Napoléon, who earned only $375 as a labourer, afford such a large home? His income was supplemented by Napoléon Jr. who earned $100 as a labourer that year and Philomène who earned $52. Napoléon Sr. died later that year with meningitis at age 52. Before he died, however, the household had moved once more to Wolfe street, in St. Jacques ward (district 25).

Over their life course, what Napoléon and Emma could afford did not correspond to their needs. High rates of infant mortality within the family, at various stages, were associated with times of overcrowding; this demonstrates the importance of "breathing space" to survival as Ames (1897) suggested. As figure 5.12 indicates, infant deaths appear to have occurred soon after the family had moved to a low-rent street. Low-rent streets were plagued by high densities and problems of public sanitation. As one contemporary observer noted, the poorer streets contained "nests of contagion"[37]. Only when their surviving children were grown up could the family manage to move to more spacious dwellings on slightly healthier streets.

As we turn to the eight offspring of Charles and Angelique, we are looking at occupations in other sectors of the economy, typical of St. Jacques ward. Charles, born in 1846, became a cooper like his father and his grandfather, but coopering was

in his lifetime a craft which was being displaced by mechanized sawmills. He and Estelle married relatively late in life (he was 43 years, she was 37) and rented the dwelling next door to his parents on Boyer lane (district 19), at $40. Ten years later, after his mother's death, Charles and Estelle moved north to the suburb of St. Louis-du-Mile-End. They paid $36 for a two-room dwelling on Casgrain (54). As a cabinetmaker, Charles was earning $400.

Adéle and Phileas, a tanner, married at 18, lived with her parents for a year and then moved to Seaton street (district 29), then to Montcalm street (in St. Jacques ward, district 25). We know of seven moves, all within the same few blocks. Adele's sister Mathilde, also married at 18 to a tanner, lived close by in Amherst street (district 22). They had nine children, and in 1893 they moved to St.André, a few doors from Adéle's new place. The two brothers-in-law were both working as leather cutters. A third sister Julie, we recall, also married very young and married a shoemaker. He had been living on Mountain street (St. Ann's ward, district 3), but at their marriage moved in with Julie's parents on Boyer Lane and stayed with Angelique after she was widowed. Soon after Angélique died, Alex too passed away, but Julie, a widow at age 36, was not alone: she was living on St. André, with her sister Mathilde a few doors to the north and her sister Adéle a few doors further on.

Pierre and Emma married while they were still minors and moved to Mignonne (district 19). Pierre was a cooper, same as his father. Their two children died at birth, and Pierre himself died at only 20 years old. Emma survived the tragic loss of her family, and eventually passed away in December 1895, she was 38 years old.

The various networks of grandchildren illustrate the interweave of work and residence among kinfolk. They shared in the good and hard times, and our records show how often they appeared as witnesses at the marriages of brothers and sisters, or as godparents for their nephews and nieces.

## CONCLUSION

The first question raised in the literature that this thesis attempted to answer was: who moves? Persistence rates for the three cultural communities are fairly steady throughout the forty years of study. About one-third of Protestant households are still at the same address at the end of five years, one-quarter of French Canadian and Irish Catholic families. By the end of ten years, household persistence falls to approximately 25, 15 and 15 per cent respectively, and by the end of fifteen years to 15, 10 and 10 per cent. The higher rates of persistence among Protestant families are, arguably, attributable to their higher incomes, higher-status occupations and higher rates of homeownership. Indeed, multivariate analysis has consistently estimated that households which persist at the same address are more often owner-occupiers, older, Protestant, and higher-status than households that move. Results from the categorical analysis performed using the logit model suggested that tenure status and age of household head have the strongest effect on whether a household moves or stays, while the effects of ethnicity and occupational status are slightly less significant. The results confirm the findings of other urban historians who have found that "home owning slows residential mobility and that occupational level (and implicitly, income and social status) fails to discriminate well" (Tobey et al., 1990).

This thesis also attempted to answer the question: where do households move? Modern literature supposes that most moves are short. Statistics for nineteenth-century Montreal indicated that approximately one-half of French Canadian, and three-fifths of Protestant and Irish Catholic households which remain in Montreal for at least five years, also remain within the same street segment and in most cases presumably the same dwelling. For those households who changed addresses, it was estimated that almost two-thirds of French Canadian and Protestant households, and over three-quarters of Irish Catholic households moved to a new dwelling within the same district, or to an adjoining district usually within one-kilometre of their previous home. It was suggested that Irish Catholic households made shorter moves within a spatially confined 'life-radius', due to the strength of kinship ties, and a lack of affordable options elsewhere in the city.

The previous case studies further illustrate the results of chapters three and

four, which indicated that indeed most moves within nineteenth-century Montreal were over short distances and more moves were made within the same neighbourhood, rather than between neighbourhoods. Most households were extremely mobile, especially the young, yet the majority of families still tended to remain within close proximity of their kin.

Each cultural community saw some degree of improvement in social status over time. Very few residents of Montreal however, conformed to the "rags-to-riches" ideology experienced in other nineteenth-century cities, as suggested by researchers such as: Chudacoff (1972), Worthman (1971) and Gutman (1968). Rates of intra-generational upward mobility were less than one-fifth for each cultural community, while rates of inter-generational mobility were estimated to be just under one-third. Alternative estimates of social status indicate a trend to better housing and social environments by the end of the century, compared to households of the mid-century. This is particularly the case of Irish Catholic households, which, in 1861 have the lowest values of median rent, and rent per person, but by 1901 they exceed the French. Although French Canadian households always experienced higher rates of owner-occupancy than the Irish, by 1901 they experienced a lower degree of "household comfort", or higher rates of crowding, expressed in lower values of rent per person than the Irish households. Homeownership has been proven to restrict ease of mobility. It appears that Irish Catholic households in nineteenth-century Montreal took greater advantage of the rental market than French Canadian households, which enabled them to improve their housing status by moving to more spacious homes, as financial and life-cycle situation would permit. This discovery therefore adds to the continuing debate advanced by authors like Harris and Pratt (1993) and Katz, Doucet and Stern (1982) on whether the acquisition of property actually contributes to social mobility. Can a household who purchases a one room shack be more upwardly mobile than a couple that rents a spacious mansion? Researchers must consider the size or value of the home, and the physical environment in which it is located, as well as the tenure status, when using owner-occupancy rates in the study of social mobility.

Several hypotheses were formulated on the basis of the literature regarding

present-day mobility, and although statistical analysis confirmed the similarities between household behaviour in both centuries, an in-depth analysis of various households revealed several important differences between the two societies. Mobility is seen as a response to a changing set of opportunities. These changes are mediated by the family and its cycle of procreation, marriage and mortality. In the nineteenth-century the life-cycle was running at a faster pace, with a high temporal density of vital events: lives and marriages were short, gross rates of family formation and family dissolution were high. Two kinds of household adaption were common in the nineteenth-century. The household could move from one dwelling to another, adjusting the size of dwelling or local environment, in response to, or anticipation of, changes in the composition and earning power of the household. The alternative strategy was for the family to remain in the same home and readjust its size and earnings by recomposition, usually by taking in boarders or relatives. Adult children often remained in the home of their parents and contributed to the rent and overall residential satisfaction of the household. One strategy for upward mobility, especially among Protestant males, was the postponement of marriage until a considerable degree of success in business had been achieved. Widowhood was a frequent cause of shrinking households, especially among the working-class. Household recomposition of this nature was frequent in the nineteenth-century, particularly among the Irish, as many women outlived their husbands. Without a source of income they usually turned to their children for financial and emotional support. Co-habitation among relatives was one of the most common coping strategies - sharing household responsibilities, a stove, or a privy was best regulated in a family setting. For the children of François and Euphrosine, "la migration semble loin de générer une coupure radicale avec la parenté et le milieu d'origine. Elle paraît plutôt se concrétiser dans l'interdépendence entre parents, et entre milieu d'origine et milieu d'accueil." (Gagnon, 1988, p.85). Migration to Montreal was not based solely on the experience of "des fils non héritiers", nor on a "permanent floating proletariat" of young men, but rather couples, groups of siblings, or entire families. Kinship networks played a crucial role in the adjustment to new environments, whether it was the transition from farm to city, or from one block to the next. Nineteenth-century

household behaviour differed from present-day household behaviour for two primary reasons: the fast paced life-cycle and the extent of kinship dependency.

The contribution of this thesis lies not only in its ability to provide insights into an historical process of international significance, but also, to provide methods and insights into a problem of continuing present-day interest: how low-income households adjust their housing situation to cope with the budget constraint. The life-course approach permitted tests of household behaviour involving several explanatory variables. An outstanding feature of this study of nineteenth-century mobility was the richness and completeness of the sources of Montreal data. The primary data sources utilized in this research project included the usual sources available for research in most North American cities - census records, tax assessment rolls, and city directories, as well as two exceptionally comprehensive sources available to the study of Montreal - water tax rolls and parish records. The water tax rolls (or rôles d'évaluation), provide a list of both owners and tenants annually.

One of the first results reported in this thesis was that the majority of residents changed their address within a five-year period, but the case studies revealed that many of them may have moved several times within the five years. Time limitations imposed on the production of this research project made it impossible to gather tax roll address data for every household for every year; consequently, annual rates of mobility and length of housing tenure were not included in this study. Recommendations for future research in the field of nineteenth-century residential mobility, particularly in Montreal, include a study of the length of household tenure, or precisely how long families remain in a specific dwelling. In this research, the discussion of kinship ties was based primarily on the relationship of one spouse to his or her parents and/or siblings, however, as each individual marries, he or she becomes part of another family and gains a whole other network of kin. It would be fascinating for future studies to attempt to trace the kinship relationship and housing situation for both spouses, including the "other half" of the picture to determine whether kinship and neighbourhood ties were centred around just one, or both spouses. These proposed avenues for research will complement what we now know about the characteristics of nineteenth-century movers.

## NOTES

1. Perhaps the best examples of literature regarding the historical position of women are provided by Hareven (1978; 1982) and Alter (1988).

2. The data base was partially assembled by Dr. Sherry Olson and Dr. Patricia Thornton for the purpose of studying other aspects of demographic behaviour such as birth rates and infant mortality rates in Montreal over the half-century from 1850 to 1900, however, with additions and slight modifications it is suitable for a study of household mobility. The sample population was comprised of a sample of twelve surnames: one French, one Irish, and ten protestant, to represent the three major cultural communities of Montreal.

3. Weights of the French sample were increased by 100% in the tax roll totals of 1861 and 1866, and by 50% in total for 1871 and 1876, in order to represent the overall cultural composition of the city.

4. Further discussions of sampling procedure can be found in: Olson, Thornton and Thach 1989; Thornton and Olson 1991; and Gilliland and Olson 1993.

5. This estimate was derived from an analysis of taxroll values (n=33 000) and the 1901 census, which included number of rooms per dwelling. For a detailed discussion see Gilliland and Olson (1993). Ames (1897) also estimated that the average rental in the "city below the hill" was $1.75 per month for each room, or $21 per year (see p.56).

6. Another problem with relying purely on occupational titles to infer status is the range of jobs a specific title may include. For example, the title: "clerk" can represent anyone from the grocer's helper, who sweeps floors and stocks shelves at the local grocery store, to the "pencil-pushing" bank employee who oversees many important transactions. In the first case, the clerk would fall into occupational rank 2 (blue-collar), and in the second scenario the clerk should be found in occupational rank 1 (white-collar).

7. To improve statistical significance of this particular regression analysis, user-defined categories are believed to better suit these variables (for further discussion see: O'Brien (1992, pp.44-5 and 285-7).

8. Out-migration can be calculated by the formula: 100% - persistence - removal caused by death. The correction for deaths procedure is explained in Chapter 2. Because not all of the deaths were accurately matched, rates of intra-city persistence are most likely understated by a small percentage. Approximately 6% of households were dropped from the five-year analysis due to death, 10% from the ten-year analysis, and 12% from the fifteen-year analysis.

9. Decennial mobility rates of several nineteenth-century cities had a mean of 54.5%, standard deviation of 13.2. (from Thernstrom, 1973 table 9.1, pp.222-23; Barrows, 1981, table 2, pp. 203-04; Katz et al, pp.107-122; Tobey et al, 1990, p.1398).

10. A few authors attempted what Knights (1971) did in his examination of persistence rates in nineteenth-century Boston. He did not correct rates for death of individual households, he did however devise a formula for removal due to death, based on annual death rates in the city.

11. Average owner-occupancy rates for the three cultural communities were calculated as follows: FRENCH = 161 owners/ 1074 households = 15.0%, IRISH = 60 owners/ 584 households = 10.3%, PROTESTANT = 148 owners/ 607 households = 24.4%, ALL = 369 owners/ 2265 households = 16.3%.

12. Cultural composition of total owner-occupied units was calculated as follows: FRENCH = 161 owners / 369 all owners = 43.6%, IRISH = 60 owners / 369 all owners = 16.3%, PROTESTANT = 148 owners / 369 all owners = 40.1%.

13. Katz's (1975) figures for occupational status in Hamilton in 1851 and 1861 (p.67), do indicate that the Irish Catholic population made a slight improvement, increasing their proportion in high-status occupations over the decade.

14. Father's income and occupational status were highly correlated. The following table supports this claim:

FATHER'S INCOME DISTRIBUTION AND OCCUPATIONAL-STATUS, 1901

| | FATHER'S INCOME LEVEL* | | | |
|---|---|---|---|---|
| OCC-STATUS | High | Mid | Low | N |
| High | 64.6 | 29.6 | 5.8 | 44 |
| Mid | 39.8 | 46.6 | 14.6 | 103 |
| Low | 9.4 | 44.8 | 46.8 | 32 |

*FATHER'S INCOME GROUPINGS: LOW<$400 MID=$400-$599 HIGH>$600

15. An analysis of notarial records by Olson and Thornton (1993) discovered the existence of the 'dower' as a form of insurance policy, popular among Irish couples. Insurance contracts were developed to provide widows with a predetermined amount of money in the event of a husband's death. It appears that a large proportion of Irish widows used this sum to purchase a home.

16. Authors such as Morrow-Jones 1988, Harris and Hamnett 1987, Pickvance 1974 comment on the increasing attachment to home and a conservative pattern of behaviour.

17. Note that when using LOGIT a CATEGORY command is included which defines the number of categories for one or more independent variables used as categorical predictors. By default, the lowest level of each categorical variable is considered as the reference level.

18. If borderline high leverage observations are considered, then the number of observations with high leverage rises to 14 out of 965. This still only accounts for less than 1.5% of total observations.

19. Testimony of George E. Muir, to Royal Commission on Capital and Labor (1889), Quebec Evidence, pp. 258-264.

20. For evidence and discussion see Hanna and Olson (1983), and Gilliland and Olson (1993).

21. For further discussion of crowding in Montreal, see Gilliland and Olson (1993); Ames (1897/1972), pp.57-63; and the Royal Commission on Capital and Labor (1889), Quebec Evidence, p.3).

22. In fact, rents were transferred to log10, and a threshold of log 0.075 was chosen.

23. The average rent of each street segment in the city was stable from 1861 to 1881, but made a slight increase by 1901. Incorporating a threshold change statistic cancels out any bias which might exist due to inflation, however, as mentioned earlier, inflation was believed to be negligible.

24. 111 French Canadian, 69 Irish Catholic, and 75 Protestants.

25. These shifts were almost entirely between the middle and upper-occupational ranks, and there were no moves across two class boundaries.

26. Due to small sample sizes, and no knowledge of what happened to those households who left the city, these questions remain unanswered.

27. In the case where a father or son changed their occupation several times over their respective careers, they were registered according to the rank of the highest occupational status they ever achieved, and/or the title for the occupation that appeared most frequently within that rank.

28. A peculiar absence of low-status household heads is perhaps explained by the fact that the occupational title reported for each father and son was based on the highest status occupation that person achieved within their lifetime, therefore a father who was listed as a labourer (low-status) for twenty years, and then discovered in the next five years to be employed as a brakeman (middle-status) would therefore be considered a brakeman. The number of labourers in the larger sample of a given year may have been inflated due to the lack of specificity in reporting titles to enumerators, however, it is believed that a worker of higher status would rarely refer to himself as just a labourer. A longer trace of individual workers allows for more

precise classifications.

29. N = 124 fathers and 132 sons.

30. Percentages reported for a decade are comprised of data from two five-year study periods (i.e. the 1860s are comprised of moves between 1861 and 1866, as well as moves between 1866 and 1871).

31. The numbers in parentheses that follow most street names refer to the district in which the street was located. A map of Montreal's districts as of 1901 is included in appendix 1.

32. Tram-car fares reported in Ames (1897, p.106).

33. For a similar discussion of the Irish see chapter 5, in Elliot (1988).

34. A sister Esther also married a cooper. George had started out as a tavern keeper in St. Ann's ward, [He lived on St.Mary (04) street, verify 04]. but a year before he wed Esther he gave up the tavern, began working as a cooper, and moved to Visitation street in St. Mary ward (district 24). They lived on St.Ignace street for a few years (district 27) until they died or moved out of the city [look for death].

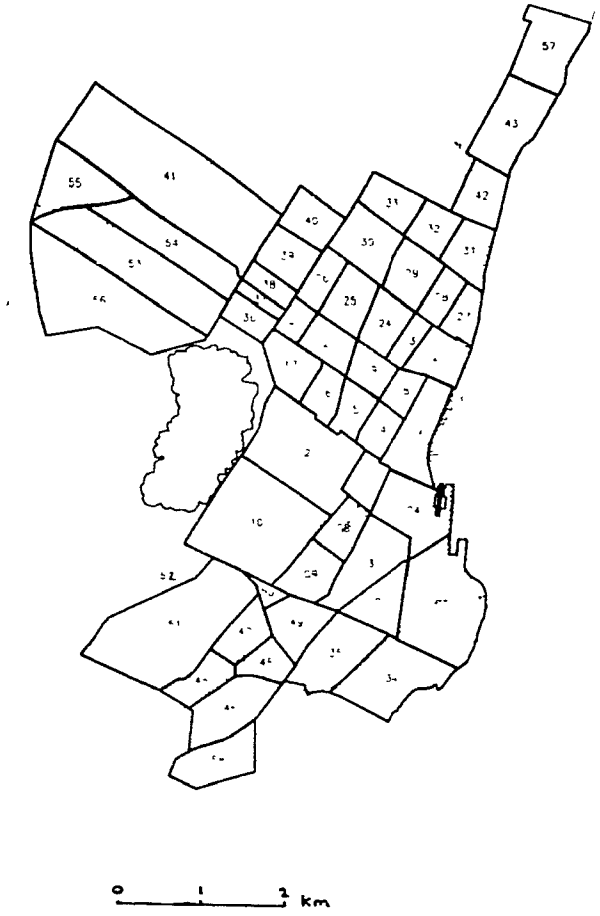
35. Mary Georgianna married and lived on Panet street (district 28); she died at age 24; while Caroline, married at 17 to a cabinetmaker, lived in St. Catherine street and had at least ten children while living at this address.

36. His brother Alexis was also a labourer and for awhile his wife and children paid comparable rent ($50) on Delorimier street, one of the same streets where Napoléon had lived.

37. Testimony to Royal Commission on Capital and Labour (1889), Quebec Evidence, p.3.

APPENDIX 1

# MAP OF DISTRICTS, 1901



# APPENDIX 2

**CLASSIFICATION OF OCCUPATIONS BY STATUS**

| OCC | KATZ | K | LRENT | MRENT | MR | OCCUPATION TITLE |
|---|---|---|---|---|---|---|
| ACC | 2 | 1 | 2.15 | 140 | 1 | ACCOUNTANT |
| ADJ | 2 | 1 | 2.20 | 160 | 1 | AVERAGE ADJUSTER |
| ADV | 1 | 1 | 2.48 | 300 | 1 | ADVOCATE, LAWYER |
| AGT | 2 | 1 | 2.20 | 160 | 1 | AGENT, INSURANCE, TRAVELLERS |
| ARC | 2 | 1 | 2.38 | 240 | 1 | ARCHITECT |
| ART | 2 | 1 | 2.09 | 123 | 1 | ARTIST |
| AUC | 2 | 1 | | | 1 | AUCTIONEER |
| BAI | 3 | 2 | 2.00 | 100 | 2 | BAILIF |
| BAN | 2 | 1 | 2.08 | 120 | 1 | BANK WORKER |
| BAR | 3 | 2 | 1.85 | 70 | 2 | BARBER |
| BHK | 2 | 1 | 2.08 | 120 | 1 | BOARDING HOUSE KEEPER |
| BKR | 2 | 1 | 2.52 | 330 | 1 | BROKER, SHIPBROKER |
| BLK | 3 | 2 | 1.85 | 70 | 2 | BLACKSMITH |
| BOB | 3 | 2 | 1.90 | 80 | 2 | BOOKBINDER |
| BOI | 3 | 2 | 1.90 | 80 | 2 | BOILERMAKER |
| BOO | 2 | 1 | 2.15 | 140 | 1 | BOOKKEEPER |
| BOT | 4 | 2 | | | 2 | BEER BOTTLES |
| BOX | 4 | 2 | | | 2 | BOXMAKER |
| BRK | 3 | 2 | 1.90 | 80 | 2 | BRAKEMAN |
| BRL | 3 | 2 | 1.85 | 70 | 2 | BRICKLAYER |
| BRS | 3 | 2 | 2.00 | 100 | 2 | BRASS FINISHINGS, COPPERSMITH |
| BRU | 3 | 2 | | | 2 | BRUSHMAKER |
| BRW | 3 | 2 | 2.18 | 150 | 1 | BREWER |
| BTD | 4 | 2 | | | 2 | BARTENDER |
| BUI | 2 | 1 | 2.30 | 200 | 1 | BUILDER |
| BUT | 3 | 2 | 1.90 | 80 | 2 | BUTCHER |
| CAS | 2 | 1 | 2.34 | 220 | 1 | CASHIER |
| CAT | 4 | 2 | 1.85 | 70 | 2 | CARTER |
| CBM | 3 | 2 | 1.90 | 80 | 2 | CABINET MAKER |
| CDT | 3 | 2 | 1.90 | 80 | 2 | CAR CONDUCTER |
| CHE | 4 | 2 | 1.90 | 80 | 2 | CHECKER |
| CIG | 3 | 2 | 1.78 | 60 | 3 | CIGAR MAKER |
| CLG | 1 | 1 | 2.34 | 220 | 1 | CLERGY |
| CLK | 2 | 1 | 2.08 | 120 | 1 | CLERK |
| CMK | 3 | 2 | 1.90 | 80 | 2 | CARRIAGE MAKER |
| CNF | 3 | 2 | 1.98 | 95 | 2 | CONFECTIONER |
| COA | 4 | 2 | 1.86 | 72 | 2 | COACHMAN |
| COL | 3 | 2 | 1.95 | 90 | 2 | COLLECTOR |
| COO | 3 | 2 | 1.95 | 90 | 2 | COOK |
| CPR | 3 | 2 | 1.85 | 70 | 2 | COOPER |
| CPT | 3 | 2 | 1.90 | 80 | 2 | CARPENTER |
| CTK | 4 | 2 | 1.90 | 80 | 2 | CARETAKER |
| CTR | 2 | 1 | 2.11 | 130 | 1 | CONTRACTOR |
| CUR | 3 | 2 | | | 3 | CURRIER |
| CUS | 2 | 1 | 2.20 | 160 | 1 | CUSTOMS OFFICER |
| DEC | 3 | 2 | 1.85 | 70 | 2 | DECORATOR |
| DEN | 2 | 1 | 2.30 | 200 | 1 | DENTIST |
| DIS | 3 | 2 | 2.18 | 150 | 2 | DISTILLER |
| DLR | 3 | 2 | 2.50 | 315 | 1 | DEALER |
| DOC | 1 | 1 | 2.30 | 200 | 1 | MD, PHYSICIAN |
| DRA | 3 | 2 | | | 1 | DRAFTSMAN |
| DRG | 2 | 1 | 2.20 | 160 | 1 | DRUGGIST |
| DRS | 3 | 2 | 2.00 | 100 | 2 | DRESSMAKER |
| DRV | 4 | 2 | 1.85 | 70 | 2 | DRIVER, CAB DRIVER |
| DYE | 3 | 2 | 1.90 | 80 | 2 | DYER |
| EGR | 3 | 2 | | | 2 | ENGRAVERS |
| ELE | 3 | 2 | 1.90 | 80 | 2 | ELECTRICIAN |
| EMC | 2 | 1 | 2.10 | 125 | 1 | CIVIL EMPLOYEE |
| ENG | 3 | 2 | 1.98 | 95 | 2 | ENGINEER |
| EXC | 2 | 1 | 2.10 | 125 | 1 | EXCISE OFFICER,LICENSE COMMRS. |
| FDR | 3 | 2 | | | 2 | STOVEMAN |
| FEL | 4 | 2 | | | 2 | FELTER |
| FIN | 3 | 2 | 1.90 | 80 | 2 | FINISHER |
| FIR | 3 | 2 | 1.90 | 80 | 2 | FIREMAN |
| FIT | 3 | 2 | 1.92 | 83 | 2 | FITTER,STEAMFITTER,GASFITTER |

| | | | | | | |
|---|---|---|---|---|---|---|
| FLO | 3 | 2 | | | 1 | FLORIST |
| FOR | 3 | 2 | 1.95 | 90 | 2 | FOREMAN |
| FUR | 2 | 1 | 2.00 | 100 | 2 | FURRIER |
| FWD | 1 | 1 | 2.20 | 160 | 1 | FORWARDER |
| GAR | 4 | 2 | 1.90 | 80 | 2 | GARDENER |
| GDN | 4 | 2 | | | 2 | GUARDIAN,WATCHMAN |
| GEN | 1 | 1 | 2.08 | 120 | 1 | GENTLEMAN |
| GLO | 3 | 2 | 1.85 | 70 | 2 | GLOVEMAKER |
| GLS | 3 | 2 | 1.90 | 80 | 2 | GLASSBLOWER |
| GRO | 2 | 1 | 1.90 | 80 | 2 | GROCER |
| GTR | 3 | 2 | 1.90 | 80 | 2 | G.T.R.(RAILWAY WORKER) |
| GUN | 3 | 2 | | | 2 | GUNSMITH |
| HAI | 4 | 2 | 1.85 | 70 | 2 | HAIRDRESSER |
| HAT | 3 | 2 | 2.00 | 100 | 2 | HATTER |
| HEL | 5 | 3 | 1.78 | 60 | 3 | HELPER |
| HRS | 3 | 2 | 1.85 | 70 | 2 | HORSE DEALER |
| HSH | 3 | 2 | 1.85 | 70 | 2 | HORSESHOER |
| INN | 2 | 1 | 2.15 | 140 | 1 | INNKEEPER |
| INS | 2 | 1 | 2.08 | 120 | 1 | INSPECTOR |
| IRW | 3 | 2 | 1.90 | 80 | 2 | RAIL CUTTER, IRON WORKER |
| JAN | 4 | 2 | 1.90 | 80 | 2 | JANITOR |
| JOI | 3 | 2 | 1.85 | 70 | 2 | JOINER |
| JUD | 1 | 1 | 2.48 | 300 | 1 | JUDGE |
| JWL | 2 | 1 | 2.08 | 120 | 1 | JEWELLER |
| LAB | 5 | 3 | 1.78 | 60 | 3 | LABOURER |
| LCU | 4 | 2 | 1.85 | 70 | 2 | LEATHER CUTTER |
| LIT | 3 | 2 | 2.08 | 120 | 1 | LITHOGRAPHER |
| LKS | 3 | 2 | 1.85 | 70 | 2 | LOCKSMITH, LOCKMAKER |
| MAR | 1 | 1 | 2.15 | 140 | 1 | MARCHAND |
| MAS | 3 | 2 | 1.78 | 60 | 3 | MASON |
| MCH | 3 | 2 | 1.90 | 80 | 2 | MACHINIST |
| MEC | 3 | 2 | 1.90 | 80 | 2 | MECHANIC |
| MER | 1 | 1 | 2.48 | 300 | 1 | MERCHANT |
| MFR | 1 | 1 | 2.18 | 150 | 1 | MANUFACTURER |
| MGR | 2 | 1 | 2.40 | 250 | 1 | MANAGER |
| MIL | 3 | 2 | 1.90 | 80 | 2 | MILLER, MILLWRIGHT |
| MLK | 2 | 1 | 1.85 | 70 | 2 | MILKMAN |
| MLN | 3 | 2 | 1.95 | 90 | 2 | MILLINER |
| MOU | 3 | 2 | 1.85 | 70 | 2 | MOULDER |
| MUS | 2 | 1 | 2.08 | 120 | 1 | MUSICIAN |
| NAV | 3 | 2 | 1.90 | 80 | 2 | NAVIGATOR |
| NMK | 3 | 2 | 1.85 | 70 | 2 | NAILER, NAILMAKER |
| NTR | 1 | 1 | 2.18 | 150 | 1 | NOTARY |
| OFF | 2 | 1 | | | 1 | OFFICER (INCL. MILITARY) |
| OPE | 4 | 2 | 2.04 | 110 | 2 | OPERATOR |
| PAI | 3 | 2 | 1.85 | 70 | 2 | PAINTER |
| PAK | 4 | 2 | | | 2 | PACKER |
| PHO | 2 | 1 | 2.00 | 100 | 2 | PHOTOGRAPHER |
| PIL | 3 | 2 | | | 2 | PILOT |
| PIP | 2 | 1 | | | 2 | PIPEMAKER |
| PLA | 3 | 2 | 1.85 | 70 | 2 | PLASTERER |
| PLC | 3 | 2 | 1.90 | 80 | 2 | POLICE |
| PLS | 3 | 2 | 1.85 | 70 | 2 | POLISHER |
| PLT | 2 | 1 | 0 | 125 | 1 | POLITICIAN |
| PLU | 3 | 2 | 0 | 80 | 2 | PLUMBER |
| POR | 4 | 2 | .08 | 120 | 1 | PORTER |
| PRI | 3 | 2 | 1.95 | 90 | 2 | PRINTER, PAPER STAINER |
| PRP | [illegible] | 1 | 2.56 | 360 | 1 | PROPRIETOR |
| REG | 2 | 1 | 2.48 | 300 | 1 | REGISTRAR |
| RES | 2 | 1 | 2.11 | 130 | 1 | RESTAURANTEUR |
| ROO | 3 | 2 | 1.85 | 70 | 2 | ROOFER |
| ROP | 3 | 2 | | | 2 | ROPEMAKER |
| RPT | 2 | 1 | | | 1 | REPORTER |
| RUB | 4 | 2 | | | 2 | RUBBER FACTORY |
| SAD | 3 | 2 | 1.85 | 70 | 2 | SADDLER |
| SAW | 5 | 3 | 1.78 | 60 | 3 | SAWYER |
| SCU | 2 | 1 | | | 2 | SCULPTOR |
| SEC | 2 | 1 | 2.44 | 275 | 1 | SECRETARY |
| SHI | 2 | 1 | 2.02 | 105 | 2 | SHIPPER |
| SHO | 3 | 2 | 1.78 | 60 | 3 | SHOEMAKER,CRIMPER |
| SHU | 4 | 2 | 1.95 | 90 | 2 | SHUNTER, CHANNELER |
| SIL | 3 | 2 | 1.90 | 80 | 2 | SILVER PLATER |
| SPN | 3 | 2 | 2.00 | 100 | 2 | SPINNER |

| | | | | | | |
|---|---|---|---|---|---|---|
| SPT | 2 | 1 | 2.30 | 200 | 1 | SUPERINTENDANT |
| SRV | 2 | 1 | | | 1 | SURVEYOR |
| STB | 4 | 2 | | | 2 | STABLEMAN |
| STD | 4 | 2 | | | 3 | STEVEDORE |
| STK | 4 | 2 | 1.85 | 70 | 2 | STOKER |
| STN | 3 | 2 | 1.82 | 65 | 2 | STONECUTTER |
| STO | 2 | 1 | 1.90 | 80 | 2 | STOREOWNER, STOREKEEPER |
| STR | 2 | 1 | 2.26 | 180 | 1 | STATIONER |
| SUG | 4 | 2 | | | 2 | SUGARMAKER |
| SVT | 4 | 2 | | | 3 | SERVANT |
| TAI | 3 | 2 | 1.95 | 90 | 2 | TAILOR |
| TAN | 3 | 2 | 1.78 | 60 | 3 | TANNER |
| TEA | 2 | 1 | 2.18 | 150 | 1 | TEACHER |
| TIN | 3 | 2 | 1.82 | 65 | 2 | TINSMITH |
| TLG | 2 | 1 | | | 2 | TELEGRAPHER |
| TOB | 2 | 1 | 1.95 | 90 | 2 | TOBACCONIST |
| TOO | 3 | 2 | | | 2 | BELLOWMAKER, TOOLMAKER |
| TRD | 2 | 1 | 2.00 | 100 | 2 | TRADER |
| TRE | 2 | 1 | 2.44 | 275 | 1 | TREASURER |
| TRV | 2 | 1 | 2.18 | 150 | 1 | COMMERCIAL TRAVELLER |
| TYP | 3 | 2 | 1.90 | 80 | 2 | ELECTRIC TYPIST |
| UPH | 3 | 2 | 1.90 | 80 | 2 | UPHOLSTERER |
| VAR | 3 | 2 | 1.85 | 70 | 2 | VARNISHER |
| VOY | 2 | 1 | 2.18 | 150 | 1 | VOYAGER |
| WAI | 4 | 2 | 1.95 | 90 | 2 | WAITER |
| WMK | 3 | 2 | 1.90 | 80 | 2 | WATCHMAKER |
| WOO | 1 | 1 | 2.50 | 315 | 1 | WOODYARD, LUMBER DLR, COALYARD |

# BIBLIOGRAPHY

## PRIMARY SOURCES

Canada 1889. Report of the Royal Commission on the Relations of Labour and Capital, Vol. 3, Ottawa: Queen's Printer.

Canada 1862. Census of the Canadas, 1861-62, Vol. 1, Quebec: John Lovell.

Canada 1873. Census of Canada, 1870-71, Vol. 1, Ottawa: I.B. Taylor.

Canada 1882. Census of Canada, 1880-81, Vol. 1, Ottawa: I.B. Taylor.

Canada 1894. Census of Canada, 1891, Ottawa: Dawson.

Canada 1905. Census of Canada, 1901, Ottawa: Dawson.

Lovell, J. (ed.) 1861-1901. Montreal City Directory, Montreal: J. Lovell and Sons.

Montreal, Rôle d'évaluation. (1861-1901).

Westmount, Rôle d'évaluation. (1881-1906).

## SECONDARY SOURCES

Abu-Lughod, J.L. and M.M. Foley 1960. Consumer Strategies. In Housing Choices and Constraints, N.N. Foote et al (eds.). New York: McGraw-Hill.

Adams, J.S. and K.A. Gilder 1976. Household location and intra-urban migration. Social areas in cities, D.T. Herbert and R.J. Johnston (eds.) 1, Chichester: John Wiley.

Adams, J.S. 1969. Directional Bias in Intra-Urban Migration. Economic Geography 45, 302-323.

Adams, C. 1992. Defining *État* in Eighteenth-Century France: The Lamothe Family of Bordeaux. Journal of Family History, 17 (1), 25-45.

Alter, G. 1988. Family and the Female Life Course: The Women of Verviers, Belgium, 1849-1880. University of Wisconsin Press.

Ames, H.B. 1897/1972. The City Below the Hill. Toronto: University of Toronto Press, (first published in 1897).

Barrows, R.G. 1981. Hurryin' Hoosiers and the American 'Pattern': Geographic Mobility in Indianapolis and Urban North America. Social Science History 5, 197-222.

Blumin, S. 1969. Mobility and Change in Ante-Bellum Philadelphia. In Nineteenth-Century Cities, S. and R. Thernstrom and R. Sennett (eds.), New Haven: Yale University Press, 165-208.

Blumin, S. 1968. The Historical Study of Vertical Mobility. Historical Methods Newsletter. 1 (4), 1-13.

Bodnar, J. 1977. Immigration and Industrialiation: Ethnicity in an American Mill Town, 1870-1940. Pittsburgh: University of Pittsburgh Press.

Bouchard, G. 1991. Mobile populations, stable communities: social and demographic processes in the rural parishes of the Saguenay, 1840-1911. Continuity and Change 6(1), 59-86.

Bourne, L.S. 1981. The Geography of Housing. New York: V.H. Winston & Sons.

Boyce, R.R. 1971. Residential Mobility and Its Implications for Urban Spatial Change. In Internal Structure of the City, L.S. Bourne (ed.), 338-344. New York: Oxford University Press.

Bradbury, B. 1993. Working Families: Age, Gender, and Daily Survival in Industrializing Montreal. Toronto: McClelland & Stewart.

Bradbury, B. 1984. Pigs, Cows, and Boarders: Non-Wage Forms of Survival among Montreal Families, 1861-1891. Labour/Le Travail 14 (Fall), 9-46.

Brown, L.A. and E.G. Moore 1971. The Intra-Urban Migration Process: A Perspective. In Internal Structure of the City, Larry S. Bourne (ed.), 200-209 New York: Oxford University Press.

Burstein, A.N. 1981. Immigrants and Residential Mobility: The Irish and Germansi Philadelphia, 1850-1880. In Philadelphia: Work, Space, Family and Group Experience in the Nineteenth-Century, T. Hershberg (ed.). New York: Oxford University Press.

Brown, L.A. and E.G. Moore 1970. The Intra-Urban Migration Process: A Perspective. Geografiska Annalea 523, 1-13.

Brown, H.J. 1975. Changes in Workplace and Residential Locations. Journal of the American Institute of Planners, 41.

Cadwallader, M. 1982. Urban Residential Mobility: A Simultaneous Equations Approach. Transactions of the Institute of British Geographers 7, 458-473.

Cadwallader, M. 1986. Migration and Intra-Urban Mobility. In Population Geography: Progress and Prospect, M. Pacione (ed.), 257-283. London: Croom Helm.

Cadwallader, M. 1989. A Synthesis of Macro and Micro Approaches to Explaining Migration: Evidence From Inter-State Migration in the United States. Geografiska Annaler 71 (B), 85-94.

Chevan, A. 1971. Family Growth, Household Density, and Moving. Demography 8 (4), 451-458.

Choko, M. 1993. Ethnicity and homeownership in Montreal, 1921-51. Paper presented to Conference House and Home in Canadian Cities 1850-1950, McMaster University.

Choko, M. and R. Harris 1990. The Local Culture of Property: A Comparative History of Housing Tenure in Montreal and Toronto. Annals of the Association of American Geographers 80 (1), 73-95.

Choko, M. 1980. Crises du logement à Montréal 1860-1939. Montreal: Edition Albert Saint-Martin.

Chudacoff, H.P. 1972. Mobile Americans: Residential and Social Mobility in Omaha, 1880-1920. New York: Oxford University Press.

Clark, W.A.V., M.C. Deurloo and F.M. Dieleman 1984. Housing Consumption and Residential Mobility. Annals of the Association of American Geographers 74 (1), 29-43.

Clark, W.A.V. and K. White 1990 Modelling Elderly Mobility Environment and Planning A 22, 909-924.

Clark, W.A.V. and J.L. Onaka 1983."Life Cycle and Housing Adjustment as Explanations of Residential Mobility. Urban Studies 20, 47-57.

Clark, W.A.V. and J.L. Onaka 1985. An Empirical Test of a Joint Model of Residential Mobility and Housing Choice Environment and Planning A 17, 915-930.

Clark, W.A.V. 1982. Recent Research in Migration and Mobility. In Progress in Planning 18, 1-56.

Clark, W.A.V. 1973. Migration in Milwaukee. Economic Geography, 52, 48-60.

Clark, W.A.V. and W.F.J. Van Lierop 1986. Residential Mobility and Household Location Modelling. Handbook of Regional and Urban Economics. 1, 97-132.

Clark, W.A.V. and P.L. Hosking 1986. Statistical Methods for Geographers, John Wiley & Sons.

Clark, W.A.V. and E.G. Moore 1980. Residential Mobility and Public Policy. Beverly Hills: Sage Publications.

Clark, W.A.V. 1981. Residential Mobility and Behavioural Geography: parallelism or interdependence?. In Behavioural Problems in Geography Revisited, K. Cox and R.G. Golledge (eds.), London: Methuen.

Conzen, M.P. 1981. The American Urban System in the Nineteenth Century. In Geography and the Urban Environment: Progress in Research and Applications, D.T. Herbert and R.J. Johnston (eds.), 4, 295-347. John Wiley & Sons Ltd.

Coupe, R.T. and B.S. Morgan 1981. Towards and Fuller Understanding of Residential Mobility: A Case Study of Northampton, England. Environment and Planning A 13, 201-215.

Cross, D.S. and J.G. Dudley 1972 Comparative Study of Street Directories and Census Returns for 1871. Urban History Review 3, 12-16.

Darroch, G. and M. Ornstein 1984. Family Coresidence in Canada in 1871: Family Life-Cycles, Occupations and Networks of Mutual Aid. Canadian Historical Association, Historical Papers. 30-55.

Darroch, A.G. and M.D. Ornstein 1980. Ethnicity and Occupational Structure in Canada in 1871: The Vertical Mosaic in Historical Perspective. Canadian Historical Review 61 (3), 305-333.

Deane, G.D. 1990. Mobility and Adjustments: Paths to the Resolution of Residential Stress. Demography 27 (1), 65-79.

Dennis, R.J. 1977. Intercensal mobility in a Victorian City. Transactions of the Institute of British Geographers 2 (3), 349-363.

Dennis, R.J. 1984. English Industrial Cities of the Nineteenth-Century: A Social Geography. New York: Cambridge University Press.

Deurloo, M.C., Clark, W.A.V. and F.M. Dieleman 1990. Choice of Residential Environment in the Randstad. Urban Studies, 27 (3), 335-351.

Doherty, R. 1977. Society and Power, Five New England Towns 1800-1860. Amherst: University of Massachusetts Press.

Doorn, P.K. and A. Van Rietbergen 1990. Lifetime Mobility: Interrelationships of Labour Mobility, Residential Mobility and Household Cycle. Canadian Geographer 34 (1), 33-48.

Doucet, M.J. 1972. Nineteenth Century Residential Mobility: Some Preliminary Comments. Discussion Paper No.4, Department of Geography, York University.

Doucet, M and J.Weaver 1991. Housing the North American City. Montreal: McGill-Queen's University Press.

Doyle, D.H. 1978. The Social Order of a Frontier Community: Jacksonville, Illinois 1825-70. Chicago: University of Illinois Press.

Duchesne, A. 1990. A Study of the Garrison Families in Montreal and Quebec City, 1855-1865. Shared Spaces 11, Department of Geography, McGill University.

Duncan, O.D. 1968. Social Stratification and Mobility: Problems in the Measurement of Trend. In Indicators of Social Change, E.B. Sheldon and W.E. Moore (eds.), 675-720. New York: Russell Sage Foundation,

Eaglestein, A. Solomon and J. Weisberg 1990. Categorical, Multivariate Analysis of Intra-Urban Migration. Urban Studies 27 (4), 509-517.

Elliot, B.S. 1988. Irish Migrants in Canada: A New Approach, Montreal: McGill-Queen's University Press.

Esslinger, D.R. 1975. Immigrants and the City: Ethnicity and Mobility in a Nineteenth Century Midwestern Community. New York: Kennikat Press.

Flowerdew, R. 1976. Search Strategies and Stopping Rules in Residential Mobility. Transactions of the Institute of British Geographers 1, 47-57.

Fredland, D.R. 1974. Residential Mobility and Home Purchase. D.C. Heath.

Gad, G. et al 1973. Ethnic Differences in the Residential Search Process. In The Form of Cities in Central Canada, L.S. Bourne, R.D. MacKimmon and J.W. Simmons (eds.), 168-179. Toronto: University of Toronto Press.

Gagan, D. and R. Gagan 1990. Working-Class Standards of Living in Late-Victorian Urban Ontario: A Review of the Miscellaneous Evidence on the Quality of Material Life. Journal of the CHA, 171-193.

Gagnon, F. 1988. Parenté et migration: le cas des Canadiens français a Montréal entre 1845 et 1875. Historical Papers / Communications historiques, 63-85.

Gans, H.J. 1962. The Urban Villagers, New York: The Free Press.

Gauvreau, D. 1991. Québec, une ville et sa population au temps de la Nouvelle-France. Sillery: Presses de l'Université du Québec.

Gilliland, J. and S. Olson 1993. Claims on housing space in nineteenth-century Montreal. Paper presented to Conference House and Home in Canadian Cities 1850-1950, McMaster University.

Glasco, L. 1978. Migration and Adjustment in the Nineteenth-Century City: Occupation, Property, and Household Structure of Native Born Whites, Buffalo, New York, 1855. In Family and Population in Nineteenth-Century America, T.K. and M.A. Vinovkis (eds.), 154-178, Princeton University Press.

Goldstein, S. 1958. Patterns of Mobility 1910-1950. Philadelphia: University of Pennsylvania Press.

Goldstein, G.S. 1970. Household Behaviour in the Housing Market. PhD. Dissertation, Princeton University.

Goldstein, S. and K.B. Mayer 1964. Migration and the Journey to Work Social Forces, 42.

Golledge, R.G. 1980. A Behavioural View of Mobility and Migration Research. Professional Geographer 32 (1), 14-21.

Goodman, J.L. Jr. 1976. Housing Consumption Disequilibrium and Local Residential Mobility. Environment and Planning A 8, 855-874.

Green, S. 1978. Migrant Adjustment in Seoul, Korea: Employment and Housing. International Migration Review 12 (1).

Griffen, S. and C.Griffen 1977. Family and Business in a Small City: Poughkeepsie, New York, 1850-1880. In Family and Kin in Urban Communities 1700-1930, T.K. Hareven (ed.), New York: New Viewpoints, 144-163.

Griffen, C. 1969. Workers Divided: The Effect of Craft and Ethnic Differences in Poughkeepsie, New York, 1850-1880. In Nineteenth Century Cities: Essays in the New Urban History, S. Thernstrom and P. Knights (eds.), New Haven.

Griffen, Clyde 1972. Occupational Mobility in Nineteenth-Century America: Problems and Possibilities. Journal of Social History 5, 310-330, Spring.

Grigg, D.B. 1977. E.G. Ravenstein and the 'laws of migration'. Journal of Historical Geography 3 (1), 41-54.

Gutman, H.G. 1969. The Reality of the Rags-To-Riches 'Myth': The Case of the Paterson, New Jersey, Locomotive Iron, and Machinery Manufacturers, 1830-1880. In Nineteenth-Century Cities. Thernstrom and Sennet (eds.), 98-124. New Haven: Yale University Press.

Hanna, D. and S. Olson 1983. Métiers, loyers et bouts de rue:l'armature de la société Montréalaise de 1881 à 1901. Cahiers de Géographie du Québec 27 (71), 255-275.

Hanna, D. 1986. Montreal, A City Built By Small Builders, 1867-1880. PhD thesis, Department of Geography, McGill University.

Hardy, M.A. 1989. Estimating Selection Effects in Occupational Mobility in a Nineteenth-Century City. American Sociological Review 54 (October), 834-843.

Hareven, T.K. and M.A. Vinovkis (eds) 1978. Family and Population in Nineteenth-Century America. Princeton University Press.

Hareven, T.K. (ed) 1977 Family and Kin in Urban Communities, 1700-1930. New York: New Viewpoints.

Hareven, T.K. 1982. Family Time and Industrial Time: The Relationship Between The Family and Work In a New England Industrial Community. Cambridge: Cambridge University Press.

Hareven, T.K. (ed) 1978 Transitions: The Family and the Life Course in Historical Perspective. New York: Academic Press.

Harris, R. and M. Choko 1988. The Evolution of Housing Tenure in Montreal and Toronto Since the Mid-Nineteenth Century. Research Paper No. 166, University of Toronto: Centre for Urban and Community Studies.

Harris, R. and G.J. Pratt 1993. The Meaning of Home, Homeownership, and Public Policy. In The Changing Social Geography of the City, L.S. Bourne and D. Ley (eds.), Montreal: McGill-Queen's University Press

Harris, R. and C. Hamnett 1987. The Myth of the Promised Land: The Social Diffusion of Home Ownership in Britain and North America. Association of American Geographers 77 (2), 173-190.

Harris, R. and E.G. Moore 1980. An Historical Approach to Mobility Research. Professional Geographer 32 (1), 22-29.

Harris, R., G.Levine and B. Osborne 1981. Housing Tenure and Social Class in Kingston, Ontario, 1881 to 1901. Journal of Historical Geography 7 (3), 271-289.

Hauser, R.M. 1982. Occupational status in the nineteenth and twentieth centuries. Historical Methods 15 (3), 111-126.

Herbert, D. 1992. Classics in human geography revisited: Commentary 1. Progress in Human Geography 16 (3), 383-384.

Herington, J.M. 1986. Exurban Housing Mobility: The Implications For Future Study. Tijdschrift Econ. en Soc. Geografie 77 (3), 178-186.

Hershberg, T.(ed) 1981. Philadelphia: Work, Space, Family, and Group Experience in the Nineteenth Century. New York: Oxford University Press.

Hershberg, T., M.Katz, S.Blumin, L.Glasco and C.Griffen 1974. Occupation and Ethnicity in Five Nineteenth-Century Cities: A Collaborative Inquiry. Historical Methods Newsletter 7 (3), 174-215.

Hertzog, S., and R.D. Lewis 1986. A City of Tenants: Homeownership and Social Class in Montreal, 1847-1881. Canadian Geographer 30, 316-323.

Hoskins, R.F.H. 1989. Workers at the Grand Trunk Railway shops, Cahiers de Geographie du Quebec. 33(90), 323-344.

Hoskins, R.F.H. 1986. A Study of the Point St.Charles Shops of the Grand Trunk Railway in Montreal, 1880-1917. MA Thesis, Department of Geography, Montreal: McGill University.

Huff, J.O. and W.A.V. Clark 1978. Cumulative Stress and Cumulative Inertia: A Behavioral Model of the Decision to Move. Environment and Planning A 10, 1101-1119.

Huff, J.O. 1986. Geographic Regularities in Residential Search Behavior Annals of the Association of American Geographers 76 (2), 208-227.

Jackson, P. and S.J. Smith 1984. Exploring Social Geography, London: George Allen and Unwin.

Jackson, S. 1978. Movin' on: Mobility through Houston in the 1850s. Southwestern Historical Quarterly 81, 251-282.

Jenkins, S.P. and A.K. Maynard 1983. Intergenerational Continuities in Housing. Urban Studies 20, 431-438.

Johnston, R.J. 1971a. Urban Residential Patterns. New York: Praeger Publishers.

Johnston, R.J. 1978. Multivariate Statistical Analysis in Geography. New York: Longman.

Johnston, R.J. 1971b. Resistance to Migration and the Mover/Stayer Dichotomy: Aspects of Kinship and Population Mobility in an English Rural Area. Geografiska Annaler 53 (B), 16-27.

Judson, D.H. 1990. Human Migration Decision Making: A Formal Model. Behavioural Science 35, 281-289.

Kaelble, H. 1981. Social mobility in America and Europe: a comparison of nineteenth-century cities. Urban History Yearbook. Leicester University Press.

Kain, J.F. and J.M. Quigley 1975. Housing Markets and Racial Discrimination, National Bureau of Economic Research.

Katz, M. B. 1975. The People of Hamilton, Canada West: Family and Class in a Mid-Nineteenth-Century City.Cambridge: Harvard University Press.

Katz, M., Doucet,M and M.Stern 1982. The Social Organization of Early Industrial Capitalism. Cambridge: Harvard University Press.

Katz, M. B. 1972. Occupational Classification in History. Journal of Interdisciplinary History 3 (1), Summer.

Knights, P. 1971 The Plain People Of Boston, 1830-1860: A Study in City Growth. New York: Oxford University Press.

Knights, P. 1969. Population Turnover, Persistence, and Residential Mobility in Boston, 1830-1860. In Nineteenth-Century Cities. S. Thernstrom and R. Sennett (eds.), 258-274. New Haven: Yale University Press.

Knox, P. 1987. Urban Social Geography. (second edition) New York: Longman (John Wiley & Sons Ltd).

Laslett, B. 1973. Family Structure and Social History: A Methodological Review Essay. Historical Methods Newsletter 7 (1), 2-8.

Lauzon, G. 1992. Cohabitation et déménagements en milieu ouvrier Montréalais: essai de réinterprétation à partir du cas du Village Saint-Augustin (1871-1881). Revue d'Histoire de l'Amerique Française. 46 (1), 115-142.

Lawton, R. 1989. Population Mobility and Urbanization: Nineteenth-Century British Experience. In Urban Population Development in Western Europe from the Late Eighteenth to the Early Twentieth Century, R. Lawton and R. Lee (eds.), 149-177. Liverpool University Press.

Lees, L.H. 1979. Exiles of Erin. Manchester.

Lees, L.H. 1969. Patterns of Lower Class Life: Irish Slum Communities in Nineteenth-Century London. Nineteenth Century Cities, Thernstrom and Sennett (eds.), New Haven.

Levine, D. 1976. The Reliability of Parochial Registration and the Representativeness of Family Reconstruction. Population Studies 30 (March), 107-122.

Levine, G.J. 1984. Criticizing The Assessment: Views of the Property Evaluation Process in Montreal 1870-1920 and Their Implications for Historical Geography. Canadian Geographer 28 (3), 276-283.

Levine, G.J. 1988. Class, Ethnicity and Property Transfers in Montreal, 1907-1909. Journal of Historical Geography 14 (4), 360-380.

Levine, G.J. 1975. Residential Mobility in Kingston, 1860-61. MA Thesis, Department of Geography, Kingston: Queen's University.

Lewis, R.D. 1990. Home Ownership Reassessed for Montreal in the 1840's. Canadian Geographer 34 (2), 150-152.

Lewis, R.D. 1985. The Segregated City: Residential Differentiation, Rent and Income in Montreal, 1861 - 1901. MA Thesis, Department of Geography, Montreal: McGill University.

Lewis, R.D. 1991. The Segregated City: Class Residential Patterns and the Development of Industrial Districts in Montreal, 1861 and 1901. Journal of Urban History 17 (2), 123-152.

Ley, D. 1983. A Social Geography of the City. New York: Harper and Row.

Long, L. 1988. Migration and Residential Mobility in the United States. New York: Russell Sage Foundation.

Long, L.H. 1972. The Influence of Number and Ages of Children on Residential Mobility. Demography 9 (3), 371-382.

Maisel, S.J. 1966. Rates of Ownership, Mobility, and Purchase. Essays in Urban Land Economics. University of California Press.

McCarthy, K.F. 1976. The Household Life Cycle and Housing Choices. Santa Monica: The Rand Corporation.

Michelson, W. 1973. Discretionary and Nondiscretionary Aspects of Activity and Social Contact in Residential Selection. In The Form of Cities in Central Canada, L.S. Bourne, R.D. MacKinnon and J.W. Simmons (eds.), 180-198. Toronto: University of Toronto Press.

Michelson, W. 1977. Environmental Choice, Human Behavior, and Residential Satisfaction. New York: Oxford University Press.

Miller, R. 1982. Household Activity Patterns in Nineteenth-Century Suburbs: A Time-Geographic Exploration. Annals of the American Association of Geographers 72 (3), 355-371.

Moore, E.G. and M.W. Rosenberg 1993. Migration, Mobility, and Population Redistribution. In The Changing Social Geography of the City, L.S. Bourne and D. Ley (eds.), Montreal: McGill-Queen's University Press.

Moore, E.G. and R. Harris 1979. Residential Mobility and Public Policy. Geographic Analysis 11, 175-183.

Morrison, P.A. 1967. Duration of Residence and Prospective Migration: The Evaluation of a Stochastic Model. Demography 4, 553-561.

Morrison, P.A. 1972. Population Movement and the Shape of Urban Growth: Implications for Public Policy, Rand Corporation.

Morrow-Jones, H.A. 1988. The housing life-cycle and the transition from renting to owning a home in the United States: a multistate analysis. Environment and Planning A 20, 1165-1184.

Munro, M. 1987. Residential Mobility in the Private Housing Sector. In Social Geography: Progress and Progress. M. Pacione (ed) London: Croom Helm, 31-61.

Murie, A. 1974. Household Movement and Housing Choice: A Study Based on the West Yorkshire Movers Survey 1969. Birmingham: University of Birmingham Press.

Newman, J.S. 1970. Residential Mobility in the Tempo of Family Formation. PhD Thesis, Department of Geography, Baltimore: The Johns Hopkins University.

Olson, S. and D. Hanna 1990. Paysage social de Montréal, 1901, Planche 30. Atlas historique du Canada III (Presses de l'Université de Montréal).

Olson, S. 1989. Occupations and Residential Spaces in Nineteenth-Century Montreal. Historical Methods Summer22 (3), 81-96.

Olson, S. 1989. Paternalism and Urban Reform: An Introduction. Urban History Review 17 (3), 143-147.

Olson, S., Thornton, P. and Q.T.Thach 1989. Dimensions sociales de la mortalité infantile a Montréal au milieu du XIXe siècle. Annales de Démographie Historique 1988, 299-325.

Onaka, J.L. 1983. A Multiple-Attribute Housing Disequilibrium Model of Residential Mobility. Environment and Planning A 15, 751-765.

Parkerson, D.H. 1982. How Mobile Were Nineteenth-Century Americans?. Historical Methods 15, 99-109.

Pickvance, C.G. 1973. Life Cycle, Housing Tenure and Intra-Urban Residential Mobility: A Causal Model. Sociological Review, 21.

Pickvance, C.G. 1974. Life Cycle, Housing Tenure and Residential Mobility: A Path Analytic Approach. Urban Studies 11, 171-188.

Porter, J. 1968. The Vertical Mosaic: Analysis of Social Class and Power in Canada. Toronto: University of Toronto Press.

Quigley, J.M. and D.H. Weinberg 1977. Intra-Urban Residential Mobility: A Review and Synthesis. International Regional Science Review 2 (1), 41-66.

Radford, J.P. 1981. The Social Geography of the Nineteenth Century US City. In Geography and the Urban Environment: Progress in Research and Applications, D.T. Herbert and R.J.Johnston (eds.), 257-293. 4, John Wiley & Sons Ltd.

Rodger, R. 1989. Housing in Urban Britain, 1780-1914. London: Macmillan

Rossi, P. 1955. Why Families Move. Glencoe, Illinois: Free Press.

Rudel, T.K. 1987. Housing Price Inflation, Family Growth, and the Move from Rented to Owner Occupied Housing. Urban Studies 24, 258-267.

Savage, M. et al 1990. The Consumption Sector Debate and Housing Mobility. Sociology 24 (1), February, 97-117.

Savage, M. 1989. The Missing Link? The Relationship between Spatial Mobility and Social Mobility. The British Journal of Sociology 39 (4), 554-577.

Sennett, R. 1970. Families Against the City: Middle Class Homes of Industrial Chicago 1872-1890. Cambridge: Harvard University Press.

Sharlin, A. 1980. On the Universality of Occupational Prestige. Journal of Interdisciplinary History 11, 115-25.

Shaw, G. 1984. Directories as sources in urban history: a review of British and Canadian Material. Urban History Yearbook. Leicester University Press, 36-44.

Sheldon, E.B. and W.E. Moore 1968. Indicators of Social Change. New York: Russell Sage Foundation.

Short, J.R. 1978. Residential Mobility. Progress in Human Geography 2, 419-449.

Simmons, J.W. and A. Baker 1973. Household Relocation Patterns. In The Form of Cities in Central Canada, L.S. Bourne, R.D. MacKinnon and J.W. Simmons (eds.), 199-217. Toronto: University of Toronto Press.

Simmons, J.W. 1968. Changing Residence in the City: A Review of Intraurban Mobility. Geographical Review 58, 622-651.

Speare, A. Jr. 1970. Home Ownership, Life Cycle Stage, and Residential Mobility. Demography 7 (4), 449-458.

Speare, A., Jr., Goldstein, S. and Frey, W.H. 1975. Residential Mobility, Migration, and Metropolitan Change. Cambridge, Mass.: Balinger Publishing Company.

Stapleton, C. 1980. Reformulation of the Family Life Cycle Concept: Implications for Residential Mobility. Environment and Planning A, 12.

Steckel, R.H. 1988. Census Matching and Migration: A Research Strategy. Historical Methods 21 (2), 52-60. Spring.

Tank, R.M. 1978. Mobility and Occupational Structure on the Late Nineteenth Century Urban Frontier: The Case of Denver, Colorado. Pacific Historical Review 47, 189-216.

Thach, Q.T. (1987) Socio-Spatial Patterns of Infant Survival in Montreal, 1859-60. MA Thesis, Department of Geography, McGill University.

Thernstrom, S. 1969. Immigrants and WASP's: Ethnic Differences in Occupational Mobility in Boston, 1890-1940. In Nineteenth-Century Cities, S. Thernstrom and R. Sennett (eds.), 125-64. New Haven: Yale University Press.

Thernstrom, S. and R. Sennett (eds) 1969. Nineteenth-Century Cities. New Haven: Yale University Press.

Thernstrom, S. 1964. Poverty and Progress: Socal Mobility in a Nineteenth-Century City.Cambridge: Harvard University Press.

Thernstrom, S. 1973. The Other Bostonians: Poverty and Progress in the American Metropolis 1880-1970. London: Harvard University Press.

Thornton, P. and S. Olson 1991. Family contexts of fertility and infant survival in Nineteenth-Century Montreal. Journal of Family History.

Tobey, R., Wetherell, C. and J. Bringham 1990. Moving Out and Settling In: Residential Mobility, Home Owning, and the Public Enframing of Citizenship, 1921-1950. American Historical Review 95 (4-6), 1395-1422.

Treiman, D.J. 1976. A Standard Occupational Prestige Scale for Use with Historical Data. Journal of Interdisciplinary History 7, 283-304.

Treiman, D.J. 1977. Occupational Prestige in Comparative Perspective. New York.

Vinovskis, M.A. 1977. From Household Size to the Life Course. American Behavioral Scientist 21 (2), 263-287.

Weber, M.P. 1976. Social Change In An Industrial Town. University Park: The Pennsylvania State University Press.

Weinberg, D.H. 1975. Intra-Urban Household Mobility. PhD. Dissertation, Yale University.

Widdis, R.W. 1992. Generations, Mobility and Persistence: A View from Genealogies. Histoire sociale / Social History 25 (49), 125-150.

Wolpert, J. 1965. Behavioural Aspects and the Decision to Migrate Papers and Proceedings of the Regional Science Association 15, 159-169.

Wolpert, J. 1966. Migration as an Adjustment to Environmental Stress. Journal of Social Issues 22.

Worthman, P. 1971. Working Class Mobility in Birmingham, Alabama, 1880-1914. In Anonymous Americans, T.K.Hareven (ed.), 172-213. Englewood Cliffs: Prentice-Hall.

Wrigley, N. and P. A. Longley 1984. Discrete Choice Modelling in Urban Analysis. In Geography and the Urban Environment: Progress in Research and Applications, D.T. Herbert and R.J.Johnston (eds.), 45-94. 6, John Wiley & Sons Ltd.

Yamada, H. 1972. On the theory of residential location: accessibility, space, leisure and environmental quality. Papers of Regional Science Association 29, 125-35.

Yee, W. and M. Van Arsdol 1977. Residential Mobility, Age, and the Life Cycle. Journal of Gerontology 32, 211-221.

Zunz, O. 1977. The Organization of The American City in the Late Nineteenth Century. Journal of Urban History 3 (4), 443-466.