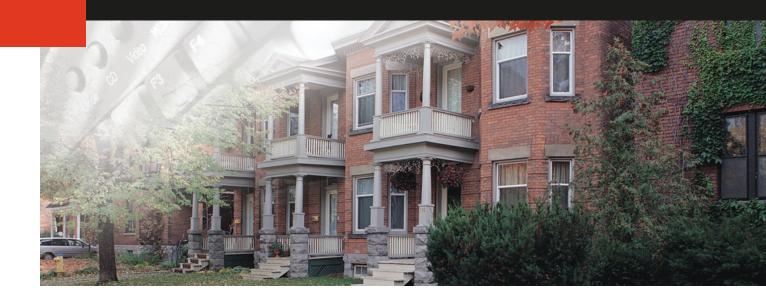
RESEARCH REPORT



Renters and Their Housing Conditions: From 1980s into the 1990s: A Retrospective





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Renters and their housing conditions: from the 1980s into the 1990s – a retrospective

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Between the early 1980s and the mid-1990s, the situation facing renters in Canada changed. The demography of Canada's population changed, the economy went through boom, bust, and much restructuring, and changes in spending by governments on social programs forced some renters (not to mention homeowners) to make difficult choices. This report assembles comparable data on the change in condition of renter households between the early 1980s and mid 1990s.

The first part of the report describes how the circumstances of Canadian renters changed over the period and is based largely on Household Income, Facilities, and Equipment (HIFE) microdata samples from Statistics Canada. Although not longitudinal surveys, the HIFE samples can be arrayed to describe how categories of households have fared over time. The purpose here is to give a sense of how housing conditions have changed.

The second part of the report explores how consumers coped with changing housing market and labour force conditions. Underpinning these questions is a concern with what scholars call the "housing career model", and the role of the rental sector in a market economy. In the standard rendition of the housing career model, young couples are thought to start with a small rented dwelling, save toward homeownership, eventually move to a modest owned home, and then later on to move or renovate to adjust housing space first to the flow and subsequently the ebb in family size. Around 1980, the importance of this standard rendition was accentuated by the baby boomers who had swelled the ranks of young couples. By 1995 however, the baby boomers had moved past this category. When we ask whether the housing conditions of renters have changed, what we really want to know is whether a particular rendition of the housing career model has changed, or become less prevalent. The answers are not simple. Complexity arises because of the ingenuity that individuals display in coping with the exigencies of daily life—in the ways that they choose living arrangement, tenure, and dwelling. The abundance of coping strategies make it difficult for us to discern why (and even how much) housing conditions have changed.

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Ranu Basu Carol Ho Richard Massie

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Résumé

Entre le début des années 80 et le milieu des années 90, la situation des locataires s'est modifiée au Canada. Les changements démographiques survenus au sein de la population canadienne, les périodes d'emballement et d'effondrement de l'économie, le grand nombre de restructurations, ainsi que les changements dans le niveau des dépenses des gouvernements au chapitre des programmes sociaux, ont obligé certains locataires (sans parler des propriétaires-occupants) à faire des choix difficiles. Dans le rapport dont il est question ici, on a colligé des données comparables portant sur les changements survenus dans les conditions de logement des ménages locataires durant la période susmentionnée.

La première partie du rapport, fondée largement sur des micro-échantillons de données tirées de l' Enquête sur le revenu des ménages et les équipements ménagers (ERMEM) de Statistique Canada, décrit comment la situation des locataires canadiens a évolué durant cette période. Même s'il ne s'agit pas d' enquêtes longitudinales, les données de l'ERMEM peuvent être organisées de façon à décrire comment différentes catégories de ménages se sont portées dans le temps. L'étude avait pour objectif de fournir une idée assez juste des changements qui se sont produits dans les conditions de logement. Elle tire des conclusions quant à l'effet du vieillissement des baby-boomers et de la hausse de l'immigration, aux répercussions négatives sur le revenu des ménages des changements survenus dans le marché du travail pendant que les loyers augmentaient considérablement et aux conséquences globales sur l'abordabilité du logement.

La deuxième partie du rapport scrute le comportement des consommateurs vis-à-vis des conditions changeantes des marchés du logement et du travail. En toile de fond, on trouve des inquiétudes relatives à ce que les chercheurs appellent le modèle d'évolution du mode de logement et le rôle du secteur du logement locatif dans une économie de marché. Selon le modèle d'évolution traditionnel du mode de logement, on croit que les jeunes couples se logent d'abord dans un petit appartement locatif, qu'ils économisent ensuite en vue de l'achat d'une maison et, tôt ou tard, qu'ils emménagent dans une modeste maison dont ils sont devenus les propriétaires. Par la suite, ils rénovent leur maison ou déménagent afin de répondre aux besoins de la famille tantôt grandissante, tantôt décroissante. Vers 1980, l'arrivée massive des baby-boomers venus grossir les rangs des jeunes couples a fait ressortir l'importance de ce modèle traditionnel. Dès 1995, toutefois, les enfants du baby-boom ne figuraient plus dans cette catégorie. Lorsqu'on se demande si les conditions de logement des locataires ont changé, ce qu'on veut vraiment savoir c'est si une version particulière du modèle a changé ou est devenue moins courante. La réponse à cette question n'est pas simple, car l'ingéniosité dont font preuve de nombreuses personnes face aux exigences de la vie quotidienne rend la tâche complexe, par exemple dans la manière dont elles choisissent leur mode de vie, leur logement et son mode d'occupation. À cause du grand nombre de stratégies d'adaptation, il est difficile de déterminer pourquoi les conditions de logement ont changé (voire dans quelle mesure celles-ci auraient changé). Dans la seconde partie du rapport, on examine néanmoins les relations qui pourraient exister entre la participation au marché du travail, le revenu et les choix de logements afin d'y découvrir comment les personnes et les familles, classées selon leur statut d' immigrant, ont réussi à s'adapter aux conditions changeantes des marchés du logement et du travail.



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INTRODUCTION

Between the early 1980s and the mid-1990s, the situation facing renters in Canada is widely thought to have changed. Three distinct arguments are commonly proffered in support of this perception. One is that the demographic and social fabric of Canada's population changed. A second is that the Canadian economy went through boom, bust, and much restructuring. While such changes affect all Canadians, renters are thought to have been most affected—partly because they are less affluent than homeowners and partly because they are more vulnerable. The third argument is that clawbacks of entitlements, reductions in social spending by governments, and changes to transfer payments have adversely affected the well-being of renters (not to mention homeowners), and forced them to make difficult choices. One such change was the switch in federal funding of transfers to the provinces: from the old Established Programs Funding (EPF) to the new Canada Health and Social Transfer (CHST) scheme. The purpose of this report is to assess the merits of these three arguments, by assembling comparable data on the changing conditions of renter households between the early 1980s and mid 1990s.

This report examines how and why the housing conditions and circumstances of renter house-holds changed from the 1980s into the 1990s, and the social and economic factors associated with changes in the level and nature of housing need. In so doing, this report uses both descriptive and inferential model-based approaches. Using the descriptive empirical approach, the first part of the report describes how the circumstances of Canadian renters actually changed over the period. Using the inferential model-based approach, the second part of the report explores how individuals and families coped with changing housing market and labour force conditions. The inferential approach, which is detailed in a background technical report, allows us to look at the relationships among labour force participation, income, and housing choice (here characterized in terms of choices of living arrangement, tenure, and dwelling). The inferential approach identifies the family and the nonfamily individual as the decision-making entity with respect to living arrangement, and the household as the decision-making entity with respect to tenure and dwelling.

This report addresses four sets of questions.

 What were the relationships between macro-level changes in Canada over this period and changes in the social and economic profile of renters and their housing circumstances? How did the household composition of the renter population shift over time? Which specific

¹ Readers interested in the technical details behind the inferential models should contact CMHC's Canadian Housing Information Centre (CHIC) and ask about the background technical report.

groups (for example, income quintiles or household types) became relatively more numerous?

- How did the ability of renters to participate fully in the economy change over the period?
 Were sources and levels of income affected similarly for all renters or mainly for specific groups?
- What happened to household incomes vis-a-vis rents, for all renters and for specific groups?
- What happened to renter housing conditions? Did housing need increase, and for whom?
 How did renter housing adequacy, suitability and affordability conditions shift over the period, and did any shifts translate into changes in core housing need?

Underpinning these questions is a concern with what scholars call the "housing career model", and the roles served by the rental sector in a market economy. In the standard rendition of the housing career model, young couples are thought to start with a small rented dwelling, save toward homeownership, eventually move to a modest owned home, and then later on to move or renovate to adjust housing space first to the flow and subsequently the ebb in family size. In this rendition, renting is just a temporary state: a place to wait until enough money has been saved to make homeownership affordable. The imperative to become homeowners here is partly the need for extra yard and dwelling space for children, partly the need for the security of tenure possible with homeownership, and partly the need for an investment to protect against job loss or other economic misfortune. Around 1980, the importance of this standard rendition was accentuated by the baby boomers whose numbers had then swollen the ranks of young couples. By 1995 however, the standard rendition seemed less important as the baby boomers had by then outgrown this category. At the same time, we might also envisage different renditions of a housing career model: for example, for couples who divorce, and for poor households, such as lone parents, and elderly renters who do not want—or do not expect to be able to afford—homeownership. When we ask whether the housing conditions of renters have changed, what we really want to know is whether a particular rendition of the housing career model has changed, or become less prevalent. Has homeownership moved out of reach for more consumers? Have economic conditions left poor consumers even worse off than before? As we explore answers to such questions, we discover that the answers are not simple. Complexity arises because of the ingenuity that individuals display in coping with the exigencies of daily life—in the ways that they choose living arrangement, tenure, and dwelling. The abundance of coping strategies make it difficult for us to discern why (and even how much) housing conditions have changed.

Let us now turn to a descriptive analysis based largely on Household Income, Facilities, and Equipment (HIFE) microdata samples from Statistics Canada. These samples amalgamate data from the Labour Force Survey and other piggy-backed surveys (the Household Facilities and Equipment Survey, the Survey of Consumer Finances, and the Rent Survey) that are administered to a sample of households across Canada (excluding those living in Yukon or Northwest Territories). The first part of this report presents statistics calculated from these annual HIFE samples: principally for 1982 and 1995. Although not longitudinal surveys, the HIFE samples can be arrayed to describe how categories of households have fared over time. The purpose here is to give a sense of how housing conditions have changed with a view to answering the four sets of questions above. Along the way, we shall see the limitations of this descriptive empirical approach, and so lay the groundwork for the inferential analysis in the second part of the report.

GROWTH, STABILITY AND CHANGE IN THE CANADIAN RENTAL SECTOR

Between 1981 and 1995, there was substantial growth both in the overall housing market and the rental sector. One indicator is that the number of households in Canada increased markedly: see Table A. Statistics Canada estimates that there were 11.2 million households in 1995: up by one-third from 1981. These totals include both homeowners and renter households. The number of renter households in Canada also rose substantially: up 1 million over the same period. As well, the gross rents paid by tenant households (not adjusted for inflation) rose rapidly: from just \$10.6 billion in 1982 to \$25.7 billion in 1995. The current value (not adjusted for inflation) of the stock of rented residential structures (excluding land) in Canada was near \$204 billion in 1995, up from just \$81 billion in 1981.

At the same time, framing this growth were some indicators that suggest a remarkable stability. First, renters as a percentage of all households changed only modestly: dipping to 36% in 1995, down from 38% in 1981. Second, renters continued to be concentrated geographically: in 1995, over 40% of all renters lived in just three metropolitan areas (Montreal, Toronto, and Vancouver). Third, there continued to be important regional deviations from the national picture: households in Atlantic Canada were less likely, and households in Quebec more likely, to be

² This study, based on the use of sophisticated analytical techniques applied to layered temporal HIFE microdata files, attempts to explain how changes affected renter housing conditions leading up to the 1996 Census. Since the completion of the research for this study, CMHC received and began the release of cross-sectional analyses based on its version of the 1996 Census tabulations. Readers interested in these other analyses can contact the Canadian Housing Information Centre (CHIC) and request the analyses that have appeared in Issue 55 of the Research Highlight Socio-Economic Series.

Table A. Housing and renters in Canada, 1981 and 1995

	1981	1995	Increase
All households (millions)	8.3	11.2	34%
Renter households (millions)	3.1	4.1	32%
As percentage of all households	38	36	

Source: 1981 Census of Canada and 1995 HIFE microdata sample.

renters. Fourth, while some renters lived in housing owned by the nonprofit sector (for example, public housing, non-equity cooperatives), in 1995 as in 1981, the majority lived in housing owned and operated by for-profit landlords and supplied through the private market. Fifth, while some of the latter benefit from subsidies from government (for example, shelter allowances to tenants, or low-interest loans to landlords), a few live rent-free in a dwelling owned by a relative or friend, and still others enjoy a reduced rent because their landlord is also their employer (for example, building superintendent, or resident staff), the great majority of tenants in 1995 as in 1981 paid market rents for their accommodation. Sixth, the stock of rented residential structures remained at about 3% of all capital assets (excluding land) in Canada over the period.

However, in other respects, there have been important changes since 1980. First, after a strong showing earlier in the decade, the number of renter households stopped growing in the late 1980s, resuming in the 1990s only in fits and spurts, with the result that the population of renter households remained stable between 4.0 and 4.1 million between 1992 and 1995 (calculated by author from HIFE microdata samples). Second, a fundamental socio-economic shift occurred as renter households became increasingly likely to be among the poorer households in society: see Table B. In 1995, 67% of households in the lowest income quintile nationally were renters, up from 57% in 1982. Third, the incidence of renting changed for some types of household: see Table C. Persons living alone, for example, became less likely to rent (61% in 1995, down from 67% in 1982). Fourth, gross rents paid hovered between 4.0% and 4.3% of Personal Disposable Income (PDI) during the boom years of the 1980s, but then rose after 1989, reaching 5.1% in 1995. It should be noted that PDI includes the incomes of both homeowners and renters, and that gross rents have risen to a higher percentage of tenants' income taken alone. The increase after 1989 is not due simply to the increasing bite of income taxation; gross rents paid also rose as a percentage of (pretax) Personal Income.

This has been a "broad brush" overview of some key features of renters and their housing conditions. Let us now look at the evidence in more detail: this time organized around the three arguments outlined at the start of the report: demographic and social change, changes in the economy, and changes in social policy.

Table B Percentage of households renting by total household income quintile, Canada, 1982-1995

<u> </u>							
Income quintile							
Lowest	Second	Third	Fourth	Highest			
%	%	%	%	%			
(1)	(2)	(3)	(4)	(5)			
57	48	38	26	17			
62	47	39	28	16			
62	48	38	25	14			
67	46	34	23	12			
	Lowest % (1) 57 62 62	Inco Lowest Second % % (1) (2) 57 48 62 47 62 48	Income qui Lowest Second Third % % % (1) (2) (3) 57 48 38 62 47 39 62 48 38	Income quintile Lowest Second Third Fourth % % % % (1) (2) (3) (4) 57 48 38 26 62 47 39 28 62 48 38 25			

Source: Calculated by author from HIFE microdata samples, selected years

Table C Households by composition, showing percentage renting, Canada, 1982-1995

	1982	1985	1990	1995
(a) Number of households (in thousands)				
All households	8,655	9,253	10,203	11,244
Person living alone	1,762	1,968	2,381	2,801
Household of Two or More Persons				
One Economic Family	6,454	6,832	7,341	7,898
Unattached Persons Only	294	296	334	370
All Other Households	146	158	148	174
(b) Percentage of households renting				
All households	38	39	37	36
Person living alone	67	66	63	61
Household of Two or More Persons				
One Economic Family	28	29	27	26
Unattached Persons Only	7 5	<i>7</i> 5	7 3	71
All Other Households	39	42	36	40

Source: Calculated by author from HIFE microdata samples, selected years

Demographic and Social Change

Shifts in the rental sector occurred against a backdrop of change in the demographic and social fabric of Canadian society. The five principal changes are well-known.

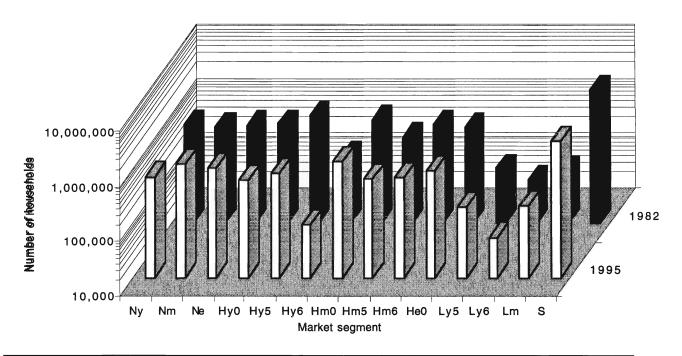
- Aging of the post-war baby boom, from a cohort aged mainly 15-34 in 1980 to one aged 30-49 in 1995.
- Decline of nuptiality, as conventional marriage continued to lose allure, divorce rates rose, and alternatives such as common-law and same-sex unions became more common.
- Declining fertility, and compression of an average woman's child-bearing years into a brief period from her late 20s to early 30s.

- Increasing longevity, with the result that individuals and couples spent more of their life span in households without dependent children at home.
- Substantial immigration.

These social changes had important implications in terms of housing demand and housing need. While traditional households (those that consist simply of a husband, wife, and children) increased in number, the nontraditional household proliferated even faster. Average household size dropped. Housing needs changed as a consequence: for example, fewer children means less need for bedrooms and child play-space, while aging means more need for sheltered care. The declining popularity of marriage, the growth of divorce, and the increase in childlessness challenge the standard rendition of the housing career model. Do individuals, who are more likely now to spend all or a substantial proportion of their lives in nontraditional households, see the same need to save toward homeownership?

It is helpful to think of who rents from a marketing perspective. A marketing analysis identifies market segments and then measures segment size (the potential market) and penetration (the proportion of consumers in the market segment who choose a particular product). From the perspective of rental housing suppliers viewed nationally, a market segment is a group of households, and "penetration" here means the percentage of that group who choose rented accommodation. As an example, in 1982, there were 619 thousand households in Canada wherein a person, aged under 35, lived alone: see Chart A. In this market segment, penetration was high; 86% of such households were renters: see Chart B. Over the ensuing years, this market segment grew in size, peaking at 747 thousand households in 1992 (a combination of the cresting of the baby boomers and the sagging popularity of marriage). However, penetration drifted steadily lower over the entire period, dipping to 81% by 1995. For whatever reason, rental housing providers were losing market share in this important market segment.

What are the relevant market segments? Popular in marketing is the so-called Gilly-Enis approach. This approach distinguishes between (i) persons and nuclear families who live alone and (ii) other households wherein adults share accommodation. Second, it distinguishes among households according to the age of the household head in three broad groups: under 35, 35-64, and 65 and older. Third, it distinguishes among households headed by a nonfamily person, a husband-wife couple, and a lone parent. Fourth, it distinguishes among households by the presence of children and the age of the youngest child (under 6 versus 6 or older). To the extent that parents space child births close together, a typical family can be thought to have completed childbearing (that is, entered the "full nest" segment) if the youngest child is 6 or older. What



Source: Calculated by author from HIFE microdata samples, 1982 and 1995.

Legend for Charts A, B, and D through I.

Ny Nonfamily person living alone, person aged under 35

Nm Nonfamily person living alone, person aged 35-64

Ne Nonfamily person living alone, person aged 65 or older

Hy0 Husband-wife family living alone, husband under 35, no children present

Hy5 Husband-wife family living alone, husband under 35, child(ren) under 6 years of age

Hy6 Husband-wife family living alone, husband under 35, older child(ren) only

Hm0 Husband-wife family living alone, husband 35-64, no child(ren) present

Hm5 Husband-wife family living alone, husband 35-64, child(ren) under 6 years of age

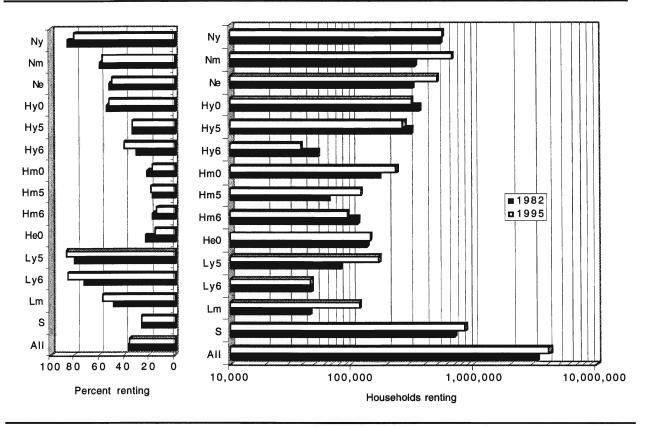
Hm6 Husband-wife family living alone, husband 35-64, older child(ren) only

He0 Husband-wife family living alone, husband 65 or older, no child(ren) present

Ly5 Lone-parent family living alone, parent under 35, child(ren) under 6 years of age

Ly6 Lone-parent family living alone, parent under 35, older child(ren) onlyLm Lone-parent family living alone, parent 35-64

S Sharing household (none of above)



results are the 14 market segments portrayed in Chart A. The scheme can be used to describe various life paths. For example, a young single adult might start off living alone, get married, and then begin to have children. Some time after the parents began child-bearing, they form a full nest, and typically eventually begin the transition to an empty nest. Of course, this is just one possible sequence. Sequences involving lone parenthood, childlessness, and extended families can all be modeled as sequences of market segments. While the Gilly-Enis approach does not treat gender explicitly, it does single out lone-parent families (the great majority of whom are mother-led) and the elderly living alone (the great majority again are women); in general, such households are typically poor, and often the intended targets of social and housing policy.

The Gilly-Enis scheme is a window through which to look at who rents. Chart A shows the total number of households in each market segment; this includes both renters and homeowners. In 1982 (the black bars in Chart A and subsequent charts), the largest number of households are to be found in the sharing segment, followed by young husband-wife families with small children living alone. In 1995 (the white bars in Chart A and subsequent charts), the sharing segment has

grown still more in size, but we see also rapid growth in the number of households in the middle-aged segments: a consequence of the aging of the baby boomers. Also evident over this period is the declining popularity of marriage, as shown by the growth in nonfamily persons living alone (notably the increases among young and middle-aged nonfamily persons) and lone parent families living alone, and the decrease among young husband-wife families living alone. Finally, the effects of increasing longevity are reflected in the growth of the elderly segments.

What do these changes imply about how the mix of renters changed over this period? See Chart B, which displays penetration to the left and counts of renter households to the right. Among all these market segments, renting is most attractive (that is, penetration is highest) among young nonfamily persons and young lone-parent families (typically mother-led) living alone, followed by middle-aged lone-parent families and middle-aged and older nonfamily persons living alone. Between 1982 and 1995, penetration increased in some market segments—notably loneparent families of all ages living alone, as well as young husband-wife families with older children. In other market segments, however, the percentage of households renting dropped: notably among nonfamily persons and husband-wife families (without children present) living alone at all ages. As seen on the right side of Chart B, the largest group of renters is sharing households, followed by the three segments of nonfamily persons living alone. The biggest increases in number of renters between 1982 and 1995 are among the middle-aged and elderly nonfamily persons living alone. Smaller increases are to be found among lone-parent families living alone. In contrast, the renter segments that underpin the standard rendition of the housing career model, the number of young husband-wife families without children (or with small children)—living alone and renting—shrank.

What about the sharing household segment? In Charts A and B, the sharing segment is the single largest group of households. It includes households that contain (1) one nuclear family but have other nonfamily persons (perhaps a close relative like a grandmother or nephew) living with them, (2) multifamily households (as in three-generation households), and (3) nonfamily households consisting of two or more persons (including same-sex couples). Many sharing households are homeowners: in part because owner-occupied dwellings are more likely to be large enough to accommodate sharing. Nonetheless, there are still a substantial number of renter households in this market segment: 838 thousand nationally in 1995, up from 687 thousand in 1982. Sharing is a special market segment because it reflects use of a coping strategy. When rents are too high, or when earnings prospects become uncertain, we might expect more individuals and families to choose shared accommodation as a way to cut costs or reduce risks. When rents are low, or the job market is healthy, we expect more individuals and families to

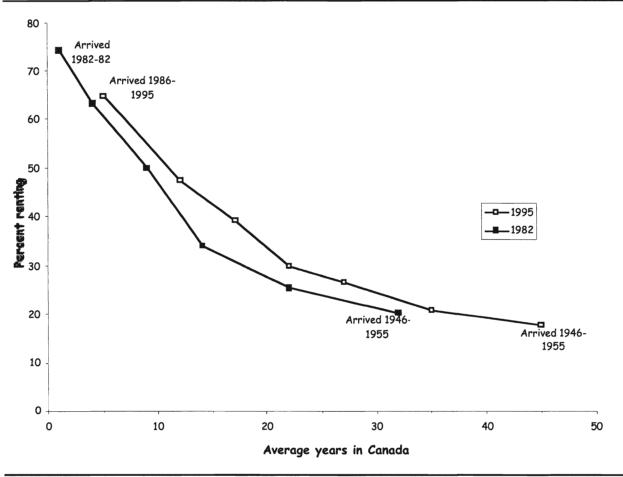
live alone. This adds complexity to the interpretation of counts of households in general and raises a number of questions. When we observe that the number of young nonfamily persons living alone increased between 1982 and 1995 (as seen in Chart A), is it because the population of adults aged under 35 not living with a spouse increased, or is it because a higher percentage of such persons lived alone rather than sharing accommodation? Even more problematic is the case of the unhappy marriage that endures because the partners cannot afford to live separately. Given such instances, how are we to estimate the potential impact of a change in affordability on housing conditions? Put differently, if we want to understand how consumers choose housing, we must include choice of living arrangement (that is, living alone versus sharing) in the analysis. Unfortunately, Charts A and B obscure that aspect of the consumer's decision-making. We will address this problem directly in the inferential analysis in the second part of this paper.

A different way of segmenting the market is by immigrant status. In a conventional view, the immigrant to Canada is seen to be like other young adults: perhaps first lodging with relatives, then renting a dwelling of one's own, and finally switching to homeownership as a downpayment is saved. As a result, the longer a person has lived in Canada, the more likely they are to head a household and less likely they are to live in a rented dwelling. Evidence of the trend is available in Chart C which depicts the relationship between the likelihood of renting and the number of years an immigrant has lived in Canada for two different groups of immigrants. Note the upward shift in this curve from 1982 to 1995. At any given duration of residence (years in Canada), the likelihood of being a renter increased between 1982 and 1995. Put differently, immigrant heads surveyed in 1995 were more likely to be renters than were their peers in 1982. This is markedly different from the results for all households presented earlier in Table A; native-born Canadians became more likely—while immigrants became less likely—to be homeowners between 1982 and 1995.

Economic Change

The period from 1982 to 1995 was one of substantial change in the structure of the Canadian economy. The recession of 1982 was deep and intense: at the time, in some ways, it had been the worst economic slowdown since the end of the Second World War. For some regions of the country, notably metropolitan Quebec, Ontario, and British Columbia, the recession was also mercifully brief, and the period from 1985 to 1989 was a great economic boom. In other regions of the country, notably Atlantic Canada, the recovery after 1982 was achingly slow. The subsequent recession of 1990-92 therefore hit some regions that were by then booming and other re-

Chart C Proportion of immigrant-headed households renting by years in Canada, 1982 and 1995 HIFE samples.



Source: Calculated by author from HIFE microdata samples, 1982 and 1995.

gions that had barely recovered from 1982. The impacts were substantial. By almost any account, the recession of 1990-92 was more severe than that of 1982, the recession lasted longer, and was accompanied by profound structural shifts, for example globalization. And, the recovery in Canada after 1992 was initially slow, spotty, and tentative. On balance, the risk of unemployment increased between 1982 and 1995 for many groups within Canadian society (especially those with less education or fewer job skills), and the prospects for career increases in income did not seem as bright in 1995. These economic changes occurred against a backdrop of increasing female workforce participation, particularly among mothers with young children at home. This latter trend creates the possibility of growing disparity between households with at most one earner, and those with two. While these changes affected all Canadians, renters are sometimes perceived to have been affected the most. Renters are generally thought to have lower incomes than owners, less savings and wealth, and a greater likelihood of being vulner-

able to the vicissitudes of recession and restructuring, that is, young unattached adults, lone parents, and recent immigrants.

One way to assess the impacts of these economic changes is to examine renters by income group. In Table B (page 4), households are arrayed by total household income into five equal groups. The incidence of renters ("rental penetration") for each income quintile is shown in each year. Each income quintile includes the same number of households, that is, 20% of all households in Canada. These rates of penetration suggest that between 1982 and 1995 the rental sector came increasingly to serve the needs of households in the lowest income quintile. In fact, during this time period, the rental sector slowly lost market share to homeownership in the other four quintiles.

What is surprising here is that renter households have become a relatively poorer group despite the aging of the baby boomers into the peak earnings phase of their lives. Put differently, in the absence of an aging baby boom generation, the deterioration in the economic situation of the renter household might have been even greater. What are the driving forces here? In part, it is a natural outcome in a population that is shifting from being more youthful to more middle-aged. To the extent that individuals and families move from renting to homeownership as the growth in income and savings permit, aging acts to siphon off more-affluent households from the pool of renters. In this aging, the renters left behind are increasingly the poorer households. This trend has been accentuated by public policy initiatives that were designed to spur homeownership among households of modest income. The initiatives included the Canadian Homeownership Stimulation Plan (CHOSP) of the early 1980s, as well as later policy initiatives that (i) allowed selected home buyers to draw funds from their RRSPs, and (ii) permitted mortgages insured under the National Housing Act (NHA) to have only a 5% downpayment. In part as well, the declining affluence of renter households also reflects rapid growth in the numbers of elderly (particularly persons living alone) and lone-parent families—market segments that typically have low incomes.

Changes in Social Policy

There have been important changes to income maintenance policies in Canada, the so-called "social safety net". Up until the early 1980s, governments in Canada were still expanding benefits and coverages under a variety of social programs (from direct income support to in-kind benefits such as medical care and housing) that benefited target groups such as the elderly, the disabled, the unemployed, and low-income families. By the mid 1990s, many program benefits

had been trimmed, and some eliminated. Nonetheless some of the poorest groups have experienced real gains. For example, the poorest elderly have seen their pension floor—the federal Old Age Security (OAS) plus Guaranteed Income Supplement (GIS)—rise from \$456 monthly for a single person (\$808 for a couple) in January 1982 to \$854 (\$1,385 for couples) in April 1995; these dollar amounts are unadjusted for inflation.

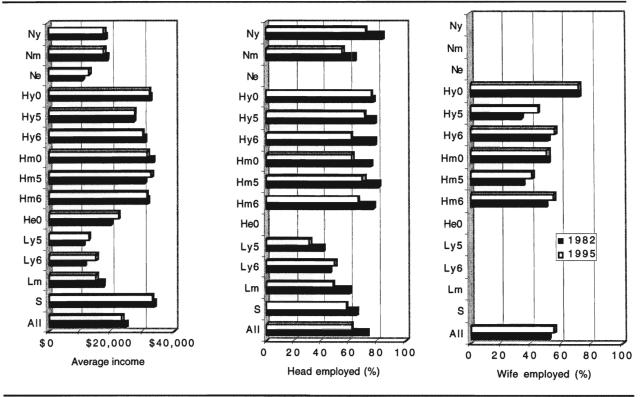
Also important are changes in the scope, nature, and delivery of social services. For one, deinstitutionalization has moved a substantial population out of chronic care facilities, and into group homes and private dwellings. Another similar initiative has seen hospitals increasingly use an out-patient approach rather than admitting patients. These initiatives have implications for housing demand and housing need because they change the profile and requirements of a typical household: for example, they increase the demand for outpatient services, in-home special care facilities, and handicap access. An evaluation of such changes in housing need is beyond the scope of this report. However, it is within the purview of the report to emphasize the role that changes to social services play in explaining the overall context for the proliferation of persistently low-income households, many of whom must cope in the private rental market.

HOW HAVE RENTER INCOME PROSPECTS CHANGED?

Since income includes what the household receives from its participation in the economy (for example, earnings and capital income), changes in the economy impact directly on income and employment prospects, and consequently affect housing conditions. Since income also includes what the household receives from the public sector in the form of transfer payments, changes in transfer payments impact directly on income prospects. In addition, other social policy changes (ranging from changes in program in-kind benefits to de-institutionalization to workfare) have indirect impacts on both income prospects and housing conditions. Let us now consider what happened overall to income prospects as a consequence.

Overall, the average income of a renter household in the 1995 HIFE sample was \$23,500 (note that income here is for the preceding calendar year, that is, 1994), down from \$24,800 in the 1982 HIFE sample (that is, calendar year 1981). To control for inflation generally, incomes are reported here in 1986 dollars. Disaggregating by market segment, the incomes of renter households vary considerably: see the left side of Chart D. At the bottom among the market segments in 1995, reporting household incomes that averaged only \$13,000 in 1994, are (i) young lone parents with small children—typically mother-led—living alone and (ii) elderly nonfamily persons living alone. Other lone-parent families living alone are slightly better off (reporting about

Chart D Average annual household income (in 1986 dollars) and employment status of household head and wife in renter households by market segment, Canada, 1982 and 1995.



\$15,000 in household income). Next up are young and middle-aged persons living alone at about \$18,000, and then elderly couples living alone at \$22,000. The remaining husband-wife family market segments and sharing households each averaged in excess of \$27,000 in 1995.

How did income and employment prospects change through the 1980s and into the 1990s? Several market segments saw gains in real income early on, that is, between 1982 and about 1990. In 1982, at the bottom of a recession, the percentage of renter household heads who were employed varied from one market segment to the next, but was generally in the range of 60% to 80%; the only exceptions being the young lone-parent segments.³ Between 1982 and 1990, employment rates rose sharply. In some market segments, this was a result of increased employment among wives. The incomes of the lone-parent segments were volatile; only among young lone parents with older children living alone was there a marked increase between 1982 and

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the labour force.

³ The two right-hand panels in Chart D show the percentages of renter household heads and wives (in the case of husband-wife families living alone) employed (percentages are not shown for elderly segments) at the beginning and end of the period, in 1982 and 1995. Note that the converse—the percentage who are "not employed"—includes both persons in the labour force (that is, "unemployed") and persons not in

1990. Volatile also best describes the incomes of young nonfamily renters living alone; however, the middle-aged and elderly did fare better. In the subsequent recession of 1990-92, real incomes declined for most market segments. Further, recovery from the recession of 1990-92 was slow: much slower for example than the recovery after the 1982 recession. By 1995, the percentage of renter heads who were employed was still down (compared to 1982) in almost every market segment.

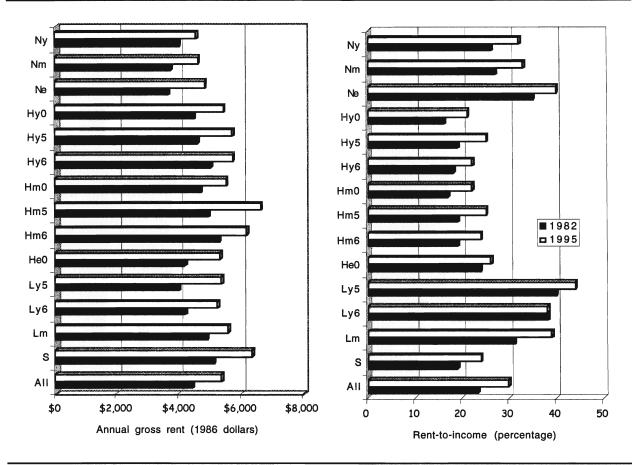
To anyone who would market new rental housing to more-affluent consumers, Chart D tells a depressing story. Looking back at the changing profile of renters (Chart B), several of the market segments where the number of renters increased the most—notably lone parents and non-family individuals living alone—are also the market segments with the lowest incomes. This reinforces the finding from Table B that renter households have become increasingly likely to be among the poorer households in society.

RENTS AND AFFORDABILITY

How much do Canadian renters in the for-profit sector spend annually on their housing? What renters spend for their dwellings can vary considerably depending on the size and type of dwelling, whether heat, utilities and other services are included, duration and other lease conditions, and local market conditions. Here, let us consider "gross rents", a concept which includes heating costs. Also, to control for the effects of inflation generally, all rent payments are reported here in constant 1986 dollars.

The following discussion is restricted to the population of "market-rent" households: those households that could be thought to be normal renters in the private, for-profit rental sector. This population excludes renters reporting a zero or negative income (business loss), a rent payment of "not applicable", an annual shelter cost greater than their reported income, rent payments subsidized by government, an employer, relative, or other, or rent payments for a combination of business and living quarters. These exclusions limit us to 3.2 million of the 4.1 million households in 1995. As a result of this restriction, we must be careful in interpreting data about market-rent households. The very households deemed worthy enough to be assigned publicly-subsidized housing, presumably the worst-off among renters, are excluded from the market-rent population described here. From a public policy perspective, some market-rent households have "fallen between the cracks"; that is, should be, but are not presently, in assisted housing. Nonetheless, to the extent that public policy has been effective in delivering

Chart E Average annual gross rent, and average ratio of rent to income, market-rent households by market segment, Canada, 1982 and 1995.



assistance to the most needy households, we should see corresponding improvements over time in the wellbeing of those households left in the market-rent sector.

In 1995, a market-rent nonfamily person living alone typically paid under \$5,000 annually in gross rent: see Chart E. Larger households typically occupied larger dwellings and paid correspondingly more; mature families living alone and sharing households for example reported paying an average in excess of \$6,000 annually. These real average gross rents have increased steadily over the years. In other words, rents on average have risen faster than consumer prices generally (the Consumer Price Index has been used here to convert money amounts to 1986 dollars). Further, rents have increased faster than the growth in income for most market segments; compare Charts D and E. Even during the recession of 1990-92, gross rents continued to increase on average (albeit at a lower rate).

As a result, average rent-to-income ratios increased markedly; on average, annual rent in 1995 was almost 30% of household income, up from just over 23% in 1982. In 1982, rental housing was relatively more affordable in the sense that households spent on average under 25% of their income on rent in 8 of the 14 market segments. Between 1982 and 1989 (not shown in the charts presented here), despite the growth in nominal incomes, affordability worsened for most market segments. Put differently, rents (and, to a lesser extent, other consumer prices) rose faster than incomes for many categories of consumers. The recession of 1990-92 added to this trend. Further, rent-to-income ratios continued to deteriorate between 1992 and 1995. By 1995, only 5 of the 14 market segments were reporting average rent-to-income ratios under 25%. Even though rent-to-income ratios vary considerably by market segment, by 1995 virtually all segments were paying more of their household income in rent than they were in 1982. Finally, as seen in Chart E, the market segments with the highest incomes in general tended to retain the lowest rent-to-income ratios.

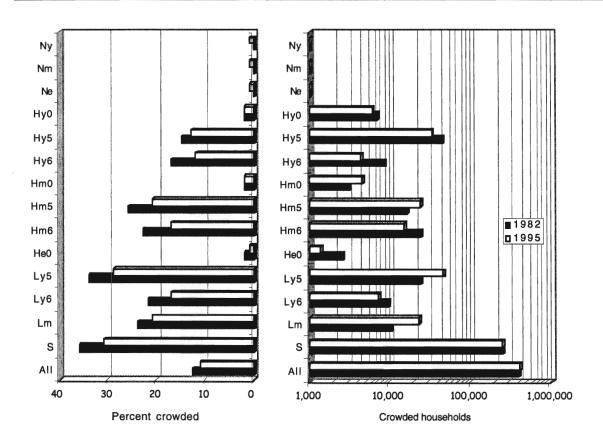
SUITABILITY, ADEQUACY, AFFORDABILITY, AND CORE HOUSING NEED

To this point, we have seen evidence that rental housing became more costly relative to income during the 1980s and early 1990s. How did households cope? We have seen already that, in part, renters began to spend more of their income on shelter. However, there are also other ways to cope. One is to share accommodation with another individual or family. Another is to move to a smaller dwelling, or to a substandard dwelling that is more affordable. As used in Canada, "core housing need" identifies households whose housing circumstances fall below one or more of the standards for adequacy, suitability, and affordability and who would have to spend 30% or more of their household income to pay the average rent of alternative local market housing that meets standards. To what extent did renters pursue various coping strategies? How did this impact on core need?

To begin, let us turn to the incidence of households who fall below each of three housing standards.

Suitability. Crowding is said to exist when a dwelling is too small according to Canada's
"National Occupancy Standard"(NOS): that is, has too few bedrooms given the demographic composition of the household. In 1995, there were 406 thousand crowded renter
households in Canada, up only slightly from 390 thousand in 1982. The right side of Chart F
shows that sharing households make up the vast majority of these. The left side of Chart F

Chart F Number and incidence in crowded housing, market-rent households by market segment, Canada, 1982 and 1995.

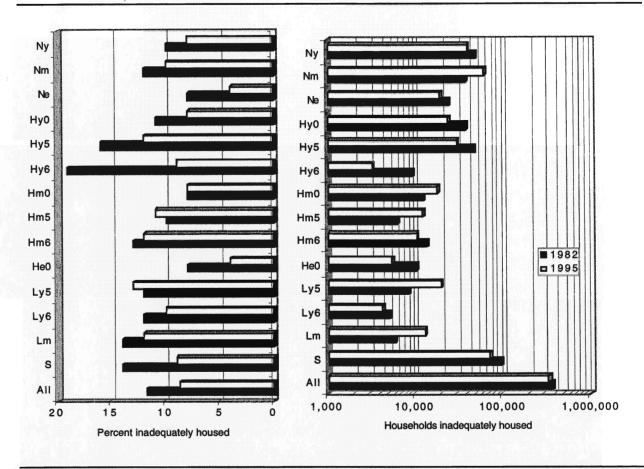


shows that young lone parents with small children living alone also had a high incidence of crowding.⁴ Over the period from 1982 to 1995, the incidence of crowding declined in general. For the most part, so too did the number of crowded households in each market segment. The ex-ceptions to the latter trend are among lone parents, middle-aged husband-wife families with small children living alone, and sharing households. At first glance, these patterns suggest that crowding is not widely used as a strategy for coping with the rising cost of housing. However, appearances can be misleading. To the extent that consumers choose shared households rather than live alone, they become more likely to be crowded.⁵

⁴ In part because of the way that crowdedness is defined in the NOS, families without children and persons living alone are rarely crowded.

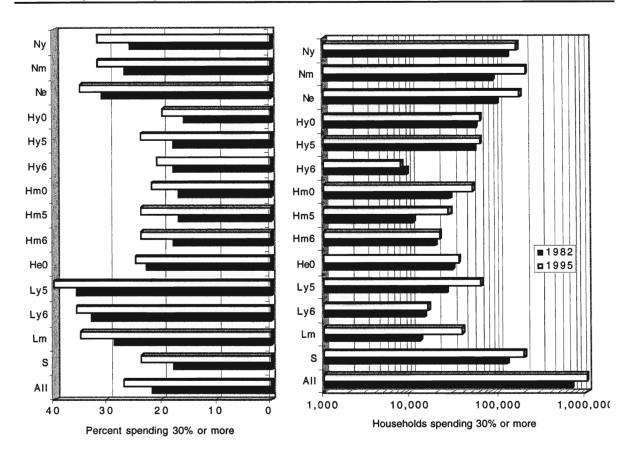
⁵ Because more people live in a typical shared household (compared to other types of households), the incidence of crowding will be worse if measured as a percentage of all individuals than if measured (as done here) as a percentage of all households.

Chart G Number and incidence in inadequate housing, market-rent households by market segment, Canada, 1982 and 1995.



- Adequacy. The story is a little different in the case of inadequate housing. As measured in the HIFE microdata samples, "inadequate" means that the dwelling lacks full bathroom facilities and/or is in need of major repair. In 1995, there were 334 thousand inadequate rental dwellings in Canada, down from 361 thousand in 1982. The right side of Chart G shows the number in each market segment. In 1995, the two segments that account for most of the inadequate housing are sharing households and middle-aged nonfamily persons living alone. However, the largest increase from 1982 to 1995, in percentage terms, is among young lone parents with small children living alone. If we look instead at the incidences shown on the left side of Chart G, it is young couples with children living alone who are most likely to find themselves in inadequate housing.
- Affordability. A market-rent household is said to exceed the affordability criterion if it spends 30% or more of its income on rent. It is commonly thought that lower-income households spending a high proportion of their income on rent are "coping" by reducing other expendi-

Chart H Number and incidence spending 30% or more of income on rent, market-rent households by market segment, Canada, 1982 and 1995.

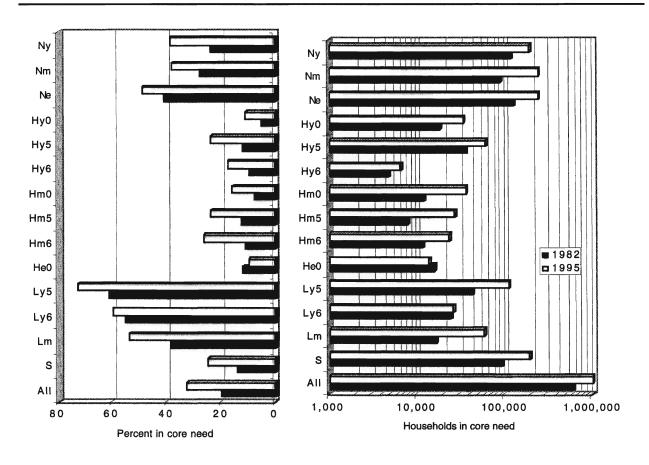


tures thought to be necessary (for example, food or clothing). In 1995, there were just over one million market-rent households in this situation: up from just under 700 thousand in 1982. As seen from the right side of Chart H, these are to be found mainly among nonfamily persons living alone as well as sharing households. In terms of incidence, the segments where market-rent households are most likely to spend 30% of their income or more on rent are lone-parent families and nonfamily persons living alone. From 1982 to 1995, the incidence of households spending 30% or more rose dramatically. By 1995, six of the fourteen market segments were reporting an incidence of 30% or more, up from just three in 1982.

Now let us draw an overall picture of the population in core need in Canada.⁶ Counts of households in core need for each market segment are shown on the right side of Chart I, and the

⁶ A word of caution: these counts of market-rent households in core need include some households that are comprised only of students. In recent years, CMHC and the provincial housing agencies decided to exclude such households from the counts of households in core need because students are considered to

Chart I Number and incidence in core need, market-rent households by market segment, Canada, 1982 and 1995.



incidence of core need within each market segment is shown on the left. Remember here that core need is measured only for market-rent households; not included here are households in assisted housing. Overall, there was a dramatic increase in the number of renters in core need over the period: almost 1.3 million households in 1995, up from just 0.6 million in 1982. Similarly, the incidence rose: forming 33% of all market-rent households in 1995, up from just 20% of such households in 1982. This pattern is repeated across all market segments except elderly couples: there, thanks largely to housing subsidy programs aimed at senior citizens, the number and incidence of households in core need in that market segment actually declined from 1982 to 1995. In 1982, about 60% of young lone-parent families were in core need: the highest among market-rent market segments. The next-highest were elderly nonfamily persons living alone at

be in a transitional phase in their lives. Students are included in this study because it is not possible to separate out student households in the early years of the HIFE samples employed here.

41%. By 1995, 73% of young lone-parent families with small children were in core need: up from 62% in 1982.

CONCLUSIONS FROM THE DESCRIPTIVE EMPIRICAL ANALYSIS

The descriptive empirical results presented so far provide some answers to the four sets of questions raised at the outset of this report. We can summarize these as follows

- What were the relationships between macro-level changes in Canada over this period and changes in the social and economic profile of renters and their housing circumstances? Chart A shows how the principal demographic changes (aging of the baby boomers, increasing longevity, and the decline of nuptiality and fertility) played out in terms of household formation across the market segments. Chart C shows how increased immigration has translated into renter households.
- How did the ability of renters to participate fully in the economy change over the period? Chart D shows how employment rates changed in renter households between 1982 and 1995. For household heads, employment rates declined in almost every market segment. For wives, there was some increase in labour force participation rates, especially among families with small children at home. The net effect of these labour market changes (when combined with the retrenchment in transfer payments to households) on household income, however, was largely negative: the real incomes of most household segments declined from 1982 to 1995.
- What happened to household incomes vis-a-vis rents, for all renters and for specific groups? Chart E shows the impact of changes that occurred between 1982 and 1995: for example, rents increased faster than other consumer prices during the 1980s, and then continued to rise during the recession of 1990-92. Nominal household incomes rose less quickly, and in some cases declined. The impact on affordability was dramatic. Chart E shows the net impact. Rent-to-income ratios rose during the boom of the late 1980s, and then continued to rise into the early 1990s.
- What happened to renter housing conditions? Charts F, G, and H tell about the use of various coping strategies over the period. We find some evidence of the use of crowding as a coping strategy: particularly in the case of sharing households. The pattern is similar if we turn our attention to inadequate housing. Again, there is little evidence of renters seeking out substandard housing when times are lean. In a sense, neither of these findings should be surprising. After all, it may not be easy in the short run to adjust household size (that is, crowding) or dwelling adequacy just because one's income has changed. These kinds of coping strategies may be more important over the longer term. In contrast, Chart H provides evi-

dence that households do adjust the budget share spent on housing. As housing became more costly relative to income, households spent more on it. Put differently, they appear to cope with more-costly housing mainly by cutting back on spending for other goods and services. Chart I shows how renter housing conditions played out in terms of increasing counts of households in core need.

DETERMINANTS OF HOUSING CHOICE: INFERENTIAL ANALYSIS

To this point, we have described changes in renters and their housing conditions since the early 1980s. Overall, the main changes have been: a slackening in renter household formation at the end of the 1980s; a rising incidence of renting among lone-parent families living alone and immigrant-headed households, and a decrease among young childless adults—singles and couples—and elderly couples living alone; declining affordability of rents relative to the incomes of renter households; the increasing tendency for many renters to be among the poorest of households; and a decline in real income and employment rates in renter households during the recession of 1990-92. What brought about these changes? Coming back to the themes of this report, can they be linked to shifts in demography, in housing market and labour force conditions, or in the coping strategies employed by individuals and families? Which of these factors were the most important? The descriptive empirical analysis used above has not taken into account the ways in which individuals and families adjust their living arrangements to cope with changing economic circumstances: for example, changes in rents, employment, and incomes. How important have such strategies been in affecting outcomes in the rental market?

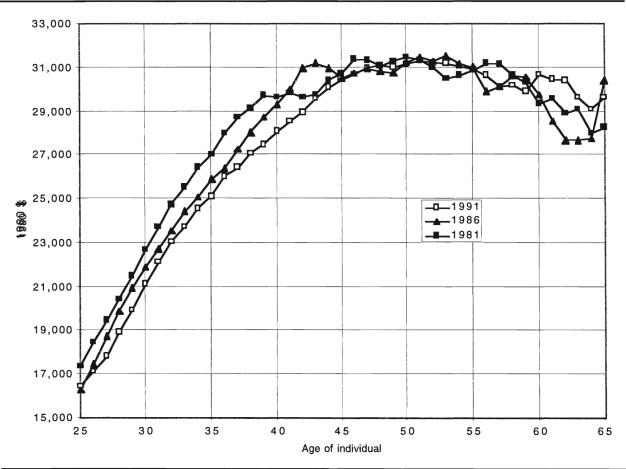
These questions can be addressed using inferential models that are described in detail in a background technical report. These models pretend that individuals and families make sets of three choices in sequence. The first model predicts living arrangement, here characterized as the choice between living alone and sharing a dwelling. The second model predicts tenure, here the choice between owning and renting. The third model predicts housing consumption for market-rent households and comes in three variants. One variant predicts gross rent expenditure for a household. A second variant predicts whether a renter household spends 30% or more of its income on rent. The third variant predicts whether a renter household is in core need. In the latter two sets of choices, the unit of observation is the household, and these models are estimated using HIFE data. In the case of living arrangement however, the unit of observation is the family or nonfamily individual; this model is estimated using public use samples for families and individuals drawn from the 1981, 1986, and 1991 Censuses. The explanatory variables include market segment, immigrant status, income prospects, and the prices of housing alternatives. The

effects of macroeconomic change are evidenced by changes in the income prospects of individuals, families, and households. The purpose of these models is to test hypotheses about the impacts that changes in earnings, house prices and rents, market segments, and immigration have ultimately on the number of renters and their housing conditions. The models allow us to trace, for example, how a typical individual or family, at any given market segment, copes with a change in employment and earnings: from doubling up, to changing tenure, to reducing floor space consumption or housing expenditure, to moving into substandard space.

We can imagine that each consumer is faced with three distinct kinds of income prospects. One is the Current Prospect, here defined to be the income typical of persons of that age, sex, level of schooling, geographic locale, and workforce participation. The second is the Employment Prospect, here defined to be the gain in income expected should that person become fully employed (zero if the person is already fully employed). The third is the Career Prospect, here defined to be the normal gain (or loss) in income associated with aging over the next five years. A household may well take into account both these income prospects and its current income in making its housing choices. Put differently, these three prospects may each affect decisions of the consumer about living arrangement, savings and spending overall, and spending on housing in particular. For example, an improved Career Prospect might cause a young couple to defer spending now in order to save towards homeownership; a smaller Career Prospect might cause that same couple to give up on becoming homeowners and instead shift to greater spending now. The housing choice models presented here allow us to assess the importance of changes in the labour market (that is, in each kind of income prospect) in reshaping housing choices.

Income prospects can be calculated from income and workforce participation data in the 1981, 1986, and 1991 Censuses (in each case, reported for the preceding calendar year). Since the relevant 1996 Census data were yet to be published at the time this research was undertaken, we have speculated on how income prospects have changed since 1991. Chart J shows the age profile of the Current Prospect Income Model from each Census for men (with post-secondary education and living in metropolitan areas) who work full-time. This includes both renters and owners. In all three Censuses, the Current Prospect Income Model results for such men peak near \$31,000 (in 1980 dollars): in the age interval roughly 45 to 55. In 1980, just before the recession of 1982-83, the Current Prospect Income Model predicts: income rising quickly with age among younger adults (indicating a large Career Prospect). The profiles for 1985 and 1990 are similar, but the increase among younger adults is less steep and career peak incomes are lower. In the case of 1985, this flattening (that is, a lowered Career Prospect) is partly the consequence of consumer prices rising faster than nominal incomes. In 1990, the flattening is also attributable

Chart J Current Prospect Income Model for males in metropolitan areas, with post-secondary education, working full-time (censuses of 1981, 1986, 1991).

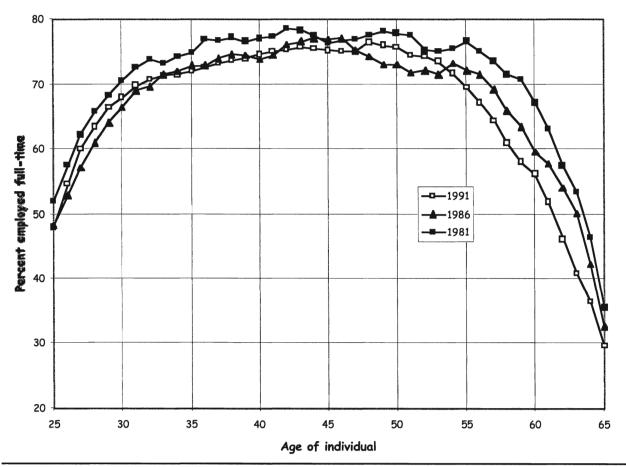


Source: Calculated by author from the 1981, 1986, and 1991 census public-use microdata samples.

to the onset of recession. Overall, Chart J shows that men under 40 did not fare as well as older men over the course of the 1980s. Put differently, a young man in 1990 has a smaller Career Prospect compared to a young man in 1980, even though both would expect eventually to reach about the same peak income levels.

With the onset of recession in 1990, income prospects were further dampened by changes in the incidence of full-time work. Chart K shows the percentage of men who are employed full-time (again among those with post-secondary education and living in metropolitan areas). Typically, the incidence of full-time employment rises steadily with age among young adults, reaches a plateau among men in their late 30s through early 50s, and then falls off sharply among older men up through age 65. From 1981 to 1986, despite the economic recovery after the recession of 1982, the profile shifted downwards; whatever the cause (for example, inability to find work,

Chart K Percentage of men in metropolitan areas, with post-secondary education, employed full-time (census years: 1981,1986,1991).



Source: Calculated by author from the 1981, 1986, and 1991 census public-use microdata samples.

return to school, early retirement, disability, or job loss) men became less likely to work full-time at any given age. From 1985 to 1990, there was a modest recovery in employment rates for men aged 26 through 30 and a worsening for men at or over 54 years of age. Put together, Charts J and K imply that men under age 30 increased their employment rates from 1985 to 1990, but nonetheless those working full-time had lower real incomes; men aged 55 or older in contrast were less likely to work full-time in 1990, but those that did earned a real income comparable to or exceeding that of their peers in 1985.

This report contends that income prospects are central to understanding housing choices. However, such a perspective constrains the sample that we draw, and hence the population for which the inferential models are to be estimated. To calculate income prospects, our sample must include adults old enough to have largely completed their education; otherwise it is difficult to predict Career Prospect. Second, our sample cannot include the retired elderly, because again we cannot easily predict Career Prospect (without knowing about that person's pension plan and other asset holdings: details that are not included in the Census). In what follows, our sample is restricted to nonfamily persons, lone-parent families, and husband-wife families where the person, head, and spouse are aged 25 through 60. These samples include consumers from only parts of two of the Gilly-Enis age categories: that is, "under 35", and "35 through 64".

Let us now briefly describe each of the independent variables used in these models. These include the three income prospects listed above.

- *Current Prospect* (1980 dollars). The average non-investment income of individuals of that gender, year of age (25 through 60), level of schooling (primary only, secondary only, some post-secondary), region (metropolitan, nonmetropolitan), and work status (at least 49 weeks of mainly full-time work in preceding year, other). In all, there are (2 x 41 x 3 x 2 x 2=) 984 Current Prospect values to be calculated for any given year. For husband-wife couples, Current Prospect is summed for the two partners.
- Career Prospect. Difference in Current Prospect between a person and someone otherwise similar but five years older (summed for the partners in the case of husband-wife couples).
- *Employment Prospect*. Difference in Current Prospect between a person not employed full-time, and a full-time counterpart, zero if person is employed full-time, (summed for the partners in the case of husband-wife couples).

In assessing housing affordability, housing choice, and coping strategies, the flip side to income is the price of accommodation. Price is used here in reference to a dwelling of standard quality. Three measures of the prices of renting and/or owning a home are used here to evaluate the importance of housing affordability:

- Standard rent, here the median annual rent paid for a standard rented dwelling in that locale (1980 dollars)
- *Price-Rent Ratio*, here the ratio of the selling price of a standard owned-home to annual rent for a standard rented dwelling in that locale.
- *Capital Gain*, here the annual proportion increase over the preceding year in the selling price of a standard owned-home in that locale (negative if selling price decreased).

The living arrangement model uses two price series (each deflated to show rents relative to other consumer prices) to calculate Standard Rent: a series for 1-bedroom dwellings used for

Table D Median annual gross rent (in 1981 dollars) by type of dwelling, by region and type of area, Canada, 1981, 1986, and 1991.

	1-bed	room dy	welling	3-bed	lroom dy	welling
	1981	1986	1991	1981	1986	1991
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Atlantic Canada						
Nonmetro	2,868	3,032	2,890	3,112	3,374	3,715
Metro	2,868	3,032	2,890	3,112	3,374	3,715
Quebec						
Nonmetro	1,929	2,233	2,394	2,273	2,669	2,931
Metro	2,315	2,789	2,972	2,858	3,566	3,591
Ontario						
Nonmetro	2,630	2,925	3,385	3,734	3,950	4,221
Metro	3,258	3,573	3,823	4,830	5,380	5,715
Prairie Provinces						
Nonmetro	2,975	2,963	2,642	4,438	4,031	3,715
Metro	3,789	3,348	3,231	5,602	5,073	4,830
	0,107	0,010	0,201	0,002	0,0,0	1,000
British Columbia	2.257	2.015	2 072	4.070	4.201	4 224
Nonmetro	3,356	2,915	2,872	4,979	4,291	4,334
Metro	3,410	3,616	4,135	6,495	5,534	5,420

Note "Metro" areas consist of urban centres of 100,000 population or more. "Nonmetro" includes settlements under 100,000 population and rural areas. Because of small sample sizes, the latter category also includes St John's, Halifax, St John and Moose Jaw.

Source 1982, 1986, and 1991 HIFE samples as augmented by Canada Mortgage and Housing Corporation. Calculations by author.

modeling the living arrangement of nonfamily persons, and a series for 3-bedroom dwellings used for modeling husband-wife and lone-parent families (see Table D). In contrast, the tenure choice and housing demand models use different price series. The latter are based on rents for 2-bedroom apartments and an average selling price series for 3-bedroom, single-detached homes.⁷ These latter two series are used to calculate the two other price variables: Price-Rent Ratio and Capital Gain.

One measure of (recent) immigration status is employed.

 Immigrant, here defined to be an individual (lone parent, either spouse in a husband-wife family, or head of a sharing household) who immigrated to Canada within the preceding eight years.

Finally, the following market segments are used in the sample

⁷ Because of depreciation in the stock, any price index for housing is sensitive to the mix of dwellings by period of construction To control for this, I include only dwellings built between 1960 and 1979 in calculating the price indices above.

```
Person or family living alone, head aged under 35
       1 if person living alone, 0 otherwise.
s2
       1 if couple with no children, 0 otherwise.
s3
       1 if couple with child[ren] under 7, 0 otherwise.
       1 if couple only with older child[ren], 0 otherwise.
S4
S5
       1 if lone parent with child[ren] under 7, 0 otherwise.
       1 if lone parent only with older child[ren], 0 otherwise.
S6
       Person or family living alone, head aged 35 to 64
       1 if person living alone, 0 otherwise.
s7
S8
        1 if couple with no children, 0 otherwise.
s9
        1 if couple with child[ren] under 7, 0 otherwise.
s10
        1 if couple only with older child[ren], 0 otherwise.
s11
        1 if lone parent, 0 otherwise.
```

The estimation of the three models (living arrangements, tenure choice, and housing demand) is discussed in detail in the background report. This report focuses on an interpretation of the findings, organized into three distinct types of consumers (nonfamily persons, lone parent families, and husband-wife families).

NONFAMILY PERSONS

To begin, imagine a sample of 1,000 nonfamily persons, aged from 25-60 with the mix of education, immigrant and work status, age, income prospects, and geographic locale typical of 1981 through 1991. Further, imagine that these individuals face housing prices and conditions typical for their geographic locale at that time. The living arrangement model predicts that 574 of these persons live alone; see the row labeled "model-predicted" in Table E. Of these, the tenure model predicts that 69% (398) are renters. Further, the consumption model predicts that 32% (128) of these renters will spend 30% or more of their income on rent, 29% (115) will be in core need, and the typical expenditure by the 398 renters will be is 1.08 times the average rent for a standard 2-bedroom apartment nationally.

How sensitive are these outcomes to the household's Current Prospect? The 1991 subsample of nonfamily persons reported an average of \$14,450 in 1980 dollars, up \$260 from the 1981 subsample. Of course, the individuals in each year of the pool are different; we have no way of knowing the increment in income experienced by any one person. In addition, such statistics say nothing about events since 1990. What we can do, however, is to predict housing choices if the Current Prospect of everyone in the sample had increased by the same amount:, here taken to be \$1,000. As shown in panel (a) of Table E, the models predict that a \$1,000 rise in Current

Table E Model-predicted living arrangement, tenure choice, and housing consumption of 1,000 nonfamily individuals, showing impact of marginal change in each independent variable.

	Live	Renting	Spend	Core	Gross
	alone		30% or	need	rent
			more		
	(hhld)	(hhld)	(hhld)	(hhld)	
Model-predicted	574	398	128	115	1.08
(a) Income prospects: impact of \$1,000 increase					
Current Prospect	12	5	-18	-19	0.00
Career Prospect	-9	-4	2	-9	0.01
Employment Prospect	-8	1	19	22	0.00
(b) Standard Rent: impact of \$1,000 increase	-50	-35	-11	-10	-0.13
(c) Capital Gain: impact of 0.10 increase		-6	-2	-1	
(d) Price-rent Ratio: impact of 1.00 increase		6	2	1	
(e) Immigrants: impact of 100 increase	-13	-3	0	0	0.01
(f) Segment shift: impact of 100 increase			_		
S7 (shift from S1)	13	-1	2	2	0.00

Source 1987 through 1994 HIFE samples. Calculations by author.

Note

Panels (a) through (d) calculated by changing data for each sampled household by that amount, then calculating average of predicted values from model. Panels (e) and (f) calculated by increasing number of persons (families) in that category by 100, and decreasing other relevant categories by same amount; amount shown is average of these "re-weighted" model predictions.

Gross rent given as proportion of annual standard rent.

-- indicates "not applicable".

Prospect—for each of these 1,000 individuals—would lead to the formation of 12 additional households (586 versus 574). The number of renters among these would increase by 5 (to 403); the other 7 on net become homeowners. At the same time, the number of renters spending 30% or more on rent falls by 18 (to 110, down from 128), and the number in core need falls by 19 (to 96, down from 115); thus it is these latter two predictions that show the most sensitivity to income. Put differently, if Current Prospect decreased after 1990, the models would predict a sharp rise in the number of nonfamily persons living alone who are in core need (as well as the number spending 30% or more of their income on rent).

What are the effects of a change in Career Prospect? The 1991 subsample of nonfamily persons is calculated to have a mean of \$1,060 in 1980 dollars, up \$140 from the 1981 subsample. Here, the models predict that, for a uniform \$1,000 increase in Career Prospect, the effects on the number living alone, the number renting, and the number in core need are each negative. These results suggest that nonfamily persons save towards future homeownership; the better the Ca-

reer Prospect, the more they economize on their current housing costs to make that move to homeownership. If, as we expect, Career Prospect declined after 1990, the models predict that some nonfamily individuals would become less likely to save toward homeownership, that is, be more likely to live separately, and more likely to be in core need.

What about the effects of a change in Employment Prospect? The 1991 subsample of nonfamily persons reported an average of \$4,060 in 1980 dollars: up only \$10 from the 1981 subsample. Again using a uniform \$1,000 increase in Employment Prospect, the models can be used to predict the impacts on housing choices. In this case, however, an increase in Employment Prospect signals the loss of income because of unemployment. Table E shows that the net effects of a larger income loss through unemployment are a drop in the number living alone, and an increase in the number spending 30% or more and the number in core need.

Consider next the impacts of changes in the price of renting. For nonfamily persons in the 1991 subsample, annual standard rent averaged \$3,320 in 1980 dollars: up \$400 over the 1981 subsample. In panel (b) of Table E, a uniform \$1,000 (roughly 30%) increase in annual rent, as a proxy for the cost of separate accommodation, results in 50 fewer nonfamily persons living alone (be they renters or owners). However, since the amount spent by a typical nonfamily renter increases by only \$515, that is, from \$3,586 (1.08x3320) to \$4,101 ([1.08-0.13]x[3320+1000]), while the standard rent has risen by \$1,000, such renters must typically be moving to smaller or lower-quality accommodation. The shrinking number of renters also means a reduction in the number spending 30% or more on rent, and the number in core need. Overall, the models indicate that rent s affect both the formation of renter households and their housing conditions.

What effect does the price of homeownership have on nonfamily renters? One is the attraction of capital gains to potential home buyers. In panel (c), an increase in the annual capital gains rate of 10 percentage points (say, from a 2% gain last year to a 12% gain this year) causes 6 of the 398 renters to switch to homeownership. The other effect of the homeownership market is that, as homeownership becomes relatively more expensive, potential buyers are deterred. In panel (d), a unit increase in the Price-rent Ratio (say, from 22.2 to 23.2) shows this effect. Deterred by home ownership that is now relatively more expensive, 6 more nonfamily persons living alone on net choose to rent rather than own.

What are the impacts of immigration and segment change? In panel (e) of Table E, if the sample of 1,000 had included 100 more immigrants, there would have been 13 fewer nonfamily persons living alone, but only 3 fewer renters among these (to 345, down from 348). Because immigrants make up only about 6% of the pool of nonfamily persons, the effects of increased immigration

over the period from 1980 to 1995 were in fact even smaller than this. Turning to segment change, panel (f) tells us that the shift of 100 baby boomers from a younger segment (S1) to an older segment (S7), brings about 13 more nonfamily persons living alone but 1 less renter on net. Remember that these results control for income change; to the extent that older nonfamily persons earn more income than their younger peers, such segment shifts will be further augmented by changing income prospects as noted above.

Panels (c) through (f) suggest that changes in Capital Gains, Price-rent Ratio, Immigrant Status, and population aging have had negligible impacts on the number of nonfamily persons in core need or the number spending 30% or more on shelter. Put differently, nonfamily persons are more likely to cope by adjusting their living arrangement and housing tenure in such circumstances. Only when we consider adverse changes in income prospects or the price of rental accommodation (that is, panels (a) and (b)) do we find substantial numbers of households that cope by moving into core need or spending a large share of their income on housing.

LONE-PARENT FAMILIES

Now, let us consider lone-parent families: remembering once again that these are primarily mother-led. Imagine now a sample of 1,000 lone-parent families, with a parent aged from 25-60, once again with the mix of education, immigrant and work status, age, income prospects, and geographic locale typical of 1981 through 1991. Further, imagine that these individuals face housing prices and conditions typical for their geographic locale at that time. The living arrangement model predicts that 770 of these families live alone: see Table F. Of these families, the tenure model predicts that 59% (451) are renters. Of these renters, the consumption model predicts that 45% (202) of these renters will spend 30% or more of their income on rent, 48% (216) of these renters will be in core need, and the typical expenditure of all lone-parent renters 1.18 times the average rent for a standard 2-bedroom apartment nationally. These numbers, which are all higher than we observed for nonfamily persons above, are not surprising. It is commonly argued that families have stronger preferences for separate and larger accommodation when children are present. As well, we should not be surprised to find a higher incidence of affordability problems here given that lone-parent families have a low Current Prospect (\$9,490 in 1980) compared to nonfamily persons (\$14,190).

How sensitive are these outcomes to the Current Prospect? The 1991 subsample of lone-parent families reported an average of \$11,550 in 1980 dollars: up substantially (\$2,060) from the 1981 subsample. In panel (a) of Table F, the models predict that a \$1,000 rise in Current Pros-

Table F Model-predicted living arrangement, tenure choice, and housing consumption of 1,000 lone-parent families, showing impact of marginal change in each independent variable.

	Live alone	Renting	Spend 30% or more	Core need	Gross rent
	(hhld)	(hhld)	(hhld)	(hhld)	
Model-predicted	770	451	202	216	1.18
a) Components of income: impact of \$1,000 incr	ease				
Current Prospect	3	-11	-25	-32	0.03
Career Prospect	-30	-18	13	39	0.09
Employment Prospect	-1	12	27	33	-0.02
b) Standard Rent: impact of \$1,000 increase	-11	-6	-6	6	-0.15
c) Capital Gain: impact of 0.10 increase		-11	-5	-2	
d) Price-Rent Ratio: impact of 1.00 increase		5	2	1	
e) Immigrants: impact of 100 increase	-18	6	9	12	0.03
f) Segment shift: impact of 100 increase					
S6 (shift from S5)	-2	9	-4	-4	0.00
S11 (shift from S5, S6)	7	-21	-20	-20	0.01

Source 1987 through 1994 HIFE samples. Calculations by author.

Note

Panels (a) through (d) calculated by changing data for each sampled household by that amount, then calculating average of predicted values from model. Panels (e) and (f) calculated by increasing number of persons (families) in that category by 100, and decreasing other relevant categories by same amount; amount shown is average of these "re-weighted" model predictions.

-- indicates "not applicable".

Gross rent given as proportion of annual standard rent.

pect—among 1,000 typical families—leads to the formation of only 3 additional households (compared to the 12 found for nonfamily persons). The number of renters among these decreases on net by 11, revealing a strong trend toward homeownership as income permits. At the same time, the number of renters spending 30% or more on rent falls by 25, and the number in core need dips even more. An increase in Current Prospect would also lead to a greater expenditure by lone-parent renters on their housing.

What are the effects of a change in Career Prospect? The 1991 subsample of lone-parent families is calculated to have a mean of \$230 in 1980 dollars: up \$190 from the 1981 subsample. Here, the predicted effects of a \$1,000 increase are in part similar to that reported above for nonfamily persons; the better the Career Prospect, the less likely lone-parent families are to live alone, but those who do live alone tend to spend more on rent, and a higher proportion spend 30% or more of income. What is different about lone parents is that an improved Career Prospect makes it much more likely that they will be in core need: this suggests that lone parents use a

strategy of living in substandard or inadequate housing when they anticipate a future gain in income.

What about the effects of a change in Employment Prospect? The 1991 subsample of lone-parent families reported an average of \$4,840 in 1980 dollars: down \$920 from the 1981 subsample. Given a uniform \$1,000 increase in Employment Prospect, combined with a corresponding decrease in Current Prospect, Table F shows the net effects of increased unemployment are principally increases in the proportions renting, spending 30% or more, and in core need. The impacts on the number living alone, however, are negligible. These results are qualitatively similar to those reported for nonfamily persons above, except that lone parents are more prone to switch from ownership to renting when the labour market worsens.

What are the impacts of changes in Standard Rent? For lone-parent families in the 1991 subsample, Standard Rent is \$4,460 in 1980 dollars: up \$410 over the 1981 subsample. In panel (b) of Table F, a \$1,000 increase in the annual rent is predicted to lead to 11 fewer lone-parent families living alone, a small drop in the number of households spending 30% or more on rent, a small increase in core need. The amount typically spent by a lone-parent family renting would rise modestly to \$5,624 ([1.18-0.15]x[4460+1000]), up from \$5,251 (1.18x4450). As with nonfamily persons, the latter contrast suggests that lone-parent families living alone cope with the rising cost of housing partly by moving to less-adequate housing.

What effect does the price of homeownership have on lone-parent renters? In panel (c), an increase in the annual capital gains rate of 10 percentage points causes 11 renters to switch to homeownership. In panel (d), a unit increase in the ratio of the price of an owned home to annual rent results in an increase of 5 renters among lone-parent families living alone. This latter finding is similar to that reported for nonfamily persons above.

What are the impacts of immigration and segment change? In panel (e), a rebalancing of 100 families from nonimmigrant to immigrant status leads to 18 fewer lone-parent families living alone, and 12 more such households in core need. Such results are consistent with evidence that immigrants are typically less affluent than their native-born peers. In panel (f) of Table F, a move of 100 families from S5 to S6 (that is, from younger to older children) causes only small changes in model predictions. A shift of 50 families each from S5 to S6 into S11 (aging households), however, leads to substantial reductions in the number of renters, the number spending 30% or more, and the number in core need.

HUSBAND-WIFE FAMILIES

Finally, consider a sample of 1,000 husband-wife families, wherein both partners are aged from 25-60, once again with the mix of education, immigrant and work status, age, income prospects, and geographic locale typical of the period 1981 through 1991. The living arrangement model predicts that 901 of these families live alone: see Table G. Of these families, the tenure model predicts that 185 are renters. Among these husband-wife family renters, the consumption model predicts that only 14% (25) will spend 30% or more of their income on rent, 11% (21) will be in core need, and the typical expenditure of all family renters will be 1.38 times the average rent for a standard 2-bedroom apartment nationally. These results are not surprising, since again we might expect that families have stronger preferences for separate and larger accommodation when children are present. As well, we should not be surprised to find a low incidence of affordability problems here given that husband-wife families have the highest Current Prospect among the three samples.

How sensitive are these outcomes to the Current Prospect? The 1991 subsample of husbandwife families reported an average of \$29,600 in 1980 dollars, up \$2,460 from the 1981 subsample. In panel (a) of Table G, the models predict that a \$1,000 increase—among those same 1,000 families—would lead to the formation of only 5 additional households (similar to the 3 estimated for lone-parent families). The number of renters among these would decrease on net by 6, once again evidencing a trend to homeownership as income permits. At the same time, the number of renters spending 30% or more on rent and the number in core need each falls by 4. The increase in Current Prospect also leads to a greater expenditure on housing among renters.

What are the effects of a change in Career Prospect? The 1991 subsample of husband-wife families is calculated to have a mean of \$1,140 in 1980 dollars, up \$470 from the 1981 subsample. Here, the predicted effects of a \$1,000 increase in Career Prospect are all small. A marginal change in Career Prospect has relatively little effect on the living arrangement, tenure choice, and rent expenditure of husband-wife families.

What about the effects of a change in Employment Prospect? The 1991 subsample of husband-wife families reported an average of \$7,810: down \$420 from the 1981 subsample. The predicted effects of a change in Employment Prospect on living arrangement, tenure choice, and housing consumption are again all small. A marginal change in Employment Prospect has relatively little effect on the living arrangement, tenure choice, and rent expenditure of husband-wife families.

Table G Model-predicted living arrangement, tenure choice, and housing consumption of 1,000 husband-wife families, showing impact of marginal change in each independent variable.

	Live alone	Renting	Spend 30% or more	Core need	Gross rent
	(hhld)	(hhld)	(hhld)	(hhld)	
Model-predicted	901	185	25	21	1.38
(a) Components of income: impact of \$1,000 incre	ease				
Current Prospect	5	-6	-4	-4	0.04
Career Prospect	5	6	1	1	0.00
Employment Prospect	-1	8	5	4	-0.02
(b) Standard Rent: impact of \$1,000 increase	-16	-3	-2	0	-0.21
(c) Capital Gain: impact of 0.10 increase		-11	-1	0	
(d) Price-Rent Ratio: impact of 1.00 increase		7	1	0	
(e) Immigrants: impact of 100 increase	-13	32	16	16	0.02
(f) Segment shift: impact of 100 increase					
S3 (shift from S2)	3	-14	0	1	0.00
S4 (shift from S3)	1	6	1	1	0.00
S8 (shift from S2)	2	-21	-1	-1	0.00
S9 (shift from S8)	2	-3	0	1	0.01
S10 (shift from S9)	0	-4	-1	-1	0.00

Source 1987 through 1994 HIFE samples. Calculations by author.

Note

Panels (a) through (d) calculated by changing data for each sampled household by that amount, then calculating average of predicted values from model. Panels (e) and (f) calculated by increasing number of persons (families) in that category by 100, and decreasing other relevant categories by same amount; amount shown is average of these "re-weighted" model predictions.

-- indicates "not applicable".

Gross rent given as proportion of annual standard rent.

What about the impacts of changes in the Standard Rent? For husband-wife families in the 1991 subsample, Standard Rent is \$4,450 in 1980 dollars: up \$410 over the 1981 subsample. In panel (b) of Table G, a \$1,000 increase in the annual cost of renting leads to 2% (16) fewer husband-wife families living alone. The amount spent on rent increases only modestly to \$6,377 ([1.38-0.21]x[4450+1000]), up from \$6,141 (1.38x4450). Clearly, these families must be living in more-modest accommodation, but the negligible impact on core need shows little use of inadequate housing as a coping strategy.

What effect does the price of homeownership have on husband-wife renters? In panel (c), an increase in the annual capital gains rate of 10 percentage points causes 11 renters to switch to

homeownership. In panel (d), a unit increase in the ratio of the price of an owned home to annual rent results in small increases in the number renting among husband-wife families living alone. These results are comparable to those for lone-parent families discussed above.

What about the impacts of immigration and segment change? In panel (e), a rebalancing of 100 families from nonimmigrant to immigrant status leads to 1% (13) fewer husband-wife families living alone, 4% (32) more renters, and an increase of 2% (16) in the numbers spending 30% or more, or in core need. In panel (f) of Table G, a shift of 100 families from S2 to S3 (that is, from without children to with young children) causes a marked decline in the number renting. A shift of 100 young families from S3 to S4 (young to older children) has only small effects. Aging of the parents (here shown as a shift from S2 to S8) results in 2% (21) fewer renters. However shifts in the presence and age of older children among parents aged 35-64 has only negligible effects on the model predictions.

CONCLUSIONS

We began the preceding section by listing the main changes in renters and their housing over the 1980s and early 1990s. To repeat, these were: the slackening in renter household formation at the end of the 1980s; the rise of renting among lone-parent families living alone and immigrant-headed households, and the decrease among young childless adults—singles and couples—and elderly couples living alone; the declining affordability of rents relative to the incomes of renter households; the increasing tendency for renters to be among the poorest of households; and the decline in real income and employment rates in renter households during the recession of 1990-92. In light of the empirical analysis of the determinants of housing choice, what can we now conclude about cause and effect?

Choice from among housing alternatives is driven by need and desire, and limited by affordability. Need and desire varies from one demographic group to the next. For families, the demand for separate accommodation is paramount. Whether for reasons of privacy, protection of children, security of tenure, or something else, 90% of husband-wife families and over 75% of lone-parent families live alone. Further, their living arrangements are not much affected by changes in income prospects. In contrast, less than 60% of nonfamily individuals live alone, and their living arrangements are relatively more sensitive to changes in income. With the decline in incomes in the late 1980s and early 1990s and the corresponding rise in rents, nonfamily persons became less likely to live alone, and lone-parent families and poorer husband-wife families increasingly resigned themselves to renting. Important here too was the flattening of income

prospects during the late 1980s and early 1990s. Without the prospect of good income gains over the next few years, there is less incentive to scrimp and save towards homeownership; this is especially true in the two poorest demographic groups (nonfamily persons and lone-parent families). The net effect of income changes over the 1980s and into the 1990s was therefore to swell the ranks of renters, with many of them spending 30% or more of their income on rent.

The models also show how much housing choice differs between recent immigrants and other households. Recent immigrants are less likely to form separate households, and much more likely to rent rather than own a home. Further, renter families who are recent immigrants are much more likely to be spending 30% or more of their income on rent and to be in core need. In large part, this situation arises because employment prospects are not good and their incomes are low. Tables E, F, and G make clear just how much sacrifice and difficulty new immigrants face in trying to fit into the Canadian mosaic. The net impact of immigration has been to add to the apparent deterioration in the conditions of renters in Canada overall.

Finally, the models show the importance of the aging of the baby boom generation. Middle-aged nonfamily persons are more likely to live alone than their younger peers, even after controlling for differences in income. Perhaps tastes change with age, perhaps people learn from experience; whatever the reason, middle-aged persons are more likely than their younger peers to live alone, increasing the net number of renter households, and contributing to the apparent worsening condition of renters.

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