Employment, Population and Housing Projections Halifax Regional Municipality: An Update

Independent Real Estate Intelligence

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Employment, Population and Housing Projections
Halifax Regional Municipality: An Update

Prepared for:

Planning and Development Services

Halifax Regional Municipality

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EXECUTIVE SUMMARY

Halifax Regional Municipality (HRM) retained Altus Group Economic Consulting to provide an update to the long-term growth projections of the previous report in 2004. This update is prepared in light of the recent macroeconomic development and new data available from the 2006 census data.

Economic Background

The projections of employment for HRM take into consideration the macroeconomic environment in Canada, Atlantic Canada, Nova Scotia and specific local economic conditions.

Over the past 25 years, employment growth in Canada has averaged 1.8 percent per year. Impending labour shortages, due in part to the aging of the population, will be partially responsible for a gradual slowing in the net pace of job creation over the next 25 years.

Nova Scotia is a significant engine of growth within Atlantic Canada. Nova Scotia has a well-diversified economy and an ideal location in relationship to the important U.S. Eastern Seaboard regions. Its economy has traditionally been resource based, relying heavily on the forestry, mining, fishing and agriculture sectors. In recent years, the provincial economy has shifted into manufacturing, technology and customer service sectors to diversify its economic base. These factors have served the province well in terms of relative economic growth over the last two decades. On three important economic measures, however – GDP growth, employment and productivity – Nova Scotia has performed slightly below Canada as a whole during the period 1983-2008.

Within Nova Scotia, and the broader regional economy, HRM has traditionally turned in a strong economic performance, and conditions are set to continue to outperform the regional economy in terms of job creation through the forecast period.

All told, employment in HRM (on a place of work basis) is expected to expand to about **245,800** persons over the period 2006-2026. This represents growth of about **37,000** persons, or a rate of growth of 0.8 percent per year.

Two alternative employment scenarios are also prepared: a low growth scenario based on employment growth of **11,600** persons, and a high growth scenario based on employment growth of **58,600** persons.

Population

The widely-used cohort survival methodology is employed in order to estimate population for HRM through to 2026. This method uses historical data from the Census of Canada and projects future population based on assumptions for the three components of population growth – births, deaths and net migration.

The population of HRM is likely to rise by a total of **65,300** persons over the 2006-2026 period. The driving factor behind this growth is anticipated rise in the employed population by **37,000** persons, based on the employment forecast and assumptions about net commuting. The gap between the total rise in population and the rise in employed population is due to declining total participation rates in the labour force, which is due, in turn, to the aging of the population into retirement years.

Sources of population growth in HRM include a modest increase of about **8,200** persons through natural increase (the net of births and deaths) and a net inflow of some **57,100** migrants. Over two-third of the net migration is expected to come from international sources, the remainder from other parts of Canada.

Net migration is ultimately influenced by local employment opportunities. Migration and thus population growth is affected by the assumptions in the two alternate employment growth scenarios under consideration. In the case of the high growth scenario, population growth is as high as **95,000** persons over the forecast period. In the case of the low growth, the growth is just about **37,000** persons.

Housing

The Altus Group Economic Consulting potential housing demand model is employed to generate household growth projection of HRM based on the projected population. Potential household growth is a function of the projected population by age along with headship propensities (the number of people in each age group who are projected to head up a household).

Over the period 2006 to 2026, a total of **45,500** new households are expected to emerge in HRM. Low density housing (including single- and semi-detached and mobile) is expected to account for the majority – about 57 percent – of housing completions over the projection period. Medium and high density should account for about 5 and 38 percent each.

Housing demand is influenced by the alternative employment growth scenarios. In the case of the low growth scenario, potential household demand will advance only by about **33,600** households, and in the case of the high employment growth scenario, demand will likely be in the order of **66,800** units.

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1 INTRODUCTION

Halifax Regional Municipality (HRM) retained Altus Group Economic Consulting to provide an update to the long-term growth projections in light of the recent macroeconomic development and new data available from the 2006 census data. This report updates a previous study in 2004 conducted by Altus Group Economic Consulting (formerly Clayton Research) and Cantwell & Company.

There have been a number of important developments in macroeconomic conditions since the 2004 study. In particular, current international economic events, including the financial and credit crisis, mounting government debt in the U.S., a potentially long U.S. recession and uncertainties regarding energy and oil prices may all influence the pace of macroeconomic growth in Canada and Halifax in the short and medium terms. The changing short- and medium-term macroeconomic view potentially can have an influence on demographic growth in Halifax.

This update primarily focuses on employment, population and households growth projections. It does not replicate all the detailed planning allocations by component CSD, neither does it provides housing construction estimates. Overall, this report provides an update of population and household growth projections for the planning policies.

1.1 WORKPLAN

To incorporate those new developments, this update of the 2004 report:

- Reviews the economic development scenario facing HRM over he period through to 2026 in light of new data and information that has become available;
- Provides a rebasing of the demographic and household projections based on new data available from the 2006 census and also more updated housing completions data from CMHC; and
- Provides revised projections for growth in employment, population and households by type over the period 2006-2026.

1.2 REPORT STRUCTURE

This report contains three chapters in addition to this introduction, including:

- Chapter 2 presents projections of employment growth for HRM based on revised economic analysis;
- Chapter 3 provides projections of population growth for HRM during the 2006-2026 period; and
- Chapter 4 offers projections of households growth during the study period.

1.3 CAVEAT

This report relies on information from variety of secondary sources. While every effort is made to ensure the accuracy of the data, we cannot guarantee the complete accuracy of the information used in this report from these secondary sources.

This report has been prepared solely for the purpose outlined herein and is not to be relied upon or used for any other purpose or by any other party without the prior written authorization of Altus Group Economic Consulting.

2 MACROECONOMIC ENVIRONMENT

This chapter provides a macroeconomic outlook for Canada, Nova Scotia and Halifax, and presents employment projections under three scenarios for the 2006-2026 period.

2.1 AN AGE OF ECONOMIC UNCERTAINTY

The credit shock that hit the world financial system in October 2008 has altered short-term expectations from investors and economists on the world economic outlook. After extraordinary actions taken from governments and central banks around the world, various recent market indicators point out that the world financial system has stabilized and the recession seems to be moderating.

It might take several quarters for the economy to grow again and economic activities to normalize. For the Canadian economy, the recent shift of economic growth from developed countries to emerging economies poses both benefits and challenges:

- There may be weaker growth in the sectors that are directly connected to American consumer spending, such as automotive equipment, newsprint and lumber; but
- There may be faster growth in the sectors linked to consumption from emerging countries, such as technology, oil and gas, and raw materials.

This will potentially benefit the energy sector in Nova Scotia, for example, but add more pressures to the province's manufacturing and forestry industries to speed up their restructuring efforts.

In addition, wide swings of energy prices and Canadian currency value also create uncertainties in the macroeconomic outlook. With respect to the economic growth scenarios in this report, growing economic uncertainty over the short- and medium-terms potentially widens the gap between high and low growth scenarios.

2.2 CANADA

The short-term economic prospects for Canada are in large part linked to the outlook for the U.S. economy and commodities markets. Since last October,

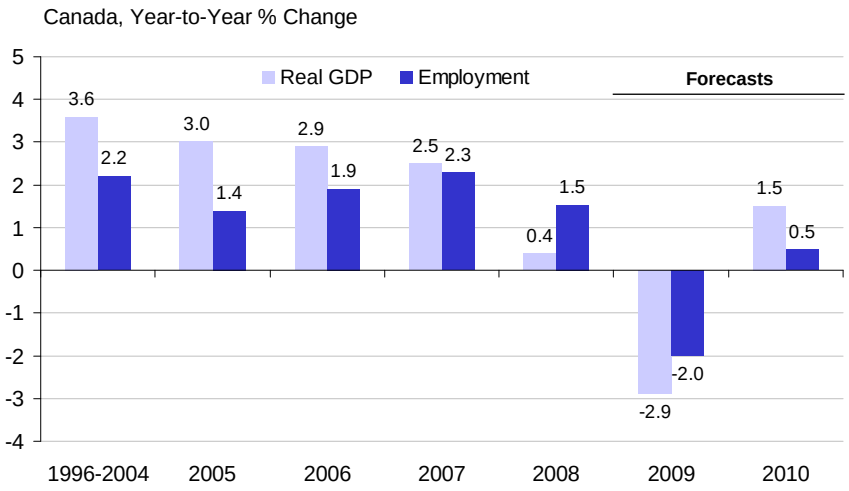
commodities prices have deteriorated dramatically due to the sharp slowdown of the world economy and the expectation that this slowdown will be much deeper and more severe than previously thought.

Slower economic growth in the U.S., Europe and Asia, and increased export competition from Asia will continue to present some headwinds to the eroding commodity boom in the short-term. Economic growth in Canada this year will likely be marked by large contraction in GDP and employment losses (Figure 1).

The slowdown is expected to see little recovery until 2010 when Canadian economic growth should be supported by improving conditions in the U.S. and a return to more normal credit conditions.

Figure 1

Economic Conditions and Forecast, Canada



Source: Altus Group Economic Consulting based on data from Statistics Canada

Although there are short-term challenges to Canadian economy, in the long run, the economy will recover and ultimately return to its long-term growth path.

In the past 25 years (between 1983 and 2008), employment growth in Canada averaged 1.8% per year, while the overall economy has expanded by 2.9%.[1] The difference between economic growth and employment growth is due to

[1] Average annual growth in real (chain-weighted) Gross Domestic Product (GDP).

the contribution of productivity, which in Canada, contributed about 1.1% per annum to economic growth.

Moving forward, the role played by productivity in contributing to economic growth will increase its significance, as the Canadian economy struggles with an emerging labour shortage over the next 20 to 30 years.

As the Canadian population ages, there will be fewer people entering the labour force to replace those retiring from it. Progressively lower birth rates in Canada over the past 40 years, along side impending retirements of most members of the "baby-boom" generation in the next 30 years, is contributing to this trend.

From a macroeconomic perspective, labour shortages (or reduced growth in the labour supply) result in a slowing of economic growth. The degree to which the pace of economic growth will slow, depends on the prospects for further productivity growth in Canada.

Productivity in Canada over the next 30 years is expected to progressively improve, due to continued advancements in automation and information technology, innovations in goods and services producing techniques and developments in other labour-saving technologies.

However, while increasing productivity will aid in coping with some of the challenges of labour shortages, there may also be a slower economic growth environment, including lower growth rates of exports and domestic consumption, and a correspondingly lower production of goods and services. As a result, Canada will still experience a slower employment growth over the next 25 years than previously.

2.3 NOVA SCOTIA

Nova Scotia is a significant engine of growth within Atlantic Canada. Its economy has traditionally been resource based, relying heavily on the forestry, mining, fishing and agriculture sectors. In recent years, the provincial economy has shifted into manufacturing, technology and customer service (i.e. call centres) sectors to diversify its economic base. These factors have served the province well in terms of relative economic growth over the last two decades.

On three important economic measures, Nova Scotia has somewhat underperformed Canada as a whole during the period of 1983-2008:

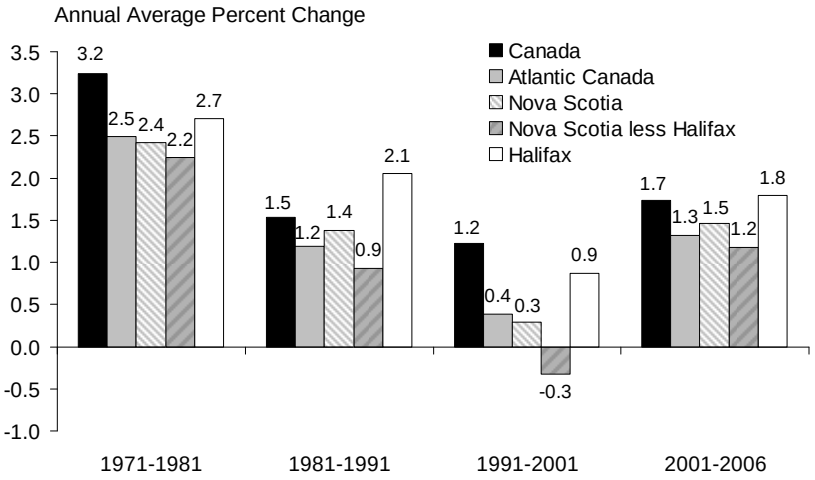
- In terms of overall economic growth, as measured by real GDP growth, Nova Scotia has expanded on average 2.2 percent annually – about 0.7 percentage point slower than Canadian average;
- In terms of employment growth, Nova Scotia's employment increased approximately 1.3 percent each year over the period – 0.5 percentage point less than Canada as a whole; and
- Nova Scotia's productivity advanced at an average annual rate of 0.9 percent – some 0.2 percentage points less than the national average;

Over the years, Nova Scotia's employment growth has consistently been below the national average (Figure 2);

- During the latest census period, Nova Scotia created net new jobs at an annual rate of 1.5 percent, marginally lower than Canada as a whole;
- However, the employment gap between the province and the national average has widened again in the period of 2004-2008, growing at an average annual rate of 0.6 percent and 1.8 percent, respectively; and
- This gap should close again over the medium-term, partially due to the increasing investment in energy and mining projects in the province.

Figure 2

Employed Labour Force[1] Growth, Canada, Atlantic Canada, Nova Scotia and Halifax[2], 1971-2006



[1] Place of residence (POR) basis
[2] Data adjusted for boundary changes in 2001
Source: Altus Group Economic Consulting based on data from Census Canada 2004 Report: Figure 2

Nova Scotia's economy will likely continue to grow at a slightly slower pace than the National average over the forecast period, and the gap between Nova Scotia's GDP growth and that for Canada as a whole, should roughly remain the same over the period.

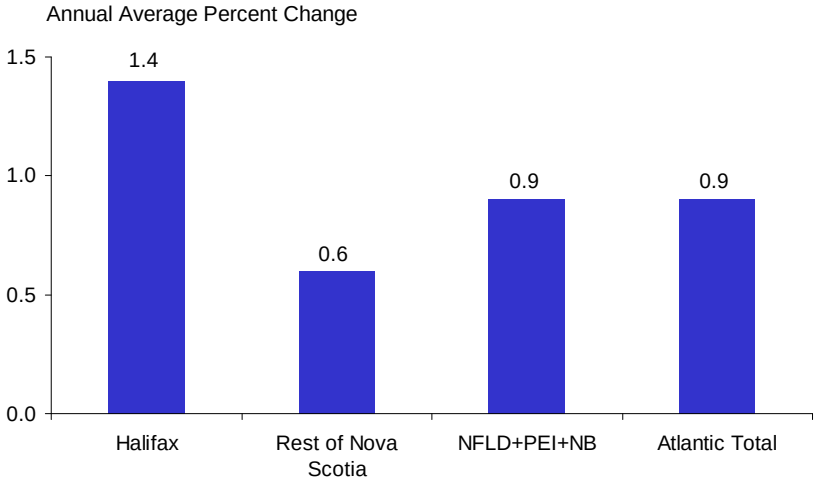
2.4 REGIONS WITHIN NOVA SCOTIA

A majority of the province's economic activities are concentrated in the Halifax urban area, although, the recent commodity boom is reviving smaller communities. This section examines the pattern of economic development across Nova Scotia.

Between 1988 and 2008, employment growth across Atlantic Canada averaged 0.9 percent per year. Nova Scotia added net new jobs at an annual pace of about 1.0 percent over the period. Halifax's employment growth over the period was about 1.4 percent annually, much stronger than the rest of Nova Scotia. Halifax had a larger share of the total employment growth in the province (Figure 3).

Figure 3

Employment Growth by Region, Atlantic Provinces, 1988-2008



Source: Altus Group Economic Consulting based on data from Statistics Canada, Labour Force Survey
2004 Report: Figure 1

Using census data, a long-term pattern of Halifax's employment growth relative to the larger regional economic development is as follows (Figure 2):

- Employment growth in Halifax is consistently higher than the rest of Nova Scotia;
- Generally speaking, employment growth in Nova Scotia has been inline with the Atlantic region's average;
- During the 2001-2006 period, strong local economic activities in energy, construction and service sectors resulted in Halifax's employment growth rate somewhat higher than the national average;
- After experiencing sluggish growth during the 1991-2001 period, the Atlantic region's employment growth caught up with the rest of Canada during the early years of this decade; and
- In the last several years, employment growth of HRM has outgrown the province as a whole – average annual growth rate is about 0.9 percent in HRM during the 2004-2008 period, 0.3 percentage points higher than the provincial average.

2.5 NOVA SCOTIA'S KEY INDUSTRIES AND THEIR LONG-TERM OUTLOOK

The industrial composition of Nova Scotia's economy is important to its macroeconomic. The performance of Nova Scotia's economic prospects depends on both the strength of existing major industries and on prospects for emerging industries. Findings from the analysis illustrate that (Figure 4):

- Some major industries in Nova Scotia's economy are broad public sector[2], retail trade and manufacturing industries;
- Although primary industries such as agriculture, fishing, mining, and oil and gas extraction carry less weight in the province's employment, they play a significant role in the province's economic development;
- Investment in primary industries provide economic spinoff effects to other industries including, but not limited to construction, manufacturing, finance and insurance, and professional services;
- In Nova Scotia, the manufacturing and primary sectors all had declining shares of overall employment during the 2001-2006 period;
- The fishing industry has been under intensive pressure over the last several years, mainly due to increased export competition from emerging economies and the appreciation of the Canadian dollar;
- Nova Scotia's fish processing sector consists of just over 220 licensed enterprises, with 182 in operation in 2006, which is about half of the size in the 1980s;[3]
- Other segments in the manufacturing sector also suffer from tougher overseas competition and higher value in the Canadian currency;

[2] It includes educational services, health care services and public administration.

[3] Nova Scotia Department of Fisheries and Agriculture, *Nova Scotia Seafood Processing Sector: State of the Industry and Competitiveness Assessment*, August 2007.

Figure 4

Labour Force Distribution by Industry, Canada and Nova Scotia, 2001 and 2006

Industry Group	2001	2006
	Percent	
Agriculture, forestry, fishing and hunting	5.2	4.6
Mining and oil and gas extraction	0.8	0.7
Utilities	0.6	0.5
Construction	6.0	6.4
Manufacturing	10.0	8.9
Wholesale trade	3.7	3.5
Retail trade	12.4	12.5
Transportation and warehousing	4.5	4.4
Information and cultural industries	2.4	2.3
Finance and insurance	3.1	3.1
Real estate and rental and leasing	1.5	1.5
Professional, scientific and technical services	4.3	4.9
Management of companies and enterprises	0.1	0.1
Administrative and support, waste management and remediation services	4.6	5.5
Educational services	7.2	7.4
Health care and social assistance	11.1	11.7
Arts, entertainment and recreation	1.8	1.9
Accommodation and food services	7.2	6.9
Other services (except public administration)	4.9	4.7
Public administration	8.5	8.4
	100.0	100.0

Source: Altus Group Economic Consulting based on data from Statistics Canada 2004 Report: Figure 3

- Other parts of the province's economy have demonstrated stronger growth – the broad public sector, professional services and, administrative and support services sector increased shares of the province's total employment over the period;
- This trend is consistent with the broader Canadian economy – moving away from low value-added sectors such as low-technology manufacturing to more knowledge-based industries such as high-tech manufacturing and services industries;
- Even though there have been short-term setbacks, the energy sector continues to be a significant driver of economic development in Nova Scotia. Large energy projects underway include EnCana's $700 million Deep Panuke offshore natural gas project, and the Maple LNG terminal; and
- Economic spinoff effects related to these energy projects are felt throughout the province, especially in Halifax where most professional services providers and corporate support are located.

2.6 HALIFAX

2.6.1 *Halifax's Economic Prospect*

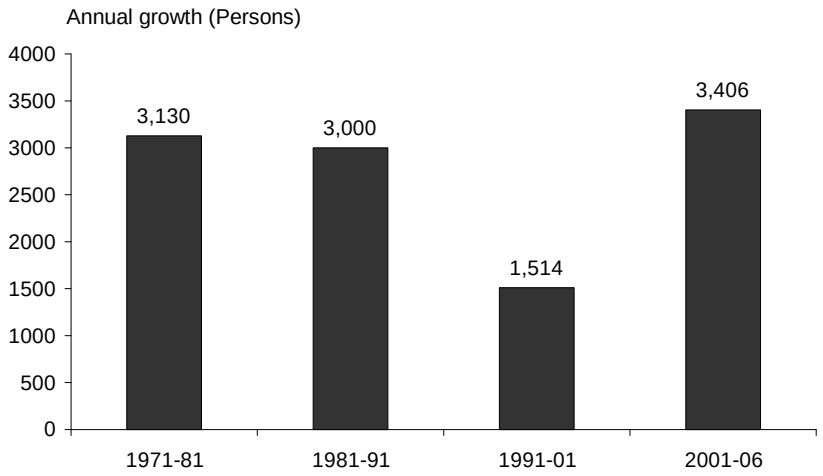
Halifax Regional Municipality (HRM) is the capital of the Province of Nova Scotia and is the largest municipality in Atlantic Canada with population of 372,858 persons in 2006. With an international seaport (Port of Halifax), federal and provincial government offices, military bases, seven post-secondary institutions, regional communication firms, financial service providers and players in offshore oil and gas extraction industry, the municipality has a well-diversified economy and labour force.

Data from several census periods illustrates that (Figure 5):

- After a decade of weak growth in the 1990s, employment advanced impressively during the first 5 years of this decade, adding more than 3,400 net new jobs each year;
- This is consistent with levels of employment growth in the 1970s and 1980s; and
- The unexpectedly strong growth during the 2001-2006 period is closely linked to the exceptional growth in the energy and mining sectors and their economic spinoff effects on industries such as professional services, finance and construction industries.

Figure 5

Employment[1] Growth, Halifax CMA[2], 1971-2006



[1] Place of residence (POR) basis
[2] Data are adjusted to reflect boundary changes between 1996 and 2001
Source: Altus Group Economic Consulting based on data from Census of Canada 2004 Report: Figure 4

In the coming years, the energy sector is likely to be a major influence on the city's economic development. Even though commodity prices have declined substantially in the recent months, the long-term outlooks for most oil and gas projects in the province have not changed – over the medium-term, energy prices will rebound to the level that make current capital investments profitable. Energy companies are still committing to offshore oil and gas projects in the province such as EnCana's $700 million Deep Panuke project, which is well underway.

The Government of Canada currently is actively seeking a Free Trade deal with the European Union, which, if succeed, can potential be worth $12 billion in boosted exports for Canada. This will significantly benefit the Port of Halifax, bringing important economic development and creating new jobs.

However, the local economy is going to face headwind in the medium term, due to continued restructuring in forestry and fishing activities, and the continuing erosion of the manufacturing industry. It will take time for those displaced workers to obtain new jobs because the current economic crisis and they might be required trainings for new skills. This could drag down overall economic activities in Halifax.

In general, Halifax may see relatively weaker economic growth in the next several years compared to recent trends, but relative economic functions will pick up thereafter.

2.6.2 *Employment Prospects in Halifax*

In light of the strong employment growth during the 2001-2006 period, and considered with other recent events, the short-and medium-term forecast for Halifax has evolved since over 2003 report (Figure 6):

- For Canada as a whole, employment growth during the period of 2006-2016, will be generally slower than the previous decade. Slower growth is primarily limited to the current economic crisis, which could last well into 2010 and a slowdown in labour force growth;
- Employment growth would be even slower during the 2016-2026 period, due to the aging population and the pending retirement of "baby boomers";
- Across Atlantic Canada, employment growth will end out the 2006-2016 period somewhat slower than during the previous period and remain slower than the national average. The region's Long-term trends in employment growth will be roughly consistent with the country as a whole;
- Nova Scotia performed marginally better than the region during the 1996-2006 period and over the next two decades, its employment growth will essentially parallel the region's average; and
- Halifax had a relatively strong employment growth during the 1996-2006 period, and outperformed Canada as a whole. This pattern is unlikely to be sustained in the long-term. Over the next two decades, Halifax's employment growth is going to be at or below the national average; and
- All told, Halifax's economy could create some 37,000 new positions between 2006 and 2026 according to this scenario – an average annual growth of 1,850 net new jobs (2,330 per year through to 2016 and 1,370 per year thereafter).

Figure 6

Employment Forecast, Various Areas, 1991-2026

	Actual			Projection		Annual Average Growth			Annual Percent Growth		
	1991	1996	2006	2016	2026	1996-2006	2006-2016	2016-2026	1996-2006	2006-2016	2016-2026
	Number of Persons Employed (000s)					*Number of Persons (000s)*			*Percent*		
Canada *	13,005.5	13,318.7	16,021	17,905.6	19,160.9	270.2	188.4	125.5	1.9	1.1	0.7
Atlantic Canada *	943.7	934.0	1,047	1,142.6	1,195.9	11.3	9.6	5.3	1.1	0.9	0.5
Nova Scotia *	390.8	380.8	433	473.9	497.1	5.2	4.1	2.3	1.3	0.9	0.5
Halifax CMA *	167.3 [1.]	167.1	199.5	n/a	n/a	3.2	n/a	n/a	1.8	n/a	n/a
Halifax Regional Municipality **	170.2 [2.]	171.7	208.8	232.1	245.8	3.7	2.3	1.4	2.0	1.1	0.6
Halifax, Alternate Scenarios											
Low Growth	170.2	171.7	208.8	214.9	220.4	3.7	0.6	0.5	2.0	0.3	0.2
High Growth	170.2	171.7	208.8	243.2	267.4	3.7	3.4	2.4	2.0	1.5	0.9

1. Adjusted to 2001 boundary 2. Halifax County, estimate

* Place of residence basis; ** Place of work basis;

Source: Altus Group Economic Consulting based on data from Census Statistics

2004 Report: Figure 6

2.6.3 *Alternative Employment Growth Scenarios*

Even though the updated macroeconomic analysis suggests that HRM is likely to add about 1,850 new jobs per year during the period of 2006-2026, any projection is subject to underlying economic growth assumptions. As explained in the Chapter 0, the uncertainty of short- and medium-term macroeconomic outlooks has increased relative to the 2004 report. Taking this into consideration, this report increases the deviation of low and high growth scenarios from the baseline scenario in the employment growth forecast.

Outcomes from various economic events and government policies may play out differently than anticipated, leading ultimately to economic development and job creation patterns in HRM, which might be higher or lower than the estimated 1,850 persons per year. For example:

- Underlying economic growth in HRM could turn in a stronger than anticipated performance. Under this scenario, a much stronger rebound in energy prices is anticipated, especially for natural gas, as the industry is currently is marketing natural gas as a "green" alternative to coal in electricity generation. Consequently, stronger activity in the energy extraction sector, and more robust capital investment, could be expected, with related economic spinoffs. In addition, development policies from local economic agencies such as Greater Halifax Partnership have the potential to generate greater interest, from outside investors, in sectors such as the life sciences and information technology, which could also result in higher new

business investment in the municipality, accelerating the potential pace of job creation.

Stronger economic and employment growth is part of the high growth scenario relative to the baseline forecast. The high growth considers job growth in HRM of approximately 2,930 persons per year over the period of 2006-2026 (about 3,450 per year through to 2016 and 2,410 per year thereafter);

- Alternatively, it is possible that economic growth through the planning period in HRM could significantly understate the estimates used in this report. The current economic recession may well turn out to be much more protracted than expected, possibly lasting a prolonged period of time such as the US experience in the 1930s or Japanese experience in the 1990s. Under this scenario, the manufacturing sector will continue its sharp decline over the next decade and energy prices will not ever return to its peak levels in early 2008. These events can significantly derail many industries in HRM, leading to years of subpar growth. Under such circumstances, net job creation over the forecast period will be much lower than baseline forecast.

  An alternative growth forecast takes into consideration the likelihood of this negative economic scenario relative to the baseline forecast. The low growth scenario considers job growth in HRM of approximately 580 persons per year through the 2006-2026 period (about 610 per year through to 2016 and 540 per year thereafter)

Each of these alternative scenarios is illustrated in Figure 6. During the remainder of this report, analysis of migration and population implications of the baseline forecast scenario will be presented, along with the accompanying housing needs projections. In all case, the implications of the two alternative economic and job growth scenarios are also presented.

3 POPULATION

By using the cohort survival model, this chapter estimates population growth for HRM, based on three economic growth scenarios and various demographic assumptions.

3.1 PROJECTION FRAMEWORK

3.1.1 *The Cohort Survival Model*

The widely used cohort survival methodology is employed in order to estimate population for HRM through to 2026. This method uses historical data from the Census of Canada and projects future population based on assumptions for the three components of population growth:

- **Births.** Historical fertility rate trends within Halifax and anticipated future trends across Nova Scotia and Canada are used to derive expected fertility patterns in Halifax over the projection period;
- **Deaths.** Historical mortality rates by age and sex within Halifax and anticipated future trends across Nova Scotia and Canada are used to derive expected mortality patterns in Halifax over the projection periods; and
- **Net migration.** Historical migration patterns by age and sex (including international, inter-provincial and intra-provincial) are considered in the model, and anticipated future migration flows are projected to 1) satisfy labour force requirements in conjunction with the employment forecasts (under the three scenarios) presented in Chapter and 2) account for potential migration flows of non-labour-force related migrants such as retirees.

The cohort survival model is based on population growth in five-year increments consistent with the five-year cycle of the Census of Canada.

3.1.2 *Alternative Growth Scenarios*

As in the 2004 study, three sets of population projections are presented in this chapter. The underlying drivers for the three scenarios in the population forecast are the three alternative economic and employment growth scenarios presented in Chapter 2.

In comparison to the baseline scenario, the principal influence on the alternative scenarios is migration. Under the lower employment growth scenario, the local needs for in-migration are somewhat lower over the forecast period and results in lower population growth through the forecast period. Conversely, under the higher employment growth scenario, requirements for in-migration are elevated, and the model predicts higher in-migration and ensuing higher population growth through the forecast period. Otherwise, specific assumptions used in the cohort survival model, such as the birth rate, death rates, etc. are held constant through the three scenarios. Labour participation rates are assumed to respond to underlying condition in the labour market.

3.2 BIRTHS

3.2.1 *Methodology*

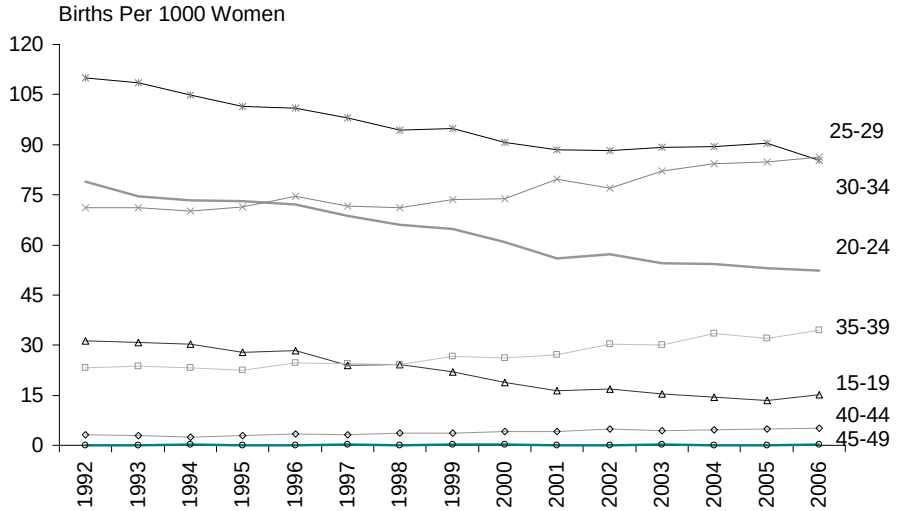
The number of births in each period of the projection is derived using the standard births methodology of the cohort survival approach. Future birth rates are assumed by age of mother and applied to the female population in each period (including an allowance for recent migrants). Typically, women in the 20-34 age cohort account for the bulk of children born.

3.2.2 *Recent Trends*

Recent demographic data from the Province of Nova Scotia suggest that birth rate for mothers aged 15-29 have steadily declined over the past decade, however, birth rates for women aged 30-39 have somewhat increased in the past few years (Figure 7). This is consistent with the general social trends in Canada as women more focus on professional developments (e.g. obtaining post-secondary degrees) and delay their decision to have a child. Overall, the total fertility rate (TFR) (sum across each age cohort) has moderated over the past decade in the province, declined from 1.5 births per woman in 1996 to 1.4 births per woman.

Figure 7

Birth Rates by Age of Mother, Nova Scotia, 1992-2006



Source: Altus Group Economic Consulting based on data from Statistics Canada
2004 Report: Figure 7

To gain a sense of long-term trends in fertility rates, this report examines the Statistics Canada's 2005 report for long-term population projections. In the 2005 report, Statistics Canada estimates that the TFR is most likely to stabilize at the current level at least through to 2026 (Figure 8). Nonetheless, the TFR can potentially fluctuate around the current level. This report adopts the general consensus and assumes the TFR will remain at the current level during the period of 2006-2026.

Figure 8

Total Fertility Rate[1] Assumptions, Statistics Canada Projections, Nova Scotia, 1996-2026

	Growth Scenarios		
	Low	Baseline	High
	Births Per Woman		
1996	1.5	1.5	1.5
2006 [2]	1.4	1.4	1.4
2026	1.2	1.4	1.6

[1] Sum of fertility rates across all age groups

[2] Latest actual data

Source: Altus Group Economic Consulting based on data from Statistics Canada
2004 Report: Figure 8

3.2.3 *Projections 2006-2026*

Figure 9 illustrates the estimates of age-specific fertility rate for HRM over the 1991-2026 period. This study expects fertility rates to remain stable over the forecast period. There are several forces behind the historical decline in fertility rates, particularly among the 15-29 age cohorts:

- Some of the historical decline in theses age cohorts has been connected to women having their first child later in life, and more from women forgoing childbirth altogether. This is partially caused by higher participation by women in education and the labour force, which has prompted many women to delay the birth of their first child and to conceive fewer children over their lifetime. The increased participation of young women in higher education and the labour force has been converging with that of males in recent years, and thereby further large advancement of this trend is less likely. There is less possibility of further shifts in the child bearing choices of women in these younger cohorts. This suggest that the long-term fertility rates should be, at least, stabilize;

Figure 9

Fertility Rate, Halifax Regional Municipality, 1991-2026

Age Groups	1991-1996	1996-2001	2001-2006	2006-2011	2011-2016	2016-2021	2021-2026
	Rates Per One Thousand Women (Per Census Period)						
15-19	0.102	0.094	0.075	0.075	0.075	0.075	0.075
20-24	0.335	0.308	0.258	0.258	0.258	0.258	0.258
25-29	0.520	0.478	0.421	0.421	0.421	0.421	0.421
30-34	0.415	0.381	0.425	0.425	0.425	0.425	0.425
35-39	0.153	0.140	0.170	0.170	0.170	0.170	0.170
40-44	0.022	0.020	0.025	0.025	0.025	0.025	0.025
45-49	0.002	0.002	0.001	0.001	0.001	0.001	0.001
TOTAL	1.548	1.423	1.376	1.376	1.376	1.376	1.376
Total Fertility Rate							
Canada[1]	1.62	n.a.	1.48	n.a.	n.a.	n.a.	1.51
Nova Scotia[1]	1.52	n.a.	1.37	n.a.	n.a.	n.a.	1.37
Halifax	1.55	1.42	1.38	1.38	1.38	1.38	1.38

[1] At end year of period, Statistics Canada Projections

Source: Forecasts by Altus Group Economic Consulting based on data from Statistics Canada 2004 Report: Figure 9

- Population projection guidelines from the United Nations suggest that for developed countries, a long-term steady TFR between 1.5 and 2.0 births per woman is most likely. Halifax's TFR has already

declined to 1.38 births per woman, dipping below these guidelines. It is reasonable to expect the TFR will not decline further in the coming decades, rather stabilize; and

- The assumption adopted in this report is consistent with the medium population growth scenario prepared by Statistics Canada.

The total number of births is influenced by the number of females in each age group in the period. There was a decline in the number of births during the 1990s and the first half of this decade. Further moderation in the number of newborns is expected in the baseline and low growth scenarios during the 2006-2011 period, reflecting changes in the base female population during this period. In the high growth scenario, an increasing number of births are predicted throughout the forecast period (Figure 10).

Birth rates are held constant for each of the three growth scenarios, but the actual number of births varies by scenario based on the difference in the number of females in each age cohort among the three scenarios.

Figure 10 **Total Births, Halifax Regional Municipality, 1986-2026**

Baseline Scenario

Census Periods	Male	Female	Total
		Persons	
1986-1991 *a*	12,390	12,171	24,561
1991-1996 *a*	11,804	11,477	23,281
1996-2001 *a*	10,551	10,020	20,571
2001-2006 *a*	10,015	9,510	19,525
2006-2011 *f*	9,905	9,405	19,310
2011-2016 *f*	10,340	9,820	20,160
2016-2021 *f*	10,745	10,200	20,945
2021-2026 *f*	10,685	10,145	20,830

Low Growth Scenario

Census Periods	Male	Female	Total
		Persons	
2006-2011 *f*	9,830	9,330	19,160
2011-2016 *f*	9,965	9,460	19,425
2016-2021 *f*	9,995	9,490	19,485
2021-2026 *f*	9,765	9,270	19,035

High Growth Scenario

Census Periods	Male	Female	Total
		Persons	
2006-2011 *f*	10,030	9,525	19,555
2011-2016 *f*	10,765	10,220	20,985
2016-2021 *f*	11,445	10,865	22,310
2021-2026 *f*	11,530	10,945	22,475

a : Final data

f : Forecasts by Altus Group Economic Consulting

Source: Altus Group Economic Consulting based on data from Statistics Canada

2004 Report: Figure 10

3.3 DEATHS

3.3.1 *Methodology*

The projections of deaths in Halifax between 2006 and 2026 rely on the standard deaths methodology used in cohort survival models. Death rates are assumed by age and sex cohort and applied to the population by age and sex in each period. The major assumptions applied to this model are modest declines in death rates for all age groups.

3.3.2 *Death Rates*

Figure 11 shows HRM death rates estimated from the 1991-2006 period (using data from Statistics Canada Annual Demographic Statistics) and projections of mortality rates through to 2026.

Figure 11

Death Rates, Halifax Regional Municipality, 1991-2026

Age Groups	1991-1996	1996-2001	2001-2006	2006-2011	2011-2016	2016-2021	2021-2026
Male			*Deaths Per 1,000 Population*				
Infant	5.1	2.8	6.6	6.2	5.7	5.3	4.9
0-9	0.3	0.2	0.4	0.4	0.3	0.3	0.3
10-19	0.3	0.5	0.4	0.4	0.4	0.4	0.4
20-29	0.7	0.6	0.5	0.5	0.5	0.5	0.4
30-39	1.4	1.3	0.9	0.9	0.9	0.9	0.9
40-49	3.0	2.8	2.5	2.4	2.3	2.2	2.1
50-59	7.8	8.2	7.0	6.6	6.1	5.7	5.3
60-69	24.9	20.7	18.1	17.1	16.1	15.1	14.1
70-79	62.2	55.0	48.6	46.3	44.0	41.7	39.4
80-89	155.9	145.1	125.8	121.6	117.5	113.4	109.3
90+	253.0	230.6	237.7	234.1	230.4	226.8	223.2
Female			*Deaths Per 1,000 Population*				
Infant	4.9	3.9	3.7	3.5	3.2	3.0	2.8
0-9	0.4	0.2	0.2	0.2	0.2	0.2	0.2
10-19	0.2	0.2	0.3	0.3	0.3	0.2	0.2
20-29	0.3	0.3	0.4	0.4	0.4	0.4	0.3
30-39	0.8	0.6	0.5	0.5	0.5	0.5	0.5
40-49	1.8	1.6	1.7	1.6	1.5	1.4	1.4
50-59	5.6	5.0	4.1	3.9	3.7	3.6	3.4
60-69	13.8	12.0	11.7	11.5	11.2	11.0	10.8
70-79	34.2	31.6	30.1	29.5	28.8	28.2	27.5
80-89	95.2	95.1	83.2	80.0	76.7	73.5	70.2
90+	200.8	211.0	209.1	201.5	193.9	186.4	178.8

Source: Altus Group Economic Consulting based on Statistics Canada and U.S. Census Bureau data
2004 Report: Figure 11

Gradually declining death rates per age cohort is a general standard assumption, primarily due to advancements in medical research and technology:

- Over the last decades, death rates in HRM declined somewhat for most age groups among males and females; and
- Continued improvements in health care, medical research, disease treatment, nutrition and real personal wealth should further reduce mortality rates by age and sex.

3.3.3 *Projections 2006-2026*

Figure 12 presents the estimates for the number of death for HRM by sex, for each of the three growth scenarios. Even though mortality rates will continue to decline, the number of deaths will keep rising in HRM as the population continues to age into their higher-mortality years (i.e. aging of the population).

Figure 12 **Total Deaths, Halifax Regional Municipality, 1986-2026**

Baseline Scenario

Census Periods	Male	Female	Total
		Persons	
1986-1991 *a*	5,508	4,836	10,344
1991-1996 *a*	5,724	5,395	11,119
1996-2001 *a*	5,990	6,045	12,035
2001-2006 *a*	6,295	6,580	12,875
2006-2011 *f*	8,080	8,235	16,315
2011-2016 *f*	8,685	8,700	17,385
2016-2021 *f*	9,460	9,350	18,810
2021-2026 *f*	10,350	10,225	20,575

Low Growth Scenario

Census Periods	Male	Female	Total
		Persons	
2006-2011 *f*	8,065	8,225	16,290
2011-2016 *f*	8,615	8,660	17,275
2016-2021 *f*	9,330	9,255	18,585
2021-2026 *f*	10,155	10,080	20,235

High Growth Scenario

Census Periods	Male	Female	Total
		Persons	
2006-2011 *f*	8,210	8,265	16,475
2011-2016 *f*	9,065	8,830	17,895
2016-2021 *f*	10,135	9,600	19,735
2021-2026 *f*	11,325	10,605	21,930

a : Final data
f : Forecasts by Altus Group Economic Consulting
Source: Altus Group Economic Consulting based on data from Statistics Canada
2004 Report: Figure 12

3.4 TOTAL NATURAL INCREASE

Compared to the early 1990s, there was a sharp decline in the net natural increase (births less deaths) within HRM during the first half of this decade – net natural increase is about 6,650 persons during the 2001-2006 period, almost half of the number in the 1991-1996 period (Figure 13). As a result of

the factors discussed for births and deaths in Section 3.2 and 3.3, the net natural increase in population is expected to continue its downward trends over the coming decades. All three growth scenarios are going to experience some sharp downturn in net natural increase in population with the low growth scenario suffers the most. Even the high growth scenario will see its net natural increase in population plummeting to some 545 persons in the 2012-2026 period.

Figure 13

Total Natural Increase, Halifax Regional Municipality, 1991-2026

Baseline Scenario

Census Periods	Births	Deaths	Net Natural Increase
1991-1996 *a*	23,281	11,119	12,162
1996-2001 *a*	20,571	12,035	8,536
2001-2006 *a*	19,525	12,875	6,650
2006-2011 *f*	19,310	16,315	2,995
2011-2016 *f*	20,160	17,385	2,775
2016-2021 *f*	20,945	18,810	2,135
2021-2026 *f*	20,830	20,575	255

Low Growth Scenario

Census Periods	Births	Deaths	Net Natural Increase
		Persons	
2006-2011 *f*	19,160	16,290	2,870
2011-2016 *f*	19,425	17,275	2,150
2016-2021 *f*	19,485	18,585	900
2021-2026 *f*	19,035	20,235	(1,200)

High Growth Scenario

Census Periods	Births	Deaths	Net Natural Increase
		Persons	
2006-2011 *f*	19,555	16,475	3,080
2011-2016 *f*	20,985	17,895	3,090
2016-2021 *f*	22,310	19,735	2,575
2021-2026 *f*	22,475	21,930	545

a : Final data
f : Forecasts by Altus Group Economic Consulting
Source: Altus Group Economic Consulting based on data from Statistics Canada
2004 Report: Figure 13

3.5 MIGRATION

Net migration refers to the difference between the number of people moving to a local area from other areas and the number of people moving out of the area. Net migration can be either positive (more people moving in than out) or negative (more people moving out than in) for an area. The former is referred to as net in-migration and the latter as net out-migration.

Net migration can be categorized by the origin of migrants:

- Migration to and from other countries is called international migration (immigration less emigration);
- Migration to and from other provinces is called interprovincial migration; and
- Migration within a single province is called intraprovincial migration.

3.5.1 *Methodology*

The methodology for projecting net international and net interprovincial migration for Halifax, considers only the projections of these components at the baseline scenario level. Projections are also made for net intraprovincial migration based on projections of in-migrants and out-migrants by age and sex within this category.

Two criteria are considered in assessing projections in the case of net interprovincial and net international migration and in projecting the intraprovincial migration by age and sex:

- Migration principally responds to underlying demographic conditions within the area. In the previous chapter three scenarios of potential employment growth for the Halifax Regional Municipality are presented. Based on certain labour force activity rates (the participation rate and the unemployment rate) the potential employment growth implies potential demographic needs, under each scenario. If employment growth is slower than the demographic labour force base, unemployment will rise, and residents will begin to leave the region seeking jobs elsewhere – implying a net-out migration scenario. On the other hand if employment growth is faster than the demographic labour force base, unemployment will fall, wages will rise and migrants from elsewhere in Nova Scotia, Canada and abroad will be attracted into the region – implying a net-in migration scenario.
- Some components of migration are responding to factors other than labour force conditions. For example, many migrants in the 55+ age cohorts are moving within Nova Scotia for lifestyle reasons, particularly in retirement. In addition, there is evidence that many native Haligonians who migrated to elsewhere in Canada during

their working years, return to Halifax for retirement. The Halifax population projections take these migrants into account over and above the job-motivated migrants.

3.5.2 *Labour Force Needs Model*

Figure 14 illustrates a summary of the projected net migration demand based on the estimated labour force needs model with the baseline economic and employment scenario.

Total employment in HRM under the baseline scenario is expected to increase to about 245,790 persons in 2026 from 208,785 in 2006 – a total anticipated gains of some 37,000 jobs over the period. This study assumes that daily commuting inflows, which currently are about 9,300 persons, will stay constant over the forecast period.[4] The growth in labour force (total at about 36,630 persons) will be lower than employment growth. Given the anticipated deceleration in labour supply growth, primarily due to the aging of the population, the unemployment rate is assumed to gradually trend down over time.

[4] The employment inflow/outflow refers to the average daily number of net commuters travelling into HRM for employment.

Figure 14

Labour Force Needs Model, Halifax Regional Municipality, 2001-2026

Baseline Growth Scenario

Total	2001	2006	2011	2016	2021	2026
Employment (Persons)	190,482	208,785	215,445	232,096	240,333	245,790
Inflow/(outflow) Commuters	8,000	9,300	9,300	9,300	9,300	9,300
Employed Labour Force (Persons)	182,445	199,450	206,170	222,820	231,059	236,521
Unemployment Rate (%)	7.2	6.3	7.0	6.0	5.7	5.2
Labour Force (Persons)	196,600	212,860	221,688	237,043	245,026	249,494
Participation Rate (%)	67.1	68.1	67.6	68.3	67.7	66.7
Population				*Persons*		
15-84	288,810	306,960	321,760	340,280	354,870	365,850
0-14 and 85+	70,385	65,885	63,494	66,025	70,191	72,277
Total	359,195	372,845	385,254	406,305	425,061	438,127
Natural Increase (Births - Deaths)[1]	8,536	6,650	2,995	2,775	2,135	255
Population due to Natural Alone[2]	351,511	365,845	375,840	388,029	408,440	425,316
Implied Net Migration[3] Demand	7,684	7,000	9,414	18,276	16,621	12,811

[1] From Figure 13

[2] Previous Census year's population plus the natural increase over the period

[3] From all sources

Source: Altus Group Economic Consulting
2004 Report: Figure 14

The increase in the population, however, which is required to achieve the labour force growth, is much higher – a total of 58,860 new residents are needed to support an additional 36,630 persons in the labour force. Steady declines in the overall participation rates accounts for the difference.

The expected decline in the overall participation rate is due to the aging of the population - generally, older generations (60 years and older) have lower participation rates than younger generations. As the population ages, more people move into lower-participation years, resulting in a lower overall participation rate. In this study, participation rates are estimated by age cohort. Most age groups will either see their participation rates increasing or remaining steady through to 2026 (Figure 15).

Figure 15

Labour Force Characteristics, Halifax Regional Municipality, 2001-2026

Baseline Scenario

Males	2001	2006	2011	2016	2021	2026
Participation Rate			*Percent*			
15-19	48.6	48.7	49.2	49.7	49.7	49.7
20-24	83.4	83.2	84.0	84.8	84.8	84.8
25-34	90.8	90.6	91.5	92.4	92.4	92.4
35-44	91.2	91.9	92.8	93.8	93.8	93.8
45-54	86.1	87.6	89.5	92.4	93.4	93.4
55-64	59.9	64.9	66.5	70.2	72.2	74.2
65+	7.0	10.5	10.6	13.8	15.8	16.8
Total	72.9	72.8	72.1	72.7	72.0	70.9
Labour Force			*Persons*			
15-19	5,635	5,990	5,871	5,501	5,253	5,531
20-24	10,530	11,465	12,442	12,917	12,073	11,377
25-34	23,435	22,290	24,522	29,026	30,755	29,652
35-44	28,615	26,745	23,718	23,458	26,225	30,017
45-54	22,285	25,115	27,531	26,987	24,534	23,813
55-64	9,335	13,605	16,217	19,069	21,290	20,735
65+	1,635	2,740	2,339	3,693	5,037	6,318
Total	101,470	107,950	112,639	120,652	125,166	127,443
Females						
Participation Rate			*Percent*			
15-19	53.4	53.8	54.3	54.9	54.9	54.9
20-24	83.5	82.9	83.7	84.6	84.6	84.6
25-34	80.2	84.5	85.4	88.2	89.2	90.2
35-44	80.7	83.6	84.4	87.3	88.3	88.3
45-54	75.0	80.6	82.4	86.2	87.2	88.2
55-64	39.7	49.0	50.5	54.0	57.0	59.0
65+	3.1	5.5	6.5	8.6	10.6	12.6
Total	61.8	63.9	63.5	64.3	63.7	62.9
Labour Force			*Persons*			
15-19	6,050	6,495	6,281	5,794	5,511	5,838
20-24	11,640	11,890	12,413	12,716	11,760	11,090
25-34	22,650	23,065	24,458	27,530	28,809	27,804
35-44	26,745	25,965	23,733	25,077	27,207	29,020
45-54	20,790	25,105	26,908	26,572	24,738	25,407
55-64	6,525	10,965	13,651	16,107	17,965	17,501
65+	730	1,425	1,605	2,594	3,869	5,392
Total	95,130	104,910	109,049	116,391	119,860	122,051
Total Both Sexes	196,600	212,860	221,688	237,043	245,026	249,494

Source: Altus Group Economic Consulting
2004 Report: Figure 15

Recently, there is evidence that older workers are staying in the labour force longer. Participation rates of older population have been steadily rising over the last decade and this trend is expected to continue, partially due to wealth

effects[5] (i.e. mainly older workers have to stay in the labour force longer to compensate the lack of savings) and health effects (i.e. most older workers are in good physical conditions, allowing for continue active participating in the work force). Female participation rates will continue rising to further catch up with those of males.

Based on those assumptions, the population in HRM will likely rise by a total of about 65,250 persons (including the rise in working age population and related dependent aged persons) over the forecast period.

Calculations in Figure 14 demonstrates that if net migration were zero, then population growth from natural sources alone (i.e. births and deaths) would be insufficient to satisfy the population required to accommodate labour force demand. To support the estimated employment growth, Halifax needs to attract net migration of about 57,090 persons over the 2006-2026 period.

3.5.3 *Labour Force Model Under Alternative Growth Scenarios*

Figure 16 and Figure 17 illustrate the analysis regarding the low and high alternative growth scenarios respectively:

- In the case of the low scenario, lower employment growth in Halifax would lead to lower labour force demands and a corresponding lower draw on in-migration as a source of population growth. It is of note that even under the low employment growth scenario, there remains a net positive need for migration in Halifax to satisfy labour force demand; and
- In the case of the high scenario, higher employment growth in Halifax would lead to higher labour force demands and a correspondingly higher draw on in-migration as a source of population growth.

In addition, participation rates and labour inflow-outflow rates also modified according to the scenarios. During period of weak labour market activity, discouraged workers may leave the labour market, causing participation rates to fall. Commuting flows are also affected by economic conditions.

[5] Since retirees have limited sources of income, they generally require investment incomes from personal savings to complement the loss of salary incomes in their retirement. Prospective retirees need to save enough in their working years, so that, incomes from their personal savings can sustain their current life style. If they do not have the required savings, they have no choice but to remain in the workforce.

Conversely, commuting flows and participation rates can increase in high growth scenario.

Figure 16

Labour Force Needs Model, Halifax Regional Municipality, 2001-2026

Low Growth Scenario

Total	2001	2006	2011	2016	2021	2026
Employment (Persons)	190,482	208,785	210,671	214,918	218,161	220,352
Inflow/(outflow) Commuters	8,000	9,300	8,000	7,800	9,000	9,000
Employed Labour Force (Persons)	182,445	199,450	202,672	207,119	209,161	211,354
Unemployment Rate (%)	7.2	6.3	7.0	6.0	5.7	5.2
Labour Force (Persons)	196,600	212,860	217,927	220,339	221,804	222,947
Participation Rate (%)	67.1	68.1	67.1	65.8	64.5	63.4
Population				*Persons*		
15-84	288,810	306,960	318,770	328,580	336,740	343,840
0-14 and 85+	70,385	65,885	62,636	62,737	64,924	66,009
Total	359,195	372,845	381,406	391,317	401,664	409,849
Natural Increase (Births - Deaths)[1]	8,536	6,650	2,870	2,150	900	-1,200
Population due to Natural Alone[2]	351,511	365,845	375,715	383,556	392,217	400,464
Implied Net Migration[3] Demand	7,684	7,000	5,691	7,761	9,447	9,385

[1] From Figure 13

[2] Previous Census year's population plus the natural increase over the period

[3] From all sources

Source: Altus Group Economic Consulting
2004 Report: Figure 17

Figure 17

Labour Force Needs Model, Halifax Regional Municipality, 2001-2026

High Growth Scenario

Total	2001	2006	2011	2016	2021	2026
Employment (Persons)	190,482	208,785	220,851	243,240	256,916	267,358
Inflow/(outflow) Commuters	8,000	9,300	9,500	9,700	9,900	9,900
Employed Labour Force (Persons)	182,445	199,450	211,376	233,565	247,042	257,483
Unemployment Rate (%)	7.2	6.3	7.0	6.0	5.7	5.2
Labour Force (Persons)	196,600	212,860	227,285	248,473	261,975	271,606
Participation Rate (%)	67.1	68.1	68.1	68.9	68.7	68.3
Population				*Persons*		
15-84	288,810	306,960	327,670	353,910	373,890	389,420
0-14 and 85+	70,385	65,885	64,584	68,819	74,844	78,458
Total	359,195	372,845	392,254	422,729	448,734	467,878
Natural Increase (Births - Deaths)[1]	8,536	6,650	3,080	3,090	2,575	545
Population due to Natural Alone[2]	351,511	365,845	375,925	395,344	425,304	449,279
Implied Net Migration[3] Demand	7,684	7,000	16,329	27,385	23,430	18,599

[1] From Figure 13

[2] Previous Census year's population plus the natural increase over the period

[3] From all sources

Source: Altus Group Economic Consulting
2004 Report: Figure 18

3.5.4 *Net Immigration Projections 2006-2026*

Figure 18 presents the projections for immigration to Halifax in the context of the projection for Nova Scotia and Canada.

During the 2001-2006 period, Canada admitted, on average, some 238,722 new immigrants per year, up more than 28,000 persons from the previous five-year average. Recent years, the Government of Canada has introduced various policies to make Canada more attractive to foreigners and ease the immigration process. For example, in 2008, the Ministry of Citizenship and Immigration introduced a new category of immigration, Canadian Experience Class, targeting certain temporary foreign workers and foreign student graduates with professional, managerial and skilled work experience gained in Canada.

In 2008, Canada welcomed 247,202 new permanent residents, significantly higher than the 2001-2006 average. Moving forward, the number of newcomers to Canada is assumed to rise gradually over the forecast period,

primarily due to proactive immigration policies and strong demand from domestic labour market.

Immigration levels across Atlantic Canada have fluctuated in recent years between about 1.4% and 1.9% of total Canadian immigration. This trend is expected to continue over the 2006-2026 period. Recent years, Citizenship and Immigration Canada have introduced a range of policies to promote immigrant settlements outside of the traditional centres of Vancouver, Toronto and Montreal. Those efforts could help Atlantic Canada to attract and retain newcomers in the years ahead.

Immigrant settlements in Halifax will moderately rise in the medium-term and then stabilize as a share of overall Atlantic Canada based on relative strength in job creation in HRM relative to the rest of the region.

Figure 18

Immigration, Canada, Atlantic Canada and HRM
Baseline Scenario

Census Periods	Canada	Atlantic Canada	Halifax RM	Halifax RM as % Atlantic
	Average Annual Number of Persons			*Percent*
1986-1991 *a*	177,092	2,726	937	34
1991-1996 *a*	236,949	4,475	2,117	47
1996-2001 *a*	210,151	3,459	1,770	51
2001-2006 *a*	238,722	3,265	1,378	42
2006-2011 *f*	239,932	3,500	1,683	48
2011-2016 *f*	244,976	5,190	2,860	55
2016-2021 *f*	260,101	5,000	2,666	53
2021-2026 *f*	265,093	3,700	1,912	52

a : Final data
f : Forecasts by Altus Group Economic Consulting
Source: Altus Group Economic Consulting based on data from Statistics Canada
2004 Report: Figure 19

The projection of emigrants from HRM follows a similar methodology (Figure 19). Overall, emigration from HRM is expected to account for a smaller share of overall emigration from Atlantic Canada, and will remain stable at around 500 persons per year thorough the forecast period.

In terms of net migration, the total number of net international migrants to HRM rise through 2016, then moderate thereafter, primarily in response to slower growth in employment and labour force demand.

Figure 19

Emigration, Canada, Atlantic Canada and HRM
Baseline Scenario

Census Periods	Canada	Atlantic Canada	Halifax RM	Halifax RM as % of Atlantic
	Average Annual Number of Persons			*Percent*
1986-1991 *a*	42,506	1,777	379	21.3
1991-1996 *a*	49,000	1,767	522	29.6
1996-2001 *a*	57,121	1,753	576	32.9
2001-2006 *a*	40,601	1,444	497	34.4
2006-2011 *f*	45,500	1,540	497	32.3
2011-2016 *f*	47,500	1,600	497	31.1
2016-2021 *f*	52,000	1,750	497	28.4
2021-2026 *f*	53,000	1,800	497	27.6

a : Final data
f : Forecasts by Altus Group Economic Consulting
Source: Altus Group Economic Consulting based on data from Statistics Canada
2004 Report: Figure 20

3.5.5 *Net Interprovincial Migration Projections 2006-2026*

Flows of interprovincial migration are mainly driven by varying economic performances across the country. In Nova Scotia, net out-migration has occurred over the past two decades, primarily due to local residents pursuing job opportunities outside of the province. These trends have generally carried over into Halifax, however, to a lesser extent. After some improvement during the period of 1996-2001, net interprovincial migration deteriorated during the 2001-2006 period – the municipality lost, on average, some 318 residents to other provinces during the period (Figure 20).

The situation should improve again in the coming years as the province's economy normalizes. Net interprovincial migration will likely turn positive in the period of 2011-2016 for HRM, contributing between about 205 to 400 persons per year to the local population.

Figure 20

Net Interprovincial Migration, Nova Scotia and HRM
Baseline Scenario

Census Periods	Atlantic Canada	Nova Scotia	Halifax RM
	Average Annual Number of Persons		
1986-1991 *a*	(3,517)	(267)	37
1991-1996 *a*	(6,212)	(1,094)	(435)
1996-2001 *a*	(9,334)	(1,273)	(15)
2001-2006 *a*	(6,226)	(1,445)	(318)
2006-2011 *f*	(6,884)	(1,563)	(89)
2011-2016 *f*	(2,568)	(71)	400
2016-2021 *f*	5,981	3,173	243
2021-2026 *f*	6,618	3,437	205

a : Final data
f : Forecasts by Altus Group Economic Consulting
Source: Altus Group Economic Consulting based on data from Statistics Canada
2004 Report: Figure 21

3.5.6 *Net Intraprovincial Migration Projections 2006-2026*

Trends in intraprovincial migration are driven, in part, by three factors:

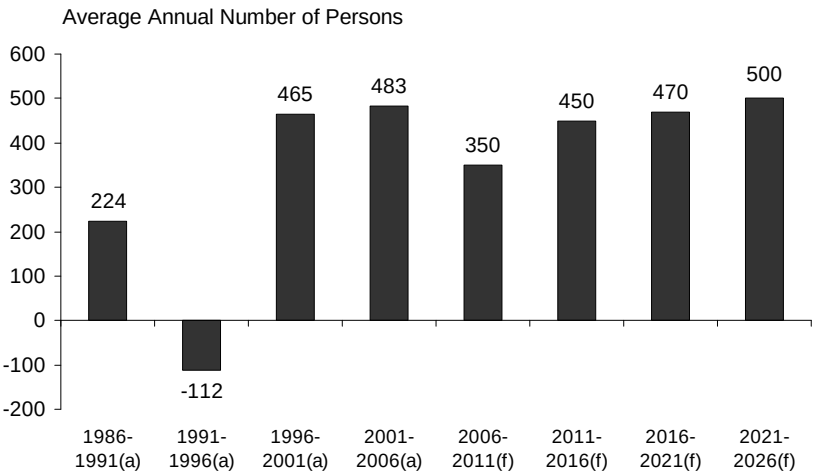
- Relative economic performances across Nova Scotia;
- Lifestyle considerations; and
- Housing affordability.

In the 1991-1996 period, Halifax saw an average of 112 persons per year moving out of the city to other areas of Nova Scotia. However, in the subsequent two five-year periods, HRM saw significant net in-migration - a gain of about 465 persons and 483 persons per year in the period of 1996-2001 and 2001-2006, respectively (Figure 21). This is partially due to the faster than provincial-wide job creation in Halifax throughout the period.

Intraprovincial migration is most affected by shifts in migration related to labour force demand. There will likely be a growing need for migrants to fulfill the workforce demands in HRM in the years ahead. As a consequence, a shift to a modest increase in net in-migration is projected for HRM over the forecast period (Figure 21).

Figure 21

Net Intraprovincial Migration, Halifax Regional Municipality, 1986-2026



(a) Final data; (f) Forecasts by Altus Group Economic Consulting
Source: Altus Economic Consulting based on data from Statistics Canada
2004 Report: Figure 22

3.6 POPULATION PROJECTIONS

3.6.1 *Population Projections, Halifax Regional Municipality, 2006-2026*

Projections of total population by age for the three different growth scenarios are presented in Figure 22, Figure 23 and Figure 24. The historical population is reported from the Census Canada, and projected population is presented on a census population basis. No adjustments are made to account for potential census undercount.

Figure 22

Population by Age Group, Halifax Regional Municipality, 1996-2026
Baseline Scenario

	Census			Projections			
Age Groups	1996	2001	2006	2011	2016	2021	2026
	Number of Persons						
0-4	22,455	19,935	18,205	19,280	20,750	21,425	21,035
5-9	23,700	22,370	19,655	18,300	19,870	21,250	21,700
10-14	22,115	23,695	22,340	19,750	18,870	20,355	21,510
15-19	21,135	22,910	24,360	23,485	21,620	20,605	21,760
20-24	25,605	26,565	28,125	29,635	30,260	28,135	26,520
25-29	27,990	26,445	26,025	29,460	32,225	32,610	29,985
30-34	33,175	27,600	25,850	25,970	30,365	32,940	32,895
35-39	32,015	32,860	27,405	25,855	26,800	31,020	33,235
40-44	28,110	31,650	32,760	27,810	26,960	27,775	31,665
45-49	25,735	28,070	31,575	32,385	27,860	26,960	27,625
50-54	19,120	25,530	28,235	31,025	32,165	27,665	26,665
55-59	14,220	18,345	25,080	27,550	30,545	31,655	27,200
60-64	12,390	13,680	18,255	23,850	26,440	29,340	30,395
65-69	10,670	11,845	13,225	17,140	22,500	24,990	27,755
70-74	9,405	9,715	11,025	11,805	15,415	20,295	22,610
75-79	7,075	8,060	8,570	9,240	10,000	13,090	17,310
80-84	4,545	5,535	6,470	6,555	7,125	7,790	10,225
85+	3,515	4,385	5,685	6,160	6,535	7,165	8,025
Total	342,975	359,195	372,845	385,255	406,305	425,060	438,125

Source: Altus Group Economic Consulting; Historical: Statistics Canada
2004 Report: Figure 23

Figure 23

Population by Age Group, Halifax Regional Municipality, 1996-2026
Low Growth Scenario

	Census			Projections			
Age Groups	1996	2001	2006	2011	2016	2021	2026
	Number of Persons						
0-4	22,455	19,935	18,205	18,875	19,290	19,475	19,030
5-9	23,700	22,370	19,655	18,075	18,865	19,380	19,560
10-14	22,115	23,695	22,340	19,530	18,070	18,950	19,460
15-19	21,135	22,910	24,360	23,195	20,560	19,235	20,110
20-24	25,605	26,565	28,125	28,930	28,130	25,795	24,470
25-29	27,990	26,445	26,025	28,985	30,080	29,515	27,180
30-34	33,175	27,600	25,850	25,605	28,780	30,050	29,485
35-39	32,015	32,860	27,405	25,545	25,490	28,810	30,070
40-44	28,110	31,650	32,760	27,530	25,850	25,925	29,225
45-49	25,735	28,070	31,575	32,235	27,155	25,570	25,655
50-54	19,120	25,530	28,235	30,890	31,640	26,710	25,170
55-59	14,220	18,345	25,080	27,440	30,125	30,945	26,170
60-64	12,390	13,680	18,255	23,770	26,130	28,795	29,645
65-69	10,670	11,845	13,225	17,095	22,325	24,620	27,195
70-74	9,405	9,715	11,025	11,775	15,295	20,080	22,250
75-79	7,075	8,060	8,570	9,225	9,935	12,965	17,110
80-84	4,545	5,535	6,470	6,540	7,085	7,720	10,110
85+	3,515	4,385	5,685	6,155	6,515	7,120	7,955
Total	342,975	359,195	372,845	381,405	391,315	401,665	409,850

Source: Altus Group Economic Consulting; Historical: Statistics Canada
2004 Report: Figure 24

Figure 24

Population by Age Group, Halifax Regional Municipality, 1996-2026
High Growth Scenario

	Census			Projections			
Age Groups	1996	2001	2006	2011	2016	2021	2026
	Number of Persons						
0-4	22,455	19,935	18,205	19,855	22,025	23,220	23,065
5-9	23,700	22,370	19,655	18,465	20,730	22,700	23,625
10-14	22,115	23,695	22,340	20,095	19,525	21,590	23,290
15-19	21,135	22,910	24,360	23,940	22,565	21,645	23,320
20-24	25,605	26,565	28,125	30,680	32,015	29,990	28,240
25-29	27,990	26,445	26,025	30,215	34,185	34,950	32,265
30-34	33,175	27,600	25,850	26,615	31,950	35,535	35,790
35-39	32,015	32,860	27,405	26,320	28,095	33,055	36,195
40-44	28,110	31,650	32,760	28,220	27,845	29,310	33,880
45-49	25,735	28,070	31,575	32,575	28,545	27,965	29,235
50-54	19,120	25,530	28,235	31,270	32,690	28,580	27,865
55-59	14,220	18,345	25,080	27,730	31,040	32,350	28,245
60-64	12,390	13,680	18,255	23,975	26,785	29,945	31,175
65-69	10,670	11,845	13,225	17,700	23,350	25,980	28,960
70-74	9,405	9,715	11,025	12,225	16,530	21,620	24,050
75-79	7,075	8,060	8,570	9,680	10,920	14,560	18,945
80-84	4,545	5,535	6,470	6,520	7,400	8,405	11,255
85+	3,515	4,385	5,685	6,170	6,540	7,340	8,475
Total	342,975	359,195	372,845	392,255	422,730	448,735	467,880

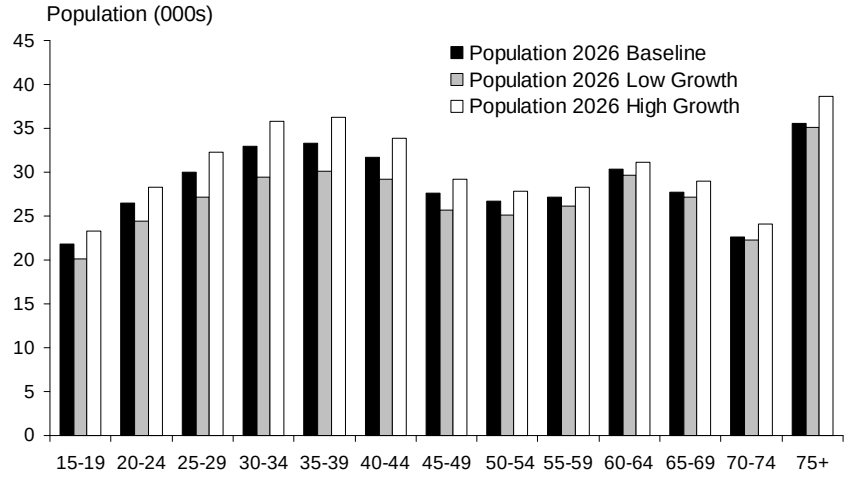
Source: Altus Group Economic Consulting; Historical: Statistics Canada
2004 Report: Figure 25

Figure 25 demonstrates the projected 2026 population for HRM by age cohort:

- Under all three growth scenarios, persons aged 75+ will have the largest share of the city's population;
- Variations between the three growth scenarios with respect to the projected size of the cohorts aged 60+ are relatively small, as these groups are less affected by net migration than among younger age cohorts; and
- The largest variation between the baseline growth scenario and the alternatives scenarios is found among the age 30-44 cohorts, which are more prominently affected by the migration scenarios.

Figure 25

Population, Halifax Regional Municipality
Three Scenarios, 2026



Source: Altus Group Economic Consulting
2004 Report: Figure 26

3.6.2 *Population Growth by Age Cohort*

Figure 26 illustrates the historical and estimated population growth by broadly defined age cohorts, per five-year period through to 2026.

In all three scenarios, the effects of the aging of the population can clearly be seen through the pattern of increased relative and absolute growth among the older cohorts over the forecast period. In the baseline scenario, for example, persons aged 65+ who represent about 40% of growth in the 2001-2006 period, will have an even larger share of growth by 2021-2026.

In the low growth scenario, the effects of the aging population are even more acute as there is less net in-migration of younger workers to offset the aging of existing local population. By contrast, in the high growth scenario, the inflows of an increased number of younger in-migrants provide an offset to the effects of the aging domestic population.

Figure 26

Population Growth by Age Group, Halifax Regional Municipality, 2001-2026

Total Change in Population

	Census		Projections			
	2001	2006	2011	2016	2021	2026
Baseline Scenario			*Number of Persons*			
0-14	(2,270)	(5,800)	(2,872)	2,162	3,538	1,217
15-29	1,190	2,590	4,069	1,524	(2,756)	(3,081)
30-49	1,145	(2,590)	(5,571)	(34)	6,711	6,723
50-64	11,825	14,015	10,856	6,720	(484)	(4,397)
65+	4,330	5,435	5,926	10,678	11,747	12,604
Total	16,220	13,650	12,409	21,051	18,756	13,066
Low Growth Scenario						
0-14	(2,270)	(5,800)	(3,719)	(255)	1,579	247
15-29	1,190	2,590	2,605	(2,348)	(4,221)	(2,787)
30-49	1,145	(2,590)	(6,674)	(3,642)	3,081	4,082
50-64	11,825	14,015	10,530	5,793	(1,442)	(5,469)
65+	4,330	5,435	5,818	10,363	11,350	12,112
Total	16,220	13,650	8,561	9,911	10,347	8,185
High Growth Scenario						
0-14	(2,270)	(5,800)	(1,784)	3,861	5,230	2,478
15-29	1,190	2,590	6,324	3,930	(2,179)	(2,758)
30-49	1,145	(2,590)	(3,858)	2,698	9,434	9,231
50-64	11,825	14,015	11,399	7,546	358	(3,589)
65+	4,330	5,435	7,327	12,441	13,162	13,781
Total	16,220	13,650	19,409	30,475	26,005	19,144

Source: Altus Group Economic Consulting; Historical: Statistics Canada
2004 Report: Figure 27

4 HOUSING NEEDS

This chapter presents estimates for household growth, based on the Altus Group Economic Consulting housing demand model, for Halifax Regional Municipality.

4.1 METHODOLOGY

Our in-house housing model is employed to generate household growth projection of HRM in this study. This model is based in the first instance, on the population projections prepared in the previous section. Age-specific propensities are used to project the number of family and non-family households and are applied to obtain projections of family, non-family and total family households by age group (age of the household head). The family projections are then disaggregated further into couples with children at home, couples without children at home, lone-parent and multi-family households.

These detailed family type projections are then used to help project housing demand by dwelling type in six categories based on a relationship between family type and dwelling type – single-detached, semi-detached, row, high-rise apartment, low-rise apartment and all other. From a planning perspective, an estimate of potential development needs via three density categories is preferred. Altus Group Economic Consulting reorganizes the results of the housing demand model into three board categories - low density (single detached and semi detached), medium density (row housing) and high density (apartments and other).

Finally, incremental housing needs are assessed based on the resulting underlying household demand, and an assessment of supply factors, which might also influence the mix, quantity and location of new housing likely to be provided over the projection period.

4.2 HEADSHIP RATES

Headship rates have the largest impact on the projection of household growth. Headship rates measure the proportion of people in a specific age cohort who are considered heads of their households.[6] Generally speaking, headship rates are relatively low among the 15-19 aged cohort and rise

[6] Referred to as "Household Maintainers" in the Census Canada.

rapidly through the 20s and 30s. Based on 2006 census, headship rates continue to modestly rise with the aging of population and stabilize.

Figure 27 shows the headship rates for HRM by age cohort in the 2006 census. In general, headship rates rose marginally across most age groups between 2001 and 2006 – a change most likely motivated by the positive economic conditions in Halifax and relatively low mortgage rates compared to historical average over the period. This report employs the following assumption regarding headship rates through the forecast period:

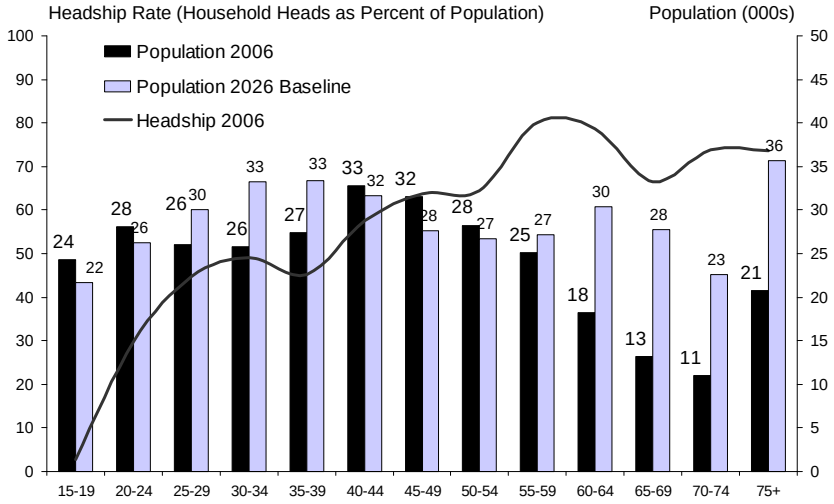
- In the 2006-2011 period, average household growth is expected to be some 1,932 units per year under the baseline scenario – based on an analysis of housing starts and completions to date and trends in new developments. The baseline scenario assumes that rental vacancy rates and inventories of completed but unoccupied dwellings will remain steady between 2008 and 2011. This magnitude of household growth, given the estimated population growth during this period in Chapter 3, is based on very moderate declining headship rates through to 2011, partly in response to weaker economic conditions and greater uncertainty; and
- After 2011, it is assumed that any cyclical shifts in headship rates will have worked though the system, and that headships rates should remain constant through to 2026.

In addition, the baseline population projection anticipates that there will be an increase for all cohorts 55 years and older, and a mixture of gains or losses of population for cohorts up to 55 years old.

As a consequence, household growth in HRM over the forecast period is a function of both overall population growth and the "leveraged growth" from the aging of the local population – the pace of household formation will get a boost as the population ages into its higher household formation years.

Figure 27

Headship Rates and Population, Halifax Regional Municipality, 2006-2026



Source: Altus Group Economic Consulting based on data from Statistics Canada
2004 Report: Figure 28

4.3 HOUSEHOLD GROWTH BY STRUCTURAL TYPE

Based on the historical data on household formation by structural type and assumptions regarding future trends, the report also presents projections of potential household growth by dwelling type.

The study divides housing structure type into three main categories: single- and semi-detached (low density), row (medium density), and apartments and other (high density). The result of the baseline forecast is presented in Figure 28. Some findings from the analysis include:

- The demographic shifts anticipated in the population profile, along with factors such as continuing urban intensification, all suggest that medium and high density housing demand will continue to be a strong component in HRM over the forecast period;

Figure 28

Annual Household Growth, Halifax Regional Municipality, 1996-2026

Baseline Scenario

Census Periods	Single and Semis	Row	Apartments and Other	Mobile	Total	Total Ex. Mobile
			Average Annual Occupied Dwelling Units			
1996-2001	1,832	45	874	(174)	2,577	2,751
2001-2006	880	20	1,160	65	2,125	2,060
2006-2011	1,005	105	765	60	1,935	1,875
2011-2016	1,240	125	925	70	2,360	2,290
2016-2021	1,355	150	1,005	80	2,590	2,510
2021-2026	1,235	120	795	65	2,215	2,150
2006-2026						
Average Annual	1,209	125	873	69	2,275	2,206
Total	24,180	2,500	17,460	1,380	45,500	44,120
Census Periods			*Percent Distribution*			
1996-2001	71	2	34	(7)	100	n.a.
2001-2006	41	1	55	3	100	n.a.
2006-2011	52	5	40	3	100	n.a.
2011-2016	53	5	39	3	100	n.a.
2016-2021	52	6	39	3	100	n.a.
2021-2026	56	5	36	3	100	n.a.
2006-2026	53	5	38	3	100	n.a.

Source: Altus Group Economic Consulting
2004 Report: Figure 29

- Low density housing will continue to account for the majority of new housing in HRM and its proportion should stabilize around 53% of total new housing in the forecast period, rising from a low of some 41% in the 2001-2006 period;
- Medium density housing has traditionally accounted for a relatively small share of overall household growth in HRM. There is some evidence to suggest that among ground-oriented housing, medium density row development will capture modestly greater shares through the forecast period as intensification takes place in core zones, and as demand for lifestyle communities increases with the aging of the population. Medium density household demand will likely rise from about 1% in the 2001-2006 period to some 5% of total household demand through to 2026; and
- More than half (55%) of household growth in 2001-2006 was among apartments and other. This is a significant jump from the previous five-year average of 34%. A change in household composition of this magnitude within a short period is unlikely to represent a long-term

trend. Rather, it is likely caused by short-term housing supply issues. Based on the number of apartments recently started, under construction or recently completed, the report estimates apartment dwellings would account for about 40 percent of growth in the period of 2006-2011, roughly consistent with its long-term trends. Over the remainder of the forecast period, the proportion of household growth destined for apartments will somewhat maintain at this level.

4.4 HOUSING GROWTH – ALTERNATIVE SCENARIOS

Two alternative scenarios of economic and population growth are presented in this study – a high and a low growth scenario. Potential household demand and ultimate household growth will be effected by the various population scenarios.

The housing demand model is also employed to estimate total potential housing demand under the two alternative scenarios, and to provide guidance on the distribution of this demand by housing structure type (Figure 29 and Figure 30). Several demographic and urban growth factors were also taken into consideration in assessing the likely influence of the alternate population scenarios on potential housing demand by structure type, including:

- Demand for low-density structures, particularly single detached homes, is most heavily influenced by homeowners between the ages of 35 and 59. These cohorts are also the most dramatically influenced by the three scenarios. In the low growth scenario, population in some of these groups is actually set to decline over the forecast period, and in the high growth scenario, it is expected to expand among all these groups. This differential will have an influence on the potential demand for single-detached homes in particular. Demand for single detached relative to other types will be stronger in the high growth scenario and weaker in the low growth scenario; and
- Conversely, propensities toward high-density housing, particularly apartments, will be generally lower in the high growth scenario and generally higher in the low growth scenario. Historically, both rental and ownership apartment demand rises relative to other housing types among householders aged 60+.

More of the population growth is concentrated among these age groups in the low growth scenario than the other scenarios, and so apartment demand is expected to get a boost in the low growth scenario relative to other structure types.

Figure 29

Annual Household Growth, Halifax Regional Municipality, 1996-2026

High Growth Scenario

Census Periods	Single and Semis	Row	Apartments and Other	Mobile	Total	Total Ex. Mobile
			Average Annual Occupied Dwelling Units			
1996-2001	1,832	45	874	(174)	2,577	2,751
2001-2006	880	20	1,160	65	2,125	2,060
2006-2011	1,320	105	875	70	2,370	2,300
2011-2016	1,985	145	1,280	105	3,515	3,410
2016-2021	2,135	200	1,430	115	3,880	3,765
2021-2026	1,985	185	1,320	110	3,600	3,490
2006-2026						
Average Annual	1,856	159	1,226	100	3,341	3,241
Total	37,120	3,180	24,520	2,000	66,820	64,820
Census Periods			*Percent Distribution*			
1996-2001	71	2	34	-7	100	n.a.
2001-2006	41	1	55	3	100	n.a.
2006-2011	56	4	37	3	100	n.a.
2011-2016	56	4	36	3	100	n.a.
2016-2021	55	5	37	3	100	n.a.
2021-2026	55	5	37	3	100	n.a.
2006-2026	56	5	37	3	100	n.a.

Source: Altus Group Economic Consulting
2004 Report: Figure 31

Figure 30

Annual Household Growth, Halifax Regional Municipality, 1996-2026

Low Growth Scenario

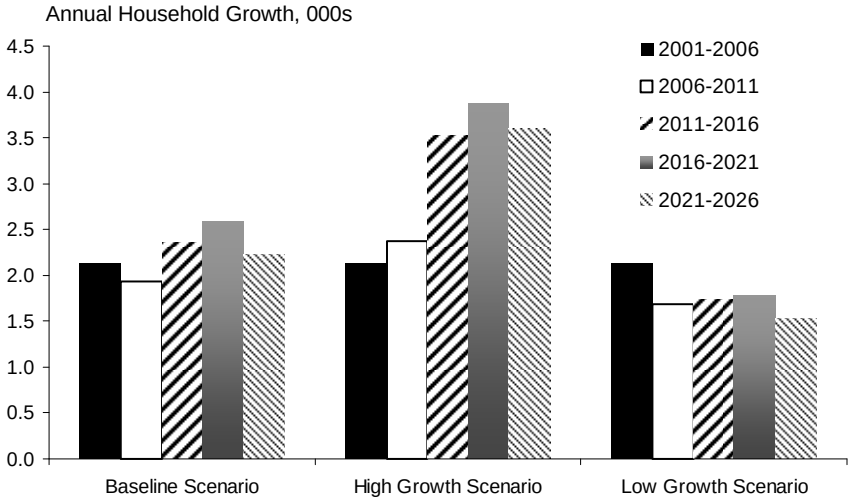
Census Periods	Single and Semis	Row	Apartments and Other	Mobile	Total	Total Ex. Mobile
			Average Annual Occupied Dwelling Units			
1996-2001	1,832	45	874	(174)	2,577	2,751
2001-2006	880	20	1,160	65	2,125	2,060
2006-2011	885	80	670	50	1,685	1,635
2011-2016	900	95	690	50	1,735	1,685
2016-2021	930	85	710	55	1,780	1,725
2021-2026	770	100	610	45	1,525	1,480
2006-2026						
Average Annual	871	90	670	50	1,681	1,631
Total	17,420	1,800	13,400	1,000	33,620	32,620
Census Periods			*Percent Distribution*			
1996-2001	71	2	34	(7)	100	n.a.
2001-2006	41	1	55	3	100	n.a.
2006-2011	53	5	40	3	100	n.a.
2011-2016	52	5	40	3	100	n.a.
2016-2021	52	5	40	3	100	n.a.
2021-2026	50	7	40	3	100	n.a.
2001-2031	52	5	40	3	100	n.a.

Source: Altus Group Economic Consulting
2004 Report: Figure 31

Figure 31 presents the effect of the alternative growth scenarios on total potential household growth during the period of 2001-2026.

Figure 31

Potential Household Demand, HRM, 2001-2026



Source: Altus Group Economic Consulting based on data from Statistics Canada
2004 Report: Figure 32

Appendix
Changes Between the 2004 and 2006 Reports

Altus Group Economic Consulting (formerly Clayton Research) produced a report on long-term growth projections for Halifax Regional Municipality in 2004. Since the completion of the 2004 report, Statistics Canada has released results from the 2006 Census of Canada. Figure A-1 sets out the estimates for various quantities from the 2004 report and compares them to actual for the period as reported in the 2006 Census, and through other data such as the CMHC's starts and completions survey. Key highlights of this comparison are:

- The economic development scenario in the 2004 report underestimated the quantity of employment growth in the period as set out in the Census data. The Census reveals growth of some 18,300 net new jobs over the period, modestly above our high scenario;
- Both the population and household growth projections set out in the 2004 report generally captured the actual pace of growth in the period. Population and household growth ended the period between the low and baseline scenarios;
- Within the household growth components, the report appears to have under-predicted the quantum of apartment household growth and over-predicted the quantum of single-family household growth; and
- It is of note that, although there appears to have been a divergence by household type from the predictions, the 2004 report's completions forecast generally captures the actual completions over the period and by type as revealed in CMHC's Starts and Completions Survey.

There are also a number of differences in base assumptions regarding to local short- and medium-term economic prospects:

- In October 2008, the world economy suffered a massive financial crisis and ensuing international synchronised recession, which dramatically altered short-term expectations from investors and economists on the world economic outlook;
- Since the 2004 report, the Canadian economy experienced a commodity boom, followed by a spectacular burst in 2008. Even though commodity prices have declined substantially from their historical highs in 2008, the long-term outlooks for most oil and gas projects in the province have not changed. The energy sector has

become a major driver of economic developments in the province and Halifax, and is going to help the region to survive the current economic recession;

- The Canadian dollar saw significant appreciation during the years following the 2004 report, which created a major challenge to Canada's manufacturing industry. The current economic slump in the United States further accelerates the industry's deterioration;

Figure A-1

HRM Urban Growth Framework, 2001-2006 period

	As per 2004 Report	Published Data	Source
Employment (persons)			
Low Growth	5,618		
Baseline Scenario	10,518	18,303	Census
High Growth	15,518		
Population (persons)			
Low Growth	9,585		
Baseline Scenario	18,125	13,663	Census
High Growth	26,805		
Households (units)			
Low Growth	10,525		
Baseline Scenario	13,975	10,630	Census
High Growth	16,850		
SF Households (units)			
Low Growth	6,425		
Baseline Scenario	8,475	4,865	Census
High Growth	10,550		
Apt. Households (units)			
Low Growth	4,100		
Baseline Scenario	5,500	5,765	Census
High Growth	6,300		
Housing Completions (units)			
Low Growth	12,500		
Baseline Scenario	13,400	13,172	CMHC
High Growth	14,350		
SF Housing Completions (units)			
Low Growth	8,150		
Baseline Scenario	8,800	8,584	CMHC
High Growth	9,500		
Apt. Housing Completions (units)			
Low Growth	4,350		
Baseline Scenario	4,600	4,588	CMHC
High Growth	4,850		

Source: Altus Group Economic Consulting based on data from Statistics Canada and CMHC

- The recently-announced stimulus plan from the federal government is going to mitigate some short-term distresses in the local economy;
- Other macro and policy factors that have emerged since 2004 have also had an influence in the preparation of this report, such as the work by the federal government to pursue a free trade deal with the EU.
- Based on above factors, the employment projection for Halifax Regional Municipality is revised upward slightly. This is, in part, to due higher employment growth during the period of 2001-2006 and the assumption of a recovery in the energy market and the manufacturing industry; and
- Although the short- to medium-term expectations are altered, the long-term expectation on Halifax's economy is generally consistent between the two studies – this study has a more optimistic outlook on the region's economy.

The updated outlook on local employment growth will ultimately affect population growth in Halifax, primarily through economic migration (i.e. workers move-in and –out of the city due to employment). In addition, estimates on local fertility and death rates, and migration patterns have also updated, based on 2006 Census data and new annual population data from Statistics Canada. Even though the absolute values of population growth are different between the two studies, underlying trends in population, for the most part, are consistent.

In this report, the share of each housing component (single and semis, row, apartments and other, and mobile) as a percent of total household growth in HRM is consistent with the estimates in the 2004 report. Looking ahead, the household growth pattern should converge with its long-term trends.