**Northern British Columbia Service Industry Sector Study**

**Population Background and Trends Report**

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April 2008

## Table of Contents

# List of Figures

***Northern British Columbia***

# List of Tables

***Peace River Regional District***



***Skeena-Queen Charlotte Regional District***

***Stikine Region***



***Northern British Columbia***

## Acknowledgements

This 'Population Background and Trends Report' is part of the Northern BC Service Industry Sector Study. Its purpose is to describe and highlight key facets of northern BC's demographic profile as it relates to future labour force needs. With a special focus on the Service Industry Sector, attention is given to both the potential future workforce, as well as potential growth or change in service dependent populations.

Funding for this project came from Service Canada.

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Prince George
April 2008

## Availability

Copies of all reports associated with the Northern BC Service Industry Sector Study are available in a number of locations. At the University of Northern British Columbia, copies have been deposited at the Geoffrey R. Weller Library or can be accessed on the Community Development Institute website: http://www.unbc.ca/cdi/research.html.

## Project Reports

Population Background and Trends Report
Extracting More Value Report
Quantifying the Problem Report
Solutions and Options Report

## Contact Information

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# 1.0 Project Description

Much has been written about the transformation of the North American economy and the rise of the Service Industry sector. As knowledge and information become increasingly valued commodities, the need for workers in all components of the Service Industry sector will be crucial to extracting increased value and GDP from the traditional basic sectors of the economy.

Across northern BC, the Service Industry sector has been, and will continue to be, a critical part of local and regional economic development. For example, Timber Supply Reviews by the Ministry of Forests routinely identify a multiplier effect from direct forest industry jobs of between 2.1 and 3.1, with most of this indirect employment and benefit being in the Service Industry sector. In other words, it is through the Service Industry sector that jobs and GDP are generated in northern BC's communities. The proposed new inland container port study for Prince George estimates about 75 direct jobs, but over 800 indirect jobs, again with most of these being in the Service Industry sector. The current economic upswing in resource industry development has exposed a critical lack of Service Industry sector employees across the north. Firms are unable to find employees across almost all of the industry components listed above, and this limits our ability to respond to opportunity and reduces the benefits that our communities and regions are able to derive from such development activity. This has emerged as a critical labour market issue in northern BC.

This project seeks to delineate this labour market issue and identify practical responses to addressing the gaps in both the short and long term. The objective of the project is to use information from a cross-section of northern communities to identify the labour shortage in the Service Industry sector in northern British Columbia. This project will also draw upon the participation of Service Industry sector employers to identify and develop practical strategies for dealing with the labour shortage issues in northern BC's Service Industry sector. The work was carried out by a research team from UNBC with the goal to provide local leaders with information relevant to decision-making over human resource management issues, such as labour recruitment, training, and development. The project was carried out in 2008.

**Table 1.1 Timeline**

| | |
|---|---|
| **November / December 2007** | • Finalize project plans<br>• Agreement on project tasks, goals, and deliverables<br>• UNBC Community Development Institute team in place<br>• UNBC Research Ethics Board application completed<br>• Identification of Project partners<br>• Advisory Committee established |

| | |
|---|---|
| | • Meeting with Advisory Committee (via conference call for those outside of Prince George) October 24<br>• Initiate Northern BC Population Report work<br>• Initiate Extracting More Value Report work<br>• Development of interview questions for Part I<br>• Identify Part I communities<br>• Identify Part I list of interviewees |
| **January / February 2008** | • Finalize the Part I community list<br>• Finalize the Part I interviewee list<br>• Meeting with Advisory Committee (via conference call for those outside of Prince George)<br>• Finalize the Part I interview questions<br>• Part I interview questions on CDI website<br>• Fieldwork logistics and travel schedule in place for Part I. |
| **February / April 2008** | • Part I interviews |
| **April / May / June 2008** | • Transcribing of Part I interviews<br>• Analysis of interview information<br>• Draft report from Part I: Quantifying the Problem Report<br>• Review of draft quantifying the Problem Report by Advisory Committee<br>• Draft of the Northern BC Population Report is ready<br>• Identify list of Part II key informants<br>• Development of questions for Part II key informant meetings<br>• Set up of Part II key informant interviews<br>• Confirm community travel/visit schedule<br>• Part II key informant interview questions on CDI website<br>• Draft Quantifying the Problem Report on the CDI website |
| **July / August / September 2008** | • Community key informant interviews (Minimum of 15 communities and 40 interviews)<br>• Complete the Quantifying the Problem Report<br>• Complete the Northern BC Population Report<br>• Northern BC Population Report completed (August) |
| **September / October 2008** | • Transcribe Part II interviews<br>• Analysis of interview information.<br>• Complete Part II analysis. |
| **November 2008** | • Meeting with Advisory Committee (via conference call for those outside of Prince George)<br>• Drafting of Solutions and Options Report |
| **December 2008** | • Meeting with Advisory Committee (via conference call for those outside of Prince George)<br>• Review of draft Solutions and Options Report by Advisory Committee<br>• Draft Solutions and Options Report distributed via email to project interviewees for review<br>• Draft Solutions and Options Report on the CDI website |
| **January 2009** | • Completion of final reports |
| **February 2009** | • Project Completion<br>• Meeting with Advisory Committee (via conference call for those outside of Prince George)<br>• Submission of project final reports<br>• Distribution of final reports<br>• Final reports on CDI website |

## 2.0 Methodology

The data for this section of the project was collected through a review of Statistics Canada's Census population data from 1981 to 2006. The Census is undertaken every five years and provides information on the age distribution of local populations. While the age groupings at which population information is reported varies between Census periods, it is none-the-less possible to reconstruct the recent population history of communities across northern B.C. Analysis of this population data assessed the following issues:

- the rates of population growth in pre and post retirement age groups, and
- the retention rates amongst the young portion of the labour force (15 to 29 years of age), as estimated by the age structure of the population over time and the number of youth remaining in the community.

Understanding changes in these rates will help communities to assess pressures in the labour force. A detailed account of population calculations is provided in Appendix X.

Caution must be taken when interpreting the Census recording of First Nations and aboriginal population data. Data collection has proven to be a challenge for Statistics Canada, and the community data should be treated as 'undercounting' First Nations and aboriginal population data.

A final caution concerning the interpretation of population data stems from changes in the boundaries of some regional districts. Prior to 1987, the Peace River-Liard Regional District included all of the major communities in the northeastern section of B.C., including Fort St. John, Dawson Creek, Chetwynd, Fort Nelson, and Tumbler Ridge. The boundaries of the district extended from the Yukon/Northwest Territories border (the $60^{th}$ parallel) in the north to the south end of Kakwa Provincial Recreation Area in the south, and from the Arctic-Pacfic watershed divide in the west to the Alberta border (the $120^{th}$ meridian West).

In 1987, the northern portion of the former Peace River-Liard Regional District (above the $58^{th}$ parallel) separated to form the Fort Nelson-Liard Regional District. This included an area centred around Fort Nelson, but also contained smaller service communities along the Alaska Highway from Prophet River north. In October 1999, this new regional district was renamed as the Northern Rockies Regional District.

After the secession of Fort Nelson-Liard, the Peace River-Liard Regional District was renamed as the Peace River Regional District. It continues to hold most of the major service centres and communities from the Peace River-Liard Regional District including Fort St. John, Dawson Creek, Chetwynd, Tumbler Ridge, Hudson's Hope, Taylor, and Pouce Coupe).

## 3.0 Understanding Population Changes in Northern B.C.

In northern British Columbia, population changes have been driven by economic growth followed by restructuring periods. Following World War II, 'province-building' policies and schemes expanded the rapid development of northern B.C. (Halseth et al. 2004). Industrial development was driven by forestry, mining, and fish processing for many places (Robinson 1989). These growth patterns were driven by a large influx of young families and high fertility rates (Hanlon and Halseth 2005). Since the recession of the early 1980s, however, a range of pressures have resulted in considerable instability in these resource communities, including the adoption of labour saving technology, layoffs, plant closures, and the curtailment of diversification (Barnes and Hayter 1992; Everitt and Gill, 1993; Williamson and Annamraju, 1996; Effland, 2000). Population losses are exacerbated by the closure of services, such as schools, post offices, and health care services (Hanlon and Halseth 2005). There are a few exceptions to declining trends. For example, the oil and gas sector has boomed in the Peace River Region since 1999 (Halseth et al. 2004).

Regardless, a serious problem across northern B.C. is the absence of diversified economies. As economic restructuring took place in largely single-industry resource towns, there were limited remaining employment options to retain labour. With a mature resource industry, many job classifications were firmly established with limited opportunities for advancement or new entries (Hanlon and Halseth 2005). The out-migration of labour resulted in many communities. In particular, job losses tended to affect younger residents, many of which had young families (Hanlon and Halseth 2005). An out-migration of young labour, an aging older workforce, and a growing seniors' population has resulted in aging-in-place. In Hanlon and Halseth (2005: 5), aging-in-place is referred to as the "demographic characteristic of populations or places whereby the rate of growth in the population of seniors (e.g., those aged sixty-five and older) is increasing over time or else is greater than the increases in the population of non-seniors over a given time period". The cyclical nature of resource development, however, is expanding the demand for labour again, particularly in the mining and oil and gas sectors. As development and production continue, there is a need for labour in supporting service sectors.

For the remainder of this report, each section examines changes in population data to identify labour shortage issues for a particular regional district. The first series of tables will depict population counts and the percentage of population change between 1981 and 2006.

Against this backdrop of population growth or decline are associated changes in the population's age structure. Changes in age structure reflect the preceding discussion with respect to population aging and its constituent elements: youth out-migration and aging-in place. Population pyramids provide a 'picture' of the local or regional population at any given point of time. Broken down into males and females, the pyramid identifies the proportion of the population within particular age groups. As a result, pyramids can provide a useful tool for illustrating how a local population is changing over time. It is

important to note that age data in 1971 and 1986 were not available in the necessary 5 year age intervals, with the result that we could not build a population pyramid for these periods. Furthermore, due to very small population numbers, no population pyramids are produced for a First Nations reserve in the Fraser-Fort George Regional District.

Population change may also be understood by assessing shifts in older populations. In each section, changes in the percent of the population aged 65 years and older, as well as changes in the percent of the workforce between 45 and 64 years of age are examined for each regional district. Understanding changes in the older workforce cohort will help communities to understand emerging labour shortage pressures. As these age groups become more pronounced within an overall aging population, labour shortage issues can become a significant problem for many businesses and organizations.

The transition in age relationships can also be characterized by 'dependency ratios'. A dependency ratio calculates the proportion of the population of interest against the remainder of the population in a particular place. The total dependency ratio combines all those people over the age of 65 with all those people under the age of 15 and compares this to the remainder of the population. That is, those who are children (not in the workforce) and those who are retired (not in the workforce) are combined and compared against the workforce which would be supporting them. This is a statistical measure to try to illustrate changes in the relationship between the working age population and the very young and older populations. Thereafter, a review of the young dependency ratio compares the share of the population under age 15 to the rest of the working age population. The old dependency ratio compares the share of the population over age 64 to the rest of the working age population.

While many of the preceding data explores how the population has changed, and how there is a 'bubble' of older workers approaching retirement in many geographic areas, this section deals with an estimate of how the younger cohort of the labour force may change in the coming years. In all of these estimates, we have used 5 year time periods. These are from 1986 to 1991, 1991 to 1996, 1996 to 2001, and 2001 to 2006. We are concerned with the retention rates or size of specific population age groups over each of these four periods. Our focus is around youth completing high school (15-19 years of age), youth entering into the workforce (20-24 years of age), and young adults with young families (25-29 years of age). This basic calculation involves comparing the size of the population that represents these age groups in the first time period against the population that is aged-in-place five years later in period two. From this we can estimate the percent of the workforce that may be retained.

# 4.0 Bulkley-Nechako

## Population Change

***Bulkley-Nechako***

Table 4.1 shows the population numbers for the Bulkley-Nechako Regional District, as well as a number of communities located within this region, from 1976 to 2006. Across the regional district, there was a steady growth from 1976 to 1996, with an increase in 9,024 residents. During this period, growth was more prominent in Vanderhoof, Smithers, Houston, and Telkwa.

Following 1996, there has been a population loss of 3,398 residents across the regional district. Although Granisle has been experiencing population decline since 1976, substantial population losses have also occurred in Fort St. James, Houston, and Fraser Lake between 1996 and 2006. Smithers, Vanderhoof, and the unincorporated areas in the regional district also lost population during this time period. Population loss for these towns mirrors a more general pattern of population losses over the same time period for towns across northern B.C. (see Appendix B). Despite recent population decline across the regional district, the population increased for both Burns Lake and Telkwa between 1996 and 2006. Census data for Nak'azdli records a population of 363 in 1986 and growing to a population of 511 by 1996. By 2006, this First Nations reserve had declined to 495 people.

**Table 4.1 Census population in the Bulkley-Nechako Regional District, 1976-2006, by total population numbers**

| Place | 1976 | 1986 | 1996 | 2006 |
|---|---|---|---|---|
| **Bulkley-Nechako** | **32,617** | **37,470** | **41,641** | **38,243** |
| Burns Lake | 1,433 | 1,723 | 1,793 | 2,107 |
| Fort St. James | 2,110 | 1,983 | 2,046 | 1,355 |
| Fraser Lake | 1,430 | 1,182 | 1,344 | 1,113 |
| Granisle | 1,210 | 646 | 446 | 364 |
| Houston | 2,673 | 3,905 | 3,934 | 3,163 |
| Smithers | 3,783 | 4,713 | 5,624 | 5,217 |
| Telkwa | 691 | 863 | 1,194 | 1,295 |
| Vanderhoof | 1,990 | 3,505 | 4,401 | 4,064 |
| *Unincorporated* | *17,297* | *18,950* | *20,859* | *19,565* |
| British Columbia | 2,392,790 | 2,883,367 | 3,724,500 | 4,113,487 |

Source: Statistics Canada 1976, 1986, 1996, 2006.

As shown in Table 4.2, population change in B.C. was approximately 20.5% from 1976 to 1986, 29.2% from 1986 to 1996, and 10.4% from 1996 to 2006. In contrast to

provincial growth rates, the Bulkley-Nechako Regional District experienced slower growth rates from 1976 to 1996, followed by population declines during the 1996 to 2006 period. During the 1976 to 1986 period, Vanderhoof, Houston, Smithers, and Telkwa grew at a much higher rate than the provincial average. Growth rates for Burns Lake resembled provincial trends. Therefore, the slower growth rate for the regional district during this initial period is attributed to declines in Granisle, Fraser Lake, and Fort St. James.

By 1996, the growth rate of most of these communities had slowed down. A notable exception includes Granisle, which continued to decline between the 1986 and 1996 period. Following 1996, substantial population losses had occurred in places such as Fort St. James, Houston, Granisle, and Fraser Lake. Only Burns Lake and Telkwa continued to grow, although at slower rates than the provincial average. In the case of Nak'azdli, Census data indicates a population growth of almost 29.0% between 1986 and 1996 before declining by 3.1% in 2006.

**Table 4.2 Census population change in the Bulkley-Nechako Regional District, 1976-2006, by total % change in population**

| Place | % change 1976-1986 | % change 1986-1996 | % change 1996-2006 |
|---|---|---|---|
| **Bulkley-Nechako** | **14.88** | **11.13** | **-8.16** |
| Burns Lake | 20.24 | 4.06 | 7.51 |
| Fort St. James | -6.02 | 3.18 | -33.77 |
| Fraser Lake | -17.34 | 13.71 | -17.19 |
| Granisle | -46.61 | -30.96 | -18.39 |
| Houston | 46.09 | 0.74 | -19.60 |
| Smithers | 24.58 | 19.33 | -7.24 |
| Telkwa | 24.89 | 38.35 | 8.46 |
| Vanderhoof | 76.13 | 25.56 | -7.66 |
| *Unincorporated* | *9.56* | *10.07* | *-6.20* |
| British Columbia | 20.5 | 29.2 | 10.4 |

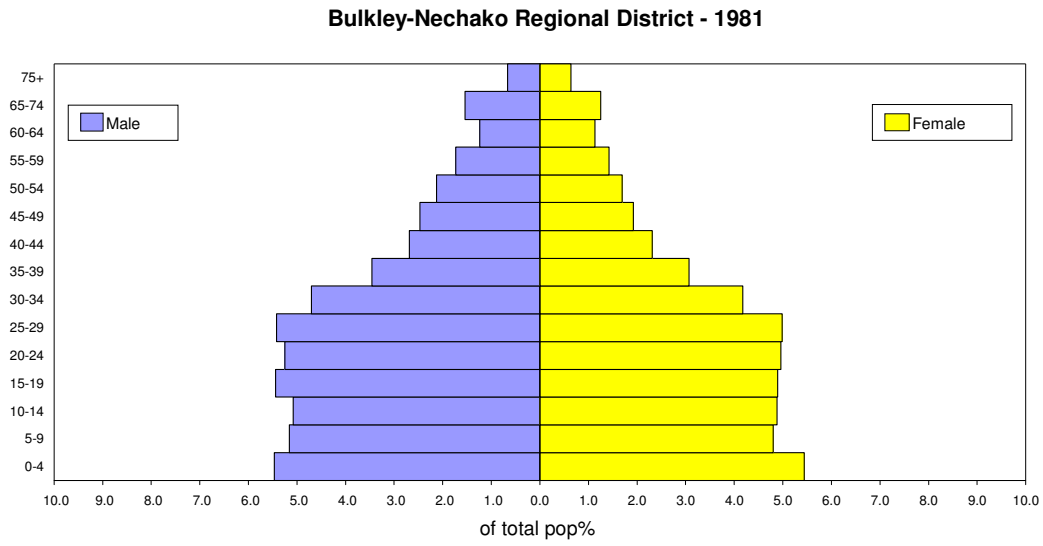
Source: Statistics Canada 1976, 1986, 1996, 2006.

## Population Pyramids

### *Bulkley-Nechako Regional District*

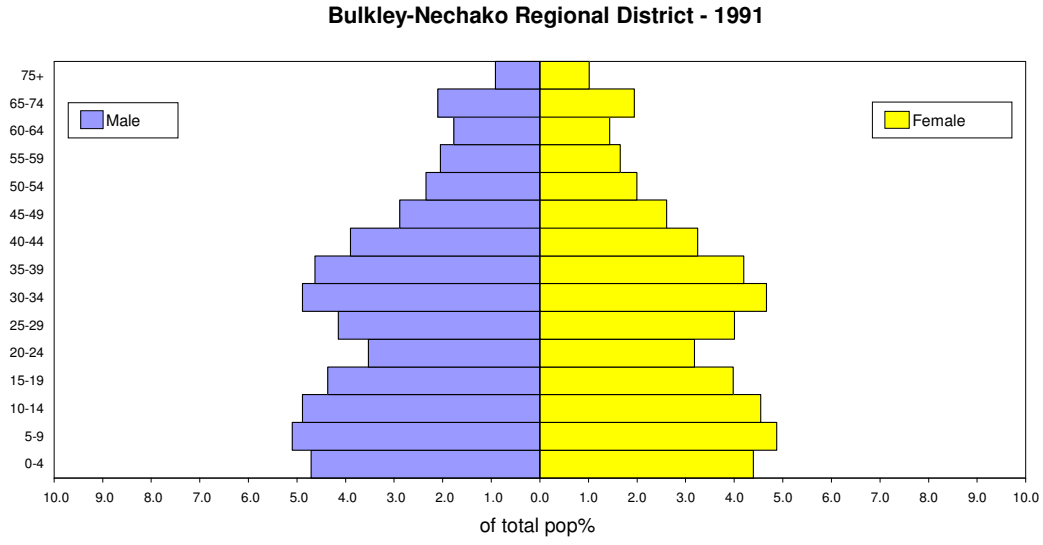
Figures 4.1 through 4.3 are the population pyramids for the Bulkley-Nechako Regional District from 1981 to 2006.

**Figure 4.1 Bulkley-Nechako Regional District Population Pyramid – 1981**




The population pyramids for the Bulkley-Nechako Regional District resemble typical patterns for areas with predominantly resource economies. In 1981, the population is dominated by young families (Figure 4.1). This is shown by a large proportion of the local population in the 20 to 40 year age groups and the corresponding 0 to 19 year age groups. Many of these young families were attracted to employment opportunities that existed with resource industries in the area.

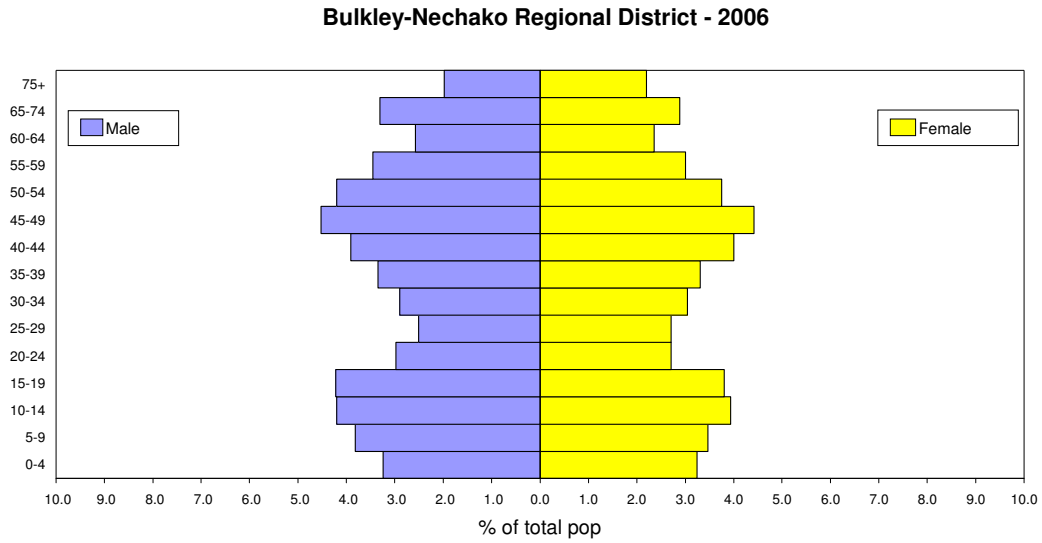
**Figure 4.2 Bulkley-Nechako Regional District Population Pyramid – 1991**




By 1991, the population's age structure has changed (Figure 4.2). The young adult cohort that dominated the 1981 population structure has aged-in-place. This is demonstrated with a greater proportion of the adult population that falls between 30 and 50 years of age compared to ten years ago. An aging-in-place process begins where the

workforce is fully engaged in a stable industrial base, but where limited new job growth has slowed the retention or in-migration of younger households. Youth out-migration is the result, as demonstrated by the smaller shares of the population in the 20-24 and 25-29 year age categories. Young people may be leaving the region to pursue employment or educational opportunities outside of the Bulkley-Nechako Regional District.

**Figure 4.3 Bulkley-Nechako Regional District Population Pyramid – 2006**

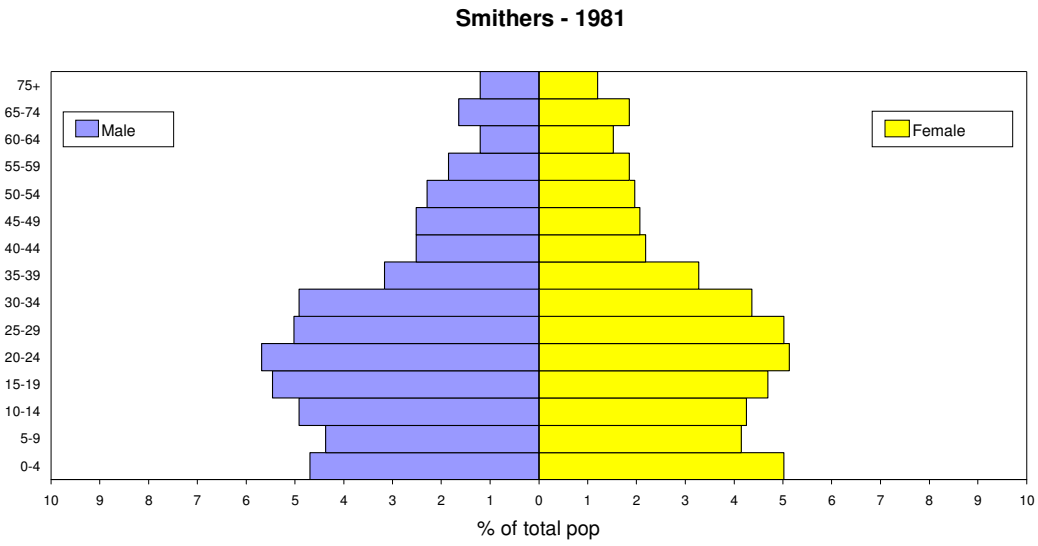



By 2001, patterns of population aging and youth out-migration have become more entrenched. Family households are now concentrated in the 40 to 60 year age categories. In fact, there is a larger share of the population over age 50 than at any time in the past (Figure 4.3). Of concern, there has been an exodus of younger adults not only between 20 and 29 years of age, but also there are fewer adults in the 30-39 year age categories. A final change for the region's population is the significant growth in the proportion of seniors above 65 years of age. This can be attributed to an out-migration of younger households and aging-in-place.

***Smithers***

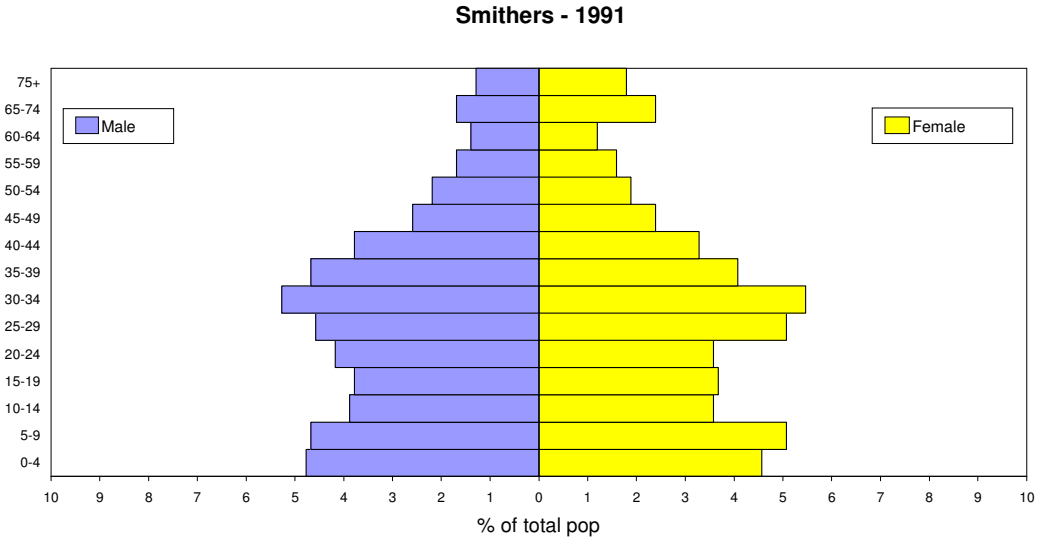
In this section, population pyramids representing data from 1981 to 2006 for Smithers are shown in Figures 4.4 to 4.6.

**Figure 4.4 Smithers Population Pyramid – 1981**




In 1981, Smithers exhibited a young, family-oriented population with a significant proportion of its residents falling between the ages of 20 and 34 (Figure 4.4). The community's population also had a high proportion of children between 0 and 19 years of age. This picture resembles population structures in many resource-oriented towns around northern B.C. at this time (see Appendix B).

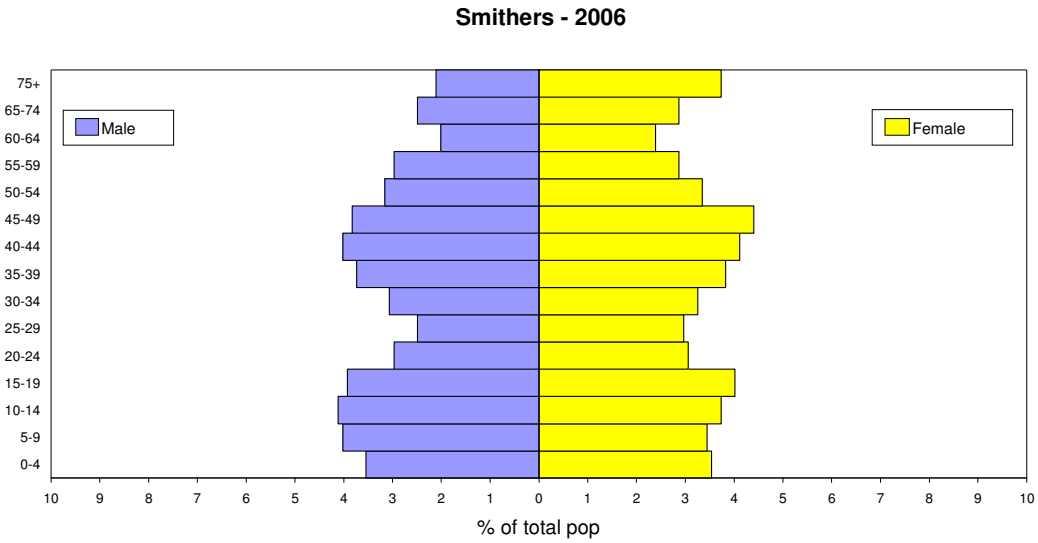
**Figure 4.5 Smithers Population Pyramid – 1991**




A decade later, Smithers' young, family-oriented population has aged-in-place (Figure 4.5). The community now has a significant proportion of the population between 30 and 44 years of age. Categories consisting of youth between 0 and 9 years of age continue to be well represented. Of concern is that the community has proportionately fewer youth between 10 and 19 years of age compared to ten years ago. This indicates a loss of some

of the young families that existed in Smithers in 1981. In terms of gender distribution, there is a greater ratio of female seniors within the community.

**Figure 4.6 Smithers Population Pyramid – 2006**

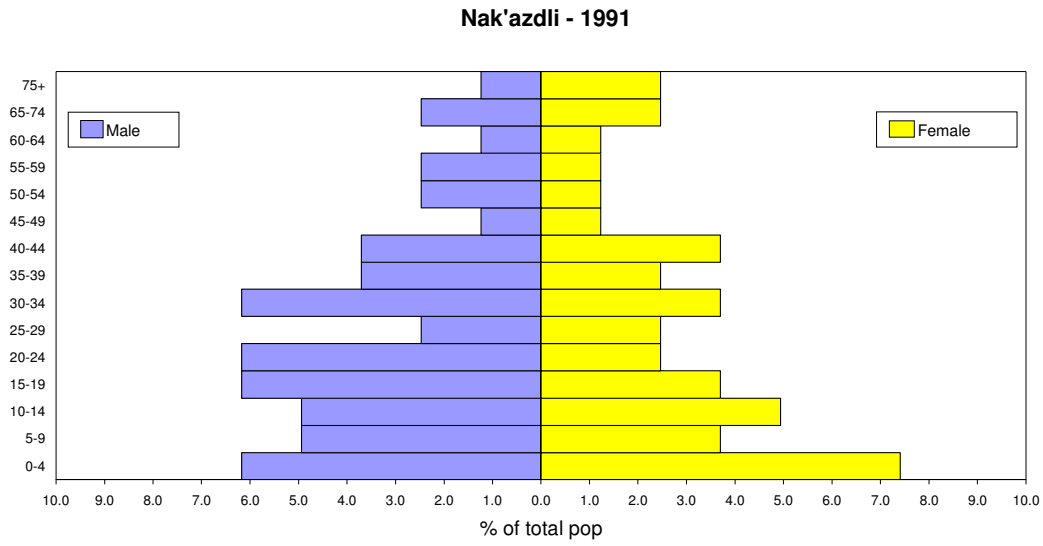



By 2006, trends associated with aging-in-place and youth out-migration have become more pronounced for Smithers (Figure 4.6). The community now resembles an older, family-oriented population. The workforce is concentrated between 30 and 54 years of age. There has been a decline in the proportion of residents between the ages of 20 and 29. The share of youth, including those between 0 and 19 years, also declined. When we examine changes associated with older residents, the proportion of seniors has increased over the last 15 years. Women continue to represent a greater proportion of this seniors' population.

***Nak'azdli***

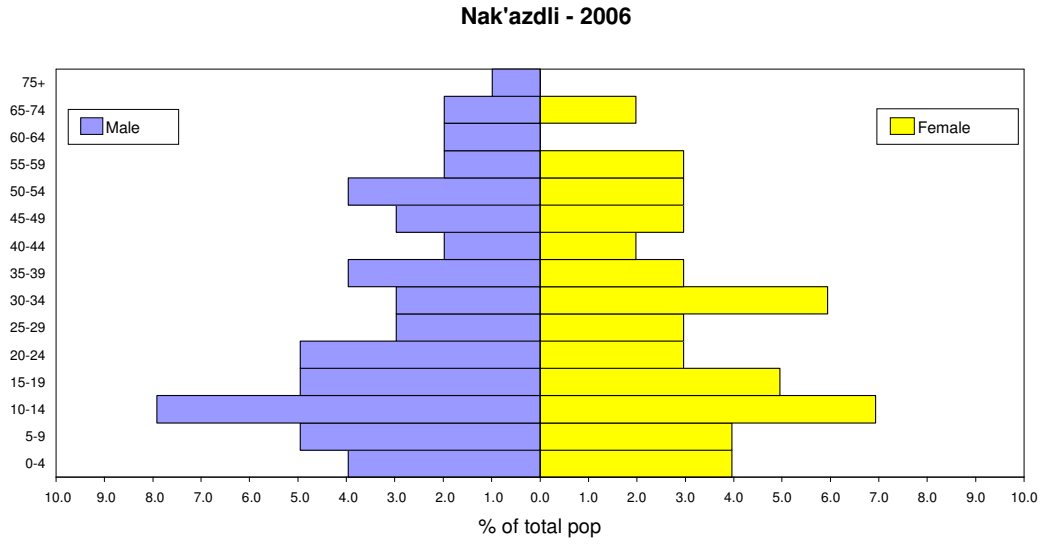
Finally, population pyramids representing data from 1991 to 2006 for the Nak'azdli First Nation Reserve are shown in Figures 4.7 and 4.8. The Nak'azdli First Nation is located in the Bulkley-Nechako region immediately adjacent to Fort St. James. The Nak'azdli First Nation community is affiliated with the Carrier-Sekani Tribal Council.

**Figure 4.7 Nak'azdli Population Pyramid - 1991**




As illustrated in Figure 4.7, Nak'azdli had a young, family-oriented population in 1991. In this case, the labour force is mostly situated between 15 and 34 years of age. This is accompanied by a substantial share of youth under 20 years of age. Of interest, a low share of people between 25 and 29 years of age could be an indication of youth out-migration from the community. At this time, there is a lower share of older residents approaching retirement or seniors within the community.

**Figure 4.8 Nak'azdli Population Pyramid - 2006**




By 2006, two important trends common around northern B.C. are impacting the composition of the Nak'azdli community (Figure 4.8). There are fewer younger families as indicated by a lower share of children under 10 years of age. The portion of the labour force that was concentrated between 15 and 34 in 1991 has become smaller. There are

also fewer adults between 40 and 44 years of age. Compared to 1991 data, there is also a slightly smaller share of youth between 15 and 24 years of age in 2006. Despite these changes, the population of Nak'azdli remains younger compared to other places across the region and around northern BC.

## Age Dependency Ratios

Another lens for examining changes in the labour force can be acquired by reviewing changes in the percent of the population 65 years and older, as well as the percent of the workforce aged 45 years and older. Growth in these age groups of the population provides further evidence of population aging in northern B.C.

**Table 4.3 Percent of Population 65 Years and Older in the Bulkley-Nechako Regional District, 1981-2006**

| Year | Smithers (Town) | Bulkley-Nechako RD | BC |
|---|---|---|---|
| 1981 | 5.9 | 4.1 | 10.9 |
| 1986 | 6.5 | 5.1 | 12.1 |
| 1991 | 7.2 | 6.0 | 12.9 |
| 1996 | 8.1 | 7.0 | 12.8 |
| 2001 | 9.7 | 8.2 | 13.6 |
| 2006 | 11.2 | 10.4 | 14.6 |

Source: Statistics Canada

To begin, Table 4.3 illustrates how the percent of the population aged 65 years and older has doubled across both Smithers and the Bulkley-Nechako Regional District over the past 25 years. In Smithers, the percent of seniors grew from 5.9% in 1981 to 11.2% in 2006. By comparison, the percent of the population aged 65 years and older grew at a faster pace in the Bulkley-Nechako Regional District, which increased from 4.1% in 1981 to 10.4% in 2006. After reaching a peak of 8.6% in 1991, the percent of the seniors in Nak'azdli has declined to approximately 5.0% during subsequent Census periods. The gap between the percent of seniors in the Bulkley-Nechako Regional District and B.C. has closed during this 25 year period.

**Table 4.4 Percent Workforce Aged 45 Years and Older in the Bulkley-Nechako Regional District, 1981-2006**

| Year | Smithers (Town) | Bulkley-Nechako RD | BC |
|---|---|---|---|
| 1981 | 22.9 | 21.1 | 28.9 |
| 1986 | 22.6 | 23.4 | 29.2 |
| 1991 | 22.5 | 25.6 | 29.8 |
| 1996 | 25.6 | 28.3 | 25.0 |
| 2001 | 31.3 | 33.8 | 36.7 |
| 2006 | 37.6 | 41.8 | 41.3 |

Source: Statistics Canada

The percent of the workforce aged 45 years and older has also nearly doubled over the past 25 years in both Smithers and the Bulkley-Nechako Regional District (Table 4.4). Growing from 22.9% in 1981 to 37.6% in 2006, the percent of this older workforce in Smithers has expanded due to limited new employment options for younger residents that have resulted in an aging local workforce. In the Bulkley-Nechako Regional District, the percent of the workforce aged 45 years and older has increased from 21.1% in 1981 to 41.8% in 2006. As the older portion of the workforce has grown across this region, these trends now resemble similar rates across B.C. In Nak'azdli, the percent of the workforce over 44 years of age has also doubled over the past 20 years, eventually reaching 31.3% in 2006.

**Table 4.5 Total Dependency Ratio in the Bulkley-Nechako Regional District, 1981-2006 (Percent)**

| Year | Smithers (Town) | Bulkley-Nechako RD | BC |
|---|---|---|---|
| 1981 | 49.9 | 53.7 | 47.7 |
| 1986 | 50.3 | 53.9 | 48.4 |
| 1991 | 50.8 | 52.7 | 49.3 |
| 1996 | 49.9 | 50.2 | 50.1 |
| 2001 | 50.9 | 47.9 | 46.4 |
| 2006 | 50.6 | 47.6 | 45.1 |

Source: Statistics Canada

Changes to the total dependency ratio enable places to assess the relationship between the proportion of their workforce (15-64 years of age) and those not in the workforce (children under 15 years of age and seniors over 64 years of age). A decline in the total dependency ratio means that the proportion of the workforce is greater than the proportion of dependents. At the provincial and regional level, the total dependency has declined over the past 25 years (Table 4.5). For example, while the total dependency ratio for B.C. has declined from 47.7% in 1981 to 45.1% in 2006, it has dropped from

53.7% to 47.6% over the same 25 year period in the Bulkley-Nechako Regional District. By comparison, the total dependency ratio in Smithers has changed very little between 1981 and 2006. When examining statistics for Nak'azdli, the total dependency ratio has experienced a greater decline compared to other places in northern B.C. (see Appendix B), changing from 73.8% in 1986 to 57.8% in 2006.

**Table 4.6 Young Dependency Ratio in the Bulkley-Nechako Regional District, 1981-2006 (Percent)**

| Year | Smithers (Town) | Bulkley-Nechako RD | BC |
|---|---|---|---|
| 1981 | 41.1 | 47.4 | 31.7 |
| 1986 | 40.6 | 46.1 | 30.4 |
| 1991 | 40.0 | 43.5 | 30.1 |
| 1996 | 37.7 | 39.7 | 30.4 |
| 2001 | 36.3 | 35.8 | 26.5 |
| 2006 | 33.7 | 32.3 | 24.0 |

Source: Statistics Canada

Although there has been little change in the total dependency ratio, data for young and old dependency ratios demonstrate significant shifts in the demographics of the Bulkley-Nechako Regional District. For example, the young dependency ratio in Smithers has declined from 41.1% in 1981 to 33.7% in 2006 (Table 4.6). Meanwhile, the Bulkley-Nechako Regional District has also experienced a decline in its young dependency ratio from 47.4% to 32.3% over the same period. Despite these changes across the region, the young dependency ratio for Smithers and the Bulkley-Nechako Regional District remain above provincial levels. In the case of Nak'azdli, young dependency ratios have declined from 64.3% in 1986 to 50.0% in 2006, but remain amongst the highest in northern B.C.

**Table 4.7 Old Age Dependency Ratio in the Bulkley-Nechako Regional District, 1981-2006 (Percent)**

| Year | Smithers (Town) | Bulkley-Nechako RD | BC |
|---|---|---|---|
| 1981 | 8.8 | 6.3 | 16.0 |
| 1986 | 9.7 | 7.8 | 18.0 |
| 1991 | 10.8 | 9.1 | 19.2 |
| 1996 | 12.1 | 10.5 | 19.7 |
| 2001 | 14.6 | 12.2 | 20.0 |
| 2006 | 16.9 | 15.3 | 21.2 |

Source: Statistics Canada

In terms of old age dependency ratios, rates for both Smithers and the Bulkley-Nechako Regional District fall below B.C. figures (Table 4.7). At the same time, however, this

region has experienced a greater rate of growth amongst its retirement population compared to B.C. overall. For example, the old age dependency ratio for Smithers increased from 8.8% in 1981 to 16.9% in 2006. During the same time period, the old age dependency ratio for the Bulkley-Nechako Regional District grew from 6.3% to 15.3%. It is also important to recall that the aging of the labour force over 45 years of age will create new labour source pressures as they approach their retirement years. Unlike other communities in the Bulkley-Nechako Regional District, old age dependency ratios are declining in Nak'azdli from a peak of 14.6% in 1991 to just 7.8% in 2006.

## Retention Rates

Population retention rates for youth entering the labour force, as calculated for the Bulkley-Nechako Regional District, are shown in Tables 4.8 – 4.10. As an older workforce approaches retirement, it is important to understand how retention rates for younger sources of labour will impact labour shortage issues and strategies for the region.

**Table 4.8 Population Retention Rates of 15-19 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Bulkley-Nechako Regional District (%)**

| Period A | Period B | Smithers (Town) | Bulkley-Nechako (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | 94.0 | 78.6 | 107.6 |
| 1991 | 1996 | 117.3 | 87.0 | 113.8 |
| 1996 | 2001 | 80.0 | 70.4 | 100.5 |
| 2001 | 2006 | 69.2 | 61.3 | 98.4 |

Source: Statistics Canada

Population retention rates for youth between 15 and 19 years of age are shown for the Bulkley-Nechako Regional District (Table 4.8). During each Census period, retention rates for youth completing high school in the Bulkley-Nechako region was less than levels for B.C. Of interest, retention rates for this young cohort were higher in both Smithers and Nak'azdli when compared with figures for the overall region throughout this twenty-year period.

During each Census period, the Bulkley-Nechako Regional District has not been able to retain the same proportion of youth who were initially 15 to 19 years of age. Although retention rates of youth completing high school had improved in the regional district between 1991 and 1996 (87.0%), these rates have declined since reaching a low of 61.3% in 2006. In Smithers, retention rates of youth between 15 to 19 years of age peaked between 1991 and 1996 (117.3%), thereby exceeding even provincial rates. Like the regional district, however, retention rates in Smithers have since declined to 69.2% in 2006. The Nak'azdli First Nations also experienced wide fluctuations in the retention of youth aged 15 to 19 years. While the community was able to retain and even expand the

proportion of this young cohort by 1996 (112.5%), retention rates of youth between 15 and 19 years of age declined shortly after, eventually resulting in a 88.9% retention rate in 2006.

**Table 4.9 Population Retention Rates of 20-24 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Bulkley-Nechako Regional District (%)**

| Period A | Period B | Smithers (Town) | Bulkley-Nechako (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | 81.9 | 103.3 | 116.7 |
| 1991 | 1996 | 115.4 | 114.0 | 120.9 |
| 1996 | 2001 | 77.3 | 90.5 | 100.7 |
| 2001 | 2006 | 83.8 | 80.9 | 100.5 |

Source: Statistics Canada

Table 4.9 demonstrates how youth 20 to 24 years of age during one Census period are retained as older adults between 25 to 29 years of age five years later. As was the case for the 15 to 19 year old age group, retention rates for young adults entering the workforce across all geographic areas are greatest between 1991 and 1996. Census data reveals, however, that B.C. retention rates for this youth cohort have outperformed those in the Bulkley-Nechako Regional District.

Of interest, when compared to retention rates of youth 15 to 19 years of age, the regional district has had greater success retaining youth in the 20 and 24 year age category. In this case, from 1986 to 1996, the Bulkley-Nechako Regional District was able to retain and expand youth entering the labour force as they aged to 25 and 29 years of age. Since 2001, regional retention rates for this youth cohort have fallen, ultimately reaching just 80.9% in 2006. By comparison, Smithers similarly had positive retention rates for youth 20 to 24 years of age between 1991 and 1996 (115.4%). Although the retention rate for this young cohort in Smithers reached a low of 77.3% by 2001, it had recovered to some extent by 2006 (83.8%). Like the regional district, Nak'azdli had successfully retained or expanded youth who were initially 20 to 24 years of age between 1986 and 1996. Since 2001, this aboriginal community has experienced similar challenges with youth out-migration and the loss of residents reaching 25 to 29 years of age.

**Table 4.10 Population Retention Rates of 25-29 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Bulkley-Nechako Regional District (%)**

| Period A | Period B | Smithers (Town) | Bulkley-Nechako (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | * | * | * |
| 1991 | 1996 | 101.0 | 111.0 | 116.5 |
| 1996 | 2001 | 92.2 | 93.5 | 101.8 |
| 2001 | 2006 | 97.1 | 90.3 | 105.0 |

Source: Statistics Canada
* - 1986 Census does not separately report data for 25-29 year age group.

Table 4.10 demonstrates the retention of young adults who are likely starting young families in the Bulkley-Nechako Regional District. Compared to other youth categories, this regional district has experienced the most success with retaining young adults between 25 and 29 years of age. By 1996, all the different geographic areas shown in Table 4.10 had retained and expanded their share of youth who were initially 25 to 29 years of age in 1991. In the Bulkley-Nechako Regional District retention rates had declined for this cohort to 90.3% in 2006. Following a decline in 2001 (92.2%), retention rates for these young adults in Smithers had almost fully recovered, reaching 97.1% during the latest Census. With the exception of the 1996 to 2001 period, the Nak'azdli were able to retain and expand this cohort of young adults as they aged in their community.

# 5.0 Cariboo Regional District

## Population Change

### *Cariboo Regional District*

Table 5.1 demonstrates population changes for the Cariboo Regional District from 1976 to 2006. Between 1976 and 1996, the Cariboo Regional District experienced steady growth, building up to a population of 66,475. During this period, population growth was most pronounced in Williams Lake, although 100 Mile House, Quesnel, and the unincorporated areas also experienced growth between 1976 and 1986. While growth continued for many of these communities between 1986 and 1996, Quesnel's population experienced a small loss of 150 people. By 2006, the Cariboo Regional District had entered a period of decline with a population loss of 4,285. This decline, however, is concentrated in the unincorporated areas of the regional district. The incorporated municipalities may be benefiting from rural to urban migration as all of these places experienced growth between 1996 and 2006. Between 1986 and 2006, Alkali Lake, a First Nations reserve, had grown from 269 to 396 people.

**Table 5.1 Census population in the Cariboo Regional District, 1976-2006, by total population numbers**

| Place | 1976 | 1986 | 1996 | 2006 |
|---|---|---|---|---|
| **Cariboo** | **51,616** | **60,473** | **66,475** | **62,190** |
| 100 Mile House | 1,584 | 1,692 | 1,850 | 1,885 |
| Quesnel | 7,637 | 8,358 | 8,208 | 9,326 |
| Wells | n/a | n/a | n/a | 236 |
| Williams Lake | 6,199 | 10,280 | 10,472 | 10,744 |
| *Unincorporated* | *36,196* | *40,143* | *45,945* | *39,999* |
| British Columbia | 2,392,790 | 2,883,367 | 3,724,500 | 4,113,487 |

Source: Statistics Canada 1976, 1986, 1996, 2006.

In Table 5.2, Census data indicates that the growth rate in the Cariboo Regional District slowed down between 1986 and 1996, eventually leading to a rate of decline after 1996. As noted earlier, this decline for the regional district is linked to a population loss of 12.9% in the unincorporated areas during this period. Overall, the growth rate for the Cariboo Regional District has been lower compared to provincial growth rates over time. However, there are important exceptions. While the provincial rate of growth was substantial at 20.5% between 1976 and 1986, growth rates in Williams Lake surpassed provincial trends as its population grew by 65.8% during this period. Since 1986, growth rates in Williams Lake have been below the provincial average. More recently, after experiencing a rate of decline from 1986 to 1996, the growth rate in Quesnel exceeded the provincial average as its population grew by 13.6% between 1996 and 2006. While

the regional district entered into a period of decline between 1996 and 2006, the provincial growth rate has also slowed down during this period. By comparison, growth rates for the Alkali Lake Indian Band have exceeded provincial figures in 2006 with 23.4% growth.

**Table 5.2 Census population change in the Cariboo Regional District, 1976-2006, by total % change in population**

| Place | % change 1976-1986 | % change 1986-1996 | % change 1996-2006 |
|---|---|---|---|
| **Cariboo** | **17.16** | **9.93** | **-6.45** |
| 100 Mile House | 6.82 | 9.34 | 1.89 |
| Quesnel | 9.44 | -1.79 | 13.62 |
| Wells | n/a | n/a | n/a |
| Williams Lake | 65.83 | 1.87 | 2.60 |
| *Unincorporated* | *10.90* | *14.45* | *-12.94* |
| British Columbia | 20.5 | 29.2 | 10.4 |

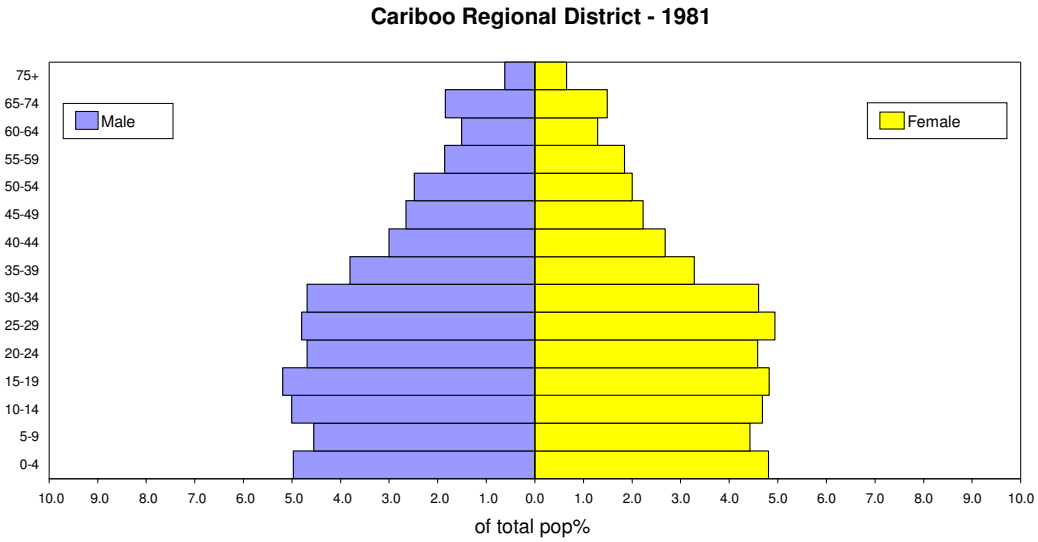
Source: Statistics Canada 1976, 1986, 1996, 2006.

## Population Pyramids

### *Cariboo Regional District*

Figures 5.1 through 5.3 are the population pyramids for the Cariboo Regional District from 1981 to 2006.

**Figure 5.1 Cariboo Regional District Population Pyramid – 1981**



As demonstrated in Figure 5.1, the Cariboo Regional District had a young family-oriented population in 1981. In this case, the labour force is concentrated between the 15 and 39 year age categories. Youth groups between 0 and 19 years of age comprise a greater share of the population when compared with older age groups. These trends are consistent with patterns across many resource dependent regions that attract young families searching for employment opportunities.

**Figure 5.2 Cariboo Regional District Population Pyramid – 1991**

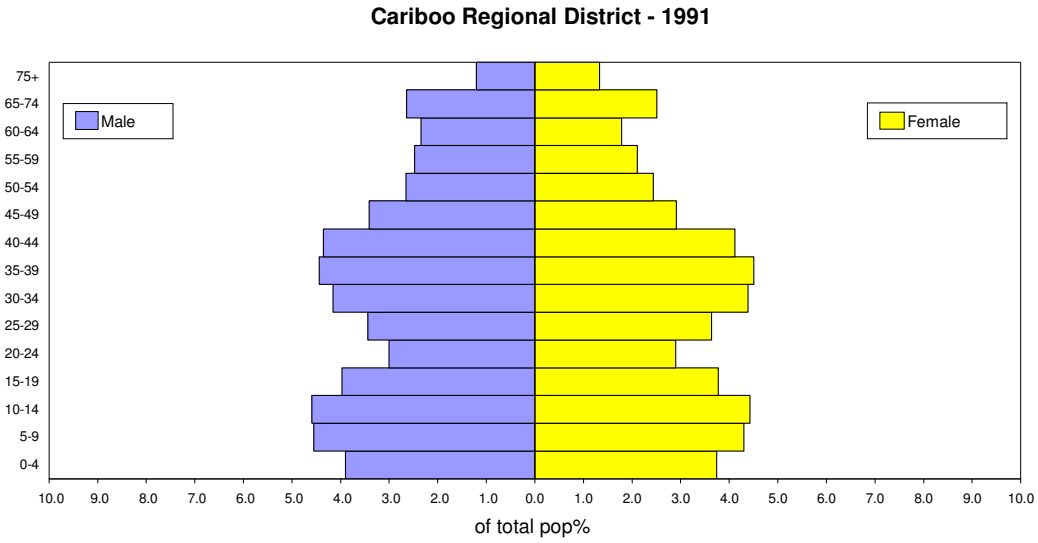
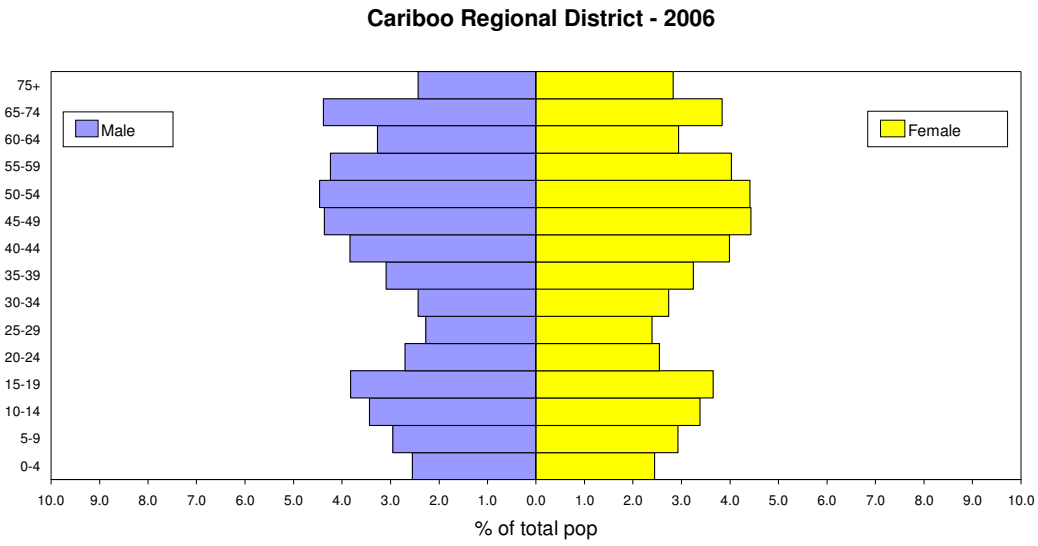



Figure 5.2 reveals that the composition of the Cariboo Regional District's population has changed over the past ten years. The labour force has now aged-in-place and is concentrated amongst individuals between 30 and 49 years of age. Of note, the labour force now consists of a smaller share of the population compared to 1981 statistics, indicating an out-migration of labour. It also appears that there has been an exodus of young families as there are smaller shares of young children between the ages of 0 and 14, and between the ages of 20 and 34 for young adults. Similar to other regions around northern B.C. (see Appendix B), youth out-migration has led to a loss of people in the 15 to 29 age groups. Many of these former residents may have left the regional district to pursue educational or employment options in other areas. Combined, these sources of out-migration have led to a greater proportion of older residents aged 55 and over within the region.

**Figure 5.3 Cariboo Regional District Population Pyramid – 2006**

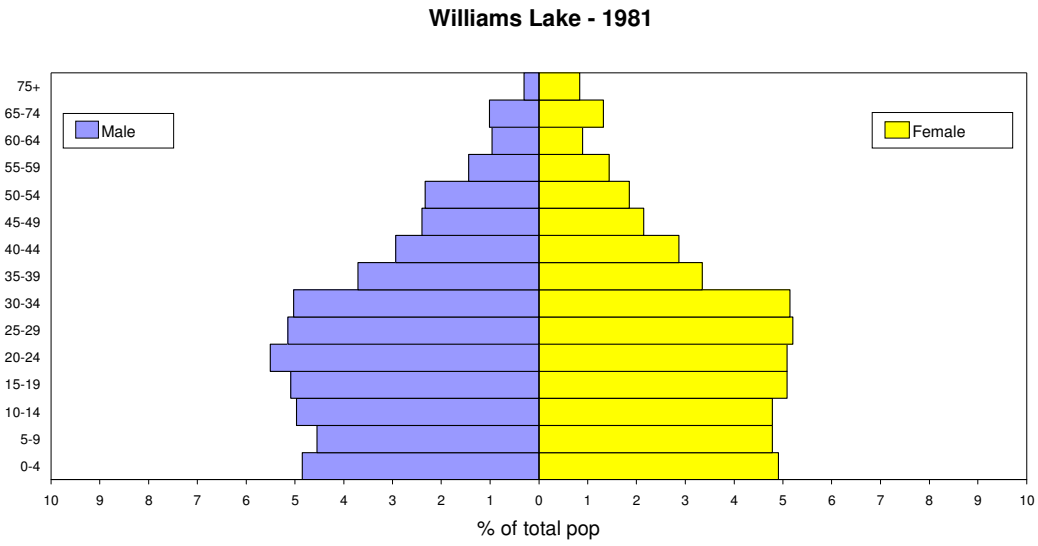



As revealed in Figure 5.3, the out-migration of youth and young families has continued over the past 15 years. The loss of young families is indicated by a smaller share of children between the ages of 0 and 14 and young adults between 20 and 34 years of age. Pronounced youth out-migration trends are demonstrated by a smaller proportion of people between the 20 and 29 age groups. The labour force has been aging-in-place with a concentration amongst the 40 and 64 age categories. As this group approaches retirement, labour shortage issues may be a concern for many businesses and organizations in the future as there are smaller shares of the population in younger adult categories. Furthermore, the population's share of seniors aged 65 and over is expanding.

***Williams Lake***

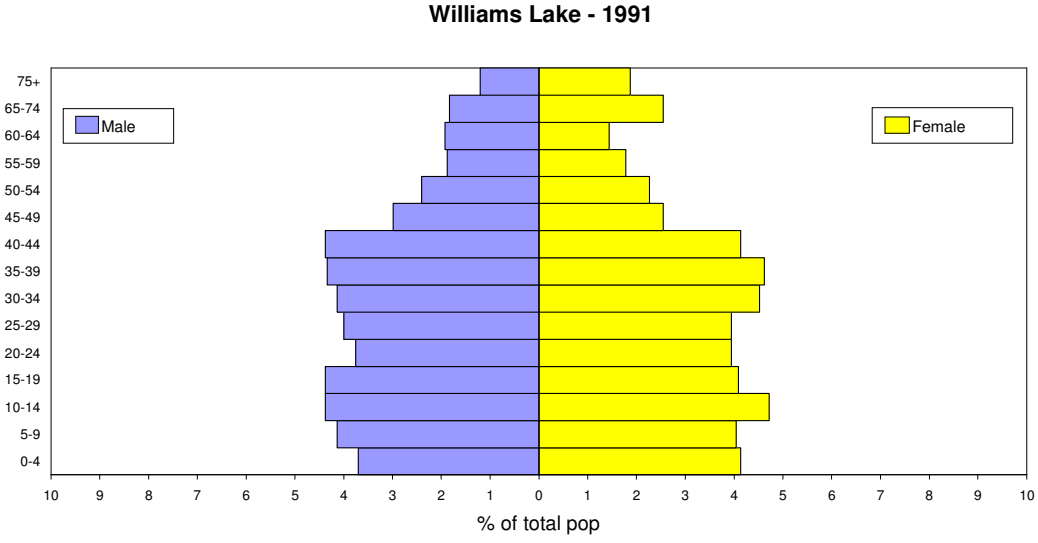
In this section, population pyramids representing data from 1981 to 2006 for Williams Lake are shown in Figures 5.4 to 5.6.

**Figure 5.4 Williams Lake Population Pyramid - 1981**




In 1981, Williams Lake has a population structure that is common amongst resource dependent communities. With a small share of older residents (aged 55 and over), Figure 5.4 reveals a young, family-oriented community with a substantial share of children between the ages of 0 and 14. Many of these families were attracted to the area by employment opportunities associated with various resource sectors (in this case, forestry, agriculture, and mining). The labour force is concentrated between the 15 and 34 age groups. In terms of gender distribution, there is a greater ratio of female seniors in the community.

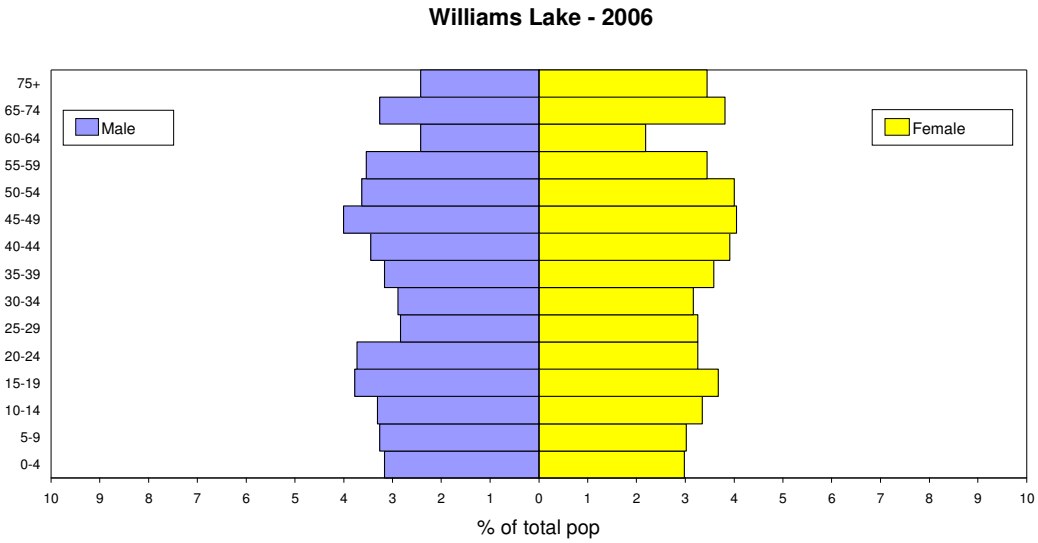
**Figure 5.5 Williams Lake Population Pyramid - 1991**




By 1991, the age structure of Williams Lake has changed. The workforce has aged-in-place and is now concentrated between the 25 and 44 age groups (Figure 5.5). There has

been a substantial loss of younger residents between 15 and 24 years of age. With a smaller share of younger adults in the workforce and fewer children between 0 and 14 years of age, it appears that there has also been an exodus of young families from the community. Limited educational and employment possibilities in the community are likely determining factors of these changes. With the loss of labour and young families, the proportion of residents aged 55 and over is beginning to increase. There also continues to be a greater proportion of female seniors in Williams Lake.

**Figure 5.6 Williams Lake Population Pyramid - 2006**

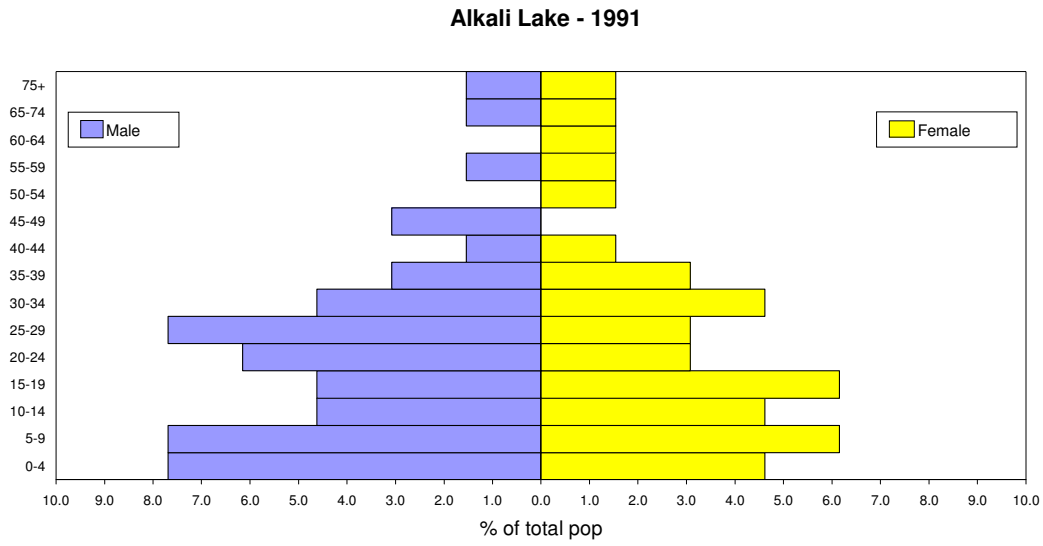



In 2006, Census data reveals that Williams Lake continues to experience problems associated with youth out-migration, as well as general population out-migration (Figure 5.6). This is displayed by a lower share of youth between 0 and 19 years of age and young adults between 25 and 39 years of age compared to fifteen years ago. The labour force is now mostly situated between 40 and 59 year age groups, and there is an increasing share of seniors in Williams Lake. These are typical patterns for a population that is aging-in-place with limited opportunities for employment or advancement for younger sources of labour. The local senior's population still consists of more women.

### *Alkali Lake*

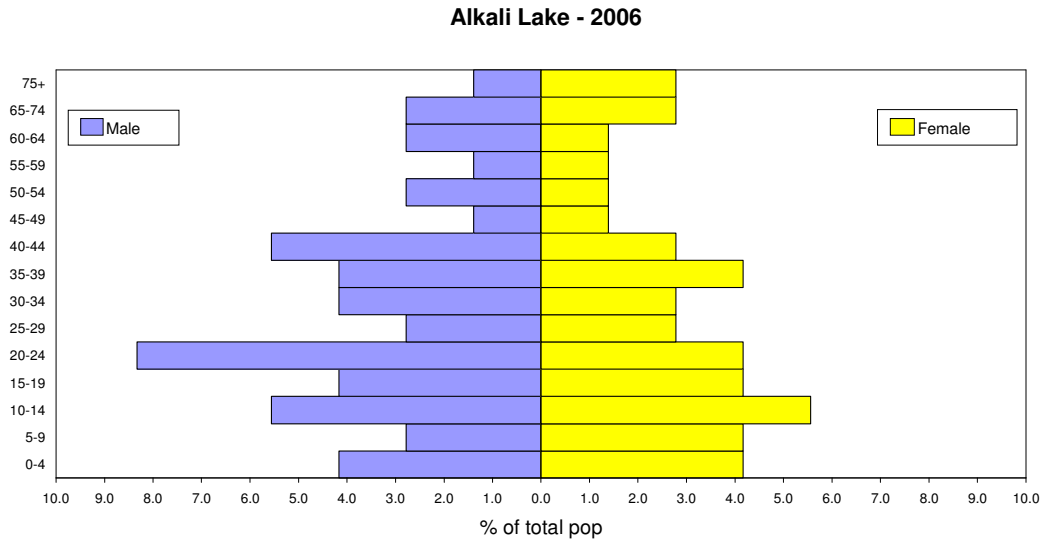
Population pyramids representing data from 1991 to 2006 for the Alkali Lake Indian Band are shown in Figures 5.7 and 5.8. The Alkali Lake Indian Band is part of the Shuswap Nation Tribal Council located 50 kilometres south of Williams Lake.

**Figure 5.7 Alkali Lake Population Pyramid - 1991**




In 1991, Alkali Lake consisted mostly of young families with a large share of the population under 10 years of age (Figure 5.7). The labour force is concentrated between 15 and 34 years of age. There is a greater share of males within this labour force cohort. Although older age groups have few or no people, data availability and rounding procedures used by Statistics Canada to protect the anonymity of residents in very small places has impacted snap shots of the population. In some cases, this means that categories with just a couple of residents may be rounded down to zero.

**Figure 5.8 Alkali Lake Population Pyramid - 2006**




By 2006, the composition of Alkali Lake's population has undergone considerable changes (Figure 5.8). There are fewer younger families as indicated by a loss of young adults between 25 and 34 years of age and youth under 10 years of age. Unlike many

other aboriginal and resource towns across northern B.C. (see Appendix B), there has been a substantial growth in residents between 20 and 24 years of age. There has also been an increase in the proportion of seniors in the community.

## Age Dependency Ratios

Changes in the labour force can also be assessed by reviewing the percent of the population 65 years and older, as well as the percent of the workforce aged 45 years and older. As these age groups become more pronounced within the overall aging population, labour shortage issues can become a significant problem for many businesses and organizations.

**Table 5.3 Percent of Population 65 Years and Older in the Cariboo Regional District, 1981-2006**

| Year | Williams Lake | Cariboo RD | BC |
|---|---|---|---|
| 1981 | 3.5 | 4.6 | 10.9 |
| 1986 | 5.3 | 5.8 | 12.1 |
| 1991 | 7.5 | 7.7 | 12.9 |
| 1996 | 8.3 | 8.5 | 12.8 |
| 2001 | 10.6 | 10.7 | 13.6 |
| 2006 | 12.9 | 13.5 | 14.6 |

Source: Statistics Canada

In 1981, the percent of the population 65 years of age and older was lower for Williams Lake (3.5%) and the Cariboo Regional District (4.6%) compared to provincial figures (10.9%) (Table 5.3). By 2006, this gap closed as the percent of seniors in Williams Lake and the Cariboo Regional District peaked at 12.9% and 13.5% respectively. The proportion of seniors in Alkali Lake has also increased from just 6.2% in 1991 to 9.7% in 2006.

**Table 5.4 Percent Workforce Aged 45 Years and Older in the Cariboo Regional District, 1981-2006**

| Year | Williams Lake | Cariboo RD | BC |
|---|---|---|---|
| 1981 | 19.9 | 23.7 | 28.9 |
| 1986 | 23.4 | 26.4 | 29.2 |
| 1991 | 25.5 | 30.1 | 29.8 |
| 1996 | 28.7 | 33.1 | 25.0 |
| 2001 | 35.2 | 39.6 | 36.7 |
| 2006 | 40.1 | 46.7 | 41.3 |

Source: Statistics Canada

The percent of the workforce aged 45 years and older in Williams Lake and the Cariboo Regional District has also increased at a faster rate compared to B.C. (Table 5.4). In Williams Lake, the percent of this older workforce increased from just 19.9% in 1981 to 40.1% in 2006. During the same time period, the workforce aged 45 years and older across the Cariboo Regional District grew from 23.7% in 1981 to 46.7% in 2006, thereby surpassing figures for B.C. These changes are common amongst resource dependent regions that offer limited new employment growth for younger residents, resulting in an aging workforce population. Alkali Lake has had slower growth in the percent of the workforce aged 45 years and older as this cohort changed from 15.8% in 1991 to 21.7% in 2006.

**Table 5.5 Total Dependency Ratio in the Cariboo Regional District, 1981-2006 (Percent)**

| Year | Williams Lake | Cariboo RD | BC |
|---|---|---|---|
| 1981 | 47.8 | 49.3 | 47.7 |
| 1986 | 46.7 | 48.4 | 48.4 |
| 1991 | 48.3 | 49.7 | 49.3 |
| 1996 | 45.2 | 47.1 | 50.1 |
| 2001 | 45.6 | 45.3 | 46.4 |
| 2006 | 47.1 | 45.3 | 45.1 |

Source: Statistics Canada

Dependency ratios can provide another tool to assess emerging labour supply pressures within a region. Table 5.5 presents data representing the proportion of the workforce population (15 to 64 years of age) versus the non-workforce population (children under 15 years and seniors aged 65 and over). Williams Lake has experienced a small decline amongst its total dependency ratio from 47.8% in 1981 to 47.1% in 2006. After reaching a peak of 49.7% in 1991, the Cariboo Regional District experienced a decline in its total dependency ratio to 45.3% by 2006. By comparison, the total dependency ratio for Alkali Lake has undergone a more substantial change, declining from a peak of 71.1% in 1991 to 56.5% in 2006.

**Table 5.6 Young Dependency Ratio in the Cariboo Regional District, 1981-2006 (Percent)**

| Year | Williams Lake | Cariboo RD | BC |
|---|---|---|---|
| 1981 | 42.7 | 42.5 | 31.7 |
| 1986 | 38.9 | 39.7 | 30.4 |
| 1991 | 37.2 | 38.2 | 30.1 |
| 1996 | 33.1 | 30.2 | 30.4 |
| 2001 | 30.1 | 29.7 | 26.5 |
| 2006 | 28.1 | 25.7 | 24.0 |

Source: Statistics Canada

While the total dependency ratio has remained relatively stable over time, a closer examination of young and old age dependency ratios reveal more significant changes. In Table 5.6, both Williams Lake and the Cariboo Regional District have experienced higher rates of decline amongst its young dependency ratios when compared to B.C. In Williams Lake, this has meant a decline from 42.7% in 1981 to 28.1% in 2006. Similarly, the young dependency ratio for the Cariboo Regional District has dropped from 42.5% to just 25.7% during the same time period. Since 1991, the young dependency ratio in Alkali Lake has dropped from 60.5% to 41.3% in 2006.

**Table 5.7 Old Age Dependency Ratio in the Cariboo Regional District, 1981-2006 (Percent)**

| Year | Williams Lake | Cariboo RD | BC |
|---|---|---|---|
| 1981 | 5.1 | 6.9 | 16.0 |
| 1986 | 7.8 | 8.7 | 18.0 |
| 1991 | 11.1 | 11.5 | 19.2 |
| 1996 | 12.1 | 12.5 | 19.7 |
| 2001 | 15.5 | 15.6 | 20.0 |
| 2006 | 19.0 | 19.6 | 21.2 |

Source: Statistics Canada

As illustrated earlier with population pyramids, old age dependency ratios have been expanding for Williams Lake and the Cariboo Regional District since 1981. In the case of Williams Lake, the old dependency ratio grew from 5.1% in 1981 to 19.0% in 2006 (Table 5.7). Similarly, across the Cariboo Regional District, this ratio increased from 6.9% to 19.6% over the same time period. Compared to 25 years ago, the gap between the old age dependency ratio for B.C. and that for both Williams Lake and the Cariboo Regional District has closed. In Alkali Lake, old age dependency ratios have increased overall from 10.5% in 1991 to 15.2% in 2006.

## Retention Rates

Tables 5.8 – 5.10 show the population retention rates for youth entering the labour force in the Cariboo Regional District. As an older workforce approaches retirement, it is important to assess retention rates for younger sources of labour in order to inform strategies for coping with labour shortages in the region.

**Table 5.8 Population Retention Rates of 15-19 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Cariboo Regional District (%)**

| Period A | Period B | Williams Lake | Cariboo (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | 79.2 | 68.6 | 107.6 |
| 1991 | 1996 | 99.4 | 84.6 | 113.8 |
| 1996 | 2001 | 92.3 | 68.0 | 100.5 |
| 2001 | 2006 | 82.0 | 61.4 | 98.4 |

Source: Statistics Canada

In the Cariboo Regional District, Table 5.8 shows an out-migration of youth after their high school years. Compared to provincial statistics, retention rates for youth finishing high school within the regional district are consistently below provincial levels. With the exception of the 1991 to 1996 period, regional retention rates for youth between 15 and 19 years of age are less than 70%, ultimately reaching a low of 61.4% in 2006. While retention rates for Williams Lake are consistently higher than the regional district, the city also experienced a decline in the retention of youth in this age cohort since 1996. In contrast, Alkali Lake has been able to retain and even increase the number of youth aging from 15-19 years of age to 20-24 years of age between 1991 and 2001, although this has recently declined to 90.0% from 2001 to 2006.

**Table 5.9 Population Retention Rates of 20-24 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Cariboo Regional District (%)**

| Period A | Period B | Williams Lake | Cariboo (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | 86.4 | 98.2 | 116.7 |
| 1991 | 1996 | 100.0 | 116.2 | 120.9 |
| 1996 | 2001 | 84.6 | 85.9 | 100.7 |
| 2001 | 2006 | 77.4 | 79.0 | 100.5 |

Source: Statistics Canada

Table 5.9 also shows higher retention rates for youth entering the labour force (20 to 24 years of age) in B.C. compared to statistics for the Cariboo Regional District. After showing a retention rate of 98.2% between 1986 and 1991, the gap in retention rates of the Cariboo Regional District and the province had closed in 1996. By 2001, however, the regional district had entered a period of decline and was unable to retain residents that were 20 to 24 years of age five years ago. By 2006, the retention rate of the regional district had reached a low of 79.0%. At the same time, regional retention rates for youth 20 to 24 years of age are out-performing rates in Williams Lake. In this case, the city's retention rate for this cohort peaked at 100.0% between 1991 and 1996 before declining to 77.4% by 2006. In Alkali Lake, retention rates for youth between 20 and 24 years of age have fluctuated from a peak of 114.3% between 1996 and 2001 to a low of 80.0% between 2001 and 2006.

**Table 5.10 Population Retention Rates of 25-29 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Cariboo Regional District (%)**

| Period A | Period B | Williams Lake | Cariboo (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | * | * | * |
| 1991 | 1996 | 93.9 | 116.9 | 116.5 |
| 1996 | 2001 | 91.9 | 96.5 | 101.8 |
| 2001 | 2006 | 87.8 | 93.4 | 105.0 |

Source: Statistics Canada
* - 1986 Census does not separately report data for 25-29 year age group.

In the Cariboo Regional District, Table 5.10 shows how youth 25 to 29 years of age during one Census period are retained as young adults between 30 to 34 years of age five years later. With the exception of the 1991-1996 period, retention rates for this cohort are less in the Cariboo Regional District when compared to provincial statistics. For the Cariboo Regional District, retention rates have declined as just 93.4% of residents initially 25 to 29 years of age in 2001 have remained in the region in 2006. By comparison, however, retention rates for young adults in the regional district are higher compared to those in Williams Lake. Retention rates of youth 25 to 29 years of age have declined to a low of 87.8% between 2001 and 2006 in Williams Lake. Considerable fluctuations in retention rates for this young adult cohort have continued in Alkali Lake. In this reserve, retention rates have changed from a high of 100.0% between 1996 and 2001 to 62.5% between 2001 and 2006.

# 6.0 Fraser-Fort George Regional District

## Population Change

### *Fraser-Fort George Regional District*

As Table 6.1 demonstrates, the direction of population fluctuations is fairly consistent across communities located in the Fraser-Fort George Regional District. Similar to increases with the provincial population, the Fraser-Fort George Regional District's population increased between 1976 and 2006 by 12,648 people. However, the region's population peaked during 1996, resulting in a net loss of 6,710 people by 2006. With the exception of McBride, all of the places located in the region experienced growth until 1996, followed by a period of population decline. In the case of McBride, the community experienced a small loss of 27 people from 1976 to 1986 before recovering to reach a peak population of 740 in 1996. In 2006, Prince George, the main service centre, had a population of 70,981; 4,169 fewer people than the community had in 1996. Unlike other places in the Fraser Fort-George Regional District, the First Nations reserve of McLeod Lake has grown steadily from 52 in 1986 to 94 in 2006.

**Table 6.1 Census population in the Fraser-Fort George Regional District, 1976-2006, by total population numbers**

| Place | 1976 | 1986 | 1996 | 2006 |
|---|---|---|---|---|
| **Fraser-Fort George** | **79,616** | **89,337** | **98,974** | **92,264** |
| Mackenzie | 5,338 | 5,542 | 5,997 | 4,539 |
| McBride | 619 | 592 | 740 | 660 |
| Prince George | 59,929 | 67,621 | 75,150 | 70,981 |
| Valemount | 878 | 1,161 | 1,303 | 1,018 |
| *Unincorporated* | *12,852* | *14,421* | *15,784* | *15,066* |
| British Columbia | 2,392,790 | 2,883,367 | 3,724,500 | 4,113,487 |

Source: Statistics Canada 1976, 1986, 1996, 2006.

In comparison with provincial growth rates, the Fraser-Fort George Regional District experienced smaller rates of growth until 1996 (Table 6.2). By 2006, the population of the regional district had declined by 6.8%. At the community level, growth rates varied widely across the regional district between 1976 and 2006. For example, between 1976 and 1986, population growth rates ranged from 3.8% for Mackenzie to 32.2% for Valemount. By 1996, the population of McBride had increased by 25.0% with smaller growth rates occurring in Mackenzie and unincorporated areas. Almost all of the communities experienced decline between 1996 and 2006, particularly in Mackenzie (24.3%), Valemount (21.9%), and McBride (10.8%). With a more diversified economy, Prince George experienced a smaller rate of decline (5.6%) compared to other places in

the Fraser-Fort George Regional District. In contrast, MacLeod Lake grew by 26.9% between 1986 and 1996, and then by 42.4% between 1996 and 2006.

**Table 6.2 Census population change in the Fraser-Fort George Regional District, 1976-2006, by total % change in population**

| Place | % change 1976-1986 | % change 1986-1996 | % change 1996-2006 |
|---|---|---|---|
| **Fraser-Fort George** | **12.21** | **10.79** | **-6.78** |
| Mackenzie | 3.82 | 8.21 | -24.31 |
| McBride | -4.36 | 25.00 | -10.81 |
| Prince George | 12.84 | 11.13 | -5.55 |
| Valemount | 32.23 | 12.23 | -21.87 |
| *Unincorporated* | *12.21* | *9.45* | *-4.55* |
| British Columbia | 20.5 | 29.2 | 10.4 |

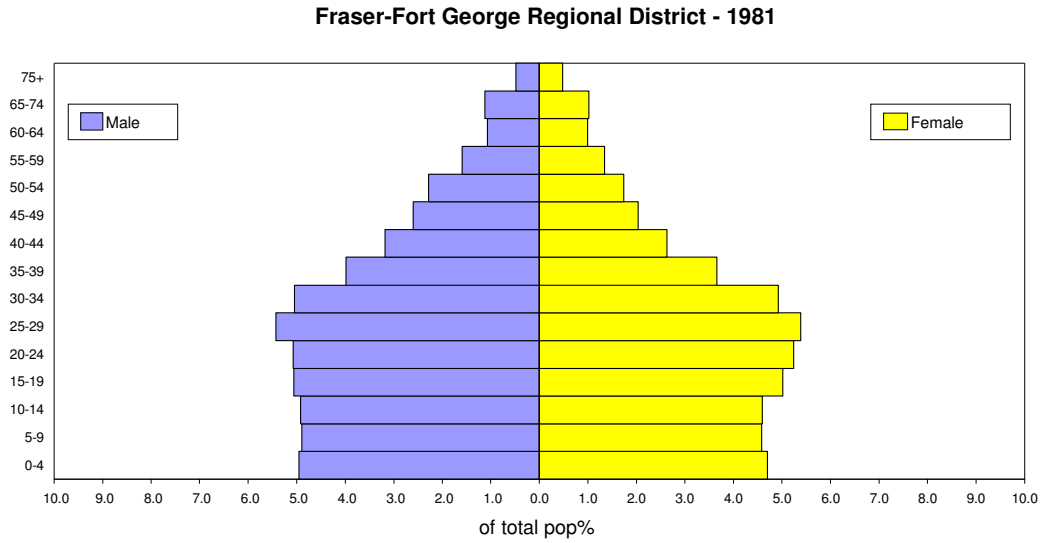
Source: Statistics Canada 1976, 1986, 1996, 2006.

## Population Pyramids

### *Fraser-Fort George Regional District*

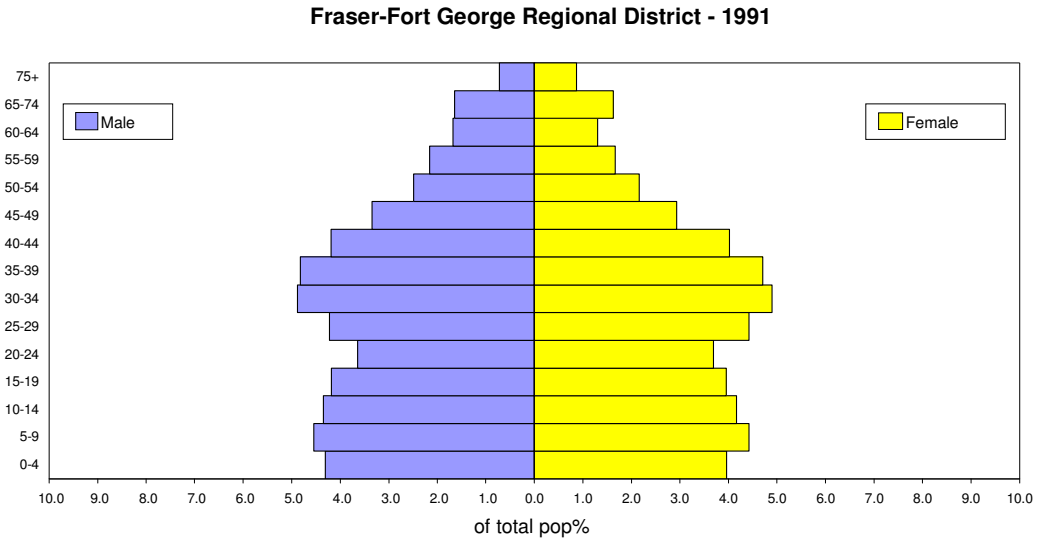
Changes in age and gender composition for the Fraser-Fort George Regional District's population is provided in Figures 6.1 to 6.3.

**Figure 6.1 Fraser-Fort George Regional District Population Pyramid – 1981**



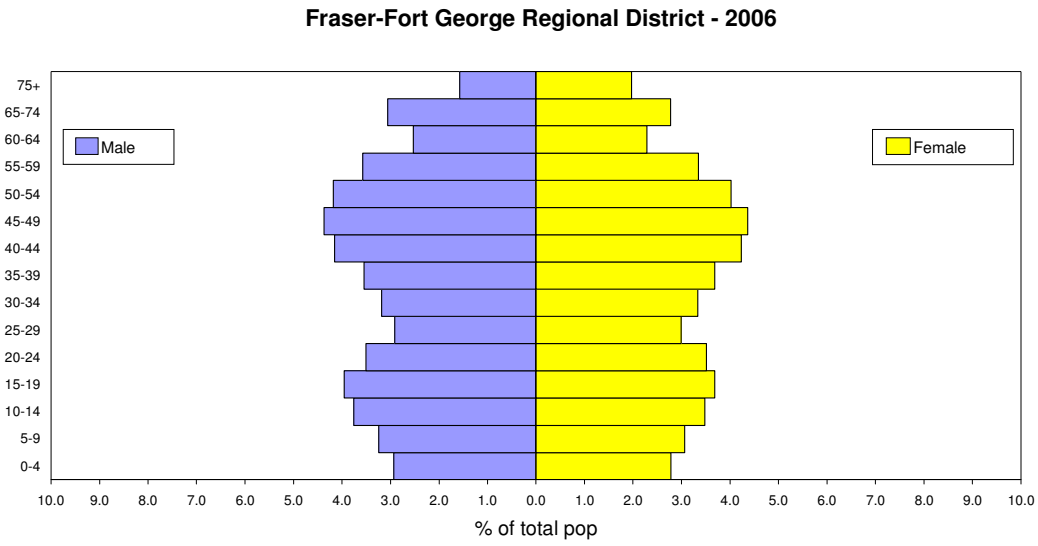
In 1981, the Fraser-Fort George Regional District consisted of a young, family-oriented population (Figure 6.1). These young families are indicated by a large share of children under 19 years of age, and by a greater share of the population between the 25 and 44 year age groups. At the same time, there is a low proportion of seniors in the area. Many of these young families were attracted to employment opportunities in the region (in this case, forestry and forest manufacturing). In terms of gender distribution, there is a greater ratio of older men in the labour force (40 to 54 age groups).

**Figure 6.2 Fraser-Fort George Regional District Population Pyramid – 1991**




By 1991, two important trends have impacted the population structure of the Fraser-Fort George Regional District. Youth out-migration has changed the structure of the region's population as there are a lower proportion of residents between the ages of 15 and 24 (Figure 6.2). It is likely that the exodus of youth has been driven by limited employment and post-secondary educational opportunities within the region. Second, the labour force has now aged-in-place and is mostly situated between the 25 and 49 age groups. The regional district does not have the same proportion of young families compared to 1981 statistics as there is a lower share of young adults between 20 and 29 years of age, as well as a lower share of children under 10 years of age. As the proportion of seniors has grown since 1981, the ratio of senior women has also become more predominant.

**Figure 6.3 Fraser-Fort George Regional District Population Pyramid – 2006**




By 2006, Census data reveals that the population structure for the Fraser-Fort George Regional District has matured to resemble a much older family-oriented population compared to 15 years ago (Figure 6.3). The labour force is now concentrated between the 35 and 59 age categories. Youth out-migration continues to be a concern for the region with a low share of residents representing the 20 to 29 year age groups. At the same time, lower shares of young adults under 40 years of age and children under 15 years of age indicate a loss of young families from the region. Combined, these trends of aging-in-place and out-migration have resulted in a greater proportion of seniors within the region.

***Prince George***

Figures 6.4 through 6.6 are the population pyramids for Prince George from 1981 to 2006.

**Figure 6.4 Prince George Population Pyramid - 1981**

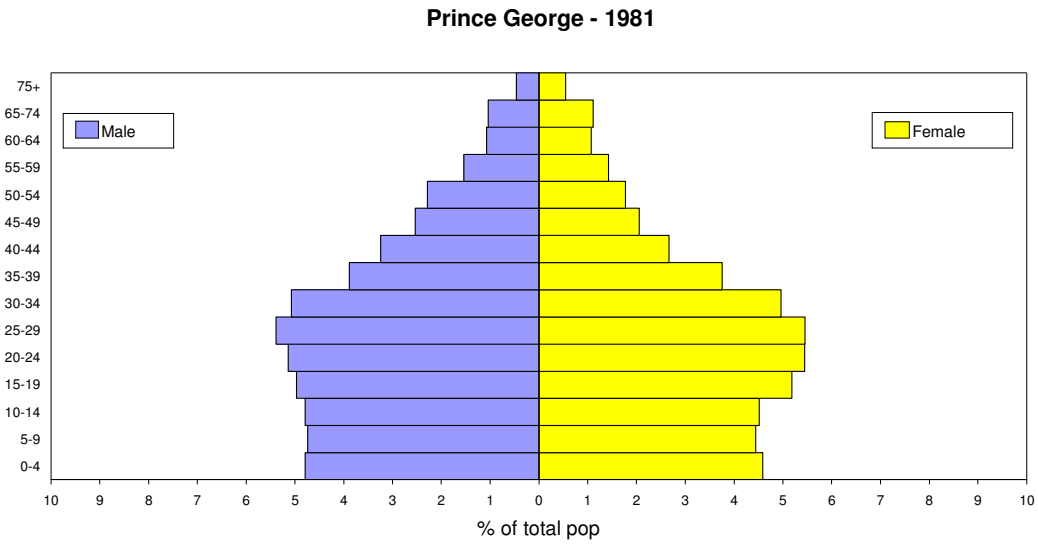
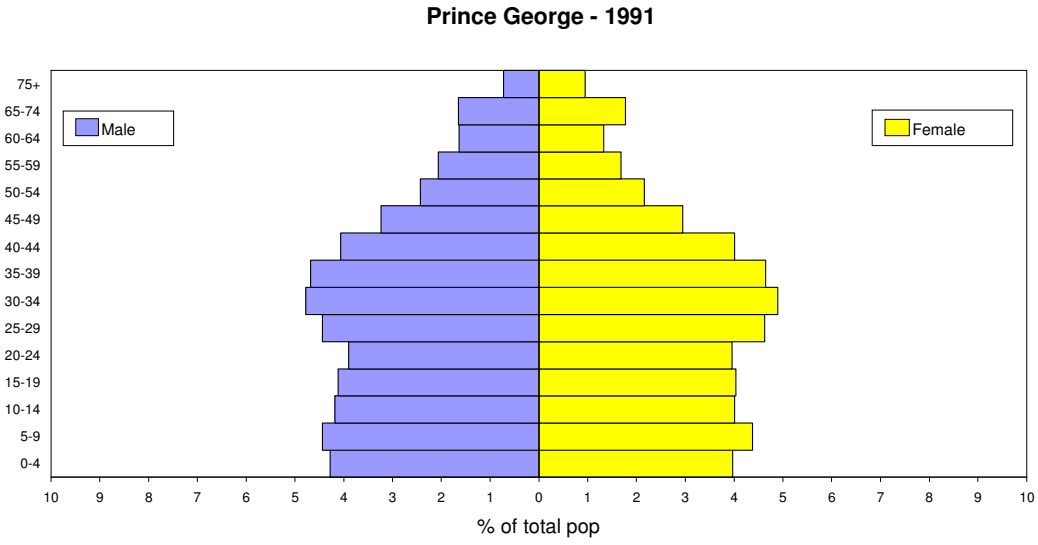



Figure 6.4 presents 1981 Census data for age and gender distributions in Prince George. Consistent with other resource dependent places, the Prince George population has an abundance of young families. This is depicted in this pyramid by a large share of people under 35 years of age. At the same time, there are a low proportion of seniors in the community. Many of these young families were attracted to employment opportunities associated with the resource and service sectors.

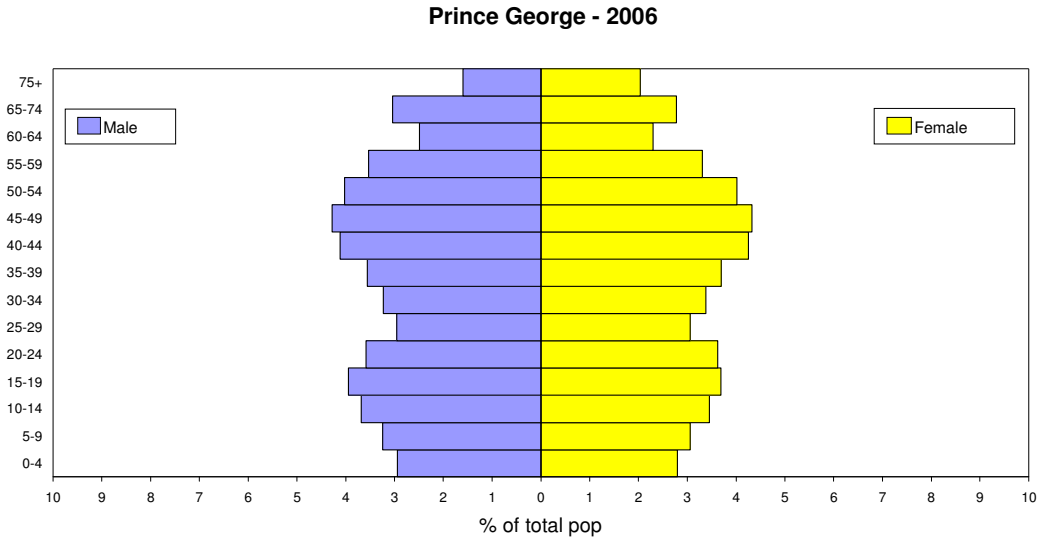
**Figure 6.5 Prince George Population Pyramid - 1991**




By 1991, the workforce in Prince George has aged-in-place and is concentrated between the 25 and 44 year age groups (Figure 6.5). As the workforce has aged, there are a greater proportion of residents approaching retirement compared to ten years ago. With a lower share of people between 15 and 24 years of age, the city is also experiencing the

same youth out-migration trends that are common around northern B.C. (see Appendix B). It is likely that this exodus is associated with employment opportunities offered in other places.

**Figure 6.6 Prince George Population Pyramid - 2006**




By 2006, three common trends have restructured the population in Prince George. First, the workforce has continued to age over the past 15 years as it is now mostly situated between the 35 and 59 year age groups (Figure 6.6). At the same time, there appears to be a loss of young families as there are fewer younger adults (25 to 34 years of age) and children under 15 years of age. Finally, with a lower proportion of youth between 20 and 29 year age categories, youth out-migration continues to be a concern for the city. It is likely that out-migration in general has stemmed from job losses associated with restructuring in the forestry and service sectors. New employees, who generally are younger residents, tend to be amongst the first to be cut. The city has developed a fairly even gender distribution across the age groups that is likely supported by a greater diversity in employment options for men and women in this regional centre.

## Age Dependency Ratios

This section of the report deals with population change in terms of the shift described above between younger and older populations. To begin, changes in the labour force can be understood by examining the percent of the population aged 65 years and older, as well as by the percent of the workforce aged 45 years and older. As these age groups become more pronounced within the overall aging population, labour shortage issues can become a concern for many businesses and organizations.

**Table 6.3 Percent of Population 65 Years and Older in the Fraser-Fort George Regional District, 1981-2006**

| Year | Prince George (City) | Fraser-Fort George RD | BC |
|---|---|---|---|
| 1981 | 3.1 | 3.1 | 10.9 |
| 1986 | 4.1 | 4.0 | 12.1 |
| 1991 | 5.4 | 4.9 | 12.9 |
| 1996 | 6.1 | 5.7 | 12.8 |
| 2001 | 7.7 | 7.4 | 13.6 |
| 2006 | 9.6 | 9.4 | 14.6 |

Source: Statistics Canada

As shown in Table 6.3, the trend at local, regional, and provincial scales is of an increasing share of the population aged 65 years and older since 1981. In Prince George, the percent of seniors amongst the population has changed from 3.1% in 1981 to 9.6% in 2006. Similarly, the percent of the population aged 65 and over in the Fraser-Fort George Regional District has grown from 3.1% to 9.4% in 2006. These growth trajectories parallel provincial trends where the proportion of seniors has increased from 10.9% in 1981 to 14.6% in 2006. The percent of the population over 65 years of age has increased due to 'resource frontier aging'. With limited new employment growth, the workforce (15 to 64 years of age) will age-in-place over time. While the percent of seniors in McLeod Lake has fluctuated between 0.0% and 10.0% over the past 25 years, this fluctuation is likely due to data rounding techniques deployed by Statistics Canada for very small localities.

**Table 6.4 Percent Workforce Aged 45 Years and Older in the Fraser-Fort George Regional District, 1981-2006**

| Year | Prince George (City) | Fraser-Fort George RD | BC |
|---|---|---|---|
| 1981 | 19.9 | 20.0 | 28.9 |
| 1986 | 22.6 | 22.8 | 29.2 |
| 1991 | 25.1 | 25.6 | 29.8 |
| 1996 | 29.7 | 28.5 | 25.0 |
| 2001 | 33.5 | 34.5 | 36.7 |
| 2006 | 38.3 | 40.2 | 41.3 |

Source: Statistics Canada

In Table 6.4, growth trends in the percent of the workforce aged 45 years and older is emulated at the local, regional, and provincial level. For example, the percent of the workforce 45 years of age and older has doubled for both Prince George and the regional

district. In the case of Prince George, the percent of this older workforce increased from 19.9% to 38.3% during this 25 year period. In comparison, the percent of the Fraser-Fort George Regional District's workforce aged 45 years and older grew from 20.0% in 1981 to 40.2% in 2006. The gap between the local and regional figures for the percent of this older workforce has closed with provincial levels, which have increased from 28.9% to 41.3% over the past 25 years. In McLeod Lake, the percent of this older portion of the workforce grew from 0.0% in 1986 to 28.6% in 2006.

**Table 6.5 Total Dependency Ratio in the Fraser-Fort George Regional District, 1981-2006 (Percent)**

| Year | Prince George (City) | Fraser-Fort George RD | BC |
|---|---|---|---|
| 1981 | 45.2 | 46.5 | 47.7 |
| 1986 | 44.4 | 45.1 | 48.4 |
| 1991 | 43.6 | 44.1 | 49.3 |
| 1996 | 43.0 | 42.9 | 50.1 |
| 2001 | 40.8 | 40.6 | 46.4 |
| 2006 | 40.5 | 40.1 | 45.1 |

Source: Statistics Canada

Table 6.5 demonstrates how the total dependency ratios have been declining over the past 25 years. Such trends are common in places that have fewer younger families and an aging workforce. In Prince George, the total dependency ratio dropped from 45.2% in 1981 to 40.5% in 2006. Similar trends are reflected in changes at the regional level, which has changed from 46.5% in 1981 to 40.1% in 2006. Overall, the total dependency ratio at the provincial level has been slightly higher than figures for Prince George and the Fraser-Fort George Regional District. In B.C., the total dependency ratio declined from 47.7% to 45.1% over the 25 year period. By comparison, total dependency ratios have fluctuated from a low of just 25.0% in 1991 to 66.7% in 1996. After a decline in 2001 (37.5%), total dependency ratios in McLeod Lake increased to 42.9% in 2006.

**Table 6.6 Young Dependency Ratio in the Fraser-Fort George Regional District, 1981-2006 (Percent)**

| Year | Prince George (City) | Fraser-Fort George RD | BC |
|---|---|---|---|
| 1981 | 40.6 | 41.9 | 31.7 |
| 1986 | 38.5 | 36.4 | 30.4 |
| 1991 | 36.3 | 37.1 | 30.1 |
| 1996 | 34.3 | 34.8 | 30.4 |
| 2001 | 30.0 | 30.3 | 26.5 |
| 2006 | 27.0 | 27.0 | 24.0 |

Source: Statistics Canada

As suggested earlier, lower total dependency ratios are driven by the loss of young families. This is affirmed in Table 6.6, which shows a decline in young dependency ratios within the City of Prince George, the regional district, and B.C. Between 1981 and 2006, young dependency ratios in Prince George declined from 40.6% to 27.0% respectively. During the past 25 years, these local figures and rates of decline for young dependency ratios are almost identical for the Fraser-Fort George Regional District. By comparison, the young dependency ratio has been consistently lower for the province, which has experienced a decline from 31.7% in 1981 to 24.0% in 2006. In McLeod Lake, there have been tremendous fluctuations in the young dependency ratios. For example, in 1986, young dependency ratios in this reserve reached 83.3%. By 2006, young dependency ratios in McLeod Lake had dropped to just 28.6%. Such fluctuations are largely due to skewed data in such small populations, as well as limitations inherent in the Census data.

**Table 6.7 Old Age Dependency Ratio in the Fraser-Fort George Regional District, 1981-2006 (Percent)**

| Year | Prince George (City) | Fraser-Fort George RD | BC |
|---|---|---|---|
| 1981 | 4.6 | 4.5 | 16.0 |
| 1986 | 5.9 | 5.7 | 18.0 |
| 1991 | 7.3 | 7.0 | 19.2 |
| 1996 | 8.7 | 8.2 | 19.7 |
| 2001 | 10.8 | 10.4 | 20.0 |
| 2006 | 13.5 | 13.1 | 21.2 |

Source: Statistics Canada

While young dependency ratios have been declining, Table 6.7 shows how the old age dependency ratios have been increasing. Old age dependency ratios have been steadily

growing in Prince George since 1981 (4.6%) to reach a peak of 13.5% in 2006. Similarly, the Fraser-Fort George Regional District's old age dependency ratio has increased from 4.5% in 1981 to 13.1% in 2006. In comparison, these ratios across B.C. remain higher as they have changed from 16.0% to 21.2% over the past 25 years. Similar to fluctuations in the percentage of seniors, McLeod Lake has experienced a range of old age dependency ratios from 16.7% in 1986 and in 1996 to 0.0% in 1991 and in 2001. More recently, the old age dependency ratio in the reserve has increased to 14.3% in 2006. As noted earlier, these fluctuations are likely due to data rounding techniques used by Statistics Canada to protect the anonymity of residents in very small communities.

## Retention Rates

Population retention rates for youth entering the labour force in the Fraser-Fort George Regional District are shown in Tables 6.8-6.10. With an older workforce approaching retirement, it is important to understand changes to retention rates for youth as they should influence strategies for coping with labour shortages in the region.

**Table 6.8 Population Retention Rates of 15-19 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Fraser-Fort George Regional District (%)**

| Period A | Period B | Prince George (City) | Fraser-Fort George (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | 91.4 | 84.9 | 107.6 |
| 1991 | 1996 | 108.4 | 98.4 | 113.8 |
| 1996 | 2001 | 87.9 | 81.2 | 100.5 |
| 2001 | 2006 | 91.1 | 81.7 | 98.4 |

Source: Statistics Canada

The retention of youth completing high school (15 to 19 years) is shown for different places in the Fraser-Fort George Regional District (Table 6.8). Compared to provincial figures, retention rates for this age group were lower at the regional level. While data for retention rates in the Fraser-Fort George Regional District shows a loss of this youth cohort between 1986 and 1991, these rates had recovered to retain almost all of the youth that have aged to 20 to 24 years of age in 1996. In the following ten years, however, this retention rate declined to approximately 81.0%.

Compared to the regional district, the City of Prince George displayed higher retention rates of youth between the ages of 15 and 19 years. This may be linked to educational opportunities offered by UNBC and the College of New Caledonia. Notably, 108.4% of the population initially 15 to 19 years of age in 1991 had migrated to or aged to become 20 and 24 years of age in 1996. After a small decline between 1996 and 2001 (87.9%), the retention rate for this youth category had improved slightly to 91.1% in 2006. In the

case of McLeod Lake Reserve, retention rates for youth completing high school reached a low of 33.3% between 1991 and 1996.

**Table 6.9 Population Retention Rates of 20-24 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Fraser-Fort George Regional District (%)**

| Period A | Period B | Prince George (City) | Fraser-Fort George (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | 102.9 | 101.4 | 116.7 |
| 1991 | 1996 | 120.0 | 115.4 | 120.9 |
| 1996 | 2001 | 87.9 | 87.1 | 100.7 |
| 2001 | 2006 | 86.8 | 85.8 | 100.5 |

Source: Statistics Canada

When compared to B.C. statistics, Table 6.9 demonstrates better retention rates of youth entering the labour force in the Fraser-Fort George Regional District. From 1986 to 1996, the regional district had maintained the proportion of the population initially aged 20 to 24 years over the following five years. By 2001, however, only 87.1% of those between 20 and 24 years of age in 1996 had remained in the region. This retention rate declined further between 2001 and 2006 to reach a low of 85.8%. In comparison, the City of Prince George has had slightly better success at retaining this young cohort in the labour force. For example, retention rates reached a high of 120.0% as youth aged 20 to 24 years of age in 1991 remained or migrated to the city by 1996. Similar to regional district trends, however, these retention rates declined leading to an out-migration of this labour source since 1996. In the case of McLeod Lake, retention rates for youth entering the labour force have significantly increased from a situation where out-migration was occurring between 1986 to 1991, to a situation where retention and in-migration have significantly expanded this cohort between 2001 and 2006 (300%).

**Table 6.10 Population Retention Rates of 25-29 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Fraser-Fort George Regional District (%)**

| Period A | Period B | Prince George (City) | Fraser-Fort George (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | * | * | * |
| 1991 | 1996 | 106.2 | 111.3 | 116.5 |
| 1996 | 2001 | 90.0 | 92.2 | 101.8 |
| 2001 | 2006 | 93.8 | 95.0 | 105.0 |

Source: Statistics Canada
* - 1986 Census does not separately report data for 25-29 year age group.

In Table 6.10, the retention rates for young adults starting families is presented for the Fraser-Fort George Regional District. Compared to other youth groups examined in this section, the region has had greater success during recent Census periods at retaining adults between 25 and 29 years of age. Despite this, retention rates remain below provincial levels. This is particularly the case in 2001 when regional retention rates of young adults 25 to 29 years of age reached a low of 92.2%, indicating an out-migration of this cohort. By 2006, retention rates for the Fraser-Fort George Regional District had improved somewhat to 95.0%. Although similar, retention rates for young adults in Prince George were slightly below that for the regional district. Just as the region had experienced an exodus of young adults in later Census periods, Prince George was unable to retain all of its residents between 25 to 29 years of age from 1996 to 2001 and from 2001 to 2006.

In the case of McLeod Lake, retention rates of young adults have fluctuated more considerably. After retaining the full cohort of young adults by 1996, only 50.0% of adults 25 to 29 years of age in 1996 had remained in the community in 2001. By 2006, though, retention rates had recovered and peaked at 150.0%.

# 7.0 Kitimat-Stikine Regional District

## Population Change

***Kitimat-Stikine Regional District***

Similar to general trends around northern B.C. (see Appendix B), the Kitimat-Stikine Regional District's population grew until 1996, accumulating 43,618 people (Table 7.1). By 2006, however, the regional district was unable to keep pace with provincial growth patterns and had lost 5,619 people. Prior to 1996, growth was most pronounced in the regional centre of Terrace, which had reached a population of 12,779. Earlier, the population of Hazelton also grew substantially from 371 people in 1976 to 436 in 1986. By 2006, all of the communities located in the Kitimat-Stikine Regional District had entered into a period of decline with population losses. Since 1996, the largest population declines have occurred in Stewart, followed by New Hazelton, and Kitimat. Of interest, Gitanmaax, a First Nations reserve, has consistently grown from 400 people to 723 people between 1986 and 2006.

**Table 7.1 Census population in the Kitimat-Stikine Regional District, 1976-2006, by total population numbers**

| Place | 1976 | 1986 | 1996 | 2006 |
|---|---|---|---|---|
| **Kitimat-Stikine** | **38,718** | **39,483** | **43,618** | **37,999** |
| Hazelton | 371 | 436 | 347 | 293 |
| Kitimat | 11,956 | 11,196 | 11,136 | 8,987 |
| New Hazelton | n/a | 796 | 822 | 627 |
| Stewart | 1,382 | 858 | 858 | 496 |
| Terrace | 10,251 | 10,532 | 12,779 | 11,320 |
| *Unincorporated* | *14,758* | *15,665* | *17,676* | *16,276* |
| British Columbia | 2,392,790 | 2,883,367 | 3,724,500 | 4,113,487 |

Source: Statistics Canada 1976, 1986, 1996, 2006.

When compared to the provincial average, communities within the Kitimat-Stikine Regional District are experiencing higher rates of decline. For some places, decline rates existed after 1976 as Stewart, for example, lost almost 38% of its population, while Kitimat lost 6.4% (Table 7.2). Between 1986 and 1996, the growth rate for most places outside of Terrace had weakened or had entered into a state of decline. This is in stark contrast to the significant average growth rate of 29.2% that was being experienced in the province. Only Gitanmaax exceeded provincial growth rates during this period as its population increased by 37.3%. While unincorporated areas grew during this period, much of this growth is associated with the unincorporated area of Thornhill that is located just outside of Terrace. Between 1996 and 2006, the most significant rate of decline occurred in Stewart, which lost 42.2% of its population. Hazelton, Kitimat, and New

Hazelton each also lost at least 15% or more of their respective populations. Even Terrace, the regional centre for the Kitimat-Stikine Regional District, lost 11.4% of its population during this time period. In contrast, the population of Gitanmaax increased by 13.3% during this latest period.

**Table 7.2 Census population change in the Kitimat-Stikine Regional District, 1976-2006, by total % change in population**

| Place | % change 1976-1986 | % change 1986-1996 | % change 1996-2006 |
|---|---|---|---|
| **Kitimat-Stikine** | **1.98** | **10.47** | **-12.88** |
| Hazelton | 17.52 | -20.41 | -15.56 |
| Kitimat | -6.36 | -0.54 | -19.30 |
| New Hazelton | n/a | 3.27 | -23.72 |
| Stewart | -37.92 | 0.00 | -42.19 |
| Terrace | 2.74 | 21.33 | -11.42 |
| *Unincorporated* | *6.15* | *12.84* | *-7.92* |
| British Columbia | 20.5 | 29.2 | 10.4 |

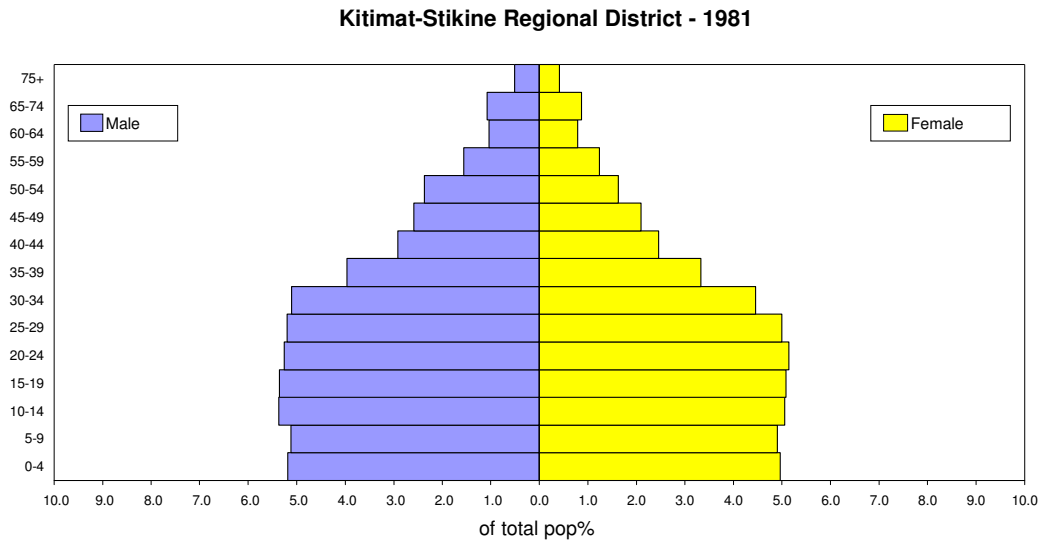
Source: Statistics Canada 1976, 1986, 1996, 2006.

## Population Pyramids

### *Kitimat Stikine Region*

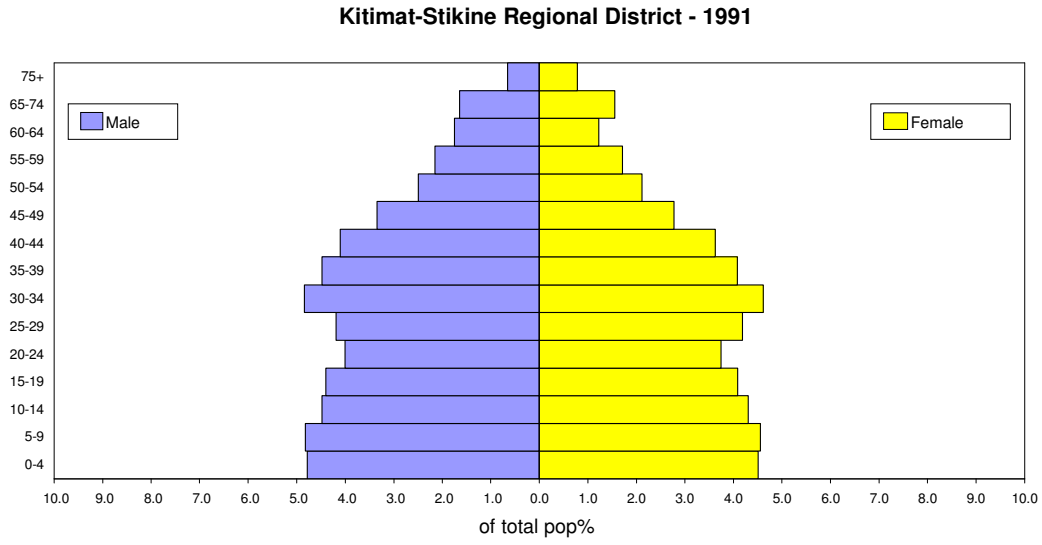
Changes in age and gender composition for the Kitimat-Stikine Regional District's population is provided in Figures 7.1 to 7.3.

**Figure 7.1 Kitimat-Stikine Regional District Population Pyramid – 1981**




In Figure 7.1, Census data for the Kitimat-Stikine Regional District reveals a young, family-oriented population in the region. This is demonstrated by a high proportion of the labour force that is concentrated in the 15 to 34 age categories. At the same time, there is a high proportion of youth under 15 years of age. These young families may have been attracted by the employment opportunities associated with resource manufacturing that had developed within the region. Amongst older residents, there are a greater proportion of males aged 50 and over.

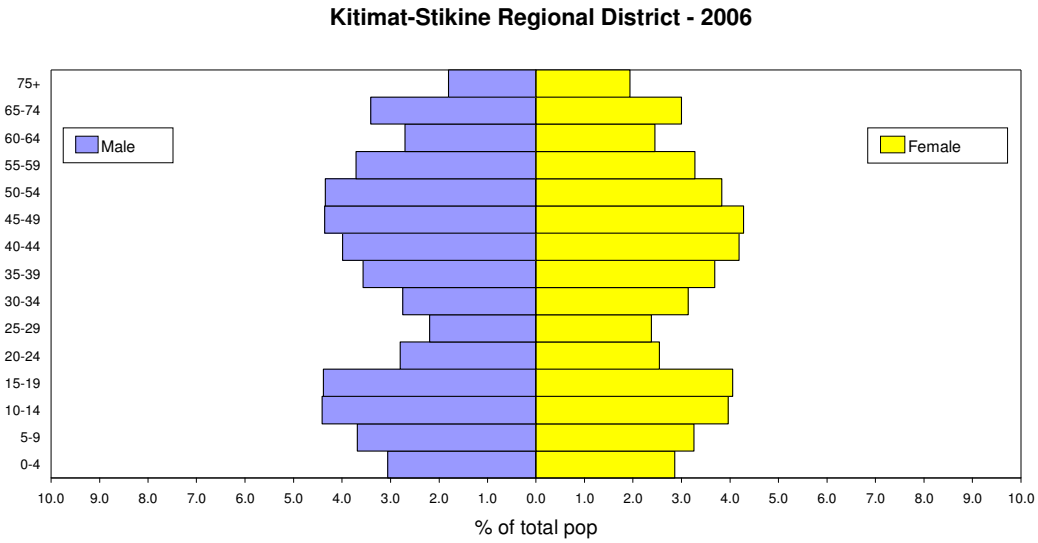
**Figure 7.2 Kitimat-Stikine Regional District Population Pyramid – 1991**




Similar to other resource dependent regions around northern B.C., the Kitimat-Stikine Regional District's population has been aging-in-place. This is illustrated with a higher proportion of the population that falls within the 30 to 44 age categories (Figure 7.2). In

1991, there is also a growing percentage of the workforce that is approaching retirement age. The region may have experienced a loss of young families as demonstrated by a slightly lower proportion of youth between 0 and 14 years of age, as well as a lower proportion of younger adults. Over the past ten years, the region has also experienced an exodus of youth, particularly between the ages of 20 and 24. This cohort may have declined as people left the region to pursue educational and employment opportunities in other areas. A greater proportion of the region's population also consists of seniors.

**Figure 7.3 Kitimat-Stikine Regional District Population Pyramid – 2006**

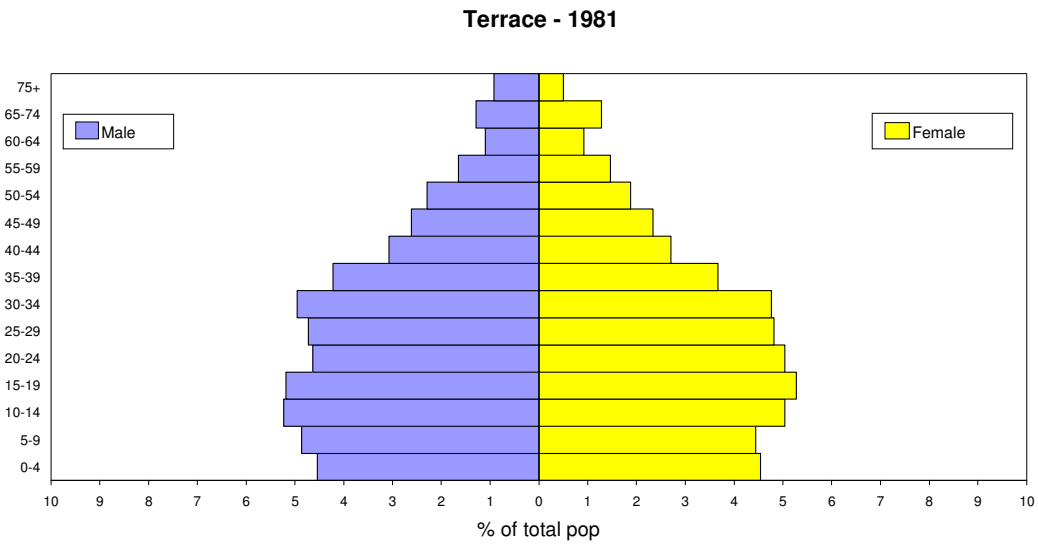



By 2006, the Kitimat-Stikine Regional District has an older, family-oriented population compared to other regions in northern B.C. A good portion of the labour force is concentrated in the 40 to 59 age groups (Figure 7.3). Youth out-migration continues to be a challenge for the region as indicated by the small proportion of people in the 20 to 29 year age categories. Furthermore, with a decline in the share of people aged 30 to 39, along with a lower share of the population aged 0 to 9, it is likely that the region experienced a loss of young families. There is also a higher share of the population 65 years of age and older.

***Terrace***

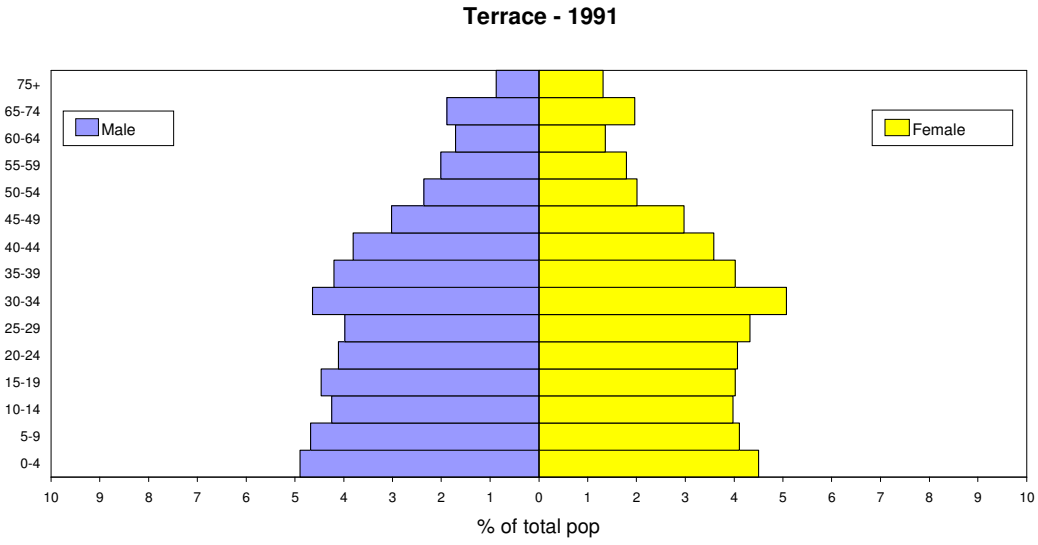
Figures 7.4 through 7.6 are the population pyramids for the City of Terrace from 1981 to 2006.

**Figure 7.4 Terrace Population Pyramid - 1981**




The population pyramids for Terrace show a pattern typical of resource towns in northern B.C. In 1981, the population is dominated by young families (Figure 7.4). This is shown by a large proportion of the local population in the 25 to 40 year age groups and the corresponding 0 to 20 year age groups. In a city like Terrace, young families were drawn by work opportunities in an expanding forest industry and growing service base.

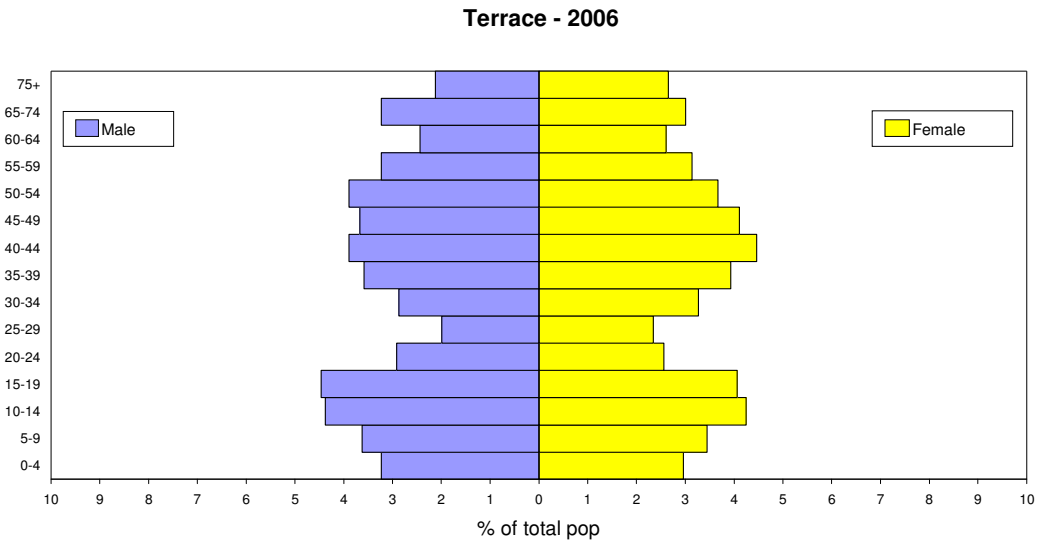
**Figure 7.5 Terrace Population Pyramid - 1991**




By 1991, there are a few changes to Terrace's population structure. There is a slight decline in the share of young family households in the city, as demonstrated by a smaller share of children in the 10 to 19 year age groups (Figure 7.5). There are also more adults in the older age cohorts, particularly over 40 years of age. An aging-in-place process is

starting where the workforce is engaged in stable resource sectors, but where limited new job growth has slowed the in-migration of younger households. Such limited job growth also contributes to youth out-migration. This is seen by the smaller shares of the population in the 20-24 and 25-29 year cohorts. Young people may be leaving to access educational opportunities or to pursue employment outside of Terrace. Again, this pattern is quite common in resource towns and across northern B.C. (see Appendix B).

**Figure 7.6 Terrace Population Pyramid - 2006**




By 2006, the trend towards population aging is further demonstrated. The labour force is now concentrated in the 35-55 year age groups and there is a larger share of the population over age 50 than at any time in the past (Figure 7.6). Aging-in-place among those in the workforce, and a continued out-migration of younger people in the 20-24 and 25-29 year age cohorts, continues to be easily seen within this population pyramid. The presence of fewer younger families is indicated by a lower share of children under 10 years of age.

***Gitanmaax***

Figures 7.7 to 7.9 are the population pyramids for the Gitanmaax First Nation Reserve from 1981 to 2006. Gitanmaax Village is located in the heart of the Gitksan traditional territories in northwest BC. The community is situated at the junction of the Skeena and Bulkley Rivers, and is located immediately adjacent to the historic Village of Hazelton.

**Figure 7.7 Gitanmaax Population Pyramid - 1981**

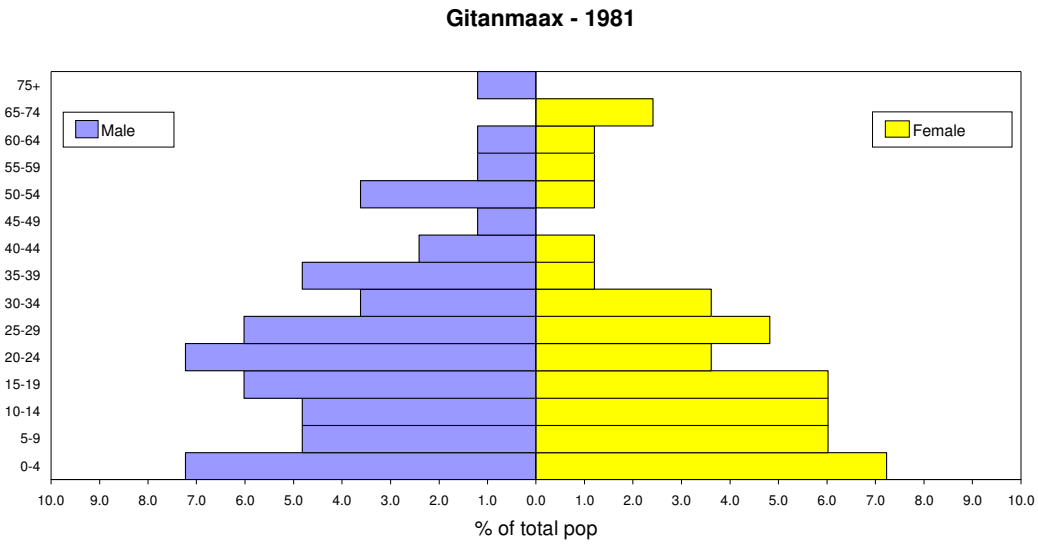
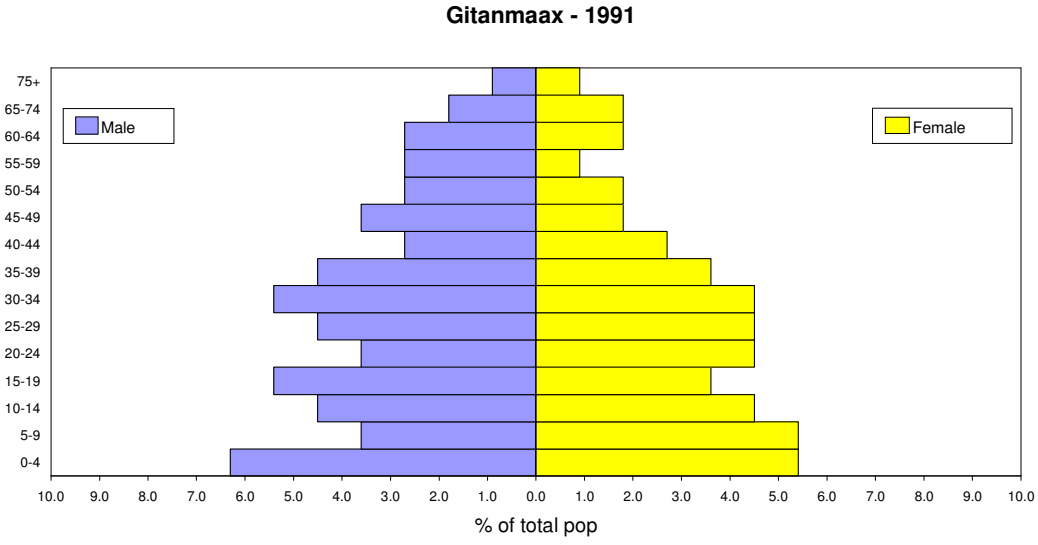



Figure 7.7 shows the 1981 population pyramid for Gitanmaax Village. A caution, data availability and the tendency for Statistics Canada to round low population figures to 'zero' or 'five' have been standard practice to ensure anonymity. In 1981, a low proportion of the population in Gitanmaax was over the age of 39. Instead, a large proportion consists of young families. At the same time, the labour force is concentrated between the ages of 15 and 29. There is a greater share of men amongst the labour force (15-64 years of age).

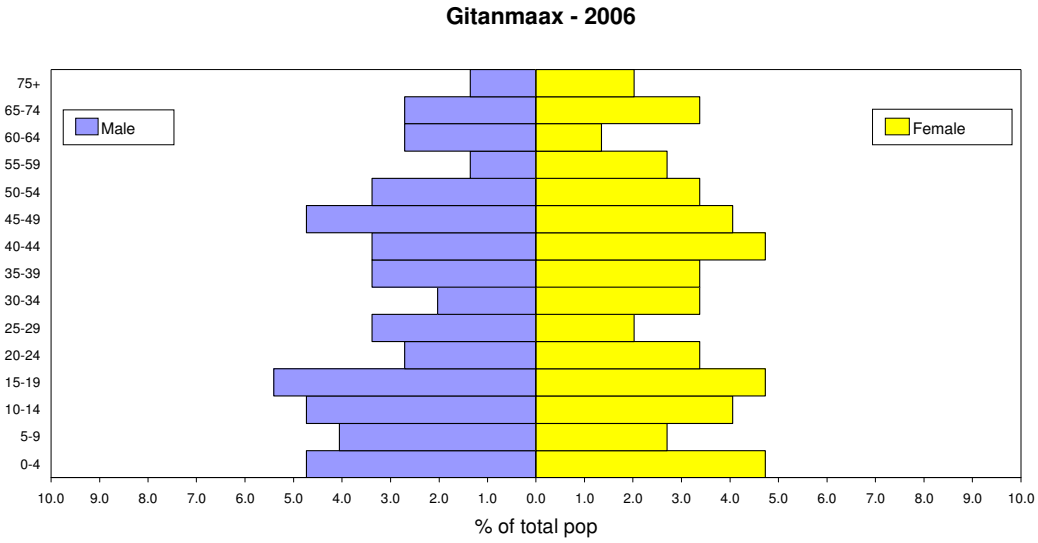
**Figure 7.8 Gitanmaax Population Pyramid - 1991**




By 1991, the overall structure of the Gitanmaax population pyramid has changed considerably. Resembling other maturing resource regions, the Gitanmaax population is becoming older, and the labour force is now concentrated between the 25 and 39 year age

groups (Figure 7.8). With a lower proportion of children under 15 years of age and fewer young adults, there appears to be a loss of young families. There is also a greater share of residents approaching retirement compared to ten years ago. Amongst residents 45 years of age and older, there continues to be a greater ratio of men.

**Figure 7.9 Gitanmaax Population Pyramid - 2006**




Although there have been considerable fluctuations amongst many age groups compared to 15 years ago, the labour force has continued to age-in-place. This is illustrated with a general concentration of the labour force between 35 and 54 years of age (Figure 7.9). Since 1981, however, the labour force contains a lower share of the population. This has been indicated by a declining share of adults under 35 years of age. Instead, there are now a greater proportion of seniors in Gitanmaax. While many other resource communities have experienced an exodus of young families, Gitanmaax has been able to retain youth under 20 years of age.

## Age Dependency Ratios

This section deals with population change in terms of the shift described above between younger and older populations in the Kitimat-Stikine Regional District. As older age groups become more pronounced within the overall population, labour shortage issues can become a concern for many organizations and businesses. To start, such changes in the labour force can be understood by examining the percent of seniors, as well as by the percent of the workforce aged 45 years and older.

**Table 7.3 Percent of Population 65 Years and Older in the Kitimat-Stikine Regional District, 1981-2006**

| Year | Terrace (City) | Kitimat-Stikine RD | BC |
|---|---|---|---|
| 1981 | 4.0 | 2.8 | 10.9 |
| 1986 | 4.8 | 3.7 | 12.1 |
| 1991 | 6.0 | 4.6 | 12.9 |
| 1996 | 7.0 | 5.8 | 12.8 |
| 2001 | 8.6 | 7.7 | 13.6 |
| 2006 | 11.0 | 10.2 | 14.6 |

Source: Statistics Canada

As illustrated in Table 7.3, the trend at the local, regional, and provincial scales is an increase in the percent of the population aged 65 years and older since 1981. In Terrace, the percent of the population aged 65 and over changed from 4.0% to 11.0% during this 25 year period. Meanwhile, the percent of seniors in the Kitimat-Stikine Regional District grew from 2.8% in 1981 to 10.2% in 2006. The rate of increase in the seniors' population for Terrace and the Kitimat-Stikine Regional District is higher compared to statistics for B.C. While the proportion of seniors has steadily increased across the Kitimat-Stikine Regional District, statistics have fluctuated in Gitanmaax over the past twenty-five years. In this aboriginal community, the percent of seniors aged 65 years and older peaked at 6.0% in 1986 before declining to just 4.3% in 2001. By 2006, however, this percent had more than doubled to 9.5%.

**Table 7.4 Percent Workforce Aged 45 Years and Older in the Kitimat-Stikine Regional District, 1981-2006**

| Year | Terrace (City) | Kitimat-Stikine RD | BC |
|---|---|---|---|
| 1981 | 21.2 | 20.0 | 28.9 |
| 1986 | 24.0 | 23.3 | 29.2 |
| 1991 | 25.5 | 25.9 | 29.8 |
| 1996 | 27.7 | 28.9 | 25.0 |
| 2001 | 34.2 | 35.2 | 36.7 |
| 2006 | 39.9 | 42.2 | 41.3 |

Source: Statistics Canada

As demonstrated in Table 7.4, there is a faster growth rate in the percent of the workforce aged 45 years and older in the Kitimat-Stikine Regional District. Such 'frontier aging' occurs when there is limited new employment growth, resulting in aging-in-place as people continue with their occupational work. Since 1981, changes in the percent of Terrace's workforce aged 45 years and older mirrored patterns in the Kitimat-Stikine Regional District. In Terrace, the percent of this older portion of the workforce grew

from 21.2% in 1981 to 39.9% in 2006. Similarly, the percent of the workforce aged 45 years and older in the Kitimat-Stikine Regional District increased from 20.0% to 42.2% during this 25 year period. While figures for this older portion of the workforce were higher at the provincial level in 1981, the gap between B.C. and the regional district, as well as Terrace, had closed by the last Census period. Changes in the percent of the workforce aged 45 years and older in Gitanmaax have resembled regional trends, increasing over the past 25 years to 36.1% in 2006.

**Table 7.5 Total Dependency Ratio in the Kitimat-Stikine Regional District, 1981-2006 (Percent)**

| Year | Terrace (City) | Kitimat-Stikine RD | BC |
|---|---|---|---|
| 1981 | 48.5 | 50.2 | 47.7 |
| 1986 | 46.1 | 48.1 | 48.4 |
| 1991 | 48.1 | 47.3 | 49.3 |
| 1996 | 48.8 | 47.3 | 50.1 |
| 2001 | 48.9 | 45.9 | 46.4 |
| 2006 | 49.0 | 45.7 | 45.1 |

Source: Statistics Canada

The transition in age relationships can also be characterized by 'dependency ratios'. In Table 7.5, the 'total dependency ratio' has slightly declined for B.C. and the Kitimat-Stikine Regional District, but has remained relatively stable for Terrace. In the case of Terrace, the total dependency ratio has only changed by half a percentage point between 1981 (48.5%) and 2006 (49.0%). By comparison, the total dependency ratio for the regional district has dropped from 50.2% in 1981 to 45.7% in 2006. Total dependency ratios for the Kitimat-Stikine Regional District resemble provincial levels. Gitanmaax has generally experienced a decline in its total dependency ratio from 64.7% in 1981 to 52.6% in 2006.

**Table 7.6 Young Dependency Ratio in the Kitimat-Stikine Regional District, 1981-2006 (Percent)**

| Year | Terrace (City) | Kitimat-Stikine RD | BC |
|---|---|---|---|
| 1981 | 42.6 | 46.0 | 31.7 |
| 1986 | 39.0 | 42.6 | 30.4 |
| 1991 | 39.1 | 40.4 | 30.1 |
| 1996 | 38.3 | 38.7 | 30.4 |
| 2001 | 36.1 | 34.6 | 26.5 |
| 2006 | 32.6 | 30.9 | 24.0 |

Source: Statistics Canada

As shown in Table 7.6, the young dependency ratio calculated for the period 1981 to 2006 shows important changes. In B.C., the share of the population under age 15, compared to the rest of the working age population, was 31.7% in 1981. This has declined to just 24.0% in 2006. In Terrace, the young dependency ratio has dropped from 42.6% to 32.6% during the 25 year period. Compared to provincial changes, the decline of the young dependency ratio has been greater at the regional level, which has dropped from 46.0% in 1981 to just 30.9% in 2006. At 58.8%, Gitanmaax portrayed a high dependency ratio in 1981 that is common amongst many aboriginal communities. By 2006, this ratio had dropped to 38.1%.

**Table 7.7 Old Age Dependency Ratio in the Kitimat-Stikine Regional District, 1981-2006 (Percent)**

| Year | Terrace (City) | Kitimat-Stikine RD | BC |
|---|---|---|---|
| 1981 | 5.9 | 4.2 | 16.0 |
| 1986 | 7.1 | 5.5 | 18.0 |
| 1991 | 8.9 | 6.8 | 19.2 |
| 1996 | 10.5 | 8.6 | 19.7 |
| 2001 | 12.8 | 11.2 | 20.0 |
| 2006 | 16.4 | 14.8 | 21.2 |

Source: Statistics Canada

Changes in the young dependency ratios will soon have an impact on old age dependency ratios. As illustrated earlier with the population pyramids and the percent of population aged 65 years and older, there has been a growth in the share of the population in older age groups. As the 'baby boomers' approach retirement, the old age dependency ratio will expand and will have important implications on labour demands and shortages.

Table 7.7 shows an increase in the old age dependency ratios across all three geographic scales from 1981 to 2006. For B.C., the old age dependency ratio changed from 16.0% in 1981 to 21.2% in 2006. For the Kitimat-Stikine Regional District, the old age dependency ratio increased from 4.2% to 14.8% between 1981 and 2006 respectively. Terrace experienced similar growth patterns for its old age dependency ratio, which grew from just 5.9% in 1981 to 16.4% in 2006. Although there have been fluctuations since 1981, Gitanmaax has generally experienced an increase in its old age dependency ratio. By 2006, this ratio in Gitanmaax had reached 14.4%.

## Retention Rates

Population retention rates for youth entering the labour force in the Kitimat-Stikine Regional District are shown in Tables 7.8-7.10. With an older workforce approaching retirement, it is important to understand changes to retention rates for youth as they should influence strategies for coping with labour shortages in the region.

**Table 7.8 Population Retention Rates of 15-19 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Kitimat-Stikine Regional District (%)**

| Period A | Period B | Terrace (City) | Kitimat-Stikine (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | 89.9 | 84.8 | 107.6 |
| 1991 | 1996 | 102.1 | 85.7 | 113.8 |
| 1996 | 2001 | 70.8 | 63.4 | 100.5 |
| 2001 | 2006 | 62.3 | 57.4 | 98.4 |

Source: Statistics Canada

In the Kitimat-Stikine Regional District, Table 7.8 demonstrates how youth 15 to 19 years of age during one Census period are retained as young adults between 20 to 24 years of age five years later. When compared to B.C., the Kitimat-Stikine has experienced greater difficulty retaining youth upon completion of high school. In particular, since 1996, retention rates of youth between 15 and 19 years of age have declined in the regional district, reaching a low of just 57.4% in 2006. Compared to the regional district, Terrace has experienced higher retention rates of youth completing high school. In fact, the city was able to retain 102.1% of youth who were initially 15 to 19 years of age in 1991 as they aged to 20 to 24 years of age in 1996. While city retention rates of this youngest cohort have since outperformed regional trends, they have nonetheless also continued to decline since 2001, subsequently reaching 62.3% in 2006. In Gitanmaax, the community has been able to retain 90.0% of this young cohort in each Census period, except the 1996 to 2001 period when retention rates reached a low of 69.2%.

**Table 7.9 Population Retention Rates of 20-24 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Kitimat-Stikine Regional District (%)**

| Period A | Period B | Terrace (City) | Kitimat-Stikine (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | 108.6 | 109.0 | 116.7 |
| 1991 | 1996 | 111.8 | 100.2 | 120.9 |
| 1996 | 2001 | 75.8 | 79.7 | 100.7 |
| 2001 | 2006 | 71.0 | 77.5 | 100.5 |

Source: Statistics Canada

As demonstrated in Table 7.9, there are interesting variations in retention rates of youth entering the labour force across the Kitimat-Stikine Regional District. If we begin by comparing local, provincial, and regional retention rates, both Terrace and the Kitimat-

Stikine Regional District have had lower retention rates of youth between the ages of 20 and 24, particularly between 1996-2001 and 2001-2006. However, it is important to note that between 1986-1991 and 1991-1996, Terrace and the regional district had been successful with retaining at least 100.0% of this youth cohort. By comparison, Gitanmaax was successful at retaining young labour in the community until 2006. At this point, only 88.9% of youth initially 20 to 24 years of age in 2001 were retained as 25 to 29 year old residents in 2006.

**Table 7.10 Population Retention Rates of 25-29 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Kitimat-Stikine Regional District (%)**

| Period A | Period B | Terrace (City) | Kitimat-Stikine (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | * | * | * |
| 1991 | 1996 | 112.6 | 104.7 | 116.5 |
| 1996 | 2001 | 88.0 | 91.6 | 101.8 |
| 2001 | 2006 | 92.7 | 91.6 | 105.0 |

Source: Statistics Canada
* - 1986 Census does not separately report data for 25-29 year age group.

When compared to B.C., Table 7.10 shows that the Kitimat-Stikine Regional District has lower retention rates of young adults starting families. Despite this, all of the areas shown in Table 7.10 were successful at retaining young adults between 25 and 29 years of age between 1991 and 1996. By 2001, only retention rates for Gitanmaax remained at 100.0%. At this time, both Terrace (88.0%) and the Kitimat-Stikine Regional District (91.6%) have experienced out-migration amongst this cohort. In Terrace, retention rates recovered somewhat by 2006 as 92.7% of those 25 to 29 years of age in 2001 had remained in the city. In contrast, Gitanmaax retention rates for this cohort substantially declined in 2006. In this case, only 61.5% of youth aged 25 to 29 years of age in 2001 remained in Gitanmaax as 30 to 34 year old residents in 2006.

# 8.0 Northern Rockies Regional District

## Population Change

***Northern Rockies Regional District***

Following the creation of the Northern Rockies Regional District in 1987, Table 8.1 captures the population change for this region between 1996 and 2006. During this short time frame, the population of the regional district has increased by 291 people. Population growth during this period is also depicted for Fort Nelson and the surrounding unincorporated communities. Growth trends for Fort Nelson parallel population increases for the rest of the province between 1976 and 2006. The population of the Fort Nelson Band increased from 263 to 359 between 1986 and 2006.

**Table 8.1 Census population in the Northern Rockies Regional District, 1976-2006, by total population numbers**

| Place | 1976 | 1986 | 1996 | 2006 |
|---|---|---|---|---|
| **Northern Rockies** | **n/a** | **n/a** | **5,856** | **6,147** |
| Fort Nelson | 2,916 | 3,729 | 4,401 | 4,514 |
| *Unincorporated* | *n/a* | *n/a* | *1,455* | *1,633* |
| British Columbia | 2,392,790 | 2,883,367 | 3,724,500 | 4,113,487 |

Source: Statistics Canada 1976, 1986, 1996, 2006.

The growth rate for the Northern Rockies Regional District is below the provincial average for the period between 1996 and 2006 (Table 8.2). The slower growth rate can be attributed to population trends in Fort Nelson. Since 1986, Fort Nelson has experienced slower growth rates, eventually resulting in a 2.6% increase in its population from 1996 and 2006. By comparison, the growth rate for the unincorporated areas in the regional district have out performed the provincial trend as these areas grew by 12.2% between 1996 and 2006. After a substantial growth of 29.7% from 1986 and 1996, the Fort Nelson Band experienced more modest levels of growth as its population increased by 5.3% between 1996 and 2006.

**Table 8.2 Census population change in the Northern Rockies Regional District, 1976-2006, by total % change in population**

| Place | % change 1976-1986 | % change 1986-1996 | % change 1996-2006 |
|---|---|---|---|
| **Northern Rockies** | **n/a** | **n/a** | **4.97** |
| Fort Nelson | 27.88 | 18.02 | 2.57 |
| *Unincorporated* | *n/a* | *n/a* | *12.23* |
| British Columbia | 20.5 | 29.2 | 10.4 |

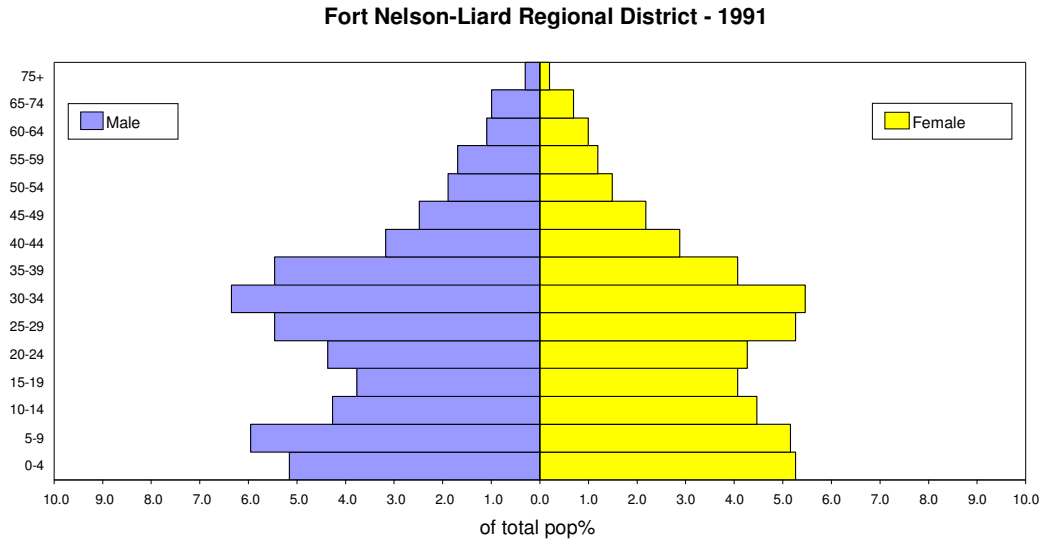
Source: Statistics Canada 1976, 1986, 1996, 2006.

## Population Pyramids

### *Northern Rockies Regional District*

In this section, population pyramids are shown for the Fort Nelson-Liard Regional District in 1991 and for the Northern Rockies Regional District in 2006. As noted earlier, the Fort Nelson-Liard Regional District was renamed the Northern Rockies Regional District in 1999.

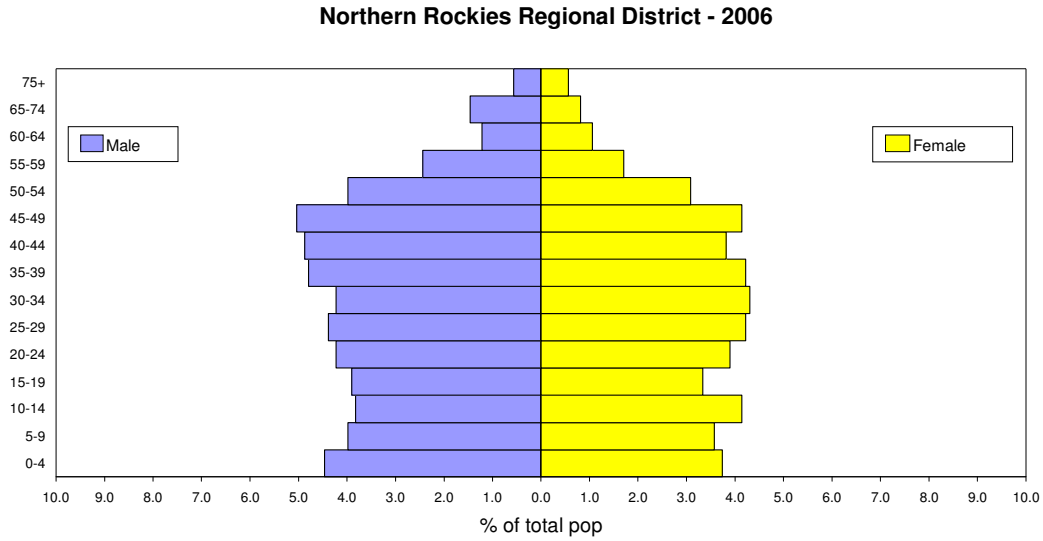
**Figure 8.1 Fort Nelson-Liard Regional District Population Pyramid – 1991**




In 1991, the Fort Nelson-Liard Regional District was occupied by young families (Figure 8.1). It is likely that these young families were attracted to the area for its employment opportunities associated with resource development. These young families are represented by a high proportion of children under 10 years of age, as well as by a workforce that is concentrated between the 20 and 39 year age categories. In terms of

gender distribution, there is a greater ratio of males to females in the 30 to 39 year age groups. At this point, there is a relatively small proportion of seniors within the regional district.

**Figure 8.2 Northern Rockies Regional District Population Pyramid – 2006**

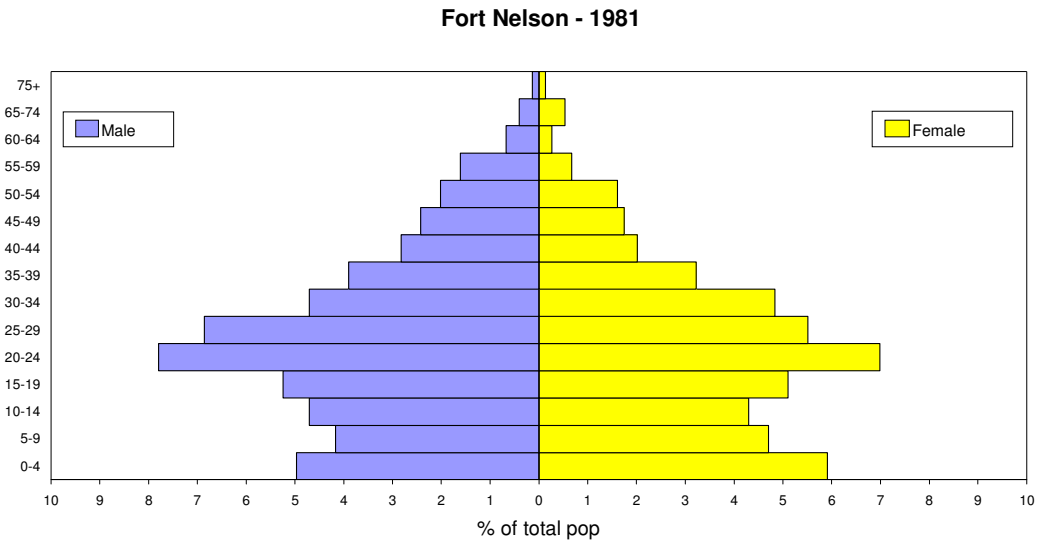



By 2006, this renamed geographic area has a significantly different population structure compared to the Fort Nelson-Liard Regional District fifteen years ago. Census data reveals that there are fewer younger families as indicated by a lower share of younger adults under 40 years of age, as well as a lower proportion of children under 15 years of age (Figure 8.2). The exodus of these former residents is likely due to limited employment options within the region. While the workforce has aged, it is more broadly distributed between 25 and 54 years of age. At the same time, however, there is a growing share of residents 55 years of age and older. Furthermore, there is a greater ratio of men amongst residents over 35 years of age.

### *Fort Nelson*

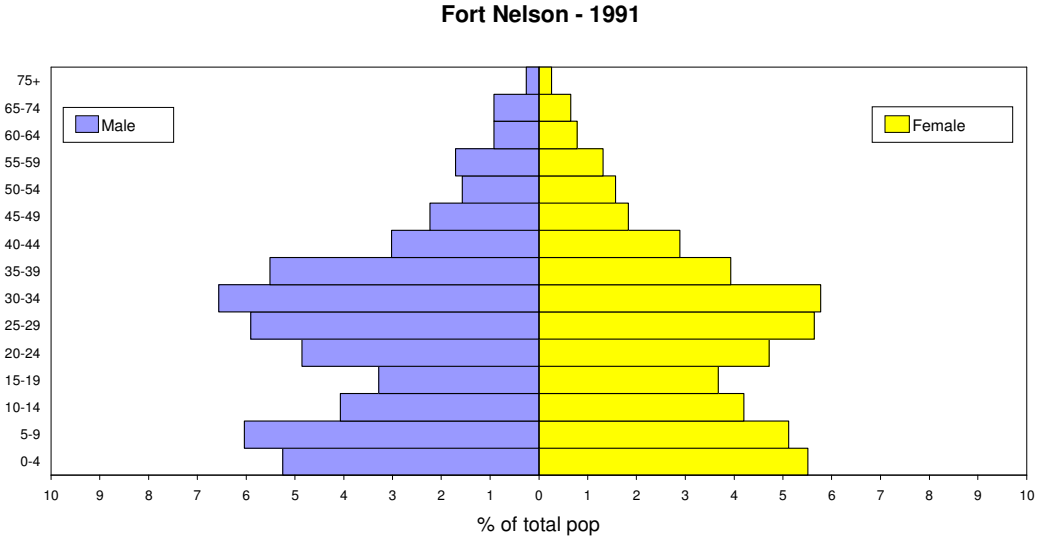
Changes in age and gender composition for Fort Nelson's population is provided in Figures 8.3 to 8.5.

**Figure 8.3 Fort Nelson Population Pyramid - 1981**



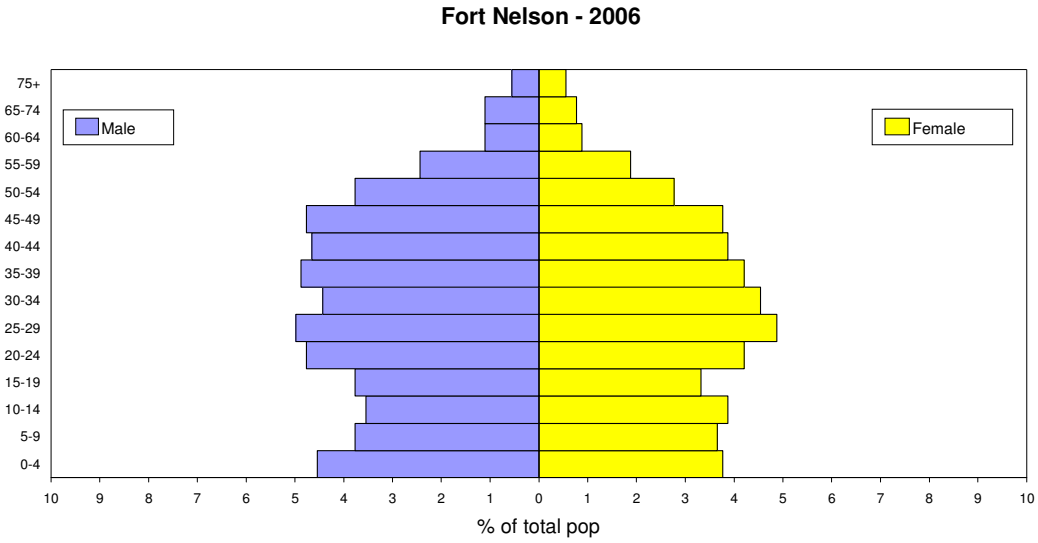

In 1981, Fort Nelson had one of the youngest family-oriented populations in northern B.C. (Figure 8.3). This population structure is revealed by a large proportion of people in the 20 to 39 age groups, as well as a larger share of children representing the 0 to 19 age groups. Unlike other towns in this study, the age category with the highest share of residents is between 20 and 24 years of age. Most of the labour force is concentrated between 15 and 34 years of age. Many of these workers and their families were attracted to Fort Nelson by employment opportunities associated with the resource sector. In terms of gender distribution, a greater proportion of the labour force (20 to 64 years of age) consists of males. These population patterns resemble typical characteristics associated with isolated resource towns where employment opportunities have been traditionally oriented towards men. There is a very low proportion of seniors in the community.

**Figure 8.4 Fort Nelson Population Pyramid - 1991**



By 1991, youth out-migration and aging-in-place trends that are common across northern B.C. (see Appendix B) have changed the population structure of Fort Nelson (Figure 8.4). As the workforce has become a little older, the labour force is now concentrated between the 20 and 39 year age categories. Youth out-migration trends are indicated by a loss in the proportion of people between 15 and 24 years of age; most likely due to limited educational or employment options. At the same time, however, the proportion of children under 10 years of age has increased. With the exception of a larger share of men amongst the 35 to 39 year age group, the gender gap amongst the labour force has closed.

**Figure 8.5 Fort Nelson Population Pyramid - 2006**

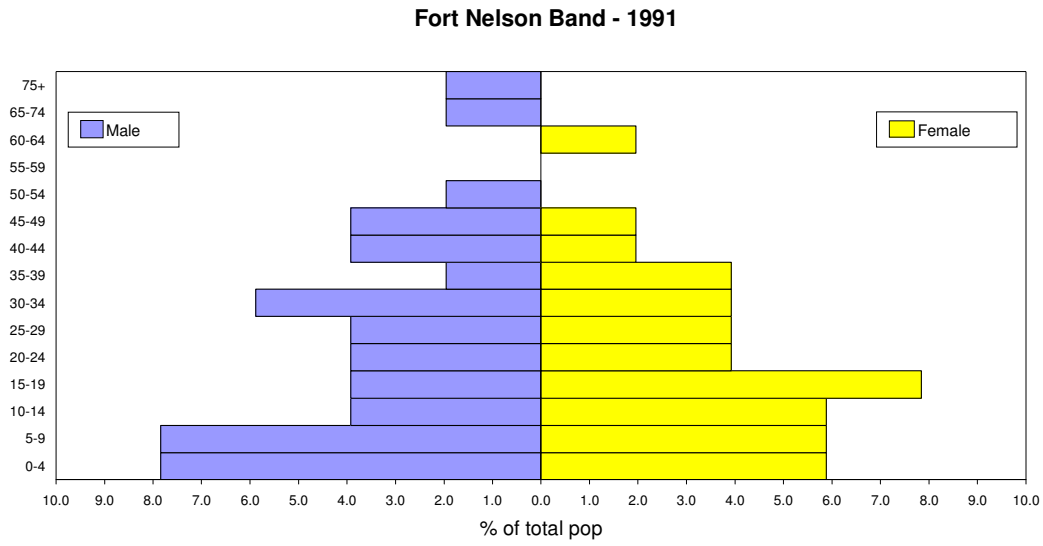



By 2006, Fort Nelson has transformed into an aging population with a lower proportion of young families. This is indicated by a lower share of children under the age of 15, as well as a lower share of young adults between the 25 and 39 age groups (Figure 8.5). The labour force has become more widely distributed between 20 and 54 years of age. Similar to the greater share of males that existed amongst the younger labour force in 1981 and 1991, this older group of labour (40 to 50 years of age) that has aged-in-place consists of a greater share of men. The proportion of seniors in Fort Nelson has undergone little change.

***Fort Nelson Band***

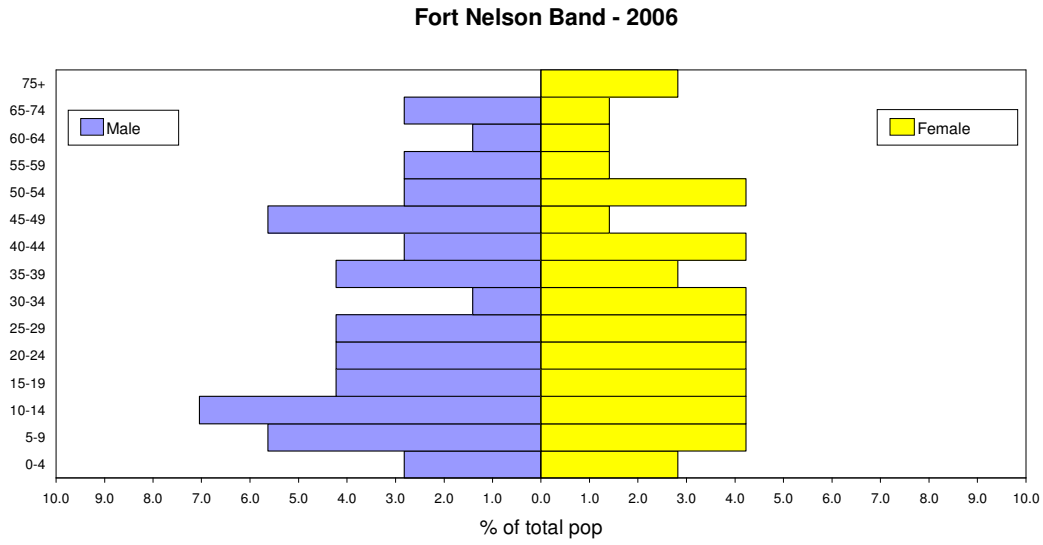
Population pyramids are presented for the Fort Nelson Band in Figures 8.6 and 8.7. The Fort Nelson First Nations is a Slavey / Cree Band located at mile 293-295 on the Alaska Highway, less than ten miles away from Fort Nelson. It is one of ten reserves that are included in the Treaty 8 Tribal Association.

**Figure 8.6 Fort Nelson Band Population Pyramid - 1991**




The 1991 population pyramid for the Fort Nelson Band is presented in Figure 8.6. Data rounding procedures used by Statistics Canada to protect anonymity in very small localities has resulted in skewed snap shots. Despite these limitations, data for the Fort Nelson Band reveals a fairly young, family-oriented population. The labour force is concentrated between 15 and 34 years of age. This is accompanied by a large share of children in the community under 15 years of age. By comparison, there are few residents over the age of 49.

**Figure 8.7 Fort Nelson Band Population Pyramid - 2006**




By 2006, two important trends are changing the population structure of the Fort Nelson Band (Figure 8.7). First, with a few exceptions, the labour force has aged-in-place and is now more evenly distributed between 15 and 54 years of age. There appears to be an

exodus of young families from the community. This is illustrated by a lower share of adults between 30 and 39 years of age and youth under 10 years of age. Of interest, the Fort Nelson Band has been reasonably successful in retaining a consistent proportion of young adults between 20 and 29 years of age.

## Age Dependency Ratios

Another lens for exploring labour force changes is through reviewing changes in the percent of the population 65 years and older, as well as the percent of the workforce aged 45 years and older. Growth in these age groups of the population provides further evidence of population aging in northern B.C.

**Table 8.3 Percent of Population 65 Years and Older in the Northern Rockies Regional District, 1981-2006**

| Year | Fort Nelson (Town) | Northern Rockies RD | BC |
|---|---|---|---|
| 1981 | 1.2 | -- | 10.9 |
| 1986 | 1.3 | -- | 12.1 |
| 1991 | 2.1 | 2.2 | 12.9 |
| 1996 | 2.2 | 2.4 | 12.8 |
| 2001 | 3.1 | 3.1 | 13.6 |
| 2006 | 3.0 | 3.4 | 14.6 |

Source: Statistics Canada

Table 8.3 shows changes in the percent of the population 65 years and older for Fort Nelson and the Northern Rockies Regional District. As demonstrated previously with the population pyramids, Fort Nelson has some of the lowest rates of seniors. In 1981, the percent of the population 65 years and older in Fort Nelson was just 1.2%, eventually increasing slightly to 3.0% in 2006. Similar figures are posted for the Northern Rockies Regional District, which changed from 2.2% of the population in 1991 to 3.4% in 2006. Of interest, there has consistently been a larger share of seniors in the Fort Nelson Band where the percent of seniors grew from 2.0% in 1986 to 7.0% in 2006. By comparison, the province has a larger share of seniors as its percent of the population aged 65 and over increased from 10.9% in 1981 to 14.6% in the latest Census period.

**Table 8.4 Percent Workforce Aged 45 Years and Older in the Northern Rockies Regional District, 1981-2006**

| Year | Fort Nelson (Town) | Northern Rockies RD | BC |
|---|---|---|---|
| 1981 | 15.7 | -- | 28.9 |
| 1986 | 17.4 | -- | 29.2 |
| 1991 | 17.6 | 19.2 | 29.8 |
| 1996 | 18.0 | 19.7 | 25.0 |
| 2001 | 23.9 | 25.6 | 36.7 |
| 2006 | 28.9 | 28.9 | 41.3 |

Source: Statistics Canada

With an aging population and limited new employment growth for younger residents, an established workforce would age-in-place over time. This trend is demonstrated in Table 8.4 as the percent of the workforce in Fort Nelson aged 45 and older has increased from 15.7% in 1981 to 28.9% in 2006. The Northern Rockies Regional District has a similar pattern of change as its workforce over 44 years of age has increased from 19.2% in 1991 to 28.9% in 2006. Figures for Fort Nelson Band resemble those for the region as its percent of older workers grew from 16.1% in 1986 to 31.9% in 2006. By comparison, the percent of the workforce aged 45 years and older in B.C. increased from 28.9% in 1981 to 41.3% in 2006.

**Table 8.5 Total Dependency Ratio in the Northern Rockies Regional District, 1981-2006 (Percent)**

| Year | Fort Nelson (Town) | Northern Rockies RD | BC |
|---|---|---|---|
| 1981 | 42.8 | -- | 47.7 |
| 1986 | 45.7 | -- | 48.4 |
| 1991 | 47.7 | 48.0 | 49.3 |
| 1996 | 42.5 | 44.9 | 50.1 |
| 2001 | 40.1 | 40.6 | 46.4 |
| 2006 | 35.4 | 37.2 | 45.1 |

Source: Statistics Canada

The transition in age relationships can also be characterized by ‘dependency ratios’. A dependency ratio calculates the proportion of the population of interest against the remainder of the population in a particular place. In Table 8.5, the ‘total dependency ratios’ are calculated for the period between 1981 and 2006. The total dependency ratio combines all of the individuals over the age of 65 with all those under the age of 15 and compares them against the workforce who would be supporting them.

Similar trends for total dependency ratios are shown for the province, the regional district, and Fort Nelson over the last 25 years. Total dependency ratios increased in Fort Nelson from 42.8% in 1981 to 47.7% in 1991. Fifteen years later, the total dependency ratio dropped to 35.4%. The total dependency ratio for the regional district was also highest in 1991 at 48.0%, eventually falling to 37.2% in 2006. The total dependency ratios for the province also increased from 47.7% in 1981 to peak at 50.1% in 1996. Since 1996, the ratio has declined to 45.1%. Of note, total dependency ratios for the Fort Nelson Band have exhibited greater fluctuations over the past twenty years. This ratio has also been consistently higher compared to both regional and provincial trends. In this case, the total dependency ratio for this aboriginal community was 61.3% in 1986. After reaching a peak of 75.0% in 1996, the total dependency ratio in the Fort Nelson Band declined to 51.1% during the latest Census.

**Table 8.6 Young Dependency Ratio in the Northern Rockies Regional District, 1981-2006 (Percent)**

| Year | Fort Nelson (Town) | Northern Rockies RD | BC |
|---|---|---|---|
| 1981 | 41.1 | -- | 31.7 |
| 1986 | 43.8 | -- | 30.4 |
| 1991 | 44.6 | 44.8 | 30.1 |
| 1996 | 39.4 | 41.5 | 30.4 |
| 2001 | 35.7 | 35.5 | 26.5 |
| 2006 | 33.7 | 32.6 | 24.0 |

Source: Statistics Canada

In Table 8.6, the 'young dependency ratio' was calculated for the past 25 years. This ratio compares the share of the population under age 15 with the working age population. Similar to other trends around northern B.C. (see Appendix B), Tables 8.6 demonstrates that the young dependency ratio is declining not just in Fort Nelson, but also across the province and the Northern Rockies Regional District. For example, while the young dependency ratio in Fort Nelson grew from 41.1% (1981) to 44.6% (1991), it declined to 33.7% in 2006. The young dependency ratio for the regional district also dropped from 44.8% in 1991 to 32.6% in 2006. These trends resemble patterns associated with the loss of young families. On a provincial level, young dependency ratios have been consistently lower than those for the Northern Rockies Regional District, slowly decreasing from 31.7% in 1981 to 24.0% in 2006. In contrast, young age dependency ratios have been highest in the Fort Nelson Band reaching 67.5% in 1996 before declining to 40.4% in 2006.

**Table 8.7 Old Age Dependency Ratio in the Northern Rockies Regional District, 1981-2006 (Percent)**

| Year | Fort Nelson (Town) | Northern Rockies RD | BC |
|---|---|---|---|
| 1981 | 1.7 | -- | 16.0 |
| 1986 | 2.0 | -- | 18.0 |
| 1991 | 3.1 | 3.2 | 19.2 |
| 1996 | 3.1 | 3.5 | 19.7 |
| 2001 | 4.3 | 4.3 | 20.0 |
| 2006 | 4.0 | 4.7 | 21.2 |

Source: Statistics Canada

Table 8.7 demonstrates how old age dependency ratios have been increasing over the last 25 years for Fort Nelson, the Northern Rockies Regional District, and B.C. Old age dependency ratios for Fort Nelson increased overall from 1.7% in 1981 to 4.0% in 2006. Across the Northern Rockies Regional District, this ratio has grown from 3.2% in 1991 to 4.7% in 2006. Census data for B.C. shows an increase in the old age dependency ratio from 16.0% in 1981 to 21.2% in 2006. Within the Northern Rockies Regional District, old age dependency ratios have increased the most within the Fort Nelson Band. Within this aboriginal community, these ratios have grown from 3.2% in 1986 to 10.6% in 2006.

## Retention Rates

In Tables 8.8-8.10, population retention rates for youth entering the labour force are shown for the Northern Rockies Regional District. As an older workforce approaches retirement, it is important to understand how retention rates for younger sources of labour will impact labour shortage issues and strategies for the region.

**Table 8.8 Population Retention Rates of 15-19 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Northern Rockies Regional District (%)**

| Period A | Period B | Fort Nelson (Town) | Northern Rockies (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | 123.7 | n/a | 107.6 |
| 1991 | 1996 | 156.7 | 120.2 | 113.8 |
| 1996 | 2001 | 107.9 | 94.3 | 100.5 |
| 2001 | 2006 | 109.5 | 94.3 | 98.4 |

Source: Statistics Canada
n/a – Not applicable. Northern Rockies Regional District not formed until 1987.

Population retention rates for youth completing high school in the Northern Rockies Regional District are shown in Table 8.8. In comparison to B.C. statistics, youth retention rates for those between 15 to 19 years of age were greater in the Northern Rockies Regional District between 1991 and 1996. By 2001, however, regional retention rates for this youth group dropped below provincial levels. From this point forward, the Northern Rockies Regional District was able to retain 94.3% of youth aging from 15 to 19 years of age to 20 to 24 years of age during each Census period.

Unlike the general trend around northern B.C. (see Appendix B), Fort Nelson has been successful at retaining youth between 15 and 19 years of age during each Census period. Between 1991 and 1996, 156.7% of those who were between 15 and 19 years of age in 1986 were retained in Fort Nelson as they reached 20 to 24 years of age in 1991. Thereafter, youth retention rates in Fort Nelson have continued to exceed both regional and provincial levels. By comparison, the Fort Nelson First Nations Reserve has had lower youth retention rates for this age group. For example, the Fort Nelson Band was able to retain 66.7% of youth completing high school by 1991. On a positive note, these youth retention rates have been improving as 85.7% of those who were 15 to 19 years of age in 2001 were retained as adults between 20 and 24 years of age in 2006.

**Table 8.9 Population Retention Rates of 20-24 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Northern Rockies Regional District (%)**

| Period A | Period B | Fort Nelson (Town) | Northern Rockies (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | 111.4 | n/a | 116.7 |
| 1991 | 1996 | 132.9 | 140.2 | 120.9 |
| 1996 | 2001 | 94.0 | 100.0 | 100.7 |
| 2001 | 2006 | 130.9 | 127.7 | 100.5 |

Source: Statistics Canada
n/a – Not applicable. Northern Rockies Regional District not formed until 1987.

In Table 8.9, the retention rates for youth entering the labour force are presented for the Northern Rockies Regional District. If the retention rates for youth initially between the ages of 20 and 24 are compared at the regional and provincial levels, the Northern Rockies Regional District has experienced greater success of retaining this cohort in the workforce. For example, of the youth that were initially 20 to 24 years of age in 1991, the regional district was able to retain 140.2% of this youth cohort as they aged to become 25 to 29 years of age in 1996. It is likely that in-migration for employment related to resource development has led to the population growth of this age group.

Compared to the regional district, retention rates for youth entering the workforce have been lower in Fort Nelson until 2006. While youth retention rates for this cohort in Fort Nelson were 132.9% between 1991 and 1996, this had dropped to 94.0% between 1996

and 2001. By 2006, however, the community had been successful in attracting and maintaining a younger labour force. This is illustrated as 130.9% of the youth aged 20 to 24 in 2001 had aged or expanded to become 25 to 29 years of age in 2006. While the Fort Nelson Band lost youth entering the workforce between 1986 and 1991, retention rates improved and exceeded provincial levels in later Census periods.

**Table 8.10 Population Retention Rates of 25-29 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Northern Rockies Regional District (%)**

| Period A | Period B | Fort Nelson (Town) | Northern Rockies (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | * | n/a | * |
| 1991 | 1996 | 106.8 | 113.0 | 116.5 |
| 1996 | 2001 | 81.4 | 86.1 | 101.8 |
| 2001 | 2006 | 103.8 | 110.5 | 105.0 |

Source: Statistics Canada
n/a – Not applicable. Northern Rockies Regional District not formed until 1987.
* - 1986 Census does not separately report data for 25-29 year age group.

Table 8.10 shows the retention rates of young adults (25 to 29 years of age) who are likely to be establishing young families. At each geographic scale, there has been a fluctuation in the retention rates for this age group. Notably, there was a decline in the retention of young adults between 1996 and 2001. When we compare regional and provincial retention rates, the Northern Rockies Regional District had lower retention rates of young adults between 25 and 29 years of age until 2006 when it surpassed provincial benchmarks.

In the case of Fort Nelson, the community was successful in retaining its share of young adults until 2001. At this point, 81.4% of young adults who were 25 to 29 years of age in 1996 had been retained in 2001. By 2006, retention rates of this cohort had improved to 103.8%. In contrast, retention rates for young adults in the Fort Nelson Indian Reserve have been declining since 1996, eventually leading to an out-migration of young adults by 2006.

# 9.0 Peace River Regional District

## Population Change

***Peace River Regional District***

The Peace River Regional District has experienced different trends in population change when compared to both the provincial average and other regional districts around northern B.C. While the provincial population counts have consistently increased since 1976, population numbers for the Peace River show only small changes following a significant growth period from 1976 to 1986 (Table 9.1). The Peace River Regional District's growth reached its first initial peak of 57,278 in 1986 before losing 801 people by 1996. This was followed by another growth phase where the region gained 1,787 people to reach 58,264 by 2006.

Growth trends were not consistent across the region, which showed wide variations in population increases and declines over the 30 year period. For example, while Fort St. John and Taylor continued to grow from 1976 to 2006, Hudson's Hope and Tumbler Ridge have endured population declines over each Census period. The most significant proportional growth increases occurred in Chetwynd, which gained 1,287 people, and Fort St. John, which gained 4,408 people, between 1976 and 1986. The population of Taylor also acquired a substantial increase of 320 people by 1996, and another 353 people by 2006. With the exception of Fort St. John and Taylor, communities located in the Peace River Regional District have entered into a period of decline since 1996. In terms of aboriginal settlements, Census data for the Kwadacha Reserve shows steady growth from 200 people to 239 people between 1986 and 2006.

**Table 9.1 Census population in the Peace River Regional District, 1976-2006, by total population numbers**

| Place | 1976 | 1986 | 1996 | 2006 |
|---|---|---|---|---|
| **Peace River** | **44,842** | **57,278** | **56,477** | **58,264** |
| Chetwynd | 1,487 | 2,774 | 2,980 | 2,633 |
| Dawson Creek | 10,528 | 10,544 | 11,125 | 10,994 |
| Fort St. John | 8,947 | 13,355 | 15,021 | 17,402 |
| Hudson's Hope | 1,330 | 1,158 | 1,122 | 1,012 |
| Pouce Coupe | 776 | 813 | 894 | 739 |
| Taylor | 649 | 711 | 1,031 | 1,384 |
| Tumbler Ridge | n/a | 4,387 | 3,775 | 2,484 |
| *Unincorporated* | *21,125* | *23,536* | *20,529* | *21,616* |
| British Columbia | 2,392,790 | 2,883,367 | 3,724,500 | 4,113,487 |

Source: Statistics Canada 1976, 1986, 1996, 2006.

In Table 9.2, Census data indicates very little change in overall growth rates for the Peace River Regional District after 1986. Prior to 1986, growth rates for the region exceeded the provincial average. While the data indicates a relatively stable population following 1986, these trends mask large discrepancies in growth rates throughout the region over the past 30 years. For example, between 1976 and 1986, both Chetwynd and Fort St. John exceeded provincial growth rates with increases of 86.6% and 49.3% respectively. In contrast, Hudson's Hope had lost 12.9% of its population during the same time period. During the following decade, growth rates continued for Chetwynd and Fort St. John with Dawson Creek, Pouce Coupe, and Taylor also experiencing growth rates from 5.5% to 45.0%. By comparison, discrepancies within the region are demonstrated as Hudson's Hope, Tumbler Ridge, and unincorporated areas lost 3.11%, 14.0%, and 12.8% respectively. By 2006, most communities in the Peace River Regional District experienced rates of decline ranging from a population loss of 34.2% in Tumbler Ridge to just 1.2% in Dawson Creek. Again, the diversity of population change is demonstrated as Taylor's population grew by 34.2% and Fort St. John's population grew by 15.9% by 2006. Unincorporated areas also experienced small population growth rates during this latest period. For the Kwadacha Reserve, the population has increased by 11.0% between 1986 and 1996 and by 7.6% between 1996 and 2006.

**Table 9.2 Census population change in the Peace River Regional District, 1976-2006, by total % change in population**

| Place | % change 1976-1986 | % change 1986-1996 | % change 1996-2006 |
|---|---|---|---|
| **Peace River** | **27.7** | **-1.40** | **3.16** |
| Chetwynd | 86.55 | 7.43 | -11.64 |
| Dawson Creek | 0.15 | 5.51 | -1.18 |
| Fort St. John | 49.27 | 12.47 | 15.85 |
| Hudson's Hope | -12.93 | -3.11 | -9.80 |
| Pouce Coupe | 4.77 | 9.96 | -17.34 |
| Taylor | 9.55 | 45.01 | 34.24 |
| Tumbler Ridge | n/a | -13.95 | -34.20 |
| *Unincorporated* | *11.41* | *-12.78* | *5.29* |
| British Columbia | 20.5 | 29.2 | 10.4 |

Source: Statistics Canada 1976, 1986, 1996, 2006.

## Population Pyramids

### *Peace River Regional District*

Figures 9.1 through 9.3 are the population pyramids for the Peace River Regional District for 1981, 1991, and 2006. It is important to point out that the boundaries of the Peace River Regional District have changed over time as it was formerly known as the Peace

River-Liard Regional District in 1981. As noted earlier, the new Peace River Regional District was created in 1987.

**Figure 9.1 Peace River-Liard Regional District Population Pyramid – 1981**

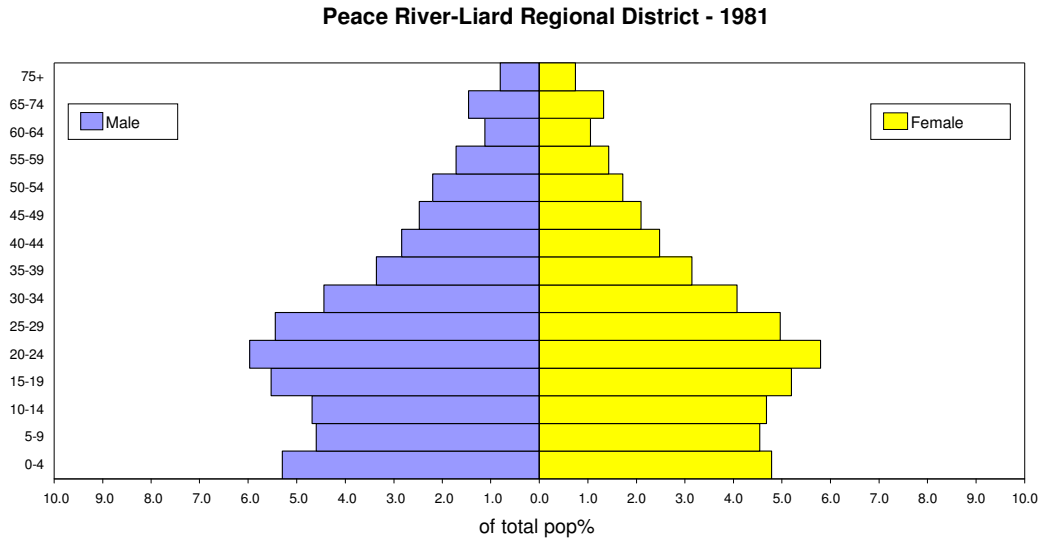
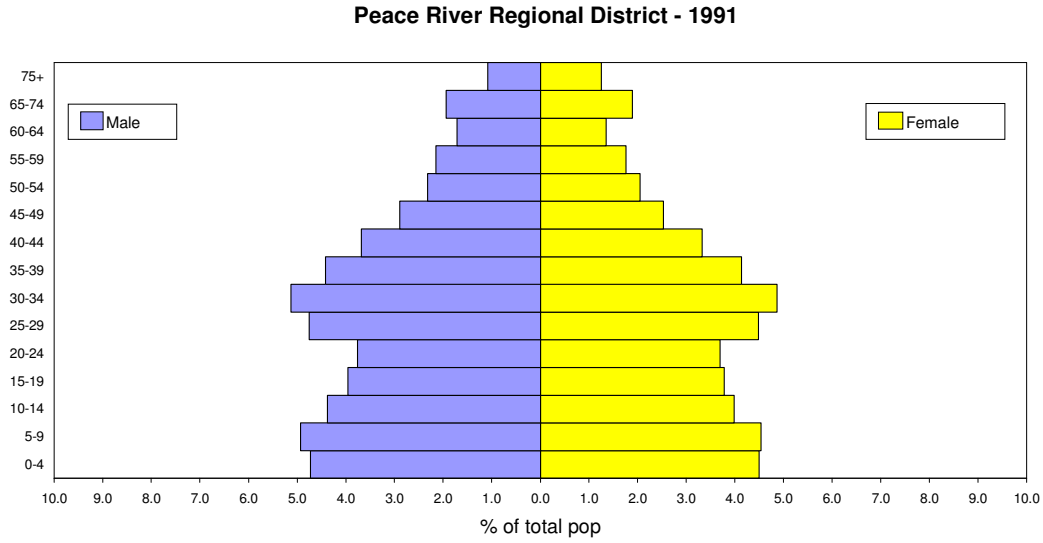


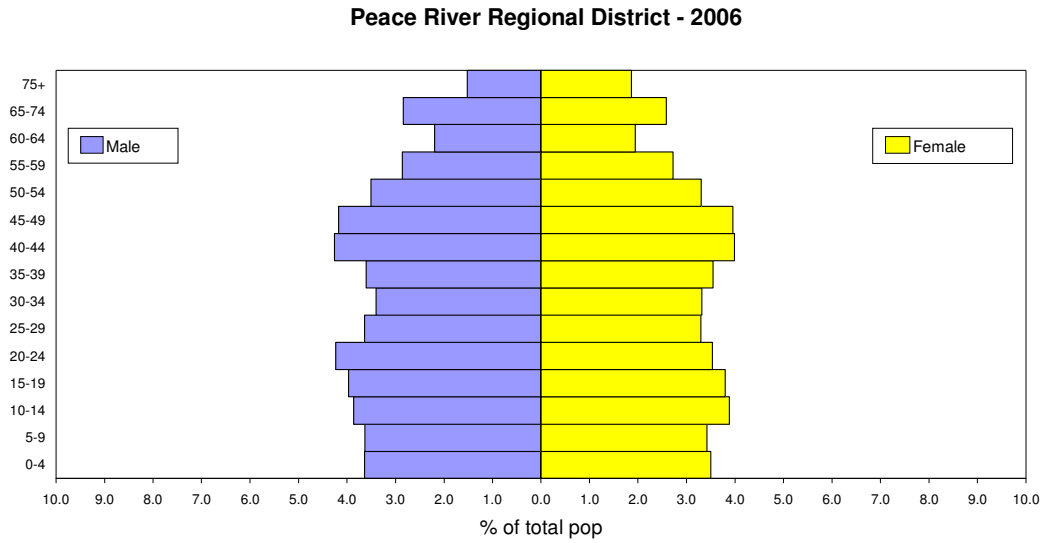

Figure 9.1 shows the population pyramid for the Peace River-Liard Regional District in 1981. The pattern for this regional district follows a typical pattern established for most resource dependent regions. There is a large proportion of the population in the 20 to 34 year age groups and the corresponding 0 to 9 year age groups. In places like the Peace River-Liard Regional District, young families are attracted to a region with employment opportunities in an expanding resource sector (in this case, it is the mining, and oil and gas industries).

**Figure 9.2 Peace River Regional District Population Pyramid – 1991**



By 1991, the shape of the population pyramid for the Peace River Regional District is starting to change as the population is aging-in-place (Figure 9.2). While the region still has young families, their share of the population in the 20 to 24 year age group has declined. There are also greater shares of the population in the 30 to 49 year age groups compared to ten years ago.

**Figure 9.3 Peace River Regional District Population Pyramid – 2006**

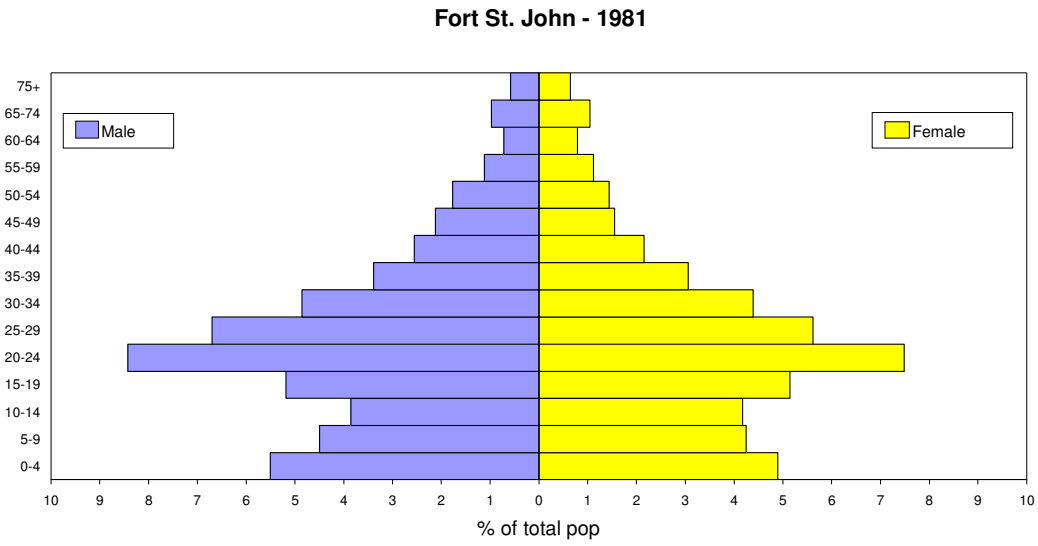



By 2006, the trend towards population aging is more pronounced. There are proportionately fewer younger families (Figure 9.3), while the share of the population over the age of 40 continues to increase.

***Fort St. John***

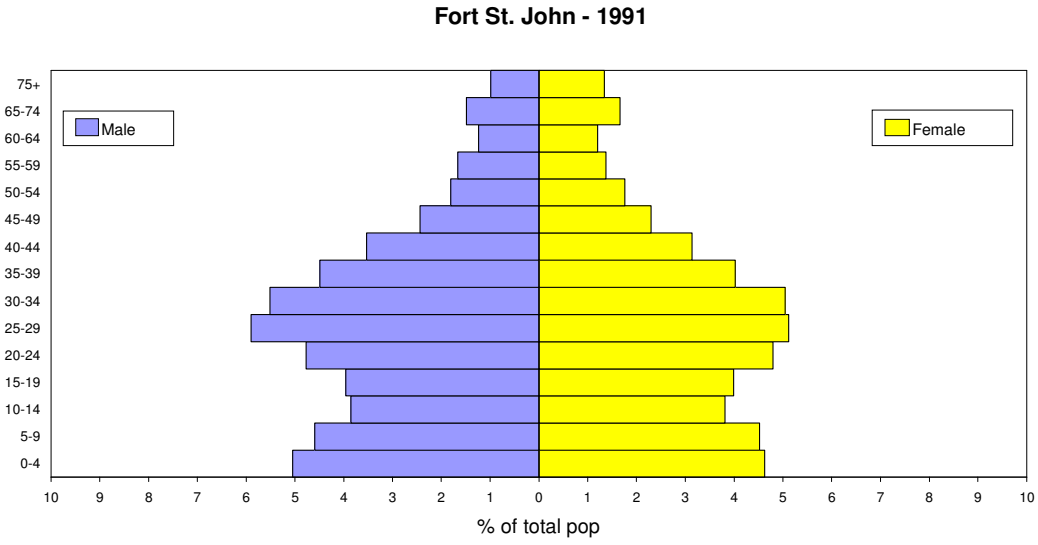
Figures 9.4 through 9.6 are the population pyramids for Fort St. John for 1981, 1991, and 2006.

**Figure 9.4 Fort St. John Population Pyramid - 1981**




Similar to other resource towns across northern B.C., the population of Fort St. John in 1981 is dominated by young adults and families (Figure 9.4). This is shown by the large proportion of people in the 20 to 34 year age groups and the corresponding 0 to 10 year age groups. Young families were drawn to Fort St. John by the work opportunities of an expanding resource sector in oil and gas development. The 20 to 30 year age group is also notable as it shows a larger share of males in the community than females.

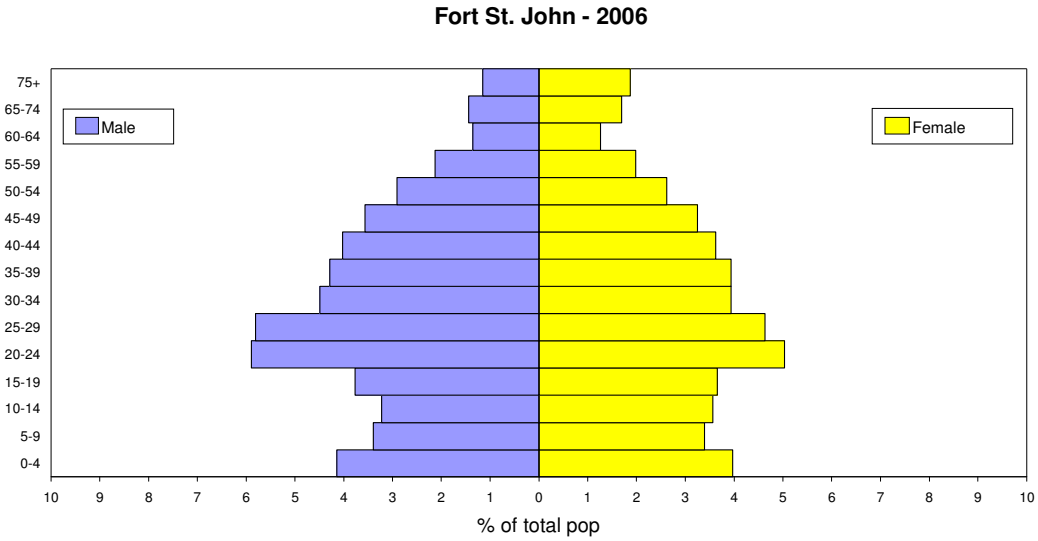
**Figure 9.5 Fort St. John Population Pyramid - 1991**




By 1991, the shape of the population pyramid is beginning to change as the population is getting a little older and there is some more balance across the age categories (Figure 9.5). While Fort St. John is still a community of young families, the share of the local population in the 20 to 29 year age group has declined. There are also greater shares of

the population in the older age cohorts. Overall, the share of males to females has equalized somewhat, although there are more females than males in the 65 and over age group.

**Figure 9.6 Fort St. John Population Pyramid - 2006**

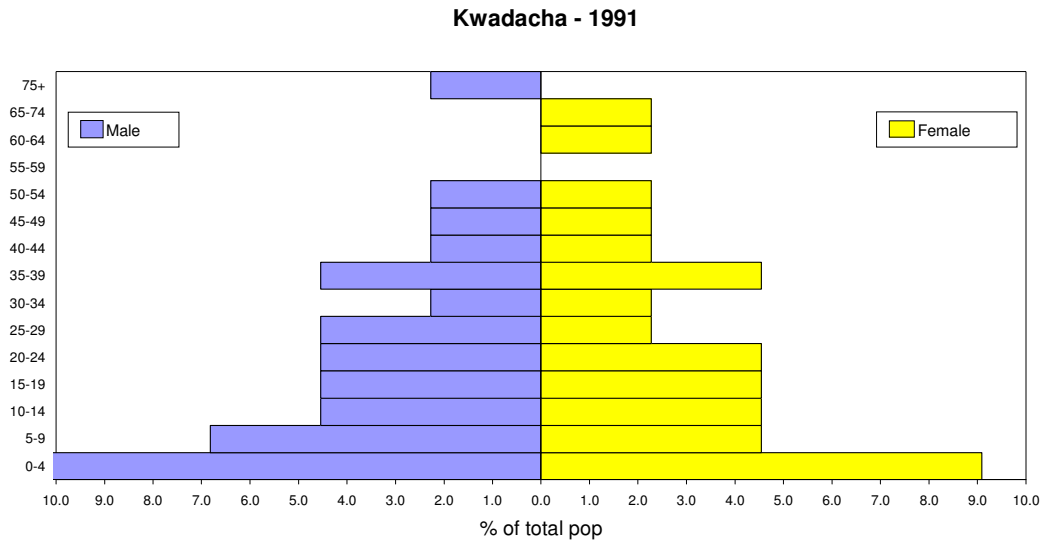



By 2006, the trend towards population aging is seen again. There are proportionally fewer children in the 0 to 14 year age groups and fewer households in the 30 to 39 year age groups (Figure 9.6). In contrast, the shares of the local population over the age of 40 continue to increase. The community has also been successful attracting new residents between 20 and 24 years of age, again, most likely due to employment opportunities in the oil and gas sector. The share of working age males remains higher than working age females, although this pattern is reversed in the 65 years of age and over groups, where there are more females than males.

***Kwadacha***

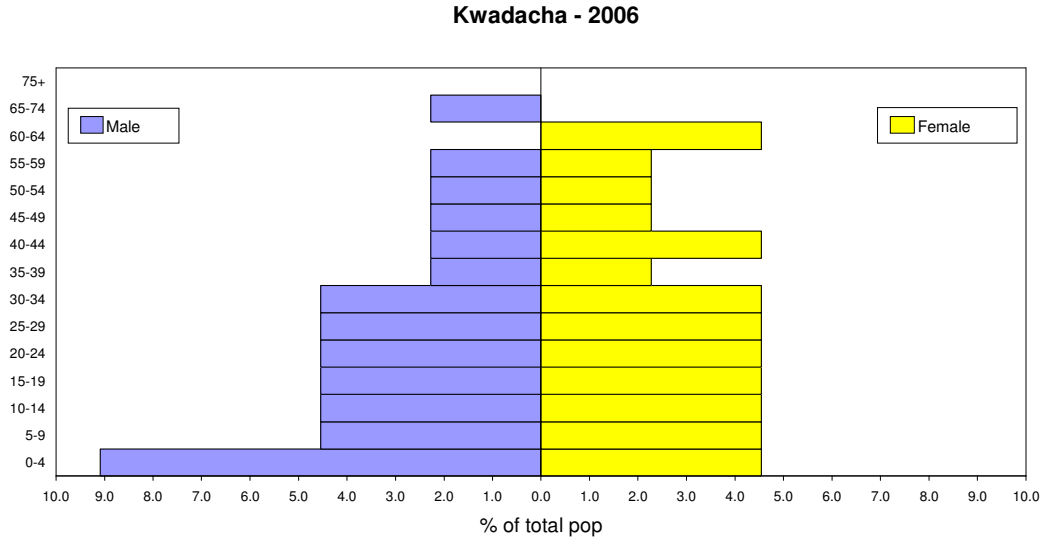
In this section, population pyramids are provided for the Kwadacha First Nations in Figures 9.7 and 9.8. The Kwadacha First Nations is located at the north end of Williston Lake northwest of Mackenzie.

**Figure 9.7 Kwadacha Population Pyramid – 1991**




In 1991, Kwadacha has a population structure that resembles other places across northern B.C. (Figure 9.7). There is a predominance of young families with children under 15 years of age. In this case, the labour force is mostly situated between 15 and 39 years of age, although this includes a smaller share of residents between 30 and 34 years of age. At this time, there is a low share of older residents in the community. The skewed results in older age groups likely reflects rounding techniques used by Statistics Canada to protect the anonymity of residents in very small places.

**Figure 9.8 Kwadacha Population Pyramid – 2006**




Unlike other aboriginal or resource communities across northern B.C., Census figures for the Kwadacha population pyramid in 2006 reveals only minor changes to the population structure (Figure 9.8). The community continues to have a predominance of young

families, although there are fewer children under 10 years of age. The workforce continues to be concentrated amongst younger adults (15 and 34 years of age). While there are fewer seniors in the community, there has been a slight increase in the share of residents in older portions of the workforce (40-44 years and 60-64 years).

## Age Dependency Ratios

Changes in the labour force can also be understood by measuring the percent of the population 65 years and older, as well as the percent of the workforce aged 45 years and older. As these age groups become more pronounced within the overall aging population, labour shortage issues can become a significant problem within the community.

As shown in Table 9.3, the trend at all scales is of an increasing share of the population aged 65 years and older since 1981. In Fort St. John, the percent of the population aged 65 and over increased from 3.2% in 1981 to 6.2% in 2006. For the Peace River Regional District, the 65 and over population has increased from 4.3% in 1981 to 8.8% in 2006. The proportion of seniors is higher for the regional district compared to Fort St. John, but both are lower than for the province. While the percent of the population 65 years and older has been increasing across the region, it has been declining in Kwadacha. In this case, the share of seniors in Kwadacha changed from 7.3% in 1986 to just 2.3% in 2006. The percent of the population over 65 years of age has increased due to a process called aging-in-place. An established workforce (15 to 64 years of age) with limited new employment growth will age-in-place over time.

**Table 9.3 Percent of Population 65 Years and Older in the Peace River Regional District, 1981-2006**

| Year | Fort St. John (City) | Peace River RD | BC |
|---|---|---|---|
| 1981 | 3.2 | 4.3 | 10.9 |
| 1986 | 4.7 | 4.9 | 12.1 |
| 1991 | 5.5 | 6.2 | 12.9 |
| 1996 | 6.1 | 6.6 | 12.8 |
| 2001 | 6.3 | 7.9 | 13.6 |
| 2006 | 6.2 | 8.8 | 14.6 |

Source: Statistics Canada

As shown in Table 9.4, the percent of the workforce aged 45 years and older has increased since 1981. In Fort St. John, the share of the workforce between the ages of 45 and 64 years increased from 15.2% in 1981 to 26.5% in 2006. In the Peace River Regional District, this share of the older workforce increased from 20.6% (1981) to 35.6% (2006). It is this 'nearing retirement' population that will be very important due to its future implications for labour shortages and impacts on service demands for older residents. While the percent of the workforce over 44 years of age remains higher across

B.C., the proportion of this group has been increasing at a faster rate in Fort St. John and across the Peace River Regional District. In Kwadacha, the percent of this older workforce has almost doubled over the last twenty years, increasing from just 14.3% in 1986 to 27.6% in 2006.

**Table 9.4 Percent Workforce Aged 45 Years and Older in the Peace River Regional District, 1981-2006**

| Year | Fort St. John (City) | Peace River RD | BC |
|---|---|---|---|
| 1981 | 15.2 | 20.6 | 28.9 |
| 1986 | 19.1 | 22.8 | 29.2 |
| 1991 | 20.2 | 25.1 | 29.8 |
| 1996 | 21.5 | 24.2 | 25.0 |
| 2001 | 24.3 | 31.4 | 36.7 |
| 2006 | 26.5 | 35.6 | 41.3 |

Source: Statistics Canada

The transition in age relationships can also be characterized by 'dependency ratios'. A dependency ratio calculates the proportion of the population of interest against the remainder of the population in a particular place. For example, in Table 9.5, 'total dependency ratios' are calculated for the period from 1981 to 2006. The total dependency ratio combines all of the individuals over the age of 65 with all those under the age of 15 and compares them against the workforce who would be supporting them.

**Table 9.5 Total Dependency Ratio in the Peace River Regional District, 1981-2006 (Percent)**

| Year | Fort St. John (City) | Peace River RD | BC |
|---|---|---|---|
| 1981 | 43.7 | 48.8 | 47.7 |
| 1986 | 48.6 | 49.6 | 48.4 |
| 1991 | 46.9 | 49.8 | 49.3 |
| 1996 | 46.4 | 44.1 | 50.1 |
| 2001 | 41.7 | 46.6 | 46.4 |
| 2006 | 38.7 | 44.5 | 45.1 |

Source: Statistics Canada

As shown in Table 9.5, the total dependency ratio for BC varied from as high as 50.1% in 1996 to 45.1% in 2006. In Fort St. John, while the pattern has shown fluctuations, the general trend is of a declining dependency ratio. In 1981, the total dependency ratio was 43.7%, and quickly peaked at 48.6% in 1986. By 2006, this had declined to 38.7%. For the Peace River Regional District, the trend has also been generally declining since 1991 (49.0%), resulting in a 44.5% total dependency ratio in 2006. In other words, across the

study area there is a growing proportion of working age residents relative to very young and very old populations. This is likely the result of an aging-in-place of the workforce and smaller shares of young households with children. Comparatively, the total dependency ratio in Kwadacha was 95.2% in 1986, indicating that the proportion of children and seniors in the community was almost equal to the number of residents in the labour force (15 to 64 years of age). While this ratio dropped to 51.7% in 2006, it remains higher than regional or provincial levels.

**Table 9.6 Young Dependency Ratio in the Peace River Regional District, 1981-2006 (Percent)**

| Year | Fort St. John (City) | Peace River RD | BC |
|---|---|---|---|
| 1981 | 39.1 | 42.4 | 31.7 |
| 1986 | 41.5 | 42.2 | 30.4 |
| 1991 | 38.9 | 40.5 | 30.1 |
| 1996 | 37.5 | 35.2 | 30.4 |
| 2001 | 32.8 | 35.0 | 26.5 |
| 2006 | 30.1 | 31.7 | 24.0 |

Source: Statistics Canada

As revealed in Table 9.6, a young dependency ratio was calculated for the period between 1981 and 2006. This ratio compares the share of the population under age 15 with the working age population. As indicated in previous results, the table shows important declines.

In B.C., the young dependency ratio was 31.7% in 1981, and this declined to 24.0% in 2006. In Fort St. John, the young dependency ratio was 39.1% in 1981, declining to 30.1% in 2006. For the Peace River Regional District, the young dependency ratio was 42.4% in 1981, eventually dropping to 31.7% in the latest Census period. In Kwadacha, the total dependency ratio has been significantly influenced by the portion of youth in its population. In 1986, Kwadacha had a young dependency ratio of 81.0%. While this aboriginal community's young dependency ratio declined to 48.3% in the latest Census period, it remains significantly higher than regional and provincial figures.

If the changes in the young dependency ratio have been driving the overall dependency ratio changes to this point, the emphasis will soon shift to the old age dependency side of the equation. To date, however, the size of these older age groups has not been large in northern B.C. With the coming of the 'baby boom' retirement years, however, the old age dependency ratio will have more of an impact upon overall dependency ratio changes.

**Table 9.7 Old Age Dependency Ratio in the Peace River Regional District, 1981-2006 (Percent)**

| Year | Fort St. John (City) | Peace River RD | BC |
|---|---|---|---|
| 1981 | 4.6 | 6.4 | 16.0 |
| 1986 | 7.0 | 7.3 | 18.0 |
| 1991 | 8.0 | 9.2 | 19.2 |
| 1996 | 8.9 | 8.9 | 19.7 |
| 2001 | 8.9 | 11.6 | 20.0 |
| 2006 | 8.6 | 12.7 | 21.2 |

Source: Statistics Canada

In contrast to the young dependency ratios, there has been some growth in the old age dependency ratios from 1981 to 2006 (Table 9.7). For B.C., the old age dependency ratio was 16.0% in 1981, increasing to 21.2% in 2006. In Fort St. John, the old age dependency ratio grew from 4.6% in 1981 to 8.9% in 1996 before declining slightly to 8.6% in 2006. For the Peace River Regional District, the old age dependency ratio increased from 6.4% in 1981 to 12.7% in 2006. These increases have been modest compared to what will occur over the next 15 years as aging-in-place means that a large number of 'baby boom' workers will soon move into the retirement. In contrast, the aboriginal community of Kwadacha had a higher old age dependency ratio (14.3%) compared to regional statistics in 1986. Twenty years later, however, this ratio had significantly dropped below regional and provincial trends to just 3.4%.

## Retention Rates

Tables 9.8 – 9.10 show the population retention rates for youth entering the labour force in the Peace River Regional District. As an older workforce approaches retirement, it is important to assess retention rates for younger sources of labour in order to inform strategies for coping with labour shortages in these places.

**Table 9.8 Population Retention Rates of 15-19 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Peace River Regional District (%)**

| Period A | Period B | Fort St. John (City) | Peace River (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | 119.4 | 81.8[1] | 107.6 |
| 1991 | 1996 | 124.4 | 95.8 | 113.8 |
| 1996 | 2001 | 116.1 | 83.6 | 100.5 |
| 2001 | 2006 | 142.3 | 98.2 | 98.4 |

Source: Statistics Canada

[1] – 1986 data for Peace River Regional District includes current Northern Rockies Regional District.

Table 9.8 shows the retention rates of youth completing high school (15-19 years of age) in the Peace River Regional District. If we compare regional and provincial retention rates of this youngest group, the Peace River Regional District falls below provincial standards. These retention rates, however, have fluctuated across both time and geographic scales. While youth out-migration of this age group in the regional district has been a concern since 1991, retention rates have improved remarkably in 2006 demonstrating very little leakage of youth between 15 and 19 years of age.

In the case of Fort St. John, retention rates of youth between the ages of 15 and 19 have always exceeded regional and provincial levels. During the latest economic boom associated with oil and gas, retention of youth completing high school jumped to 142.3% in 2006. These figures reflect an in-migration of youth who joined this cohort as they aged to become 20 to 24 years of age during the latest Census period. In the case of Kwadacha, the reserve initially had low retention rates of youth (57.1%) completing high school between 1986 and 1991. Thereafter, this aboriginal reserve was able to retain the same percentage of youth as they aged in the community.

**Table 9.9 Population Retention Rates of 20-24 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Peace River Regional District (%)**

| Period A | Period B | Fort St. John (City) | Peace River (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | 107.2 | 95.4[1] | 116.7 |
| 1991 | 1996 | 112.9 | 109.8 | 120.9 |
| 1996 | 2001 | 116.1 | 98.4 | 100.7 |
| 2001 | 2006 | 122.2 | 109.5 | 100.5 |

Source: Statistics Canada

[1] – 1986 data for Peace River Regional District includes current Northern Rockies Regional District.

As shown in Table 9.9, there are wide variations in retention rates of youth entering the labour force across the Peace River Regional District. If we begin by comparing regional and provincial retention rates, the Peace River Regional District has been less successful in retaining youth between the ages of 20 and 24, particularly between 1986-1991 and 1996-2001. However, by 2006, 109.5% of youth between 20 to 24 years of age in 2001 had reached 25 to 29 years of age within the region.

In Fort St. John, retention rates for youth entering the labour force have been steadily improving since 1991 reaching a peak of 122.2% in 2006. This is not surprising given the expansion of jobs associated with oil and gas development. On the other hand, the Kwadacha has experienced mixed success with retaining residents between 20 and 24 years of age. Notably, while 100% of this age cohort remained in the community

between 1986 and 1991 and between 1996 and 2001, there has been an exodus of young labour from Kwadacha during the 1991-1996 and 2001-2006 time periods.

**Table 9.10 Population Retention Rates of 25-29 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Peace River Regional District (%)**

| Period A | Period B | Fort St. John (City) | Peace River (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | * | * | * |
| 1991 | 1996 | 96.2 | 105.1 | 116.5 |
| 1996 | 2001 | 91.8 | 92.3 | 101.8 |
| 2001 | 2006 | 90.2 | 100.6 | 105.0 |

Source: Statistics Canada
* - 1986 Census does not separately report data for 25-29 year age group.

Retention rates of young adults 25 to 29 years of age have varied across each of these geographic areas. With the exception of the 1996 and 2001 period, the Peace River Regional District has been successful in preventing the out-migration of residents in this age cohort (Table 9.10).

Of interest, while Fort St. John has been successful at retaining youth between 15 and 24 years of age, there has been an out-migration of young adults 25 to 29 years of age. In fact, the retention rates of adults 25 to 29 years of age have declined since 1996 reaching a low of 90.2% in 2006. In terms of the Kwadacha, 166.7% of adults that were 25 to 29 years old in 1991 had been retained as 30 to 34 year old residents in 1996. Between 1996 and 2001, however, this aboriginal community had experienced an out-migration of this youth cohort as retention rates reached a low of 66.7%. By 2006, retention rates had recovered as Kwadacha was able to retain 100.0% of adults that were 25 to 29 years of age in 2001. Overall, B.C. retention rates of people 25 to 29 years of age have been higher when compared to the different groups within the Peace River Regional District.

# 10.0 Skeena-Queen Charlotte Regional District

## Population Change

### *Skeena-Queen Charlotte Regional District*

As the provincial population grew steadily over the last thirty years, the population of the Skeena-Queen Charlotte Regional District peaked in 1996. As provincial growth rates slowed, this regional district lost 5,131 people by 2006 (Table 10.1). There are, however, significant variations in growth and decline across the Skeena-Queen Charlotte Regional District since 1976. For example, between 1976 and 1986, Port Clements' population gained 130 people, while Port Edward lost 485 people. During the next ten years, unincorporated areas gained 996 people, while Masset experienced a loss of 236 people between 1986 and 1996. Although the regional centre of Prince Rupert maintained steady population growth to reach a peak population of 16,714 in 1996, it had lost 3,899 people by 2006. In fact, most of the communities had lost a proportion of its population during this latest time period. The aboriginal community of Skidegate experienced substantial growth from a baseline of 338 people in 1986 to a peak of 781 people during the latest Census.

**Table 10.1 Census population in the Skeena-Queen Charlotte Regional District, 1976-2006, by total population numbers**

| Place | 1976 | 1986 | 1996 | 2006 |
|---|---|---|---|---|
| **Skeena-Queen Charlotte** | **22,662** | **23,061** | **24,795** | **19,664** |
| Masset | 1,563 | 1,529 | 1,293 | 940 |
| Port Clements | 409 | 539 | 558 | 440 |
| Port Edward | 1,189 | 704 | 700 | 577 |
| Prince Rupert | 14,754 | 15,755 | 16,714 | 12,815 |
| Queen Charlotte | n/a | n/a | n/a | 948 |
| *Unincorporated* | *4,747* | *4,534* | *5,530* | *3,944* |
| British Columbia | 2,392,790 | 2,883,367 | 3,724,500 | 4,113,487 |

Source: Statistics Canada 1976, 1986, 1996, 2006.

In Table 10.2, the rate of population growth for the Skeena-Queen Charlotte Regional District is lower when compared to provincial growth rates. Of concern, while the regional district's population grew by 7.5% between 1986 and 1996, it lost 20.7% of its population by 2006. When we examine changes in growth rates for each community, Masset, Port Edwards, and the unincorporated areas have all experienced rates of decline during each change period. Between 1996 and 2006, almost all of the communities in the Skeena-Queen Charlotte Regional District had lost over 20% of their population. As suggested earlier, Skidegate demonstrated remarkable growth, particularly between 1986

and 1996 as it grew by 105.6%. During the following decade, Skidegate continued to exceed provincial growth patterns with an increase in its population by 12.4%.

**Table 10.2 Census population change in the Skeena-Queen Charlotte Regional District, 1976-2006, by total % change in population**

| Place | % change 1976-1986 | % change 1986-1996 | % change 1996-2006 |
|---|---|---|---|
| **Skeena-Queen Charlotte** | **1.76** | **7.52** | **-20.69** |
| Masset | -2.18 | -15.43 | -27.30 |
| Port Clements | 31.78 | 3.53 | -21.15 |
| Port Edward | -40.79 | -0.57 | -17.57 |
| Prince Rupert | 6.78 | 6.09 | -23.33 |
| Queen Charlotte | n/a | n/a | n/a |
| *Unincorporated* | *-4.49* | *21.97* | *-28.68* |
| British Columbia | 20.5 | 29.2 | 10.4 |

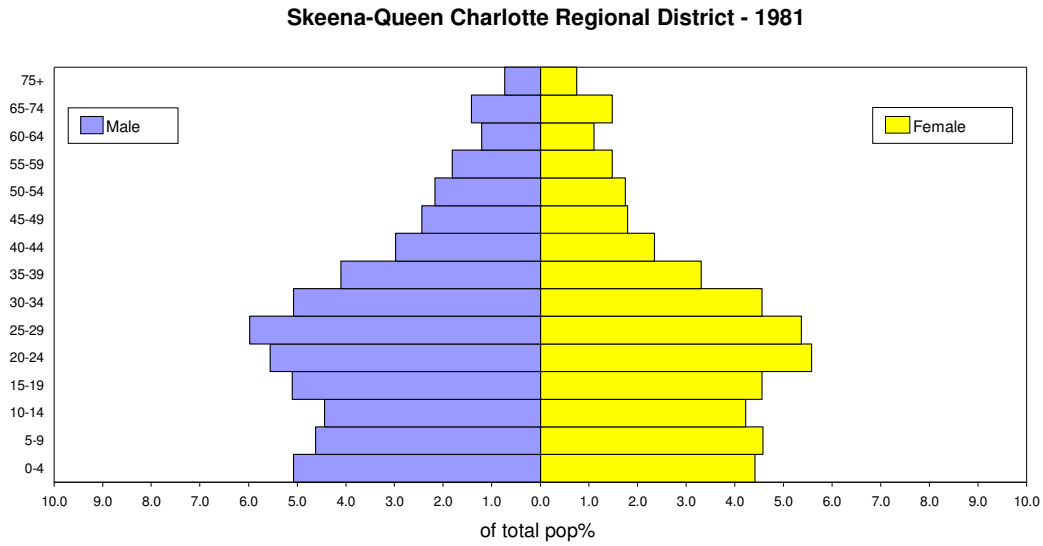
Source: Statistics Canada 1976, 1986, 1996, 2006.

## Population Pyramids

### *Skeena-Queen Charlotte Regional District*

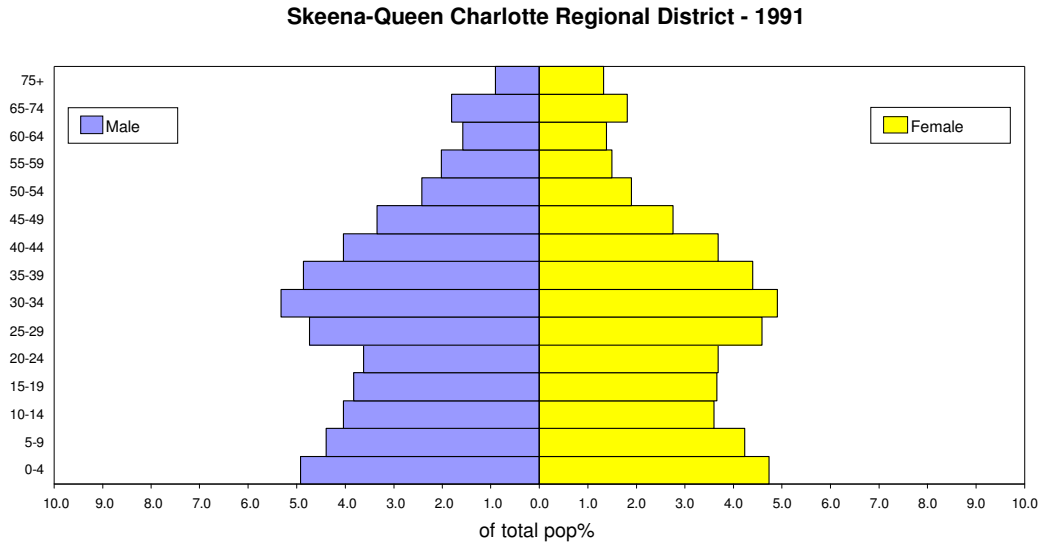
In this section, population pyramids for the Skeena-Queen Charlotte Regional District from 1981 to 2006 are shown in Figures 10.1 to 10.3.

**Table 10.1 Skeena-Queen Charlotte Regional District Population Pyramid – 1981**



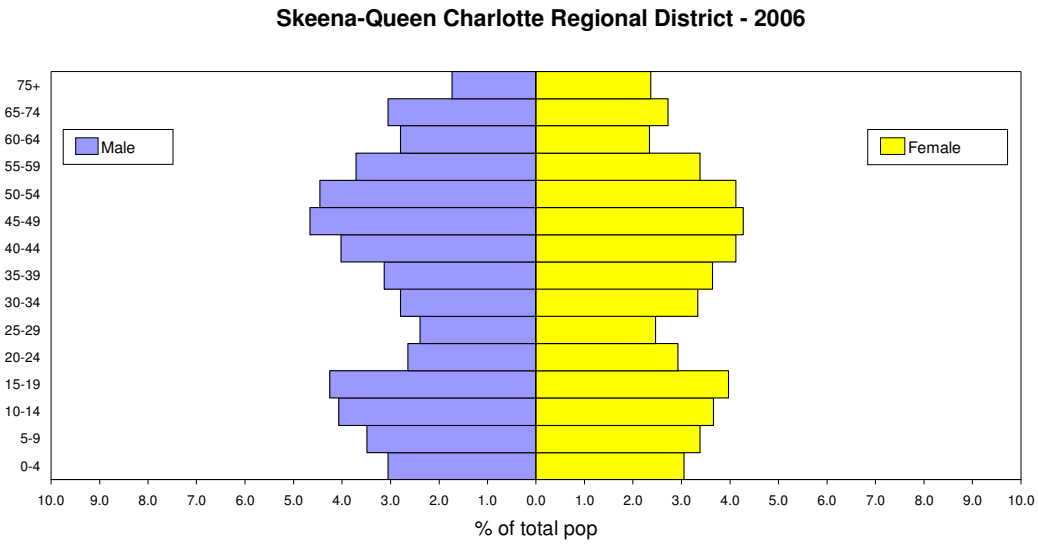
In 1981, Figure 10.1 shows that the Skeena-Queen Charlotte Regional District consists of a young, family-oriented population. Most of the labour force is situated between the ages of 15 and 39. This young labour force structure is accompanied by a substantial proportion of the population under 15 years of age. By comparison, there is a much smaller share of older residents within the region. Similar to regions around northern B.C., employment opportunities in resource industries were likely a key pull factor that attracted many of these young families (in this case, forestry and fishing). The predominance of resource-related employment in a more isolated region is also a likely explanation for the greater ratio of men to women in the labour force (age groups 25 to 59). More isolated resource towns were less likely to offer sources of traditional employment for women, such as those in the service sector (retail, health, education, etc.).

**Table 10.2 Skeena-Queen Charlotte Regional District Population Pyramid – 1991**




By 1991, there have been a number of changes to the population structure of the Skeena-Queen Charlotte Regional District. As demonstrated by Figure 10.2, the workforce has aged-in-place and is concentrated in the 25 to 44 year age categories. Overall, the proportion of children under 15 years of age has been maintained in the region. This may be due to the higher birth rates associated with aboriginal residents in the region. On the other hand, the region is experiencing youth out-migration as there is a lower proportion of the population between the ages of 15 and 24. There continues to be a greater ratio of men represented in the labour force.

**Table 10.3 Skeena-Queen Charlotte Regional District Population Pyramid – 2006**

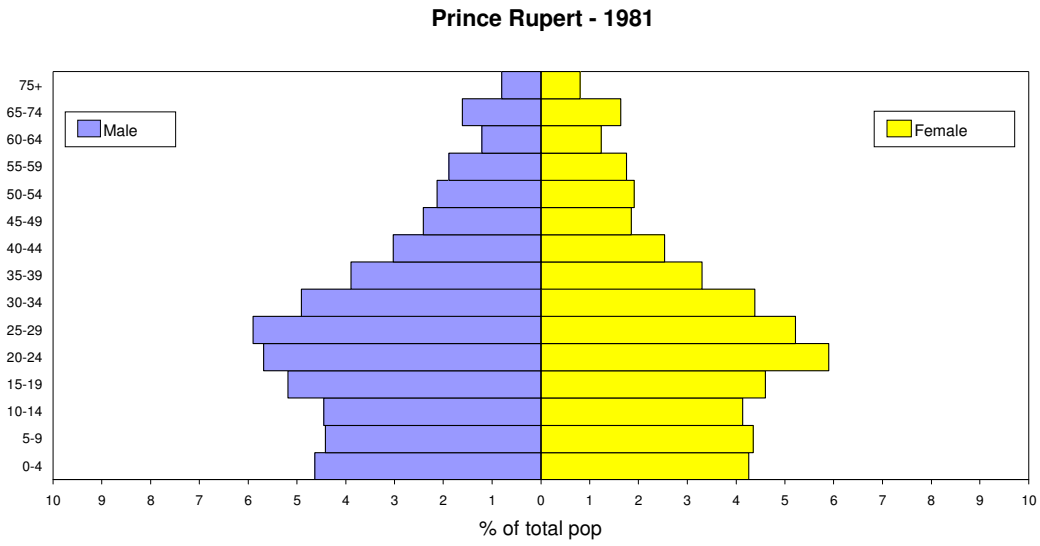



By 2006, the Skeena-Queen Charlotte Regional District is now confronting many population pressures experienced around northern B.C. (Figure 10.3) (see also Appendix B). Trends associated with aging-in-place have progressed with a concentration of the labour force in the 40 to 59 age groups. Census data also reveals a loss of young families as there are lower shares of children under 10 years of age and younger adults in the labour force, particularly between 25 and 39 years of age. Many of these former residents likely left the region in search of employment opportunities in other places. The continued loss of youth, particularly between 20 and 24 years of age, is likely due to limitations associated with educational and employment possibilities in the region.

***Prince Rupert***

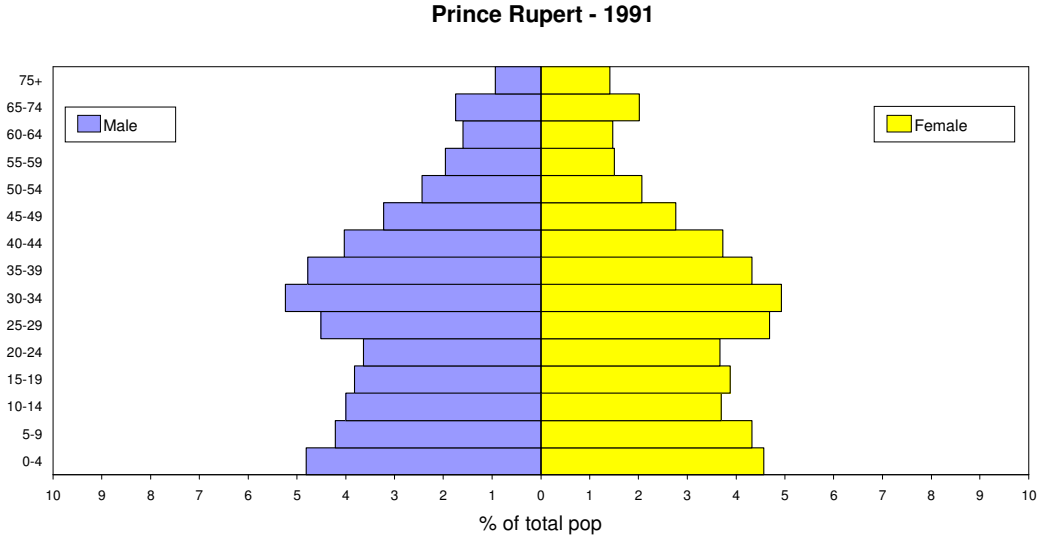
Figures 10.4 through 10.6 show the population pyramids for Prince Rupert between 1981 and 2006.

**Figure 10.4 Prince Rupert Population Pyramid - 1981**




In 1981, the population of Prince Rupert was oriented towards young working families (Figure 10.4). This is demonstrated by a high proportion of the population that exists between the 15 to 34 year age categories, as well as by the high proportion of youth representing categories between 0 and 19 years of age. Many of these young families were attracted to the area for employment opportunities associated with resource and transportation industries in Prince Rupert. In terms of gender distribution, there is an overall higher proportion of males to females in the labour force when we examine age categories between 15 and 49 years of age.

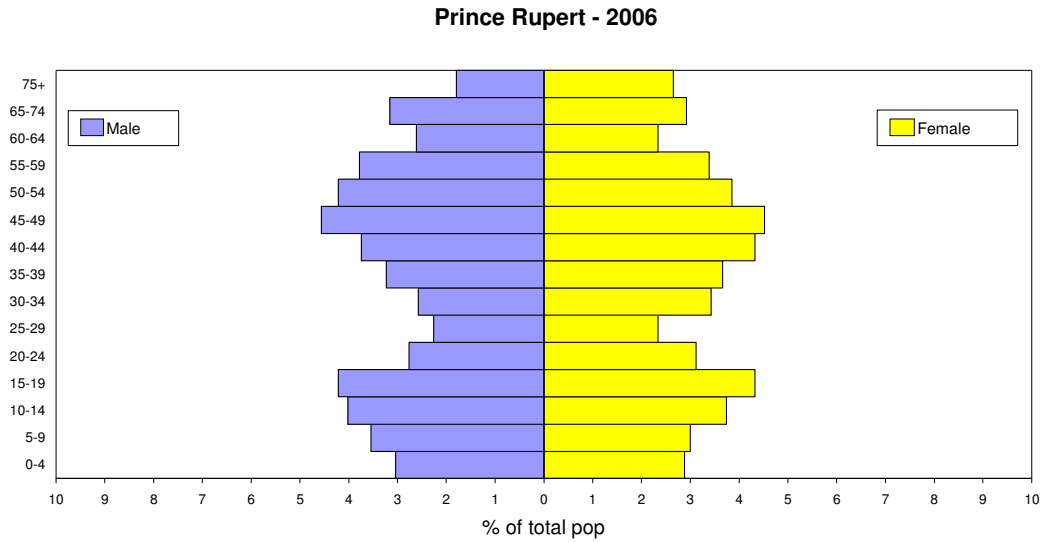
**Figure 10.5 Prince Rupert Population Pyramid - 1991**




By 1991, the young workforce that existed in 1981 has aged-in-place (Figure 10.5). This is demonstrated by the higher proportion of people that exist in the 25 to 44 year age

groups. Of note, there has been a significant decline in the proportion of younger residents between the ages of 15 and 29 compared to ten years ago. While the gender imbalance remains for age groups between 45 and 59 years of age, the gender distribution of the workforce in younger age groups has become more balanced over the past ten years.

**Figure 10.6 Prince Rupert Population Pyramid – 2006**




In 2006, Prince Rupert has become an older, family-oriented population (Figure 10.6). Trends of aging-in-place continue as a significant proportion of the workforce falls between 40 and 59 years of age. Young adults between 20 and 34 years of age have been leaving possibly to seek education and employment opportunities elsewhere. With fewer younger children under 10 years of age, the exodus of these young adults indicates a loss of young families. The city also has a greater proportion of seniors in the community.

***Skidegate***

Population pyramids ranging from 1981 to 2006 are shown for Skidegate in Figures 10.7 to 10.9. Located on Skidegate Inlet at the south end of Graham Island, Haida Gwaii (Queen Charlotte Islands), Skidegate Village is one of the two main centres of Haida settlement and culture on the islands.

**Figure 10.7 Skidegate Population Pyramid - 1981**

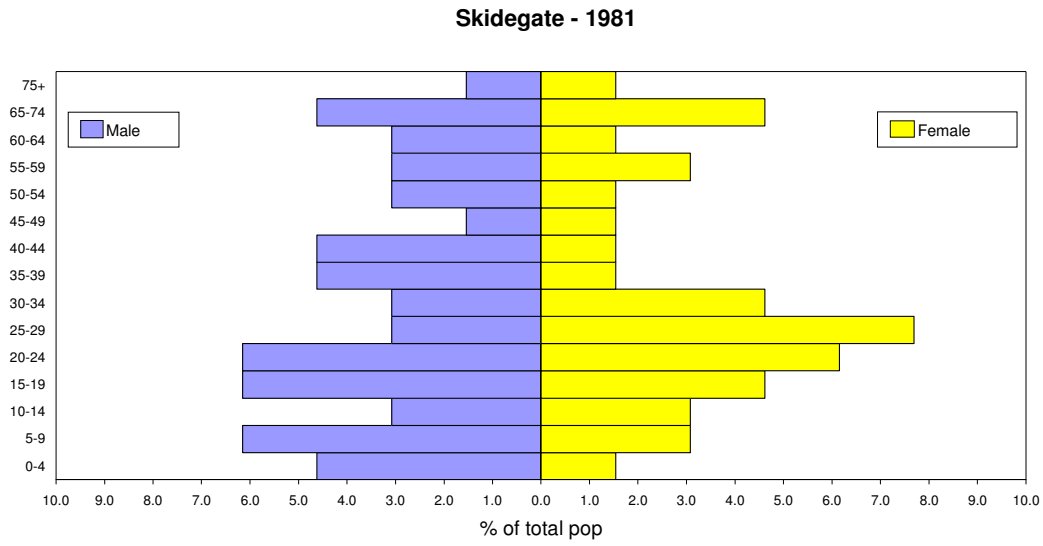
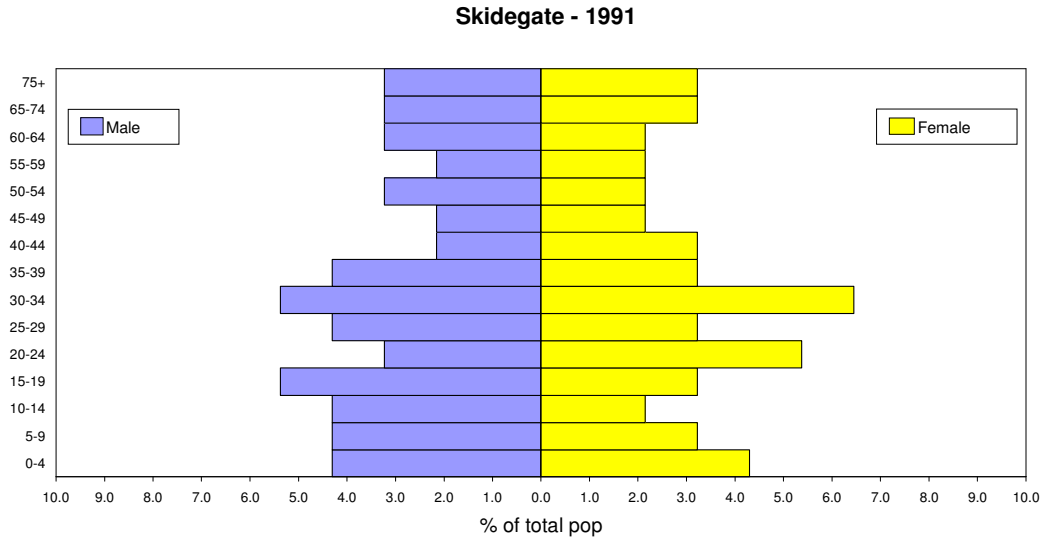



Figure 10.7 presents the 1981 population pyramid for Skidegate Village. A typical problem with small communities, data availability and Statistics Canada population data rounding procedures can skew population snap shots. In 1981, Skidegate Village generally shows a larger share of older residents over 50 years of age compared to other resource and aboriginal communities. Accounting for gender differences, the labour force is concentrated between 15 and 34 years of age. While there are a number of young households in the Skidegate, this proportion is lower compared to other aboriginal communities.

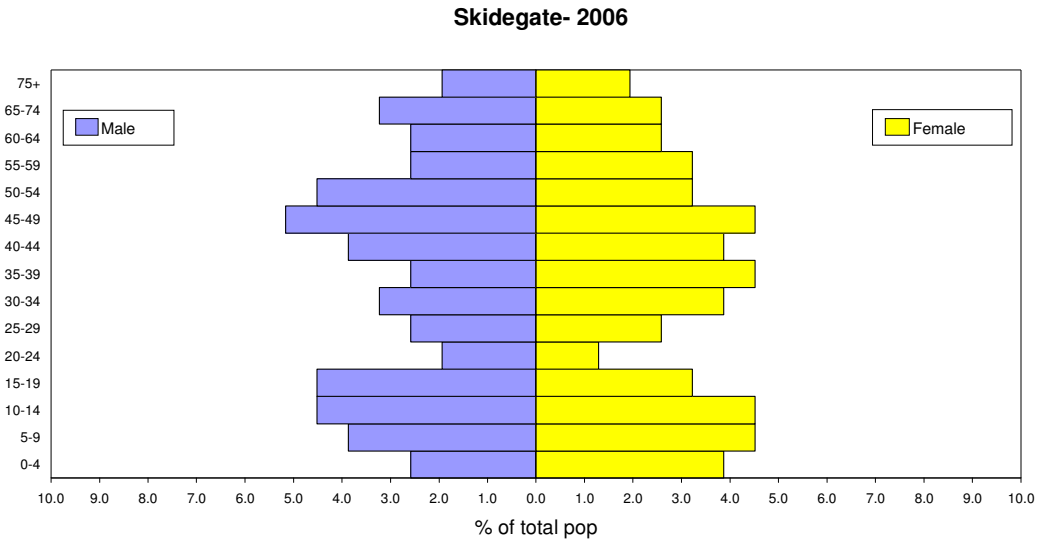
**Figure 10.8 Skidegate Population Pyramid - 1991**




By 1991, the structure of the Skidegate Village population pyramid has undergone limited transformation. There continues to be a share of the population over the age of 60,

and the working age population appears to have aged-in-place (Figure 10.8). Similar to other places around northern B.C., the labour force is now concentrated between 15 and 39 years of age. At first glance there appears to be some indication of youth out-migration in the 20 to 24 year age cohort. However, the proportion of youth aged 10 to 14 years in 1981 was actually small. Instead, Skidegate has been able to attract females to the community that now fit into this age cohort. A large share of the local population continues to be comprised of youth and children.

**Figure 10.9 Skidegate Population Pyramid - 2006**




By 2006, the population pyramid for Skidegate indicates that the labour force has been aging-in-place (Figure 10.9). This is indicated by a large share of the labour force situated between the 40 to 54 year age categories. Meanwhile, there appears to be a loss of youth and young families. This is shown by a lower share of youth between 20 and 24 years of age. Out-migration of young families can be traced by a lower proportion of adults under 40 years of age and fewer children under 15 years of age.

## Age Dependency Ratios

This section explores population change in terms of the shift described above between younger and older populations. To understand changes in the labour force, we examine changes in the percent of the population aged 65 years and older, as well as by the percent of the workforce aged 45 years and older. As these age groups become more pronounced within the overall aging population, labour shortage issues can become a concern for many places.

**Table 10.3 Percent of Population 65 Years and Older in the Skeena-Queen Charlotte Regional District, 1981-2006**

| Year | Prince Rupert (City) | Skeena-Queen Charlotte RD | BC |
|---|---|---|---|
| 1981 | 4.9 | 4.4 | 10.9 |
| 1986 | 5.5 | 5.1 | 12.1 |
| 1991 | 6.1 | 5.9 | 12.9 |
| 1996 | 6.2 | 6.1 | 12.8 |
| 2001 | 8.2 | 8.0 | 13.6 |
| 2006 | 10.5 | 9.9 | 14.6 |

Source: Statistics Canada

As shown in Table 10.3, the percent of the population aged 65 and older has been growing across B.C. over the past 25 years. In Prince Rupert, this is indicated by the growth in seniors from 4.9% in 1981 to 10.5% in 2006. Similar growth patterns are presented for the Skeena-Queen Charlotte Regional District, where the percent of the population 65 years and older grew from 4.4% to 9.9% over the 25 year period. Overall, the percent of the population 65 years and older within this region remains lower than provincial levels. The configuration of the older population in Skidegate has been different from regional patterns over time. In this case, the percent of seniors in the local population reached a high of 12.9% in 1991 before declining to 9.7% in 2006 to resemble regional levels.

**Table 10.4 Percent Workforce Aged 45 Years and Older in the Skeena-Queen Charlotte Regional District, 1981-2006**

| Year | Prince Rupert (City) | Skeena-Queen Charlotte RD | BC |
|---|---|---|---|
| 1981 | 20.9 | 20.1 | 28.9 |
| 1986 | 23.3 | 22.4 | 29.2 |
| 1991 | 24.9 | 24.8 | 29.8 |
| 1996 | 28.2 | 27.6 | 25.0 |
| 2001 | 37.8 | 36.1 | 36.7 |
| 2006 | 45.1 | 42.8 | 41.3 |

Source: Statistics Canada

Table 10.4 reveals notable growth patterns for the percent of the workforce over 44 years of age across the Skeena-Queen Charlotte Regional District. For example, the percent of the workforce aged 45 years and older in Prince Rupert has more than doubled over the past 25 years to reach a peak of 45.1% in 2006. Meanwhile, within the regional district, the percent of this older workforce group grew from 20.1% in 1981 to 42.8% in 2006.

By 2006, figures in Prince Rupert and the Skeena-Queen Charlotte Regional District surpassed provincial figures. Skidegate exhibited similar figures compared to the region over time, growing steadily from 25.5% in 1981 to 42.7% in 2006.

**Table 10.5 Total Dependency Ratio in the Skeena-Queen Charlotte Regional District, 1981-2006 (Percent)**

| Year | Prince Rupert (City) | Skeena-Queen Charlotte RD | BC |
|---|---|---|---|
| 1981 | 45.1 | 46.5 | 47.7 |
| 1986 | 45.6 | 46.4 | 48.4 |
| 1991 | 46.5 | 46.6 | 49.3 |
| 1996 | 46.4 | 46.6 | 50.1 |
| 2001 | 46.1 | 45.8 | 46.4 |
| 2006 | 44.4 | 44.0 | 45.1 |

Source: Statistics Canada

Table 10.5 reveals changes in the total dependency ratios for Prince Rupert and the Skeena-Queen Charlotte Regional District between 1981 and 2006. Of interest, the total dependency ratio in Prince Rupert, the Skeena-Queen Charlotte Regional District, and B.C. has changed very little over the last 25 years. For example, the total dependency ratio for Prince Rupert increased from 45.1% in 1981 to 46.5% in 1991 before declining to 44.4% fifteen years later. Meanwhile, the total dependency ratio for the regional district was almost identical from 1981 to 1996 before dropping to 44.0% in 2006. Although Skidegate displayed similar total dependency ratios compared to the region in 1981, its figures have remained substantially higher over the past twenty-five years. However, after peaking at 55.8% in 1986, this gap has closed as the total dependency ratio in Skidegate declined to 50.5% in 2006.

**Table 10.6 Young Dependency Ratio in the Skeena-Queen Charlotte Regional District, 1981-2006 (Percent)**

| Year | Prince Rupert (City) | Skeena-Queen Charlotte RD | BC |
|---|---|---|---|
| 1981 | 38.1 | 40.1 | 31.7 |
| 1986 | 37.5 | 38.9 | 30.4 |
| 1991 | 37.5 | 38.0 | 30.1 |
| 1996 | 35.5 | 37.7 | 30.4 |
| 2001 | 34.1 | 34.1 | 26.5 |
| 2006 | 29.2 | 29.8 | 24.0 |

Source: Statistics Canada

Table 10.6 illustrates a common trend for aging resource towns across northern B.C.; a decline in young dependency ratios for Prince Rupert and the Skeena-Queen Charlotte Regional District between 1981 and 2006. In Prince Rupert, this is indicated by a drop in the young dependency ratio from 38.1% in 1981 to 29.2% in 2006. For the Skeena-Queen Charlotte Regional District, this ratio changed from 40.1% to 29.8% during this 25 year period. When compared to B.C., the young dependency ratios for Prince Rupert, the regional district, and particularly Skidegate continue to be higher. In the case of Skidegate, young dependency ratios reached 39.8% in 1996 before declining to 35.9% in 2006.

**Table 10.7 Old Age Dependency Ratio in the Skeena-Queen Charlotte Regional District, 1981-2006 (Percent)**

| Year | Prince Rupert (City) | Skeena-Queen Charlotte RD | BC |
|---|---|---|---|
| 1981 | 7.0 | 6.4 | 16.0 |
| 1986 | 8.0 | 7.5 | 18.0 |
| 1991 | 8.9 | 8.6 | 19.2 |
| 1996 | 9.1 | 8.9 | 19.7 |
| 2001 | 11.9 | 11.7 | 20.0 |
| 2006 | 15.2 | 14.2 | 21.2 |

Source: Statistics Canada

As suggested earlier in population pyramids, the old age dependency ratio has been increasing across both Prince Rupert and the Skeena-Queen Charlotte Regional District (Table 10.7). For example, the old age dependency ratio in Prince Rupert grew from 7.0% in 1981 to 15.2% in 2006. Likewise, the Skeena-Queen Charlotte Regional District's old age dependency ratio increased from 6.4% to 14.2% during this 25 year period. While the old age dependency ratios within this region remain lower than B.C. figures, it is important to recall the growing percent of the workforce aged 45 years and over that will soon be approaching retirement. In Skidegate, old age dependency ratios were higher than regional trends and resembled provincial ratios until 1996. From this point, old age dependency ratios remained higher than regional figures, but had declined to 14.6% in 2006.

## Retention Rates

Population retention rates for youth entering the labour force in the Skeena-Queen Charlotte Regional District are shown in Tables 10.8-10.10. With an older workforce approaching retirement, it is important to understand changes to retention rates for youth as they affect labour shortages in the region.

**Table 10.8 Population Retention Rates of 15-19 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Skeena-Queen Charlotte Regional District (%)**

| Period A | Period B | Prince Rupert (City) | Skeena-Queen Charlotte (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | 93.8 | 93.8 | 107.6 |
| 1991 | 1996 | 96.1 | 96.6 | 113.8 |
| 1996 | 2001 | 67.9 | 69.0 | 100.5 |
| 2001 | 2006 | 65.9 | 67.8 | 98.4 |

Source: Statistics Canada

In the Skeena-Queen Charlotte Regional District, Table 10.8 demonstrates the out-migration of youth after completing high school. Compared to provincial statistics, retention rates for youth finishing high school within the Skeena-Queen Charlotte Regional District consistently fall below provincial levels.

In both Prince Rupert and the regional district, a peak of approximately 96.0% of youth aged 15 to 19 years in 1991 had aged and remained in their respective areas in 1996. Following 2001, however, retention rates of youth 15 to 19 years of age declined in both Prince Rupert and the Skeena-Queen Charlotte Regional District to reach a low of 65.9% and 67.8% respectively. By comparison, retention rates for this youth cohort in Skidegate exceeded both regional and provincial levels until 2001. At this time, Skidegate began to experience an out-migration of youth between 15 and 19 years of age, eventually reaching a low retention rate of just 45.5% in 2006.

**Table 10.9 Population Retention Rates of 20-24 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Skeena-Queen Charlotte Regional District (%)**

| Period A | Period B | Prince Rupert (City) | Skeena-Queen Charlotte (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | 106.3 | 106.7 | 116.7 |
| 1991 | 1996 | 106.6 | 110.1 | 120.9 |
| 1996 | 2001 | 75.2 | 79.7 | 100.7 |
| 2001 | 2006 | 69.8 | 77.3 | 100.5 |

Source: Statistics Canada

Retention rates for youth entering the labour force in the Skeena-Queen Charlotte Regional District are shown in Table 10.9. Between 1986 and 1991, retention patterns for youth between 20 to 24 years of age in Prince Rupert resembled patterns for the regional district. By 1996, however, this has changed as a gap begins to emerge with

retention rates at the regional level exceeding those in Prince Rupert. By 2001, retention of youth finishing high school in the preceding five year period had diminished in both Prince Rupert and the regional district. In the case of Prince Rupert, just 69.8% of those aged 15 to 19 years in 2001 continued to live in the community as 20 to 24 year olds in 2006. In the case of Skidegate, retention rates for people between 20 and 24 years of age generally resemble provincial trends since the 1986 to 1991 period.

**Table 10.10 Population Retention Rates of 25-29 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Skeena-Queen Charlotte Regional District (%)**

| Period A | Period B | Prince Rupert (City) | Skeena-Queen Charlotte (RD) | BC |
|---|---|---|---|---|
| 1986 | 1991 | * | * | * |
| 1991 | 1996 | 100.0 | 105.6 | 116.5 |
| 1996 | 2001 | 79.5 | 80.9 | 101.8 |
| 2001 | 2006 | 83.2 | 88.0 | 105.0 |

Source: Statistics Canada
* - 1986 Census does not separately report data for 25-29 year age group.

As young adults between 25 and 29 years of age begin to establish young families, Table 10.10 looks at the retention rates for this age group over a fifteen-year period. Between 1991 and 1996, all geographic scales were successful at retaining young adults in their area. By 2001, this had changed. As this young cohort aged to become 30 to 34 years of age, retention rates reached a low in both Prince Rupert (79.5%) and the Skeena-Queen Charlotte Regional District (80.9%) between 1996 and 2001. These rates for Prince Rupert and the regional district have recovered slightly to 83.2% and 88.0% respectively in 2006.

By comparison, retention rates of young adults (25 to 29 years of age) in Skidegate have surpassed regional and provincial levels until 2006. While retention rates for Skidegate dropped below provincial benchmarks in 2006, this aboriginal community was still successful at retaining the same proportion of this young cohort (100.0%).

# 11.0 Stikine Region

## Population Change

### *Stikine Region*

Since 1976, the Stikine Region has experienced fluctuations in its population (Table 11.1). When compared to the provincial average, changes in the region's population are more volatile. While the Stikine Region's population increased to 2,022 between 1976 and 1986, by 2006, it lost 913 people. In contrast, the population of the Iskut Reserve increased from 271 to 335 people between 1996 and 2006.

**Table 11.1 Census population in the Stikine Region, 1976-2006, by total population numbers**

| Place | 1976 | 1986 | 1996 | 2006 |
|---|---|---|---|---|
| **Stikine** | **1,545** | **2,022** | **1,391** | **1,109** |
| British Columbia | 2,392,790 | 2,883,367 | 3,724,500 | 4,113,487 |

Source: Statistics Canada 1976, 1986, 1996, 2006.

Table 11.2 similiarly presents the current period of decline that followed a growth phase from 1976 to 1986. During this growth phase, the Stikine Region's rate of growth out performed the provincial average. By 1996, however, the Stikine Region's population had declined by 31.2%. This decline period continued from 1996 to 2006 as the regional district endured a population loss of 20.3%. Population change for the Iskut Reserve is significantly different, however, as its population increased by 23.6% between 1996 and 2006.

**Table 11.2 Census population change in the Stikine Region, 1976-2006, by total % change in population**

| Place | % change 1976-1986 | % change 1986-1996 | % change 1996-2006 |
|---|---|---|---|
| **Stikine** | **30.87** | **-31.21** | **-20.27** |
| British Columbia | 20.5 | 29.2 | 10.4 |

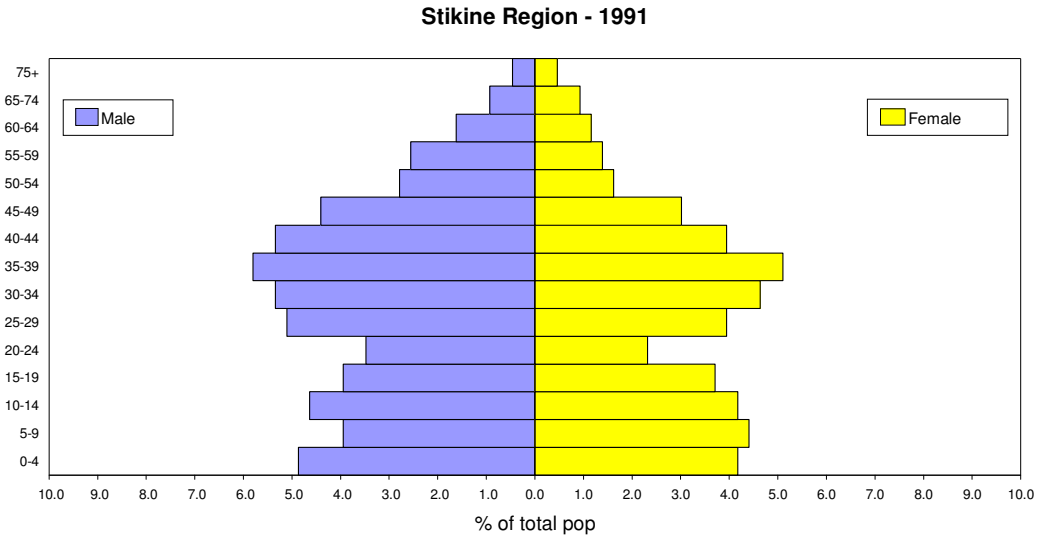
Source: Statistics Canada 1976, 1986, 1996, 2006.

# Population Pyramids

## *Stikine Region*

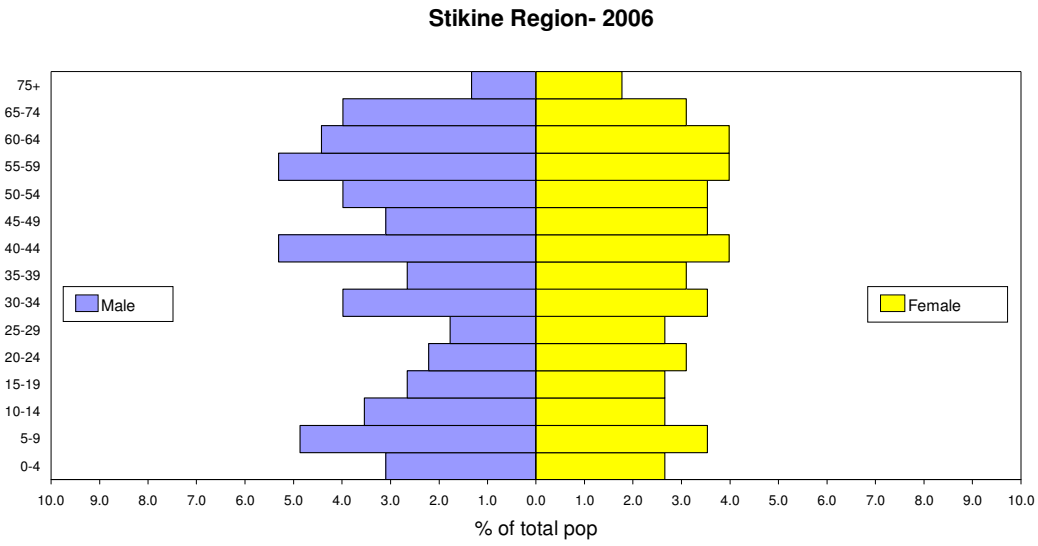
In this section, population pyramids representing data from 1991 to 2006 for the Stikine Region are shown in Figures 11.1 to11.2.

**Figure 11.1 Stikine Region Population Pyramid – 1991**




In 1991, the Stikine Region's population consists of older families. This is depicted by a labour force that is concentrated between the 25 and 49 age groups (Figure 11.1). While there is a leakage of youth between 15 and 24 year age groups, the area has been able to retain younger adults between 25 and 29 years of age likely due to employment options associated with the resource sector. Compared to other regions across northern B.C. (see also Appendix B), the Stikine Region has a greater ratio of males across many age categories. This trend is noticeable from the 20 to 24 year age group to the 60 to 64 year age group. This gender imbalance is characteristic of more isolated resource dependent regions where there are fewer employment opportunities for women, particularly in service sectors such as health and education.

**Figure 11.2 Stikine Region Population Pyramid – 2006**

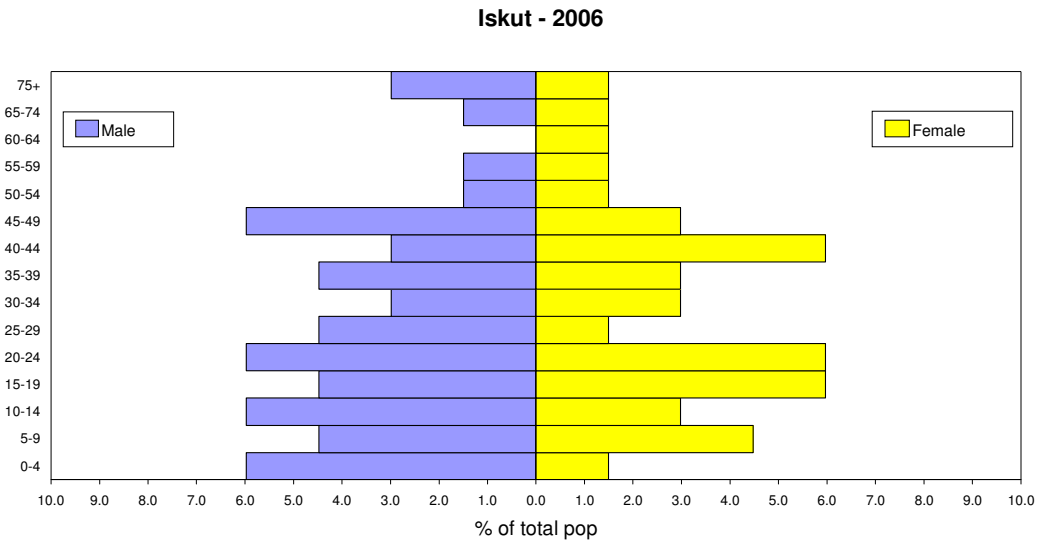



By 2006, the changes to the population structure of the Stikine Region are chaotic, and may be an indication of a volatile or unstable economy (Figure 11.2). Industry downsizing or closures are likely the cause of changes amongst many of these age groups. There has been a loss of young families as demonstrated by a lower proportion of people between the ages of 0 and 19, as well as a smaller share of people under 40 years of age. The lower ratio of men (25-39 years, 45-54 years) in the Stikine Region is likely due to job losses and out-migration in search of employment opportunities elsewhere.

***Iskut***

Due to limited data availability, a population pyramid for Iskut was created for only 2006 (Figure 11.3). Iskut is a Tahltan First Nations community located approximately 250 kilometres north of the Meziadin Junction on the Stewart / Cassiar Highway 37.

**Figure 11.3 Iskut Population Pyramid – 2006**




Data rounding techniques used by Statistics Canada to protect the anonymity of residents in small populated places also produces interesting results. Resembling patterns found in other resource communities, there appears to be a larger portion of the labour force in older age categories (40 to 49). At the same time, however, Iskut has a large portion of residents between 15 and 24 years of age; a significantly different trend compared to other communities across northern B.C. that continue to experience youth out-migration. Instead, there are fewer adults between 25 and 39 years of age. Overall, there is a greater ratio of males within the community.

## Age Dependency Ratios

This section deals with population change in terms of the shift described above between younger and older populations in the Stikine Region. As older age groups become more pronounced within the overall population, labour shortage issues can become a concern for many organizations and businesses. To start, such changes in the labour force can be understood by examining the percent of seniors, as well as by the percent of the workforce aged 45 years and older.

**Table 11.3 Percent of Population 65 Years and Older in the Stikine Region, 1981-2006**

| Year | Stikine Region | BC |
|---|---|---|
| 1981 | -- | 10.9 |
| 1986 | 1.4 | 12.1 |
| 1991 | 2.8 | 12.9 |
| 1996 | 5.4 | 12.8 |
| 2001 | 9.1 | 13.6 |
| 2006 | 10.2 | 14.6 |

Source: Statistics Canada

As presented in Table 11.3, the percent of the population 65 years of age and older has been growing across the province and the Stikine Region over the past 20 years. For example, across B.C., the percent of seniors has increased from 10.9% in 1981 to 14.6% in 2006. By comparison, the percent of the Stikine Region's population aged 65 and older has increased at a much faster rate. In 1986, the percent of the population 65 years and older was 1.4%, increasing to a peak of 10.2% in 2006. In Iskut, the percent of seniors in this aboriginal community has fluctuated, initially consisting of 10.9% in 1996. Since 2001, however, the share of seniors in this community has been below regional and provincial levels, consisting of 7.5% in 2006.

**Table 11.4 Percent Workforce Aged 45 Years and Older in the Stikine Region, 1981-2006**

| Year | Stikine Region | BC |
|---|---|---|
| 1981 | -- | 28.9 |
| 1986 | 20.4 | 29.2 |
| 1991 | 26.1 | 29.8 |
| 1996 | 34.2 | 25.0 |
| 2001 | 42.1 | 36.7 |
| 2006 | 45.9 | 41.3 |

Source: Statistics Canada

Table 11.4 shows fluctuations in the percent of the workforce aged 45 years and older for the Stikine Region and B.C. Until 1996, the percent of the workforce over 44 years of age in B.C. remained higher than that for the Stikine Region. In 1996, the percent of the Stikine Region's workforce aged 45 years and older had grown to 34.2%, thereby surpassing provincial figures that had reached their lowest levels over the last 25 years (25.0%). By 2006, the percent of the workforce aged 45 years and older in the Stikine Region and B.C. had peaked at 45.9% and 41.3% respectively. When compared with other communities in this study, Iskut has the lowest proportion of workers aged 45 years

and older. While the percent of this older workforce was 16.7% in 1996, this figure for Iskut had only increased to 24.4% in 2006.

**Table 11.5 Total Dependency Ratio in the Stikine Region, 1981-2006 (Percent)**

| Year | Stikine Region | BC |
|---|---|---|
| 1981 | -- | 47.7 |
| 1986 | 48.0 | 48.4 |
| 1991 | 40.7 | 49.3 |
| 1996 | 43.0 | 50.1 |
| 2001 | 44.8 | 46.4 |
| 2006 | 43.9 | 45.1 |

Source: Statistics Canada

Table 11.5 shows fluctuations in the total dependency ratio for the Stikine Region and the province between 1981 and 2006. The total dependency ratios for both the regional district and the province were approximately 48.0% in 1981. By 1991, the total dependency ratio for B.C. (49.3%) had surpassed that of the Stikine Region, which had declined to 40.7%. After 1991, the total dependency ratio for the Stikine Region peaked at 44.8% in 2001 before declining again to 43.9% in 2006. At the provincial level, the total dependency ratio reached its peak of 50.1% in 1996 before dropping to 45.1% in 2006. Total dependency ratios have consistently remained higher in Iskut since its highest ratio (83.3%) was established in 1996. Even in 2006, its total dependency ratio of 48.8% was higher than those for both the Stikine Region and B.C.

**Table 11.6 Young Dependency Ratio in the Stikine Region, 1981-2006 (Percent)**

| Year | Stikine Region | BC |
|---|---|---|
| 1981 | -- | 31.7 |
| 1986 | 43.4 | 30.4 |
| 1991 | 36.8 | 30.1 |
| 1996 | 35.2 | 30.4 |
| 2001 | 31.7 | 26.5 |
| 2006 | 29.3 | 24.0 |

Source: Statistics Canada

Table 11.6 shows significant changes for the young dependency ratio between 1981 and 2006. In 1986, the Stikine Region displays a high young dependency ratio of 43.4%, a common trend amongst many young, family-oriented resource towns. In contrast, the young dependency ratio for B.C. is just 30.4%. By 2006, the gap between the Stikine Region's and the province's young dependency ratios had closed to 29.3% and 24.0% respectively. High figures associated with total dependency ratios for Iskut have largely

been driven by its young population. For example, in 1996, the young dependency ratio in Iskut was 63.3%, indicating a large proportion of young families. While these ratios have dropped to 37.8% in 2006, they remain above statistics for the regional district and B.C.

**Table 11.7 Old Age Dependency Ratio in the Stikine Region, 1981-2006 (Percent)**

| Year | Stikine Region | BC |
|---|---|---|
| 1981 | -- | 16.0 |
| 1986 | 4.7 | 18.0 |
| 1991 | 3.9 | 19.2 |
| 1996 | 7.8 | 19.7 |
| 2001 | 13.1 | 20.0 |
| 2006 | 14.6 | 21.2 |

Source: Statistics Canada

As suggested earlier, many communities across northern B.C. are aging (see also Appendix B). Table 11.7 demonstrates this trend for the Stikine Region as well where the old age dependency ratio has increased from 4.7% in 1986 to 14.6% in 2006. The population for B.C. is also becoming older as its old age dependency ratio changed from 16.0% to 21.2% over the past 25 years. Old age dependency ratios in Iskut (20.0%) resembled provincial statistics in 1996, but have since declined to 11.1% and are closer to regional figures in 2006.

## Retention Rates

Population retention rates for youth entering the labour force in the Stikine Region are shown in Tables 11.8-11.10. With an older workforce approaching retirement, it is important to understand changes to retention rates for youth as they influence coping strategies for labour shortages.

**Table 11.8 Population Retention Rates of 15-19 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Stikine Region (%)**

| Period A | Period B | Stikine Region | BC |
|---|---|---|---|
| 1986 | 1991 | 92.6 | 107.6 |
| 1991 | 1996 | 60.6 | 113.8 |
| 1996 | 2001 | 72.2 | 100.5 |
| 2001 | 2006 | 63.2 | 98.4 |

Source: Statistics Canada

Table 11.8 presents retention rates for youth 15 to 19 years of age who are completing high school and are expected to be entering the labour force in the next five years. When comparing retention rates for the Stikine Region and B.C., the Stikine Region has consistently experienced greater difficulty retaining residents between 15 and 19 years of age. For example, 92.6% of youth who were 15 to 19 years of age in 1986 continued to live in the Stikine Region in 1991. However, just 63.2% of those aged 15 to 19 years of age in 2001 were retained in 2006 as young adults in the 20 to 24 year age group.

In the case of the Iskut Reserve, only two-thirds of youth between 15 and 19 years of age in 1996 had continued to live in the community in 2001. By 2006, this retention rate had improved to a rate of 133.3%, surpassing both regional and provincial benchmarks. Over the twenty year period, the retention rates of youth 15 to 19 years of age have been lower in the Stikine Region when compared to B.C. statistics.

**Table 11.9 Population Retention Rates of 20-24 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Stikine Region (%)**

| Period A | Period B | Stikine Region | BC |
|---|---|---|---|
| 1986 | 1991 | 144.4 | 116.7 |
| 1991 | 1996 | 72.0 | 120.9 |
| 1996 | 2001 | 95.0 | 100.7 |
| 2001 | 2006 | 76.9 | 100.5 |

Source: Statistics Canada

Population retention rates for youth (20 to 24 years of age) entering the labour force are shown for the Stikine Region (Table 11.9). With the exception of the 1986 to 1991 period, the Stikine Region has exhibited lower retention rates of youth aged 20 to 24 years compared to B.C. Retention rates within the region have fluctuated over time. For example, 144.4% of youth initially 20 to 24 years of age in 1986 had aged and expanded as residents between 25 and 29 years of age in 1991. By 1996, this retention rate had dropped to a low of 72.0%, indicating a substantial out-migration of youth in this age group. After the retention rate had almost recovered at 95.0% between 1996 and 2001, it declined again to reach 76.9%. By comparison, the Iskut Reserve has been able to retain residents initially between 20 to 24 years old as they aged within the community.

**Table 11.10 Population Retention Rates of 25-29 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Stikine Region (%)**

| Period A | Period B | Stikine Region | BC |
|---|---|---|---|
| 1986 | 1991 | * | * |
| 1991 | 1996 | 71.8 | 116.5 |
| 1996 | 2001 | 88.9 | 101.8 |
| 2001 | 2006 | 89.5 | 105.0 |

Source: Statistics Canada
* - 1986 Census does not separately report data for 25-29 year age group.

Table 11.10 reveals that despite improvements in retention rates for young adults aged 25 to 29 years, the Stikine Region continues to experience out-migration of this youth cohort. For example, while 71.8% of people between 25 and 29 years of age in 1991 were retained in the Stikine Region in 1996, this retention rate had improved to 89.5% by 2006. At the same time, however, retention rates for this age group in the Stikine Region have performed below provincial levels since 1991. Census data for the Iskut Reserve shows that young adults (25 to 29 years of age) starting families have aged and continued to live in the community during the next Census period.

## 12.0 Conclusion

The purpose of this report has been to provide population background information for communities and regional districts throughout northern B.C. and use this to understand emerging pressures inherent in the labour force. The data are derived from the Census covering a period between 1981 and 2006.

Across northern B.C., the population of many communities and regional districts grew until the mid-1990s. Since 1996, economic and social restructuring trends have led to population declines in many of these geographic areas. As is common across northern B.C., the addition of new economic activities has only just stayed apace with workplace changes such as automation, with the net result being limited job growth. This lack of job growth has stemmed the in-flow of young families seeking work. One consequence is a process of workforce aging-in-place.

The aging-in-place is clearly seen in the population pyramids for many places and regions in northern B.C. The population during the 1980s was comprised largely of young families and young children. By 2006, the workforce (buoyed by steady work in the resource sector) has aged, there are proportionally fewer children (especially the very youngest children), and proportionally more older residents. Along with this aging-in-place is some youth out-migration, likely in pursuit of work or educational opportunities. There are some important exceptions, however, as many First Nations communities and booming oil and gas towns, such as Fort St. John, continue to have younger populations.

This population aging is confirmed with an investigation of dependency ratios. A dependency ratio compares the young and / or old population against the working age population in order to provide benchmarks for assessing change over time. While there has been growth in the population over 65 years of age in many places, the largest share of population aging at this point in time can be attributed to the declining share of young people. This exodus from the young portion of the labour force is of concern to many businesses and organizations as the older portion of the labour force is aging-in-place. As many of these workers move into retirement, the question is, how is this labour force going to be replaced? Will workers be recruited from within or outside of these communities, or will businesses and organizations use succession planning models to develop talent from within. More recent experiences suggest that retaining younger sources of labour has been a challenge. However, it will be important to develop a more comprehensive understanding of factors that may influence the retention or loss of labour. The coming retirement of the large ‘bubble’ of older workers will put considerable pressure on many services and facilities.

## References

Barnes, T. and R. Hayter. 1992. The little town that could: Flexible accumulation and community change in Chemanius. *Regional Studies* 26: 647-663.

BC Stats. 2007. *Regional District and Municipal Boundary Changes, 1996 to Present.* http://www.bcstats.gov.bc.ca/data/pop/georef/boundsgc.pdf. Retrieved 17 December 2007.

Effland, A. 2000. When rural does not equal agricultural. *Agricultural History* 74(2): 489-501.

Everitt, J.C. and A.M. Gill. 1993. The social geography of small towns. In: *The Changing Social Geography of Canadian Cities*, edited by L. Bourne and D. Ley, 252-264. Montreal: McGill-Queen's Press.

Halseth, G., Straussfogel, D., Parsons, S., and A. Wishart. 2004. Regional economic shifts in B.C.: Speculation from recent demographic evidence. *Canadian Journal of Regional Science* 27: 317-352.

Hanlon, N. T. and G. Halseth. 2005. The greying of resource communities in northern British Columbia: Implications for health care delivery in already-underserviced communities. *The Canadian Geographer* 49(1): 1-24.

Northern Rockies Regional District. n.d. *Municipal/Regional Structure.* http://www.northernrockies.org/residents/munreg.html. Retrieved 17 December 2007.

Peace River Regional District. n.d. *About – Peace River Regional District*. http://www.peaceriverrd.bc.ca/about/index.php. Retrieved 17 December 2007.

Robinson, J. 1989. *Concepts and Themes in the Regional Geography of Canada*. Revised edition. Vancouver: Talonbooks.

Williamson, T. and S. Annamraju. 1996. *Analysis of the Contribution of the Forest Industry to the Economic Base of Rural Communities in Canada*. Ottawa: Industry, Economics and Programs Branch, Canadian Forest Service, Natural Resources Canada. Working Paper No. 43.

**Appendix A**
**Population Change Calculations**

**Population Change Calculations**

Population Counts
Simple counts from the Census

Percent Population Change, 1976-2006
Percent Change in Population =
(Population in T2) – (Population in T1) / Population in T1

Percent of Population 65 Years and Older
Percent Population 65 Plus
(Population 65+ / Total Population) * 100

Percent of Population of Workforce Aged 45 Years and Older
(Population 45-64 years) / (Population 15-64 years) * 100

Total Dependency Ratio
[(Population 65 years and older) + (Population 0-14 years) / Population 15-64 years] *100

Young Dependency Ratio
(Population 0-14 years / Population 15-64 years) * 100

Old Age Dependency Ratio
(Population 65 years and older / Population 15-64 years) * 100

Population Retention Rates
Population in 1991 aged XX-XX years / Population in 1981 aged XX-XX years

## Appendix B

## Tables and Figures for Northern B.C.

# Northern British Columbia

## Population Change

***Northern British Columbia***

**Table B.1 Census population in Northern British Columbia, 1976-2006, by total population numbers**

| Place | 1976 | 1986 | 1996 | 2006 |
|---|---|---|---|---|
| **Northern British Columbia** | **271,616** | **309,124** | **339,227** | **315,880** |
| *British Columbia* | *2,533,791* | *2,883,367* | *3,724,500* | *4,113,487* |

Source: Statistics Canada 1976, 1986, 1996, 2006.

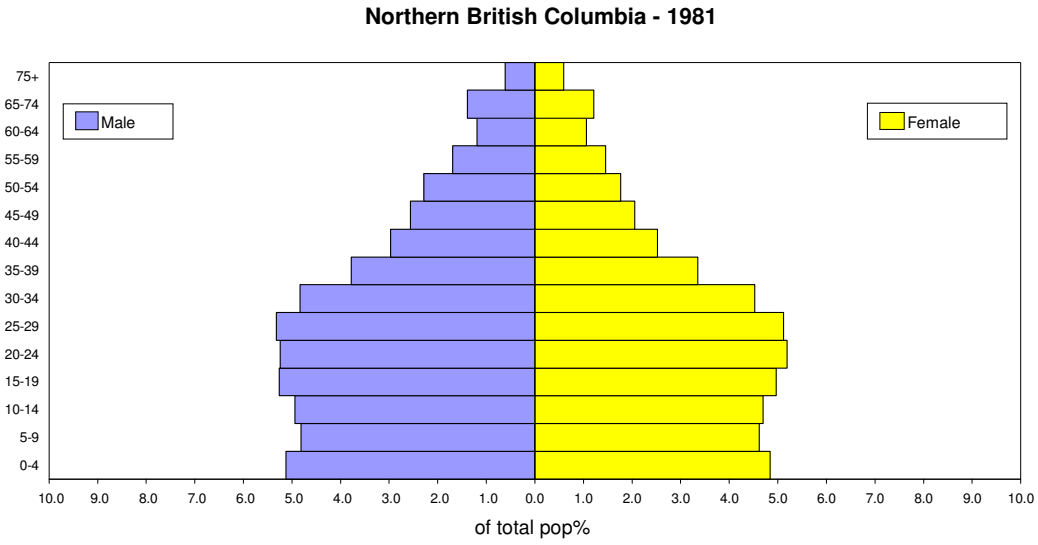
**Table B.2 Census population change in Northern British Columbia, 1976-2006, by total % change in population**

| Place | % change 1976-1986 | % change 1986-1996 | % change 1996-2006 |
|---|---|---|---|
| **Northern British Columbia** | **13.81** | **9.74** | **-6.88** |
| *British Columbia* | *13.80* | *29.17* | *10.44* |

Source: Statistics Canada 1976, 1986, 1996, 2006.

# Population Pyramids

## Figure B.1 Population Pyramid for Northern B.C. – 1981




## Figure B.2 Population Pyramid for Northern B.C. – 1991

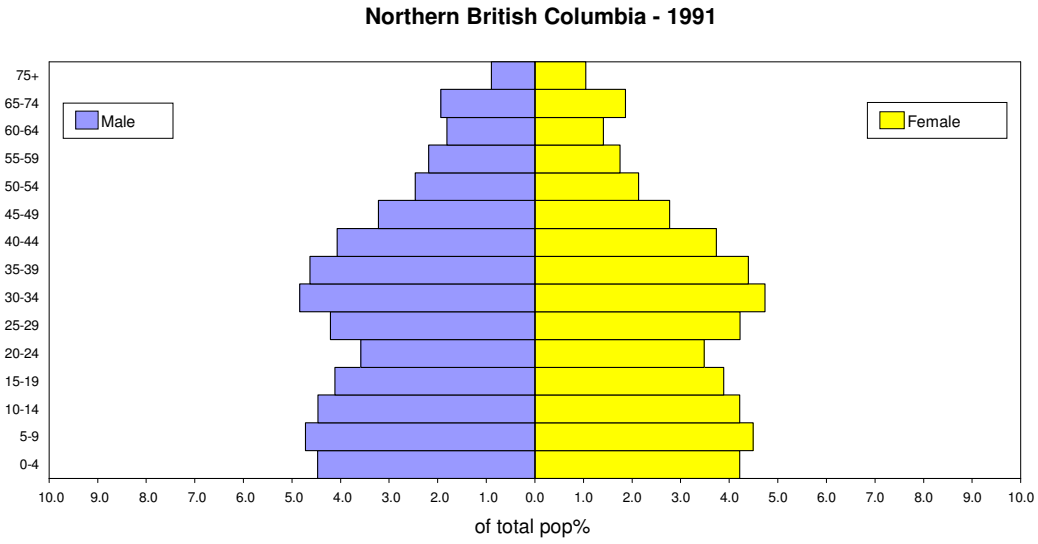
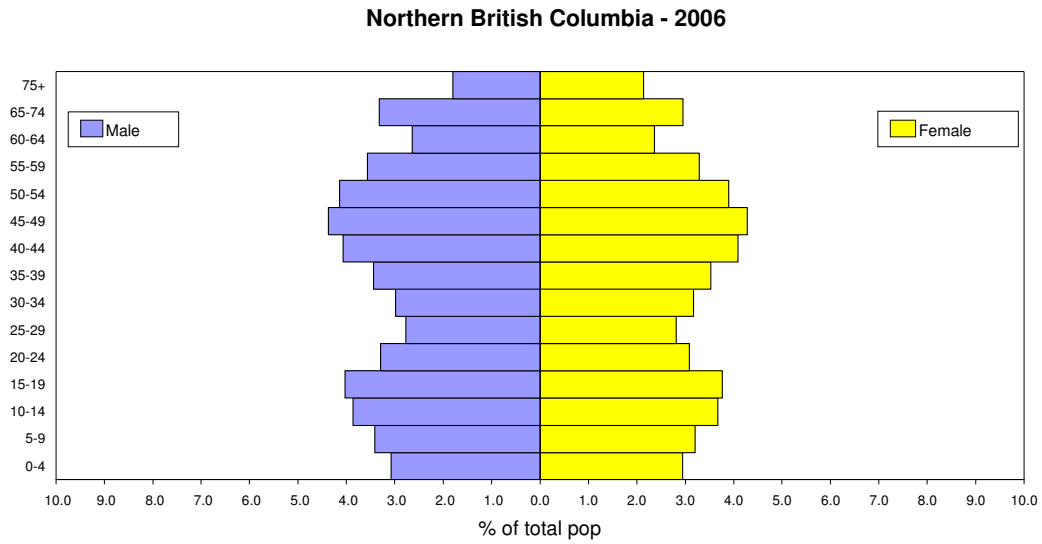


**Figure B.3 Population Pyramid for Northern B.C. – 2006**




## Age Dependency Ratios

**Table B.3 Percent of Population 65 Years and Older in Northern B.C., 1981-2006**

| Year | Northern BC | BC |
|---|---|---|
| 1981 | 2.0 | 10.9 |
| 1986 | 4.7 | 12.1 |
| 1991 | 5.7 | 12.9 |
| 1996 | 6.6 | 12.8 |
| 2001 | 8.3 | 13.6 |
| 2006 | 10.2 | 14.6 |

Source: Statistics Canada

**Table B.4 Percent Workforce Aged 45 Years and Older in Northern B.C., 1981-2006**

| Year | Northern BC | BC |
|---|---|---|
| 1981 | 21.0 | 28.9 |
| 1986 | 23.6 | 29.2 |
| 1991 | 26.2 | 29.8 |
| 1996 | 29.0 | 25.0 |
| 2001 | 35.9 | 36.7 |
| 2006 | 41.0 | 41.3 |

Source: Statistics Canada

**Table B.5 Total Dependency Ratio for Northern B.C., 1981-2006 (Percent)**

| Year | Northern BC | BC |
|---|---|---|
| 1981 | 48.9 | 47.7 |
| 1986 | 48.1 | 48.4 |
| 1991 | 47.8 | 49.3 |
| 1996 | 46.5 | 50.1 |
| 2001 | 44.5 | 46.4 |
| 2006 | 43.7 | 45.1 |

Source: Statistics Canada

**Table B.6 Young Dependency Ratio for Northern B.C., 1981-2006 (Percent)**

| Year | Northern BC | BC |
|---|---|---|
| 1981 | 43.2 | 31.7 |
| 1986 | 41.2 | 30.4 |
| 1991 | 39.3 | 30.1 |
| 1996 | 36.9 | 30.4 |
| 2001 | 32.5 | 26.5 |
| 2006 | 29.0 | 24.0 |

Source: Statistics Canada

**Table B.7 Old Age Dependency Ratio for Northern B.C., 1981-2006 (Percent)**

| Year | Northern BC | BC |
|---|---|---|
| 1981 | 5.7 | 16.0 |
| 1986 | 6.9 | 18.0 |
| 1991 | 8.5 | 19.2 |
| 1996 | 9.6 | 19.7 |
| 2001 | 11.9 | 20.0 |
| 2006 | 14.7 | 21.2 |

Source: Statistics Canada

## Retention Rates

**Table B.8 Population Retention Rates of 15-19 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Northern B.C. (%)**

| Period A | Period B | Northern BC | BC |
|---|---|---|---|
| 1986 | 1991 | 82.6 | 107.6 |
| 1991 | 1996 | 92.1 | 113.8 |
| 1996 | 2001 | 74.6 | 100.5 |
| 2001 | 2006 | 74.0 | 98.4 |

Source: Statistics Canada

**Table B.9 Population Retention Rates of 20-24 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Northern B.C. (%)**

| Period A | Period B | Northern BC | BC |
|---|---|---|---|
| 1986 | 1991 | 98.6 | 116.7 |
| 1991 | 1996 | 112.0 | 120.9 |
| 1996 | 2001 | 88.0 | 100.7 |
| 2001 | 2006 | 87.7 | 100.5 |

Source: Statistics Canada

**Table B.10 Population Retention Rates of 25-29 Year Olds Over 5 Year Periods (Between Period 'A' and Period 'B') Northern B.C. (%)**

| Period A | Period B | Northern BC | BC |
|---|---|---|---|
| 1986 | 1991 | * | * |
| 1991 | 1996 | 109.4 | 116.5 |
| 1996 | 2001 | 92.0 | 101.8 |
| 2001 | 2006 | 94.7 | 105.0 |

Source: Statistics Canada
*- 1986 Census does not separately report data for 25-29 year age group.