Native Housing Conditions in Winnipeg

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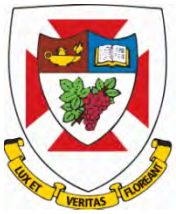
by Stewart J. Clatworthy
1983

The Institute of Urban Studies



THE UNIVERSITY OF WINNIPEG

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NATIVE HOUSING CONDITIONS IN WINNIPEG
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NATIVE HOUSING CONDITIONS IN WINNIPEG

by

Stewart J. Clatworthy
Institute of Urban Studies

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Stewart J. Clatworthy

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1.0 INTRODUCTION

During the past two decades Canada's native peoples have moved in increasing numbers from rural areas and reserves to urban centres. The process has been especially pronounced in the western provinces and has led to the rapid growth of native populations in major prairie cities (see Siggner 1979 and D.R.E.E. 1980). Although systematically compiled evidence is sparse, there exist several indications that the transition of native people to urban life has been problematic and it is now widely recognized that native people represent a significant and expanding segment of the urban poor.

Arguments offered recently by native leaders suggest that several of the problems confronting urban native peoples in adjusting to urban life are closely linked to inadequate housing and neighbourhood conditions.[1] Although the contribution of substandard housing to the broader problem of poverty remains unclear (e.g. Grigsby and Rosenburg 1975), urban native housing represents an increasingly important social issue in prairie cities and concern for the need to develop special policies and programs that are sensitive to the needs of this population subgroup appears to be growing (Breton and Akian 1978).

Although it is generally recognized that a housing problem exists, very little information or research concerning the manner in which urban native people are housed is currently available. To a large extent the paucity of research is a reflection of serious data deficiencies which have made it difficult to carry out detailed analyses of native housing conditions. For most Canadian urban centres available information and data do not even permit reliable estimates to be made of the size of the native population let alone the analysis of household

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1. See for example A Discussion Paper on Housing, Indian Métis Friendship Centre, 1978, mimeographed.

demographic and socioeconomic attributes which condition housing needs and the household's ability to obtain adequate levels of housing consumption. Given that such information should play a central role in the policy and program development process, there is a great need to document more fully the housing conditions experienced by urban native populations.

This report highlights some of the principal findings of an ongoing research program which seeks to document and analyze the demographic structure and economic circumstances of Winnipeg's native population. To date, work has concentrated on demographic composition and patterns of employment and labour force activity. The present study broadens the scope of our investigation to include native housing conditions and patterns of housing consumption.

The remainder of the report is structured into six sections. Section two provides a brief review of the nature of previous urban native research and identifies several important gaps in our understanding of urban native populations. In addition, section two also describes the data bases and conceptual and methodological frameworks employed in the study. Section three documents recent patterns of native migration to Winnipeg and several key elements of the population's demographic structure which have a bearing on the population's housing needs. Analyses of the population's socioeconomic characteristics, employment patterns, incomes and sources of income are presented in section four. Section five presents the results of analyses of current patterns of housing consumption and identifies the nature and incidence of major housing problems experienced by the population. Section six investigates several dimensions of native residential mobility including estimates of mobility rates, reasons for moving and the incidence of chronic mobility. A brief summary of the study's findings and their implications for policy development and program design conclude the report.

2.0 PREVIOUS RESEARCH, CONCEPTUAL AND METHODOLOGICAL ISSUES, THE DATA BASES

As noted in the introduction our understanding of the process of native migration to cities and more generally of the life conditions experienced by urban native peoples remains poorly developed. Previous research can be organized into three broad subject areas. First a large number of studies examine specific facets of the migration process itself, including estimation of the size and composition of off-reserve populations, analysis of spatial and temporal patterns of off-reserve movement, reasons for moving, etc. For the most part this research has been based on information and data contained in the band registries maintained by the Department of Indian Affairs and Northern Development (D.I.A.N.D.). A second strand of research addresses issues related to the demographic structure and socioeconomic characteristics of urban native populations. Generally this research has been descriptive in nature and (at least implicitly) has intended to compare urban natives to non-natives and/or rural natives. "Institutional" studies represent a third research theme. Such studies attempt examination of the growth and development of native sociopolitical institutions in urban settings and of the interaction between native peoples and the institutions of urban society. (see Breton and Akian 1978)

Most contemporary native researchers agree that the progress of urban native research has been severely retarded by the paucity of systematically organized data. To date the vast majority of existing studies have been based on non-survey information (e.g. personal accounts, expert opinions and other impressionistic information). Studies of this type (e.g. C.R.D.C. 1978) have provided some useful and insightful knowledge of the economic conditions and life experiences of urban native people. However, the results cannot be readily interpreted as indicative of the circumstances of the entire urban native population.

Information contained in public data files (e.g. Manitoba Health Services Commission data), or collected by social service agencies has also been utilized in urban native research (e.g. Winnipeg School Division #1, Mobility Study). In general, however, such files appear to offer only limited potential for the analysis of urban native issues. Most publicly maintained data files do not record native ethnicity (especially for Métis/non-status Indians) and those which do generally contain only a narrow range of information. Records maintained by social service agencies also present problems of limited representation since such agencies normally deliver services to only select segments of the urban native population. Samples drawn from such files are likely to present serious problems of bias.

A small number of studies have utilized information gathered through special purpose surveys (e.g. Denton 1970, Nagler 1970, McCaskill 1970, Stanbury 1975). With the notable exception of Stanbury (1975), small sample sizes and unscientific sampling methodologies render the findings of such studies inconclusive.

2.1 Research Findings: The Manitoba Context

Several studies have addressed aspects of the migration of status Indians in Manitoba. This work, which has relied heavily on the D.I.A.N.D. band registry data (e.g. Siggner 1977, 1979, D.R.E.E. 1980), has provided reasonably reliable estimates of the number and rate of movement of status Indians off-reserve. A recent D.R.E.E. (1980) study, for example, has revealed that approximately 25 percent (11,000) of Manitoba's status Indian population resides off-reserve. The study also notes several important parameters of recent patterns of migration summarized below:

a) In 1977, approximately 46 percent of the off-reserve population was less than 14 years of age and 45 percent was between the ages of 15 and 44.

b) There were significantly more women than men living off-reserve, especially among the 15-29 year age cohort.

c) Although movement off-reserve was greatest among Indian bands in the southern regions of the province, growth in the off-reserve population was substantial in all sub-regions of the province.

Research concerning the migration patterns of Métis and non-status Indians (M.N.S.I.) in Manitoba is virtually non-existent. To date those studies which comment on M.N.S.I. migration have explicitly or implicitly assumed that the composition and size of the M.N.S.I. migrant population are similar (or in some fixed proportion) to the migrant status Indian population. There are no available data to substantiate this assumption.

A large number of studies have addressed questions related to the motivations or reasons for native migration to urban areas. The results which have emerged from these studies are generally consistent and emphazise the importance of economic and employment factors as the principal reasons underlying migration. For example, a 1970 Manitoba Indian Brotherhood (M.I.B.) survey, based on a sample of 846 status Indians, found that 40.2 percent of the population moved to Winnipeg for economic reasons. The Indian/Métis Urban Probe (I.U.S./I.M.F.C. 1971) similarly found that 42.9 percent of the natives interviewed cited economic reasons. Several Winnipeg based case studies (e.g. Sealey and Kirkness 1974, Lurie 1967, Kerri 1978, Schaeffer 1978 and C.R.D.C. 1978) provide additional support for the survey findings.

2.2 Native Economic Conditions and Employment

Very little systematic research has been directed toward the socioeconomic characteristics and employment patterns of Winnipeg's native population. Moreover, presently available research suffers from inadequate disaggregation of the native population. For example, incomes, labour force activity, and employment status have not been examined across population characteristics such as household type, age, sex, education and native subgroup. Several important issues related to urban native emploument and economic conditions including income and employment staility, occupation mobility, and occupational

skill levels have not yet been formally investigated. In spite of analytical shortcomings, existing studies do suggest that Winnipeg's native people experience severe socioeconomic disadvantages relative to general society, including higher levels of unemployment, longer periods of unemployment, lower household incomes and reduced levels of income self-sufficiency (see I.U.S./I.M.F.C. 1971, M.I.B. 1971).

2.3 Urban Native Housing Conditions

No studies are presently available which specifically address the housing conditions of Winnipeg's native population.[2] The 1970 M.I.B. and 1971 I.U.S./I.M.F.C. surveys, however, did collect limited information concerning native housing conditions and analyses of these data revealed that 18 to 25 percent of native occupied dwellings were in poor condition and that in excess of one half of native households were paying more than 50 percent of income on shelter (see I.U.S./I.M.F.C. 1971 and M.I.B. 1971). Both of these studies also found that few native people perceived discriminatory housing practices to be a major barrier to finding adequate housing.

No attempt has been made to examine patterns of housing consumption over various demographic or socioeconomic subgroups of the urban native population or to compare directly the housing conditions of urban natives to those of general urban society. A recent study by Baril (1981) does examine co-residence patterns and housing consumption strategies among urban native families although present patterns of housing consumption over various household types are not identified in great detail.

2.4 Conceptual and Methodological Issues

The failure of earlier research to analyze the demographic structure and housing circumstances of urban native people according to

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2. The author is unaware of any systematically compiled documentation of housing consumption patterns among any urban native population in Canada.

household types represents a serious conceptual and methodological weakness. The household not only represents the effective consumption unit for housing services but available research based on information for general urban society demonstrates clearly that employment patterns, incomes, economic needs, housing preferences and levels of housing consumption are closely associated with life cycle stage or family development status (see Rogers 1962, Strazheim 1973, Moore et al 1978).

A second flaw in previous studies relates to the failure to distinguish conceptually and analytically between native migrants (or newcomers to the city) and permanent urban native residents. The distinction seems especially important in housing research. Because of unfamiliarity with the city, its institutions, and the housing market, the needs and abilities of recent native migrants may well differ substantially from those of the residual native population. The importance of length of time in the city to levels of housing consumption has not yet been investigated in spite of the fact that such information would appear to have important implications for program development.

Few studies of urban native populations have attempted to compare the demographic structure, migration patterns and socioeconomic characteristics of status Indians to Métis /non-status Indians or to compare attributes of the native population to those of the non-native population residing in the same urban area. As such, many of the findings of earlier research lack a well defined reference point for determining differences within the native population and between the native and non-native populations. With regard to housing, the extent to which urban native housing conditions differ from those of similar demographic or socioeconomic groups remains largely undocumented.

The present study seeks to overcome some of the shortcomings of earlier research outlined above. Whenever possible (and appropriate) the analyses have been carried out in a comparative fashion providing similar information and statistical indicators for two major subgroups

of the urban native population (i.e. status Indians and Métis/non-status Indians) and for the total population of the Winnipeg metropolitan area. Several aspects of the analyses also differentiate between recent migrants and longer term native residents of the city thus allowing more direct examination of patterns of recent migration behaviour and of the effects of length of time in the city on housing conditions.[3]

The study also uses demographic data and the results of recent theoretical and empirical work on life cycle and family development stages (e.g. Glick and Parke 1965, Rogers 1962, Moore et al 1975), to construct a set of 25 household categories. These categories, which appear in Table 1, are used throughout much of the ensuing analysis as control variables.[4]

2.5 Data Bases

Data employed in the study are contained in two data bases, the Urban Native Housing Data Base initiated by the Institute of Urban Studies (I.U.S.) in 1979 and the Social Planning Council (S.P.C.) of Winnipeg Survey of Households and Housing Units compiled in 1977.

The I.U.S. data base contains locational, demographic, socio-economic and housing unit information for a sample of native households residing in the Winnipeg metropolitan area. Observations on 651 native households and 2,453 native individuals were available for the

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3. Recent migrants have been defined as that subgroup of individuals who moved to the city during the 35 month period prior to the survey.

4. It should be noted that the household classification scheme used in this study relies heavily on notions of family development put forth to account for household composition patterns in middle class society. The conceptual relevance of this scheme to household structures within a native population has been explored to some extent by Baril (1981) and appears to coincide reasonably well with native co-residence and financial support patterns.

Table 1

HOUSEHOLD TYPOLOGY EMPLOYED IN THE STUDY

Household Type	
Numeric Code	Description
	NON-FAMILY HOUSEHOLDS
1	Single Males < 65 yr.
2	Single Females < 65 yr.
3	Single Persons ≥ 65 yr.
4	Other Non-Families
(1-4)	All Non-Families
	FAMILY HOUSEHOLDS
	(i) Childless Married Couples
5	Childless Married Couples
6	Childless Married Couples (extended)
7	Childless Married Couples with lodgers
(5-7)	All Childless Married Couples
	(ii) Two-Parent Families
8	Young (oldest child < 5 yr.)
9	Young (extended or multi-generational)
10	Young (with lodgers)
(8-10)	All Young Two-Parent Families
11	Mature (oldest child 5-16 yr.)
12	Mature (extended or multi-generational)
13	Mature (with lodgers)
(11-13)	All Mature Two-Parent Families
14	Older (oldest child ≥ 17 yr.)
15	Older (extended or multi-generational)
16	Older (with lodgers)
(14-16)	All Older Two Parent Families
(8-16)	All Two Parent Families

(continued)

Household Type

Numeric Code	Description
(iii)	Single Parent Families
17	Young (oldest child <5 yr.)
18	Young (extended or multi-generational)
19	Young (with lodgers)
(17-19)	All Young Single Parent Families
20	Mature (oldest child 5-16 yr.)
21	Mature (extended or multi-generational)
22	Mature (with lodgers)
(20-22)	All Mature Single Parent Families
23	Older (oldest child ≥17 yr.)
24	Older (extended or multi-generational)
25	Older (with lodgers)
(23-25)	All Older Single Parent Families
(17-25)	All Single Parent Families
(1-25)	All Households

study. This sample was obtained through interviewer contacts with more than 20,000 households residing in 73 census tracts scattered throughout the Winnipeg metropolitan area. (See Map 1) Interviewers were instructed to contact households residing at every fifth (tenth) inner city (outer city) residential address recorded on postal carrier route lists. Information was recorded only for those households indicating the presence of at least one household member of native ancestry. Appendix A documents the range and nature of information collected by the I.U.S. survey. A more thorough discussion of the survey and data base is contained in Clatworthy (1981a).

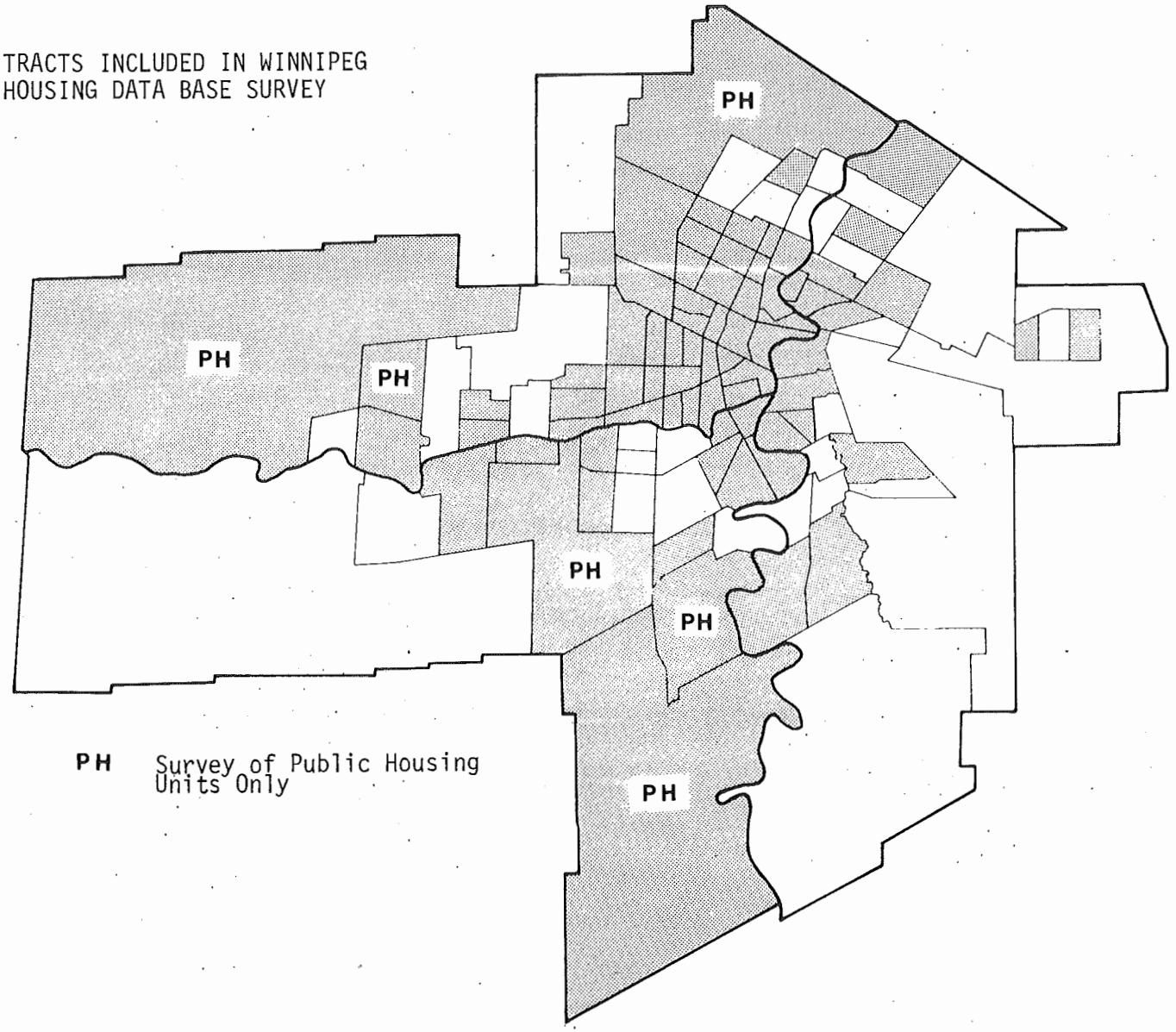
Data pertaining to the general population of the city are drawn from the S.P.C. data file. This file includes observations on 1,444 households residing in the metropolitan area. Appendix A also lists the variables and types of information included on the S.P.C. file.

To a large degree the I.U.S. interview schedule was patterned after the S.P.C. schedule to ensure a high degree of comparability in data measurement. Income and shelter cost data on the 1977 S.P.C. file were inflated by 8.5 percent annually to 1980 in an attempt to eliminate some of the problems associated with the different time frames of the I.U.S. and S.P.C. surveys.

Most of the statistics presented in this study are derived from population estimates generated from the survey data. The general procedure for calculating these estimates is outlined in Appendix B. Where formal comparative analyses have been undertaken, contingency table techniques (X^2 statistics) and related non-parametric inference tests are employed. Such analyses utilize weighted sample data rather than population estimates.

Map 1

CENSUS TRACTS INCLUDED IN WINNIPEG
NATIVE HOUSING DATA BASE SURVEY



3.0 DEMOGRAPHIC STRUCTURE AND RECENT MIGRATION PATTERNS

3.1 Population Size

Recently several attempts have been made to estimate the size of Winnipeg's native population. Johnston (1979) has reviewed and collated much of the work in this regard and has noted that present estimates range from as low as 12,000 to as high as 80,000 individuals. Johnston also noted that most estimates have been based on highly questionable and/or unstated methods.

Based on the results of the I.U.S. survey, the city's native population in 1980 is estimated to be approximately 20,000 including about 7,000 status Indians and 13,000 Métis/non-status Indians. (See Table 2).

3.2 Recent Migration Patterns

Very little is currently known about the nature and rate of native migration to Winnipeg or of the rate of growth of the city's native population. Schaeffer (1978) has argued that the net migration of status Indians to Winnipeg is increasing and will lead to a doubling of the native population by 1985. No methodology, however, is presented to support his arguments. Although the I.U.S. data do not permit exact estimates of net migration to be made, it is possible to obtain approximations of the rate as well as the demographic structure of the migrant population. These approximations, which appear in Table 3, were obtained from the averaging of population frequencies for that subgroup of migrants who moved to the city more than 12 but less than 61 months prior to the survey date. The estimation procedure is presented more fully in Appendix B.

The data reconfirm several previously identified dimensions of native migration in Manitoba. The age and sex composition of status Indian migrants, for example, mirrors that of the Manitoba off-reserve

Table 2

AGE AND SEX COMPOSITION BY NATIVE SUBGROUP,
WINNIPEG, 1980

Group	Age Group (Years) 0-14	15-24	25-44	45-64	65+	Total	
Status Indians							
Male	1,621	501	471	212	29	2,834	(41.2)
Female	2,091	756	877	225	88	4,037	(58.8)
TOTAL	3,712 (54.0)	1,257 (18.3)	1,348 (19.6)	437 (6.4)	117 (1.7)	6,871 (100.0)	(100.0)
Métis/Non-Status Indian							
Male	2,438	1,294	1,405	656	81	5,874	(45.5)
Female	2,668	1,942	1,627	713	96	7,046	(54.5)
TOTAL	5,106 (39.5)	3,036 (25.0)	3,032 (23.5)	1,369 (10.6)	177 (1.4)	12,920 (100.0)	(100.0)
Total Native							
Male	4,059	1,795	1,876	868	110	8,708	(44.0)
Female	4,759	2,698	2,504	938	184	11,083	(56.0)
TOTAL	8,818 (44.6)	4,493 (22.7)	4,380 (22.1)	1,806 (9.1)	294 (1.5)	19,791 (100.0)	(100.0)

Table 3

ESTIMATED ANNUAL NET MIGRATION BY AGE, SEX, AND NATIVE SUBGROUP, WINNIPEG, 1975-1979

	Age Group (Years)					
Group	0-14	15-24	25-44	45-64	65+	Total
Status Indians						
Male	102	35	29	8	3	177
Female	149	47	71	9	5	281
TOTAL	251	82	100	17	8	459
Métis/Non-Status Indian						
Male	126	56	110	25	4	321
Female	160	91	82	28	13	374
TOTAL	286	147	192	53	17	695
Total Native						
Male	228	91	139	33	7	498
Female	309	138	153	37	18	655
TOTAL	537	229	292	70	25	1,153

population as estimated from the D.I.A.N.D. band registries (see D.R.E.E. 1980). More than one half of status Indian migrants are under the age of 15 and more than 90 percent are under 45 years of age. The age composition of M.N.S.I. migrants is also biased toward younger age groups; however, proportionately fewer M.N.S.I. migrants are less than 15 years of age. The table also reveals one important additional dimension of recent native migration patterns; the dominance of females among native migrants. Females comprise about 57 percent of recent native migrants to Winnipeg.

The estimated rate of net migration (about 460 status Indians and 700 M.N.S.I. per annum) is much smaller than that implied by Schaeffer (1978) and more recently by Krotz (1980). Although not conclusive the I.U.S. data suggest that annual net migration is in the range of 1,100-1,200, about one half that assumed in earlier reports.[5] The lower net migration rate is consistent with Siggner's (1979) work which noted sharply reduced levels of off-reserve movement in the latter half of the 1970-80 decade.

The youthful age structure of the native migrant population suggests strongly that family households account for most of the movement to the city. Table 4, which documents the distribution of migrants over household types, confirms this dimension of recent migration patterns. Young and mature families and single parent families represent the most common household types among the migrant

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5. The net migration figures for status Indians appearing in Table 3 compare quite favourably with recent off-reserve growth figures estimated from the D.I.A.N.D. registries. Since 1976 growth in the off-reserve Indian population has approximated about 800/year. I.U.S. data suggests that roughly 60-65 percent of the off-reserve growth accrues to Winnipeg. This is roughly equivalent to the present proportion of the total off-reserve population estimated to be residents of the city.

Table 4

RECENT MIGRANTS BY HOUSEHOLD TYPE AND NATIVE GROUP, WINNIPEG, 1980*

Household Type		Native Group					
		Status	%	MNSI	%	Total	%
(1-4)	All Non-families	25	4.6	31	8.4	56	6.1
(5-7)	All Childless Couples	50	9.2	58	15.8	108	11.9
TWO PARENT FAMILIES							
(8-10)	Young (oldest child $<$ 5 yr.)	98	18.1	54	14.6	152	16.7
(11-13)	Mature (oldest child 5-16 yr.)	151	27.9	114	30.9	265	29.1
(14-16)	Older (oldest child $\geq$ 17 yr.)	30	5.5	19	5.1	49	5.4
(8-16)	All Two Parent Families	279	51.6	187	50.7	466	51.2
SINGLE PARENT FAMILIES							
(17-19)	Young (oldest child $<$ 5 yr.)	51	9.4	14	3.8	65	7.2
(20-22)	Mature (oldest child 5-16 yr.)	105	19.4	68	18.4	171	18.8
(23-25)	Older (oldest child $\geq$ 17 yr.)	31	5.7	11	3.0	42	4.6
(17-25)	All Single Parent Families	187	34.6	93	25.2	280	30.8
(1-25)	All Households	541	100.0	369	100.0	910	100.0

*Recent migrants defined as households moving to the city during the previous 36 month period.

populations of both native sub-groups. The implications of this finding for housing program development are important and will be raised in the concluding chapter of the report.

3.3 Migrant Origin Areas

Table 5 presents the distribution amongst five origin regions of Winnipeg's native household heads. The four provincial regions (see Map 2) have been developed by D.R.E.E. (1980) to reflect regional differences in economic base structure, as well as proximity to major urban areas in the southern section of the province. The data indicate that although most status Indians moved to the city from bands located in the southern region of the province, significant numbers of Indians have also migrated from the more remote forest fringe and northern regions. The patterns appearing in the table reflect in part, differences in the absolute size of the Indian populations of the origin regions. Table 6, which controls for these size variations, suggests that relative to base populations, migration has been greatest among band members from the southern and forest fringe regions. These bands, in general, are located closer to the city.

Native migration to the city from out-of-province also appears to be substantial (12.3 percent of status Indian household heads). More detailed examination of the migrant subgroup reveals that most out-of-province migrants moved from bands located in Saskatchewan and north-western Ontario. Winnipeg's attraction as a destination centre for native migration clearly extends well beyond the provincial boundaries.

Table 6 also reflects the greater degree of interaction of Métis and non-status Indians with the city and the more urbanized southern region of the province. Nineteen percent of Métis/non-status Indian household heads identified Winnipeg as their community of origin. An additional 43 percent moved to the city from settlements located in the province's southern region.

Table 5

ORIGIN REGIONS OF NATIVE HOUSEHOLD HEADS BY NATIVE GROUP, WINNIPEG NATIVE POPULATION, 1980

	Native Group			
Origin Region	Status	%	MNSI	%
Southern	544	(34.6)	1380	(42.3)
Forest Fringe	441	(28.1)	418	(12.8)
Northern	378	(24.1)	385	(11.8)
Winnipeg	14	(0.9)	620	(19.0)
Out of Province	193	(12.3)	460	(14.1)
Total	1570	(100.0)	3263	(100.0)

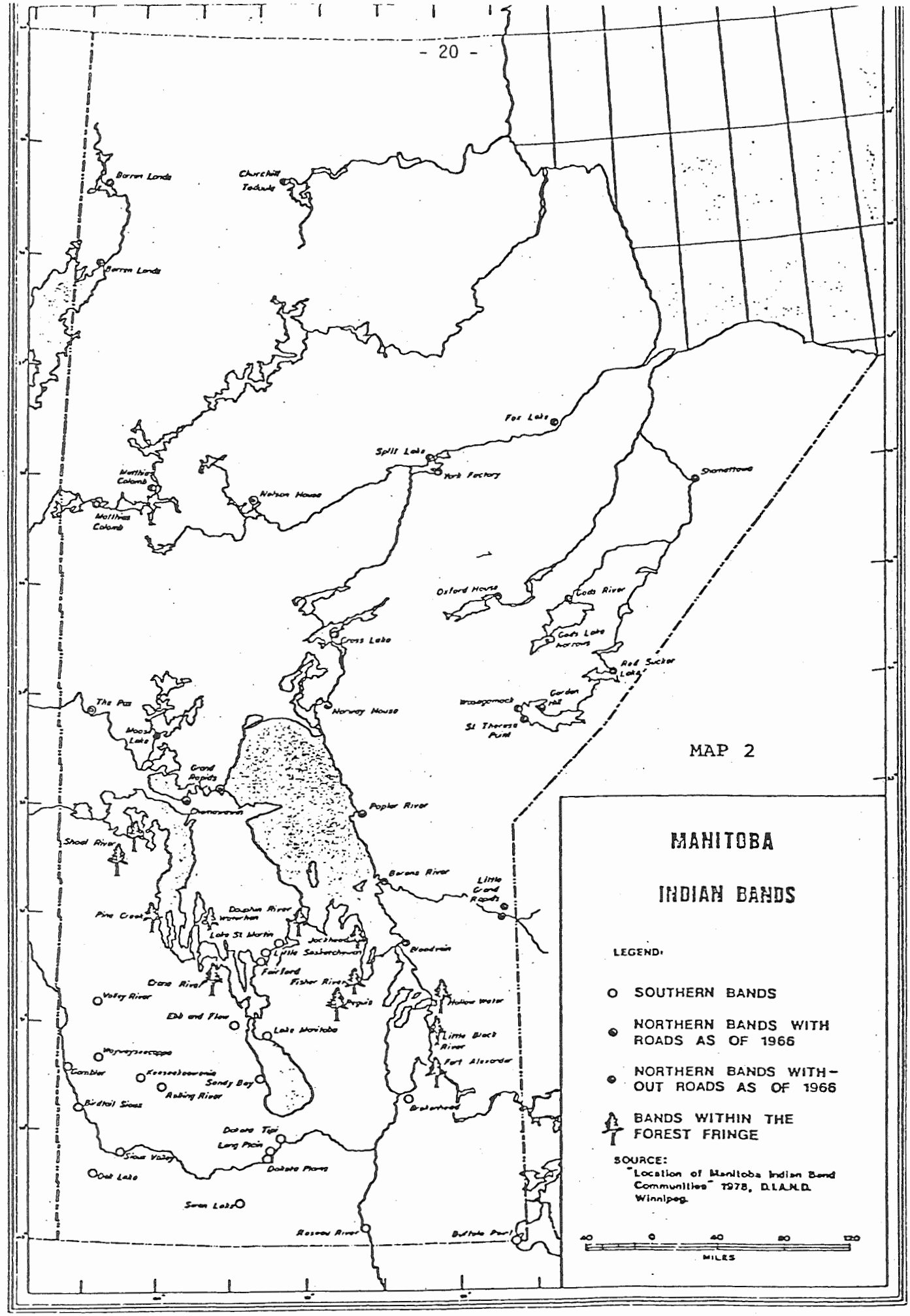
Churchill
Tadoule
Barren Lands
Barren Lands
For Lake
Split Lake
York Factory
Matthias Colomb
Matthias Colomb
Nelson House
Stonetown
Oxford House
Cocks River
Cocks Lake Narrows
Cross Lake
Red Sucker Lake
Wuskwatim
Garden Hill
St Theresa Point
The Pas
Moose Lake
Norway House
Grand Rapids
Cormorant
Poplar River
Shoal River
Berens River
Little Grand Rapids
Pine Creek
Dauphin River
Waterhen
Lake St Martin
Jackhead
Little Saskatchewan
Fairford
Fisher River
Broadview
Crane River
Valley River
Ebb and Flow
Lake Manitoba
Pipestone
Hollow Water
Little Black River
Fort Alexander
Waywayseecappo
Canadian
Keeseekoowenin
Sandy Bay
Rolling River
Birdtail Sioux
Dakota Tipi
Long Plain
Sioux Valley
Dakota Plains
Oak Lake
Swan Lake
Roseau River
Buffalo Point
MAP 2
MANITOBA
INDIAN BANDS
LEGEND:
SOUTHERN BANDS
NORTHERN BANDS WITH ROADS AS OF 1966
NORTHERN BANDS WITH-OUT ROADS AS OF 1966
BANDS WITHIN THE FOREST FRINGE
SOURCE:
"Location of Manitoba Indian Band Communities" 1978, D.I.A.N.D. Winnipeg.
40 0 40 80 120
MILES

Table 6

ORIGIN OF STATUS INDIANS BY BAND LOCATION AND MIGRANT STATUS
WINNIPEG, 1980

Band Region	Recent Migrants	% (A)	Residual	% (B)	Provincial Total % (C)	Odds-Ratio (A/C)	Odds-Ratio (B/C)
Southern		(54.9)		(31.9)	(28.0)	1.96	1.14
Forest Fringe		(17.5)		(40.1)	(22.0)	0.80	1.84
Northern		(27.6)		(27.9)	(50.0)	0.55	0.56
Total		(100.0)		(99.9)	(100.0)		

3.4 Reasons For Migration

Table 7 documents the reasons for moving to the city cited by respondents to the I.U.S. survey. The patterns of response are quite similar to those identified in previous studies. In general the desire for employment was the dominant reason cited for migration. Analysis, however, reveals that reasons for migration differ between sex groups (see Table A-1 in Appendix D). Native females were more likely than males to state problems on the reserve or in their previous home community and family ties in the city as the major reasons for moving to the city. The response patterns do not differ significantly by native subgroup suggesting that both subgroups are subjected to the same types of conditions and pressures which induce stress and migration.

3.5 Migration Intentions

Tables 8 and 9 which document the migration intentions of select subgroups of the city's native population, reveal that only a small portion of the population (7.4 percent of status Indians and 3.0 percent of M.N.S.I.) planned to move away from the city during the coming year. Clearly the vast majority of the population regard themselves to be permanent urban residents. Desire to leave the city appears to be greatest among young (15-24 years old) status Indians, particularly males. This may reflect the greater difficulties experienced by these subgroups in the urban labour market. The findings, however, are also consistent with the notion that a segment of the native population moves to the city with clearly established intentions of returning to the reserve after a short period of time (see Gurstein, 1977).

3.6 Demographic Structure: Native and Total City Populations

The age and sex composition of the city's total native population is generally similar to that of the recent migrant population identified earlier in this section of the report. Table 2 reveals that although

Table 7

REASONS FOR MIGRATING TO WINNIPEG BY MIGRANT STATUS
SEX AND NATIVE GROUP, NATIVE HOUSEHOLD HEADS
WINNIPEG, 1980

Percent of Total Subgroup Responses

Population Subgroup	Employment	Education	Medical	Housing	Family	Problems at Old Home	Other	Total Responses
A. Recent Migrants								
i) Status Indians								
Males	45.2	14.2	8.9	7.8	7.4	13.8	2.6	478
Females	13.2	16.2	10.9	11.9	20.7	20.4	6.5	316
Total	32.7	15.0	9.7	9.4	12.6	16.3	4.2	794
ii) Métis/Non-Status Indians								
Males	54.8	14.6	1.5	14.7	7.9	5.1	1.5	328
Females	15.5	12.5	6.0	3.5	19.6	41.1	1.8	265
Total	37.2	13.6	3.5	9.8	13.0	21.3	1.6	593
B. Residual Households								
i) Status Indians								
Males	42.3	11.7	9.7	8.2	15.2	3.0	9.8	511
Females	15.1	10.9	5.1	5.3	24.7	31.8	7.0	702
Total	26.6	11.3	7.1	6.5	20.7	19.6	8.1	1213
ii) Métis/Non-Status Indians								
Males	52.1	10.6	8.9	6.3	13.8	4.8	3.6	1206
Females	16.8	9.2	6.9	4.4	38.6	19.6	4.6	1271
Total	34.0	9.9	7.8	5.4	26.4	12.4	4.1	2477

Table 8

MIGRATION INTENTIONS OF STATUS INDIAN HOUSEHOLD HEADS BY SEX AND AGE GROUP
WINNIPEG, 1980

	Migration Intentions		
Sub-group	Stay in City	Leave City	Number
Males			
<25 years	97 (78.9)	26 (21.2)	123
25+ years	553 (93.1)	41 (6.9)	594
Total	650 (90.7)	67 (9.3)	717
Females			
<25 years	158 (87.3)	23 (12.7)	181
25+ years	645 (96.0)	27 (4.0)	672
Total	803 (94.1)	50 (5.9)	853
Total Status			
<25 years	255 (83.9)	49 (16.1)	304
25+ years	1198 (94.6)	68 (5.4)	1266
Total	1453 (92.5)	117 (7.5)	1570

Table 9

MIGRATION INTENTIONS OF MÉTIS/NON-STATUS INDIAN HOUSEHOLD HEADS BY SEX AND AGE GROUP, WINNIPEG, 1980

	Migration Intentions		
Sub Group	Stay in City	Leave City	Number
Males			
<25 years	240 (95.6)	11 (4.4)	251
25+ years	1454 (97.7)	34 (2.3)	1488
Total	1694 (97.4)	45 (2.6)	1730
Females			
<25 years	325 (95.3)	16 (4.7)	341
25+ years	1146 (96.9)	37 (3.1)	1183
Total	1471 (96.5)	53 (3.5)	1524
Total MNSI			
<25 years	565 (95.5)	27 (4.6)	592
25+ years	2599 (97.3)	71 (2.7)	2671
Total	3164 (97.0)	98 (3.0)	3263

some differences exist in age composition between native subgroups, both groups are characterized by large concentrations of children and young adults and very small numbers of elderly. Females dominate all age cohorts among both subgroups. With respect to age structure, the native population contrasts sharply with the total city population. These differences are illustrated graphically in Figure 1 in the form of odds-ratios.[6] Several well documented demographic processes underlie these structural differences including much higher native fertility rates and the much shorter average life span of native peoples.

Household composition is also quite similar among the two native subgroups (Table 10). Both groups are characterized by large concentrations of family households especially those in the early and middle stages of family development (types 8-13 and 17-22). Households headed by single parents (in almost all cases females) are especially common among the city's native population. These household types (17-25) account for approximately 40 percent of all native households and nearly one half of all native families.

Extended families account for a surprisingly small proportion (10.2 percent) of native households and tend to be most common among the status Indian population and among single parent families.[7] More detailed examination of the composition of these households reveals

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6. The odds-ratio relates the probability of occurrence in a specific age cohort among the native population to the probability of occurrence in the same age cohort among the total city population. An odds-ratio greater (less) than one indicates a higher (lower) relative concentration among the native population.

7. Unfortunately similar data are not available for the city's total population. It seems likely, however, that the occurrence of extensions among native households is similar to that of the total city population.

Figure 1

STRUCTURAL DIFFERENCES IN AGE COMPOSITION BETWEEN NATIVE AND TOTAL CITY POPULATION, BY SEX GROUP, WINNIPEG, 1980

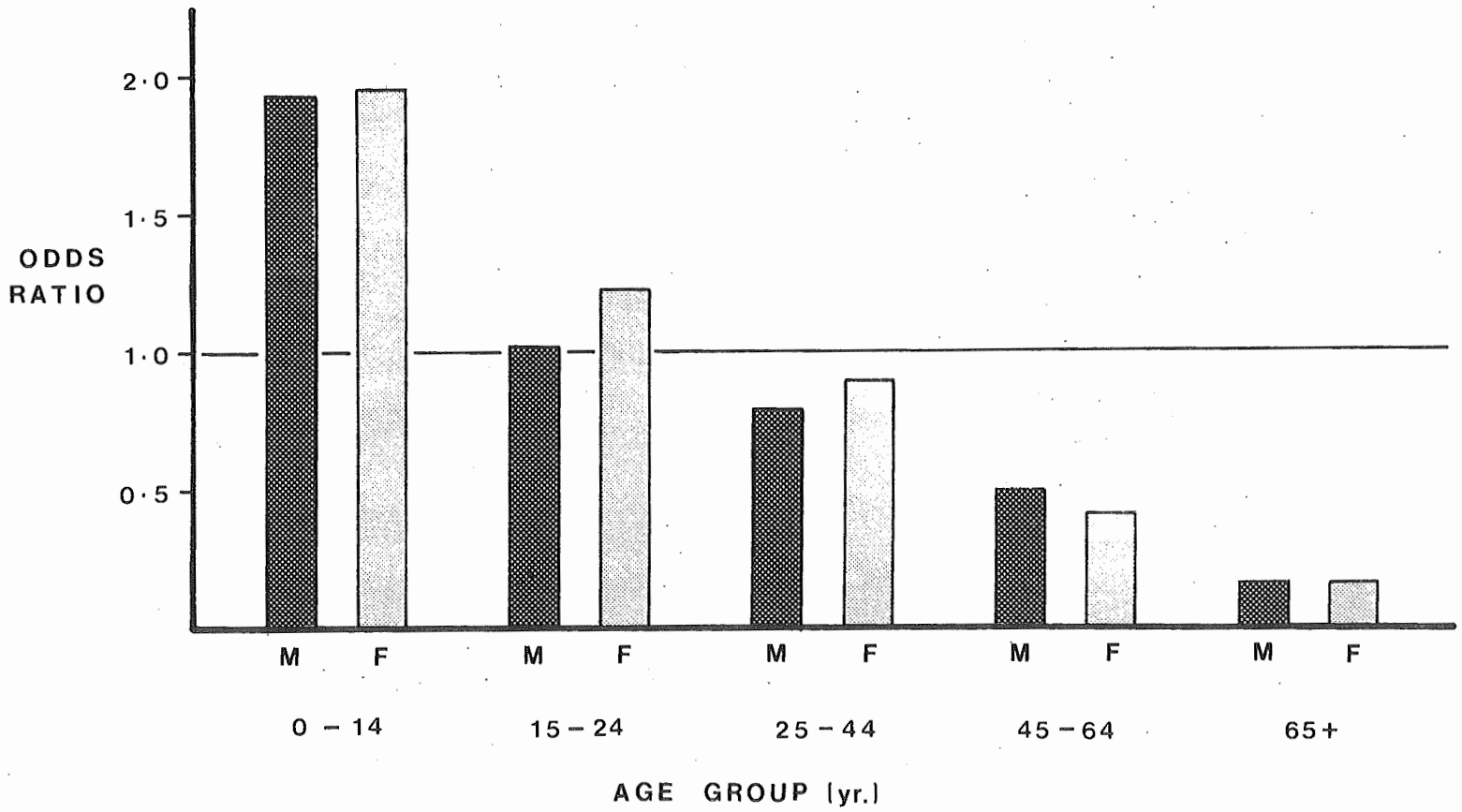

Table 10

ESTIMATED HOUSEHOLD COMPOSITION OF NATIVE AND TOTAL CITY POPULATION, WINNIPEG, 1980

Numeric Code	Description	Status	(%)	Metis/ Non-Status	(%)	Total Native	(%)	Total City	(%)
	NON-FAMILY HOUSEHOLDS								
1	Single Males <65 yr.	20	(1.3)	56	(1.7)	86	(1.8)	11,648	(6.0)
2	Single Females <65 yr.	28	(1.8)	50	(1.5)	78	(1.6)	12,610	(6.5)
3	Elderly Singles ≥65 yr.	8	(0.5)	21	(0.6)	29	(0.6)	16,758	(3.5)
4	Other Non-Families	31	(2.0)	29	(0.9)	60	(1.2)	6,228	(3.2)
(1-4)	All Non-Families	87	(5.6)	156	(4.8)	243	(5.0)	48,165	(24.9)
	FAMILY HOUSEHOLDS								
	(i) Childless-Married Couples								
5	Married Couples	113	(7.2)	396	(12.1)	509	(10.5)	-	(-)
6	Married Couples (extended)	7	(0.4)	11	(0.3)	18	(0.4)	-	(-)
7	Married Couples (with lodgers)	0	(-)	0	(-)	0	(-)	-	(-)
(5-7)	All Married Couples	120	(7.6)	407	(12.4)	527	(10.9)	59,377	(30.7)
	(ii) Two Parent Families								
8	Young (oldest child <5 yr.)	198	(12.6)	289	(8.9)	487	(10.1)	-	(-)
9	Young (extended or multi-generation)	18	(1.1)	27	(0.8)	45	(0.9)	-	(-)
10	Young (with lodgers)	4	(0.3)	4	(0.1)	8	(0.2)	-	(-)
(8-10)	All Young Two Parent Families	220	(14.0)	320	(9.8)	540	(11.2)	13,024	(6.7)
11	Mature (oldest child 5-16 yr.)	264	(16.8)	766	(23.5)	1,030	(21.3)	-	(-)
12	Mature (extended or multi-generation)	90	(5.7)	13	(0.4)	103	(2.1)	-	(-)
13	Mature (with lodgers)	0	(-)	6	(0.2)	6	(0.1)	-	(-)
(11-13)	All Mature Two Parent Families	354	(22.5)	785	(24.1)	1,139	(23.6)	41,975	(21.7)
14	Older (oldest child ≥17 yr.)	67	(4.3)	309	(9.5)	376	(7.8)	-	(-)
15	Older (extended or multi-generation)	11	(0.7)	65	(2.0)	76	(1.6)	-	(-)
16	Older (with lodgers)	0	(-)	4	(0.1)	4	(0.8)	-	(-)
(14-16)	All Older Two Parent Families	78	(5.0)	378	(11.6)	456	(9.4)	16,981	(8.8)
(8-16)	All Two Parent Families	652	(41.5)	1,483	(45.4)	2,135	(44.2)	71,980	(37.2)
	(iii) Single Parent Families								
17	Young (oldest child <5 yr.)	95	(6.1)	155	(4.8)	250	(5.1)	-	(-)
18	Young (extended or multi-generation)	10	(0.6)	19	(0.6)	29	(0.6)	-	(-)
19	Young (with lodgers)	6	(0.4)	0	(-)	6	(0.1)	-	(-)
(17-19)	All Young Single Parent Families	111	(7.1)	174	(5.3)	285	(5.9)	2,594	(1.3)
20	Mature (oldest child 5-16 yr.)	388	(24.7)	542	(16.6)	930	(19.2)	-	(-)
21	Mature (extended or multi-generation)	47	(3.0)	31	(1.0)	78	(1.6)	-	(-)
22	Mature (with lodgers)	0	(-)	13	(0.4)	13	(0.3)	-	(-)
(20-22)	All Mature Single Parent Families	435	(27.7)	586	(18.0)	1,021	(21.1)	6,433	(3.3)
23	Older (oldest child ≥17 yr.)	98	(6.2)	419	(12.8)	517	(10.7)	-	(-)
24	Older (extended or multi-generation)	67	(4.3)	34	(1.0)	101	(2.1)	-	(-)
25	Older (with lodgers)	0	(-)	4	(0.1)	4	(0.1)	-	(-)
(23-25)	All Older Single Parent Families	165	(10.5)	457	(13.9)	622	(12.9)	5,172	(2.7)
(17-25)	All Single Parent Families	711	(45.3)	1,217	(37.3)	1,928	(39.9)	14,199	(7.3)
(1-25)	All Households	1,570	(100.0)	3,263	(99.9)	4,833	(100.0)	193,721	(100.0)

that the majority of extended single parent families are multi-generational and typically contain a single parent, a single daughter and the daughter's children.

Figure 2 provides a comparison of the household structure of the native population with that of the city's general population. The native population is characterized by larger relative concentrations of young families and single parent families. Especially pronounced are differences in the occurrence of single parent families. These household types are approximately five times more common among the native as opposed to general city population.

3.7 Population and Household Growth

The study results concerning recent net migration rates and the present age structure of the urban native population imply the strong likelihood of substantial growth in the city's native population during the 1980's. Estimations of population growth have been made by projecting the sex and age composition of the city's native population to 1985. The projection technique is a variant of the cohort survival model.[8]

Tables 11 and 12 present the results of the projection for status Indians and Métis/non-status Indians, respectively. The projections suggest that population growth during the 1980-85 period will approach 45 percent among status Indians and 31 percent among M.N.S.I.[9] In

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8. The assumptions underlying the projection procedure are outlined in Appendix B. Essentially the projection assumes constant birth, death, and net migration rates through the projection period.

9. It should be noted that very rapid growth in the native population is likely to occur even in the absence of migration. Fertility rates among Winnipeg's native population (as derived from the I.U.S. data) are very high and will probably remain well above those of the general city population throughout the decade.

Figure 2

STRUCTURAL DIFFERENCES IN HOUSEHOLD COMPOSITION BETWEEN NATIVE AND TOTAL CITY POPULATIONS
WINNIPEG, 1980

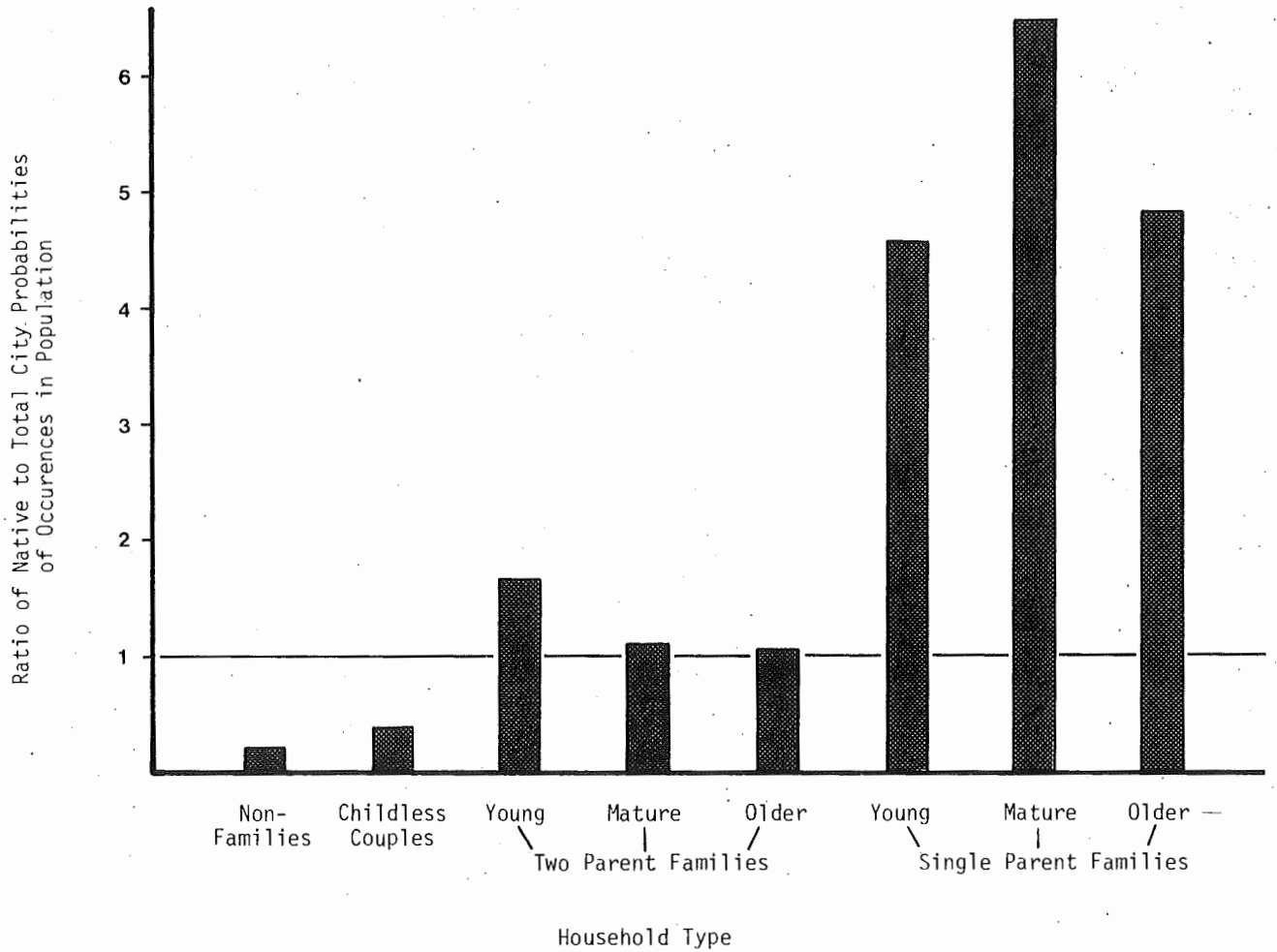

Table 11

CURRENT AND PROJECTED POPULATION BY AGE AND SEX,
STATUS INDIAN POPULATION, WINNIPEG, 1980 AND 1985 (PROJECTED)

	Males		Females		Change, 1980-1985			
Age Group	1980	1985	1980	1985	Males	%	Females	%
0-14	1,621	1,922	2,091	2,739	301	18.6	648	31.0
15-24	501	1,133	756	1,040	632	126.1	284	37.6
25-44	471	757	877	1,636	286	60.7	759	86.5
45-64	212	222	225	314	10	4.7	89	39.6
65+	29	60	88	106	31	106.9	18	20.5
TOTAL	2,834	4,094	4,037	5,835	1,260	44.5	1,798	44.5

Table 12

CURRENT AND PROJECTED POPULATION BY AGE AND SEX, MÉTIS/NON STATUS INDIAN POPULATION, WINNIPEG, 1980 AND 1985 (PROJECTED)

	Males		Females		Change, 1980-1985			
Age Group	1980	1985	1980	1985	Males	%	Females	%
0-14	2,438	2,557	2,668	2,747	119	4.9	79	3.0
15-24	1,294	1,916	1,942	2,538	622	48.1	596	30.7
25-44	1,405	2,092	1,627	2,527	687	48.9	900	55.3
45-64	656	790	713	1,221	134	20.4	508	71.2
65+	81	123	96	162	42	51.9	66	68.8
TOTAL	5,874	7,478	7,046	9,195	1,604	27.3	2,149	30.5

both relative and absolute terms, growth is projected to be most rapid among the 15-44 year age cohorts, especially among status Indians and females. The implications of this growth scenario for the labour and housing markets appear substantial. Native people are likely to account for about one fifth of the city's total growth in the labour force age group and also represent a major component in the growth of demand for housing.

Table 13 attempts to shed some additional light on the importance of native population growth to future housing demand in Winnipeg by presenting estimates of native household growth. These estimates are obtained by applying current age and sex specific headship rates (see Table A-2 in Appendix D), to the 1985 projected populations. The estimation procedure, although crude, suggests that native household growth will exceed 50 percent during the 1980-85 period and result in the addition of close to 2,500 native households to the city's housing market. By way of comparison, recent estimates of household growth for the total city have been pegged at about 3,000-3,500 per annum or about 18,000 for the projection period utilized in this study. Assuming both sets of projections to be accurate, native households will account for about 14 percent of the city's total household growth. Our data also suggest that the majority of native household growth will derive from family formation and the migration of family households. As such the impact of native growth may be much more substantial on those structure type submarkets in which family housing demand has been traditionally concentrated (i.e. single detached, duplex/semi detached and row house).[10]

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10. It should also be noted at this point that most of the growth in housing demand among the native population is likely to be concentrated in low cost rental submarkets.

Table 13

ESTIMATED HOUSEHOLD GROWTH BY NATIVE SUBGROUP,
WINNIPEG 1980-1985

	Households			
Native Subgroup	1980	1985 (est.)	Change	% Change
Status Indian	1,570	2,446	876	55.6
Métis/Non Status Indian	3,263	4,870	1,607	49.2
Total Native	4,833	7,316	2,483	51.4

4.0 SOCIOECONOMIC CHARACTERISTICS: EMPLOYMENT AND INCOME

The preceding section of this report identified several dimensions of urban native demography which have a bearing on the current and future housing needs of the population. The ability to satisfy these needs via the mechanisms of the housing market is greatly affected by the population 's socioeconomic characteristics. This section of the report provides a broad overview of urban native economic conditions, especially patterns of employment, income levels and sources of income. At the level of the household these characteristics greatly influence housing consumption levels.[11]

4.1 Current Labour Force Activity and Unemployment

Several previous studies have noted that employment and labour force activity are patterned over various demographic and socioeconomic groups. Although the data available for this study do not permit consideration of all of the potentially important factors, employment and labour force indicators are estimated for several population subgroups defined according to age, sex and native subgroup.[12]

Table 14 reveals that strong patterns of unemployment and labour force participation exist over age groups for males and females of both native subgroups. In general, lower rates of participation and higher rates of unemployment are experienced by the 15-24 year old age cohort. In addition to marked age effects, labour force participation is also patterned over sex groups; participation rates are substantially lower among females than males.

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11. The housing literature contains a large number of works which investigate the relationships among household demographic and socioeconomic characteristics and housing consumption. For a review of recent work see Bourne and Hitchcock, 1978.

12. The concepts of participation and unemployment used in the study are those of the labour force survey.

Table 14

UNEMPLOYMENT AND LABOUR FORCE PARTICIPATION RATES BY AGE, SEX AND NATIVE SUBGROUP, WINNIPEG, 1980

Subgroup	Age Group: 15-24 years UR*	15-24 years LFPR**	25+ years UR	25+ years LFPR	UR	LFPR
Status Indians						
Males	59.2 ± 16.3	53.0 ± 12.1	33.9 ± 11.3	70.9 ± 9.1	42.5 ± 9.6	63.6 ± 7.5
Females	52.6 ± 20.0	22.8 ± 8.0	35.7 ± 14.5	24.9 ± 6.5	41.9 ± 11.9	24.1 ± 5.1
Métis/Non-Status Indians						
Males	31.8 ± 10.3	60.4 ± 8.4	14.7 ± 5.4	75.8 ± 5.6	20.1 ± 5.0	70.1 ± 4.8
Females	46.7 ± 11.4	34.1 ± 6.3	30.5 ± 9.4	33.9 ± 5.6	37.7 ± 7.4	34.0 ± 4.2
				TOTAL	31.5 ± 3.8	45.5 ± 2.7

* Unemployment Rate
** Labour Force Participation Rate

Substantial disparity exists between the native and total city population with respect to labour force activity. Table 15 which documents the magnitude of these differentials, reveals that levels of disparity in unemployment rates between the native and general population are greater among status Indians and among old age groups. For example, the unemployment rate among 25+ year old status Indian males is more than 14 times that of the same sex/age group of the general population. Differentials in participation rates are also substantial and tend to be greatest among females and younger age groups.

4.2 Employment Stability and Occupational Mobility

The traditional labour force indicators outlined above, present only a partial picture of the difficulties experienced by Winnipeg's native population in the labour market. Table 16 presents the distribution of the current native labour force among five categories reflecting variations in the nature of employment experiences during the previous 12 month period. The table indicates that with the exception of Métis/non-status Indian males the native population is employed for the most part on an irregular or periodic basis. Moreover, periods of time between employment tend to be quite substantial for both males and females (see Table 17).

Analysis of data related to native occupational mobility strongly suggest that on average upward occupational mobility is either non-existent or very slow among both native subgroups. Estimates of the average annual change in the Blishen-McRoberts occupational index are presented for selected subgroups of the city's population in Table 18. The data indicate that general upward movements in the index occurs only among the Métis/non-status Indian subgroup; occupational mobility among status Indians, especially males, appears to be generally downward. Standard errors associated with all of the subgroup means of Table 18 are quite large (about twice the size of the mean) and formal

Table 15

COMPARISON OF THE NATIVE TO THE GENERAL POPULATION
UNEMPLOYMENT AND LABOUR FORCE PARTICIPATION
WINNIPEG, 1980

	Odds Ratio			
	Age Group			
	15-24 years		25+ years	
Subgroup	UR*	LFPR**	UR*	LFPR**
Status Indians				
Males	7.13	0.67	14.74	0.88
Females	6.66	0.33	7.60	0.54
Métis/Non-Status Indians				
Males	3.83	0.76	6.39	0.94
Females	5.91	0.50	6.49	0.73

* Unemployment Rate
** Labour Force Participation Rate

Table 16

NATURE OF EMPLOYMENT BY SEX AND NATIVE GROUP
NATIVES IN THE LABOUR FORCE, WINNIPEG, 1980

	Employment Category	Percent of Labour Force					
		Status Indians			Métis/Non-Status Indians		
		Males	Females	Total	Males	Females	Total
1	Regular Full-Time	21.4	31.9	25.7	62.1	27.6	48.7
2	Regular Part-Time	*	*	*	0.6	3.9	1.9
3	Irregular Full-Time	54.6	28.1	43.8	30.0	16.6	24.2
4	Irregular Part-Time	7.1	9.1	7.9	4.1	16.6	9.0
5	Did Not Work Last Year	16.9	30.8	22.6	4.2	35.3	16.3

Definitions

Group 1 worked more than 44 weeks and more than 34 hours/week
Group 2 worked more than 44 weeks but less than 35 hours/week
Group 3 worked less than 45 weeks and more than 34 hours/week
Group 4 worked less than 45 weeks and less than 35 hours/week

Table 17

DURATION OF UNEMPLOYMENT BY SEX AND NATIVE GROUP,
NATIVES AGED 15+ YEARS AND SEEKING WORK,
WINNIPEG, 1980

Duration of Unemployment (weeks)	Subgroup											
	Status Indians						Métis/Non-Status Indians					
	Males		Females		Total		Males		Females		Total	
< 5	15	(7.4)*	3	(1.2)	18	(3.9)	33	(11.0)	10	(2.0)	43	(5.3)
5 - 14	38	(18.7)	26	(10.2)	64	(14.0)	61	(20.3)	44	(8.7)	105	(13.0)
15 - 29	67	(33.0)	40	(15.7)	107	(23.4)	89	(29.6)	92	(18.1)	181	(22.4)
≥ 30	83	(41.0)	185	(72.8)	268	(58.6)	118	(39.2)	361	(71.2)	479	(59.3)
TOTAL	203	(100.1)	254	(99.9)	457	(99.9)	301	(100.1)	507	(100.0)	808	(100.0)

* Numbers in parenthesis refer to percentages of subgroup totals.

Table 18

AVERAGE CHANGE PER ANNUM IN OCCUPATIONAL STATUS BY SEX, NATIVE GROUP AND TIME IN LABOUR FORCE, WINNIPEG 1980

Subgroup	Average Change Per Annum In Blishen-McRoberts S.E.S. Time in Labour Force (Years) <5	≥5	Total
Status Indians			
Males	-1.32	-3.29	-1.99
Females	-2.17	+0.14	-0.99
Total	-1.68	-1.22	-1.48
Metis/Non-Status Indians			
Males	-0.24	+1.22	+0.79
Females	+1.48	+0.11	+0.66
Total	+0.68	+0.77	+0.74
Total Native			
Males	-0.65	+0.72	+0.22
Females	+0.46	+0.12	+0.26
Total	-0.10	+0.45	+0.24

statistical tests reveal that none of the means are significantly different from zero. The analysis, therefore, cannot confirm the existence of significant upward occupational mobility among any general subgroup of the city's native population.

4.3 Income and Sources of Income

The high level of disparity between the native and general city populations with respect to labour force activity and unemployment suggests that equally sizable disparities exist with regard to income. Table 19 presents estimates of the average earned, transfer, and per capita incomes for major household groups among the native population. Indicators comparing native household incomes to household incomes among the city's general population are presented in Table 20.

As expected, incomes and per capita incomes among the native population are highly variable over household type. These differences appear to be largely attributable to variations in earned as opposed to transfer income. In general, incomes of Métis/non-status Indians are approximately 20 percent higher than those of similar status Indian households. Income differences between native subgroups are largest among mature and older two parent families and reflect differences between status Indian and Métis/non-status Indians (especially male household heads) in terms of employment stability and labour force activity identified earlier in this section.

Income disparity between the native and general city population is substantial and exists over all household categories (Table 20). On average native household incomes are approximately one half those of households in the general population (column 3 of Table 20). The effects of much higher levels of native unemployment are also apparent in the table. Only in the case of two parent families and childless couples does the proportion of total income derived from employment approach that of similar households in the general population. Disparity in average and per capita incomes, however, tends to

Table 19

INCOMES AND SOURCE OF INCOMES, NATIVE HOUSEHOLDS BY TYPE AND NATIVE GROUP
WINNIPEG, 1980

Numeric Code	Description	Status Indians Average Household Income ($/annum) Earned	Transfer	Total	Per Capita	Métis/Non-Status Indians Average Household Income ($/annum) Earned	Transfer	Total	Per Capita
(1-4)	All Non-Family Households	1,650	3,076	4,726	3,645	3,503	2,592	6,455	5,140
(5-7)	All Childless Couples	6,615	2,538	9,153	4,401	6,557	2,951	9,508	4,622
	TWO PARENT FAMILIES								
(8-10)	Young (oldest child ≤5 yr.)	6,160	3,335	9,495	2,652	7,302	2,491	9,793	2,797
(11-13)	Mature (oldest child 5-16 yr.)	7,057	3,125	10,182	2,086	9,292	2,845	12,137	2,797
(14-16)	Older (oldest child ≥17 yr.)	6,450	5,111	11,561	2,023	13,242	3,808	17,050	3,560
(8-16)	All Two Parent Families	6,604	3,454	10,058	2,317	9,850	3,008	12,858	2,913
	SINGLE PARENT FAMILIES								
(17-19)	Young (oldest child ≤5 yr.)	161	5,468	5,629	2,244	1,049	4,709	5,758	2,355
(20-22)	Mature (oldest child 5-16 yr.)	1,157	5,794	6,951	1,998	1,965	6,120	8,085	2,983
(23-25)	Older (oldest child ≥17 yr.)	736	7,671	8,407	1,976	1,979	6,813	8,792	2,032
(17-25)	All Single Parent Families	866	6,285	7,151	2,033	1,810	6,087	7,897	2,581
(1-25)	All Households	3,578	4,665	8,243	2,448	5,600	4,275	9,875	3,167

Table 20

DIFFERENCES IN EARNED, TOTAL AND PER CAPITA INCOME, NATIVE AND TOTAL CITY HOUSEHOLDS BY TYPE, WINNIPEG, 1980

Numeric Code	Description	Earned as a Proportion to Total Household Income		Ratio of Native to Total City Households	
		Native	Total City	Incomes	Per Capita Income
(1-4)	All Non-Family Households	48.5	84.6	.53	.58
(5-7)	All Childless Couples	69.8	78.3	.57	.55
Two Parent Families					
(8-10)	Young (oldest child < 5 yr.)	69.3	92.4	.47	.44
(11-13)	Mature (oldest child 5-16 yr.)	77.4	92.2	.58	.43
(14-16)	Older (oldest child ≥17 yr.)	74.0	92.6	.58	.46
(8-16)	All Two Parent Families	74.8	92.4	.52	.42
Single Parent Families					
(17-19)	Young (oldest child <5 yr.)	12.3	45.5	.85	.78
(20-22)	Mature (oldest child 5-16 yr.)	21.5	60.2	.80	.70
(23-25)	Older (Oldest child ≥17 yr.)	17.4	75.8	.51	.51
(17-25)	All Single Parent Families	18.9	64.7	.70	.67
(1-25)	All Households	53.8	86.5	.51	.37

be greatest among these same household types indicating (not surprisingly) that large wage and/or salary differentials exist between the native and general city populations.

With respect to income adequacy, differentials between the native and total city population tend to be even more pronounced (than total household income) due to the larger size of native households. Native per capita income is less than 40 percent of that received by the general population.

A more detailed examination of the nature and extent of transfer payment dependency among the status Indian and Métis/non-status Indian populations is provided in Tables 21 and 22, respectively. Among both subgroups the majority of households are receiving some form of income transfer most commonly provincial or municipal social assistance. Dependence upon income transfers is, as expected, especially pronounced among single parent families.

Table 21

SOURCES OF TRANSFER PAYMENTS TO STATUS INDIAN HOUSEHOLDS
BY HOUSEHOLD TYPE, WINNIPEG, 1980

Numeric Code	Description	Percent Receiving Transfer	Source of Transfer (percent)					
			Social Assistance	U.I.C.	Pension	Ed/Training Allowance	Other	Percent Multi-Source
(1-4)	All Non-Families	83.3	80.0	9.3	22.7	5.3	*	16.0
(5-7)	All Childless Couples	52.1	42.1	34.0	30.0	12.0	*	15.3
	TWO PARENT FAMILIES							
(8-10)	Young (oldest child <5 yr.)	56.3	52.3	35.1	*	22.5	*	9.0
(11-13)	Mature (oldest child 5-16 yr.)	63.0	61.8	47.8	14.7	16.9	5.9	46.3
(14-16)	Older (oldest child ≥17 yr.)	70.2	70.5	17.5	17.5	*	*	5.0
(8-16)	All Two Parent Families	61.1	59.2	38.7	9.4	16.7	2.8	26.5
	SINGLE PARENT FAMILIES							
(17-19)	Young (oldest child <5 yr.)	100.0	100.0	*	*	*	*	0.0
(20-22)	Mature (oldest child 5-16 yr.)	92.4	91.4	2.9	4.3	12.9	*	8.2
(23-25)	Older (oldest child ≥17 yr.)	95.3	90.7	7.4	6.8	4.9	*	4.3
(17-25)	All Single Parent Families	94.5	92.7	2.2	4.3	7.8	*	7.3
(1-25)	All Households	77.5	78.9	15.5	8.6	10.5	0.1	14.3

Table 22

SOURCES OF TRANSFER INCOME TO MÉTIS/NON-STATUS INDIAN HOUSEHOLDS, WINNIPEG, 1980

Numeric Code	Description	Percent Receiving Transfer	Source of Transfer (percent) Social Assistance	U.I.C.	Pension	Ed/Training Allowance	Other	Percent Multi-Source
(1-4)	All Non-Families	69.0	52.3	26.2	22.4	2.8	*	2.7
(5-7)	All Childless Couples	62.3	34.7	49.7	22.2	*	*	7.2
	TWO PARENT FAMILIES							
(8-10)	Young (oldest child <5 yr.)	59.6	51.0	44.8	6.3	8.3	*	10.4
(11-13)	Mature (oldest child 5-16 yr.)	48.4	33.2	31.7	19.7	19.7	1.9	7.8
(14-16)	Older (oldest child ≥17 yr.)	54.9	43.9	29.0	30.8	19.6	*	23.4
(8-16)	All Two Parent Families	52.3	40.1	34.1	19.5	17.0	9.1	11.7
	SINGLE PARENT FAMILIES							
(17-19)	Young (oldest child <5 yr.)	92.6	100.0	*	*	2.9	*	2.1
(20-22)	Mature (oldest child 5-16 yr.)	90.5	90.2	3.8	6.5	1.8	2.0	4.3
(23-25)	Older (oldest child ≥17 yr.)	96.6	90.2	6.3	3.8	*	4.7	5.5
(17-25)	All Single Parent Families	92.7	91.9	3.9	4.5	1.4	2.5	4.3
(1-25)	All Households	71.6	68.2	19.1	12.0	5.7	1.6	6.6

5.0 PATTERNS OF HOUSING CONSUMPTION AND THE INCIDENCE OF HOUSING PROBLEMS

Considerable debate in the housing literature has been focused on the definition and measurement of housing conditions and problems. Much of the debate appears to arise out of differing conceptualizations of housing need (see Grigsby and Rosenburg 1975). The housing consumption indicators presented in this study relate, for the most part, to three major dimensions of housing need which are recognized at least implicitly in Canada's stated housing objectives and in the policies and programs which form the basis of the major social housing components of the National Housing Act. These dimensions of need include:

a) affordability,
b) adequacy,
and c) suitability.

5.1 Definitions and Measurement Procedures

Housing affordability refers to the relationship between the cost of housing services and the household's ability to pay for those services (which for the majority of households is determined by current household income). The relationship has most often been measured and analyzed as shelter cost to income ratios and the definition and measurement of affordability problems have generally been based on some politically defined contribution rate standard. In Canada, this contribution rate standard has commonly been set at 25 percent of gross household income. From this perspective, households with contribution rates exceeding the standard are deemed to be experiencing housing affordability problems or shelter poverty.

The definition of housing affordability relative to a politically determined maximum contribution rate has been attacked recently by several housing analysts (e.g. S.P.C. of Winnipeg, 1979). Present contribution rate standards not only lack theoretical and empirical foundations but also fail to recognize the differential abilities of households at different income levels to allocate resources to shelter.

Dissatisfaction with the contribution rate method of measurement has led to the development of alternative measurement procedures which are more firmly grounded in household consumption theory. Such procedures, which are characterized by the explicit recognition of non-housing (e.g. food, clothing, etc.) as well as, housing consumption needs of the household, are commonly referred to as budget requirements methods.

In this study statistical indicators of affordability have been constructed using both methods. With respect to the contribution rate (shelter cost to income ratio) procedure, however, we utilize a more conservative measurement standard. Shelter poverty is defined to exist where shelter costs exceed 35 percent of gross household incomes.[13] Indicators derived from the budget requirements method utilize the procedures developed by the Toronto Social Planning Council.[14] The appropriate consumer price index adjustments have been made to reflect 1980 Winnipeg prices.

Housing adequacy refers primarily to the physical quality of the housing unit including such elements as structural soundness, state of repair, amenities present, etc. . In practice, adequacy is defined according to two general types of standards. The first are those established by Canada Mortgage and Housing Corporation (C.M.H.C.) regarding construction and rehabilitation standards which must be met in order to obtain C.M.H.C. financing or insurance. Standards of the second type have been developed by individual provinces and/or municipalities

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13. Shelter cost data used in this study include gross monthly rents (or homeowner debt service charges and taxes) and all utility payments. Maintenance and rehabilitation expenses are not included in the shelter costs of homeowners.

14. The general procedure is described in the Social Planning Council of Toronto's Guides for Family Budgetting, 1976.

to achieve minimum standards of health and safety (e.g. Manitoba Public Health Act).

Data available for this study constrain our analysis of housing adequacy to select elements of the unit's structural integrity and state of repair. These attributes of the dwelling unit were determined through interviewer assessment of the unit's exterior characteristics. The general method of measurement employed is that developed by C.M.H.C. for use in the 1974, Survey of Housing Units (S.H.U.) and in a fashion similar to the S.H.U. survey, each housing unit has been classified into one of three condition categories: good, fair (needing only a few minor repairs) and poor (requiring major structural repairs). [15]

Housing suitability, the third dimension of housing need considered in this study, involves the relationship between the living-space requirements of the household and the nature and amount of space available in the dwelling unit. The most frequently employed indicators of suitability are density or crowding indices (e.g. persons/room, floor area/person, etc.). The Social Planning Council of Winnipeg has identified and critiqued several of these indicators and, using data from the S.P.C. survey, developed an alternative set of crowding thresholds which correlate very well with household perceptions of overcrowding.[16] These crowding thresholds, which appear

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15. Appendix C describes the measurement and classification procedures used in this study. The I.U.S. data on exterior condition were gathered by one individual trained for the task of assessing unit quality. Condition data for the S.P.C. survey were gathered by several interview personnel. The use of different personnel for quality assessment may create problems of comparability. The reader should bear this in mind when reviewing the study's findings concerning housing unit quality.

16. Readers interested in the conceptual rationale and procedures employed in deriving these thresholds may refer to the Social Planning Council of Winnipeg, Report No. 1, Housing Conditions in Winnipeg, 1979, pp. 60-67.

in Table 23, are used in this study for the purpose of estimating the incidence of overcrowding and "suitability" problems.

5.2 Present Patterns of Housing Consumption by Sub-Market

Recent housing consumption research emphasizes the segmented nature of the urban housing market. The market is now commonly viewed as a collection of somewhat distinct but interrelated submarkets differentiated by such attributes as location, tenure, structure type, quality and price.[17] Households with differing demographic and socio-economic characteristics are likely to exhibit different preferences for and levels of access to housing in various sub-markets. A useful starting point for the analysis of housing conditions and problems, therefore, is the documentation of the manner in which different household sub-groups sort themselves out amongst various sub-markets of the housing stock.

Table 24 documents the distribution of native occupied housing units according to market sectors. The table reveals that although a substantial number of native households (especially single parent families) consume housing provided by the public (or third) sector, the vast majority (92 percent) of native households consume housing services in the private market. Although data concerning the structure of households occupying public (or third) sector housing are not available for the total city population, levels of public housing consumption among the native and total city population appear to be roughly equivalent.[18]

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17. Readers interested in a general review of recent theoretical and conceptual developments related to housing sub-markets may refer to Quigley 1978.

18. 1978 public (or third) sector housing accounted for about 11000 units or roughly 5-6 percent of the city's total housing stock.

Table 23

CROWDING THRESHOLDS BY HOUSEHOLD SIZE

Household Size	Minimum Number Bedrooms	Maximum Density Ratio (Persons/Bedroom)
1	1	1.0
2	1	2.0
3	2	1.5
4	3	1.3
5	3	1.7
6	3	2.0
7	5	1.4
8+	5	1.6

Table 24

CONSUMPTION BY MARKET SECTOR, NATIVE HOUSEHOLDS
WINNIPEG, 1980

		Submarket				
		Private		Public (Third Sector)		
	Household Type	Number	%	Number	%	Total
(1-4)	All Non-Families	243	100.0	*	*	243
(5-7)	Childless Married Couples	527	100.0	*	*	527
	Two Parent Families					
(8-10)	Young (oldest child <5 Yr.)	530	98.1	10	1.9	540
(11-13)	Mature (oldest child 5-16 yr.)	1,050	92.2	89	7.8	1,139
(14-16)	Older (oldest child ≥17 yr.)	436	95.6	20	4.4	456
(8-16)	All Two Parent Families	2,016	94.4	119	5.6	2,135
	Single Parent Families					
(17-19)	Young (oldest child <5 yr.)	234	82.1	51	17.9	285
(20-22)	Mature (oldest child 5-16 yr.)	912	89.3	109	10.7	1,021
(23-25)	Older (oldest child ≥17 yr.)	521	83.8	101	16.2	622
(17-25)	All Single Parent Families	1,667	86.5	261	13.5	1,928
(1-25)	ALL HOUSEHOLDS	4,453	92.1	380	7.9	4,833

* Sampling zero

Patterns of consumption over major structure type sub-markets are also quite similar for the native and total city populations (see Table 25). Among families, especially those in the later stages of family development, housing consumption (demand) is heavily concentrated in the single or semi-detached and duplex structure types, a reflection of the preference among these household groups for larger amounts of indoor and outdoor space. Consumption of row housing or apartment units is as expected, most common among childless households (types 1-7) and younger (smaller) family households.

Quite substantial differences exist between the native and total city populations with respect to tenure. Table 26 which documents rates of home ownership among select household and income sub-groups illustrates the nature and extent of these differences. Home ownership is approximately 4 times more common among the total city, as opposed to native population and substantial differentials exist over all household sub-groups. The differences in ownership rates appearing in Table 26 do not appear to be solely attributable to income differences: native homeownership is less common among all household sub-groups in all income classes.

Data available to the study are insufficient to determine the source(s) of these tenure differentials. Although such differentials are consistent with the expected outcomes of the process of ethnic discrimination in the housing and/or mortgage markets, they could also reflect differences between native and non-native households, with respect to equity or wealth accumulation (which affects access to mortgage capital), or to culturally based differences in the value attached to homeownership.

Table 25

STRUCTURE TYPE BY HOUSEHOLD TYPE, NATIVE AND TOTAL CITY HOUSEHOLDS, WINNIPEG, 1980

	Household Type	Detached, Semi-detached and Duplex		Row and Apartments		Number*	
		Native	Total City	Native	Total City	Native	Total City
(1-4)	All Non-Families	23.0	33.0	77.0	67.0	239	47,244
(5-7)	Childless Married Couples	44.8	67.4	55.2	32.6	527	59,377
	Two Parent Families						
(8-10)	Young (oldest child <5 yr.)	54.6	69.8	45.4	30.2	540	13,024
(11-13)	Mature (oldest child (5-16)	81:7	89.1	18.3	10.9	1,089	41,975
(14-16)	Older (oldest child ≥17 yr.)	81.2	92.4	18.8	7.6	361	16,981
(8-16)	All Two Parent Families	74.3	86.4	25.7	13.7	1,990	71,980
	Single Parent Families						
(17-19)	Young (oldest child <5 yr.)	44.8	44.1	55.2	55.9	281	2,594
(20-22)	Mature (oldest child 5-16 yr.)	70.9	31.9	29.1	68.1	1,007	6,433
(13-25)	Older (oldest child ≥17 yr.)	89.6	75.4	10.4	24.6	604	5,172
(17-25)	All Single Parent Families	73.0	50.0	27.0	50.0	1,892	14,199
(1-25)	ALL HOUSEHOLDS	67.8	64.6	32.2	35.4	4,648	193,721

* excludes missing observations

Table 26

HOMEOWNERSHIP RATES BY INCOME GROUP AND HOUSEHOLD TYPE,
NATIVE AND TOTAL CITY HOUSEHOLDS, WINNIPEG, 1980

Percent Homeowners

Household Type	Description	Income Class (x1000) <10 Native	<10 Total City	10-15 Native	10-15 Total City	>15 Native	>15 Total City	Total Native	Total Total City
(1-4)	All Non-Families	1.9	26.1	*	25.0	28.6	30.9	3.3	26.7
(5-7)	Childless Married Couples	3.4	30.9	11.1	36.1	36.7	59.0	13.0	46.5
(8-10)	Young Two Parent Families	*	66.2	1.9	50.9	26.3	77.1	3.3	70.2
(11-16)	Mature and Older Two Parent Families	20.3	21.5	15.5	56.4	44.4	90.6	26.5	84.0
(17-19)	Young Single Parent Families	*	24.8	*	62.1	*	61.0	*	39.3
(20-25)	Mature and Older Single Parent Families	2.3	17.4	28.5	33.6	38.2	46.8	8.7	30.1
(1-25)	ALL HOUSEHOLDS	6.1	39.2	15.4	44.9	41.1	77.2	14.2	60.3

* sampling zero

Table 27 presents estimates of average shelter expenditures (for renters) for several household sub-groups among the native and total city population. The table indicates that on average, shelter costs among native renters are approximately 12-15 percent lower than similar total city households, suggesting that much of the demand for rental accommodation by the native population is further segregated into the city's lower price sub-markets. This finding is not surprising in light of the much lower average income levels of native households.

When viewed together the data in Tables 24 through 27 suggest that native housing consumption is focused on a specific segment of the city's housing stock. This housing stock is characterized by all of the following features:

i) ownership by the private sector;
ii) single/semi-detached and duplex structure types;
iii) rental tenure;
and iv) much lower than average rental prices.

In Winnipeg, as in most other major urban areas, the majority of housing stock possessing these attributes tends to be located in older declining neighbourhoods in or near the central or core area of the city.

5.3 Housing Affordability and Shelter Poverty

Figure 3 illustrates graphically the proportion of households incurring shelter costs which exceed 35 percent of total household incomes. The figure reveals that the incidence of households exceeding the 35 percent contribution rate tends to be greater for non-families and young and mature single parent families among both the native and general city populations. With the exception of young two parent families high contribution costs are more common among native households.

TABLE 27

ESTIMATED ANNUAL SHELTER COSTS BY HOUSEHOLD TYPE, NATIVE AND TOTAL CITY RENTERS, WINNIPEG, 1980

Household Type	Native		Total City		
	Average Shelter Cost ($/annum)	Households*	Average Shelter Cost ($/annum)	Households*	Ratio
	(A)		(B)		(A/B)
(1-4) All Non Families	1891	232	2176	38519	0.87
(5-7) All Childless Couples	2397	461	2681	15071	0.89
Two Parent Families					
(8-10) Young (oldest child < 5 yr.)	2631	522	2805	5105	0.94
(11-13) Mature (oldest child 5-16 yr.)	2618	792	3412	6590	0.77
(14-16) Older (oldest child ≥ 17 yr.)	2950	273	2973	1749	0.99
(8-16) All Two Parent Families	2679	1587	3124	13444	0.86
Single Parent Families					
(17-19) Young (oldest child < 5 yr.)	2298	281	2719	2256	0.85
(20-22) Mature (oldest child 5-16 yr.)	2460	953	2994	4941	0.82
(23-25) Older (oldest child ≥ 17 yr.)	2438	491	2542	1743	0.96
(17-25) All Single Parent Families	2427	1725	2836	8940	0.86
(1-25) All Households	2492	4005	2522	75974	0.99

*Excludes income and/or shelter cost non-respondents and public housing tenants

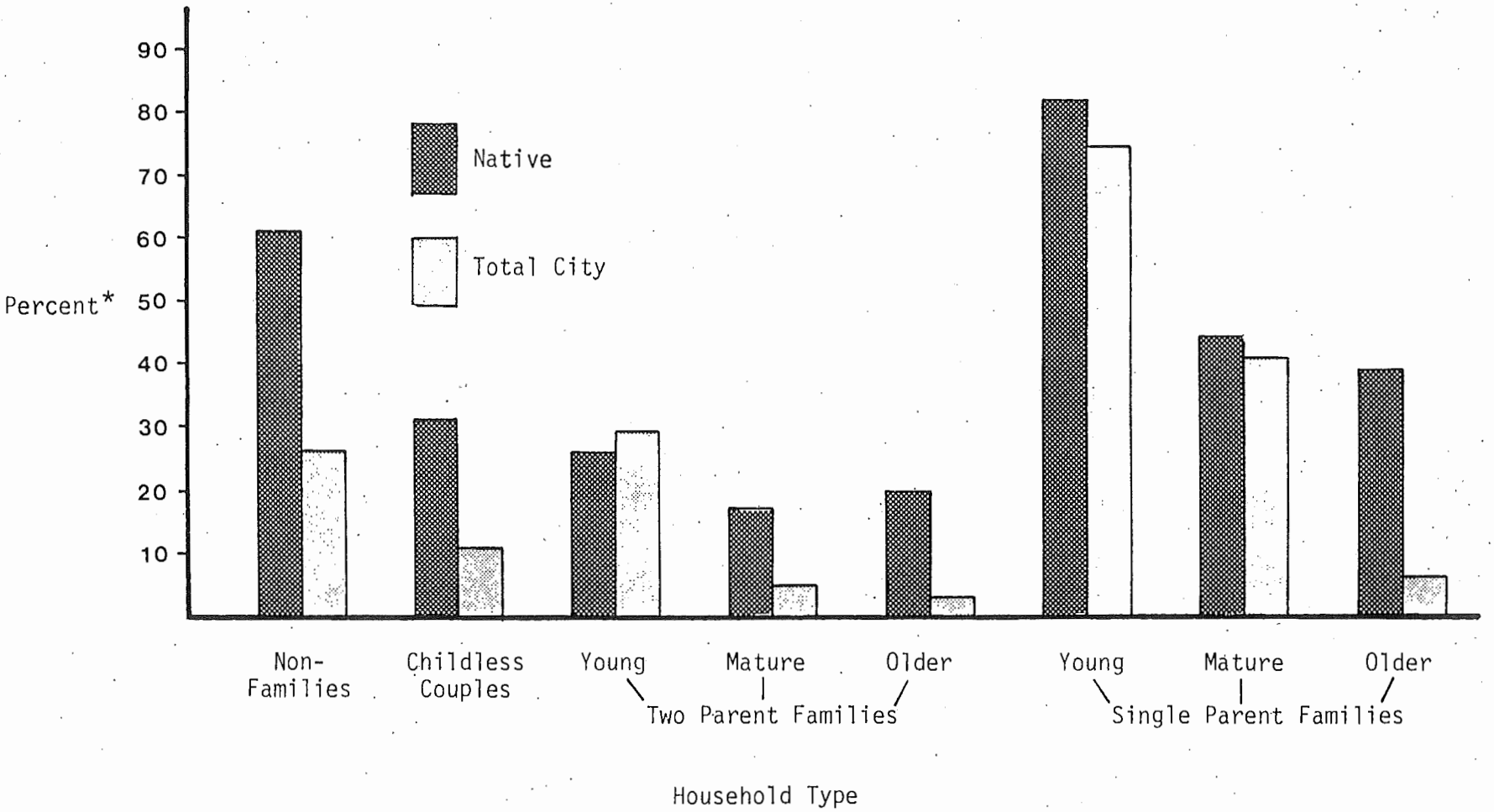
Table 28 which presents estimates of the extent of the affordability problem using the budget requirements method, reveals a pattern of incidence over household types which is remarkably similar to that identified in Figure 3. Budget or income shortfalls tend to more common among native households and especially among single parent families.

Neither set of the above indicators, however, provides a clear measure of the number of households experiencing budget problems as a result of excessive shelter costs. With respect to the contribution rate method it is possible (and probable) that a significant percentage of households exceeding the 35 percent contribution rate are not experiencing budget or income shortfalls and may in fact have elected out of choice to over-consume housing services. As such the indicators appearing in Figure 3 are likely to overstate the extent of shelter poverty. Households experiencing a budget or income shortfall according to the budget requirements method clearly have an affordability problem but not necessarily as a result of an excessive shelter cost burden. As an indicator of housing cost problems this method is also likely to overstate the extent of the problem. The indicators in Table 29 attempt to overcome these shortcomings by identifying the proportion of households experiencing both an income shortfall (according to the budget requirements method) and incurring shelter costs exceeding the 35 percent contribution rate. Such households are clearly experiencing a problem of affordability which derives in part from excessive shelter costs relative to incomes.

According to this method the incidence of housing affordability problems is generally lower although patterned in the same fashion over household types as in Figure 3 and Table 28. Single parent families, particularly those in the earlier stages of family

Figure 3

INCIDENCE OF SHELTER POVERTY BY HOUSEHOLD TYPE
NATIVE AND TOTAL CITY HOUSEHOLDS, WINNIPEG, 1980



* Percent of housenolds exceeding 35% contribution rate standard

Table 28

APPROXIMATE INCIDENCE OF AFFORDABILITY PROBLEMS BY HOUSEHOLD TYPE
NATIVE AND TOTAL CITY HOUSEHOLDS, WINNIPEG, 1980

Household Type		Percent of Households Experiencing Income Shortfall		
		Native (A)	Total City (B)	Odds-Ratio (A/B)
(1-4)	All Non-Families	71.5	33.6	2.13
(5-7)	Childless Married Couples	50.8	19.8	2.57
	Two Parent Families			
(8-10)	Young (oldest child <5 yr.)	68.0	10.7	6.36
(11-13)	Mature (oldest child 5-16 yr.)	66.7	7.5	8.89
(14-16)	Older (oldest child ≥17 yr.)	49.7	9.2	5.40
(8-16)	All Two Parent Families	64.0	8.5	7.53
	Single Parent Families			
(17-19)	Young (oldest child <5 yr.)	96.5	74.6	1.29
(20-22)	Mature (oldest child 5-16 yr.)	93.4	58.5	1.60
(23-25)	Older (oldest child ≥17 yr.)	79.9	13.0	6.15
(17-25)	All Single Parent Families	89.6	44.9	2.00
(1-25)	ALL HOUSEHOLDS	73.3	20.8	3.52

Table 29

HOUSEHOLDS EXPERIENCING A BUDGET SHORTFALL AND SPENDING IN EXCESS OF 35 PERCENT OF INCOME ON SHELTER, BY HOUSEHOLD TYPE, WINNIPEG, 1980

HOUSEHOLD TYPE	(A) NATIVE HOUSEHOLDS	(B) PERCENT	(C) TOTAL CITY HOUSEHOLDS	(D) PERCENT	ODDS-RATIO (B/D)	NATIVE/ TOTAL CITY A/C (x100)
(1-4) All Non-Family Households	145	60.7	9184	19.1	3.18	1.6
(5-7) All Childless Married Couples	202	38.3	4773	8.0	4.79	4.2
Two Parent Families						
(8-10) Young (oldest < 5 yr.)	143	26.4	1088	8.4	3.14	13.1
(11-13) Mature (oldest child 5-16 yr.)	186	17.1	998	2.4	7.13	18.6
(14-16) Older (oldest child ≥ 17 yr.)	72	20.0	435	2.6	7.69	16.6
98-16) All Two Parent Families	401	20.1	2521	3.5	5.74	15.9
Single Parent Families						
(17-19) Young (oldest child < 5 yr.)	232	82.0	1935	74.6	1.10	12.0
(20-22) Mature (oldest child 5-16 yr.)	445	44.2	2544	39.5	1.12	17.5
(23-25) Older (oldest child ≥ 17 yr.)	239	39.4	374	7.2	5.47	63.9
(17-25) All Single Parent Families	916	48.3	4853	34.2	1.41	18.9
(1-25) All Households	1664	35.8	21331	11.0	3.25	7.8

development, are most likely to be experiencing problems of housing affordability among both population sub-groups. Differentials between the native and total city populations tend to be most pronounced for two parent families. The problem of housing affordability is approximately 5.8 times more common among native, as opposed to general city families.

The table also reveals that although the native population (in general) accounts for only about 8 percent of all households experiencing shelter cost problems, among two parent and single parent families, native households comprise about 16 and 19 percent, respectively, of affected households.

5.4 Problems of Housing Adequacy

Winnipeg's housing stock, in contrast with that of most other major Canadian cities, includes a large proportion of dwelling units in need of major repair. Recent estimates suggest that between 12 and 18 percent of the city's housing stock is in poor condition and as much as four percent in very poor or dilapidated condition.[19]

Estimates derived from the I.U.S. native data base indicate that approximately 39 percent of native occupied units are in poor condition according to the CMHC definition. Using the same definition, estimates based on the S.P.C. data base reveal approximately 18 percent of the city's occupied housing stock to be in poor condition. Figure 4 illustrates the distribution of poor quality housing over various household sub-groups of the native and the general city populations. Among both population groups the

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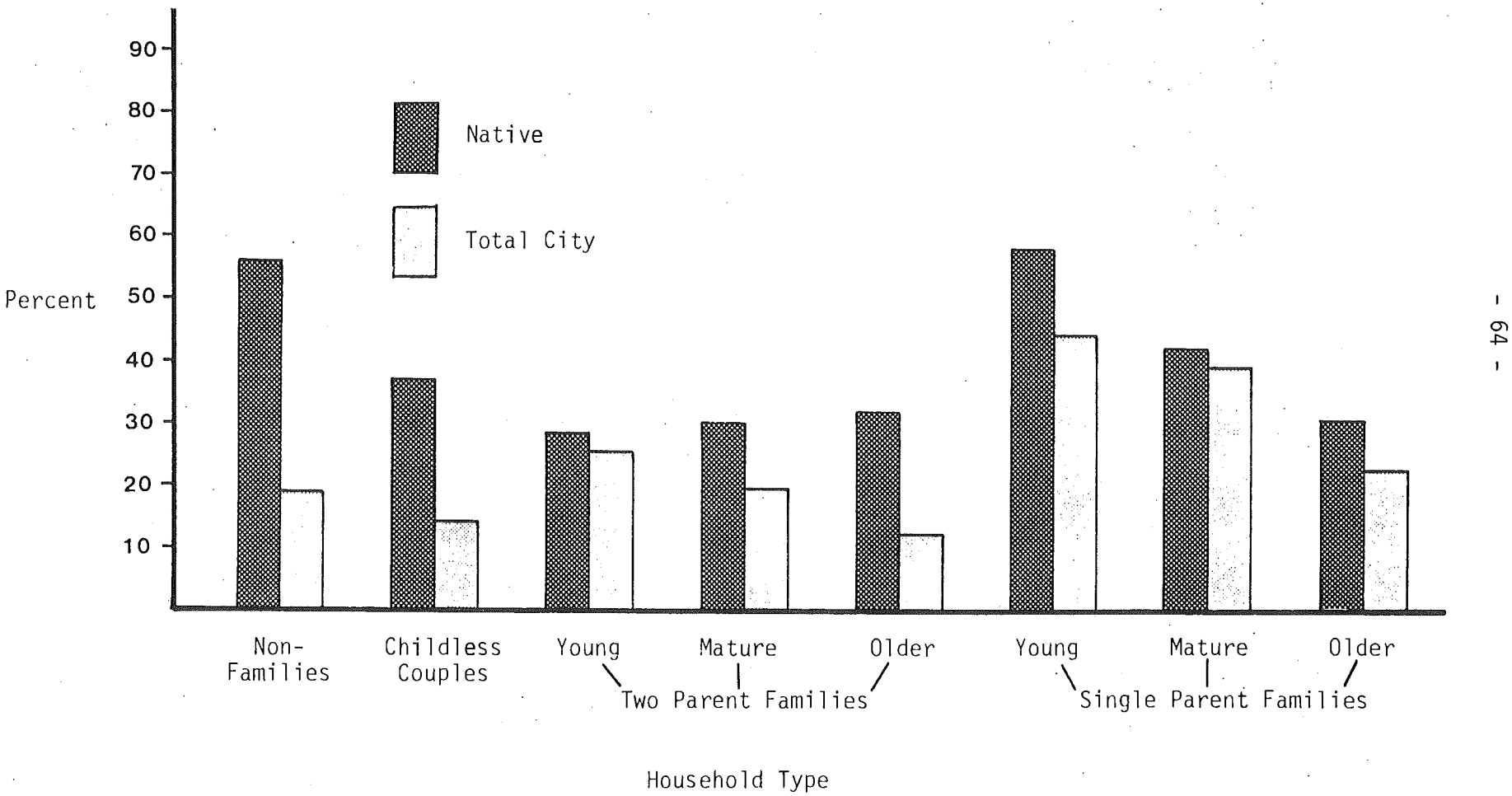
19. See for example S.P.C., 1979 and CMHC, 1974, Survey of Housing Units, Cross tabulation of Dwelling Units and Households, Survey Area #23.

Figure 4

INCIDENCE OF POOR CONDITION HOUSING BY HOUSEHOLD TYPE
NATIVE AND TOTAL CITY HOUSEHOLDS, WINNIPEG, 1980



consumption of poor quality housing tends to be higher among single parent families, especially those in the early periods of family development (types 17-19 and 20-22). Although the incidence of housing quality problems is greater among all types of native households, differences between the native and general city population tend to be most pronounced for childless households (types 1-4 and 5-7) and older two parent families (type 14-16).

One factor which appears to impact on levels of housing adequacy among native households and single parent families (of both population groups) is the high degree of dependence on transfer payments, especially provincial social assistance, as a source of income. Under current social assistance payment formulae shelter allowances are fixed at relatively low rent levels making it very difficult for the household to acquire adequate quality housing in the private market. Table 30 provides some support for this argument by documenting the occurence of poor quality housing consumption among welfare and non-welfare households within the native population. The table reveals the incidence of quality problems to be approximately 1.7 times higher among households dependent on shelter allowances provided through the provincial social assistance plan. Social assistance transfer payment formulae simply do not appear to provide most households with sufficient purchasing power to obtain adequate private market housing.

Although the data appearing in Figure 4 indicate the existence of substantial differentials in housing adequacy problems between the native and general populations, they do not clearly identify the underlying structure of differences over various income, tenure, ethnic and household sub-groups. In

Table 30

INCIDENCE OF POOR QUALITY HOUSING BY HOUSEHOLD TYPE AND SOCIAL ASSISTANCE STATUS, NATIVE HOUSEHOLDS, WINNIPEG 1980

		Percent Consuming Poor Condition Housing		Totals*	
	Household Type	Non Welfare	Welfare	Non Welfare	Welfare
(1-4)	All Non-Families	56.7 ± 24.3	55.5 ± 24.4	120	119
(5-7)	Childless Married Couples	33.0 ± 11.9	62.4 ± 28.6	442	85
	Two Parent Families				
(8-10)	Young (oldest child <5 yr.)	28.5	40.4	411	89
(11-13)	Mature (oldest child 5-16 yr.)	29.1	39.8	824	226
(14-16)	Older (oldest child ≥17 yr.)	16.3	55.8	258	129
(8-16)	All Two Parent Families	26.7 ± 6.1	44.6 ± 12.6	1,493	444
	Single Parent Families				
(17-19)	Young (oldest child <5 yr.)	-	69.6	3	227
(20-22)	Mature (oldest child 5-16 yr.)	48.1	46.9	131	767
(23-25)	Older (oldest child ≥17 yr.)	3.4	45.1	119	397
(17-25)	All Single Parent Families	27.7 ± 15.0	50.1 ± 7.2	253	1,391
(1-25)	ALL HOUSEHOLDS	29.6 ± 5.1	49.7 ± 5.9	2,308	2,039

Confidence intervals estimated at $\alpha = .05$

* Excludes non respondents and public housing tenants

order to investigate more fully the nature and extent of ethnic differentials in the consumption of substandard housing the data were analyzed more formally using logistic regression techniques (i.e. logit model methods). The model was designed to provide estimates of the probability of occupying poor quality housing for several distinct household sub-groups differentiated according to income level, tenure, household composition (i.e. type) and ethnicity. Appendix E provides a detailed description of the method, model specification and estimation procedures.[20]

Results of the analysis are summarized in Table 31 and illustrated graphically in Figure 5. The major inferences which emerge from the analysis are as follows:

i) Among the general city population differentials in the probability of consuming poor quality housing are largely attributable to tenure. Renting households, regardless of income and household type, exhibit a much higher incidence of quality consumption problems. Differentials associated with tenure among the native population are similar in nature but tend to be much smaller in magnitude.

ii) Among native households differences in the rate of consumption of poor quality housing are largest over income groups. Higher income native households regardless of tenure and household type experience much lower rates of poor quality housing consumption.

iii) The effects of ethnicity are statistically significant but highly variable over tenure, income class and household types. In general, ethnic differentials are larger among childless households (types 1-4 and 5-7) and among homeowners especially those earning less than $10,000 per annum.

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20. Readers interested in this statistical method may refer to Goodman 1971 and Feinberg 1980.

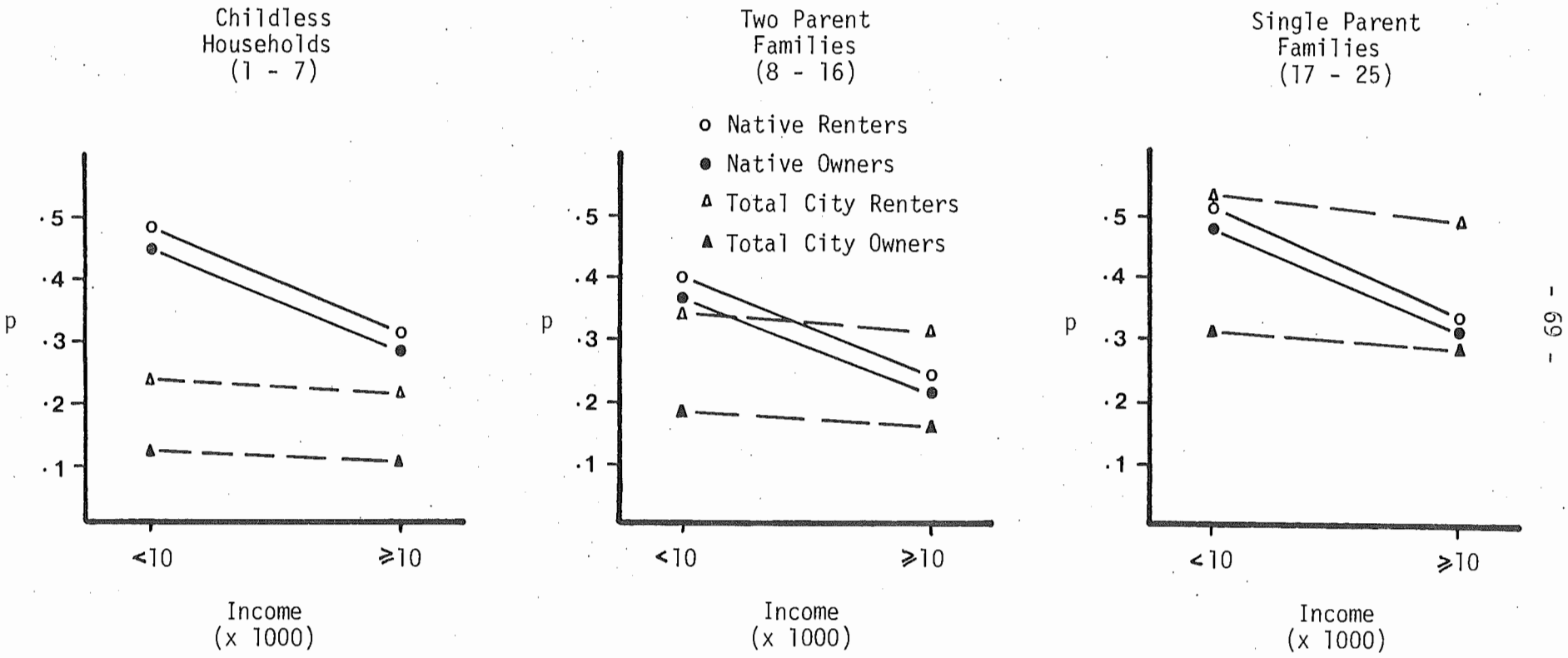
Table 31

ESTIMATED PROBABILITY OF OCCUPYING POOR QUALITY HOUSING
WINNIPEG, 1980

Household Type	Tenure	Income (x1000)	Probability of Occupying Poor Quality Housing: Native (A)	Total City (B)	Odds Ratio (A/B)
Non-Families	Renters	<10	.4824	.2477	1.95
		≥10	.3041	.2183	1.39
	Owners	<10	.4595	.1237	3.71
		≥10	.2850	.1070	2.66
Two Parent Families	Renters	<10	.4000	.3491	1.15
		≥10	.2382	.3127	0.76
	Owners	<10	.3781	.1870	2.02
		≥10	.2218	.1632	1.36
Single Parent Families	Renters	<10	.5048	.5224	0.97
		≥10	.3234	.4812	0.67
	Owners	<10	.4818	.3192	1.51
		≥10	.3036	.2846	1.07

Figure 5

ESTIMATED INCIDENCE OF POOR QUALITY HOUSING BY TENURE, INCOME AND HOUSEHOLD TYPE, NATIVES AND TOTAL CITY HOUSEHOLDS WINNIPEG, 1980



p - probability of occupying poor condition housing

iv) Ethnic differentials among two parent and single parent family renters are generally small. Moreover, among higher income families that rent accommodation, the probability of consuming poor quality housing is larger among the general city as opposed to native population.

In general, the analysis suggests that factors other than ethnicity account for most of the variation in rates of poor quality housing consumption identified in Figure 4. Tenure, income level and household type (combined) account for about 73 percent of the total variation in the incidence of quality problems. Approximately 15 percent of the variation is attributable solely to ethnicity.

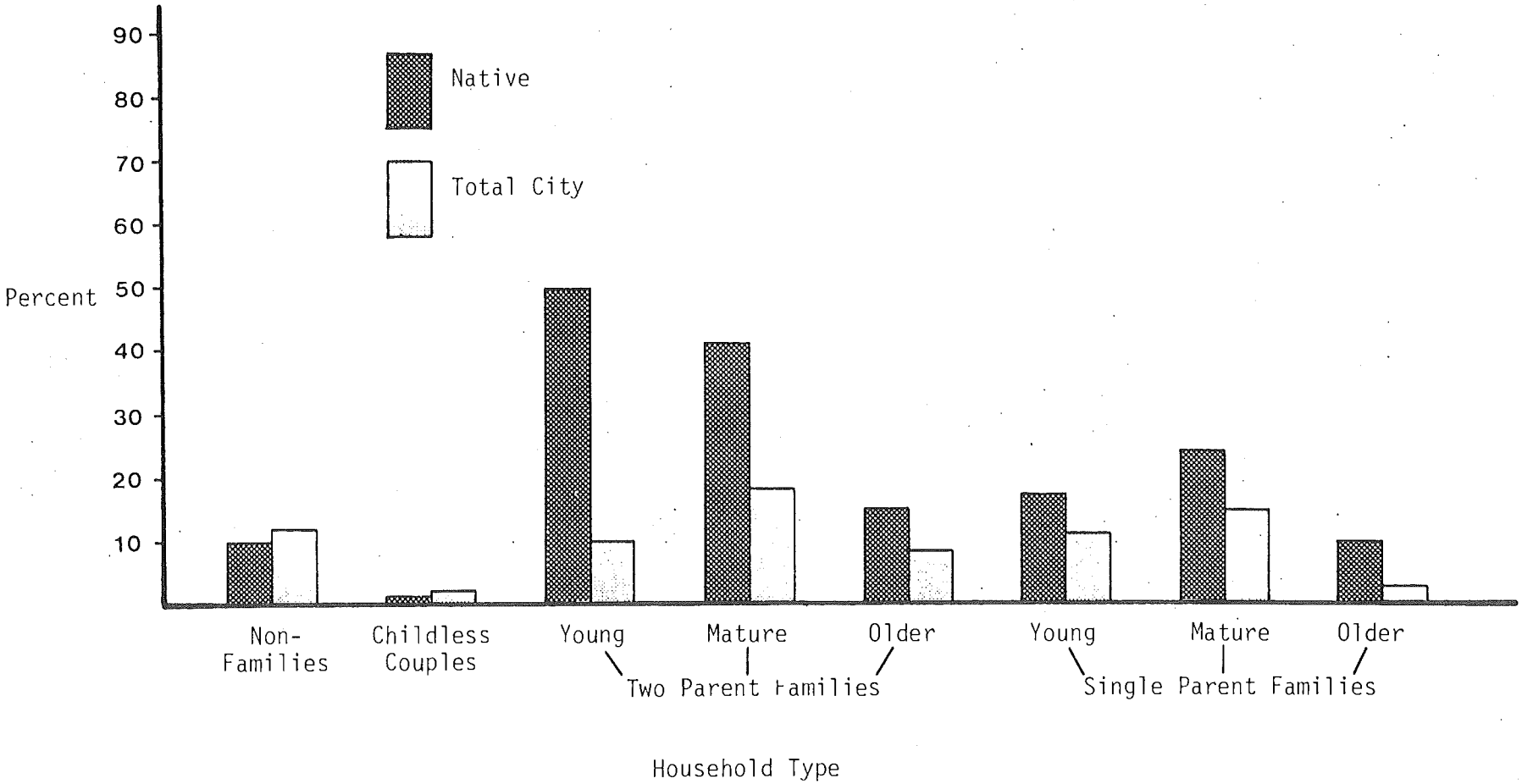
5.5 Problems of Housing Suitability

Estimates of the extent of housing suitability problems among native and total city households are illustrated in Figure 6 in the form of overcrowding rates. The figure reveals that levels of overcrowding are highly variable over household types but in general tend to be higher among native households, especially family households in the early and mature stages of development (types 8-10 and 11-13). Approximately 48 percent of these native families experience household density levels exceeding the crowding threshold.

The unusually high incidence of overcrowding among native, as opposed to total city, families appears to result from the much larger size of native families and the scarcity of larger (four or more bedroom) low cost rental housing units in Winnipeg. The average size of native two parent families is approximately 5.2 persons compared to 3.5 persons among all Winnipeg families. Units appropriate for large families (i.e. 4 + bedrooms) account for only about 3-4 percent of the city's rental stock. Moreover it is highly likely that only a small fraction of these larger units are available at rent levels affordable by native families.

Figure 6

INCIDENCE OF OVERCROWDING BY HOUSEHOLD TYPE, NATIVE AND TOTAL CITY HOUSEHOLDS, WINNIPEG, 1980



With the exception of native two parent families, overcrowding tends to be much less common among all household groups than the problems of affordability and housing adequacy identified earlier. In addition the overcrowding indicator used in this study is likely to overstate the extent of crowding problems. Grigsby and Rosenburg (1975, p. 74) for example, note:

> Since there is a continual flow of families into and out of an overcrowded status as their household composition changes and as moves are made, cross-section data on crowding overstate the problem.

Recent work by Moore (1977) using longitudinal data has provided verification of this point and suggests that cross-sectional indicators such as the one used in this study may overstate the incidence of crowding problems by as much as 50 percent. In light of this fact housing suitability as measured by overcrowding indices may be a common problem only among native two parent families.

5.6 Households Experiencing Multiple Housing Problems

The preceding analyses have identified several dimensions of the housing problems experienced by various types of native and total city households. Although not formally examined in much of the analysis it is obvious that these problems stem from low household incomes and reduced levels of purchasing power in the housing market. Many low income households are forced to trade off housing quality and/or housing space in order to acquire housing which they can afford. Moreover many may be required to allocate a very large portion of their income toward shelter which is inadequate in terms of quality and/or unsuitable in light of the household's space needs. Such households are experiencing multiple housing problems and represent the most poorly housed segment of the urban population.

Table 32 and Figure 7 present data on the occurrence of households experiencing multiple housing problems in Winnipeg.[21] Table D1 in Appendix D documents more completely the nature and extent of these problems. The data reveal that the incidence of multiple housing problems is strongly patterned over household types. Among both populations, multiple problems tend to occur more frequently among young families and single parent families. Differences between the general city and native population with respect to the incidence of multiple problems are substantial and exist over all household types. In comparison with the general population; native households are four times as likely to incur housing problems in combination and 10 times as likely to experience all three problems simultaneously. Based on these and other indicators developed in this study the native population appears to represent the most poorly housed major ethnic group in Winnipeg.

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21. Households with multiple problems are defined as those which experience two or more of the problems of shelter poverty, substandard housing quality and overcrowding.

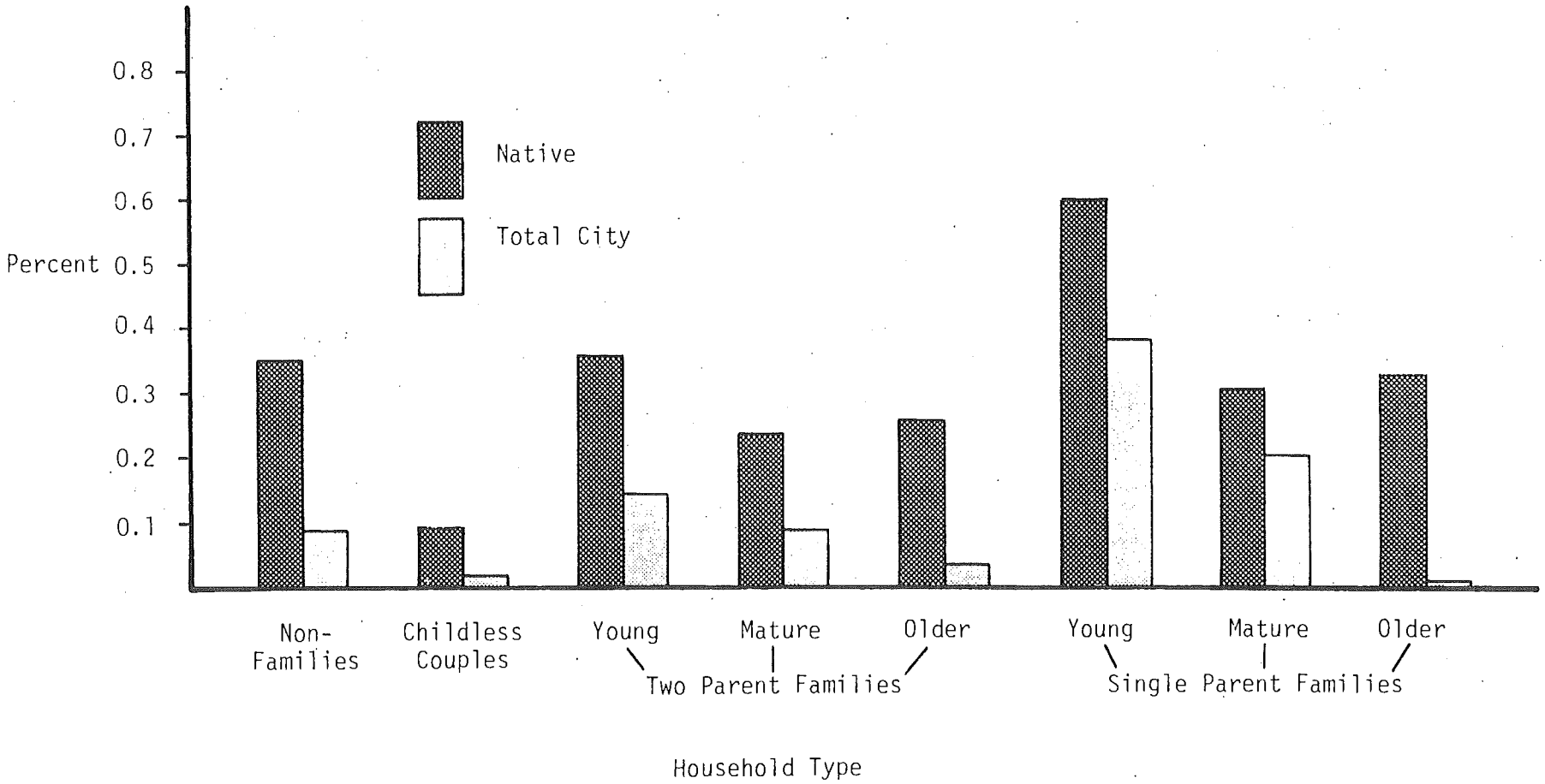
Table 32

INCIDENCE OF MULTIPLE HOUSING PROBLEMS BY HOUSEHOLD TYPE, NATIVE AND TOTAL CITY HOUSEHOLDS, WINNIPEG, 1980

		Percent of Households		
	Household Type	Native (A)	Total City (B)	Odds-Ratio (A/B)
(1-4)	All Non-Families	34.7	8.8	3.94
(5-7)	Childless Married Couples	8.9	1.9	4.68
	Two Parent Families			
(8-10)	Young (oldest child <5 yr.)	35.9	14.1	2.55
(11-13)	Mature (oldest child 5-16 yr.)	23.8	8.5	2.80
(14-16)	Older (oldest child ≥ 17 yr.)	26.6	3.2	8.31
(8-16)	All Two Parent Families	27.6	8.3	3.33
	Single Parent Families			
(17-19)	Young (oldest child <5 yr.)	60.1	38.5	1.56
(20-22)	Mature (oldest child 5-16 yr.)	31.8	20.5	1.55
(23-25)	Older (oldest child ≥ 17 yr.)	23.0	*	*
(17-25)	All Single Parent Families	33.2	16.3	2.04
(1-15)	ALL HOUSEHOLDS	28.1	7.0	4.01

Figure 7

INCIDENCE OF MULTIPLE HOUSING PROBLEMS BY HOUSEHOLD TYPE
NATIVE AND TOTAL CITY HOUSEHOLDS, WINNIPEG, 1980



6.0 PATTERNS OF RESIDENTIAL MOBILITY

In most of the literature on residential mobility, moving is generally conceived of as a process through which the household adjusts its housing consumption to suit new needs or preferences. That is, moves are viewed as being made voluntary by the household. Although very little systematic research exists, there is a growing recognition that among some population sub-groups moves do not represent an adjustment to new needs but rather occur in response to events which are largely beyond the control of the household. Such moves, which can be termed involuntary moves, arise through such events as structure abandonment and closure, demolition, fire, and condemnation of dwelling. Events of this nature tend to occur most often among older, marginal quality housing stock and as such tend to impact greatest on low income households.

In Winnipeg concern has been expressed recently about the extremely high rates of residential mobility among native households. This concern has emerged from the inner city public school system, where recent studies have revealed that student turnover rates in schools which have large native student enrollments exceed 80 percent annually. Additional research has suggested that many native students appear to experience several school transfers annually and that frequent transfers are highly correlated with educational underachievement. Data collected via the I.U.S. survey permit investigation of several dimensions of native mobility patterns. Because of the very small numbers of native homeowners and the fact that chronic or frequent mobility tends to be uncommon among this tenure group, our analysis concentrates only on households renting accommodation.

6.1 Residential Mobility Rates

Estimates of annual mobility (movement) rates among native renters are summarized in Table 33. The table reveals that although variability exists over household sub-groups, mobility rates among native-renters are very high. Approximately 59 percent of all native households renting accommodation moved at least once during the previous year.[22]

Movement rates are also strongly patterned over life cycle stages among both two parent and single parent families, and tend to be much higher among families in earlier periods of development. In addition to younger families, movement rates also tend to be very high among childless households (types 1-4 and 5-7).

Some differences in annual mobility rates between native sub-groups do exist, however, among most household types these differences are not statistically significant.

In comparison with general city renters, native renters, with the exception of young single parent families, exhibit much higher rates of movement (see Table 34). More formal analysis of mobility rates associated with native and general city renters (again using logistic regression methods) provides a more precise estimate of ethnic differentials. The analysis results are summarized in Table 35 and Figure 8.[23] The results confirm that mobility rates tend to be higher among younger families and significantly higher among native as opposed to general city

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22. Moves to the city by migrants have been excluded from the calculation. The movement rate therefore is based only on households which have moved since establishing initial residence in the city.

23. More complete discussion of the model is provided in Appendix E.

Table 33

ANNUAL RATE OF RESIDENTIAL MOBILITY BY HOUSEHOLD TYPE AND NATIVE SUB-GROUP, NATIVE RENTERS, WINNIPEG 1980

		Households Moving During Previous 12 Months (Percent)		
	Household Type	Status	Metis/ Non-Status Indian	Total
(1-4)	All Non-Families	58.1 ± 28.2	75.3 ± 18.6	69.1 ± 15.9
(5-7)	All Childless Couples	86.7 ± 16.9	66.2 ± 13.4	71.2 ± 11.2
	Two Parent Families			
(8-10)	Young (oldest child <5 yr.)	81.9 ± 13.9	79.4 ± 12.2	80.4 ± 9.2
(11-13)	Mature (oldest child 5-16 yr.)	79.1 ± 11.7	43.3 ± 11.8	58.0 ± 12.4
(14-16)	Older (oldest child ≥17 yr.)	36.0 ± 22.0	22.2 ± 13.4	25.2 ± 12.4
(8-16)	All Two Parent Families	74.9 ± 9.1	48.4 ± 8.1	58.2 ± 6.3
	Single Parent Families			
(17-19)	Young (oldest child <5 yr.)	70.5 ± 22.8	78.0 ± 16.7	75.1 ± 13.6
(20-22)	Mature (Oldest child 5-16 yr.)	70.0 ± 11.8	46.0 ± 11.3	56.5 ± 8.5
(23-25)	Older (oldest child ≥17 yr.)	52.8 ± 20.8	38.2 ± 13.8	42.8 ± 11.6
(17-25)	All Single Parent Families	66.1 ± 9.5	48.7 ± 8.1	55.6 ± 6.3
(1-25)	ALL HOUSEHOLDS	70.8 ± 6.1	52.4 ± 5.2	59.2 ± 4.0

Table 34

ANNUAL MOVEMENT RATES BY HOUSEHOLD TYPE, NATIVE AND TOTAL CITY RENTERS, WINNIPEG,1980

Household Type	Movement Rate* (percent) Native (A)	Total City (B)	Odds-ratio (A/B)
(1-4) All Non-Families	69.1	35.2	1.96
(5-7) All Childless Couples	71.2	45.8	1.55
TWO PARENT FAMILIES			
(8-10) Young(oldest child <5 yr.)	80.4	51.3	1.57
(11-13) Mature(oldest child 5-16 yr.)	58.0	8.9	6.52
(14-16) Older(oldest child ≥17 yr.)	25.2	17.3	1.46
(8-16) All Two Parent Families	59.7	26.1	2.29
SINGLE PARENT FAMILIES			
(17-19) Young(oldest child <5 yr.)	75.1	78.2	0.96
(20-22) Mature(oldest child 5-16 yr.)	56.5	32.1	1.76
(23-25) Older(oldest child ≥17 yr.)	42.8	22.0	1.95
(17-25) All Single Parent Families	55.6	41.8	1.33
(1-25) All Households	59.2	37.3	1.59

* number of households that moved during the previous year/total households

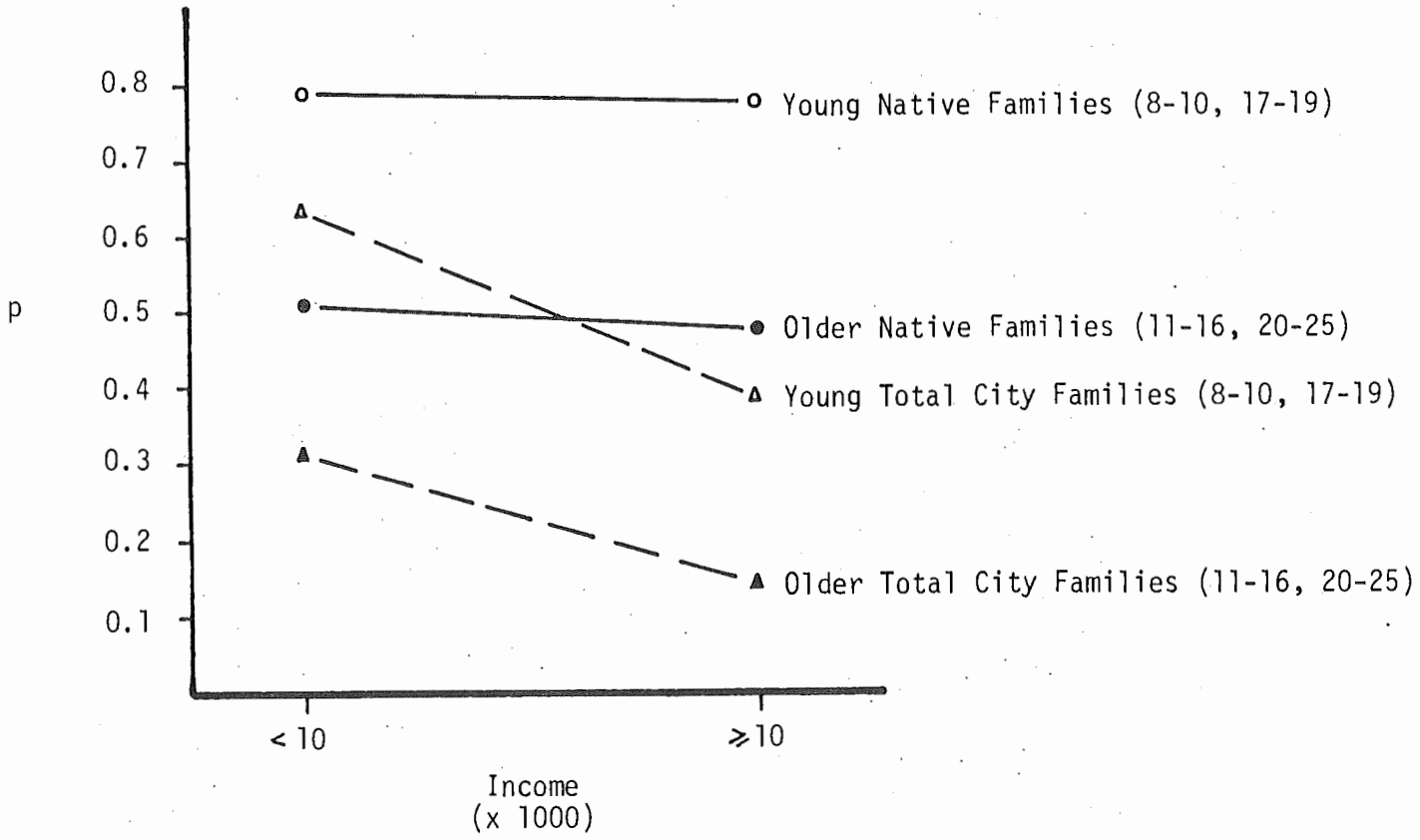
Table 35

ESTIMATED PROBABILITY OF MOVING DURING TWELVE MONTH PERIOD, FAMILY RENTERS, WINNIPEG, 1980

Family Life Cycle Status	Income Group ($/Annum)	Probability of Moving		
		Native (A)	Total City (B)	Odds Ratio (A/B)
Young	< 10	.796	.636	1.25
	≥ 10	.773	.388	1.99
Mature and Older	< 10	.504	.313	1.61
	≥ 10	.470	.142	3.31

Figure 8

ESTIMATED RATES OF MOBILITY BY HOUSEHOLD TYPE AND INCOME CLASS, NATIVE AND TOTAL CITY HOUSEHOLDS, WINNIPEG, 1980



p = probability of moving during 12 month period

families. Differences between two parent and single parent families were found to be insignificant by the model. The effect of income levels on mobility rates was found to differ dramatically between the two populations. Although movement rates are much lower among higher income families in the general population, differences between income groups among native families are very small. Low income, therefore, does not appear to be the major reason for high rates of mobility among native family renters. This finding is disturbing and suggests that native families regardless of income are unable to establish secure tenure in the city's rental market. One possible (and obvious) reason for this could be discriminatory rental practices.

6.2 Chronic Mobility

Frequent moving or "chronic" mobility also appears to affect a significant number of native households. Table 36 provides some insight into the extent of this problem among native households. The table documents the distribution of recent moves over several categories reflecting differences in average length of time (stay) between moves. The indicator was derived by dividing the total number of months since the household last established residence in the city by the number of residential moves made subsequently. The data reveal that more than one third of all recent movers have averaged at least one move per year since arriving in the city. Moreover, close to 20 percent exhibit average lengths of stay of less than six months implying at least two moves per year. Frequent moving although characteristic of all household types appears to be especially pronounced among native families with preschool and/or school aged children (types 8-10, 11-13, 18-19, 20-22).

Table 36

AVERAGE LENGTH OF STAY (TIME BETWEEN MOVES) BY HOUSEHOLD TYPE, NATIVE HOUSEHOLDS MOVING DURING THE PREVIOUS YEAR, WINNIPEG, 1980

		Percent of Total Movers				
		Average Length of Stay (Months)				
	Household Type	<6	6-12	12-24	>24	Number
(1-4)	All Non-Families	13.5	6.1	30.7	49.7	163
(5-7)	Childless Married Couples	21.9	19.5	11.8	46.7	338
	Two Parent Families					
(8-10)	Young (oldest child <5 yr.)	19.8	25.0	11.3	44.0	480
(11-13)	Mature (oldest child 5-16 yr.)	37.3	4.4	17.3	41.0	544
(14-16)	Older (oldest child ≥17 yr.)	3.4	10.3	23.0	63.2	87
(8-16)	All Two Parent Families	27.1	13.8	15.1	44.0	1,111
	Single Parent Families					
(17-19)	Young (oldest child <5 yr.)	17.8	18.2	35.0	29.0	214
(20-22)	Mature (oldest child 5-16 yr.)	10.1	14.0	45.3	30.6	543
(23-25)	Older (oldest child ≥17 yr.)	5.1	10.6	21.8	62.5	216
(17-25)	All Single Parent Families	10.7	14.2	37.8	37.3	973
(1-25)	ALL HOUSEHOLDS	19.4	14.2	24.2	42.2	2,585

6.3 Reasons for Moving

Such frequent moves are clearly unlikely to be associated with planned housing adjustments. Table 37 which presents data on the reasons for moving cited by recent native movers indicates that a significant proportion of native moves are involuntary (i.e. through eviction or other circumstances) or as a result of perceived problems in their previous dwelling or neighbourhood. Forced or involuntary moves are especially common among native single parent families and account for more than 32 percent of the moves made recently by these households.

6.4 Housing Conditions Among Recent Movers

Generally the reasons cited by most native movers appear to reflect negative perceptions of housing conditions. The question remains as to whether native movers improve their housing circumstances in the process. Although we lack longitudinal data on native housing conditions it is possible to gain some preliminary insights into this issue by documenting the present housing circumstances of recent movers. Table 38, which provides indicators of the incidence of housing problems among movers and among households which did not change residence during the previous 12 month period, reveals that with few exceptions housing problems tend to be more common among recent movers. This finding, although not conclusive, does suggest that a large number of native households do not resolve their housing problems through moving. Among these households residential mobility may in fact represent an additional dimension of housing deprivation.

Table 37

NATIVE HOUSEHOLDS MOVING DURING PREVIOUS 12 MONTHS,
PRIMARY REASON FOR LAST MOVE, WINNIPEG, 1980

Household Type	Response (Percent)											
	Too Costly	Poor Condition	Improve Accessi-bility	Problems with Neighbours/ Landlord	Evicted	Other in-voluntary Moves*	Needed Larger Unit	Household Formation**	To Purchase Home	Other Reasons	N	NR
(1-4)	27.3	17.4	4.5	10.6	-	16.7	7.6	12.9	-	3.0	132	(30)
(5-7)	23.8	7.4	3.4	5.0	6.0	3.7	29.2	18.5	3.0	-	298	(39)
(8-16)	14.4	14.4	14.1	18.7	1.5	9.5	14.9	9.0	2.2	1.3	908	(145)
(17-25)	13.0	12.5	3.6	13.9	9.3	23.5	13.9	8.9	-	1.3	912	(63)
TOTAL (1-25)	15.8	12.9	7.8	14.5	5.2	14.9	16.0	10.4	1.3	1.2	2,250	(277)

* moves due to fire, demolition of premises, or condemnation of structure, etc.

** includes households moving as a consequence of marriage dissolution.

Table 38

INCIDENCE OF HOUSING PROBLEMS BY HOUSEHOLD TYPE AND MOBILITY STATUS, NATIVE HOUSEHOLDS, WINNIPEG, 1980

Percent Experiencing

Housenold Type	Shelter Poverty		Poor Condition		Overcrowding		Multiple Problems	
	Movers	Total Native	Movers	Total Native	Movers	Total Native	Movers	Total Native
(1-4) All Non-Families	62.4 ± 19.4	60.7 ± 16.9	53.6 ± 19.9	56.1 ± 17.2	12.2 ± 12.1	9.2 ± 9.0	36.5 ± 19.3	34.7 ± 16.5
(5-7) All childless married couples	41.0 ± 13.9	31.3 ± 10.8	30.3 ± 13.0	37.6 ± 11.3	0.8 ± 2.5	0.6 ± 1.8	12.1 ± 9.2	8.9 ± 6.6
(8-16) All two parent families	30.2 ± 7.2	20.1 ± 4.8	35.1 ± 7.5	29.9 ± 5.5	53.7 ± 7.8	38.9 ± 5.8	38.5 ± 7.7	27.6 ± 5.4
(17-25) All single parent families	55.0 ± 8.1	48.3 ± 6.1	48.4 ± 8.1	40.6 ± 6.0	22.7 ± 6.8	18.2 ± 4.7	42.4 ± 8.0	33.2 ± 5.8
(1-25) All households	40.8 ± 5.0	35.0 ± 3.7	40.9 ± 5.0	36.4 ± 3.8	32.3 ± 4.7	24.6 ± 3.4	36.5 ± 4.9	28.1 ± 3.5

confidence intervals estimated at =.05

7.0 SUMMARY AND IMPLICATIONS FOR POLICY AND PROGRAM DEVELOPMENT

This study has attempted to fill part of the gap in our understanding of the migration of native peoples to Winnipeg and of the housing conditions experienced by the city's native population. The analyses, although largely exploratory and descriptive in nature, have produced several results which should have a bearing on the development of policies and programs concerned with the housing well-being of urban native peoples. The major findings of the study are summarized below:

a) The present native population of the city is estimated to be approximately 20,000 comprising about 7,000 status Indians and about 13,000 Métis and non-status Indians.

b) Recent migration to the city appears to be somewhat smaller than that expected on the basis of previous reports, suggesting the possibility that migration to the city has slowed. Present levels of migration, however, remain substantial and should contribute to continued rapid growth in the city's native population.

c) Economic issues (especially the desire for improved employment opportunities) tend to dominate reasons cited for migration to the city. Among females, however, family ties in the city and disenchantment with rural or reserve life conditions were identified as more important reasons for migration.

d) Several dimensions of the migration patterns of status Indians and Métis/non-status Indians are quite similar including such elements as age, sex, and household composition and reasons for moving. These similarities strongly suggest that the circumstances leading to migration are quite similar among both native sub-groups.

e) The present native population is characterized by a very young age structure: families, especially single parent families, represent the most common household types among recent migrants, as well as, the residual, longer term resident population.

f) Very rapid growth in the size of the city's native population is expected to occur during the coming decade. Approximately

2,500 new native households are expected to enter the city's housing market by 1985. The vast majority of these households are expected to be families.

g) Severe socio-economic disparities exist between the native and general city populations. The unemployment rate of the native population currently exceeds 30 percent, more than 5 times that of the total city population. Moreover, with the exception of MNSI males the majority of native employment is irregular or periodic in nature.

h) Native household incomes are, on average, less than one half those of households comprising the general urban population. The majority of native households are dependent on some form of transfer payment, most commonly provincial social assistance, for income.

i) Native housing consumption is heavily concentrated in a specific sub-market of the housing stock. This stock is characterized by private ownership, rental tenure, single/semi-detached and duplex structure types, and low cost.

j) Disparity in housing conditions between the native and general population is quite substantial. Native households are 3.3 times more likely to experience shelter poverty, 2.2 times more likely to experience housing quality problems, and 2.8 times more likely to be overcrowded than general city households. In addition, native households are about 4.0 times more likely to experience these problems in combination.

k) In absolute terms approximately 3,150 native households are experiencing at least one housing problem. Approximately 1,360 (28 percent of all) native households experience two or more housing problems.

l) Housing problems are most common among young and mature families, especially those headed by a single parent. Approximately 70 percent of all native single parent families incur housing deprivations of some form.

m) Current shelter allowances administered under provincial social assistance plans appear to be grossly inadequate in meeting the housing needs of the native population. Households dependent upon this source of shelter cost support are among the most poorly housed households in urban society.

n) Nearly 60 percent of all native renters changed residence within the city during the year prior to the survey. Among these households more than one third of the moves were precipitated by events beyond the control of the household. Moreover, moves among the native population do not appear to result in improvements to housing conditions.

o) Chronic mobility (or excessive moving) appears to occur among as much as 20 percent of native family renters. For these native families tenure insecurity represents a common and serious housing problem.

7.1 Implications

In general, the housing consumption disparities identified in this study are sufficiently large to warrant the consideration of special policies and programs which address directly the housing problems experienced by urban native peoples. In this regard, present patterns of household composition and the current distribution of housing consumption problems over household subgroups, suggest clearly that native families, especially those in the early periods of family development and those headed by a single parent, should receive priority in terms of public action.

The importance of focusing public action on the housing problems confronting native families also emerges from the study's estimates of the nature and rate of native household growth, which indicate that a very rapid increase in the number of native family households will occur throughout the decade of the 1980's. In that it seems unlikely that urban native economic conditions will improve dramatically during this period, most of the growth in native housing demand is likely to be concentrated on low cost rental housing units which are sufficiently large to accommodate families. Housing stock of this type is presently scarce in Winnipeg and is not being provided in significant numbers through existing government programs.

Several of the study's findings indicate that many of the housing consumption difficulties experienced by Winnipeg's native population are directly attributable to income inadequacy. As such, some form of shelter allowance which effectively increases the purchasing power of the household in the housing market may be successful in reducing the extent of consumption difficulties. It should be noted, however, that present shelter supplement formulae incorporated into provincial allowance programs are grossly inadequate and have the effect of constraining many families to occupancy in the worst maintained elements of the city's housing stock. Households dependent upon this source of housing assistance comprise the most poorly housed segment of the city's population.

Although income or shelter cost assistance must clearly form a major component of any urban native housing strategy, such programs may not lead to improved levels of tenure security. For example, the study has found that chronic mobility (very frequent movement) affects roughly equal proportions of native families in all income groups. This situation suggests the possibility that native families are confronting discrimination in the housing market and points to the need for government to consider investigations into landlord renting practices and landlord/native tenant relations.

One of the more disconcerting findings of the study relates to the scale of native housing consumption problems and the resources required to address these problems. Presently, nearly 3,500 native households in Winnipeg are experiencing housing difficulties and nearly one third (or 1,500) of these households are incurring multiple consumption problems. Should present demographic and economic trends persist, an <u>additional</u> 800 to 1,500 native households are likely to require housing assistance by 1985. Present housing programs are clearly not operating at the scale necessary to cope with this target population. As such, we urge the federal government to seriously reconsider present approaches to dealing with this issue.

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APPENDICES

APPENDIX A

Data Bases Employed In The Study

APPENDIX A

DATA DESCRIPTION

File = Native Household File

Variables = 45

Length = 75 characters

# of observations = 651

VARIABLE 1
SAMPLING AREA
FORMAT (I2)

Code	Census Tract	Weight
1	11	.08637
2	12	.14085
3	14	.13601
4	15	.35700
5	16	.15211
6	17	.27466
7	21	.15779
8	22	.25648
9	23	.11870
10	24	.11694
11	25	.08751
12	26	.26628
13	27	.11460
14	28	.31847
15	29	.28717
16	33	.22468
17	34	.21922
18	35	.33165
19	36	.11957
29	42	.24765
21	43	.25752
22	44	.31368
23	45	.28780
24	48	.20016
25	116	.15716
26	117	.14717
27	outer city	.02417
28	outer city public housing	.10068

- -

VARIABLE 2
SEX OF HOUSEHOLD HEAD
FORMAT (I1)

Code	Sex
1	Male
2	Female

VARIABLE 3
AGE OF HOUSEHOLD HEAD
FORMAT (I2)

Code = Age in Years

VARIABLE 4
EDUCATION LEVEL OF HOUSEHOLD HEAD
FORMAT (I2)

Code	
0-13	years of Schooling Completed
20	trade, Technical School, or Community College
30	some University

VARIABLE 5
EMPLOYMENT STATUS OF HOUSEHOLD HEAD
FORMAT (I1)

Code	
1	under 15 years of age
2	worked 35 or more hours last week for pay or profit
3	worked less than 35 hours last week for pay or profit
4	employed but did not work last week due to illness, vacation, layoff
5	did not work last week but did look for work during previous two week period
6	did not work last week and did not look for work during previous two week period
7	retired

VARIABLE 6
NATIVE GROUP OF HOUSEHOLD LEVEL
FORMAT (I1)

Code	
1	Status Indians (including Inuit)
2	Non-Status Indians
3	Metis
4	Non-Indian

VARIABLE 7
HOUSEHOLD TYPE
FORMAT (I2)

Code = 1 - 25 (See Table 1)

VARIABLE 8
HOUSEHOLD SIZE
FORMAT (I2)

Code = number of persons in household

VARIABLE 9
CHILDREN < 5
FORMAT (I1)

Code = number of children < 5 years of age

VARIABLE 10
CHILDREN 5 - 16
FORMAT (I1)

Code = number of children 5 - 16 years of age

VARIABLE 11
CHILDREN ≥ 17
FORMAT (I1)

Code = number of children greater than 16 years of age

VARIABLE 12
OF MEMBERS EMPLOYED
FORMAT (I1)

Code = number of household members employed according to labor force survey definition

VARIABLE 13
TOTAL HOUSEHOLD INCOME
FORMAT (I5)

Code = Total Income of Household from all sources in dollars

- -

VARIABLE 14
TRANSFER INCOME
FORMAT (I5)

Code = Total Income of Household from transfer payments in dollars

- -

VARIABLE 15
SOCIAL ASSISTANCE STATUS
FORMAT (I1)

Code

1 Receiving social assistance
2 Not receiving social assistance

- -

VARIABLE 16
UNEMPLOYMENT INSURANCE RECIPIENT
FORMAT (I1)

Code

1 one or more members receiving U.I. payment
2 no member receiving U.I. payment

- -

VARIABLE 17
PENSION RECIPIENT
FORMAT (I1)

Code

1 one or more members receiving pension payment
2 no member receiving pension payment

VARIABLE 18
EDUCATION/TRAINING ALLOWANCE PAYMENT
FORMAT (I1)

Code

1 one or more member receiving payment
2 no members receiving payment

- -

VARIABLE 19
OTHER TRANSFERS
FORMAT (I1)

Code

1 one or more members receiving other forms of transfer
2 no other transfer payments

- -

VARIABLE 20
LENGTH OF TIME IN CITY
FORMAT (I3)

Code = number of months since household head last moved to city

- -

VARIABLE 21
PRIOR RESIDENT OF CITY
FORMAT (I1)

Code = number of times household head has lived in city

VARIABLES 22 - 28
REASON FOR LAST MOVE TO CITY
(HEAD OF HOUSEHOLD)
FORMAT (7I1)

VARIABLE	REASON	CODE
22	employment	1. yes 2. no
23	education for self or family	1. yes 2. no
24	to obtain medical services	1. yes 2. no
25	to acquire better housing	1. yes 2. no
26	family or friends in city	1. yes 2. no
27	problems on reserve or in home community	1. yes 2. no
28	other	1. yes 2. no

- -

VARIABLE 29
COMMUNITY OF ORIGIN
FORMAT (I1)

Code

1	Winnipeg
2	out of province
3	band or community located in southern region
4	band or community located in Forest Fringe region
5	band or community located in Northern Region with road access
6	band or community located in Northern region without road access

Regions = Department of Regional Economic Expansion functional regions (see Map 1 and Table 2)

- -

VARIABLE 30
MIGRATION INTENTIONS
FORMAL (I1)

Code

1	plan to move away from city during coming year
2	no plans to move away from city during coming year

VARIABLE 31
MEMBERS IN LABOUR FORCE
FORMAT (I2)

Code = number of household members participating in labour force according to labour force survey definition

- -

VARIABLE 32
HOUSING DEFECTS
FORMAT (I1)

Code = number of major defects with housing unit (C.M.H.C. - S.H.U. definitions)

- -

VARIABLE 33
C.M.H.C. CONDITION INDEX
FORMAT (I1)

Code

1	poor
2	fair
3	good
9	not evaluated

poor - 1 or more major defects or 3 or more minor defects

fair - 2 minor defects (no major defects)

good - 0 or 1 minor defect (no major defects)

- -

VARIABLE 34
STRUCTURE TYPE
FORMAT (I1)

Code

1	single detached
2	duplex or semi-detached
3	row
4	apartment
5	other

VARIABLE 35
OF ROOMS
FORMAT (I1)

Code = number of rooms used for living purposes, excluding bathrooms, hallways and laundry room

- -

VARIABLE 36
OF BEDROOMS
FORMAT (I1)

Code = number of rooms used as bedrooms

- -

VARIABLE 37
TENURE
FORMAT (I1)

Code

1	own
2	rent

- -

VARIABLE 38
VALUE OF HOUSE
(OWNERS ONLY)
FORMAT (I5)

for Renters code = 00000

for Owners code = occupant estimate of house value in dollars

no response = 99999

- -

VARIABLE 39
SHELTER COST
FORMAT (I4)

code = occupants estimated annual shelter cost in dollars

for owners = debt payments, utilities and taxes

renter = gross rent and utilities costs

VARIABLE 40
PAST MOBILITY BEHAVIOUR
FORMAT (I2)

code = number of moves within city since last move to city

VARIABLE 41
RENT PAID BY WELFARE
FORMAT (I1)

Code

1	rent is paid directly to landlord by social assistance department
2	rent paid by occupant

VARIABLE 42
REASON FOR LAST MOVE
FORMAT (I2)

Code

1	prior unit too expensive
2	prior unit poor quality, infested, or unsanitary
3	inadequate heating or plumbing
4	accessibility problems (too far from work or friends)
5	neighbourhood unsafe for self and/or family
6	landlord/tenant problem
7	evicted by landlord
8	forced to move due to demolition, fire, building condemned
9	required larger unit
10	wanted a separate unit for self and/or family
11	purchased own unit
12	acquired public housing
13	family reasons (e.g. marital problems)
14	other reasons
99	not moved since last arrival in city

VARIABLE 43
DURATION OF RESIDENCE
FORMAT (I3)

code = number of months lived in present unit

note: < 1 month coded 1

- -

VARIABLE 44
WEEKS WORKED LAST YEAR
(HEAD OF HOUSEHOLD)
FORMAT (I2)

code = number of weeks worked during the previous 12 month period by household head

code = 88 not ascertainable

code = 99 never worked

- -

VARIABLE 45
BUFFER
FORMAT (I3)

code = 000

- -

total length = 75 characters

TABLE 1

HOUSEHOLD TYPOLOGY EMPLOYED IN THE STUDY

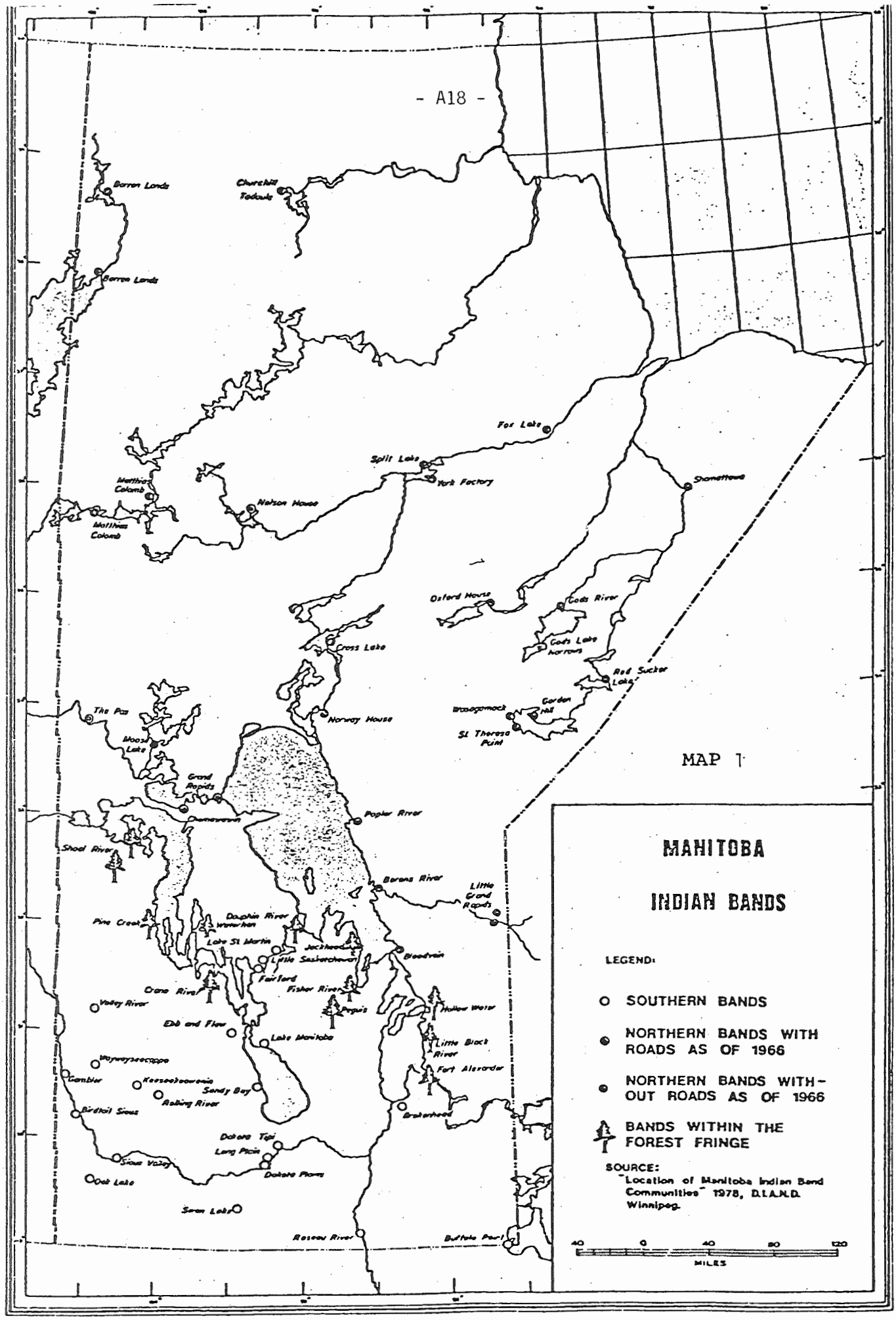
Household Type

Numeric Code	Description
	NON-FAMILY HOUSEHOLDS
1	Single Males < 65 yr.
2	Single Females < 65 yr.
3	Single Persons ⩾65 yr.
4	Other Non-Families
	FAMILY HOUSEHOLDS
	(i) Childless Married Couples
5	Childless Married Couples
6	Childless Married Couples (extended)
7	Childless Married Couples with lodgers
	(ii) Two-Parent Families
8	Young (oldest child <5 yr.)
9	Young (extended or multi-generational)
10	Young (with lodgers)
11	Mature (oldest child 5 - 16 yr.)
12	Mature (extended or multi-generational)
13	Mature (with lodgers)
14	Older (oldest child ⩾17 yr.)
15	Older (extended or multi-generational)
16	Older (with lodgers)
	(iii) Single Parent Families
17	Young (oldest child <5 yr.)
18	Young (extended or multi-generational)
19	Young (with lodgers)
20	Mature (oldest child 5-16 yr.)
21	Mature (extended or multi-generational)
22	Mature (with lodgers)
23	Older (oldest child ⩾17 yr.)
24	Older (extended or multi-generational)
25	Older (with lodgers)

TABLE 2

BAND NAMES FOR ALL REGIONS

NORTHERN RESERVES	SOUTHERN RESERVES
Remote Bands With No Roads	Birdtail Sioux
Berens River	Brokenhead
Bloodvein	Buffalo Point
Cross Lake	Dakota Plains, Dakota Tipi → Formerly Long Plains Sioux Band
Little Grand Rapids	Ebb and Flow
Moose Lake	Fairford
Norway House	Gamblers
Poplar River	Keeseekoowenin
Red Sucker Lake-, St. Theresa Point-, Wasagamack- → Formerly Island Lake Band	Lake Manitoba
Barren Lands	Lake St. Martin
Churchill (Tadoule)	Little Saskatchewan
Fox Lake	Long Plain
Mathias Colomb	Oak Lake
Shamattawa	Rolling River
Split Lake	Roseau River
York Factory	Sandy Bay
Oxford House	Sioux Valley → Formerly Oak River Sioux Band
Garden Hill-Formerly Island Lake Band	Swan Lake
God's Lake	Valley River
God's River	Waywayseecappo
Remote Bands With Roads	
Chemahawin (Easterville)	
Grand Rapids	
The Pas	
Nelson House	
Forest Fringe	
Crane River	
Dauphin River	
Fisher River	
Fort Alexander	
Hollow Water	
Jackhead	
Little Black River	
Peguis	
Pine Creek	
Shoal River	
Waterhen	



MAP 1

MANITOBA

INDIAN BANDS

LEGEND:

- ○ SOUTHERN BANDS
- ◉ NORTHERN BANDS WITH ROADS AS OF 1966
- ◉ NORTHERN BANDS WITHOUT ROADS AS OF 1966
- BANDS WITHIN THE FOREST FRINGE

SOURCE:
"Location of Manitoba Indian Band Communities" 1978, D.I.A.N.D. Winnipeg.

40 0 40 80 120
MILES

Sub-File of Native Individuals

VARIABLE 1
SAMPLING AREA
FORMAT (I3)

Census Tract

11
12
14
15
16
17
21
22
23
24
25
26
27
28
29
33
34
35
36
42
43
44
45
48
116
117

all other numerals < 800 are outer city
outer city public housing ≥ 800

- -

VARIABLE 2
AGE
FORMAT (I2)

Code = Age in years

- -

VARIABLE 3
SEX
FORMAT (I1)

Code

1 = Male

2 = Female

- -

VARIABLE 4
EDUCATION LEVEL
FORMAT (I2)

Code	
0-13	years of schooling completed
20	non university post secondary (including upgrading)
30	some university

- -

VARIABLE 5
CURRENT EMPLOYMENT STATUS
FORMAT (I1)

Code	
1	under 15 years of age
2	worked 35 or more hours last week for pay or profit
3	worked less than 35 hours last week for pay or profit
4	employed but did not work last week du to illness, strike, vacation, etc.,
5	did not work last week and did look for work during last 4 weeks
6	did not work last week and did not look for work during last 4 weeks
7	retired

- -

VARIABLE 6
NATIVE GROUP
FORMAT (I1)

Code	
1	Status Indian
2	non-status Indian
3	Metis
4	other

- -

VARIABLE 7
WEEKS WORKED LAST YEAR
FORMAT (I2)

Code	
0-52	weeks
88	never worked in city
99	no response (unknown)

- -

VARIABLE 8
LENGTH OF TIME IN CITY
FORMAT (I3)

Code = # of months since last move to city

- -

VARIABLE 9
PRESENT JOB SOCIO-ECONOMIC INDEX (SEI)
FORMAT (F4-2)

Code = Just 4 digits (xx.xx) of Blishen/McRoberts Index of Occupation Status
0000 not employed or no response

- -

VARIABLE 10
PRESENT JOB RANK OF S.E.I.
FORMAT (I3)

Code = rank of Blishen/McRoberts Index of Occupational Status
000 (no response)

- -

VARIABLE 11
PRESENT JOB - CCDO INDEX
FORMAT (I4)

Code = first 4 digits of CCDO number
0000 = no response
9999 = employed but occupation not classifiable

- -

VARIABLE 12
PRESENT JOB - LENGTH OF EMPLOYMENT
FORMAT (I3)

Code = # of months employed at present job
000 = no response or not employed
001 = of employed for $\leq$ 1 month

- -

VARIABLE 13
PRESENT JOB - HOURS WORKED PER WEEK
FORMAT (I2)

Code = hours worked
99 or 00= unknown or no response

VARIABLE 14
LENGTH OF TIME UNEMPLOYED - PREVIOUS TO CURRENT JOB
FORMAT (I3)

Code = number of months unemployed
001 if 1 month

- -

VARIABLE 15
PREVIOUS JOB - SEI
FORMAT (F4-2)

Code = as per Variable 9

- -

VARIABLE 16
PREVIOUS JOB - RANK OF SEI
FORMAT (I3)

Code = as per Variable 10

- -

VARIABLE 17
PREVIOUS JOB - CCDO INDEX
FORMAT (I4)

Code = as per Variable 11

- -

VARIABLE 18
PREVIOUS JOB - LENGTH OF EMPLOYMENT
FORMAT (I3)

Code = as per Variable 12

- -

VARIABLE 19
PREVIOUS JOB - HOURS WORKED PER WEEK
FORMAT (I2)

Code = as per Variable 13

VARIABLE 20
LENGTH OF TIME UNEMPLOYED -
2nd PREVIOUS JOB TO PREVIOUS JOB
FORMAT (I3)

Code = as per Variable 14

- -

VARIABLE 21
2nd PREVIOUS JOB - SEI
FORMAT (F4-2)

Code = as per Variable 9

- -

VARIABLE 22
2nd PREVIOUS JOB - RANK OF SEI
FORMAT (I3)

Code = as per Variable 10

- -

VARIABLE 23
2nd PREVIOUS JOB - CCDO INDEX
FORMAT (I4)

Code = as per Variable 11

- -

VARIABLE 24
2nd PREVIOUS JOB - LENGTH OF EMPLOYMENT
FORMAT (I3)

Code = as per Variable 12

- -

VARIABLE 25
2nd PREVIOUS JOB - HOURS WORKED PER WEEK
FORMAT (I2)

Code = as per Variable 13

VARIABLE 26
LENGTH OF TIME UNEMPLOYED -
3rd PREVIOUS to 2nd PREVIOUS JOB
FORMAT (I3)

Code = as per Variable 14

- -

VARIABLE 27
3rd PREVIOUS JOB - SEI
FORMAT (I4-2)

Code = as per Variable 9

- -

VARIABLE 28
3rd PREVIOUS JOB - RANK OF SEI
FORMAT (I3)

Code = as per Variable 10

- -

VARIABLE 29
3rd PREVIOUS JOB - CCDO INDEX
FORMAT (I4)

Code = as per Variable 11

- -

VARIABLE 30
3rd PREVIOUS JOB - LENGTH OF EMPLOYMENT
FORMAT (I3)

Code = as per Variable 12

- -

VARIABLE 31
3rd PREVIOUS JOB - HOURS WORKED PER WEEK
FORMAT (I2)

Code = as per Variable 13

VARIABLE 32
1st JOB IN CITY - SEI
FORMAT (F4-2)

Code = as per Variable 9

- -

VARIABLE 33
1st JOB IN CITY - RANK OF SEI
FORMAT (I3)

Code = as per Variable 10

- -

VARIABLE 34
1st JOB IN CITY - CCDO INDEX
FORMAT (I4)

Code = as per Variable 11

- -

VARIABLE 35
1st JOB IN CITY - LENGTH OF EMPLOYMENT
FORMAT (I3)

Code = as per Variable 12

- -

VARIABLE 36
1st JOB IN CITY - HOURS WORKED PER WEEK
FORMAT (I2)

Code = as per Variable 13

- -

VARIABLE 37
SAMPLING WEIGHT
FORMAT (F5.5)

Code	Census Tract
.08637	11
.14085	12
.13601	14
.35700	15
.15211	16
.27466	17
.15779	21
.25648	22
.11870	23
.11694	24
.08751	25
.26628	26
.11460	27
.31847	28
.28717	29
.22468	33
.21922	34
.33165	35
.11957	36
.24765	42
.25752	43
.31368	44
.28780	45
.20016	48
.15716	116
.14717	117
.02417	outer city
.10068	outer city public housing

DATA DICTIONARY - A29 -

1. Household
1.1 Socio-demographic characteristics of household
1.1.1 Member Information
1.1.1.1 Member Information - Head of Household

VARIABLE DESCRIPTION	VARIABLE NAME	INTERVIEW SCHED. QUESTION NUMBER
Age of household head	VAR 007	A.2
Marital status of household head	VAR 016	A.3
*Ethnicity of household head	VAR 034	A.5
*Mother tongue of household head	VAR 035	A.6
Automobile ownership - head of household	VAR 167	C.1
Current work status - head of household	VAR 168	C.2
Distance travelled to work (<,= or >1 mile) - head of household	VAR 169	C.3
Distance travelled to work (no. of miles > 1) - head of household	VAR 170	C.3
Total employment income - head of household	VAR 203	D.2
Social assistance status - head of household	VAR 212	D.2
*Total transfer and other income - head of household	VAR 214	D.2
Sex of household head	VAR 312	created
*Total income (1977) - head of household	VAR 321	created

1.1.1.2 Member Information - Other than Head of Household

Age of spouse	VAR 008	A.2
Ages of members 3-9	VAR 009-015	A.2
Marital status of members 3-9	VAR 018-024	A.3
*Members 3-9 relationship to head	VAR 027-033	A.4
*Spouses total income	VAR 354	created
*Total income for members 3-9	SUMINC 3-9	created

1.1.2 Household Information

*Household type by Household Size	VAR 306	created
*Household type (family/non-family)	VAR 307	created
*Family type	VAR 308	created
Number of members in household	VAR 309	created
Number of members under 18	VAR 310	created
Number of members over 18	VAR 311	created
Number of members with income	VAR 313	created
Number of children under 5 in household	KIDAGE < 5	created
Number of children 5-16 years in household	VAR 346	created
Total household employment income	VAR 314	created
Total household other income	VAR 315	created
Total household income	VAR 316	created
*Household size index	VAR 317	created
*Household size adjusted total household income	VAR 318	created
*MHRC adjusted total household income	VAR 326	created
Percentage of gross income spent on shelter (renters)	VAR 330	created
Percentage of gross income spent on shelter (owners)	VAR 331	created
Percentage of gross income spent on shelter (all)	VAR 332	created
Percentage of household size adjusted income spent on shelter (renters)	VAR 333	created
Percentage of household size adjusted income spent on shelter (owners)	VAR 334	created
Percentage of household size adjusted income spent on shelter (all)	VAR 335	created
Percentage of MHRC adjusted income spent on shelter (renters)	VAR 336	created
Percentage of MHRC adjusted income spent on shelter (owners)	VAR 337	created
Percentage of MHRC adjusted income spent on shelter (all)	VAR 338	created

Percentage of gross income spent on rent	VAR 339	created
Percentage of household size adjusted income spent on rent	VAR 340	created
Percentage of MHRC adjusted income spent on rent	VAR 341	created
*Income shortfall for 25% Shelter Cost Ratio - (renters)	VAR 375	created
Income shortfall for 25% Shelter Cost Ratio - (owners)	VAR 376	created
Income shortfall for 25% Shelter Cost Ratio - (all)	VAR 377	created
Income shortfall for 30% SCR (renters)	VAR 378	created
Income shortfall for 30% SCR (owners)	VAR 379	created
Income shortfall for 30% SCR (all)	VAR 380	created
Income shortfall for 35% SCR (renters)	VAR 381	created
Income shortfall for 35% SCR (owners)	VAR 382	created
Income shortfall for 35% SCR (all)	VAR 383	created
Gross shelter cost ratio per habitable room	VAR 332A	created
Household-size adjusted shelter cost ratio per room	VAR 335A	created
MHRC - adjusted shelter cost ratio per room	VAR 338A	created

1.2 Migration Characteristics

Current residence by census tract	VAR 002	A.1
Current residence by enumeration area	VAR 003	A.1
*Numeric listing of current residence by survey sample areas (corresponding to CT/EA location)	SMPLESTE	created
Move since January 1975	VAR 173	C.6
Years of stay where no move since January 1975	VAR 174	C.6

Location of last residence by census tract	VAR 176	C.7
Location of last residence by enumeration area	VAR 177	C.7
Distance moved to current residence	VAR 178	C.7
Location of 2nd last residence by CT	VAR 180	C.7
Location of 2nd last residence by EA	VAR 181	C.7
Distance moved to last residence	VAR 182	C.7
Number of moves since January,1975	VAR 186	C.8
Number of units considered before selecting current residence	VAR 191	C.11
Means of locating current residence	VAR 192	C.12
Number of years at current residence	VAR 355	created
Number of years at last residence	VAR 356	created
Number of years at 2nd last residence	VAR 357	created
Number of years at 3rd last residence	VAR 358	created
Number of years at 4th last residence	VAR 359	created
*Adjusted current stay	VAR 360	created
Number of moves since 1973	VAR 361	created
Average years of stay (past 1973)	VAR 362	created
Last to current residence move in relation to census tracts	VAR 363	created
2nd last to current residence move in relation to census tracts	VAR 364	created
2nd last to last residence move in relation to census tracts	VAR 365	created
*Current residence by neighbourhood type	NEIGHBRD	created
Current residence by ward	VAR 370	created
Last residence by neighbourhood type	VAR 371	created
Last residence by ward	VAR 372	created
2nd last residence by neighbourhood type	VAR 373	created
2nd last residence by ward	VAR 374	created
*Last to current residence move in relation to inner city, suburb, city or non city locations	VAR 388	created

2nd last to current residence move in relation to inner-city, suburb, city or non-city locations	VAR 389	created
2nd last to last residence move in relation to inner-city, suburb, city or non-city locations	VAR 390	created

1.3 Attitudes and Perceptions

1.3.1 Neighbourhood and Dwelling Safety

Occurrence of theft from dwelling	VAR 070	B.18
Occurrence of assault or robber to member of household within neighbourhood area	VAR 071	B.18
Reporting of above occurrences	VAR 072	B.19
General perception of safety or danger in the neighbourhood	VAR 073	B.20
Degree of danger perceived	VAR 074	B.20
Occurrence of fire in dwelling unit during residence	VAR 075	B.21
Reporting of fire to fire dept.	VAR 076	B.22

1.3.2 Condition of, and Satisfaction with Dwelling Units

Perceived condition of dwelling unit	VAR 155	B.46
Extent which dwelling meets needs	VAR 156	B.47
Expection of those needs being satisfied within next few years	VAR 157	B.48
*Reasons why needs are not likely to be satisfied in this time frame	VAR 158-159	B.49
*Perceived condition and cost of dwelling unit	COSTREPR	created

1.3.3 Migration

Probability of moving in next 3 years	VAR 172	C.5
*Reasons for moving from last residence	VAR 187	C.9
	VAR 188	C.9
*Reasons for selecting current residence	VAR 189	C.10
	VAR 190	C.10

1.3.4 Cost/Value

Estimated fair market value for building owned by landlord - renters	VAR 085	B.29
Perceived fair market value for dwelling unit owned by landlord - renters	VAR 300	created
Perceived fair rent for current dwelling unit - renters	VAR 305	created
Expected selling price for owned dwelling (building) - owners	VAR 086	B.30
Expected selling price for owned dwelling (unit) - owners	VAR 367	created
Estimated fair market rent for owned dwelling unit - owners	VAR 119	B.39
Fairness of price, paid or paying, for current dwelling	VAR 160	B.50
Reasonableness of cost of housing in Winnipeg	VAR 163	B.52
Estimated fair or reasonable rent for household in light of that household's present financial situation	VAR 164	B.53
Estimated fair or reasonable mortgage payments for the kind of housing required by household	VAR 165	B.54
*Perceived fair percentage of gross income for shelter	VAR 342	created
*Perceived fair percentage of household size adjusted income for shelter	VAR 343	created
*Perceived fair percentage of MHRC adjusted income for shelter	VAR 344	created

2. Dwelling Unit

2.1 Physical Characteristics of Dwelling Unit

Number of rooms in dwelling unit	VAR 038	B.2
Rooms used for business only	VAR 039	B.3
Number of rooms used for business purposes only	VAR 040	B.3
Number of rooms for personal use only	VAR 273	created
Number of bedrooms	VAR 041	B.4
Number of sq.ft. of living space	VAR 042	B.5
Number of sq.ft. per person	VAR 327	created

2.2 Physical Characteristics of the Building

Date of construction	VAR 037	B.1
*Structural type	VAR 259	F.2
*Construction type	VAR 260	F.3
Number of floors in multiple dwelling	VAR 261	F.4.
Number of units in building	VAR 272	created
Age of building	BLDGAGE	created

2.3 Physical Conditions and Amenities of Dwelling Unit

Number of rooms without windows or skylights	VAR 056	B.14.1
Number of rooms without electrical outlets	VAR 057	B.14.2
Number of rooms without operating light fixtures	VAR 058	B.14.3
Presence of pests or vermine	VAR 063	B.17
Number of people per room	VAR 328	created
Number of people per bedroom	VAR 329	created
*Number of interior defects	VAR 366	created

2.4 Physical Conditions and Amenities of the Building

Household's use of kitchen facility (exclusive or shared)	VAR 043	B.6
Use of refrigerator	VAR 044	B.7
Use of stove	VAR 045	B.7
Use of sink with hot and cold water	VAR 046	B.7
Use of kitchen shelving and storage space	VAR 047	B.7
Use of electrical outlets in kitchen	VAR 048	B.7
Use of kitchen counter space	VAR 049	B.7
Household use of flush toilet (exclusive or shared)	VAR 050	B.8
Number of non-household members sharing toilet	VAR 051	B.9
Household use of bath or shower (exclusive or shared)	VAR 052	B.10
Number of non-household members sharing bath or shower	VAR 053	B.11
*Largest number of non-household members sharing both toilet and bath facilities	VAR 274	created
*Presence of central heating	VAR 054	B.12
Presence of off-street parking facility	VAR 055	B.13
Household use of washing machine	VAR 059	B.15
Household use of indoor clothes drying facility	VAR 060	B.15
Household use of outdoor space for clothes drying	VAR 061	B.15
Household use of telephone	VAR 062	B.15
*Number of above amenities not available to household	VAR 281	created
Presence of outside fire escape (for multiple dwelling only)	VAR 263	F.4
Presence of two separate stairwells to ground floor and outside doors (multiple dwelling only)	VAR 264	F.4
Presence of fire doors in hallways (multiple dwelling only)	VAR 265	F.4
Presence of fire alarms in hallways (multiple dwelling only)	VAR 266	F.4

Presence of smoke or heat detectors in stairwells (multiple dwelling only)	VAR 267	F.4
Presence of fire extinquishers in hallways (multiple dwelling only)	VAR 268	F.4
*Presence of alternative egress from building	VAR 280	created
*Number of major structural defects of building	VAR 284	created
*Number of minor interior defects of building	VAR 285	created
*Exterior condition of the building (CMHC rating)	VAR 286	created
*Number of fire prevention items missing	VAR 287	created
*State of repair of building - interior and exterior	FACTOR1	created
*Absence of amenities in building	FACTOR2	created

2.5 Neighbourhood Characteristics and Amenities

*Distance (Number of blocks) to regular bus service access point	VAR 064	B.17
Distance (same) to supermarket	VAR 065	B.17
Distance (same) to convenience store	VAR 066	B.17
Distance (same) to drug store	VAR 067	B.17
Distance (same) to school	VAR 068	B.17
Distance (same) to park	VAR 069	B.17
*Weighted household access to neighbourhood services	VAR 275	created
Land use of property opposite building	VAR 269	F.5
Land use of property to one side	VAR 270	F.5
Land use of property to other side	VAR 271	F.5
Conforming land use on one side	VAR 277	created
Conforming land use on other side	VAR 278	created
Conforming land use on opposite	VAR 279	created
*Neighbourhood type	NEIGHBRD	created

2.6 Economic Characteristics of Dwelling Unit

*Presence and nature of housing payment reduction for dwelling unit	VAR 077	B.23
Amount by which housing payment is reduced each month	VAR 078	B.23
Nature of tenure for dwelling unit	VAR 079	B.24

RENTERS

Amount of regular rent payment	VAR 080	B.25
Inclusion or exclusion of furnishing in rental agreement	VAR 081	B.25
Frequency of rent payment	VAR 082	B.26
Inclusion or exclusion in/from payment of the value of rooms used solely for business purposes	VAR 083	B.27
Value in rent for rooms used solely for business purposes	VAR 084	B.28
*Actual cash rent paid	VAR 289	created
*Total regular rent paid in 1977	VAR 290	created
*Actual total rent paid in 1977	VAR 291	created

OWNERS

Number of mortgages on dwelling	VAR 090	B.32
Regular mortgage payment - 1st mortgage	VAR 091	B.33
Regular mortgage payment - 2nd mortgage	VAR 092	B.33
Regular mortgage payment - 3rd mortgage	VAR 093	B.33
Frequency of mortgage payment - 1st mortgage	VAR 094	B.34
Frequency of mortgage payment - 2nd mortgage	VAR 095	B.34
Frequency of mortgage payment - 3rd mortgage	VAR 096	B.34

Charges included in mortgage payment (principle, interest, taxes) - 1st mortgage	VAR 097-100	B.35
Charges included in mortgage payment (principle, interest, taxes) - 2nd mortgage	VAR 101-104	B.35
Charges included in mortgage payment (principle, interest, taxes) - 3rd mortgage	VAR 105-108	B.35
Number of dwelling units included in mortgage - 1st mortgage	VAR 109-110	B.36
Number of dwelling units included in mortgage - 2nd mortgage	VAR 111-112	B.36
Number of dwelling units included in mortgage - 3rd mortgage	VAR 113-114	B.36
Total mortgage payments on the dwelling unit for 1977	VAR 301	created
Total yearly taxes paid where this amount is not included in mortgage payment	VAR 115	B.37
Number of dwelling units to which above tax figure applies	VAR 117-118	B.38
Total taxes on dwelling unit,1977	VAR 302	created
Total water bill per unit, 1977	VAR 292	created
Total electricity bill per unit 1977	VAR 293	created
Total gas bill per unit, 1977	VAR 294	created
Total oil/coal bill per unit,1977	VAR 295	created
Total parking bill per unit,1977	VAR 296	created
Total other services bill per unit, 1977	VAR 297	created
Total utility bill per unit,1977	VAR 298	created
Total cost of repairs and maintenance for dwelling unit in 1977	VAR 304	created
*Total shelter cost for renters,1977	VAR 299	created
Total shelter cost for owners,1977	VAR 303	created
Total 1977 shelter cost for all respondents	VAR 368	created

APPENDIX B

Estimation And Projection Procedures

APPENDIX B

Assumption 1 - General Fertility Rates*

Source: Estimated from birth data contained on I.U.S. Urban Native Data Base.

a) Status Indians

205 births/1980 females aged 15-44 years

= 103.5 births/1000 females 15-44 years

b) Métis/Non-Status Indians

235 births/4382 females 15-44 years

= 53.6 births/1000 females 15-44 years

c) Sex distribution of births assumed to be 50/50 male/female.

Assumption 2 - Mortality Rates

Source: A. Siggner (1979) regarding 1973-1976 averages for Canadian Indians

Age Group	Deaths/1000 Population
4 weeks-1 year	14.0/1000
1-4 years	3.1/1000
5-19 years	1.9/1000
20-44 years	6.0/1000
45-64 years	15.7/1000
65+ years	57.0/1000

* Includes births to women migrating to the city during previous 12 month period.

Assumption 3 - Annual Net Migration Rates

Source: Estimated from duration of residence data available on the I.U.S. Urban Native Data Base.

$$\hat{NMR}_{jkl} = \sum_{i=13}^{60} \hat{X}_{ijkl} \Big/ 4 \quad \text{(years)}$$

where X_{ijkl} = population estimate of individuals duration of residence category i (in months since arriving in city), age group j, sex category k, and native subgroup l.

Population Estimate

$$\hat{X}_{.j} = \sum_{i=1}^{n} X_{ij} * \frac{1}{y_j}$$

where $\hat{X}_{.j}$ = the estimate of the size of the population in the j^{th} category of variable X

X_{ij} = actual number of observations in sampling area i and in the j^{th} category of variable X

and y_i = proportion of the population in sampling area i contacted via the survey (i.e. the sampling level)

APPENDIX C

Measurement Of Housing Quality

APPENDIX C

This variable was created through visual inspection of the building exterior. Characteristics assessed are listed below.

01.	Sagging roof
02.	Sloping walls
03.	Poor foundations (crumbling, cracking cement, open holes)
04.	Decaying wood (window and door sills)
05.	Shingles missing from the roof in quantity
06.	Sagging eaves
07.	Broken windows
08.	Loose bricks (including poor siding)
09.	Poor porch footings
10.	Poor paint
11.	Poor grading (area immediately next to structure slopes towards foundation)
12.	None of the above conditions exist.

CODE	DESCRIPTION
1	"POOR" refers to any building where one or more of characteristics 01-04 exist or where three or more characteristics 05-11 exist.
2	"FAIR" refers to any building where no characteristics 01-04 exist and where two characteristics 05-11 exist.
3	"GOOD" refers to any building where none of characteristics 01-04 exists and where one or none of characteristics 05-11 exist.
4	Not stated.

APPENDIX D

Additional Tables

Table D1

DISTRIBUTION OF HOUSING CONSUMPTION PROBLEMS BY TYPE, NATIVE AND TOTAL CITY HOUSEHOLDS, WINNIPEG, 1980

Percent of Total Households Experiencing Problem

Type of Problem	Non-Families		Childless Married Couples		Two Parent Families						Single Parent Families					
					Young		Mature		Older		Young		Mature		Older	
	Native	Total City	Native	Total City	Native	Total City	Native	Total City	Native	Total City	Native	Total City	Native	Total City	Native	Total City
1. Shelter Poverty (only)	27.6	19.0	22.4	8.8	6.7	17.6	4.2	3.4	4.2	2.6	25.8	36.1	15.8	23.5	20.5	5.1
2. Quality (only)	21.3	12.6	20.7	12.6	5.0	16.9	15.6	11.3	5.0	8.8	2.1	12.1	15.1	20.2	7.3	22.5
3. Overcrowding (only)	4.6	6.7	0.6	1.0	13.9	2.6	19.2	10.2	3.6	5.1	*	*	8.1	6.6	2.3	2.0
1+2. Shelter Poverty + Quality (only)	30.1	4.7	8.9	1.4	*	6.8	1.7	0.8	4.4	*	42.8	27.2	16.3	12.1	15.7	*
1+3. Shelter Poverty + Overcrowding (only)	*	2.2	*	*	12.4	4.8	9.4	*	*	*	4.6	5.7	4.9	1.5	*	*
2+3. Quality + Overcrowding (only)	1.7	1.6	*	0.5	16.1	1.9	11.0	7.5	10.8	3.2	3.9	*	3.4	2.4	4.0	*
1+2+3 Shelter Poverty, Quality and Overcrowding	2.9	0.3	*	*	7.4	0.6	1.7	0.2	11.4	*	8.8	5.6	7.2	4.5	3.3	*
4. No Problems	11.7	53.8	39.5	75.7	38.6	48.8	37.2	66.7	60.6	80.4	12.0	13.3	29.2	29.2	47.0	70.3
TOTAL Households	239	48,165	527	59,377	541	13,024	1090	41,975	360	16,981	283	2,594	1,007	6,433	606	5,172

* Sampling zero

** Excludes income non-respondents

Table D2

INCIDENCE OF HOUSING CONSUMPTION PROBELMS BY PROBLEM TYPE AND MIGRANT STATUS
NATIVE HOUSEHOLDS, WINNIPEG, 1980

Percent of Households Experiencing Problem

Household Type	Shelter Poverty		Poor Condition		Overcrowding		Multiple Problems		Total Households*	
	Migrants	Residual	Migrants	Residual	Migrants	Residual	Migrants	Residual	Migrants	Residual
(1-4) All Non-Families	43.8	69.2	42.5	62.9	10.0	8.8	18.8	42.8	80	159
(5-7) All Childless Married Couples	39.1	27.9	32.9	39.8	--	0.8	11.2	7.9	161	366
(8-16) All Two Parent Families	41.1	8.8	42.3	23.2	60.7	30.9	51.2	15.7	697	1294
(17-25) All Single Parent Families	39.1	50.9	29.7	43.6	35.0	13.5	27.1	34.9	417	1479
(1-25) All Households	40.4	32.7	37.3	36.1	42.6	18.7	37.1	24.7	1355	3298

*Excludes non-respondents

APPENDIX E

The Logit Models

APPENDIX E

THE LOGIT MODELS

Chapter 5 and 6 of the main report refer to the use of logit models (i.e. logistic regression analysis) in the formal analyses of housing condition and residential mobility rates. In this appendix the statistical properties and estimation procedures of the logit model are discussed and the complete results of the two analyses are presented.

The Data

The models use data drawn from the 1980 I.U.S. native data base and the 1977 S.P.C. data base. Variables employed in the analyses include:

(1) C.M.H.C. housing condition
(2) Household type
(3) Family type
(4) Tenure
(5) Total Household Income (1980 estimates)
(6) Ethnicity
(7) Mobility status

The housing conditions model employed 2,045 observations. 665 observations were available for the construction of the residential mobility rate model.

The Housing Conditions Model (Model 1)

Consider a 5-way ($I \times J \times K \times L \times M$) contingency table (i.e. cross tabulation) in which the five dimensions pertain to housing condition class, household type, tenure class, income class and ethnic group, respectively. Let f_{ijklm} and F_{ijklm} represent respectively the observed and expected number of individuals (households) in all cells (i, j, k, l, m) of the table, with the subscripts referring to the

following categories:

Housing Condition *(I=2)*	$i = 1$	poor
	$i = 2$	fair or good
Household Type *(J=3)*	$j = 1$	Childless Households
	$j = 2$	Two Parent Families
	$j = 3$	Single Parent Families
Tenure *(K=2)*	$k = 1$	owned
	$k = 2$	rented
Ethnicity *(L=2)*	$l = 1$	Native
	$l = 2$	General City
Income *(M=2)*	$m = 1$	< $10,000/year
	$m = 2$	≥ $10,000/year

Let N represent the total number of observations in the table, such that:

$$\Sigma f_{ijklm} = \Sigma F_{ijklm} = N \qquad (1)$$

The logit, ψ, is defined as the natural logarithm of the ratio of households consuming substandard (poor) quality housing to households consuming standard or better quality housing in every 4-way combination of the levels of the other four variables. Thus:

$$\psi_{jklm} = \log (F_{1jklm}/F_{2jklm}) \qquad (2)$$

Goodman (1971) and others outline procedures for decomposing the logit into independent and additive components of the main effects and interactions related to the four explanatory (independent) variables.

In this case the model of interest to us can be written as:

$$\psi_{jklm} = \mu + B^J_j + B^K_k + B^L_l + B^M_m$$

$$+ B^{JK}_{jk} + \text{(other two variable combinations)}$$

$$+ B^{JKL}_{jkl} + \text{(other three variable combinations)}$$

$$+ B^{JKLM}_{jklm} \qquad (3)$$

where μ is a constant representing the grand mean of the logits; B^J_j is the jth parameter pertaining to the effect of household type (B^J_1, B^J_2 and B^J_3 denote the difference from the grand mean associated with being a childless household, a two parent family and single parent family respectively -- and similarly for the other three main effects). B^{JK}_{jk} is the jkth parameter representing the household type * tenure interaction; for example B^{JK}_{11} denotes the deviation from the grand mean and the main effects (B^J_1 and B^K_1) attributable to being a childless household and renting accommodation -- similarly for other parameters and the other five two variable interactions.

B^{JKL}_{jkl} refers to the jklth parameter of the household type * tenure * income interaction (and similarly for the other three variable interactions).

B^{JKLM}_{jklm} is the $jklm$th parameter associated with the one four variable interaction.

The effects must satisfy the following conditions:

$$\Sigma_j B^J_j = 0 \qquad (4)$$

$$\Sigma_j B^{JK}_{jk} = \Sigma_k B^{JK}_{jk} = 0 \qquad (5)$$

$$\Sigma_j B^{JKL}_{jkl} = \Sigma_k B^{JKL}_{jkl} = \Sigma_l B^{JKL}_{jkl} = 0 \qquad (6)$$

$$\Sigma_j B^{JKLM}_{jklm} = \Sigma_k B^{JKLM}_{jklm} = \Sigma_l B^{JKLM}_{jklm} = \Sigma_m B^{JKLM}_{jklm} = 0 \qquad (7)$$

The complete model consists, therefore, of four main effects and eleven interactions, each associated with a set of parameters pertaining to the respective variables. In a fashion similar to the β's the degrees of freedom are also independent and additive (see Goodman 1970).

The Residential Mobility Model (Model 2)

The second model is structured in a fashion similar to the first model with the exception that the response variable (i.e. the I variable of the table) is changed from housing condition to residential mobility status, the tenure variable is removed and two variables are included to distinguish between family types. The subscripts of the variables refer to the following categories:

Residential Mobility Status	$(I=2)$	$i = 1$	mover
		$i = 2$	stayer
Family Life Cycle Status	$(J=2)$	$j = 1$	young
		$j = 2$	mature or older
Family Type	$(K=2)$	$k = 1$	Two Parent Family
		$k = 2$	Single Parent Family
Ethnicity	$(L=2)$	$l = 1$	Native
		$l = 2$	General City
Income	$(M=2)$	$m = 1$	< \$10,000/year
		$m = 2$	≥ \$10,000/year

Estimating the Models

Since some of the main effects and interactions may not be statistically significant in the sense that they do not affect the logit values, our concern is to isolate a model containing selected effects in Equation (3) which are especially important in explaining variations in the logit values. We employ a procedure commonly referred to as stepwise logit analysis (Goodman 1971) to identify the best fit models. Using a forward selection method one effect at a time is chosen for inclusion in the model starting with the lowest order (main) effects and proceeding to higher order interactions. At each step a significance test determines whether to retain or delete the added effect. The inclusion process continues until no further or additional effect satisfies the significance criterion.

Table E-1 displays the sequence of steps leading to specification of the housing condition model. Parameters added at each step are identified in column 2. Columns 3 and 4 present values of the maximum likelihood (MLR) x^2 ratio and the degrees of freedom associated with each step. Columns 5 and 6 present changes in the MLR x^2 and degrees of freedom resulting from the addition of the various effects. Listed in column 7 is a ratio, R, which measures the amount of total variance "explained" by the set of effects included in the model. This ratio which is somewhat analogous to the R^2 measure in regression analysis can be used as an index to determine the merit of the model.

$$R = \frac{x^2 \text{ (total variation)} - x^2 \text{ (model at a given step)}}{x^2 \text{ (total variation)}} \qquad (8)$$

Column 8 presents the proportion of total variation "explained" by each of the significant effects added to the model.

The best fit model of housing conditions is:

TABLE E-1

STEPWISE LOGIT ANALYSIS OF HOUSING CONDITION

(1) Step	(2) β added	(3) χ^2	(4) *d.f.*	(5) change in χ^2	(6) change in *d.f.*	(7) *R*	(8) % of Variance
1	-	194.554	23	-	-	-	-
2	*J*	123.660	21	70.694*	2	.3634	36.34
3	*K*	64.182	20	59.678*	1	.6701	30.67
4	*M*	52.151	19	12.031*	1	.7319	6.18
5	*L*	45.716	18	6.435*	1	.7649	3.31
6	*J* x *L*	32.148	16	13.568*	2	.8346	6.97
7	*K* x *L*	27.965	15	4.183**	1	.8561	2.15
8	*L* x *M*	22.488	14	5.477**	1	.8843	2.82

* significant at $\alpha = .01$

** significant at $\alpha = .05$

$$\psi_{jklm} = \mu + B^{J}_{j} + B^{K}_{k} + B^{L}_{l} + B^{M}_{m} + B^{JL}_{jl} + B^{KL}_{kl} + B^{LM}_{lm} \qquad (9)$$

Table E-2 presents similar information pertaining to the residential mobility rate model. The best fit model in this case is:

$$\psi_{jlm} = B^{J}_{j} + B^{L}_{l} + B^{M}_{m} + B^{LM}_{lm} \qquad (10)$$

Differentials in Rates of Poor Quality Consumption and Residential Mobility

Given the empirical estimates which follow from the stepwise logit analyses, rates of poor quality housing consumption (*PQHR*) and residential mobility (*RMR*) can be obtained from:

$$PQHR_{jklm} = 1 \div (1 + e^{-\psi jklm}) \text{ from } Model\ 1 \qquad (11)$$

and $$RMR_{jlm} = 1 \div (1 + e^{-\psi jlm}) \text{ from } Model\ 2 \qquad (12)$$

The estimates also permit us to compare rates of poor quality consumption and residential mobility rates not only among households with different demographic, socioeconomic and tenure characteristics but also between households with similar characteristics but differing in ethnicity. For the purposes of discussion the ethnicity and non-ethnicity (i.e. demographic, socioeconomic and tenure) effects are presented separately.

Non-Ethnic Effects

MODEL (1)

The magnitudes and directions of the main effects of household type , tenure and income illustrate general trends in the relationship between these characteristics of the household and the probability of consuming poor quality housing. As indicated by the parameters

TABLE E-2

STEPWISE LOGIT ANALYSIS OF RESIDENTIAL MOBILITY RATES

(1) Step	(2) β added	(3) χ^2	(4) *d.f.*	(5) change in χ^2	(6) change in *d.f.*	(7) *R*	(8) % of Variance
1	-	98.455	15	-	-	-	-
2	*J*	70.282	14	28.173*	1	.2817	28.17
3	*L*	15.533	13	54.749*	1	.8292	55.61
4	*M*	11.976	12	3.557**	1	.8653	3.61
5	*L* x *M*	7.421	11	4.555**	1	.9116	4.63

* significant at α = .01

** significant at α = .05

in Table E-3the probability of consuming poor quality housing is as expected:

(1) higher among single parent families
(2) higher among renters
and (3) higher among lower income groups.

Ethnicity Effects

The main effect of the ethnicity variable in the housing condition model indicates that native households are more likely to experience housing quality problems than households comprising the general urban population. The main effect of ethnicity, however, is modified by several significant interaction terms. The tenure * ethnicity effect ($K * L$), for example, indicates that although being native or being a renter leads to higher rates of poor quality housing consumption, levels of poor quality consumption are further increased if the household is both native and renting accommodation. Similarly, levels of poor quality housing consumption are further enhanced for childless native households (i.e. the $J * L$ effect) and for lower income native households (i.e. the $L * M$ effect).

MODEL (2)

Non-Ethnic Effects

The main effects of non-ethnicity variables in *Model 2* (see Table E-4) indicate that residential mobility rates are:

(1) higher among younger families
(2) higher among lower income groups
(3) not affected by family type

TABLE E-3

PARAMETER ESTIMATES OF HOUSING CONDITION MODEL

Grand Mean: $\mu = -0.815$

J	$j = 1$	-0.240
	$j = 2$	-0.164
	$j = 3$	+0.404
K	$k = 1$	-0.235
	$k = 2$	0.235
L	$l = 1$	0.238
	$l = 2$	-0.238
M	$m = 1$	0.231
	$m = 2$	-0.231

		$l = 1$	$l = 2$
$J \times L$	$j = 1$	0.322	-0.322
	$j = 2$	-0.089	0.089
	$j = 3$	-0.233	0.233

		$l = 1$	$l = 2$
$K \times L$	$k = 1$	0.189	-0.189
	$k = 2$	-0.189	0.189

		$m = 1$	$m = 2$
$L \times M$	$l = 1$	0.148	-0.148
	$l = 2$	-0.148	0.148

TABLE E-4
PARAMETER ESTIMATES OF RESIDENTIAL MOBILITY RATE MODEL

Grand Mean: $\mu = 0.000$

J	$j = 1$	0.673
	$j = 2$	-0.673
L	$l = 1$	0.620
	$l = 2$	-0.620
M	$m = 1$	0.287
	$m = 2$	-0.287

		$l = 1$	$l = 2$
$L \times M$	$m = 1$	0.220	-0.220
	$m = 2$	-0.220	0.220

Ethnicity Effect

The effect of ethnicity on residential mobility rate is large and significant: native households experience much higher rates of mobility than general city households. Mobility rates are further increased among lower income native households (i.e. the $L * M$ interaction).

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