

City of Fredericton Housing Study

by: Brenda Heaney

CITY OF FREDERICTON

HOUSING STUDY

A REPORT PREPARED FOR:

CENTRAL MORTGAGE AND HOUSING CORPORATION

BY:

BRENDA HEANEY
FREDERICTON, NEW BRUNSWICK

OCTOBER 1978

TABLE OF CONTENTS

	Page
Table of Contents	i
List of Tables	ii
List of Figures	iii
Summary of Major Findings and Housing Targets	iv
 1. INTRODUCTION	
1.1 Purpose of the Study	1.1
1.2 Defining the Area	1.1
1.3 Study Approach	1.1
 2. A REVIEW OF DEMOGRAPHIC DATA	
2.1 Population Growth	2.1
2.2 Age and Sex Composition	2.2
2.3 Population Projection	2.3
2.3.1 Background Information	2.3
2.3.2 Population Projection: Fredericton 1976-1986	2.5
2.4 Summary Points	2.6
 3. A SUMMARY OF HOUSING DATA	
3.1 Households	3.1
3.2 Family Size	3.1
3.3 Housing Mix	3.3
3.4 Housing Tenure	3.3
3.5 Summary Points	3.3
 4. CURRENT MARKET CONDITIONS	
4.1 Housing Starts and Completions	4.1
4.2 Building Permits	4.3
4.2.1 Building Permits: City of Fredericton	4.3
4.2.2 Building Permits: Unincorporated Areas	4.4
4.3 Demolitions and Conversions	4.4
4.4 Estimated Additions to the Housing Stock	4.5
4.4.1 New Housing Construction	4.5
4.4.2 Mobile Homes	4.6
4.4.3 Demolitions and Conversions	4.6
4.5 Apartment Vacancy Levels	4.7
4.6 Summary Points	4.8

5.	HOUSING COSTS AND INCOMES	
5.1	Land and Construction Costs	5.1
5.2	Costs of Homeownership	5.1
5.3	Rental Levels	5.2
5.4	Income Levels	5.2
5.5	Economic Considerations	5.2
5.6	Summary Points	5.3
6.	HOUSING TARGETS	
6.1	Household Projections	6.1
6.2	Owner/Rental Split	6.3
6.3	Housing Demand 1976-1986	6.4
6.4	Housing Activity 1977-1978 (August)	6.4
6.5	Housing Targets	6.5
7.	RECOMMENDED IMPLEMENTATION STRATEGY	
7.1	Adoption of Housing Targets	7.1
7.2	Monitoring of Housing Activity	7.2

LIST OF TABLES

TABLE	NAME	FOLLOWING PAGE
2.1	Percentage Change in Population 1961 - 1976	2.2
2.2	Population Growth Greater Fredericton Area	2.2
2.3	Age Composition City of Fredericton	2.3
2.4	Population Projection By Age Groups. New Brunswick 1976, 81, and 86 in Thousands	2.5
2.5	Fredericton. Projected Population By Age Group	2.5
2.6	Projected Population of Fredericton 1976 - 1986	2.5
3.1	Households 1971 - 1976	3.2
3.2	Family and Non-Family Household Formation	3.2
3.3	Types of Non-Family Households	3.2
3.4	Family Size 1971 - 1976	3.2
3.5	Fredericton Housing Types	3.4
3.6	Dwelling Units by Tenure	3.4
4.1	Housing Starts by Type 1971 - 1978 (August)	4.2
4.2	Housing Completions by Type 1971 - 1978 (August)	4.2
4.3	Residential Building Permits	4.3
4.4	Building Permits Issued in Unincorporated Parishes Adjacent to the City Limits 1968 - 1978 (July)	4.4
4.5	Demolitions 1971 - 1978 (July)	4.5
4.6	Additions and Conversions 1971 - 1977	4.5
4.7	New Demolitions 1971 - 1977 (Demolitions Less Conversions)	4.5
4.8	Estimated Additions to Fredericton Housing Stock by Type 1971 - 1978 (August)	4.7
4.9	Vacancy Rates by Type of Unit. April 1978	4.7
4.10	Vacancy Rates by Zones. April 1978	4.7
5.1	Housing Costs for a Single Family Dwelling 1974 - 1978	5.1
5.2	Costs of Home Ownership	5.1
5.3	Fredericton Rental Levels 1974 - 1978	5.2
5.4	Average Total Income and Income Class	5.2
6.1	Probability of Household Formation	6.2

LIST OF TABLES (CONT'D)

TABLE	NAME	FOLLOWING PAGE
6.2	Projected Households by Age Group 1976 - 1986	6.2
6.3	Probability of Ownership/Rental	6.3
6.4	Projected Population, Households, and Household Tenure	6.4
6.5	Estimated Housing Demand 1979 - 1981	6.4
6.6	Housing Targets 1979 - 1986	6.5

LIST OF FIGURES

FIGURE	NAME	FOLLOWING PAGE
2.1	Age and Sex Composition	2.3
6.1	Model of Estimated Housing Demand	6.1
6.2	Estimated Housing Demand 1976 - 1986	6.4
6.3	Housing Activity 1977 - 1978 (August)	6.4

SECTION 1 - INTRODUCTION

1.1 Purpose of the Study

The purpose of this report is to assist Central Mortgage and Housing Corporation to establish a series of housing targets directly related to the needs of the defined area and coordinated with the aims and objectives of the corporation.

The report is intended to provide a comprehensive and in-depth study of the need for various types of housing in the community, to establish specific housing demand, and to recommend an appropriate implementation strategy designed to ensure that an adequate supply of housing is available to respond effectively to market demand.

Yearly production targets by suitable housing mix (single family / apartment) are prepared accordingly for the decade 1976 - 1986.

1.2 Defining the Area

In 1973 boundary changes resulted in the amalgamation of the City of Fredericton with the Town of Marysville, the Villages of Nashwaaksis, Barkers Point, and Silverwood, and parts of the adjacent parishes of Douglas, Kingsclear, St. Marys, and Lincoln. Together these areas constitute the present City of Fredericton, and define the boundary of this report.

1.3 Study Approach

Information was obtained from a variety of sources and incorporated into this report. The major sources were: Statistics Canada, 1971 and 1976 Census plus various other publications; Department of Municipal Affairs, Community Planning Branch; City of Fredericton, Building Inspection Department; and Central Mortgage and Housing Corporation files.

Analysis has been complicated by changes in the city boundary. Statistical boundaries used by Statistics Canada and Central Mortgage and Housing Corporation do not always coincide with the city boundary. It was therefore necessary to make some adjustments to the data and in some instances supplementary sources were used. Reference is given in the report where this occurs.

On the basis of the analysis, the forecasts prepared, and trends indentified, specific housing targets were established, and adoption and implementation strategy recommended.

Following this introduction the report is organized into seven sections. Section two contains a review of relevant demographic data and population projections; a summary of housing data, such as the size and type of households, housing mix and tenure, is provided in Section three; Section four examines current market conditions including recent additions to the housing stock and present vacancy rates; Section five comments on some of the variables affecting housing costs such as land and construction costs, mortgage rates, and income levels; an estimate of housing demand is outlined in Section six and appropriate housing targets are suggested; and finally, Section seven sets forth a series of implementation strategies.

SECTION 2 - A REVIEW OF DEMOGRAPHIC DATA

The present and future housing situation in an area is dependant upon a number of variables including the demographic characteristics of that area. Both population growth and population composition play important roles in housing demand. While population growth will create a demand for more accommodation, the specific housing mix required to respond effectively to this demand is largely a function of the population composition. The age and sex structure is directly related to net family and non-family household formation as well as family size, and, as additional households are formed, separate dwelling units are required. Single persons, elderly widows and widowers, and divorcees tend to generate demand for rental accommodations. Families in the 25 - 35 age range often shift their demand from rental to owner occupancy accommodations.

Trends in the demographic characteristics of the population of Fredericton and how they affect the demand for housing is the subject of this section.

2.1 Population Growth

In 1976 the population of the City of Fredericton was 45,248. Examination of historical trends reveals that the population has grown substantially over the fifteen year period 1961 - 1976. Between 1961 and 1966 the population increased by 14.1 per cent. There was a further increase of 24.3 per cent between 1966 and 1971. This spectacular growth rate can primarily be attributed to the level of economic activity during that time period, particularly expansion in the civil service, and increasing university enrolments; the latter two being the largest employers in the city. While numerically the population has continued to expand, the rate of growth has declined. From 1971 to 1976 the population grew by 7.9 per cent. This is significantly below the rate experienced during the earlier time periods. The decline in the

growth rate may be partly due to a stabilization of the events which caused the major population increase in the recent past.

Comparison of overall population growth trends for the city with those for the province of New Brunswick reveals that historically the growth rate for the city has by-far surpassed that of the province as a whole. However, over the last five year interval for which census data are available, 1971 - 1976, the average annual growth rate for the city has been approximately 1.6 per cent, just slightly above the provincial rate of 1.4 per cent. The rate of population growth in the City of Fredericton is therefore approaching the provincial average.

Examination of population growth in the city in relation to trends in the County of York shows that although the rate of growth in the County shows a decline between 1971 and 1976, the magnitude of the decline in comparison to the city is slight. This suggests that within the County a large proportion of the population growth is occurring outside the city boundary.

The above trends are shown in Table 2.1.

It is evident from Table 2.2 that much of the recent population growth has taken place in the unincorporated parishes adjacent to the city limits. While the city grew by 7.9 per cent from 1971 to 1976, the parish of New Maryland increased in population by 126.0 per cent; Lincoln, 53.8 per cent; Kingsclear, 46.6 per cent; Douglas 14.8 per cent; St. Marys, 7.0 per cent and Mougerville, 15.2 per cent.

2.2 Age and Sex Composition

Changes in the age distribution pattern of the population can have direct implications on the housing market. The changes which occurred in the City of Fredericton between 1971 and 1976 and how they affect the market are discussed below.

There has been a decrease in the 0 - 14 age category bringing the proportion of the Fredericton population within this age category below the provincial average. This is indicative of the smaller family size reported for the city, as will be shown later in the report, and may be a reflection of the large

TABLE 2.2

POPULATION GROWTHGREATER FREDERICTON AREA

	<u>1971</u>	<u>1976</u>	<u>Increase 1971-76</u>	<u>% Change 1971-73</u>
City of Fredericton	41,952	45,248	3,296	+ 7.9
New Maryland	1,012	2,287	1,275	126.0
Lincoln	1,780	2,737	957	53.8
Kingsclear	1,062	1,557	495	46.6
Douglas	3,030	3,477	447	14.8
St. Marys	2,021	2,162	141	7.0
Maugerville	889	1,024	135	15.2
Total Fredericton Area	51,746	58,492	6,746	13.0

Source: Statistics Canada

TABLE 2.1

PERCENTAGE CHANGE IN POPULATION 1961 - 1976

	<u>New Brunswick</u>	<u>York County</u>	<u>Fredericton</u>
Population 1961	597,936	52,672	19,683
1966	616,788	58,470	22,460
% Change 1961-66	3.2	11.0	14.1
<hr/>			
Population 1971	634,557	64,891	41,952 *
% Change 1966-71	2.9	10.8	24.3
<hr/>			
Population 1976	677,250	71,431	45,248
% Change 1971-76	6.7	10.1	7.9
<hr/>			

* 1971 population based on boundaries as of June 1, 1976

Source: Office of the Economic Advisor, Province of New Brunswick

number of professional office employees in the city, as well as changing life styles, i.e., more people prefer not to marry, and many couples prefer to remain childless, or have fewer children than in the past.

The proportion of the population in the 15 - 19 and 20 - 24 age category shows a small increase. A significant number of these individuals are apartment dwellers thereby creating a demand for additional rental units in the city.

There has also been an increase in the 25 - 34 and 35 - 44 age categories, bringing this segment of the population above the New Brunswick average. Since this is the age during which many may become first time homeowners or begin families, they shift their demand from rental to owner occupied housing types.

The 45 - 54 age category is down slightly from 1971 while the proportion of the population that is 55 and over shows a definite increase. Increases in the latter categories affect the market due to the fact that as children move away from home, less space is required, creating a tendency for many to move into a smaller home or apartment. As they move into the 65 plus category their earning power is reduced and many live on fixed incomes. They frequently require smaller space and cheaper housing. Since it is often difficult for them to compete in the housing market the need arises for specialized senior citizen housing.

The changes in the age composition are shown in Table 2.3 and Figure 2.1.

2.3 Population Projection

2.3.1 Background Information

In order to determine the future size and composition of Fredericton's population and to subsequently determine changes in the number of households, a forecast that projects population by age group is required and has been prepared for this report.

TABLE 2.3

AGE COMPOSITION
CITY OF FREDERICTON, 1971 and 1976

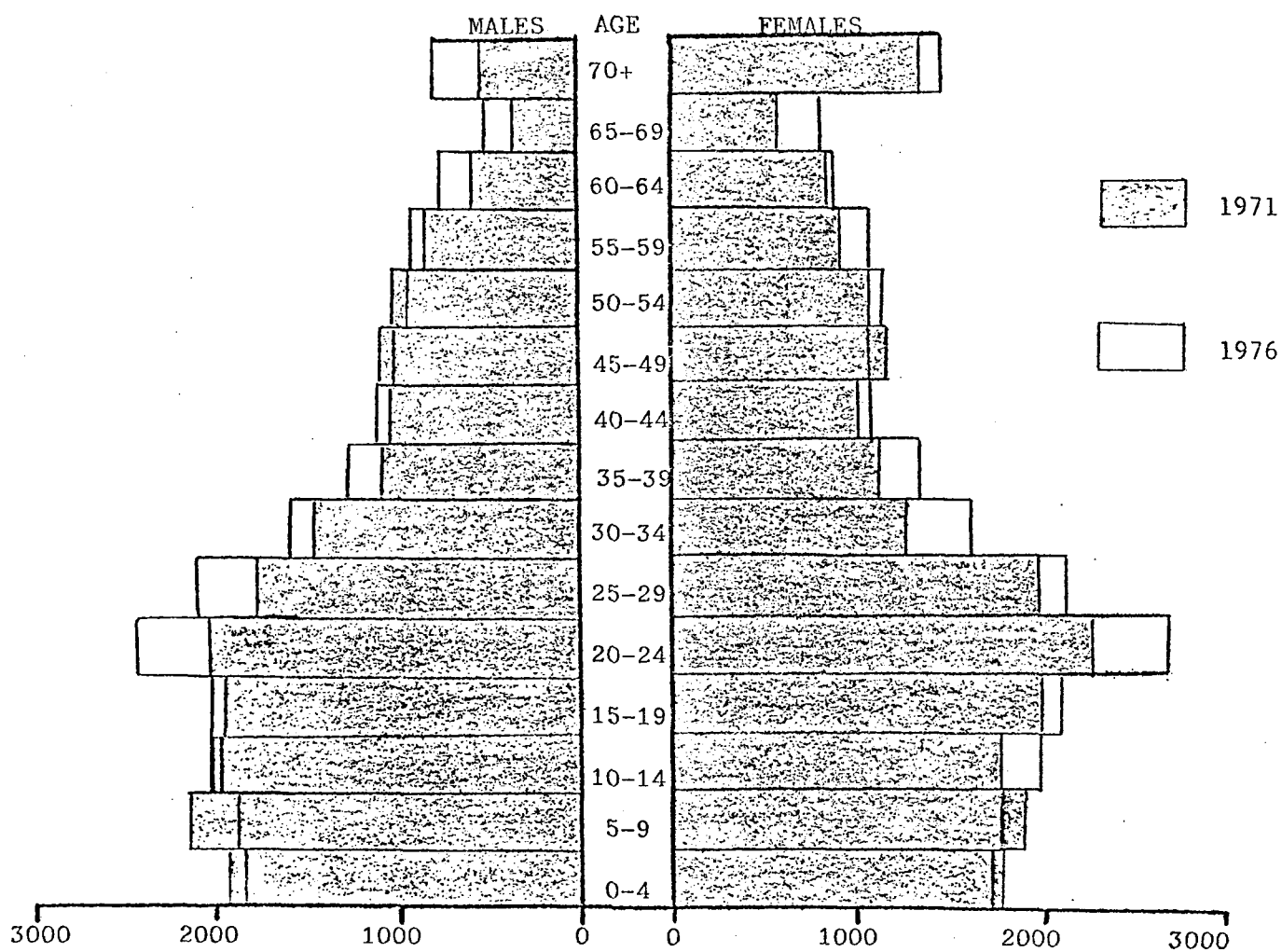
	1971		1976		NEW BRUNSWICK
	<u>NUMBER</u>	<u>% OF TOTAL</u>	<u>NUMBER</u>	<u>% OF TOTAL</u>	<u>(1976) % OF TOTAL</u>
0 - 4	3,700	8.8	3,565	7.9	8.7
5 - 9	4,075	9.7	3,700	8.2	9.2
10 - 14	3,908	9.3	4,185	9.2	11.0
15 - 19	3,935	9.4	4,355	9.6	11.1
20 - 24	4,637	11.1	5,135	11.3	9.6
25 - 34	6,277	15.0	7,695	17.0	15.0
35 - 44	4,414	10.5	4,900	10.8	10.0
45 - 54	4,378	10.4	4,275	9.5	9.5
55 - 64	3,321	7.9	3,745	8.3	8.4
65 +	3,245	7.7	3,695	8.2	9.2

Source: Statistics Canada. 1976 Census; 1971 Census. See note (1)

FIGURE 2.1

AGE - SEX COMPOSITION, 1971 & 1976

FREDERICTON



Source: Statistics Canada, 1971, 1976 Census

The results of the population projections by age group plus the total population of Fredericton and the average annual rate of growth for the decade 1976 to 1986 are presented and discussed below.

The population projection presented here is based on that prepared by Statistics Canada for the province of New Brunswick. The underlying assumption is that the demographic trends affecting the provincial growth rate as a whole over the next decade will similarly affect the growth rate of the city of Fredericton.

The method employed in the projection of these future growth levels is the Cohort Survival Method. It makes a number of assumptions about future levels of births, deaths and net migration. According to this approach each component of population change - mortality, fertility, and migration - are projected separately in the form of age and sex specific rates and ratios which are then applied to the base population to generate future population by age and sex. (2) The age and sex specific changes in population thus derived for the province have been applied to the base population (1976) of Fredericton to generate the size and composition of the population for the years 1976 - 1986.

Population forecasting, even with the best data, involves an element of risk. Regardless of the approach taken to the forecast, there are a number of variables which affects its accuracy in predicting future population levels:

- projections are unable to account for prospective social or economic trends which may affect population shifts in the future
- the accuracy and reliability of the forecast decreases as the size of the area for which the projections are being computed decreases. The smaller the area, the larger the impact of any social or economic event which potentially effects population size, either positively or negatively.
- the lack of area specific data necessitates use of provincial trends which are somewhat less than accurate when applied to a local area with distinct characteristic affecting its demographic composition.

Forecasts must therefore be used with caution and updated when new statistical data is made available.

2.3.2 Population Projection: Fredericton 1976 - 1986

The population of the province of New Brunswick by age group and the projected changes, 1976 - 1986, are shown in Table 2.4. The projected population of the City of Fredericton for the same time period is shown in Table 2.5. The resulting changes occurring within the city population are as follows:

- the proportion that is less than 20 years of age is expected to decline over the next decade.
- the 20 - 24 age category is expected to increase slightly between 1976 and 1981 but then drop off between 1981 and 1986.
- the largest single increase is with the 25 - 44 age group which will increase substantially over the decade. One reason cited for this dramatic increase is that the "baby boom" generation, post World War II, is included within this age grouping.
- the proportion of the population in the 45 - 54 age category is expected to decline slightly between 1976 and 1986, however, the actual numbers will increase towards the end of the decade.
- the population contained within the 55 - 64 age group will also decline slightly over the next decade, but again the actual number will increase.
- both numerically and proportionately the population that is 65 and over is expected to increase significantly.

The total population of the city in 1981 is projected to be 48,910, with the average annual growth rate between 1976 and 1981 being 1.6 per cent. Between 1981 and 1986 the annual growth rate drops slightly to 1.3 per cent bringing the population to 52,195 in 1986. Fredericton's projected growth rate continues to be slightly higher than the provincial rate of 1.4 per cent from 1976 to 1981 and 1.2 per cent from 1981 to 1986. (see Table 2.6)

TABLE 2.4

POPULATION PROJECTIONS BY AGE GROUP
NEW BRUNSWICK, 1976, 81, and 86 In THOUSANDS

	<u>ACTUAL</u>	<u>PROJECTED</u>			
	<u>1976</u>	<u>1981</u>	<u>% Change 1976- 81</u>	<u>1986</u>	<u>% Change 1981- 86</u>
20	267.0	257.4	- 3.6	253.7	- 1.4
20 - 24	63.8	73.3	14.9	71.9	- 1.9
25 - 34	99.9	125.0	25.1	139.4	11.5
35 - 44	66.6	79.6	19.5	104.0	30.7
45 - 54	63.4	62.6	- 1.3	65.8	5.1
55 - 64	55.7	58.6	5.2	58.5	- 0.02
65 +	61.1	68.4	11.9	75.3	10.1
Total	677.2	724.8	7.0	768.5	6.0

Source: Statistics Canada.

TABLE 2.5

FREDERICTONPROJECTED POPULATION BY AGE GROUPS

	<u>ACTUAL</u>		<u>PROJECTED</u>			
	<u>1976</u>	<u>%</u>	<u>1981</u>	<u>%</u>	<u>1986</u>	<u>%</u>
< 20	15,805	34.9	15,235	31.1	15,020	28.8
20 - 24	5,135	11.3	5,900	12.1	5,790	11.1
25 - 34	7,695	17.0	9,625	19.7	10,730	20.6
35 - 44	4,900	10.8	5,855	12.0	7,650	14.6
45 - 54	4,275	9.5	4,220	8.6	4,435	8.5
55 - 64	3,745	8.3	3,940	8.0	4,020	7.7
65 +	3,695	8.2	4,135	8.5	4,550	8.7
Total	45,245	100.	48,910	100.	52,195	100.

Source: Statistics Canada 1976 Census; 1981, 1986, based on Statistics Canada projections for New Brunswick. See Note ().

TABLE 2.6

PROJECTED POPULATION OF FREDERICTON 1976 - 1986

Year	Projection As At June 1	Annual Rate of Population Growth	
		(New Brunswick)	(Fredericton)
1976	45,245	--	--
1981	48,910	1.4	1.6
1986	52,195	1.2	1.3

Source: Statistics Canada. 1976 Census; 1981, 1986, based on Statistics Canada projections for New Brunswick. See Note ().

While the total population is increasing, one of the most important considerations for housing is alterations in the age distribution. The implications of the changing age structure on household formation and housing demand will be discussed further in following sections.

2.4 Summary Points

- Population growth has created a demand for additional accommodations of all types.
- The growth distribution pattern suggests that substantial growth has taken place outside the city limits in the unincorporated areas.
- There are indications of a shift in residential development from the inner city to the surrounding parishes.
- Development in the parishes thus far has been limited primarily to single family residential.
- In recent years there has been a substantial increase in the population in the 25 - 34 age group. It is during this part of the life cycle that a shift from rental to home ownership is likely to occur, thereby, creating a demand for single family housing.
- It is therefore conceivable that a significant number of the single family residential units recently constructed outside the city limits are occupied by first time homeowners.
- This contention is also supported by the reasons frequently cited for development in these areas - lower land costs, cheaper servicing costs, lower taxes etc. - all of which are important considerations for first time homeowners.
- The continuation of this trend will have ramifications on the Fredericton housing market:

- by vacating rental units in the city the rental stock is increased without any actual additions to it.
- the demand for housing within the city is lessened for both new single family units as well as for housing already on the market.
- Additional housing of all types will be required over the next decade as a result of population growth and changes in the population composition.
- While demand for a number of multi-family units can be expected, the largest demand will be for single family housing since much of the population growth is concentrated in the 25 - 44 age category. The demand for senior citizen housing will also increase and the number of individuals in the 65 and plus age category increases.

SECTION 3 - A SUMMARY OF HOUSING DATA

A summary of selected housing characteristics is provided in this section. Comparisons are made between past trends and the current housing situation. In addition, trends within the City of Fredericton are compared to those at the provincial level. Before proceeding, it is necessary to clarify some of the basic concepts and definitions used within the report.

According to the Census definition, Occupied Private Dwelling refers to "a private dwelling in which a person or group of persons is permanently residing. Also included are private dwellings whose usual residents are temporarily absent on Census Day." The number of occupied dwellings equals the number of private households. In this report the terms are used interchangeably.

Family Household refers to a household that contains at least one Census family. The latter consists of a husband and wife, with or without children, or a lone parent regardless of marital status, with one or more children living in the same dwelling.

Non-Family Household refers to one person who lives alone in a private dwelling, or to a group of persons who occupy one private dwelling but do not constitute a Census family.

3.1 Households

The number of households in the City of Fredericton increased from approximately 12,045 in 1971 to 14,570 in 1976, a total increase of 2,525 or 20.9 per cent. This percentage increase closely approximates that experienced at the provincial level, 20.8 per cent.

The average population per household decreased from 3.5 in 1971 to 3.1 in 1976. This is below the New Brunswick average of 3.9 and 3.5 for the years 1971 and 1976 respectively. See Table 3.1.

With regard to the type of household formation, there appears to have been a substantial increase in the proportion of non-family households. In numerical terms, the number of family households increased by 1,385 from 1971 - 1976; the number of non-family households increased by 1,140. When this numerical change is expressed as a percentage, the increase in the proportion of non-family households becomes evident. While family households increased by 13.3 per cent, non-family households increased by 50.6 per cent. See Table 3.2.

In terms of non-family households one person households increased by 56.6 per cent, while households with two or more persons increased by 37.8 per cent. See Table 3.3.

These figures suggest that not only is there an increase in the proportion of unattached individuals occupying a single dwelling unit, but also in the proportion who are living alone.

3.2 Family Size

The average number of persons per family in Fredericton remained constant at 3.4 between 1971 and 1976. This is below the provincial average, which dropped from 4.0 to 3.7 during the time period.

The average number of children per family dropped slightly from 1.6 to 1.5 during the five year interval. Again it is below the New Brunswick average, which dropped from 2.1 to 1.8 between 1971 and 1976.

The above figures are shown in Table 3.4.

TABLE 3.1

HOUSEHOLDS 1971 - 76

	<u>New Brunswick</u>	<u>Fredericton</u>
Households		
1971	157,636	12,045 (1)
1976	190,435	14,570
Crosschange 1971-76	32,799	2,525
% Change 1971-76	20.8	20.9
<hr/>		
Average Population per Household		
1971	3.9	3.5
1976	3.5	3.1
<hr/>		

Source: 1976 Statistics Canada. Catalogue 93.802
1971 Statistics Canada. See Note (1)

TABLE 3.2

FAMILY AND NON-FAMILY HOUSEHOLD FORMATION

(NUMBER)

	1971	1976	Gross Change 1971-76
Family Households	9,865	11,250	1,385
Non-Family Households	2,180	3,320	1,140

(PERCENT)

	1971	1976	% Change 1971-76
Family Households	81.9	77.2	13.3
Non-Family Households	18.1	22.8	50.6

Source: Statistics Canada. 1971, 1976 Census. See Note(1)

TABLE 3.3

TYPES OF NON-FAMILY HOUSEHOLDS

	(NUMBER)		
	1971	1976	Gross Change 1971-76
One Person Household	1,470	2,300	830
Two or More Persons	740	1,020	280

	(PERCENT)		
	1971	1976	% Change 1971-76
One Person Household	66.5	69.3	56.6
Two or More Persons	33.5	30.7	37.8

Source: Statistics Canada. 1971, 1976 Census. See Note(1).

TABLE 3.4

FAMILY SIZE 1971 - 1976

	<u>NEW BRUNSWICK</u>		<u>FREDERICTON</u>	
	<u>1971</u>	<u>1976</u>	<u>1971</u>	<u>1976</u>
Average Number of Persons per Family	4.0	3.7	3.4	3.4
Average Number of Children per Family	2.1	1.8	1.6	1.5

Source: Statistics Canada. Catalogues No. 93-805; 93-821

3.3 Housing Mix

In 1976, 55.7 percent of all homes in Fredericton were single detached, 25.3 per cent were apartments, 8.6 per cent duplexes, and 6.2 per cent were single attached. As is visible in Table 3.5, the housing mix in 1976 is basically similar to that in 1971.

Between 1971 and 1976, the number of duplexes increased by 20.3 per cent, apartments increased by 18.7 per cent, and the number of single detached units increased by 15.9 per cent. The number of mobile homes increased from 86 in 1971 to 615 in 1976. This represents a significant increase. However, it is partly explained by the opening of two mobile home parks in the city in 1973. Also, following the amalgamation of the city, a number of mobile homes which were formerly outside the city limits were then included within the boundary.

3.4 Housing Tenure

In 1971, the split between owner/rental occupancy in the city was 57.6 per cent and 42.4 per cent respectively. In 1976, the split was 60.9 per cent owner and 39.1 per cent rental. There is therefore a shift toward home ownership. Comparison of the Fredericton data with that at the provincial level indicates that this is a province wide trend.

3.5 Summary Points

- There has been an absolute increase in the number of households between 1971 and 1976.
- The number of persons occupying the same dwelling unit has declined.
- There has been an increase in the number of non-family households and single unattached individuals occupying separate dwelling units.

3.4

- Since generally many non-family households and unattached individuals are in the 20 - 30 and 65 plus age categories, there has been a demand for rental accommodations.
- This demand is reflected in an increase in the supply of apartment type dwelling units.
- There has been a visible shift from rental to home ownership.

TABLE 3.5

FREDERICTON HOUSING TYPES

	1971(1)	1976	Gross Change 1971-76
	(NUMBER)		
Single Detached	7009	8120	1111
Single Attached	817	900	83
Apartment	3104	3685	581
Duplex	1039	1250	211
Mobiles	86	615	529 *
	(PERCENT)		
			% CHANGE 1971-76
Single Detached	58.1	55.7	15.9
Single Attached	6.8	6.2	10.2
Apartment	25.8	25.3	18.7
Duplex	8.6	8.6	20.3
Mobiles	0.7	4.2	615.1 *

Source: 1976 Statistics Canada. Catalogue 93-802
 1971 Statistics Canada. See Note (1)

TABLE 3.6

DWELLING UNITS BY TENURE

<u>DWELLING UNITS</u>		<u>NEW BRUNSWICK</u>	<u>FREDERICTON</u>
1971	Owned	109,449	6,939
	Rented	48,187	5,106
%	Owned	69.4	57.6
%	Rented	30.6	42.4
<hr/>			
1976	Owned	136,793	8,871
	Rented	53,642	5,699
%	Owned	71.8	60.9
%	Rented	28.2	39.1
<hr/>			

Source: 1976 Statistics Canada. Catalogue 93-802
1971 Statistics Canada. See Note (1)

SECTION 4 - CURRENT MARKET CONDITIONS

This section of the report is an exploration of housing activity in the Fredericton market area. The amount, type, and location of recent residential construction are examined, and historical trends are reviewed. An estimate of additions to the Fredericton housing stock in recent years is provided. Concern has been expressed over the effect that increasing residential development in areas adjacent to the city will have on the Fredericton market. The magnitude of this development is investigated. Finally, vacancy levels in the city are examined as a measure of current market conditions.

Some difficulties were encountered with the data sources due to the fact that statistical boundaries do not necessarily coincide with housing market boundaries. In some instances therefore one data source has been supplemented by another in order to assist in meaningful analysis.

4.1 Housing Starts and Completions

The data available on housing starts and completions for the City of Fredericton from 1971 to the present is somewhat fragmented due to several changes in the boundary of the area for which the data was being collected.

For 1970 - 1971 the data pertain only to the former City of Fredericton. Following the 1971 Census, Fredericton was classified as a census agglomeration and its statistical boundaries were enlarged to include the Villages of Nashwaaksis and Barkers Point, the Town of Marysville and the Indian Reserve north of the Saint John River. The figures for 1972 reflect this Census agglomeration boundary. For the years 1973 - 1976 data pertains to the amalgamated City of Fredericton and the Indian Reserve. Data for 1977 - 1978 refer to the amalgamated city only.

Variations in the statistical boundaries impede direct comparison of current and past trends. However, sources indicate that between 1973 and 1976 only 4 houses were constructed on the Indian Reserve, a figure which should not affect meaningful comparison of data from 1973 to the present.

The total number of housing starts and completions by type of unit for the areas defined above are shown in Tables 4.1 and 4.2 respectively. The number of completions are believed to be more representative of the additions to the areas housings stock since they represent actual units made available on the market. Immediate discussion is therefore limited to completion data.

It should be noted that housing construction is affected by variables other than direct consumer demand. The availability and cost of building materials and labour, mortgage rates, incentives through various government housing policies and the general economic climate are but a few of the elements which interact and result in yearly fluctuation in the amount of housing construction activity. Such fluctuations are apparent in Tables 4.1 and 4.2.

Between 1971 and August 1978 there were peak periods of building construction notably 1974 and 1977. In 1974 there were 615 housing completions compared to 490 in 1973. In 1975 the number dropped to 578 and again dropped to 566 in 1976. In 1977 the number of completions rose to 685. From 1971 to August 1978 there were 3,855 completions, an average of 482 annually.

There has been a reduction in single family activity and an increase in apartment construction, with the latter comprising an increasingly larger proportion of the total units completed. The number of single family units constructed decreased from 380 in 1973 to 255 in 1977, while the number of apartment units increased from 88 in 1973 to 396 in 1977; 1977 being the most active year thus far with regard to apartment construction. Approximately 77.6 per cent of the units constructed in 1973 were single family and 18.0 per cent were apartment; only 37.2 per cent were single family in 1977 while 57.8 per cent were apartments. More than half of the total number of housing completions in 1977 were apartments. The statistics show an overall decline in housing activity in 1978 as of the month of August, and as in the previous year, the emphasis is on apartment construction.

TABLE 4.1

HOUSING STARTS BY TYPE 1971 - 78 (AUGUST)

	<u>Single Family</u>	<u>Semi Detached</u>	<u>Row</u>	<u>Apartment</u>	<u>Total</u>
1971	141	8	-	103	252
1972	345	8	-	160	513
1973	364	36	30	391	821
1974	201	6	-	69	276
1975	334	20	-	266	620
1976	237	14	-	385	636
Subtotal	1622	92	30	1374	3118
1977	249	22	-	532	803
1978 (Jan-Aug)	126	4	-	66	196
TOTAL	1997	118	30	1972	4117

1971: Former City of Fredericton

1972: Former City of Fredericton, Villages of Nashwaaksis and Barkers Point,
Town of Marysville, and Indian Reserve.

1973-76: Amalgamated City of Fredericton & the Indian Reserve.

1977-78: Amalgamated City of Fredericton.

Source: Statistics Canada. Housing Starts & Completions, Cat.64002 and CMHC.

TABLE 4.2

HOUSING COMPLETIONS BY TYPE
1971-1978 (August)

	<u>Single Family</u>	<u>Semi Detached</u>	<u>Row</u>	<u>Apartment</u>	<u>Total</u>
1971	84	-	33	181	298
1972	293	8	13	87	401
1973	380	22	-	88	490
1974	358	28	30	199	615
1975	260	10	-	308	578
1976	261	26	-	279	566
Subtotal	1636	94	76	1142	2948
1977	255	34	-	396	685
1978 (Jan-Aug)	91	10	-	121	222
TOTAL	1982	138	76	1659	3855

1971: Former City of Fredericton

1972: Former City of Fredericton, Villages of Nashwaaksis and Barkers Point, Town of Marysville, and Indian Reserve.

1973-76: Amalgamated City of Fredericton & the Indian Reserve.

1977-78: Amalgamated City of Fredericton.

Source: Statistics Canada. Housing Starts & Completions, Cat. 64002 and CMHC

Although there are yearly fluctuations in the number of duplexes constructed, this type of housing comprises but a small fraction of housing construction activity in general.

4.2 Building Permits

The number of building permits issued in an area is a further indicator of the amount and type of housing activity. This data is less reliable than completion data because the permits indicate units authorized but not necessarily started, and, if started, not necessarily completed. They can therefore over state the amount of housing activity and result in an over estimate of actual additions to the housing stock. Building permit data serves two functions in this report:

- 1) they are used to supplement and support other available data sources, i.e. housing starts and completions; and
- 2) they are used as an indicator of housing activity in the parishes adjacent to the city, where information on actual starts and completions are not readily available.

4.2.1 Building Permits: City of Fredericton

As with starts and completions data there is a lack of uniformity in the boundaries for which building permit data is available for the city, again hindering comparison of current and past trends. However from 1974 to the present a common boundary exists.

During this time there have been peak periods of activity as reflected in starts and completions data. In 1975 the number of permits issued rose to 614 from 272 in 1974, dropped slightly to 583 in 1976, and increased to 787 in 1977.

The shifting emphasis from single family to apartment construction is also evident from the building permit data which shows apartments to comprise 65.6 per cent of all permits issued in 1977 compared to only 22.4 per cent in 1974. See Table 4.3

TABLE 4.3

RESIDENTIAL BUILDING PERMITS

	<u>SINGLE DETACHED</u>	<u>SEMI DETACHED</u>	<u>ROW</u>	<u>APARTMENT</u>	<u>TOTAL</u>
1971	316	11	-	69	396
1972	320	22	-	235	577
1973	262	28	-	273	563
1974	205	6	-	61	272
1975	316	26	-	272	614
1976	232	18	-	333	583
Sub-Total	1651	111	-	1243	3005
1977	237	34	-	516	787
1978 Jan-June	20	-	-	-	20
TOTAL	1908	145	-	1759	3812

1971-73: Former City of Fredericton, Village of Nashawaaksis and town of Marysville

1974-78: Amalgamated City of Fredericton

Sources: 1971-76: Statistics Canada, Building Permits
1977-78: City of Fredericton, Building Inspection Department

4.2.2 Building Permits: Unincorporated Areas

The amount of residential development that is occurring in the unincorporated areas adjacent to the city is evident from the building permit data available for those areas. This information is presented in Table 4.4 for the years 1968 to July 1978 in order to demonstrate this trend over the past decade. Although the data is not broken down by type of unit, the amount of multiple housing constructed in these areas is quite small. The data in Table 4.4 pertains almost exclusively to single family units.

As is apparent from the Table a substantial amount of residential growth has taken place in the parishes over the past decade, particularly since 1971.

The largest single growth area is New Maryland followed by Kingsclear, Douglas, Lincoln, St. Marys and Maugerville. The total permits issued in these areas over the decade 1968 to July 1978 was 2,456 with 2294 issued since 1971, the peak period being 1976. See Table 4.4. Although the population of the parishes in 1976 was only 22.6 percent of that of the city, more than half as many (55.9 per cent) building permits were issued in the parishes as in the city. Furthermore the figures suggest that this trend is likely to continue but with lessening magnitude.

4.3 Demolitions and Conversions

Although the total number of demolitions in the city fluctuate yearly there has been an increase in recent years, with the number in 1977 (68) almost double what it was in 1976 (35). The total number of demolitions by type for the years 1971 - 1978 are shown in Table 4.5. Generally demolitions are area specific occurring frequently in the vicinity of the downtown core, in close proximity to government offices and the university, in older residential districts, where there is a perceived demand for apartment type accommodation. Demolitions have the positive effect of reducing the amount of inferior quality housing in the city and the negative effect of decreasing the existing housing stock.

TABLE 4.4

BUILDING PERMITS ISSUED IN UNINCORPORATED PARISHESADJACENT TO THE CITY LIMITS1968-1978 (JULY)

PARISH	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	TO JULY 1978	TOTAL 1968-1978 (JULY)	TOTAL 1971-1976 CENSUS YEARS
NEW MARYLAND	7	9	12	35	78	86	66	85	129	121	87	715	479
LINCOLN	5	2	4	41	44	33	36	34	60	34	28	321	248
KINGSCLEAR	19	23	17	24	54	51	30	75	88	83	71	535	322
DOUGLAS	3	6	18	46	70	69	42	65	100	65	42	526	392
ST. MARYS	7	8	10	35	25	14	31	36	25	26	19	236	166
MAUGERVILLE	7	3	2	6	12	12	16	17	10	24	14	123	73
TOTAL	48	51	63	187	283	265	221	312	412	353	261	2,456	1,680

Source: Department of Municipal Affairs Files

Units are added to the existing housing stock through additions and conversions, for example, a large single detached house may be converted into one or several apartments, or a basement apartment may be added to a single family dwelling. As with demolitions there are yearly fluctuations in the number of conversions which also include additions. The numbers appear to be decreasing. The information on additions and conversions for Fredericton does not specify whether data refer to the number of units or to building. They are assumed to be units. Further, only those for which a building permit was obtained are included. The figures therefore may under state the actual number of units created. The total number of additions and conversions for 1971 - 1977 are shown in Table 4.6.

The difference to the existing housing stock between units lost through demolitions and units added through conversions is referred to as net demolitions. It is this figure which is used in estimating future housing stock. The estimated annual net demolitions in Fredericton is 25. (See Table 4.7)

4.4 Estimated Additions to the Housing Stock

There are three basic sources of additions to an area housing stock: new housing construction, mobile homes, and changes in existing stock through demolitions and conversions.

4.4.1 New Housing Construction

The total number of housing completions is considered to be a measure of housing construction over a given time period. Due to deficiencies in this data source for the City of Fredericton for certain years it has been necessary to use building permit information as a supplementary data source. The inaccuracies of this source have already been noted. However, when used only to compliment a primary source any resulting distortions should be minimal. Housing completion data for 1971 is available only for the former City of Fredericton. Building permits issued in the Town of Marysville have been added to completion data to determine additions to the housing stock through construction. Unfortunately comparable data for the villages and parishes were not available. The figures for 1971 are therefore somewhat under estimated.

TABLE 4.5

DEMOLITIONS 1971 - 78 (July)

	<u>SINGLE FAMILY</u>	<u>TWO FAMILY</u>	<u>THREE FAMILY</u>	<u>APARTMENT</u>	<u>TOTAL</u>	<u>TOTAL NUMBER OF DWELLING UNITS</u>
1971	9	2	-	9	20	22
1972	4	2	1	12	19	23
1973	17	5	3	5	30	41
1974	14	2	-	22	38	40
1975	10	2	2	10	24	30
1976	9	3	-	20	32	35
Sub-Total	63	16	6	78	163	191
1977	5	7	-	49	61	68
1978 Jan-July	6	1	-	-	7	8
TOTAL	74	24	6	127	231	267

Source: City of Fredericton, Building Inspection Department

TABLE 4.6

ADDITIONS AND CONVERSIONS 1971 - 77

	<u>UNITS</u>
1971	16
1972	12
1973	28
1974	11
1975	5
1976	7
SUB-TOTAL	79
1977	5
TOTAL	84

Source: City of Fredericton, Building Inspection Department

Note: It is not specified whether the data refers to the number of units or to buildings. For these purposes it is assumed to be the number of units. The figures therefore may be somewhat under stated.

TABLE 4.7

NET DEMOLITIONS 1971 - 77
(DEMOLITIONS LESS CONVERSIONS)

	<u>DEMOLITIONS (UNITS)</u>	<u>CONVERSIONS (UNITS)</u>	<u>NET DEMOLITIONS (UNITS)</u>
1971	22	16	6
1972	23	12	11
1973	41	28	13
1974	40	11	29
1975	30	5	25
1976	35	7	28
Sub-Total	191	79	112
1977	68	5	63
TOTAL	259	84	175

Estimated annual net demolitions: 25

Source: Table 4.5 and 4.6

Completion data for 1972 does not include the Village of Silverwood and building permit data was not available. Again the number of additions may be slightly under estimated.

Notwithstanding the deficiencies outlined above, the combination of housing completion data and building permits provides a reliable estimate of additions to the housing stock through new construction.

4.4.2 Mobile Homes

Indications are that a number of mobile homes were added to the housing stock since the early 70's. According to census information in 1971 there were 86 mobile home units in the city. In 1976 there were 615, an increase of 529 units. Two large mobile home parks were opened in 1973 and it is assumed that the major influx of mobile homes occurred subsequent to this. Although there are no figures available, discussions with mobile home park operators suggest that there have been few additions to the mobile home stock in recent years, namely 1977/78.

4.4.3 Demolitions and Conversions

The figure used to determine changes in the existing housing stock through demolitions and conversions is net demolitions, that is, demolitions less the number of conversions. The information available pertaining to additions and conversions does not specify the type of unit involved. Since approximately one half of the demolitions are apartment units, it is assumed that one half of the net demolitions are also apartment units. The remaining units are assumed to be two thirds single family and one third double.

An estimate of the total number of additional units added to the Fredericton housing stock over the period 1971 - 1977 is arrived at by adding the total number of units completed plus the number of building permits issued where applicable and the number of mobile homes less the total number of net demolitions for each year by type of unit.

According to the resulting estimates the following units were added to the housing stock between 1971 and August 1978: 1953 single family; 111 semi-detached; 76 row; 1597 apartment; 530 row; a total of 4368 units, of which 3500 were added during the census years 1971 to 1976.

As revealed by data presented earlier, the number of single family units has decreased in recent years and there has been a sharp rise in the number of apartments. Between 1971 and 1976 approximately 46.5 per cent of the total units added were single family and 31.7 per cent were apartments. In 1977 only, 36.3 per cent of the total were single family while 56.6 per cent were apartment units.

The estimated additions by type are shown in Table 4.8.

4.5 Apartment Vacancy Levels

The apartment vacancy level in an area can be used as an indicator of current market conditions. A certain percentage of the housing stock should always be vacant in order to:

- a) allow fluidity in the housing market so that people may easily move from one type of accommodation to another as the need arises
- b) allow a reasonable choice of accommodation, and
- c) promote competitive rental levels.

The optimum vacancy rate for apartment units in order to provide an adequate supply is 5 per cent. With the exception of the most recent survey, vacancy levels in Fredericton have not been at or above the competitive level.

Since April 1977 Central Mortgage and Housing Corporation has undertaken an apartment vacancy survey for Fredericton. The results of this survey indicate that there is an increase in the supply of all types of private apartments for rent. The vacancy rate in April, 1978 was 4.4 per cent. This figure represents a considerable increase from 0.2 per cent in April 1977 and 1.5 per cent in October 1977. A vacancy rate of 4.4 per cent means there are 4.4 vacant apartments out of every 100 units. See Table 4.9.

TABLE 4.8

ESTIMATED ADDITIONS TO FREDERICTON

HOUSING STOCK BY TYPE 1971 - 78 (August)

	<u>SINGLE</u>	<u>DOUBLE</u>	<u>ROW</u>	<u>APARTMENT</u>	<u>MOBILE</u>	<u>TOTAL UNITS</u>
1971	112	1	33	203	30	379
1972	289	6	13	82	50	446
1973	376	19	-	82	300	796
1974	348	23	30	185	50	659
1975	251	6	-	296	50	609
1976	253	20	-	265	50	608
1977	234	23	-	365	-	645
1978(Aug)	91	10	-	121	-	222
<hr/>						
Total						
1971-76	1629	77	76	1111	530	3500
<hr/>						
Total						
1971-77	1953	111	76	1597	530	4368

TABLE 4.9

VACANCY RATES BY TYPE OF UNITAPRIL 1978

	<u>BACHELOR</u>	<u>1 BEDROOM</u>	<u>2 BEDROOM</u>	<u>3 BEDROOM</u>
Units Surveyed	84	621	1,421	157
Vacancies	6	15	76	3
Vacancy Rate	7.1%	2.4%	5%	1.9%

TABLE 4.10

VACANCY RATES BY ZONESAPRIL 1978

	<u>NORTH SIDE WEST</u>	<u>NORTH SIDE EAST</u>	<u>SOUTH SIDE WEST</u>	<u>SOUTH SIDE EAST</u>
Units Surveyed	349	265	1,325	344
Vacancies	35	19	44	2
Vacancy Rate	10%	7.2%	3.3%	0.6%

The vacancy rate is not uniform for each type of apartment unit. In April, 1978, the vacancy rate for bachelor apartments was 7.1 per cent, for one bedrooms the rate was 2.4 per cent, for two bedrooms the rate was 5 per cent, and for three bedrooms it was 1.9 per cent. Some of these variations are explained by the proportion of each type of unit available on the market. For example, two bedroom units are the most common type of unit. There appears to be an over supply of bachelor units.

The vacancy rate is also not uniform within the different city zones; with the vacancy factor on the north side of the Saint John River substantially higher than on the south side. The north side has rates of 10.0 per cent and 7.2 per cent for the west and east zones respectively and the south side has rates of 3.3 per cent and 0.6 per cent for the west and east zones, the latter being the lowest vacancy zone within the city.

4.6 Summary Points

- There have been peak periods of construction activity in recent years, notably 1974 and 1977, with an average of 482 units completed annually between 1971 and 1977.
- There has been a reduction in the amount of single family construction and a simultaneous increase in apartment construction, with the latter accounting for one half of the units completed in 1977.
- The housing completion figures available for 1978 show an overall decline in construction activity for this year.
- Both completion data and building permit data suggest a shifting emphasis in recent years from single family to multi family units.
- The recent surge of residential development in the parishes adjacent to the city is evident from the number of building permits issued in these areas. Although the population of these areas in 1976 was only 2.2 per cent of the city population, there were approximately 55.9 per cent more permits issued in the parishes, most of which were for single family units.

- Between 1971 and 1977 there were approximately 592 additional units added to the Fredericton housing stock annually.

- In previous years the apartment vacancy level in Fredericton has not been at or above competitive levels, (approximately 5%). The most recent survey (April 1978) shows a vacancy rate of 4.4 per cent. This is a reflection of the recent emphasis on apartment construction. The rate is highest for bachelor (7.1%) and two bedroom (5.%) units respectively. The vacancy rate is not uniform in all areas of the city, with the south side being lowest, especially in the south east.

SECTION 5 - HOUSING COSTS AND INCOMES

A more complete understanding of the housing market can be achieved by examining a number of the factors which play a role in the market. Historical changes in land and construction costs, rental levels, mortgage rates, and income levels are discussed in this section.

5.1 Land and Construction Costs

Between 1974 and 1978, the average cost of a single family dwelling financed under the Assisted Homeownership Program (AHOP) rose from \$26,900 to \$37,000 up 37.5 per cent over the four year period. The average cost of a conventional dwelling in 1978 is \$42,987, a difference due mainly to the larger floor area of the latter. The cost of land as part of the total cost rose from approximately \$4,800 to \$8,00 per house (up 66.7 per cent) and the cost of construction went from \$21,400 to \$28,000 (up 30.8 per cent). Land costs have risen at a greater rate than construction costs and now account for a larger per cent of the total housing costs than in 1974 (22 per cent versus 18). (See Table 5.1)

5.2 Costs of Homeownership

The price increase of land and construction costs have resulted in larger mortgages. The average mortgage by an approved lender for a single family dwelling financed under the National Housing Act rose from \$25,500 in 1974 to \$35,150 in 1978. Higher interest rates have increased the monthly carrying costs of a house. The effect of the higher interest rates applied to a higher mortgage added to the increase in the cost of land, and the cost of construction, means that the monthly payments have risen from \$255.00 in 1974 to \$348.00 in 1978, an increase of 36 per cent. An example of the effects of these increases on monthly payments is shown in Table 5.2.

TABLE 5.1

HOUSING COSTS FOR A
SINGLE-FAMILY DWELLING 1974-1978

	LAND \$	CONSTRUCTION \$	OTHER \$	TOTAL \$	AVERAGE FINISHED FLOOR AREA SQ. FEET	AVERAGE CONSTRUCTION COST PER SQ. FT.
1974 AHOP	4,860	21,400	640	26,900	1,024	\$ 20.90
1977 AHOP	6,180	27,200	740	34,120	933	\$ 29.15
1978 AHOP	8,000	28,000	1,000	37,000	864	\$ 32.41
1978 Non AHOP Conventional	8,000	34,142	845	42,987	1,065	\$ 32.06

* AHOP - Assisted Homeownership Program

Source: Central Mortgage and Housing Corporation

TABLE 5.2

COSTS OF HOMEOWNERSHIP

	<u>MORTGAGE*</u>	<u>AMORTIZATION PERIOD</u>	<u>INTEREST RATE</u>	<u>MONTHLY PAYMENT</u>
1974	\$ 25,555	25 years	9.25%	\$255.00
1978 AHOP	\$ 35,150	25 years	10.25%	\$348.00
Non-AHOP Conventional	\$ 40,837	25 years	10.25%	\$404.00

* The average mortgage by an approved lender for a single family dwelling financed under the National Housing Act.

Source: Central Mortgage and Housing Corporation

5.3 Rental Levels

While accurate historical information on rent levels in Fredericton is not available, estimates have been prepared for comparative purpose of average rents over the past four years and those for new units currently on the market. (See Table 5.3) It appears that rents have increased at a faster rate than the average cost of a single family dwelling unit. For example, the average cost of a two bedroom apartment in 1974 in Fredericton South was approximately \$195.00. In 1978 a two bedroom apartment rents for approximately \$285.00 an increase of 46 per cent compared to 36 per cent for the price of an average single family dwelling. It is uncertain what effect the termination of the Rent Review program will have on rental levels in the future. However, continuation of past trends may make homeownership seem more attractive and consequently hasten this apparent trend.

5.4 Income Levels

One of the prime factors affecting the choice of housing type is affordability, which is largely dependant on family or household income. Because Census information on average household or family income is available only for 1971 it was necessary to use an alternative measure of income levels. The income data reported here is Average Total Income based on Income Tax returns filed in Fredericton 1974 - 1976. It refers to the total income received from all sources including wages and salaries, pensions, interest, dividends, and any other investment sources. (See Table 5.4)

5.5 Economic Considerations

By evaluating future economic growth prospects an assessment can be made of the effects of new growth on the total housing demand since growth in economic opportunities can be expected to result in population increases. Discussions have been held with various individuals concerning future employment potential.

TABLE 5.3

FREDERICTON RENTAL LEVELS 1974-1978

APARTMENT TYPE	1974 <u>\$</u>	1975 <u>\$</u>	1976 <u>\$</u>	1977 <u>\$</u>	1978 <u>\$</u>
SOUTH SIDE					
1 Bedroom	165	175	190	225	245
2 Bedroom	195	205	220	235	285
3 Bedroom	240	265	285	315	345
NORTH SIDE					
1 Bedroom	135	155	185	200	225
2 Bedroom	160	180	200	240	250
3 Bedroom	170	210	240	260	280

Note: Rents generally refer to unheated apartment,
include fridge and stove.

Source: Estimates based on CMHC files.

TABLE 5.4

FREDERICTON
AVERAGE TOTAL INCOME AND INCOME CLASS 1974-76

DOLLARS	1974 %	1975 %	1976 %
Under 2,000	16.0	12.6	11.2
2,000 - 6,000	33.9	29.7	25.8
6,000 - 10,000	25.0	24.9	24.2
10,000 - 15,000	15.1	18.3	20.1
15,000 - 20,000	5.4	7.6	9.5
20,000 over	4.6	6.9	9.2
Average Total Income	\$7,588	\$8,860	\$9,837
% Change 1974-76	29.6		

Note: Income based on Income Tax Returns Filed.
Includes income from all sources.

Source: Revenue Canada, Taxation, Statistical Services
Division, Ottawa

Due to its economic base, the economy of Fredericton has always been relatively stable and indications are that it will maintain this stability in the foreseeable future.

The largest single employers in the city are the civil service and the universities. Expansion in the civil service is not likely because of restraints on government spending. University enrolment is leveling off and should remain at current levels for some time.

Extensive growth in the industrial sector is not anticipated. There is some indication of expansion in the service, retail, and wholesale sectors. Since these are not labour intensive activities resulting employment opportunities will be limited. No major influx of population is expected from the above and implications on the housing market should be minimal.

5.6 Summary Points

- Higher land and construction costs have increased the cost of a single family dwelling by 37.5 per cent from 1974 - 1978.
- Land Costs have risen at a faster rate than construction costs during this period.
- Larger mortgages and higher interest rates have increased average monthly payments by approximately 30 - 40 per cent.
- The cost of renting an apartment has increased at a faster rate than the average cost of a single family dwelling unit.
- Average incomes rose by approximately 30 per cent from 1974 - 1976.

SECTION 6 - HOUSING TARGETS

In Section 6, the overall housing demand to 1986 is identified based upon the population projected in Section 2 and several assumptions regarding the rate at which households are formed. The total housing targets derived are then broken down into targets designed to meet the needs of specific groups in the housing market, such as targets for single family units and rental units.

To provide demand estimates the ^{TOTAL} total housing demand 1976 - 1986 is determined. Then the proportion of the demand filled as a result of recent, current or proposed housing activity is determined, and the difference taken, to produce the average annual demand 1979 - 1986. (See Figure 6.1)

6.1 Household Projections

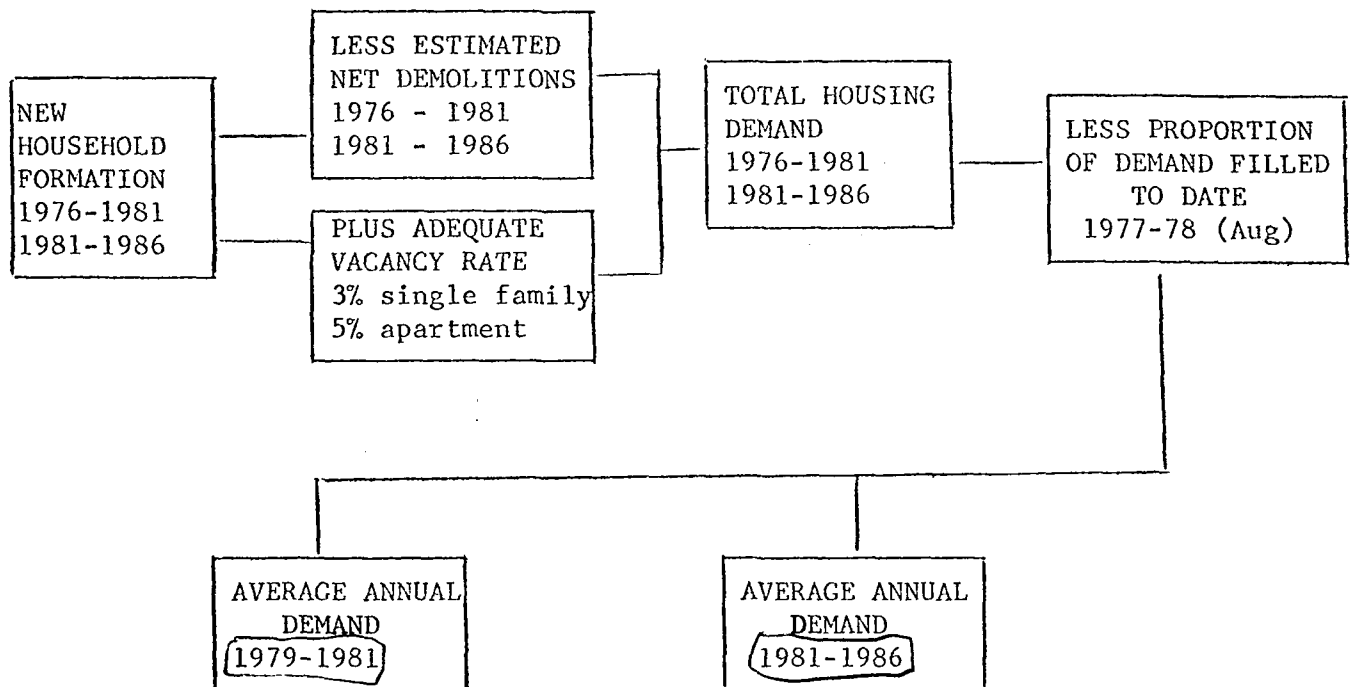
By having information on the age structure of the population as shown in Table 2.5, Population Projection by Age Groups, an estimate of the number of households by age group and consequently total housing demand can be derived.

The method employed in projecting the number of households utilizes defined probabilities of household formation with adjustments for future levels of household formation for each age category based on past trends in conjunction with projected future age distribution patterns. It is assumed that the factors which influenced household formation in 1976 would continue to act generally in the same manner and magnitude in 1981 and 1986 as they did in 1976. The process involved in the projection of the number of households is described below.

First it is necessary to determine the probability of household formation by age group. This is done by dividing the number of households per age category by the total number of people in that age group, for the base year, 1976.

FIGURE 6.1

MODEL OF ESTIMATED HOUSING DEMAND



Adjustments for 1981 and 1986 are made in the manner described above. It was therefore assumed that the rate of household formation would increase in the 20 - 24 age group in 1981 and subsequently revert back to the 1976 level in 1986 in accordance with the proportion of the population projected for this age category. It was further assumed that the rate of household formation would increase in the 25 - 34 and in the 35 - 44 age groups. An increase in the rate of household formation in the 55 - 64 and 65 years and older categories was also assumed as the percentage of older people increased.

The probabilities are defined in Table 6.1.

The second step in projecting the number of households involves multiplying the probability of household formation by age group as obtained above by the number of people in that age group.

Example:

$$\begin{aligned}
 &\text{Number of households in 20-24 age category} \\
 &\text{in 1981} = \text{number of people in 20-24 category} \times \text{probability of} \\
 &\quad \text{household formation in 20-24 category} \\
 &= 5,900 \times .304 \\
 &= 1793
 \end{aligned}$$

Table 6.2 shows the anticipated number of households by age groups, for 1976, 1981, and 1986. The projections resulted in a decrease in the number of persons per household from the 1976 average of 3.1 to 2.8 in 1981 and 2.5 in 1986. This is consistent with the decline in the number of persons per household that has been in evidence in recent years.

The large increase in the past World War II birth rate is reflected in the substantial increase in the percentage of households in the 24 - 35 age category for the period 1976 - 1986. Households in the 25 - 34 age category are expected to account for approximately 40 per cent of the increase in the number of households between 1976 and 1981, and approximately 45 per cent between 1981 and 1986. The increase in this household age group is important for housing since many of these individuals are now forming new households, creating a

TABLE 6.1

PROBABILITY OF HOUSEHOLD FORMATION

AGE GROUP	1976	1981	1981 ^{b?}
15 - 20	.041	.041	.041
20 - 24	.294	.304	.294
25 - 34	.486	.536	.616
35 - 44	.526	.610	.710
45 - 54	.518	.518	.538
55 - 64	.565	.585	.523
65 +	.606	.645	.655

TABLE 6.2

PROJECTED HOUSEHOLDS BY AGE GROUPS 1976-1986

AGE	ACTUAL	PROJECTED	
	1976	1981	1986
15 - 19	180	178	94
20 - 24	1,510	1,793	1,702
25 - 34	3,740	4,967	6,610
35 - 44	2,575	3,572	5,432
45 - 54	2,220	2,186	2,386
55 - 64	2,120	2,305	2,102
65 +	2,235	2,667	2,980
Total	14,570	17,668	21,306
Population Per Household	3.1	2.8	2.5

demand for additional housing. Because of the characteristics of these households, singles, couples at the beginning of marriage and household cycle, the demand has been for rental accommodation and for lower cost family-type housing.

The increase in the 35 - 44 age group over 1976 - 1981 can be expected to result in a demand for owner-occupied family housing in order to meet the household characteristics of these people, such as, larger families with children, and higher levels of income.

A modest decline in the number of households in the 45 - 54 category is projected for 1976 - 1981 followed by a slight increase between 1981 and 1986, paralleling the drop in population for this age group and the subsequent rise toward the end of the decade. While these households will buy, sell, and rent accommodation, little change in the nature of the housing market is anticipated to meet their requirements.

The increase in the population that is 65 years and over results in an increase in the number of senior citizen households. This increase, coupled with their relatively fixed income levels, will increase the need for senior citizen housing units. Members of this age group tend to move out of single family dwellings thereby increasing the stock of available family housing.

6.2 Owner/Rental Split

In addition to knowing the projected number of households in a given time period it is also necessary to determine the type of tenure expected in order to ensure production of a variety of accommodation types to satisfy the different kinds of housing demand.

A projection of owner/rent split has been prepared accordingly. As with the projection of the number of households, a probabilistic approach was used. The probability of ownership or rental was determined by dividing the number of households in each age and tenure category by the number of households in that age category based on 1976 data.

The probabilities are defined in Table 6.3.

TABLE 6.3

AGE GROUP	<u>1976 PROBABILITY OF</u>	
	OWNERSHIP	RENTAL
15 - 19	.150	.850
20 - 24	.150	.850
25 - 34	.520	.480
35 - 44	.710	.290
45 - 54	.733	.257
55 - 64	.724	.266
65 +	.685	.315

TABLE 6.4

PROJECTED POPULATION,
HOUSEHOLDS, AND HOUSEHOLD TENURE

AGE	CATEGORY	1976	PROB.	1981	PROB.	1986	PROB.
15-19	Population	4,355		4,350		3,630	
	Households	180	.041	187	.041	94	.026
	Owners	27	.150	28	.150	14	.150
	Renters	153	.850	159	.850	80	.850
20-24	Population	5,135		5,900		5,790	
	Households	1,510	.294	1,793	.304	1,702	.294
	Owners	226	.150	269	.150	255	.150
	Renters	1,284	.850	1,524	.850	1,447	.850
25-34	Population	7,695		9,625		10,730	
	Households	3,740	.486	4,967	.516	6,610	.616
	Owners	1,945	.520	2,583	.520	3,437	.520
	Renters	1,795	.480	2,384	.480	3,173	.480
35-44	Population	4,900		5,855		7,650	
	Households	2,575	.526	3,572	.610	5,432	.710
	Owners	1,828	.710	2,536	.710	3,857	.710
	Renters	747	.290	1,036	.290	1,572	.290
45-54	Population	4,275		4,220		4,435	
	Households	2,220	.518	2,186	.518	2,386	.538
	Owners	1,650	.733	1,596	.733	1,749	.733
	Renters	570	.257	590	.257	637	.257
55-64	Population	3,745		3,940		4,020	
	Households	2,120	.565	2,305	.585	2,102	.523
	Owners	1,756	.724	1,669	.724	1,522	.724
	Renters	364	.266	636	.266	580	.266
65 +	Population	3,695		4,135		4,550	
	Households	2,235	.606	2,667	.645	2,980	.655
	Owners	1,531	.685	1,827	.685	2,041	.685
	Renters	704	.315	840	.315	939	.315

Prob. = Probability

Source: Calculations derived using the methodology described
in Sections 6.1 and 6.2

The probability of ownership or rental by household age group is then multiplied by the number of households in that age group.

Example:

$$\begin{aligned}
 &\text{Households owning in the 35 - 44 category} \\
 &\text{in 1981} = \text{number of households in 35 - 44 category} \times \text{probability} \\
 &\quad \text{of owning in 35 - 44 category} \\
 &= 3572 \times .710 \\
 &= 2,536
 \end{aligned}$$

The method assumes that the factors affecting owner/rental split in 1976 will remain constant in 1981 and 1986. Table 6.4 contains the population projection figures and the probabilities for household formation and owner/renter split.

6.3 Housing Demand 1976 - 1986

Overall housing demand for the census years 1976 - 1986 is obtained by taking the increase in the number of households for each category by tenure, plus the changes in the housing stock due to demolitions and conversions, with an allowance for an acceptable vacancy rate; 3 per cent for single family, and 5 per cent for rental is believed to be adequate. The result is an estimate of housing demand generated over this period. See Figure 6.2.

6.4 Housing Activity 1977 - 1978 (August)

In order to determine the changes in the housing stock as a result of recent housing activity (1977 - 1978 August) the total units completed as of August 1978 have been added to the units currently under construction and the units proposed thus far in 1978. This provides an estimate of housing additions in the immediate future as these units become available on the market and subsequently comprise part of the areas housing stock. The type and quantity of units available as a result of this activity are shown in Figure 6.3

FIGURE 6.2

ESTIMATED HOUSING DEMAND 1976-1986

DEMAND GENERATED BY		
HOUSEHOLD FORMATION		
	1976-81	1981-86
TOTAL	3,098	3,638
OWNER OCCUPIED	1,637	2,367
RENTAL	1,461	1,271

↓

LESS ESTIMATED		
NET DEMOLITIONS		
	1976-81	1981-86
TOTAL	2,974	3,514
OWNER OCCUPIED	1,575	2,305
RENTAL	1,399	1,209

↓

ALLOWANCE FOR ACCEPTABLE		
VACANCY LEVEL		
	1976-81	1981-86
TOTAL	3,091	3,643
OWNER OCCUPIED	1,622	2,374
RENTAL	1,496	1,269

↓

ESTIMATED AVERAGE		
ANNUAL DEMAND		
	1976-81	1981-86
TOTAL	618	729
OWNER OCCUPIED	324	475
RENTAL	294	254

FIGURE 6.3

HOUSING ACTIVITY 1977-1978 (AUGUST)

UNITS COMPLETED 1977-1978(AUGUST)	
TOTAL	907
OWNER OCCUPIED	410
RENTAL	497



UNITS UNDER CONSTRUCTION 1978 (AUGUST)	
TOTAL	404
OWNER OCCUPIED	82
RENTAL	322



CMHC COMMITMENTS 1978 (AUGUST)	
RENTAL	209



TOTAL HOUSING ACTIVITY 197701978(AUGUST)	
TOTAL	1,520
OWNER OCCUPIED	492
RENTAL	1,028

6.5 Housing Targets

Based upon the total housing demand estimated for 1976 - 1981 (Figure 6.2) less the number of units added to the existing supply as a result of activity in 1977 - 1978 (Figure 6.3) approximately 1,571 housing units will be needed over the period 1979 - 1981. See Table 6.5.

The target for owner occupancy accommodation in order to meet the increase in the number of owner occupied households and to provide a 3 per cent vacancy rate is roughly 1,150 units or approximately 380 units annually) for the period 1979 - 1981. Roughly 475 units will be required annually between 1981 and 1986.

The target for rental accommodation in order to meet the demand for this type of unit and to provide for a 5 per cent vacancy rate is 421 units or approximately 140 annually between 1979 - 1981. From 1981 - 1986 roughly 250 units will be required.

The above figures are shown in Table 6.6.

TABLE 6.5

ESTIMATED HOUSING DEMAND 1979-81

HOUSING DEMAND = TOTAL DEMAND 1976-81 - HOUSING ACTIVITY 1977-78 = TOTAL DEMAND
1979-81

1979-1981	UNITS: 3,091	UNITS: 1,520	UNITS: 1,571
	OWNER: 1,622	OWNER: 492	OWNER: 1,150
	RENTAL: 1,496	RENTAL: 1,028	RENTAL: 421

TABLE 6.6

HOUSING TARGETS 1979 - 1986TOTAL HOUSING DEMAND

	<u>1979-81</u>	<u>1981-86</u>
TOTAL UNITS	1,571	3,643
OWNER OCCUPIED	1,150	2,374
RENTAL	421	1,269

AVERAGE ANNUAL DEMAND

	<u>1979-81</u>	<u>1981-86</u>
TOTAL UNITS	524	729
OWNER OCCUPIED	380	475
RENTAL	140	254

SECTION 7 RECOMMEND IMPLEMENTATION STRATEGY

The previous sections have reviewed population forecasts, the present characteristics of the Fredericton housing market, economic conditions and recommended overall housing targets and specific targets by type of accommodation. Two of the most important aspects which arise from these considerations concern adoption and monitoring of the targets.

Also it should be stressed that there are many participants in housing production: three levels of government; private industry; and people with a variety of housing demands. The complexity of the problem and the number of participants can result in uncertainty in the provision of housing and in the absence of careful monitoring an over or under supply could occur, either of which could have severe implications on the market.

7.1 Adoption of Housing Targets

Actions taken to implement the housing targets must be 'timely' in order to meet the anticipated demand in the right amounts and of the desired type of unit.

What must be emphasised is that these targets are believed to be realistic levels based on the analysis carried out in the report. They do not account for conditions or events which are presently unknown but which could dramatically effect the supply or demand for housing, e.g. future economic conditions, movements in population. It is therefore recommended that consideration be given to monitoring the implementation of these targets.

7.2 Monitoring of Housing Activity

Once the housing targets are adopted it is essential to determine if the targets are being met and if changes are occurring in the market. A monitoring activity could be established to:

- review all new housing proposals to determine how they will assist in the achievement of the housing targets
- assemble all available information on current activity in the city for both NHA and Non-NHA units including, starts, completions, and units under construction and record how these activities affect attaining of the targets.
- determine changes in the housing market such as an over supply of certain dwelling types or unusually rapid changes in prices
- ensure that vacancy surveys are carried out at regular intervals in order to:

- a) detect alterations in the vacancy level as soon as possible and
- b) provide historical information on vacancy rates within the city for comparative purposes.

Consideration should also be given to enlarging the scope of this survey to include information on:

- 1) Rental levels
- 2) Amenities available - a) heat, b) utilities, c) parking, d) laundry facilities, e) resident superintendant, f) dishwasher, g) balcony, h) elevators, i) security entrance, i) air conditioning, k) fireplace l) pool, m) sauna, n) other.

The above information should be of assistance to the Corporation in evaluating future proposals as well as provide a data base for more efficient assessment of the housing market.

- determine the need for revised housing targets as conditions change or new information is brought to light.

NOTES

1. The 1971 populations of the areas which presently comprise the City of Fredericton are as follows:

	Population 1971 (Census)
Former City of Fredericton	24,254
Town of Marysville	3,872
Village of Naswaaksis	7,353
Village of Barkers Point	1,882
Village of Silverwood	935
Sub-Total	38,296
Parishes	
Douglas	748
Kingsclear	1,771
St. Marys	372
Lincoln	765
Sub-Total	3,656
Total	41,952

Boundary changes made it difficult to compare certain census data for 1971 and 1976. It was necessary to make a number of adjustments.

The 1971 census data on all of the above areas were combined to arrive at a total for the City of Fredericton for 1971 based on 1976 boundaries. Housing data on the parishes was not accurate making the following calculations and assumptions necessary:

The average number of persons per household for York County in 1971 (3.5) was applied to the total population of the parishes that now comprise the city (3,656), to give the total number of private households/dwelling units for 1971. (1,045)

The proportion of the units owned or rented in York County was applied to the total number of dwelling units to give the type of tenure in the parishes in 1971.

The mix of dwelling units for York County is applied to the total number of dwelling units to obtain the mix within the parishes.

The resulting figures for the parishes are added to those of the other areas to arrive at a total for the City for 1971.

2. The specific assumptions underlying the population projection are as follows:

Mortality - it has been assumed that both male and female mortality will decrease in the upcoming decade. Subsequently, male life expectancy is expected to increase from 69.4 in 1976 to 70.2 in 1986, and female life expectancy will climb from 76.8 to 78.1 by 1986. Thereafter, life expectancy will remain constant.

Fertility - the total fertility rate is expected to remain near replacement level (that is, 2.0) for the next fifteen years, namely the period between 1976 and 1991.

Migration - the final and most difficult component of growth to project. Two assumptions regarding future levels of net migration were incorporated into the projection. The first assumes that New Brunswick as a whole will experience significant gains from net migration between 1976 - 1981, specifically, 2,400 in-migrants. The second assumes that although the direction of net migration will remain as under the first assumption, the volume will be smaller so that New Brunswick is expected to gain 400 in migrants from 1981 - 1986.

3. Due to independent rounding in the Statistics Canada figures, totals may not equal the sum of their components.