Population Projection

Alberta and Census Divisions, 2018–2046

In 2046, Alberta's projected population is expected to:

- Reach 6.4 million, an increase of roughly 2.1 million people from 2017.
- Become older, with an average age of 41.6 years, up from 37.9 years in 2017.
- Become increasingly diverse, as arrivals from other countries account for about 48% of the expected growth.
- Become more concentrated in urban centres, especially along the Edmonton-Calgary corridor; by 2046 almost 8 in 10 Albertans are expected to live in this region.

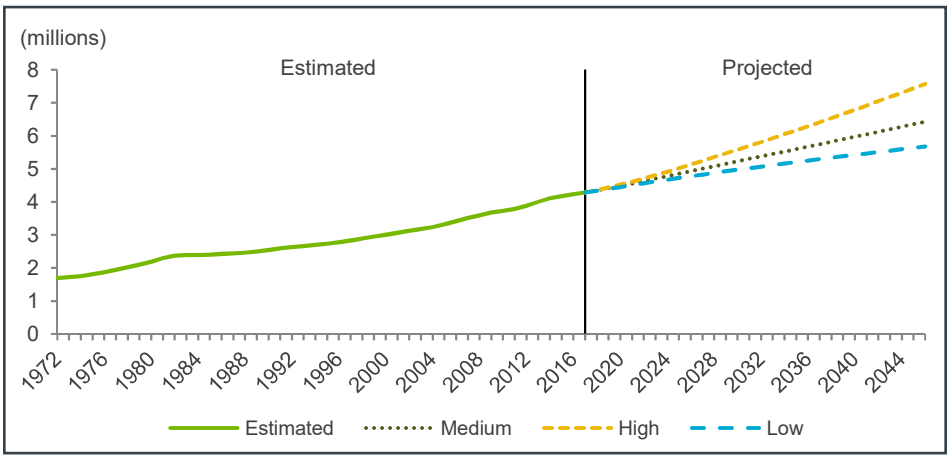
Population projections are now available for the period of 2018 to 2046 for Alberta and its 19 census divisions. Three different sets of assumptions (low, medium and high population growth scenarios) were prepared. This document highlights some characteristics of Alberta's projected population, focusing mainly on the results of the medium (reference) scenario unless otherwise indicated.

Alberta Population Projections

Alberta to see continued population growth overall

By 2046, Alberta is expected to be home to about 6.4 million people, representing an average annual growth rate of about 1.4% or an increase of about 2.1 million people from 2017 (Figure 1). This growth is lower than the 2.0% experienced over the previous 25 year period (1992 to 2017). Alberta's population is projected to surpass the 5 million mark by 2027, and will reach the 6 million mark by 2041. Under the low and high scenarios, Alberta's total population in 2046 is projected to be around 5.7 million and 7.6 million; gains of 1.4 million and 3.3 million, respectively.

Figure 1: Population of Alberta, 1972-2046



Sources: Statistics Canada and Alberta Treasury Board and Finance

Following the recession, Alberta's economy posted a strong recovery and is likely to grow over the medium term. As a result, population growth is forecasted to improve from a low of 1.2% in 2017 (Figure 2). Between 2017 and 2021, average annual growth is expected to be 1.5%, compared to 2.0% in the 2012-2017 period. A slight recovery is expected between 2021 and 2026, where the average annual gain in population is expected to climb to 1.6%. In the latter part of the projection period (2026 to 2046), population growth is expected to slow gradually to an average annual rate of 1.3% due to moderating net migration, lower natural increase and population aging.

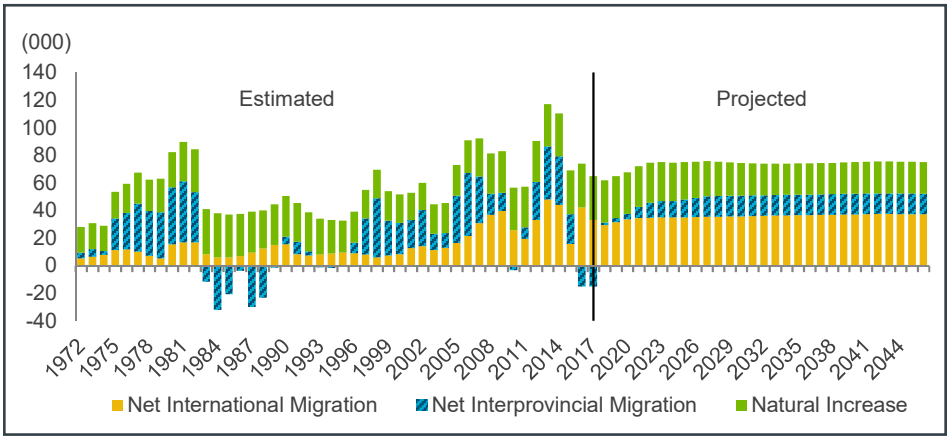
Migration to Alberta is heavily dependent on the prevailing economic situation. After two years of diminished net inflows, migration to Alberta is forecasted to pick up slowly alongside the improving economy. The net outflows of interprovincial migrants between 2016 and 2017 slowed population growth, however, Alberta has turned a corner and is forecasted to see net inflows of interprovincial migrants beginning in 2018. Immigration is forecasted to soften slightly in 2018, but should remain well above its long term historical trend, while net outflows of non-permanent residents are expected to taper off in the next few years in response to Federal changes to the Temporary Foreign Worker Program.

In all three scenarios, future population growth is mainly driven by migration, particularly international migration. Total net migration from all sources (1.42 million people)

is projected to account for about two-thirds of Alberta's population growth under the medium scenario, with natural increase accounting for the remaining 34% (Figure 2). Of the anticipated net migrants, roughly three-quarters would come from other parts of the world. After hitting a low point in 2017, total net migration is expected to pick up as the economy improves.

Figure 2: Components of Population Growth, 1972-2046

Alberta



Sources: Statistics Canada and Alberta Treasury Board and Finance

International migration: a primary population growth driver

About 48% of the expected population growth over the projection period will be due to international migration (Figure 2), representing a net gain of about 1,037,000 people. The addition of new residents from other countries will continue to add to the diversity of the province.

Alberta remains attractive to interprovincial migrants

Reflecting the recent recession in 2015 and 2016, net outflows of interprovincial migrants occurred in 2016 and 2017 as interprovincial migration reacted with a lag to economic changes. This trend is expected to reverse itself as commercial activity recovers (Figure 2). The inflows are expected to increase as the economy improves over time. Net interprovincial migration will account for 18% of the growth, or around 379,000 new residents, between 2017 and 2046 under the medium scenario.

Natural increase remains a significant, but diminishing source of growth

Natural increase (births minus deaths) is expected to continue to have a positive impact on the province's growth, adding about 722,000 people by 2046 (Figure 2). The magnitude that natural increase contributes to population growth is expected to be partly influenced by migration patterns. The majority of the over 1.4 million (net) migrants projected to arrive over the next 29 years will be young adults aged 18-34. This expansion of Albertans in child-bearing ages may result in an increased number of births over the projection period. Despite this, the impact of natural increase on growth will diminish over time, as deaths are expected to increase rapidly with the advanced aging of the baby boom cohort.

For instance, on an average day in 2017, 157 new Albertans were born while about 70 people died. By 2046, the average number of daily deaths is expected to double (140), while births will likely increase to around 202. The narrowing gap between births and deaths in the future means that the average daily population gain due to natural increase will drop to 62 by 2046 from 87 in 2017.

Albertans are expected to live longer

A girl born in Alberta in 2017 could expect to live to 83.4 years of age, while a boy could live to 79.0 years. Under the medium scenario, life expectancy at birth for females is projected to rise to 87.1 by 2046, while life expectancy for males is expected to reach 83.5 years. Consistent with historical trends, males are expected to see faster gains in life expectancy, and consequently the gap between females and males is also expected to narrow from 4.4 years in 2017 to 3.6 years in 2046.

A man reaching age 65 in 2017 could expect to live, on average, another 18.9 years, compared to 21.8 for women. Life expectancy at age 65 is projected to increase to 21.3 years for men and 24.2 for women by 2046.

Alberta's population getting older

Alberta was the youngest province in 2017. However, its population is aging due to below replacement fertility and rising life expectancy. Despite the anticipated addition of a substantial number of young people through migration, population aging is expected to continue over the projection period (Figure 3). In 2017, the average age[1] of individuals in the province was 37.9 years and is projected to climb to 41.6 by 2046.

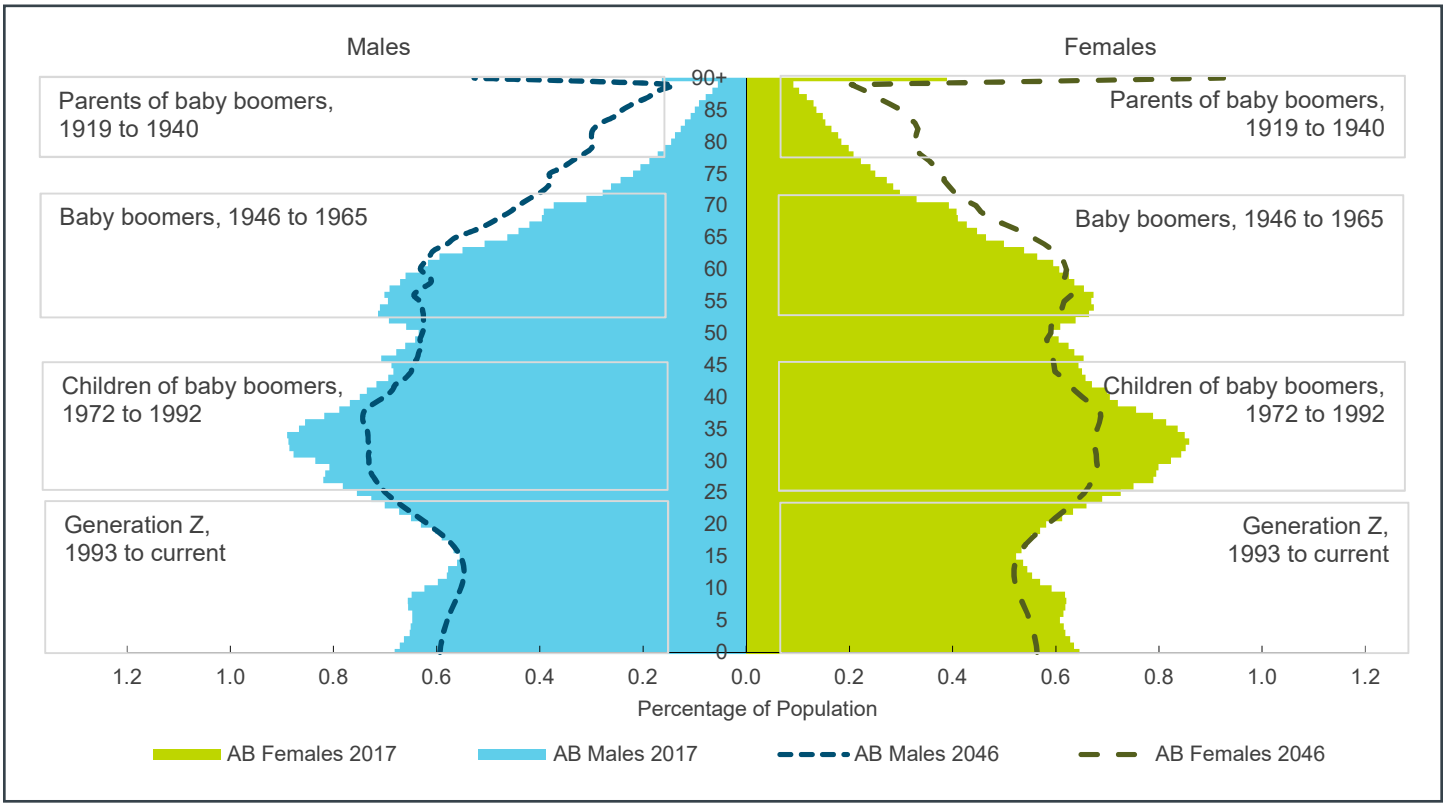
Baby boomers accelerate aging

The large baby boom cohort, who were born between 1946 and 1965, will have a significant impact on the rate of population aging over the next few decades. In 2017, these Albertans were aged 52 to 71 years and accounted for about 22% of the population (Figure 3). As the baby boomers get older, aging is expected to accelerate until 2030, when the last of that large group reaches the age of 65.

Those aged 65 and older represented about 12% of the population in 2017. Under the medium scenario, almost one in five, or 19% are expected to be 65 and older by 2046.

[1] Average age has replaced median age in these projections as it adjusts better for changes in the age structure as the baby boomers become increasingly older.

Figure 3: Alberta's Population Pyramids, 2017 vs. 2046



Sources: Statistics Canada and Alberta Treasury Board and Finance
Note: Information boxes indicate generations in 2017.

Males may continue to outnumber females

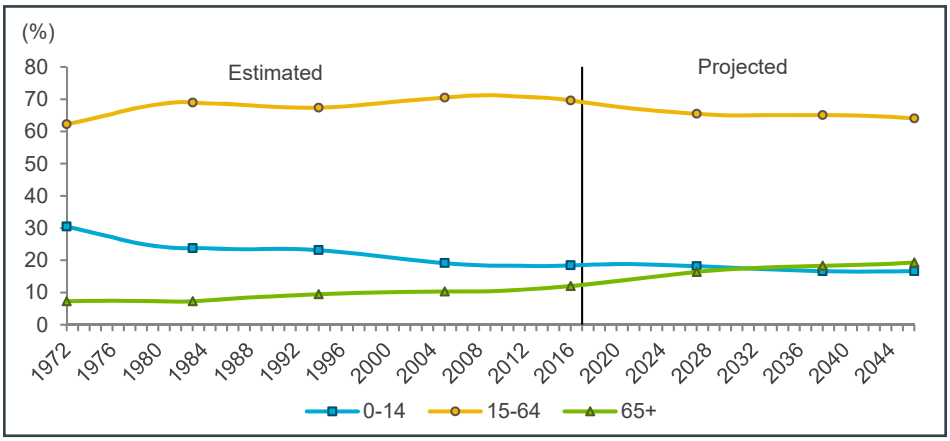
Alberta has consistently been home to more males than females, mainly due to the large proportion of working-age males migrating to the province. This trend in the sex ratio (ratio of males to females) is expected to continue.

While net migration inflows over the projection may continue to tip the province's overall sex ratio in favour of males, the aging of the large baby boom cohort into senior ages, and higher female life expectancies, may pull the sex ratio in favour of females. These two opposing forces will keep the sex ratio fairly stable over the projection at 103 males per 100 females.

More people depend on the working-age population

The number of working-age Albertans (aged 15 to 64 years) is expected to grow under all scenarios, increasing from about 3 million in 2017 to over 4.1 million by 2046 under the medium scenario. However, as a share of the total population, this age group is anticipated to shrink, falling from around 69% in 2017 to about 64% in 2046 (Figure 4).

Figure 4: Proportion of Total Population by Age Group, 1972-2046
Alberta



Sources: Statistics Canada and Alberta Treasury Board and Finance

Due to the rising share of seniors and the declining share of working-age population, the total dependency ratio[2] is expected to increase significantly over the projection period. In 2017, there were about 45 dependents for every 100 Albertans aged 15 to 64 years. By 2046, it is expected that the total dependency ratio will climb to about 56. The higher ratio will mainly be driven by the rapid increase in the senior (65+) portion of the population (Figure 5).

Age Structure of Alberta

By 2046, there will be more people of every age compared with 2017. The baby boomers will be swelling the ranks of the province's oldest residents, while their children, who are the oldest of the 'echo' generation, will have just entered their senior years (Figure 6).

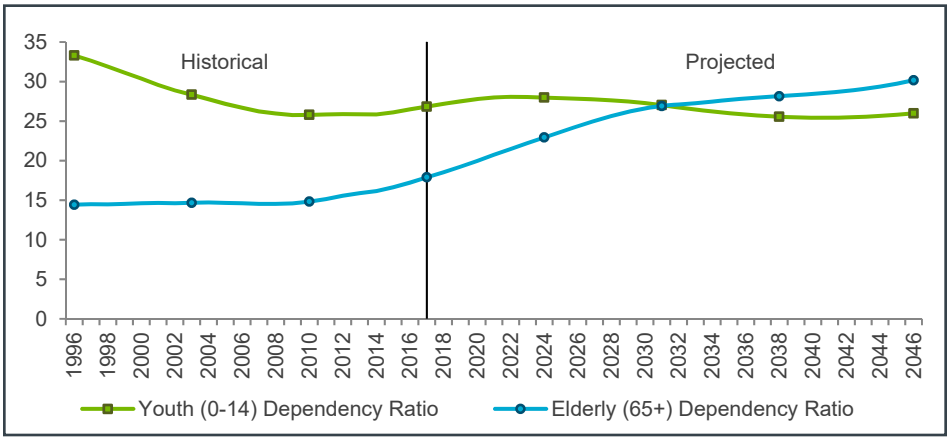
[2] The dependency ratio refers to the population not typically in the labour force (children and the elderly) to the population that typically is (those aged 15 to 64).

The next section outlines the projected size of specific age groupings.

Stable numbers of young children and growing in school ages

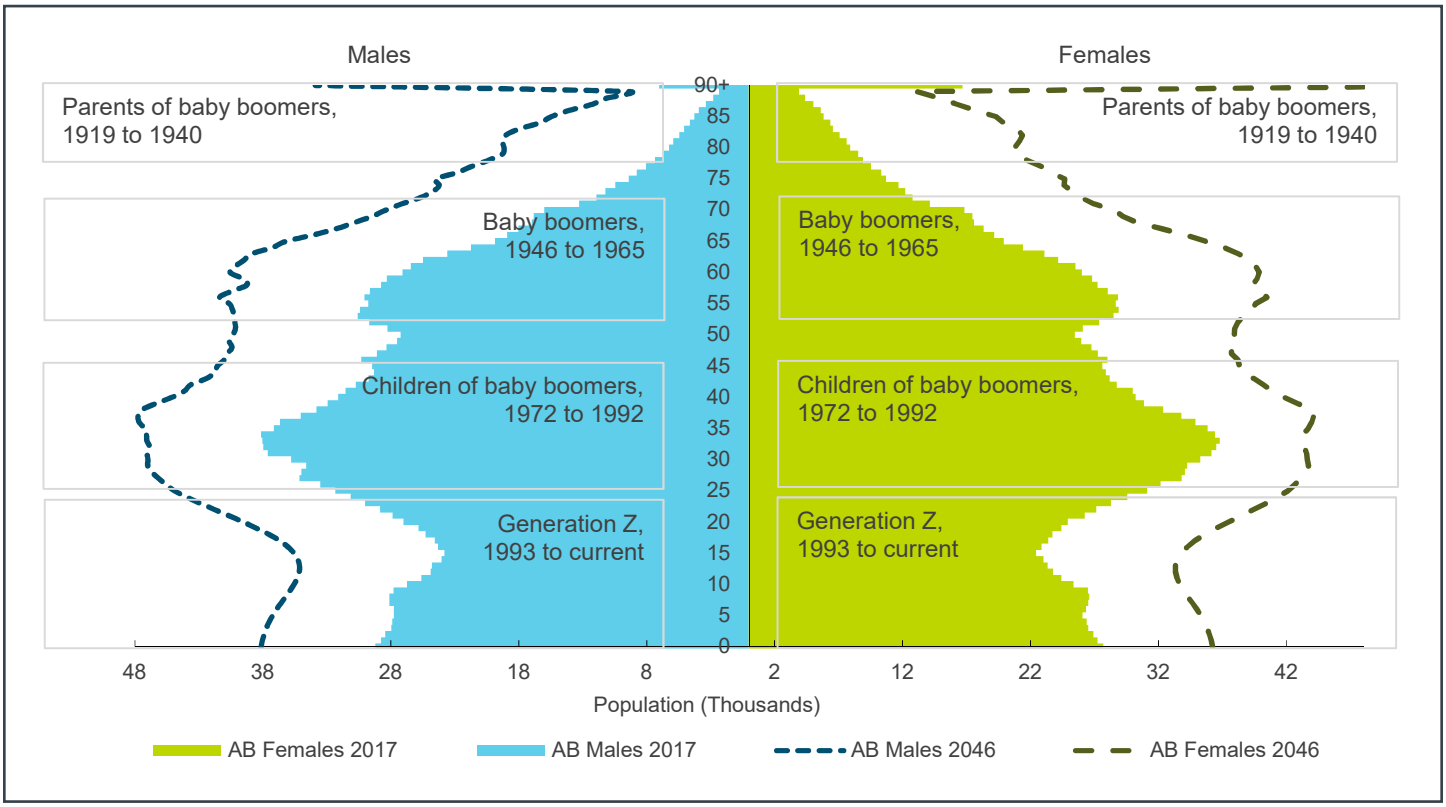
The size of the youngest age group (0 to 4 years) is mainly impacted by the number of births and is a good barometer of possible demand for elementary education in the near future. After an increase in the first few years, the size of this age group remains relatively stable at around 300,000 pre-grade school

Figure 5: Dependency Ratios (per 100 working age individuals), 1996-2046
Alberta



Sources: Statistics Canada and Alberta Treasury Board and Finance

Figure 6: Population by Age and Sex (Thousands), Alberta, 2017 and 2046



Sources: Statistics Canada and Alberta Treasury Board and Finance
Note: Information boxes indicate generations in 2017.

children until the last sixteen years of the projection, and by 2046 is expected to hit almost 370,000.

The population aged 5 to 17 years represents potential school demand. The number of school-aged children will likely continue to rise throughout the projection due to Alberta's fertility and migration rates, and growth is particularly strong to 2025. Between 2017 and 2025, this age group is expected to increase at an average annual rate of 2.1% (Figure 7), adding roughly 120,000 new school-aged children. By 2046, this age cohort will likely number more than 910,000.

An expansion of those in working-ages, but a declining share

The young adult cohort (aged 18 to 24 years) is usually associated with attending post-secondary institutions or participating in the youth labour force. In 2017, the share of the population for this cohort was about 9% and is projected to be relatively stable throughout the projection. However, in the short term, the size of this age group will drop from about 380,000 in 2017 to about 375,000 in 2020 because of a smaller cohort moving into this age group. Thereafter the number of young adults is expected to increase steadily, as migration picks up, reaching just over 554,000 by 2046 (Figure 8).

The core labour force age group (25 to 54 years) will increase in size throughout the projection period, although the expansion is expected to be slower over the next few years. This is due to the impact of lower-than-expected levels of migration on this cohort in the short term, as well as the departure of the youngest baby boomers from the core labour force (Figure 8). Despite the growth in numbers, as a share of the total population this cohort will decline from about 45% in 2017 to 40% by 2046 as baby boomers leave the workforce. In 2017, the youngest baby boomers were 52 years of age; 9.2% in the core working-age group were baby boomers. By 2020, all of the baby boomers will have aged out of the core labour force, but numbers will continue to rise due to migration.

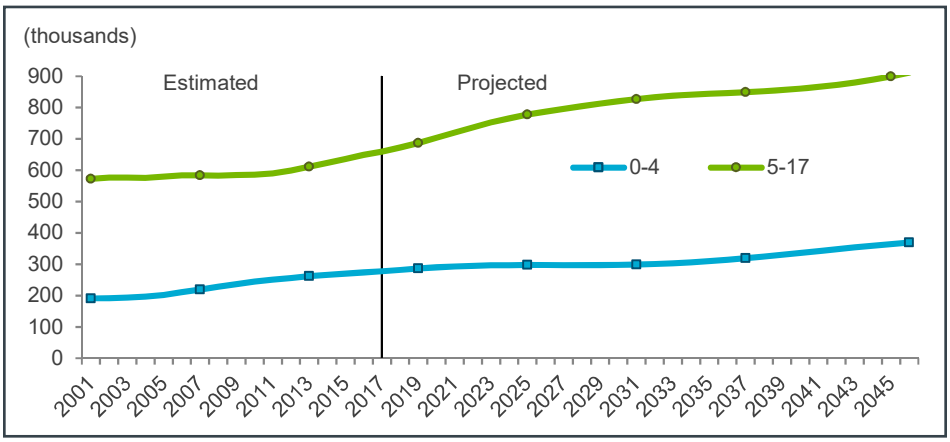
The overall working-age population (15 to 64 years) will also grow, but it shows a similar slowdown in the first few years of the projection (Figure 8). The working-age cohort is expected to expand by around 39% over the projection period, but since the overall population will also expand by 50%, this age group will make up a declining share of the total population.

Aging boomers accelerate growth of senior population

The population aged 65+ is expected to increase both in number and population share throughout the projection period. In 2017, almost 530,000 Albertans were aged 65 and older, accounting for 13% of the population. The number of seniors is expected to top a million by 2035 and exceed 1.1 million by 2040 (Figure 9). Under the medium scenario, about one in five Albertans in 2046 would be 65 or older. In 2017, there were about 406,000 more children (aged 0 to 17 years) than seniors. By 2046, this difference will likely shrink to under 40,000.

Figure 7: Population Aged 0 to 17 years, 2001-2046

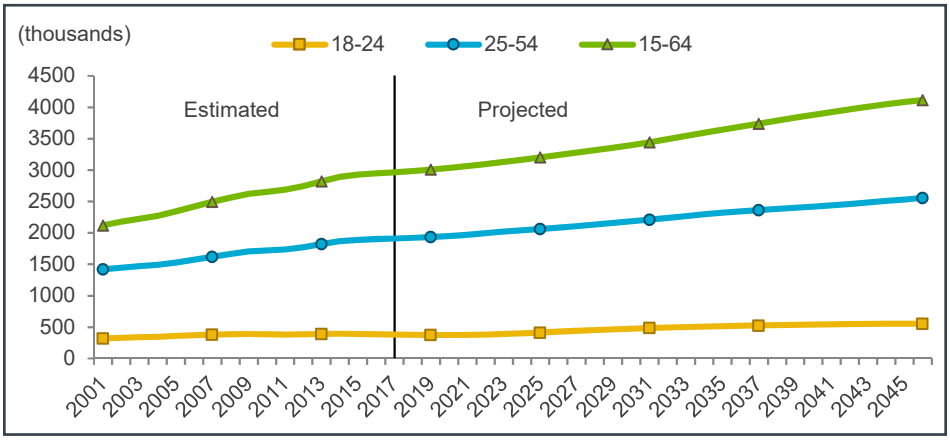
Alberta



Sources: Statistics Canada and Alberta Treasury Board and Finance

Figure 8: Population Aged 15 to 64 years, 2001-2046

Alberta

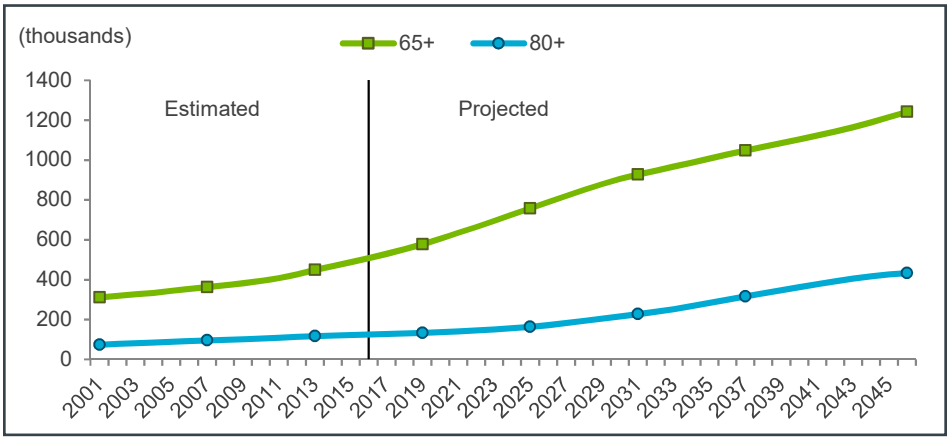


Sources: Statistics Canada and Alberta Treasury Board and Finance

Rapid growth of the oldest-old

In assessing demand for services such as health care, assisted living and seniors' housing, it is especially important to look at those 80 years and older. This age group is expected to double as a share of the population, increasing from 3% in 2017 to about 7% in 2046, which represents an absolute increase of almost 305,000 people who are 80 years and older and a percentage increase of 238% (Figure 9).

Figure 9: Population Aged 65 and older, 2001-2046
Alberta



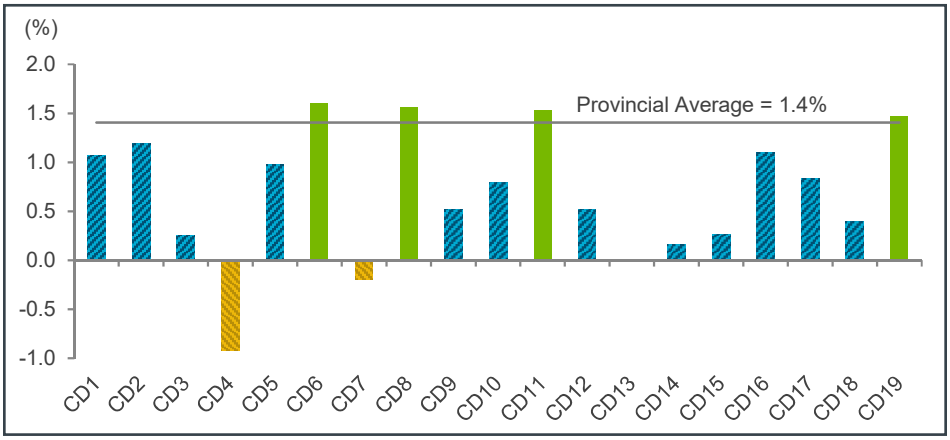
Sources: Statistics Canada and Alberta Treasury Board and Finance

Regional Population Projections

Regional population growth is determined by the current age structure, natural increase and gains or losses through migration. The next section highlights some characteristics of the 19 census divisions (CDs) in Alberta.

The current age structure is a major determinant of the number of births and deaths. A region with a greater proportion of older people will likely experience more deaths, whereas a region with a large proportion of young adults will likely see more births. In addition, since migration is an activity undertaken primarily by young adults, the age structure will impact the region's migration patterns.

Figure 10: Average Annual Population Growth by Census Division, 2017-2046
Alberta



Sources: Statistics Canada and Alberta Treasury Board and Finance

Older regions, with a greater share of seniors in the population, are more likely to experience very low or negative natural increase leading to downward pressure on population growth (Appendix - Map 1). The oldest regions of the province in 2017 were CD 4 (Hanna), CD 13 (Whitecourt) and CD 7 (Stettler) with average ages of 41.9, 41.0 and 40.5 years, respectively. These three are among the regions projected to see the least growth from natural increase over the projection.

Migration is a key determinant of population growth for most regions. It is common for regional patterns of migratory movements to be relatively consistent over time. Some regions have, for many years, seen their young people move to other regions of the province (intraprovincial migration); for example, CD 17 (Slave Lake), CD 19 (Grande Prairie) and CD 2 (Lethbridge). Other regions have a long-standing and significant attraction to interprovincial migrants. Some regions gain from the settlement choices of immigrants, while others receive almost none. Some regions, such as CD 16 (Wood Buffalo) tend to draw a significant number of interprovincial migrants, yet tend to lose population to other parts of the province at the same time, leading to lower growth from migration than might be expected.

In general, the largest centres in Alberta capture most of the growth from international migration sources, while also gaining from migratory movements both within Alberta and between provinces (Appendix - Map 2).

Most regions expected to see population growth

With the exception of three census divisions, CD 4 (Hanna), CD 7 (Stettler), and CD 13 (Whitecourt), all regions in Alberta are expected to see positive growth over the projection period. Although the population of CD 13 is expected to shrink, the decrease is marginal (average annual growth of -0.003%) and the population is relatively stable (Figure 10). CD 14 (Edson),

CD 3 (Pincher Creek) and CD15 (Banff) are also expected to have relatively stable populations due to minimal expected growth over the projection period. The strongest growth is projected to occur in the Edmonton-Calgary corridor (CDs 6, 8 and 11) and in CD 19 (Grande Prairie) (Appendix - Map 3).

Regional Age Structure

Overall increase in children, but shrinking share

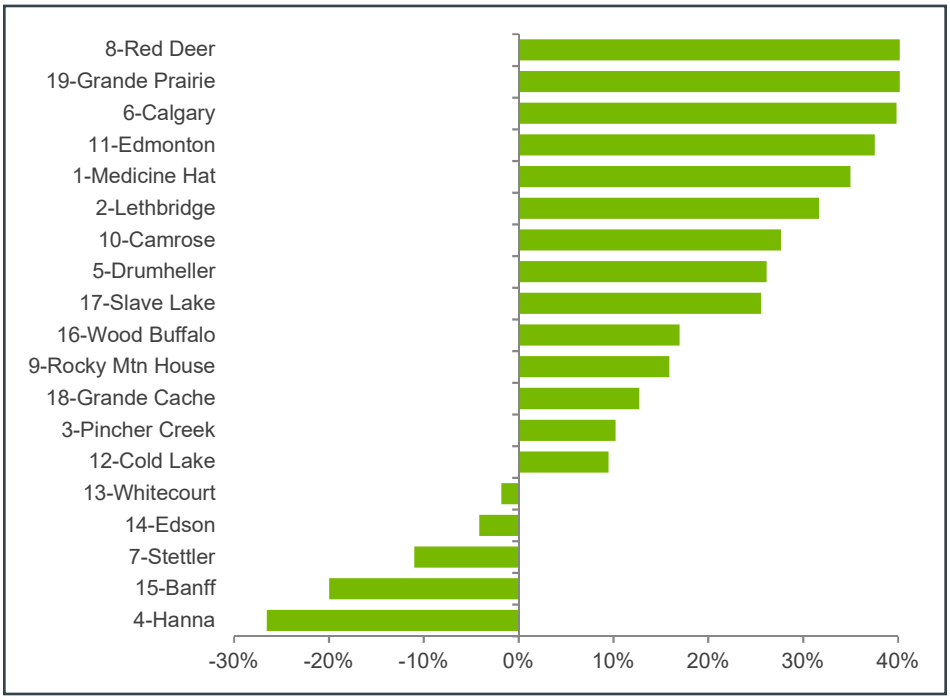
There is considerable regional variation in the proportion of 0 to 14 year olds. At the top end, a little over 28% of CD 17's (Slave Lake) population was under the age of 15, and at the other end of the spectrum, the proportion of children in CD 15 (Banff) was close to 15% in 2017. The share of children is projected to drop or remain fairly stable in all census divisions. CD 15 and CD 16 are expected to show the greatest drop in share of 0 to 14 year olds (-3.75 and -3.19 percentage points, respectively), which is primarily due to population aging and the shrinking proportions of their childbearing cohorts. CD 15 also has the lowest fertility of all regions. CDs 17 and 15 will continue to have the highest and lowest population shares of children, respectively, in 2046.

While regional population shares of children are expected to drop, the absolute number of children will increase in most census divisions (Figure 11). Due to their large populations, the largest absolute increases in the number of children are expected in CD 8 (Red Deer), CD 6 (Calgary), and CD 11 (Edmonton). These three census divisions, together with CD 19 (Grande Prairie) and CD 1 (Medicine Hat), make up the five regions with the largest percent growth of children over the projection period.

Proportion of working-age to shrink in every region

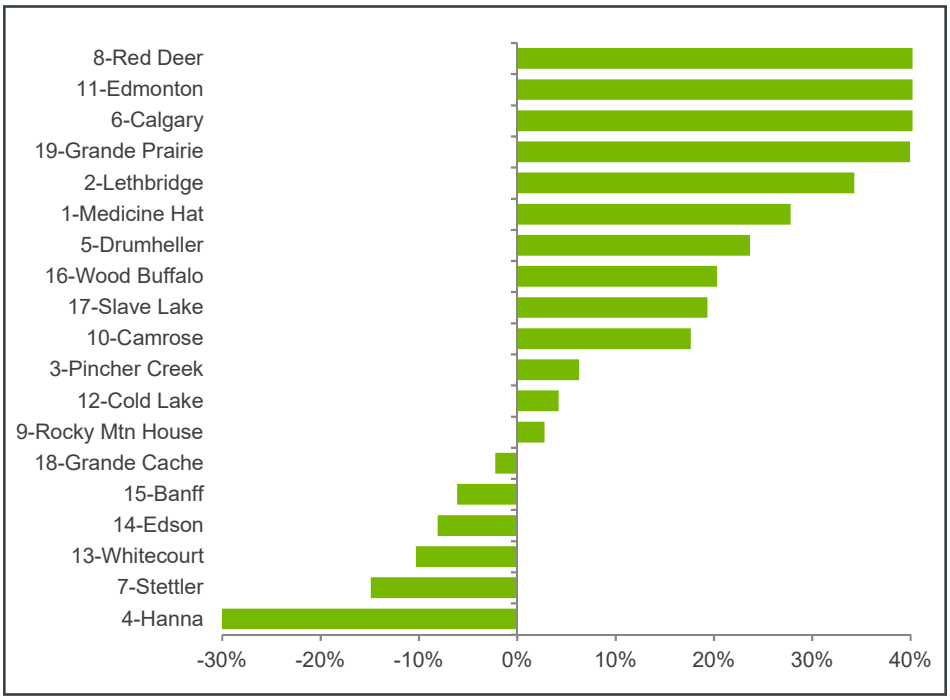
All but six census divisions are projected to have increased numbers in the working-age population (15 to 64 years) between 2017 and 2046 (Figure 12). Since migrants are predominantly young adults, regions receiving the most net migrants are expected to see the greatest gains. The three census divisions that make up the Edmonton-Calgary Corridor claim the top spots, followed by CD 19 (Grande Prairie) and two southern regions, CD 2 (Lethbridge) and CD 1 (Medicine Hat). Not surprising, given the projected

Figure 11: Percent change of 0 to 14 year olds, 2017-2046



Sources: Statistics Canada and Alberta Treasury Board and Finance

Figure 12: Percent change of 15 to 64 year olds, 2017-2046



Sources: Statistics Canada and Alberta Treasury Board and Finance

contraction of its overall population, CD 4 (Hanna) is expected to see the largest drop in its working-age population.

In 2017, the regions with the highest share of the working-age population were CD 16 (Wood Buffalo), CD 15 (Banff), CD 6 (Calgary) and CD 11 (Edmonton); all had shares over the Alberta average of about 69%. In contrast, close to 6 out of 10 people in CD 3 (Pincher Creek) were of working-age. The share of population aged 15 to 64 will decline in all census divisions between 2017 and 2046. CD 11, CD 16 and CD 6 will continue to have the highest shares above the provincial average of 64%.

Regional differences in population aging

In 2017, almost one in eight Albertans was 65 years of age and over, while this number is expected to be close to one in five by 2046. The proportion of the population aged 65 and older varies regionally throughout the province due to different age structures and migration flow patterns (Figure 13). In 2017, CD 3 (Pincher Creek) and CD 4 (Hanna) had the highest shares of seniors among the CDs at 19.8% and 19.6%, respectively, while Wood Buffalo (CD16) had the lowest share (3.2%). In 2046, it is expected that CD 4 (Hanna) will have the highest share of seniors at 29.7%, whereas CD 17 (Slave Lake) will have the smallest share with 13.5% of the population aged 65 years and over.

Focus on selected regions

The following sections highlights some of the factors contributing to projected growth for select regions in the province.

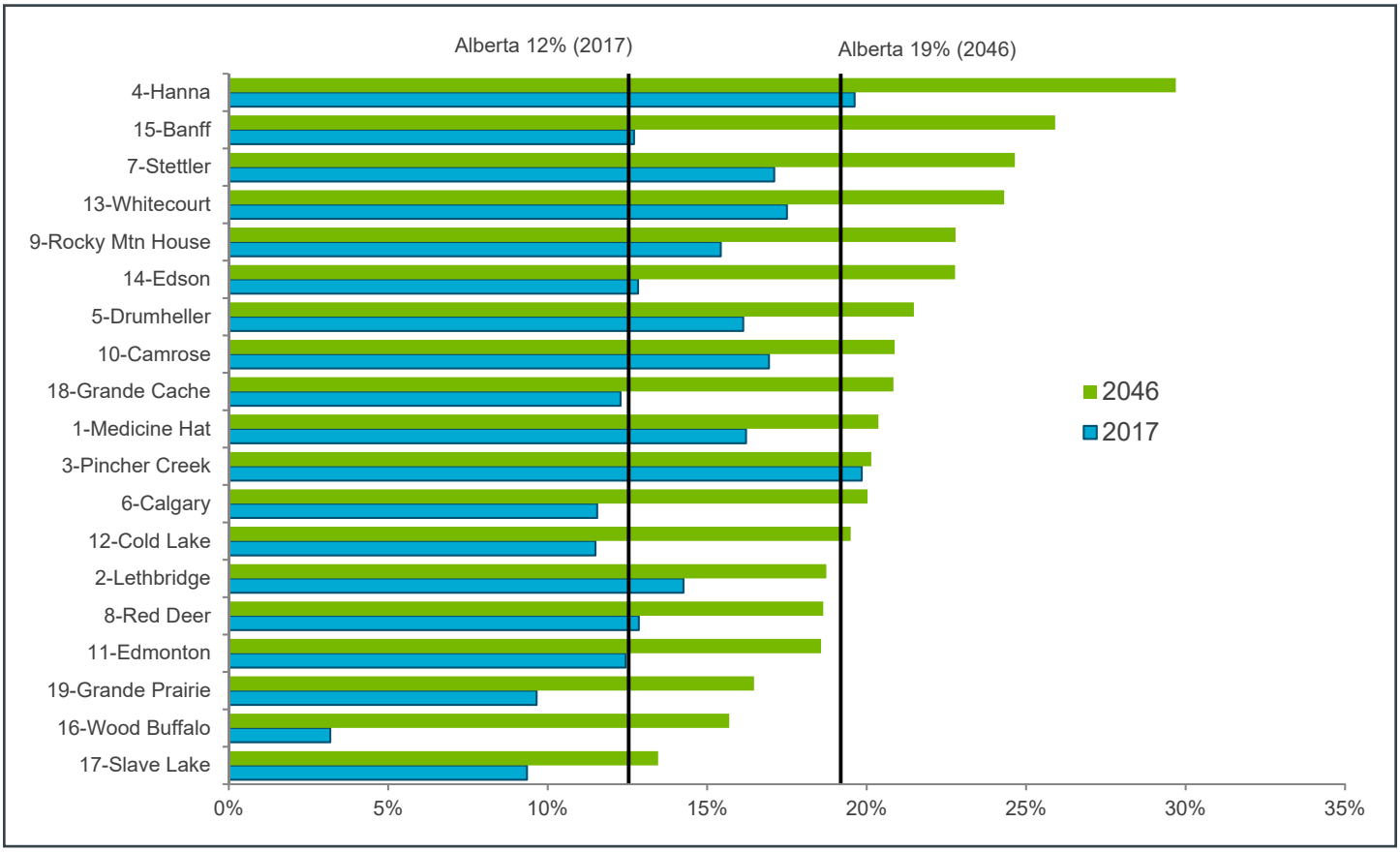
Edmonton-Calgary corridor: urbanization continues

The Edmonton-Calgary corridor consists of three CDs (6, 8 and 11) and includes the Census Metropolitan Areas of Edmonton and Calgary, as well as the city of Red Deer. Covering only 6% of the land area, the corridor is home to 76% of the population and is the most urbanized area of the province[3]. Projected growth in all three of these CDs will outpace the provincial average (Appendix - Map 3). By 2046, four out of five Albertans are expected to live in this region.

The anticipated growth in the Edmonton-Calgary corridor is supported by historical migration patterns within the province. As the most populous region of Alberta, this area attracts most of the international migrants to the province, as well as about two-thirds of the migrants from other parts of Canada. On average,

[3] 2011 Census of Canada, Statistics Canada

Figure 13: Population Aged 65 and over as a Percent of Total Population, Census Divisions, 2017 and 2046



Sources: Statistics Canada and Alberta Treasury Board and Finance

about nine out of ten immigrants originally migrate to this region. In addition, these CDs tend to gain residents through migration from other parts of the province.

Wood Buffalo: Resumes Growth

CD 16 (Wood Buffalo) was hit hard by the economic slowdown. Strong net outflows of interprovincial migrants caused this region's population to shrink from 2015 to 2017, as the economy adjusted to lower oil prices.

However, confidence seems to be returning as some new projects have been announced and construction activity following the Fort McMurray fire continues. This region is expected to gradually return to a more moderate level of positive net migration, recovering from the net outflows of the last three years. Between 2024 and 2028, this region is forecast to see a boost in migration from the economic activity that oil investment should generate.

Over the entire projection, natural increase is expected to contribute 32.0% to CD 16's growth—the second highest contribution among the province, and well above the provincial level (Appendix - Map 1). Due to its young population, there are relatively few deaths and a significant number of births. Overall, average annual growth for CD 16 is projected at 1.1% between 2017 and 2046, up from last year's projection (0.8% between 2016-2041).

Grande Cache: Turning a Corner

After a few years of negative news in this region, CD 18 (Grande Cache) appears to be turning a corner. With increased investment, economic activity is expected to recover in the area. After two years of tough economic times and negative population growth, this is expected to have a positive impact on the population over the projection period.

In December 2015, one of the largest employers in this region, Grande Cache Coal, closed down, putting many people out of work. However, this company has now been sold and the mine is expected to reopen. In addition, the town of Grande Cache received a $325,000 tourism grant from the Government of Alberta in 2018, under the Coal Community Transition Fund. The Grande Cache Institution, a medium security federal institution, has also just signed a 25 year renewal on their lease.

With this increased investment, population projections have been increased from last year. CD 18 is expected to see modest inflows of migrants in the next few years before returning to long term net outflows. This region is expected to grow by 0.4% between 2017-2046, up from -0.05% between 2016-2041 in the previous version of these projections.

Renewable Energy: Southern Alberta

Under Alberta's Renewable Electricity Program, three companies were approved to build wind power projects in three CDs: CD 1 (Medicine Hat), CD 4 (Hanna) and CD 3 (Pincher Creek). These are expected to generate economic activity in the next few years, leading to a slight increase in migration in 2019 for CD 3 and CD 4 as these projects are built and begin electricity production.

Grande Prairie: a service centre for Alberta and British Columbia

CD 19, which includes the city of Grande Prairie, has experienced robust growth over the last decade. At 1.5%, the region's average annual growth (between 2017 and 2046) is expected to remain slightly above the provincial average over the long term (Appendix - Map 3).

The regional economy has a large natural resources component, including oil and gas, forestry, and agriculture. The city of Grande Prairie is a service area for northwestern Alberta and northeastern British Columbia, regions with abundant reserves of oil and gas. While resource activities may attract more males, the service sector is expected to attract a more balanced mix of people. Compared with CD 16 (Wood Buffalo), for example, CD 19's (Grande Prairie) sex ratio is much less skewed to males, and the region is more attractive to young adults of both sexes. As a result, the population in CD 19 contains momentum for future growth.

CD 19 was impacted by low oil prices, and saw net outflows of migrants between 2016 and 2017. However, because of its economic diversity and the up-tick in conventional drilling, CD 19 should see its migration levels recover faster than other oil-dependent regions such as CD 12 and CD 16.

Lethbridge: Growth Potential

Lethbridge (CD 2) is an economically diverse region with industries such as agriculture, government, and manufacturing. Given its diversified economy, CD 2 has become an increasingly attractive destination for migrants to the province, drawing families and, due to its post-secondary institution, young adults to the region. Given its young age structure and higher-than-average fertility, CD 2 has the potential for continued future growth.

For more information on the *Population Projections* see:

Data for Alberta Population Projections.
Includes estimated (1996-2017) and projected (2018-2046) population of Alberta and its 19 Census Divisions by single year of age and sex as well as some summary statistics.

Population Projection Methodology and Assumptions.
Details the methodology and assumptions of the long-term population projections.

Contact

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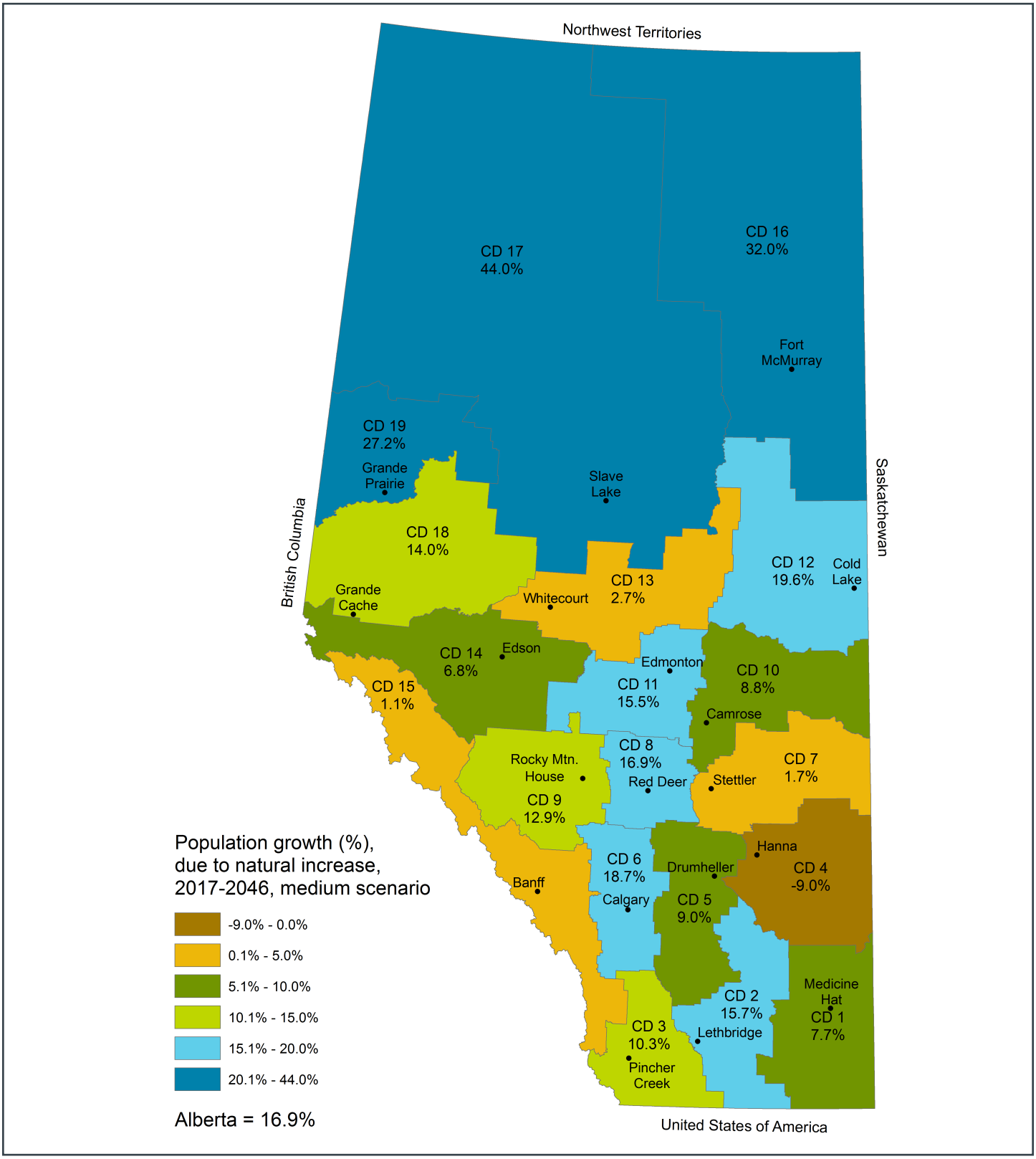
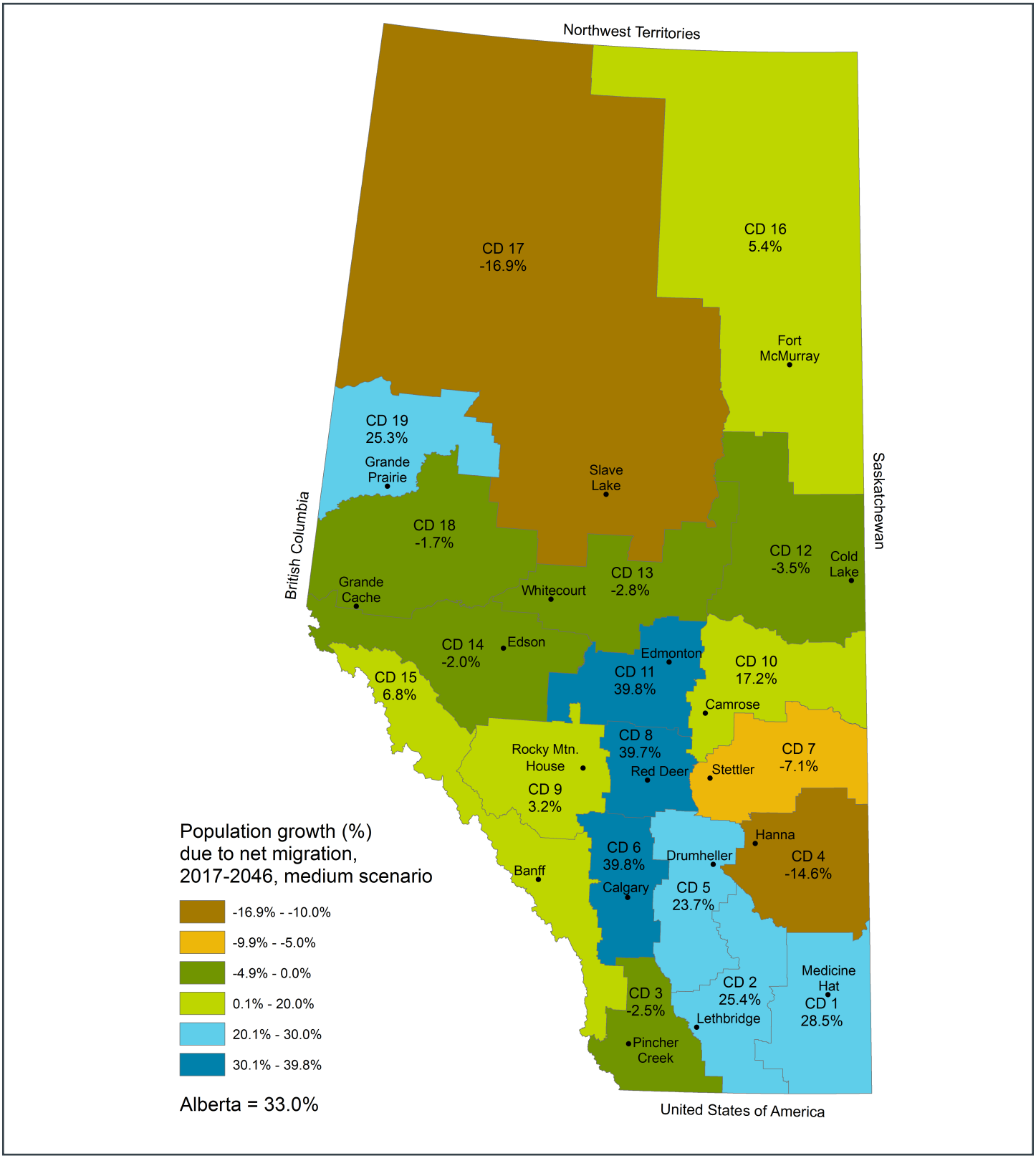
Appendix

Map 1: Population Growth Due to Natural Increase, 2017-2046, Medium Scenario



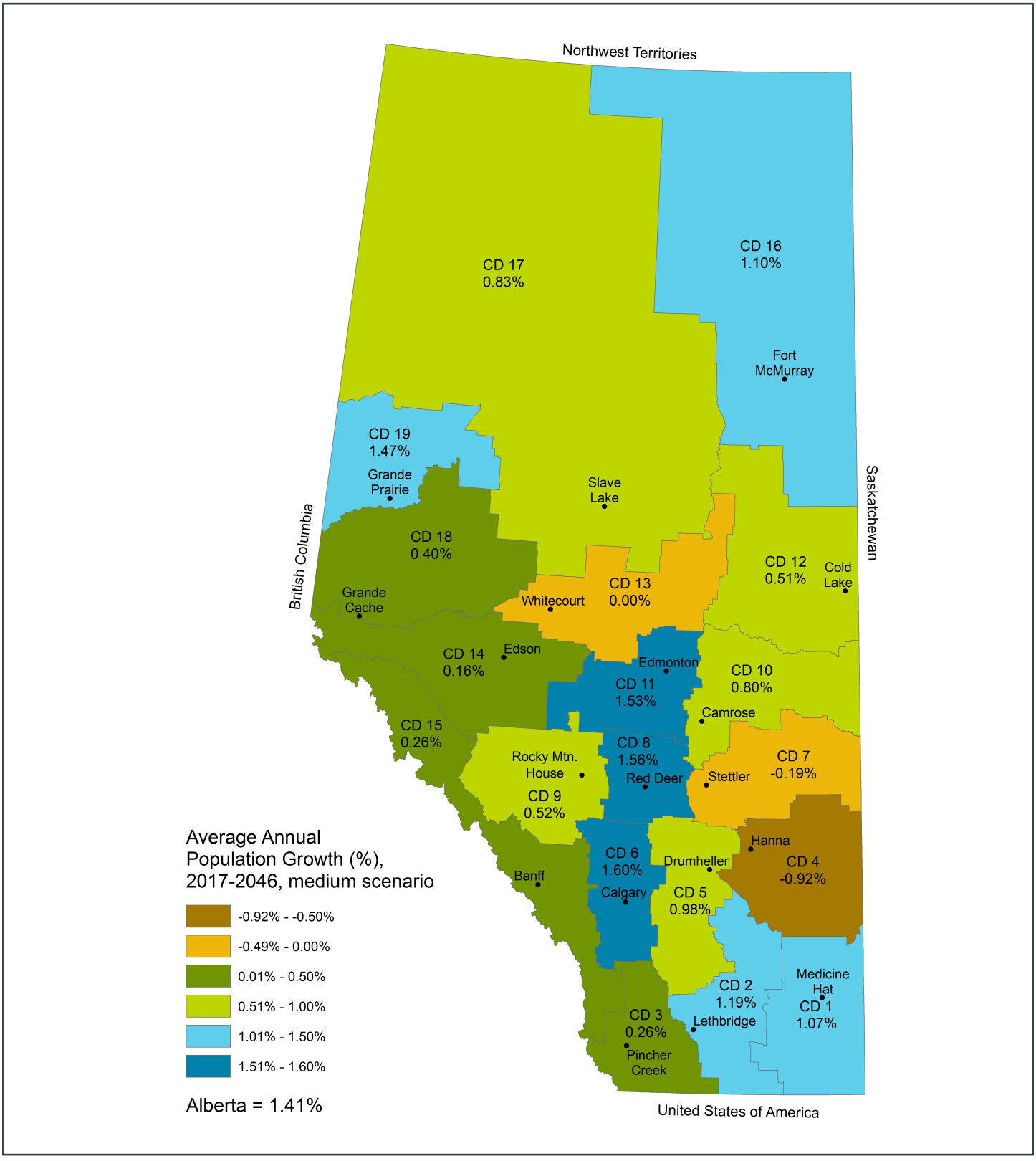
Sources: Statistics Canada and Alberta Treasury Board and Finance

Map 2: Population Growth Due to Net Migration, 2017-2046, Medium Scenario



Sources: Statistics Canada and Alberta Treasury Board and Finance

Map 3: Average Annual Population Growth (Percent), 2017-2046, Medium Scenario



Sources: Statistics Canada and Alberta Treasury Board and Finance