POPULATION CHANGES IN MANITOBA'S YOUTH 1996-2006

WORKING PAPER 2009-1

September 2009

Rural Development Institute, Brandon University

Brandon University established the Rural Development Institute in 1989 as an academic research centre and a leading source of information on issues affecting rural communities in Western Canada and elsewhere.

RDI functions as a not-for-profit research and development organization designed to promote, facilitate, coordinate, initiate and conduct multi-disciplinary academic and applied research on rural issues. The Institute provides an interface between academic research efforts and the community by acting as a conduit of rural research information and by facilitating community involvement in rural development. RDI projects are characterized by cooperative and collaborative efforts of multi-stakeholders.

The Institute has diverse research affiliations, and multiple community and government linkages related to its rural development mandate. RDI disseminates information to a variety of constituents and stakeholders and makes research information and results widely available to the public either in printed form or by means of public lectures, seminars, workshops and conferences.

For more information, please visit www.brandonu.ca/rdi.



POPULATION CHANGES IN MANITOBA'S YOUTH 1996-2006

WORKING PAPER 2009-1

Submitted to:

Pat Lachance Rural Team Manitoba Regional Advisor Health Promotion and Programs Branch 275 Portage Avenue Winnipeg, MB R3B 2B3 Charlotte Elson
Program Manager, Youth Employment
Partnerships
MB4 Youth Division
Healthy Living, Youth and Seniors
310-800 Portage Avenue
Winnipeg, MB R3G 0N4

Prepared by:

Lonnie Patterson, Research Assistant Rural Development Institute Brandon University Brandon, MB R7A 6A9

Submitted by:

Wm. (Bill) Ashton, Director Robert C. Annis, Research Affiliate Rural Development Institute Brandon University Brandon, MB R7A 6A9

The Rural Development Institute gratefully acknowledges the financial support provided for this research by Agriculture and Agri-Food Canada, Rural Secretariat; Manitoba Agriculture, Food and Rural Initiatives; and by Manitoba Education, Citizenship and Youth.

TABLE OF CONTENTS

| Glossary of Terms | ii |
|--------------------------------|----|
| Introduction | 1 |
| Method | 1 |
| Province of Manitoba | 3 |
| Total Population | 4 |
| Youth Population | |
| Cohort Analysis | |
| Central Plains Economic Region | |
| Total Population | |
| Youth Population | 13 |
| Cohort Analysis | 16 |
| Eastman Economic Region | 17 |
| Total Population | 18 |
| Youth Population | 20 |
| Cohort Analysis | 23 |
| Interlake Economic Region | 24 |
| Total Population | 25 |
| Youth Population | 27 |
| Cohort Analysis | 30 |
| Northern Economic Region | 31 |
| Total Population | 32 |
| Youth Population | 34 |
| Cohort Analysis | 37 |
| Parkland Economic Region | 38 |
| Total Population | 39 |
| Youth Population | 41 |
| Cohort Analysis | 44 |
| Pembina Valley Economic Region | 45 |
| Total Population | 46 |
| Youth Population | 48 |
| Cohort Analysis | 51 |
| Westman Economic Region | 52 |
| Total Population | 53 |
| Youth Population | 55 |
| Cohort Analysis | 58 |
| Winnipeg Economic Region | 59 |
| Total Population | 60 |
| Youth Population | 62 |
| Cohort Analysis | 65 |
| Cross Region Comparisons | 66 |
| Age Groups | 66 |
| Age Cohorts | 67 |
| References | 70 |

GLOSSARY OF TERMS

Economic Regions

An economic region is a grouping of complete census divisions created as a standard unit for analysis of regional economic activity. The boundaries of the economic regions are created by agreement between Statistics Canada and the Province of Manitoba.

Population Pyramid

A population pyramid is a graphical illustration depicting the distribution of age groups in a population for a particular region. Four descriptions of population pyramids are employed by Statistics Canada: expansive growth, stable growth, stationary growth, and declining growth.

Expansive Growth

A broad base, indicating a high proportion of children, a rapid rate of population growth, and a low proportion of older people

Stable Growth

A structure with indentations that even out and reflect slow growth over a period

Stationary Growth

A narrow base and roughly equal numbers in each age group tapering off at the older ages

Declining Growth

A high proportion of aged persons and declining numbers

Youth

Residents between the ages 15 to 34.

INTRODUCTION

Analyzing population structure and trends is a way to understand changes in Manitoba's youth population. A basic statistical analysis of changes in population, analysis of population pyramids and measuring changes to population in the same cohort over years provides a graphical representation of population over time that is easy to understand. Local, regional, provincial and federal officials can use this analysis to inform decision making related to youth mobility in Manitoba's remote and rural regions. In this report, data from the Statistics Canada Census of Population is used to analyze population changes in the province of Manitoba as a whole and the eight economic regions within it.

This report on publically available secondary data was initiated in conjunction with Rural Team Manitoba's Youth Sub-Committee. The report complements qualitative analysis conducted in three rural and northern Manitoba communities conducted by the Rural Development Institute, Brandon University. A report on the qualitative analysis is available online at www.brandonu.ca/rdi.

METHOD

Population data from the 1996, 2001 and 2006 censuses were used to construct population pyramids and to analyze changes in population in rural and northern Manitoba. Population pyramids were created to illustrate population structure and indicate whether the population structure demonstrated expansive growth or if it was stable, stationary or in decline. Data from the 1996 and 2006 Censuses were found online and data from the 2001 census was obtained from the paper format from the John E. Library, Brandon University. The intent of the analysis was to gain a regional perspective on changes in youth population throughout the province and, therefore, Statistics Canada's economic regions were used. An economic region is a grouping of complete census divisions created as a standard unit for analysis of regional economic activity. The boundaries of the economic regions are created by agreement between Statistics Canada and the Province of Manitoba. Although the data analysis was conducted at the Economic Region unit of geography, if data is available, the analysis can be replicated for smaller or larger geographic areas.

Keeping in line with previous Rural Development Institute reports on youth mobility¹ using secondary data, youth were defined as those aged 15 to 34. For the province and each economic region, analysis was conducted on five-year age groups to parallel Census information on:

- The total population,
- The total youth population (15-34),
- The 15 to 19 years,
- The 20 to 24 years,
- The 25 to 39 years,
- The 30 to 34 years.

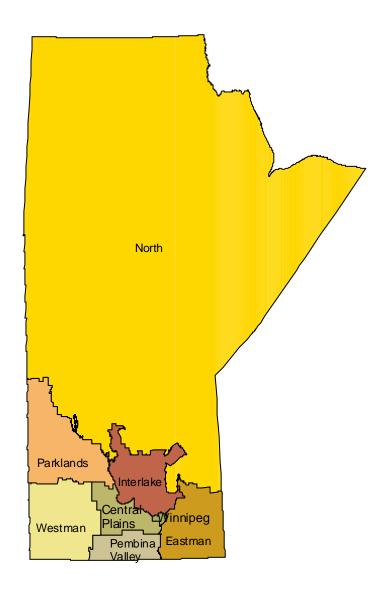
Spreadsheet software was used to determine the percent change in the population and to generate the graphs used in the report. For example, to calculate the percentage change from 2001 to 2006, one would subtract the population in 2001 from the population in 2006, divide by the population in 2006

¹ For previous reports, see www.brandonu.ca/organizations/rdi/youth_migration.asp

and multiply by 100. Using percentages allows for comparisons across regions because the total number of people living in each Economic Region differs greatly across the province.

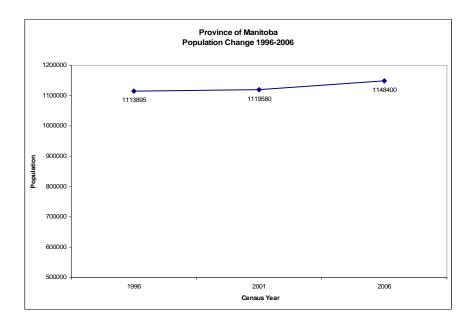
Spreadsheet software was also used to create population pyramids. This was done by entering the data for one gender as a negative number, creating a bar graph and making the access vertical. Four types of population pyramid structures can be derived from analysis of population pyramids over time (Statistics Canada, 2007). An expansive growth pyramid consists of "a broad base, indicating a high proportion of children, a rapid rate of population growth, and a low proportion of older people" (Statistics Canada, 2007). A stable growth pyramid is "a structure with indentations that even out and reflect slow growth over a period" (Statistics Canada, 2007). A stationary pyramid has "a narrow base and roughly equal numbers in each age group tapering off at the older ages" (Statistics Canada, 2007). "A high proportion of aged persons and declining numbers" indicate a declining population (Statistics Canada, 2007). These four types of population pyramids were used to describe population structure in the analysis.

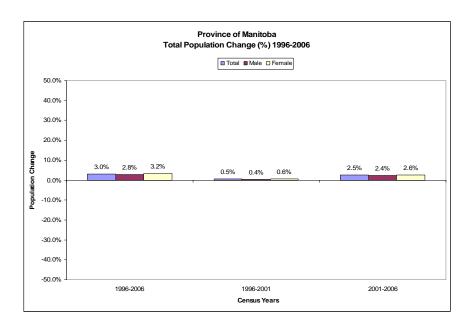
Additionally, spreadsheet software was also used to measure changes in particular age cohorts between 1996 and 2006. The two cohorts used were people born between 1977 and 1981 and people born between 1972 and 1976. These cohorts were chosen because their ages in 1996 were 15 to 19 and 20 to 24, years permitting comparisons for changes between the 1996, 2001 and 2006 Censuses. For those born between 1977 and 1981 analysis was conducted on the 15 to 19 year-olds in 1996, the 20 to 24 year-olds in 2001 and the 25 to 29 year-olds in 2006. For those born between 1972 and 1976, analysis was conducted on the 20 to 24 year-olds in 1996, the 25 to 29 year-olds in 2001 and the 30 to 34 year olds in 2006.



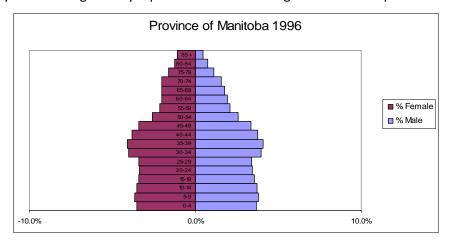
Total Population

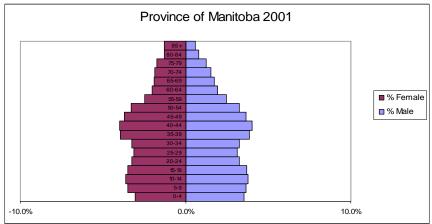
The total population of Manitoba increased by 3% between 1996 and 2006, from 1,113,895 to 1,148,400 people. The increase in the number of males and females was about the same during this period. There was very little change between 1996 and 2001. The increase occurred between 2001 and 2006 when the number of both genders went up by about 3%.

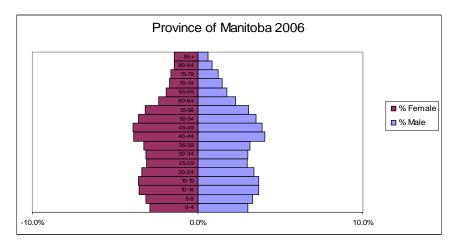




Population pyramid analysis for Manitoba indicated a stationary population structure: a broad base, indicating a high proportion of children, a rapid rate of population growth, and a low proportion of older people. Pyramids had generally equal numbers in each age cohort that tapered off at the top.

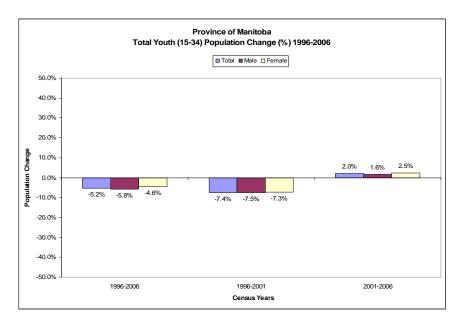




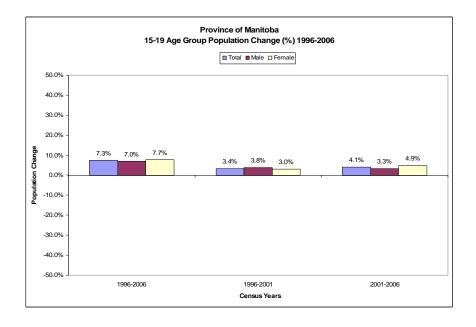


Youth Population

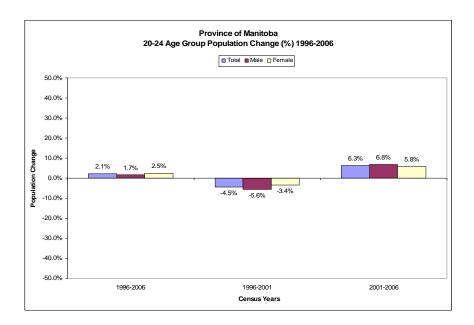
The total number of people aged 15 to 34 years declined by 5.2% between 1996 and 2006. The number of males decreased by 5.8% and the number of females by 4.6%. The decline occurred between 1996 and 2001, when the number of males and females both went down by just over 7%. There was a 2% increase between 2001 and 2006; the number of males went up by 1.6% and the number of females by 2.5%.



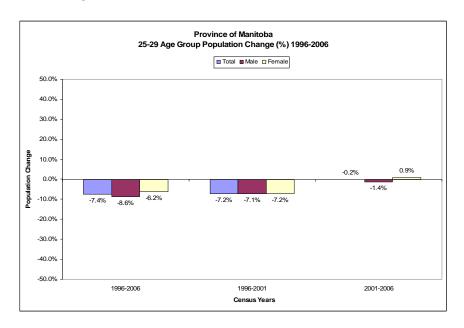
Between 1996 and 2006, the number of people aged 15 to 19 living in Manitoba increased by 7.3%. The number of males increased by 7% and the number of females by 7.7%. Between 1996 and 2001, the total male and female populations increased by 3.4% (3.8% and 3%, respectively). Between 2001 and 2006, the total male and female populations increased by 4.1%, 3.3% and 4.9%, respectively.



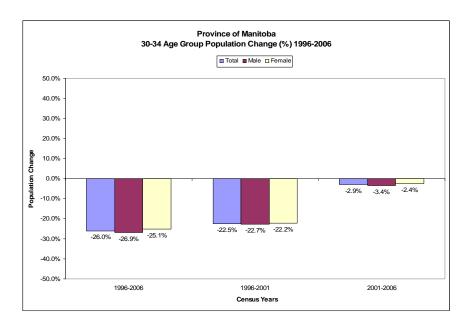
The number of people aged 20 to 24 years increased by 2.1% between 1996 and 2006. The number of males increased by 1.7% and the number of females by 2.5%. There was a decline between 1996 and 2001 of 4.5%, which was the result of a 5.6% decrease in males and a 3.4% decrease in females. Between 2001 and 2006, there was a 6.3% increase in the number of people in this age group. The number of males increased by 6.8% and the number of females by 5.8%.



The number of people aged 25 to 29 years decreased by 7.4% between 1996 and 2006. The 8.6% decrease in the number of males was slightly higher than the 6.2% decrease in the number of females. Most of the decline occurred between 1996 and 2001 when the number of both genders decreased by about 7%. Little change was recorded between 2001 and 2006.

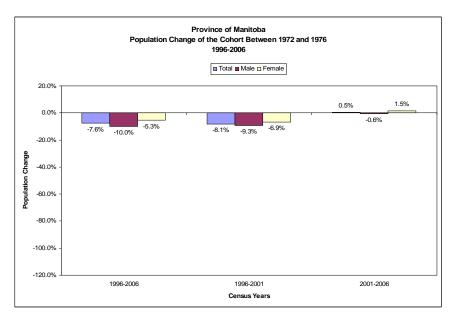


The number of people aged 30 to 34 years declined by 26% between 1996 and 2006; the number of males went down by 26.9% and the number of females by 25.1%. Most of the decline occurred between 1996 and 2001 when the number of both genders decreased by about 22%. The 2.9% decline between 2001 and 2006 was due to a 3.4% decrease in the number of males and a 2.4% decrease in the number of females.

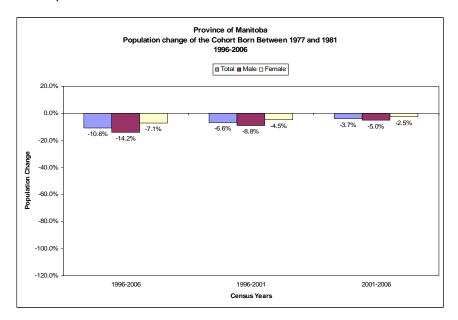


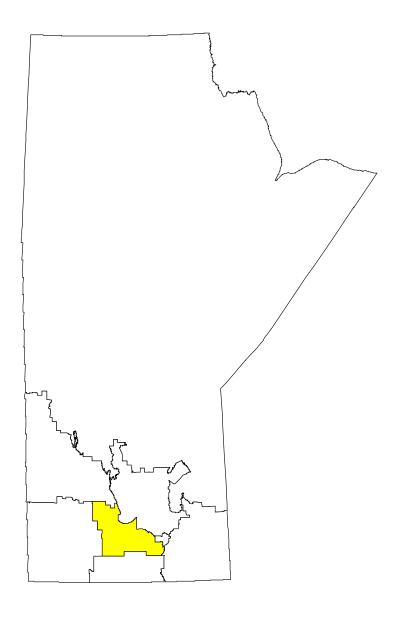
Cohort Analysis

The population of the cohort born between 1972 and 1976 declined by 7.6% between 1996 and 2006. The 10% decline in males was about double the 5.3% decline in females. A significant portion of the decline occurred between 1996 and 2001 when the total male and female populations declined by 8.1% (9.3% and 6.9%, respectively). The increase between 2001 and 2006 was below one percent. The female population slightly increased and the male population slightly decreased.



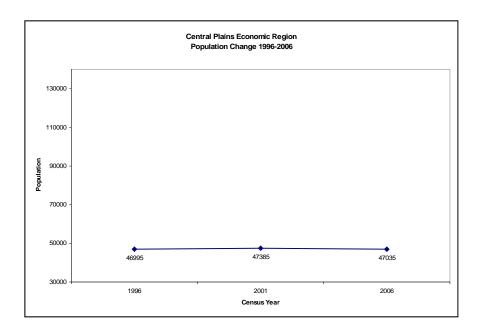
Between 1996 and 2006, the number of people born between 1977 and 1981 living in Manitoba declined by 10.6%. The 14.2% decline in males was double the 7.1% decline in females. Most of the decline occurred between 1996 and 2001 when the population of the cohort decreased by 6.6%. There was a 3.7% decline between 2001 and 2006. The decline in males was double the decline in females during both time periods.

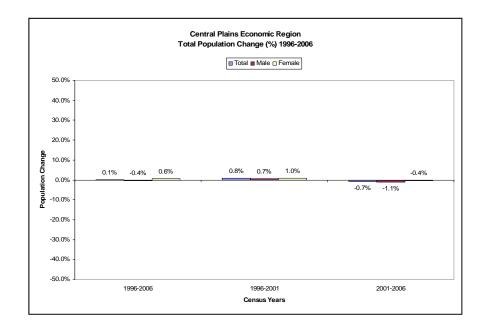




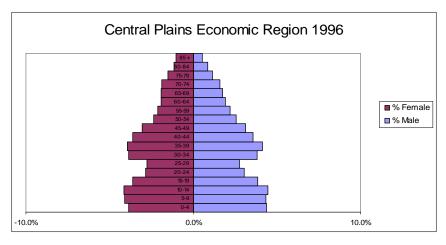
Total Population

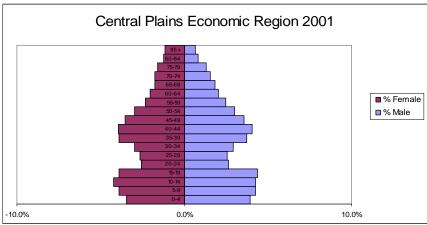
There was little change in the population of the Central Plains economic region. Between 1996 and 2006, the number of residents in the region increased by only forty people from 46,995 to 47,035, a change of 0.1%. There was no noticeable difference in population change between genders.

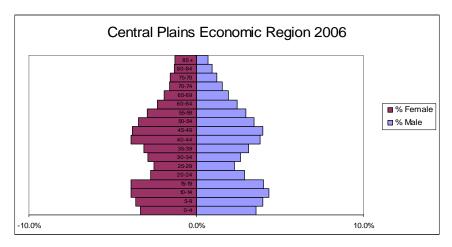




Population pyramid analysis indicated a stationary population, which reflected the minimal population change. This was demonstrated in the pyramids by a narrow base, somewhat equal numbers in each age group and a tapered top.

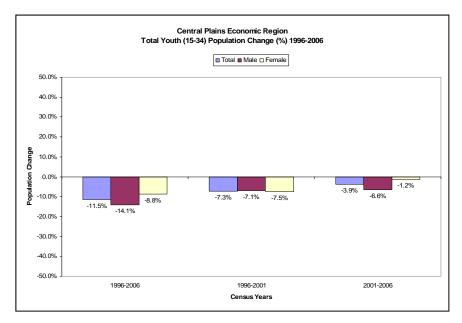




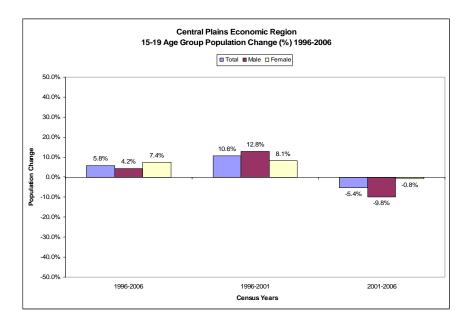


Youth Population

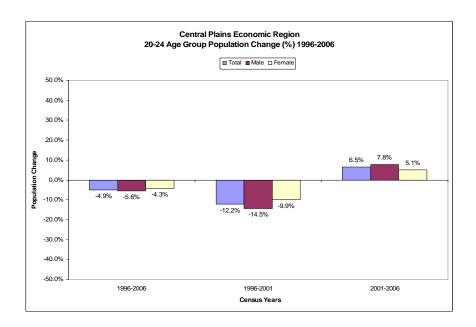
The number of people aged 15 to 34 years in the economic region declined by 11.5% from 1996 to 2006. The number of males and females in this age range declined to different degrees, by 14.1% and 8.8% respectively. While the decline was similar between 1996 and 2001, there was a significant difference between the genders from 2001 to 2006 when the number of males aged 15 to 34 years declined by about 5% more than the number of females.



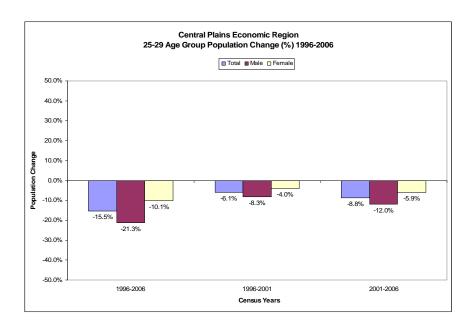
The number of people aged 15 to 19 years living in the region increased by 5.8% between 1996 and 2006. The overall increase in the number of females was higher than males by about 3%. These increases took place between 1996 and 2001. The number of people in this age range declined between 2001 and 2006. Changes to the number of males were the most significant, with the member increasing by 12.8% from 1996 to 2001 and decreasing by 9.8% from 2001 to 2006. The female population declined only slightly between 2001 and 2006.



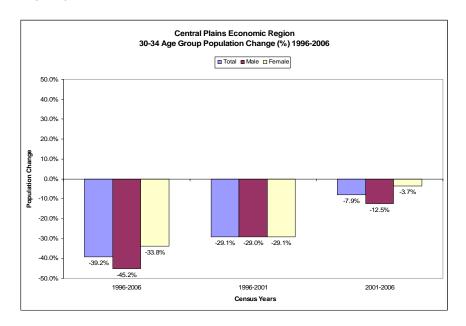
The number of people aged 20 to 24 years declined by almost 5% between 1996 and 2006. The decline occurred between 1996 and 2001 when the total number of people in this age group went down by 12.2%. The number of males and females went down by 12.2% (14.5% and 9.9%, respectively). There was a 6.5% increase in the number of people in this age group between 2001 and 2006, with the number of males increasing by 7.8% and females increasing by 5.1%.



The number of people aged 25 to 29 years declined by 15.5% between 1996 and 2006, with the decline in males outpacing the decline in females by over 10%. The decline between 2001 and 2006 was greater than the decline between 1996 and 2001. The decline in males was about 4% higher, and the decline in females was about 2% higher during this time period.

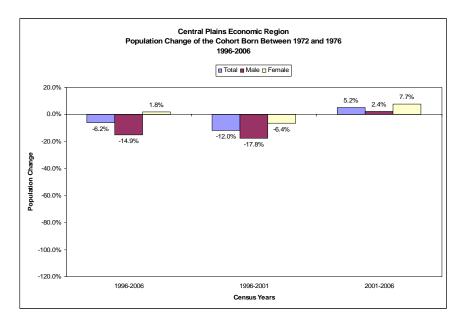


The number of people aged 30 to 34 years posted the largest decline of the age groups in the Central Plains economic region. The total decrease was 39.2% from 1996-2006. The number of males decreased by 45.2% and females by 33.8%. The number of males and females both declined by 29% between 1996 and 2001. The percentage of overall decline was lower, 7.9%, between 2001 and 2006. This could be attributed mostly to a decrease in males because their numbers went down by 12.5% while females went down by only 3.7%.

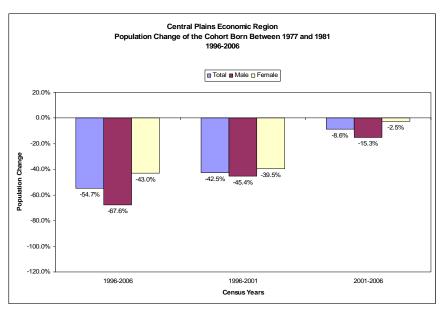


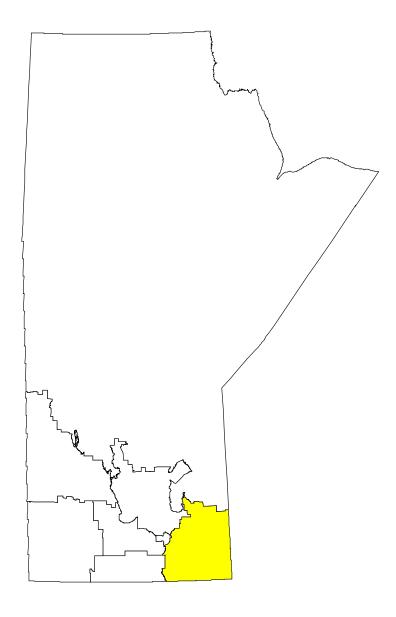
Cohort Analysis

For people born between 1972 and 1976, there was an overall decline of 6.2% between 1996 and 2006. The male population declined by 14.9%; however, the female population increased by 1.8%. The decline occurred between 1996 and 2001 when the total population for this cohort declined by 12%. The 17.8% decline in the number of males was far greater than the 6.4% decline in females. The population increased by 5.2% between 2001 and 2006. The female population grew more than the male population with a 7.7% increase in females and a 2.4% increase in males.



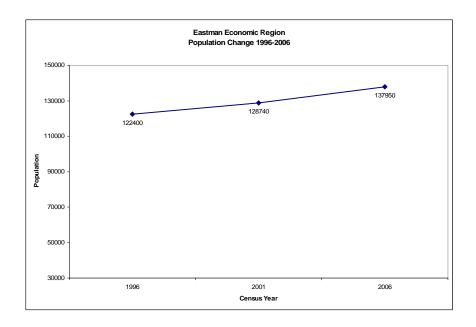
Between 1996 and 2006, the total number of people born between 1977 and 1981 living in the region declined by 54.7%. The number of males decreased significantly, more than the number of females, 67.6% versus 43%. The most significant decline in this cohort occurred between 1996 and 2001. The total male and female populations declined by 42.5% (45.4% and 39.5%, respectively). The 8.6% decline between 2001 and 2006 was primarily due to a 15.3% loss in the male population. Females went down by 2.5%.

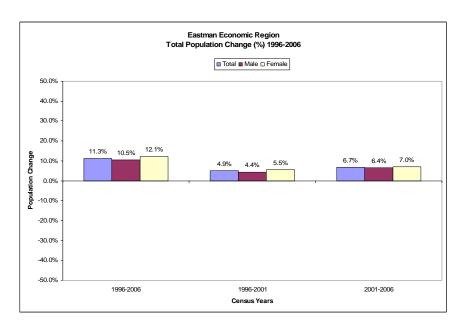




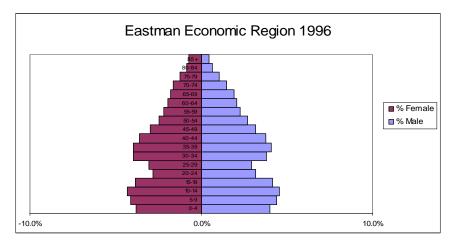
Total Population

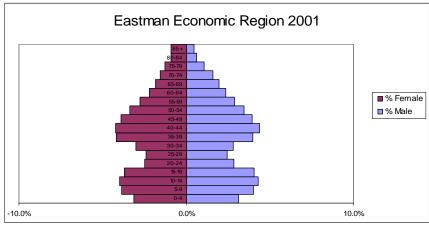
The population in the Eastman economic region increased by 11.3% between 1996 and 2006; from 122,400 people to 137,950. The rate of increase between genders was similar, with the number of males increasing by 10.5% and number of females increasing by 12.1%. Between 1996 and 2001, the total population increased by 4.9%, with the number of males going up by 4.4% and the number of females by 5.5%. There was a slightly higher increase between 2001 and 2006 when the number of people went up by 6.7%, and the population of both genders went up by approximately 7%.

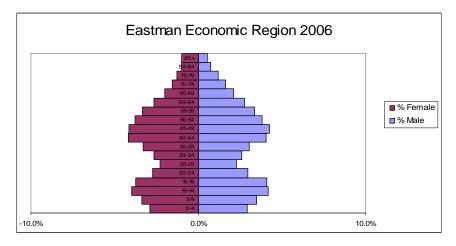




Population pyramid analysis indicated stable population growth in the Eastman economic region.

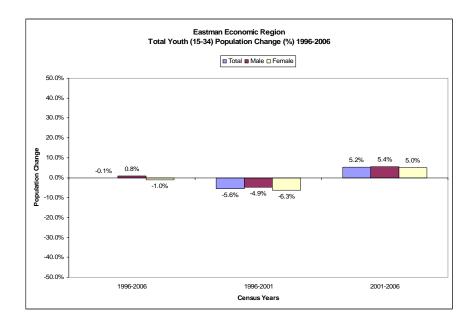




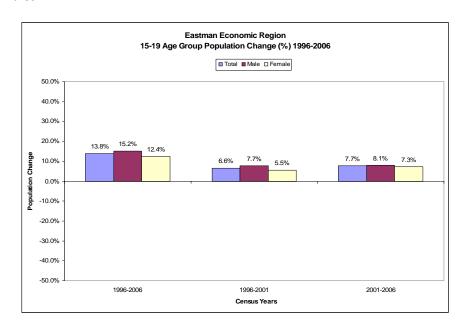


Youth Population

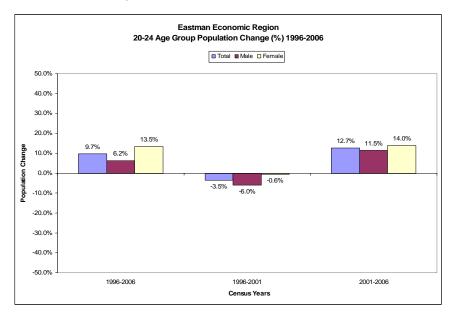
There was very little change between 1996 and 2006 in the number of people aged 15 to 34 years. The population decrease of 5.6% between 1996 and 2001 was offset by an almost similar increase of 5.2% between 2001 and 2006. There was very little difference in the amount of change for males and females changed.



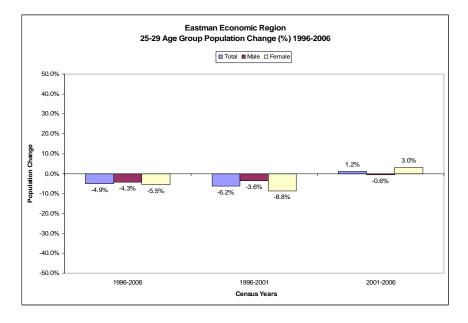
There was an increase in the number of people aged 15 to 19 years between 1996 and 2006. The overall increase was 13.8%: the number of males increased by 15.2% while the number of females increased by 12.4%. The 6.6% increase between 1996 and 2001 consisted of a 7.7% increase in males and a 5.5% increase in females. Also, the 7.7% increase between 2001 and 2006 was comprised of 8.1% males and 7.3% females.



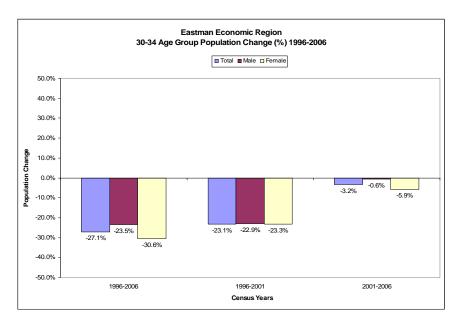
The number of people aged 20-24 years also increased in the Eastman economic region. The total increase between 1996 and 2006 was 9.7%. The number of females grew more than the male population, posting an increase of 13.5% versus 6.2%. There was a 3.5% decline between 1996 and 2001, which was largely due to a 6% decrease in the number of males. Between 2001 and 2006, the number of people in this age group grew by 12.7%. The number of males increased by 11.5% while the number of females increased by 14%.



Between 1996 and 2006, the number of people aged 25 to 29 years declined by 4.5%. The number of males decreased by 4.3% and the number of females by 5.5%. The bulk of the decline occurred between 1996 and 2001 when the overall population, males and females, decreased by 6.2% (3.6% and 8.8%, respectively). There was a small increase between 2001 and 2006 that was mostly due to a 3% increase in the female population.

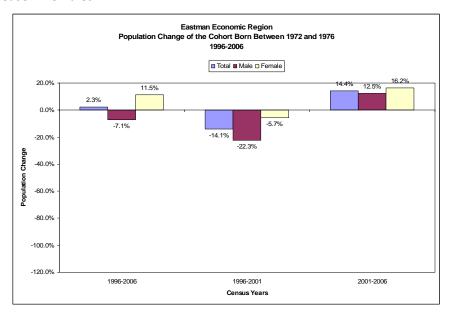


Between 1996 and 2006, there was a significant decrease in the number of people aged 30 to 34 years. The overall decline was 27.1%. The number of females declined the most, by 30.6%, while the number of males declined by 23.5%. Most of the decline happened between 1996 and 2001, when the overall male and female, populations all decreased by about 23%. The decline slowed between 2001 and 2006 when the total number of people in this age group decreased by only 3.2%, the male population by less than 1% and the female population by 5.9%.

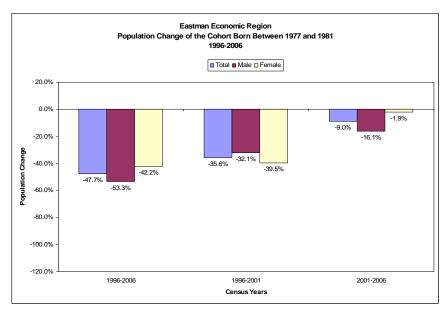


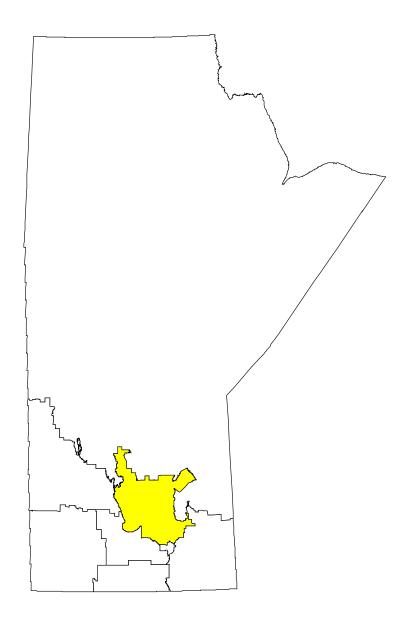
Cohort Analysis

The population of people born between 1972 and 1976 increased between 1996 and 2006. However, the male population decreased by 7.1% while the female population increased by 11.5%. The decline occurred between 1996 and 2001 when the total population went down by 14.1%. The number of males went down significantly, by 22.3%, while the number of females went down by only 5.7%. There was a total increase of 14.4% between 2001 and 2006. This was comprised of a 12.5% increase in males and a 16.2% increase in females.



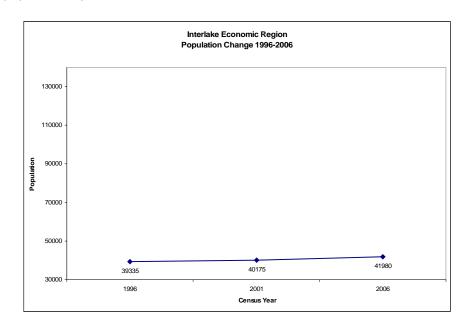
There was a 47.7% decline in the number of people born between 1977 and 1981 between 1996 and 2006. The 53.3% decrease in the number of males was just over 10% higher than the 42.2% decrease in the number of females. Between 1996 and 2001 the total population for this cohort declined by 35.6%, 39.5% decline in females and 32.1% decline in males. The declines continued from 2001 to 2006 but to a lesser degree, only 9%. The 16.1% decline in the number of males was significantly higher than the 1.9% decrease in the number of females.

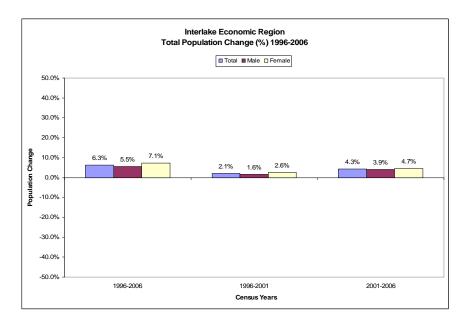




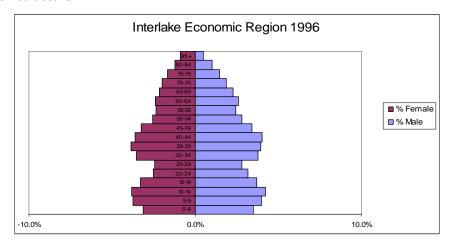
Total Population

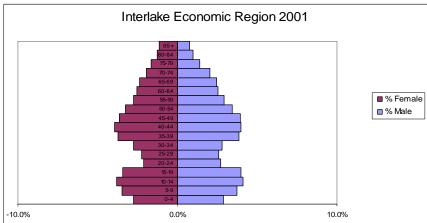
The Interlake economic region population changed from 39,335 to 41,980, a 6.3% increase, between 1996 and 2006; the number of males increased by 5.5% and females increased by 7.1%. Between 1996 and 2001 the overall population, males and females, increased by 2.1% (1.6% and 2.6%, respectively). Between 2001 and 2006, the overall population increased by 4.3%, the male population by 3.9% and the female population by 4.7%.

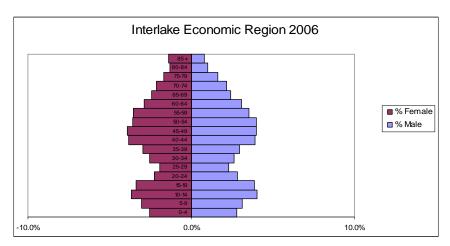




Population pyramid analysis indicated that the Interlake economic region had a stable growth population structure.

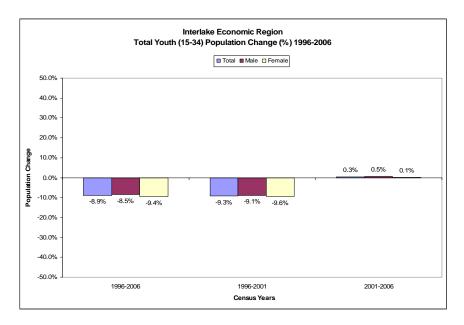




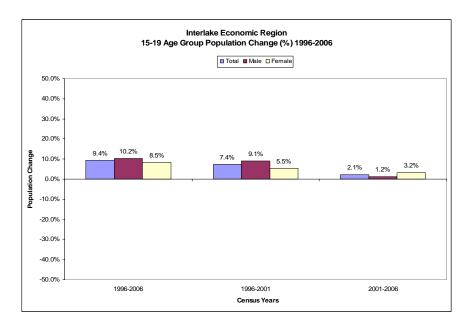


Youth Population

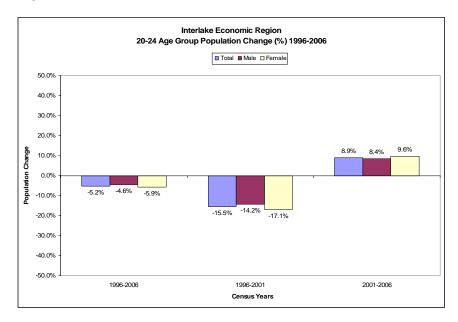
Between 1996 and 2006 the number of people aged 15 to 34 in the Interlake economic region declined by 8.9%. The number of males declined by 8.5% while the number of females declined by 9.4%. The declines took place between 1996 and 2001 where the total number of people in this age group declined by 9.3%: the males by 9.1% and the females by 9.6%. The increase between 2001 and 2006 was less than 1%.



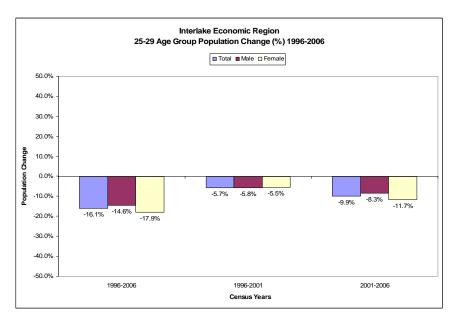
People aged 15 to 19 years was the only age group in the Interlake economic region that increased in number between 1996 and 2001. In total, it went up by 9.4% with the number of males increasing slightly more than females by 10.2% and 8.5%, respectively. Most of the increase occurred between 1996 and 2001 when the total number went up by 7.4%. The number of males increased by 9.1%, which was higher than the 5.5% increase in number of females. Between 2001 and 2006 increases for the overall, male and female populations, were 2.1% (1.2% and 3.2%, respectively).



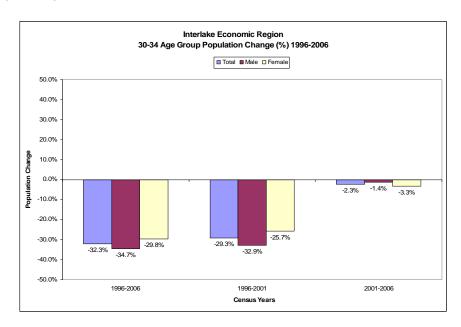
The number of people aged 20 to 24 years declined by 5.2% between 1996 and 2001. The number of males decreased by 4.65 while females decreased by 5.9%. The entire decline occurred between 1996 and 2001 when the total number went down by 15.5%. The number of females in this age group went down by 17.1%, which was higher than the 14.2% decline in males. In contrast, the number of people in this age group increased between 2001 and 2006 by 8.9%. The number of females increased by 9.6% which was higher than the 8.4% increase in males.



Between 1996 and 2006, the number of people living in the region aged 25 to 29 years declined by 16.1%. The number of females declined by about 3% more than the number of males. The decline between 1996 and 2001 was between 5% and 6% for both genders. The decline between 2001 and 2006, was higher with the total population going down by 9.9%, males by 8.3% and females by 11.7%.

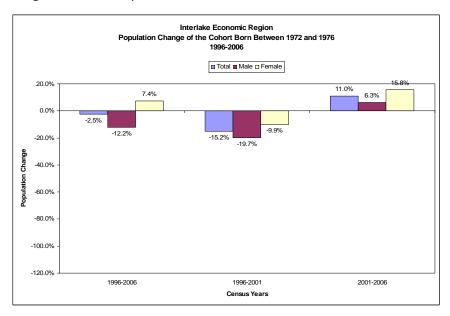


The number of people aged 30 to 34 years declined the most of the different age groups analyzed for the region. The overall decrease was 32.3% with the decline in males outpacing the decline in females (34.7% versus 29.5%). The most significant decline occurred between 1996 and 2001 when the total number declined by 29.3%; the males declined by 32.9% while the females declined by 25.7%. The decline was less between 2001 and 2006 in the total, male and female populations, by 2.3% (1.4% and 3.3% respectively).

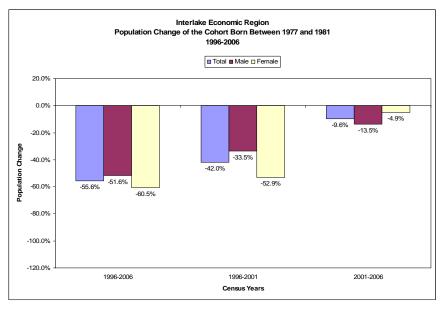


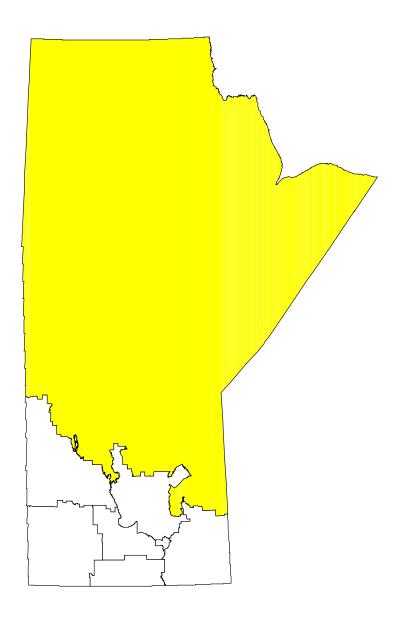
Cohort Analysis

There was a decrease in the population of people born between 1972 and 1976. The total decrease was 2.5%. The decline was due to a 12.2% decrease in the male population, and there was a 7.4% increase in the female population during this time period. The entire decline took place between 1996 and 2001 when the total population for this cohort decreased by 15.2% (19.7% decline in the number of males and 9.9% decline in the number of females). Between 2001 and 2006, the population of this cohort living in the region increased by 11%, with a 15.8% increase in females and a 6.3% increase in males.



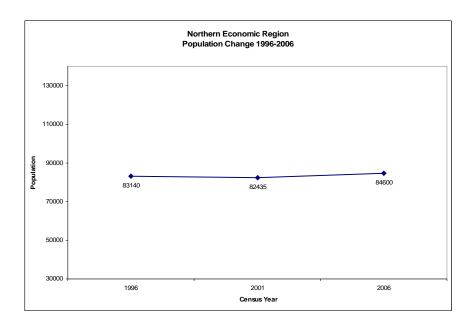
Between 1996 and 2006, there was a 55.6% decline in the number of people born between 1977 and 1981. The 60.5% decline in females was about 9% higher than the 51.6% decline in males. The most significant decline occurred between 1996 and 2001 when the population of this cohort declined by 42%. This was primarily due to a 62.9% decline in the number of females, which was almost 30% higher than the 33.5% decline in males. Between 2001 and 2006, the total, male and female populations, for this cohort declined by 9.6% (13.5% and 4.9%, respectively).

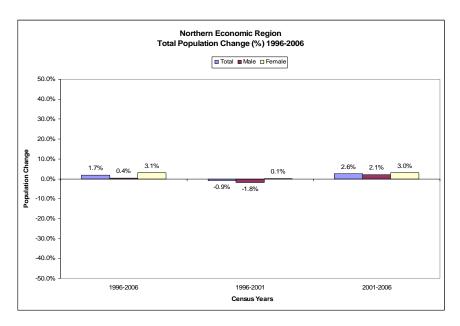




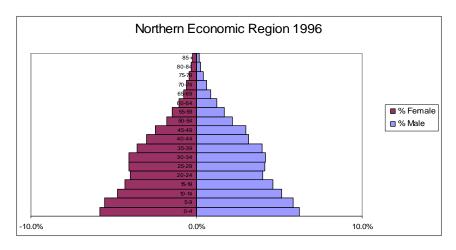
Total Population

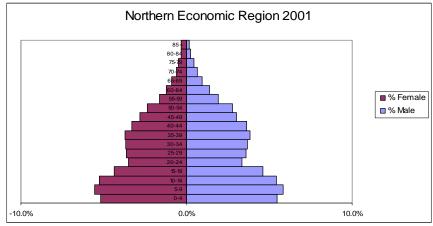
The number of residents in the Northern economic region increased from 83,140 to 84,600 or by 1.7%. The number of females grew by just over 3.1% while the increase in males was less than 1%. The population declined between 1996 and 2001, primarily due to the 1.8% decline in the number of males. There was an increase in population between 2001 and 2006 with the total, male and female populations, increasing by 2.6% (2.1% and 3%, respectively).

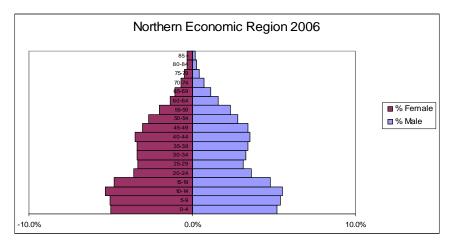




Population pyramid analysis for the Northern economic region indicated an expansive growth population structure. The pyramid shows a broad base that tapered off with the top.

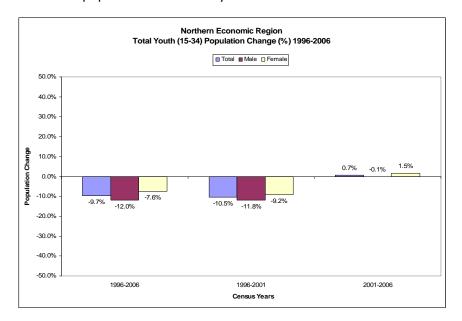




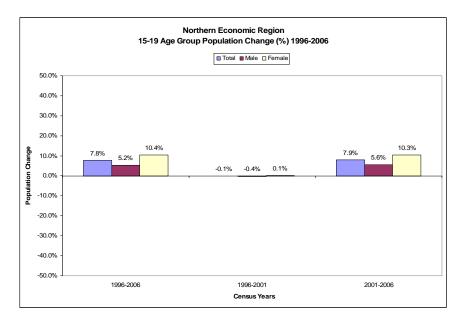


Youth Population

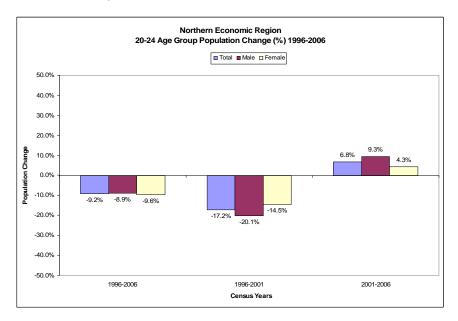
The total number of people aged 15 to 34 years in the region declined by 9.7% between 1996 and 2006. The number of males declined by 12%, which was just over 4% higher than the decline in the number of females. This decline occurred between 1996 and 2001 when the number of people living in the region went down by 10.5%; males decreased by 11.8% and females by 9.2%. There was a small increase in the number of people in this age group between 2001 and 2006; the male population stayed relatively the same and the female population increased by 1.5%.



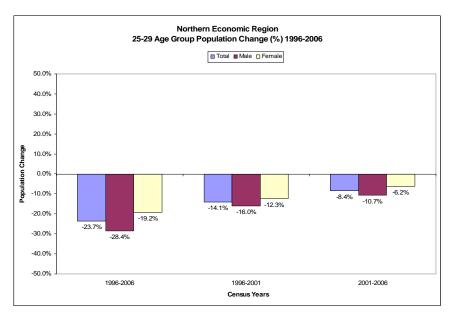
The number of people aged 15 to 19 years increased by 7.8% between 1996 and 2006. The number of females grew by 10.4%, which was about 5% higher than the increase in the number of males. The number of people in this age group remained pretty much the same between 1996 and 2001; the increase occurred between 2001 and 2006. During this time period, the total, male and female populations, increased by 7.9% (5.6% and 10.3%, respectively).



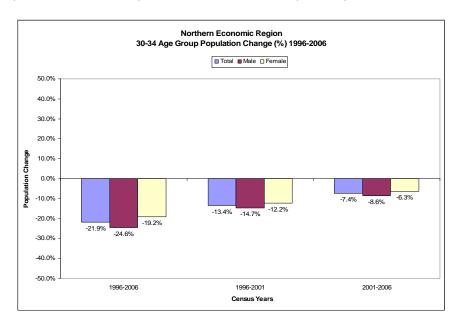
Between 1996 and 2006, the number of people aged 20 to 24 declined by 9.2%. Both genders declined to a similar extent. The decrease occurred between 1996 and 2006 when the total number declined by 17.2%. The number of males decreased by almost 6% more than the number of females (20.1% and 14.5%, respectively). There was an increase of 6.8% between 2001 and 2006. Males increased by 9.3% while females increased by 4.3%.



The number of people aged 25 to 29 years declined throughout the time period. Between 1996 and 2006 there was an overall decline of 23.7%. The number of males went down by 28.4%, while the number of females went down much less by 19.2%. The decline between 1996 and 2001 was larger than it was between 2001 and 2006. Between 1996 and 2001 the total, male and female populations, decreased by 14.1% (16% and 12.3%, respectively). In comparison, between 2001 and 2006, the total, male and female populations, declined by 8.4% (10.7% and 6.2%, respectively).

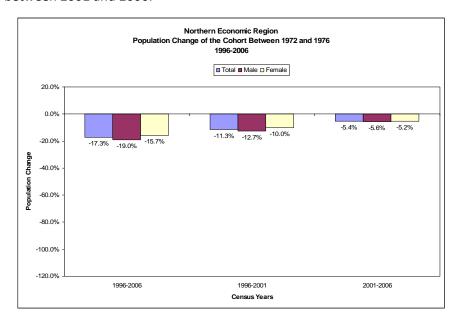


The number of people aged 30 to 34 years also declined throughout the time period. The total, male and female populations, for this age group decreased by 21.9% (24.6% and 19.2%, respectively), between 1996 and 2006. Similar to the previous age group, the decline in numbers was greater between 1996 and 2001 than it was between 2001 and 2006. Between 1996 and 2001, the overall decline was 13.4%; the number of males decreased by 14.7% and the number of females by 12.2%. The total, male and female populations, declined by 7.4% (8.6% and 6.3%, respectively), between 2001 and 2006.

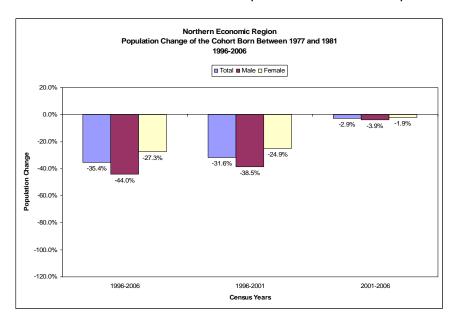


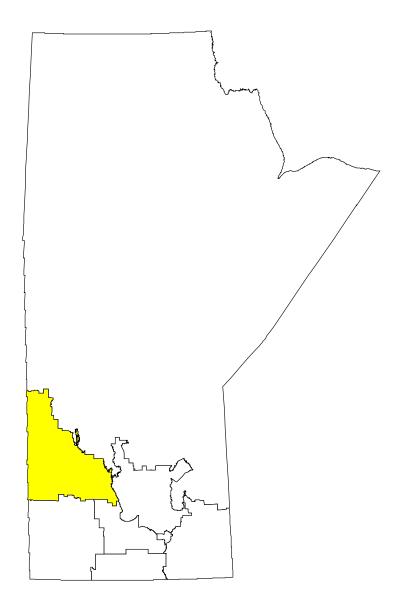
Cohort Analysis

The cohort born between 1972 and 1976 declined by 17.3% from 1996 to 2006. The number of males decreased by 19% and the number of females by 15.7%. The largest decline occurred between 1996 and 2001 when the total population of the cohort decreased by 11.3%. The number of males went down by 12.7% and the number of females by 10%. The total, male and female populations, all declined by just over 5% between 2001 and 2006.



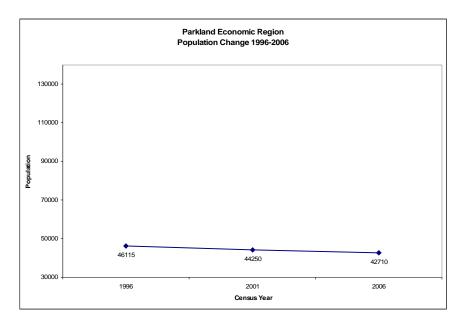
Between 1996 and 2001 the cohort born between 1977 and 1981 decreased by 35.4%. The 44% decline in the number of males was much higher than the 27.3% decline in females. The bulk of the decline occurred between 1996 and 2001 when the population of the cohort decreased by 31.6%. The number of males went down by 38.5% and the number of females by 24.9%. The decline between 2001 and 2006 was much less at 2.9%. The males declined by 3.9% and the females by 1.9%.

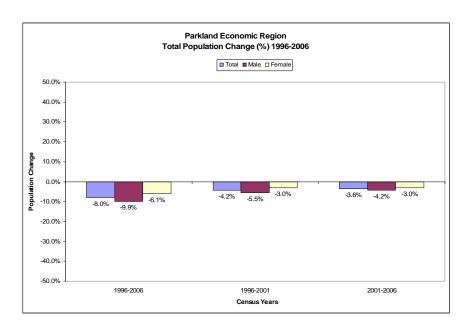




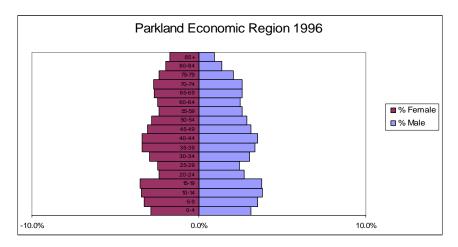
Total Population

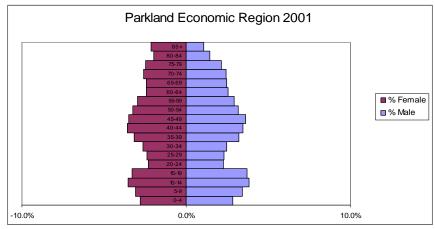
The population in the Parkland economic region went from 46,115 to 42,710 people between 1996 and 2006. This was a decline of 8%. The decrease in the number of males at 9.9% was almost 4% higher than the 6.1% decline in the number of females. Between 1996 and 2001, the population decreased by 4.2% with the number of males going down by 5.5% and the number of females by 3%. The population decline was slightly smaller between 2001 and 2006 with a decrease of 3.6%. The number of males went down by 4.2% and females by 3%.

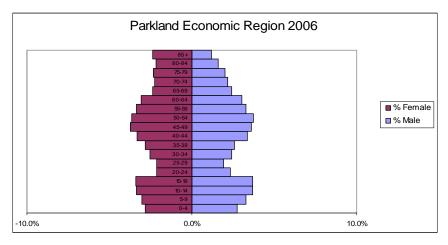




Population pyramid analysis indicated a declining population.

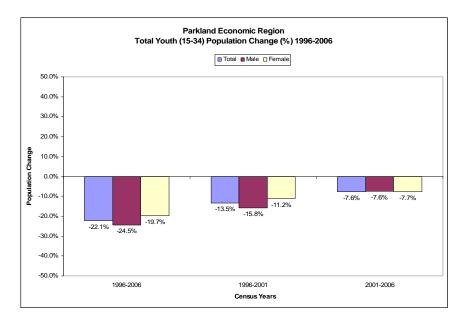




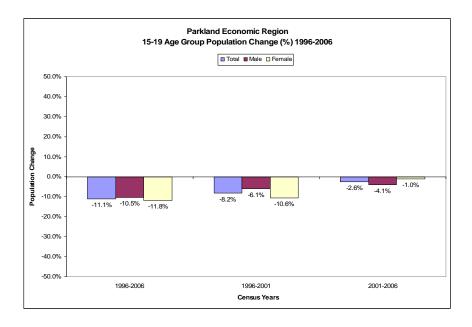


Youth Population

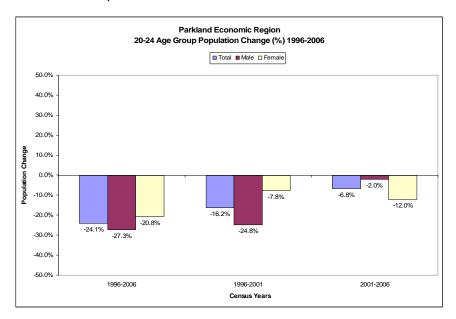
The number of people aged 15 to 34 years declined by 22.15 between 1996 and 2006. The 24.5% decline in males was higher than the 19.7% decline in females. The most significant decline occurred between 1996 and 2006 when the total number of people in this age group declined by 13.5%. The number of males declined by 15.8% and the number of females by 11.2%. Between 2001 and 2006, the number of males and females went down by just under 8%.



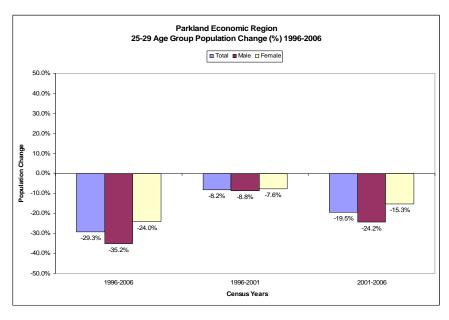
The number of people aged 15 to 19 years decreased by 11.1%, with the number of males going down by 10.5% and the number of females by 11.8%. Most of the decline occurred between 1996 and 2001 when the number of people in this age group went down by 8.2%. The 10.6% decline in the number of females was higher than the 6.1% decline in males. Between 2001 and 2006, the number of people in this age group went down by 2.6%. This time, the 4.1% decline in males was higher than the 1% decline in females.



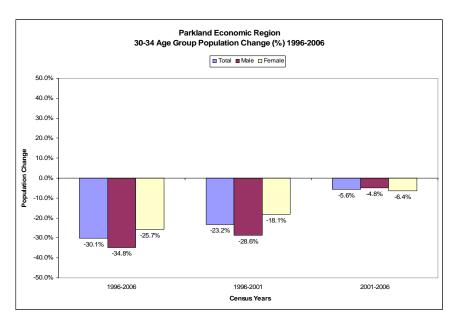
Between 1996 and 2006, the number of people aged 20 to 24 decreased by 24.1%. The number of males went down by 27.3% and the number of females by 20.8%. The 16.2% decline between 1996 and 2006 was primarily due to the 24.8% decline in the number of males. Females declined by 7.8%. In contrast, the 6.8% decline between 2001 and 2006 was primarily due to the 12% decrease in the number of females. Males declined by 2%.



The number of people aged 25 to 29 decreased by 29.3% between 1996 and 2006. The 35.2% decline in the number of males was more than 10% higher than the 24% decline in females. Between 1996 and 2001, the numbers of both genders declined by about 8%. The most significant decline took place between 2001 and 2006 and was mostly due to a decline in the number of males. The total, male and female decline populations, was 19.5% (24.2% and 15.3%, respectively).

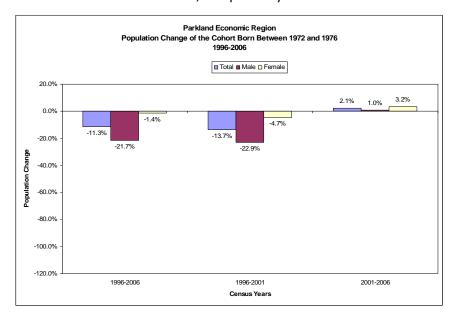


The number of people aged 30 to 34 years declined by 30.1% between 1996 and 2006. The 34.8% decline in males was almost 10% higher than the 25.7% decline in females. Most of the decline occurred between 1996 and 2001. The 23.2% decrease was due primarily to the 28.6% decrease in the number of males. Females went down by 18.1%. Between 2001 and 2006 the total, male and female populations, went down by 5.6% (4.8% and 6.4%, respectively).

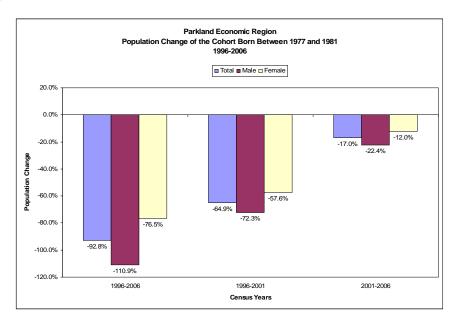


Cohort Analysis

Between 1996 and 2006, the total population of the cohort born between 1972 and 1976 declined by 11.3%. This was almost entirely due to a 21.7% decline in the number of males. The decline took place between 1996 and 2001 when the population of the cohort living in the region went down by 13.7%, with the number of males going down by 22.9% and the number of females by 4.7%. There was a small increase between 2001 and 2006 of 2.1%, due primarily to a 3.2% increase in females.



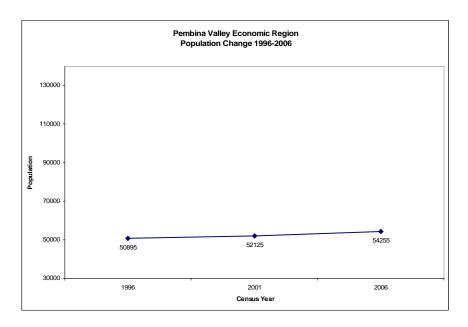
Between 1996 and 2006, the population of the cohort born between 1977 and 1981 decreased by 92.8%. The 110.9% decrease in the number of males was over 30% higher than the decrease in females (76.5%). Most of the decline occurred between 1996 and 2001 when the total population of the cohort decreased by 64.9%. The male population went down by 72.3% and the female population by 57.6%. The 17% decline between 2001 and 2006 was much smaller with males going down by only 22.4% and females by 12%.

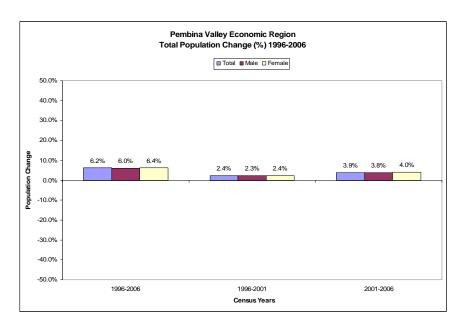




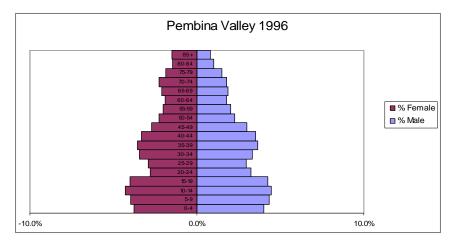
Total Population

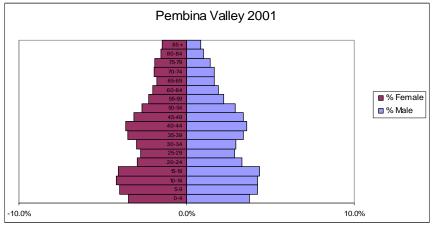
Between 1996 and 2006, the total population in the Pembina Valley economic region increased from 50,895 people to 54,255 people or by 6.2%. Both genders increased by about the same percentage. The increase was slightly lower between 1996 and 2001, with the total, male and female populations, all increasing by about 2%, while the number of males and females increased by about 4% between 2001 and 2006.

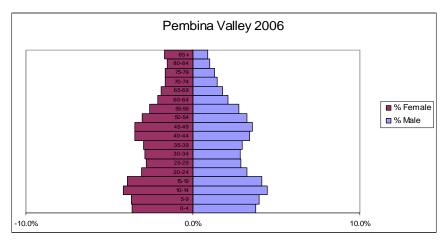




Population pyramid analysis for the Pembina Valley economic region indicated stable to expansive growth in the population. A somewhat broad base and indentations in the pyramid that tended to even out over time demonstrated this.

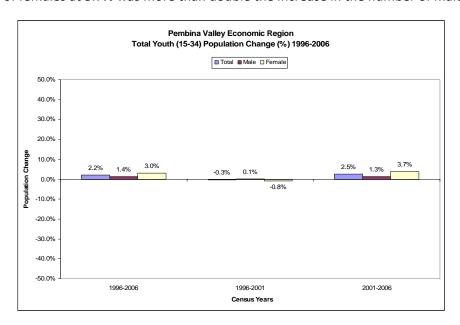




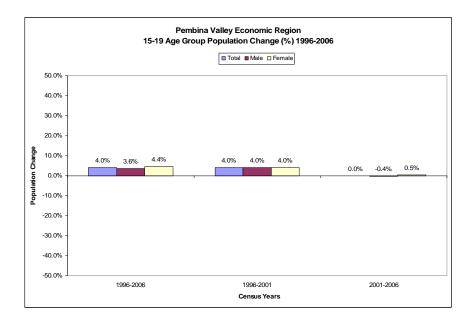


Youth Population

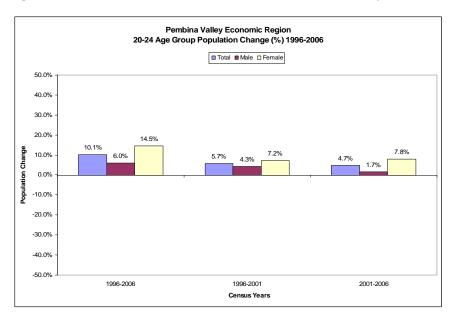
The total number of people aged 15 to 34 years grew by 2.2% between 1996 and 2006. The number of people in this age group remained essentially the same between 2001 and 2006 with most of the increase occurring between 2001 and 2006 when there was an increase of 2.5%. The increase in the number of females at 3.7% was more than double the increase in the number of males at 1.3%.



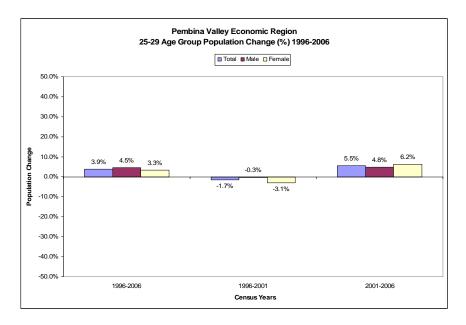
Both genders aged 15 to 19 years increased by about 4% between 1996 and 2006. For the most part, these increases took place between 1996 and 2001.



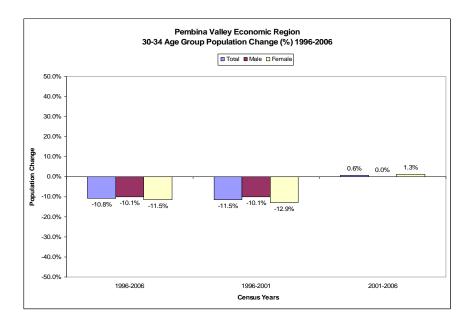
The number of people aged 20 to 24 years increased by 10.1% between 1996 and 2006, which was driven predominantly by a 14.5% increase in the number of females. The number of males increased by 6%. Between 1996 and 2001, there was an increased of 5.7%. The 7.2% increase in the number of females was about 3% higher than the increase in the number of males. Between 2001 and 2006, the number of people in this age group increased by 4.7%. The 7.8% increase in the number of females was about 6% higher than the increase in the number of males for this time period.



The number of people aged 25 to 29 years increased between 1996 and 2006. The total, male and female populations, increased by 3.9% (4.5% and 3.3%, respectively). There was a 1.7% decline between 1996 and 2001, which was due predominantly to a 3.1% decline in the number of females. There was an increase of 5.5% between 2001 and 2006. The 6.2% increase in the number of females was slightly higher than the 4.8% increase in the number of males.

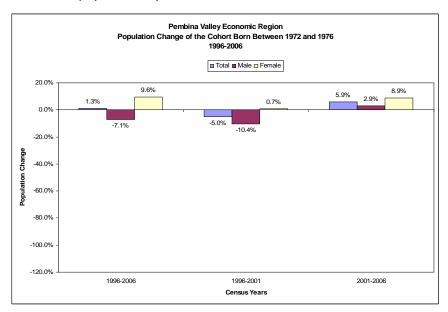


The number of people aged 30 to 34 years declined by 10.8% between 1996 and 2006. The number of males decreased by 10.1% and the number of females by 11.5%. The decline occurred between 1996 and 2001 when there was a decrease of 11.5%. The number of females declined by 12.9% and the decline in the number of males was somewhat lower at 10.1%.

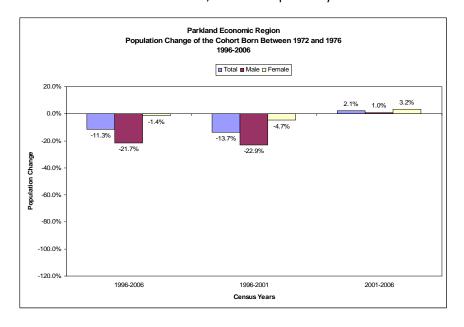


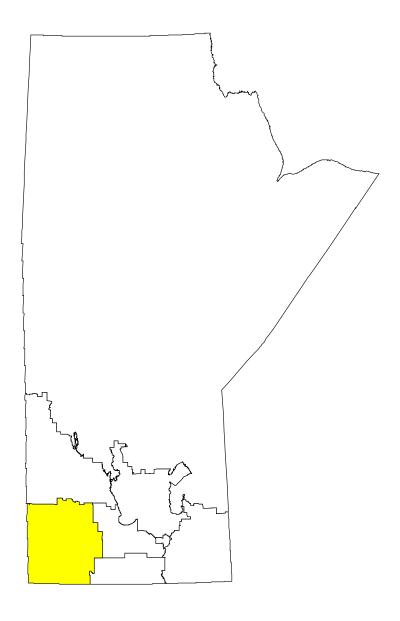
Cohort Analysis

The population of the cohort born between 1972 and 1976 increased by 1.3% between 1996 and 2001. The population change between the genders varied quite dramatically; the male population decreased by 7.1% while the female population increased by 9.6%. The total population of the cohort went down by 5% between 1996 and 2001, due primarily to the number of males going down by 10.4%. The population of the cohort increased by 5.9% between 2001 and 2006. The female population increased by 8.9% and the male population by 2.9%.



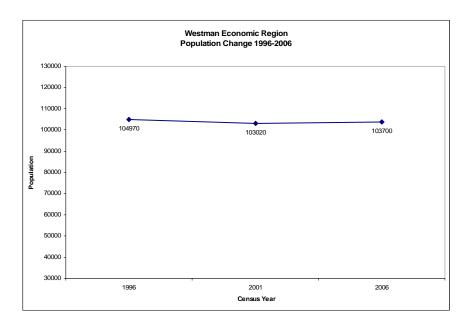
Between 1996 and 2006, the total population of the cohort born between 1977 and 1981 decreased by 36% in the region. The number of males decreased by 38.2% and the number of females by 33.8%. A majority of the decline occurred between 1996 and 2006 when the total, male and female populations, declined by 29.3% (25.8% and 33.3%, respectively). The declines between 2001 and 2006 were smaller. The overall decline in the cohort was 5.2%, which was primarily because of the 9.9% decline in males.

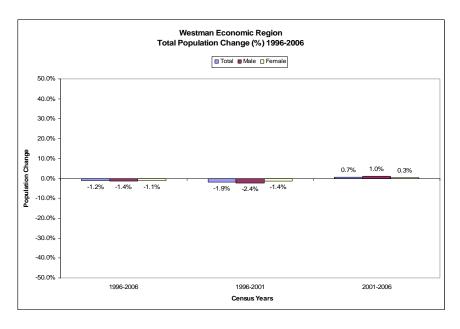




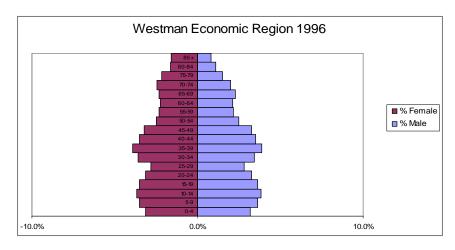
Total Population

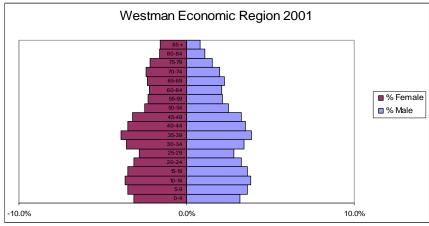
The total population in the Westman economic region declined by 1.2%, or from 104,970 people to 103,700 people, between 1996 and 2006. The population of both genders declined by about 1%. Most of the decline occurred between 1996 and 2006 when the total, male and female populations, declined by 1.9% (2.4% and 1.4%, respectively). There was very minimal change to the population between 2001 and 2006.

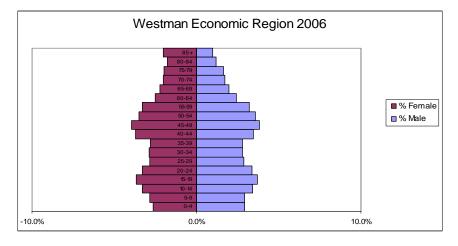




Population pyramid analysis for the Westman economic region indicated stable growth. The pyramid has a broad base and indentations that even out over time.

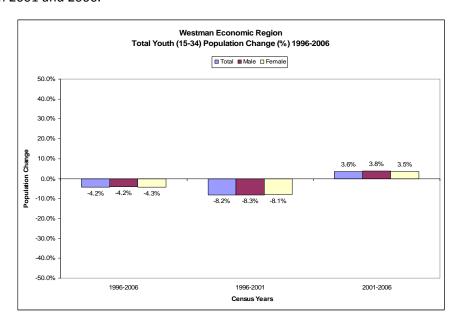




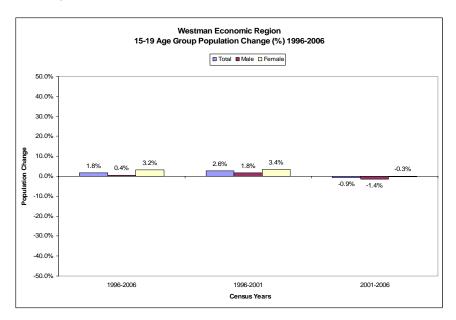


Youth Population

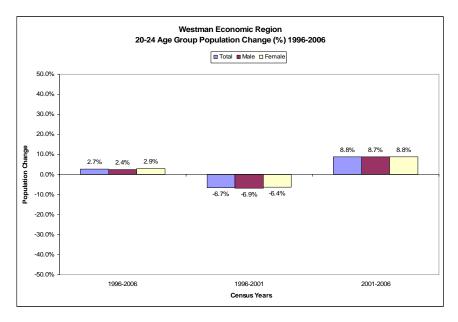
The total number of people aged 15 to 34 years living in the region decreased by about 4% between 1996 and 2001. The decline occurred between 1996 and 2001when the number of males and females decreased by just over 8%. In contrast, the number of males and females increased by just under 4% between 2001 and 2006.



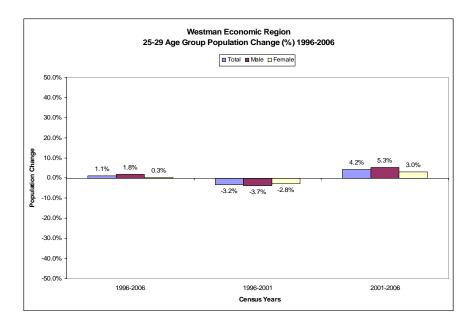
The number of people aged 15 to 19 years increased by 1.8% between 1996 and 2006, which was predominantly because of the 3.2% increase in the number of females. The increase took place between 1996 and 2001 when the total number went up by 2.6%. The 3.4% increase in the number of females was almost double the 1.8% increase in the number of males. The .9% decrease between 2001 and 2006 was predominantly because of the 1.4% decrease in the number of males.



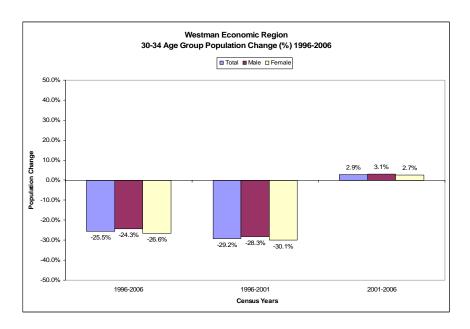
The number of people aged 20 to 24 years increased by 2.7% between 1996 and 2006. The number of males increased by 2.4% and the number of females by 2.9%. The decline between 1996 and 2006 was 6.7%, with the number of males and females going down by a similar percentage. The number of males and females in this age cohort increased by just less than 9% between 2001 and 2006.



The number of people aged 25 to 29 years changed very little between 1996 and 2006. The 3.2% decrease between 1996 and 2006 was countered by a 4.2% increase between 2001 and 2006.

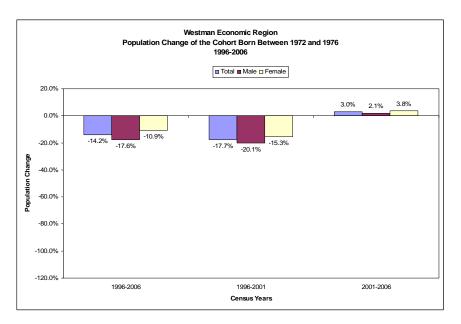


There was a significant decline in the number of people aged 30 to 34 years between 1996 and 2006. The total, male and female populations, decreased by 25.5% (24.3% and 26.6%, respectively). The decline occurred between 1996 and 2001 when the number of people in this age group went down by 29.2%. The number of males decreased by 28.3%, and the number of females decreased by 30.1%. Both the number of males and females increased by about 3% between 2001 and 2006.

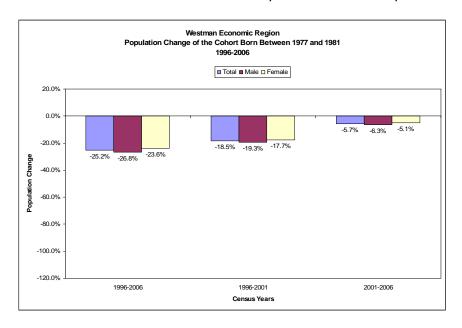


Cohort Analysis

Between 1996 and 2006, there was a 14.2% decrease in the number of people born between 1972 and 1976. The number of males went down by 17.6% and the number of females by 10.9%. The decline occurred between 1996 and 2001 when the total, male and female populations of the cohort declined by 17.7% (20.1% and 15.3%, respectively). In contrast, there was an increase between 2001 and 2006 when the total, male and female populations, increased by 3% (2.1% and 3.8%, respectively).



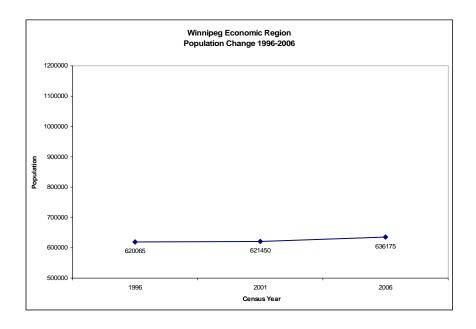
The number of people born between 1977 and 1981 declined by 25.5% between 1996 and 2006. The number of males decreased by 26.8% and the number of females by 23.6%. Most of the decline occurred between 1996 and 2006 when the total, male and female populations, decreased by 18.9% (19.3% and 17.7%, respectively). Between 2001 and 2006, the total decline of the population of this cohort was 5.7%. The number of males went down by 6.3% and females by 5.1%.

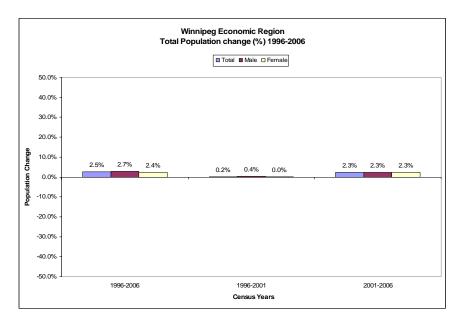




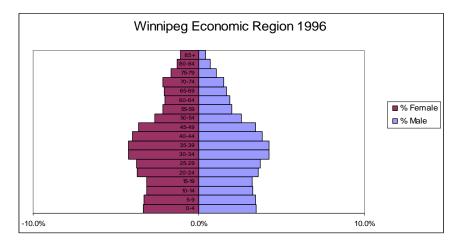
Total Population

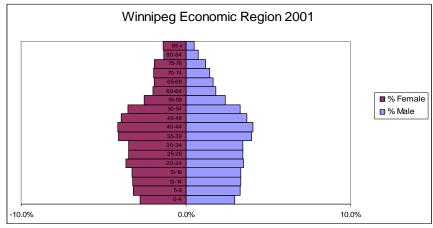
The population in the Winnipeg economic region increased from 620,065 people to 636,175 people, or by 2.5%, between 1996 and 2006. The number of males increased by 2.7% and the number of females by 2.4%. There was little change between 1996 and 2001, and the bulk of the increase took place between 2001 and 2006. The total, male and female populations, increased by 2.3%.

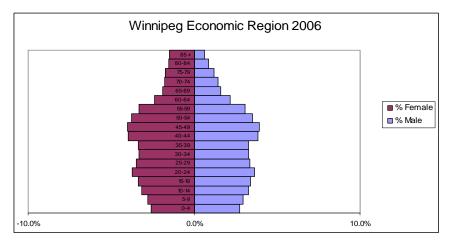




Population pyramid analysis for the Winnipeg economic region indicated a stationary population structure.

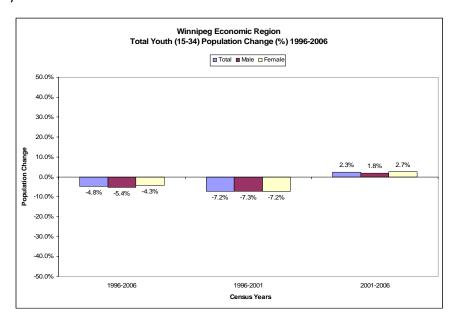




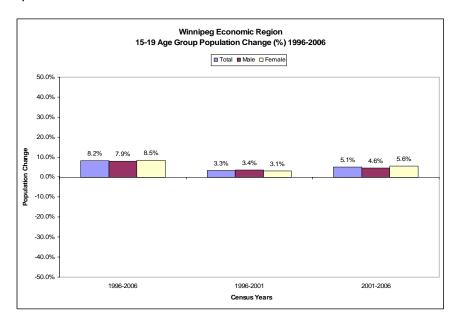


Youth Population

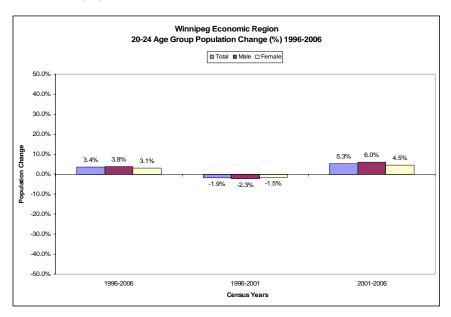
The number of people aged 15 to 34 years declined by 4.8% between 1996 and 2006. The number of males decreased by 5.4% and the number of females declined by 4.3%. The decline occurred between 1996 and 2001 when the numbers for both genders decreased by just over 7%. There was a 2.3% increase between 2001 and 2006. The number of males increased by 1.8% and the number of females by 2.7%.



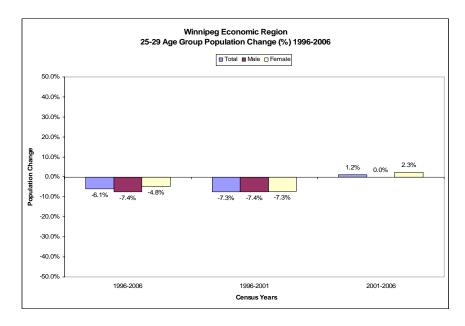
The number of people aged 15 to 19 years increased by 8.2% between 1996 and 2006. The number of males went up by 7.9% and the number of females by 8.5%. Between 1996 and 2001, the number of both genders in this age group increased by about 3%. Between 2001 and 2006, their numbers increased by about 5%.



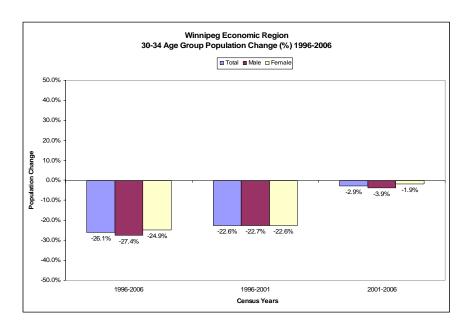
The number of people aged 20 to 24 years increased by 3.4% between 1996 and 2006. Both genders increased by about 3%. There was a 1.9% decrease between 1996 and 2001 when the number of males went down by 2.3% and the number of females by 1.5%. Between 2001 and 2006, there was an increase of 5.3%. The 6% increase in the number of males was slightly higher than the 4.5% increase in the female population.



There was a 6.1% decrease in the population of the 25 to 29 years cohort between 1996 and 2006. The 7.4% decrease in the number of males was higher than the 4.8% decrease in the number of females. Between 1996 and 2001, the population of both genders in this age cohort declined by just over 7%. The small increase between 2001 and 2006 was predominantly a result of the 2.3% increase in the number of females.

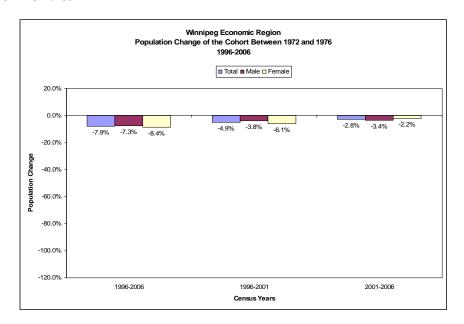


The population of the 30 to 34 years cohort decreased by 26.1% between 1996 and 2006. The number of males went down by 27.4% and the number of females by 24.9%. Most of the population decline occurred between 1996 and 2001 when the population of both genders decreased by just under 23%. The population decrease was much less between 2001and 2006, when the total, male and female population declines were 2.9% (3.9% and 1.9%, respectively).

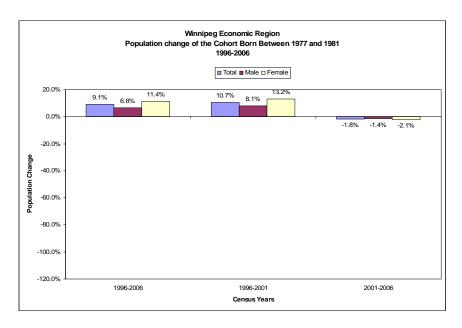


Cohort Analysis

Between 1996 and 2006, there was a 7.9% decrease in the number of people born between 1972 and 1976. This was comprised of a 7.3% decline in males and an 8.4% decline in females. The population of the cohort decreased by 4.9% between 1996 and 2006. The number of males decreased by 3.8% and the number of females by 6.1%. Between 2001 and 2006, there was a 2.8% decrease in the population of the cohort. This was due to a 3.4% decrease in males and a 2.2% decrease in females.



Between 1996 and 2006, the number of people born between 1977 and 1981 increased by 9.1%. The number of females increased by 11.4% and the number of males increased by 6.8%. The increase took place between 1996 and 2006 when the overall, male and female populations, increased by 10.7% (8.1% and 13.2%, respectively). There was a 1.8% decrease between 2001 and 2006. This was comprised of a 1.4% decrease in males and a 2.1% decrease in females.



CROSS REGION COMPARISONS

Age Groups

Comparisons made across economic regions can provide insight into different and similar population changes amongst age groups. The Parkland economic region suffered the most significant and persistent population decline. Between 1996 and 2006, this economic region was the only region to demonstrate a population decline in all age groups in both five-year periods.

Population decline within the age groups was greatest during the period 1996 to 2001; this was true in all regions. In the majority of cases, the population of the age group either declined from 1996 to 2001, and then increased between 2001 and 2006, or the decline between 1996 and 2001 was greater than the decline between 2001 and 2006. Between 1996 and 2001, the population of the 25 to 29 years age group declined in all eight economic regions. The lowest decline was in Pembina Valley when the total population for this age group went down by 1.7%. The highest decline was in the Northern economic region when the total number of people in this age group went down by 14.1%. For the 30 to 34 years age group, the population either declined or the decline was greater between 1996 and 2001 than from 2001 to 2006. The smallest difference between the two five-year periods occurred in the Northern economic region, when the decline between 1996 and 2001 was about 6% higher than the decline between 2001 and 2006. However, in every other economic region, the decline in this age group was between 10% and 30% higher between 1996 and 2001 than between 2001 and 2006. One notable exception was the 15 to 19 years age group in the Central Plains, Interlake, Pembina Valley, and Westman economic regions: the population of this age group in these regions either increased from 1996 to 2001 and then declined between 2001 and 2006 or the increase was greater between 1996 and 2001 than the increase between 2001 and 2006.

Total Population

Every economic region except for Parkland and Westman demonstrated a total population increase between 1996 and 2006. The Eastman economic region grew the most, while the Parkland economic region decreased the most; this was true for both five-year periods.

Total Youth (15-34) Years Population

Every economic region except Pembina Valley demonstrated a total youth population decrease between 1996 and 2006. During this ten-year period, the number of people in this age group living in the Pembina Valley economic region increased by 2.2%. The 22.1% decrease in the Parkland economic region was the highest total youth decline amongst the remaining regions. The Eastman economic region's 5.2% increase between 2001 and 2006 was the highest amongst the regions.

15-19 Years Age Group

Between 1996 and 2006, every economic region except Parkland demonstrated an increase in the number of people in the 15 to 19 years age group; there was an 11.1% decline in the Parkland economic region during this ten-year period. The highest overall increase between 1996 and 2006 occurred in the Eastman economic region, with a gain of 13.8%. However, the increase between 1996 and 2001 took place in the Central Plains economic region, 10.6%, while the greatest increase between 2001 and 2006 took place in the Northern economic region, at 7.9%.

20-24 Years Age Group

The number of people in the 20 to 24 years age group increased in the Eastman, Pembina Valley, Westman and Winnipeg economic regions, with the largest increase, around 10%, occurring in the Eastman and Pembina Valley economic regions. The largest increase between 1996 and 2001, took place in Pembina Valley (5.7%) and the largest increase between 2001 and 2006, took place in Eastman (12.7%). Similar to the previous age groups, the Parkland economic region posted the largest decline at 24.1%; however, the Northern economic region posted the largest decline in this age group, 17.2% between 1996 and 2001.

25-30 Years Age Group

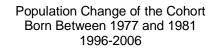
Between 1996 and 2006, the Pembina Valley and Westman economic regions had an increase in the number of people between 25 and 30 living in their regions. The increase in Pembina Valley's was the highest at 3.9%, while the Parkland economic region had the highest decline at 29.3%. As mentioned before, there were no increases in the population of this age group between 1996 and 2001. The highest increase between 2001 and 2006 was 5.5% in the Pembina Valley economic region, while the highest decrease occurred in the Parkland (19.5%).

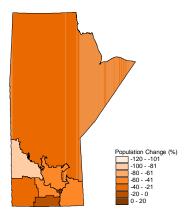
30-34 Years Age Group

It has already been noted that the number of people in the 30 to 34 years age group declined in every economic region from 1996 to 2006. The lowest decline during this ten-year period, 10.8%, occurred in the Pembina Valley economic region, while the highest decline occurred in Central Plains (39.2%). Between 1996 and 2001, the Central Plains, Interlake and Westman economic regions declined by about 30%, while the decline was only 11.5% in the Pembina Valley economic region. Westman was the only economic region with an increase between 2001 and 2006; the number of people in this age group living in the region increased by 2.9%. The largest decline during this five-year period, 7.9%, was in the Central Plains.

Age Cohorts

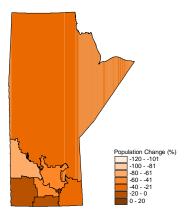
Maps have been created to show population changes across the province in the cohort born between 1972 and 1976 and the cohort born between 1977 and 1981. These maps are intended to provide a visual indication of how the population of these two cohorts living in each economic region has changed over time—the lighter the colour, the greater the decline in population. The overall conclusion coming out of these comparisons is that there were greater declines in the population of the cohort born between 1977 and 1981 than there was in the cohort born between 1972 and 1976.





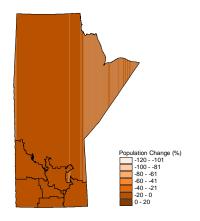
As the map indicates, the population of this age cohort declined in every economic region except Winnipeg between 1996 and 2006. The largest decline during the ten-year period occurred in the Parkland economic region. The population of the cohort declined slightly less in the Central Plains, Eastman and Interlake economic regions and to a lesser extent in the Westman and Northern economic regions. The decline was the smallest in the Pembina Valley economic region.

Population Change of the Cohort Born Between 1977 and 1981 1996-2001

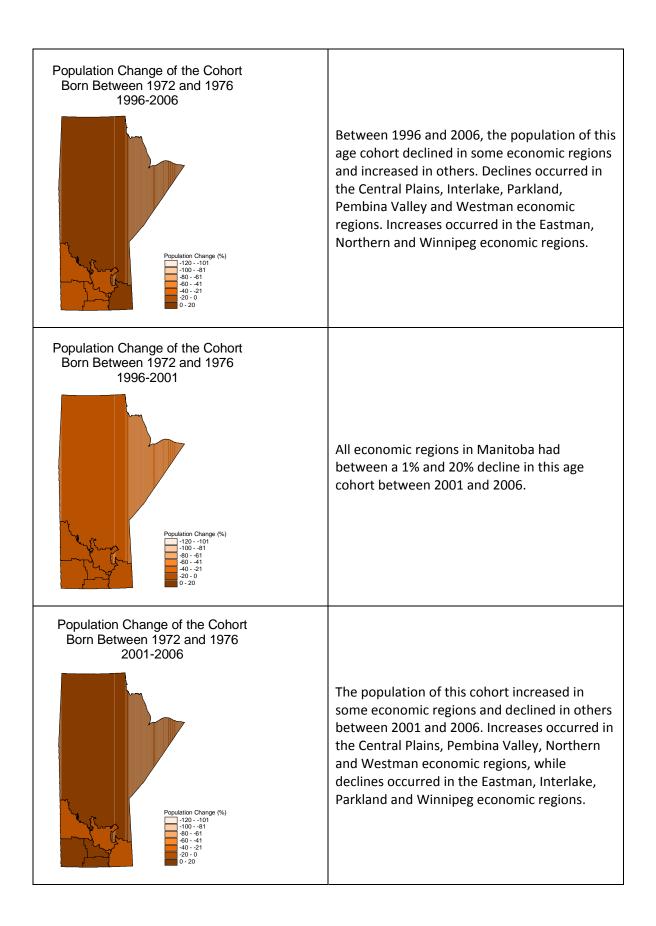


With the exception of the Winnipeg economic region, the population of this age cohort declined between 1996 and 2001 across the province. The decline was most acute in Parkland economic region, which was followed by declines in Eastman and Northern economic regions. The Central Plains and Interlake economic regions had the next smallest decline, while Westman and Pembina Valley economic regions had the smallest declines in the population of this age cohort.

Population Change of the Cohort Born Between 1977 and 1981 2001-2006



All economic regions in Manitoba had between a 1% and 20% decline in this age cohort between 2001 and 2006.



REFERENCES

- Statistics Canada. 2008. Ottawa, Ontario (table). 2006 Community Profiles. 2006 Census.
- Statistics Canada Catalogue no. 92591XWE. Ottawa. July 24. www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E (accessed April 9, 2009).
- Statistics Canada. 2007. Learning resources: population pyramids. Statistics Canada. Ottawa. www.statcan.ca/english/kits/animat/pyone.htm (accessed April 9, 2009).
- Statistics Canada. 2004. Profile of Census Divisions and Subdivisions. Ottawa: Industry Canada. 2001 Census of Canada. Catalogue number 95211XPB.
- Statistics Canada. 1999. Ottawa, Ontario (table). Profile of Census Divisions and Subdivisions. 1996
 Census. Statistics Canada Catalogue no. 94F0048XWE.
 Ottawa.www12.statcan.ca/english/census96/data/profiles/DataTable.cfm?YEAR=1996&LAN
 G=E&PID=35782&S=A&GID=202764 (accessed April 9, 2009).

RDI ADVISORY COMMITTEE

Scott Grills, Chair Brandon University Brandon, MB

Mona Cornock

Manitoba Agriculture, Food and Rural Initiatives Brandon, MB

Larry Flynn

Public Health Agency of Canada Winnipeg, MB

Kim Beilby

Manitoba Agriculture, Food and Rural Initiatives Brandon, MB

Reg Helwer

Shur-Gro Farm Services Brandon, MB

Elliot Hewitt

Agriculture and Agri-Food Canada Calgary, AB

Ben Maendel

Baker Hutterite Colony MacGregor, MB

Jonathon Maendel

Baker Hutterite Colony MacGregor, MB

Darell Pack

Agriculture and Agri-Food Canada Winnipeg, MB

W.J. (Bill) Pugh

Meyers Norris Penny Brandon, MB

Fran Racher

Brandon University Brandon, MB

Doug Ramsey

Brandon University Brandon, MB

Frank Thomas

Canadian Imperial Bank of Commerce Brandon, MB

Larry Wark

MTS Communications Inc. Brandon, MB

Dion Wiseman

Brandon University Brandon, MB

Wm. (Bill) Ashton, Director RDI, Brandon University Brandon, MB

The role of the RDI Advisory Committee is to provide general advice and direction to the Institute on matters of rural concern. On a semi-annual basis the Committee meets to share information about issues of mutual interest in rural Manitoba and foster linkages with the constituencies they represent.