Population Projections

Alberta and Census Divisions, 2021–2046

In 2046, Alberta's population is expected to:

- Reach almost 6.4 million people, an increase of roughly 1.9 million people from 2020.
- Become older, with an average age of 41.5 years, up from 38.5 years in 2020.
- Become increasingly diverse, as arrivals from other countries account for about 54% of the expected growth over the projection period.
- Become more concentrated in urban centres, especially along the Edmonton-Calgary Corridor; 80% of Albertans are expected to live in this region by 2046.

Population projections from 2021 to 2046 for Alberta and its 19 census divisions are now available. Three sets of assumptions (i.e., low, medium and high population growth scenarios) were prepared. This document highlights the main characteristics of Alberta's projected population, focusing mainly on the medium (reference) scenario, unless otherwise indicated.

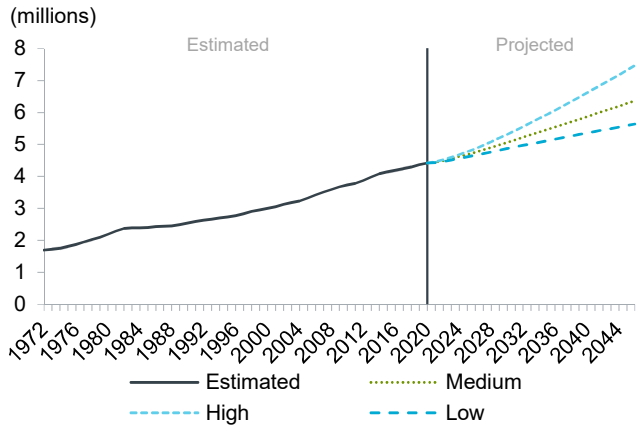
Alberta Population Projections

Alberta to post steady long-term population growth

By 2046, Alberta is expected to be home to almost 6.4 million people, representing an average annual growth rate of about 1.4%, or an increase of roughly 1.9 million people from 2020 (Figure 1). In contrast, the projected growth will be lower than the 1.9% experienced over the previous 25-year period (1995 to 2020), due to population aging and slower gains in migration. Alberta's population is projected to surpass 5.0 million by 2030 and reach the 6.0 million mark by 2042. Under the low and high scenarios, Alberta's total population in 2046 is projected to be around 5.6 million and 7.5 million; gains of 1.2 million and 3.0 million, respectively.

FIGURE 1: POPULATION OF ALBERTA

1972-2046

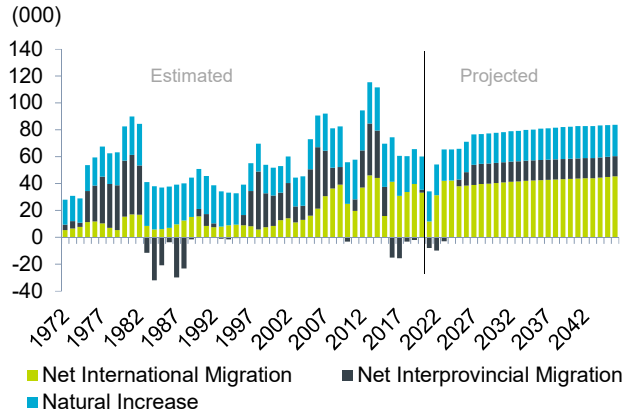


Sources: Statistics Canada and Alberta Treasury Board and Finance

Migration to the province is dependent on a number of factors, including Alberta's economic conditions relative to other provinces. Leading up to the pandemic, Alberta had been slowly recovering from the 2015-2016 recession. However the dual shock of the COVID-19 pandemic and collapse in oil prices sent the economy into an unprecedented contraction in 2020, further delaying the recovery. While the Alberta economy has rebounded since then, the effect on migration is expected to continue over the short term. The COVID-19 pandemic primarily affected net international migration. Travel restrictions and delays in issuing work and permanent residency permits slowed migration to Alberta from abroad starting in March 2020, causing net international migration levels to fall. Net international migration in 2021 is expected to be significantly lower than the recent past, but should improve over the next few years as vaccine rollouts in Canada and around the world open up the possibility for the easing of international travel restrictions. Furthermore, the federal government has significantly increased immigration targets over the next three years, which should provide a further boost to international migration.

In 2020, Alberta posted a small net inflow of interprovincial migrants. However, interprovincial migration is expected to show a lagged response to the economic impacts of the pandemic. As a result, net outflows of interprovincial migrants are expected for the 2021 to 2023 period. Between 2020 and 2023, Alberta's population is projected to grow at an average annual rate of 1.0%, compared with 1.3% during the 2016 to 2020 period (Figure 2).

FIGURE 2: COMPONENTS OF POPULATION GROWTH
Alberta, 1972-2046



Sources: Statistics Canada and Alberta Treasury Board and Finance

Over the medium term (i.e., 2024 to 2028), as economic conditions improve and net interprovincial migration becomes positive, population growth is expected to accelerate, averaging 1.5% annually during that time.

Despite increasing migration levels, population growth is expected to slow gradually over the projection period, dropping from 1.6% in 2027 to 1.3% in 2046. This trend is due to lower natural increase and population aging. In all three scenarios, future population growth is mainly driven by migration, particularly international migration. Total net migration from all sources (around 1.34 million people) is projected to account for 69% of Alberta's population growth under the medium scenario, with natural increase accounting for the remaining 31% (Figure 2). Of the anticipated net migrants, 78% would arrive from other parts of the world. Net interprovincial migration is expected to account for over 15% of the province's growth, or 294,000 new residents between 2020 and 2046 under the medium growth 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 over 600,000 people by 2046 (Figure 2). The degree to which natural increase contributes to population growth is partly influenced by migration patterns. The majority of the more than 1.3 million net migrants projected to arrive over the next 26 years will be young adults aged 18 to 34. An influx of people in the child-bearing ages is projected to boost the number of births over the period. Despite this, the impact of natural increase on growth will diminish over time, as deaths are also expected to increase rapidly with the advanced aging of the baby boom cohort. For instance, on an average day in 2020, 142 new Albertans were born, while about 75 people died. By 2046, the average number of daily deaths is expected to nearly double to around 139 per day, while births will likely show a smaller increase to 202 per day. The narrowing gap between births and deaths in the future means that the average daily population gain due to natural increase will also decrease from 68 in 2020 to about 64 by 2046.

Albertans are expected to live longer

On average, a girl born in Alberta in 2020 could expect to live to 83.9 years of age, while a boy could reach 79.2 years. Under the medium growth scenario, life expectancy at birth for females is projected to rise to 87.0 years by 2046, while for males it is expected to reach 83.7 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 4.7 years in 2020 to 3.3 years by 2046.

Life expectancy at age 65 is also expected to increase. A man reaching age 65 in 2020 could expect to live, on average, another 19.5 years, compared to 22.3 years for women. Life expectancy at age 65 is projected to increase to 21.7 years for men and 24.3 years for women by 2046.

Alberta's population getting older

In 2020, Alberta was the youngest province, but its population continued to age due to below-replacement fertility and a 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 2020, the average age[1] of the provincial population was 38.5 years, a figure that is projected to climb to 41.5 years 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.

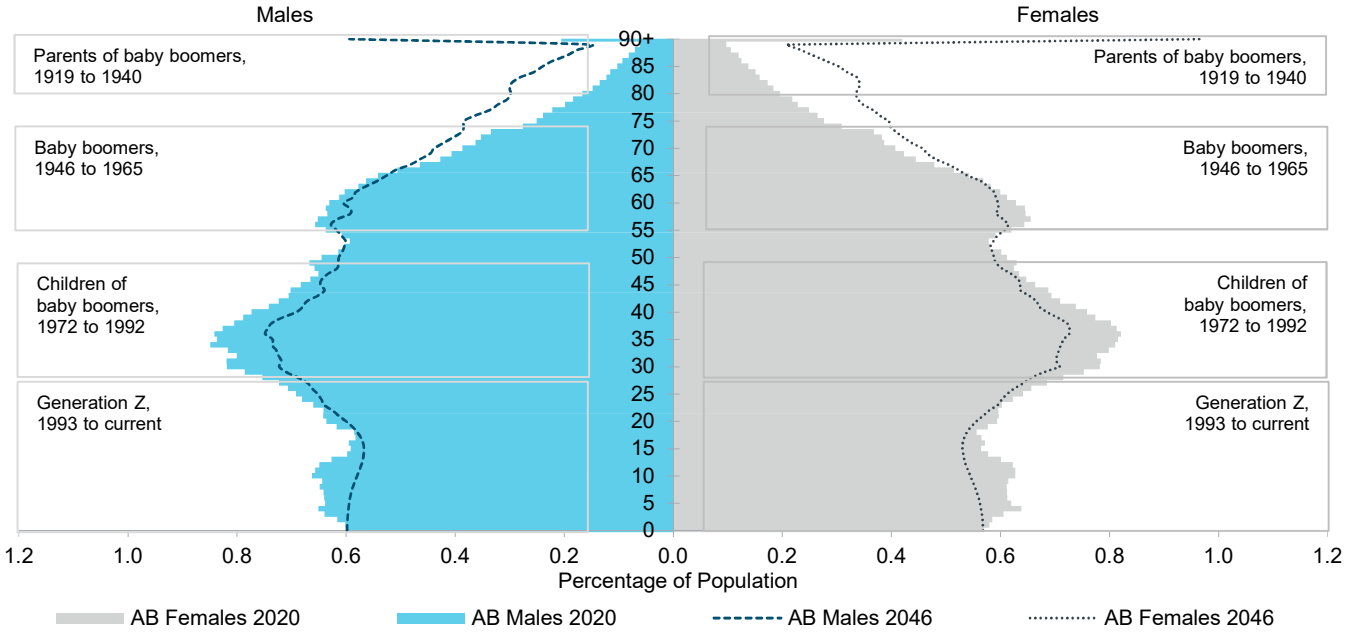
Baby boomers accelerate aging

The large baby boom cohort (people born between 1946 and 1965) will have a significant impact on the rate of population aging over the next few decades. In 2020, baby boomers were aged 55 to 74 years and accounted for about 21% of the population (Figure 3). As baby boomers get older, aging is expected to accelerate until 2030, when the last of that large cohort reaches 65 years of age.

In 2020, people aged 65 and older represented about 14% of the population. Under the medium growth scenario one in five, or 20%, is expected to be 65 years or older by 2046. By 2029, seniors will make up a larger share of the population than children aged 0 to 14 years. This trend has already occurred at the national level.

FIGURE 3: ALBERTA'S POPULATION PYRAMIDS

2020 vs. 2046



Sources: Statistics Canada and Alberta Treasury Board and Finance
Note: Information boxes indicate generations in 2020.

More people depend on the working-age population

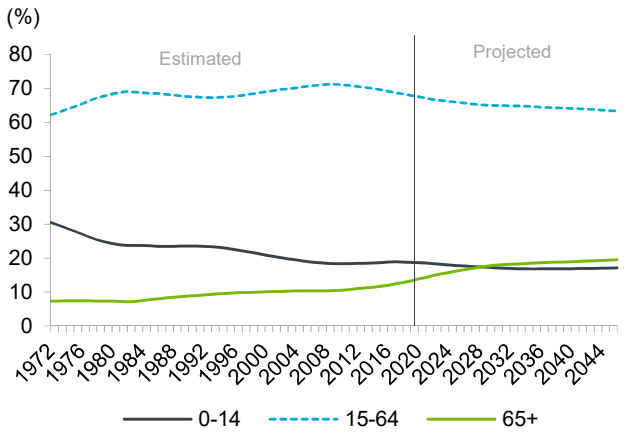
The number of working-age Albertans (aged 15 to 64 years) is expected to grow under all scenarios. Under the medium scenario, the working-age population will increase from almost 3.0 million in 2020 to 4.0 million by 2046. However, as a share of the total population, this age group is anticipated to shrink, falling from around 68% in 2020 to about 63% by 2046 (Figure 4).

Due to the increasing share of seniors and the declining share of the working-age population, the total dependency ratio[2] is expected to increase significantly over the projection period. In 2020, there were around 48 dependents for every 100 Alberta residents aged 15 to 64 years. By 2046, it is expected that the total

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

FIGURE 4: PROPORTION OF TOTAL POPULATION BY AGE GROUP

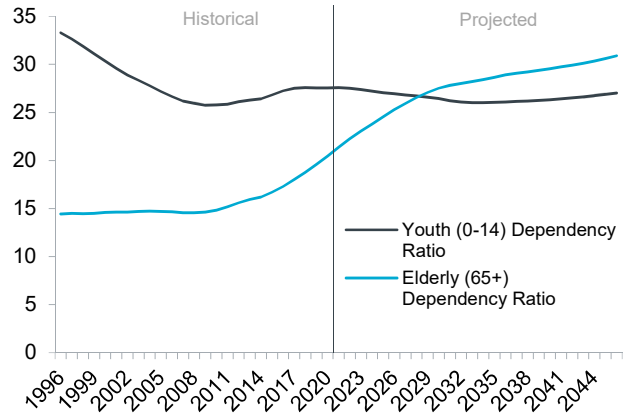
Alberta, 1972-2046



Sources: Statistics Canada and Alberta Treasury Board and Finance

dependency ratio will climb to around 58 dependents. The higher ratio will mainly be driven by the rapid increase in the senior (or 65 years of age and older) portion of the population (Figure 5).

FIGURE 5: DEPENDENCY RATIOS (PER 100 WORKING AGE INDIVIDUALS)
Alberta, 1996-2046



Sources: Statistics Canada and Alberta Treasury Board and Finance

Males likely to continue to outnumber females

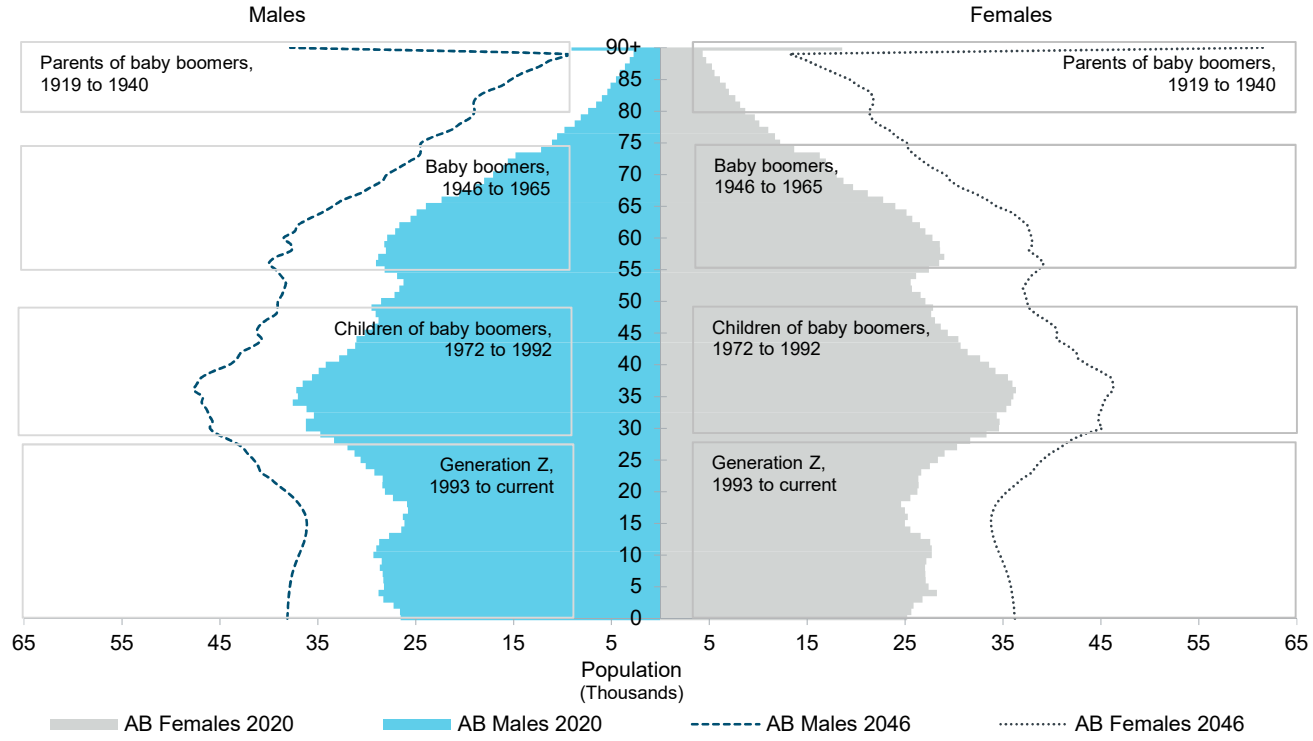
Alberta has consistently been home to more males than females, mainly due to the large proportion of working-age males migrating to the province. This trend in the sex ratio (ratio of males to females) is expected to continue.

Over the projection period, the sex ratio is expected to remain quite stable at 101 males per 100 females. This is unusual, because the sex ratio tends to decrease in aging populations. In most provinces, the aging of the large baby boom cohort into the senior ages and higher female life expectancies tend to pull the sex ratio in favour of females. However, Alberta does not follow this pattern. Net migration inflows over the projection period may continue to tip the province's overall sex ratio in favour of males, which in turn, helps prop up the sex ratio. These two opposing forces will keep the sex ratio fairly stable over the projection period.

Age Structure of Alberta Population

By 2046, there will be more people of every age compared with 2020 (Figure 6). The baby boomers will be swelling the ranks of the province's oldest residents, while their children, who are the oldest cohort of the 'echo' generation, will have begun to

FIGURE 6: ALBERTA'S POPULATION BY AGE AND SEX (THOUSANDS)
2020 vs. 2046



Sources: Statistics Canada and Alberta Treasury Board and Finance
Note: Information boxes indicate generations in 2020.

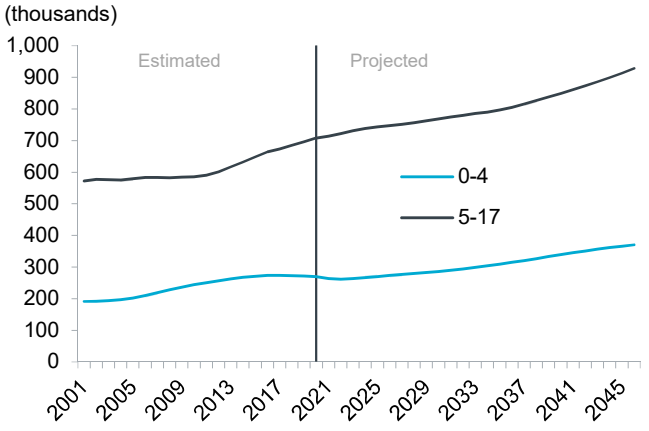
enter their senior years. The next section outlines the projected size of specific age groupings.

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 indicator of possible demand for elementary education. In 2020, there were about 269,000 0 to 4 year olds in the province, and the size of this group is expected to remain relatively stable through to 2025. Thereafter, growth will accelerate, resulting in about 370,000 young children by 2046 (Figure 7).

FIGURE 7: POPULATION AGED 0 TO 17 YEARS

Alberta, 2001-2046



Sources: Statistics Canada and Alberta Treasury Board and Finance

The population aged 5 to 17 years also represents a significant portion of current school demand. The number of school-aged children will likely continue to rise throughout the projection period due to Alberta's relatively high fertility and migration rates. Between 2020 and 2025, this age group is expected to increase at an average annual rate of 1.0% (Figure 7), adding over 36,000 new school-aged children during that period. By 2046, this age cohort is expected to number about 929,000, up from almost 708,000 in 2020.

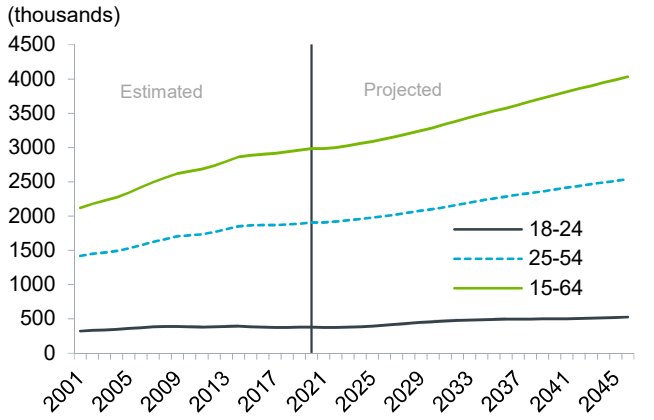
Steady share of young adults, declining share of core working-ages

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 2020, the share of the population for this cohort was about 9% and is expected to be relatively stable throughout the projection period. The young adult cohort is expected to shrink slightly between 2020 and 2021 as a smaller cohort moves into this age group. Between 2025 to 2031, however, growth of young adults is expected to accelerate due to a larger cohort of children aging into this group, along with increasing migration to the province. By 2046, the number of young adults is expected to reach almost 527,000 (Figure 8).

The core labour force age group (25 to 54 years) will also increase in size over the projection period, with the expansion expected to be greater between 2028 and 2036. By 2020, all of the baby boomers had aged out of the core labour force, but the core labour force will continue to increase due to migration (Figure 8). Despite the growth in those numbers, as a share of the total population, the core labour force cohort will decline from about 43% in 2020 to about 40% by 2046.

FIGURE 8: POPULATION AGED 15 TO 64 YEARS

Alberta, 2001-2046



Sources: Statistics Canada and Alberta Treasury Board and Finance

The overall working-age population (15 to 64 years) will also grow, expanding by around 35% over the projection period. However, since the overall population will also expand by about 44%, that age group will make up a declining share of the total population, decreasing from about 68% in 2020 to 63% by 2046 as the baby boomers leave the working ages.

Aging boomers accelerate growth of senior population

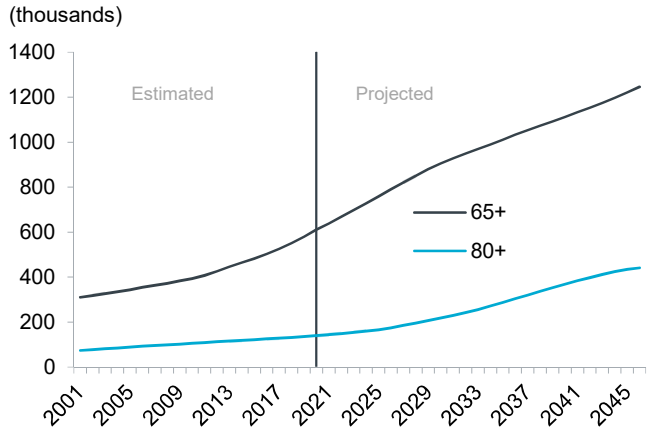
The population aged 65 years and older is expected to increase both in number and population share throughout the projection period. In 2020, almost 611,000 Albertans were aged 65 years and older, accounting for about 14% of the population. The number of seniors is expected to top one million by 2035 and exceed 1.2 million by 2046 (Figure 9). Under the medium scenario, about one in five Albertans would

be 65 years or older by 2046. In 2020, there were almost 366,000 more children (aged 0 to 17 years) than seniors. By 2046, this difference is expected to shrink to about 53,000.

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 the population 80 years of age and older. This age group is expected to more than double as a share of the population, increasing from just over 3% in 2020 to almost 7% by 2046. This trend represents an absolute increase of about 301,000 people who will be 80 years and older and a percentage increase of around 215% (Figure 9).

FIGURE 9: POPULATION AGED 65 AND OLDER
Alberta, 2001-2046



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 net gains or losses through migration. The next section highlights the main 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 relatively more deaths, whereas a region with a large proportion of young adults will likely have more births. In addition, since migration is an activity undertaken primarily by young adults, the age structure will impact a region's migration patterns and vice versa.

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 2020 were CD 4 (Hanna) and CD 13 (Whitecourt) with average ages of 42.7 and 42.2 years, respectively. These two CDs are projected to have some of the least growth from natural increase over the projection period.

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. For many years, some regions have 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 for interprovincial migrants. Likewise, some CDs make considerable gains 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 people to other parts of the province at the same time, leading to lower growth from migration than might be expected.

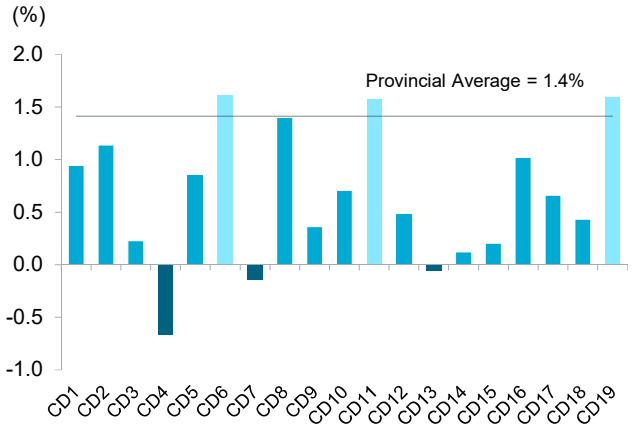
In general, the largest centres capture most of the migration to the province from international sources, while also gaining from migratory movements both within Alberta and from other regions of Canada (Appendix Map 2).

Most regions expected to see population growth

With the exception of 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 14 (Edson) is expected to grow, the increase is small (average annual growth of 0.12%) and the population is relatively stable (Figure 10). CD 3 (Pincher Creek) and CD 15 (Banff) are also likely to experience minimal growth over the projection period. By comparison, the Edmonton-Calgary Corridor (CDs 6, 8 and 11) and CD 19 (Grande Prairie) are projected to have the strongest growth (Appendix Map 3).

FIGURE 10: AVERAGE ANNUAL POPULATION GROWTH BY CENSUS DIVISION

Census Divisions, 2020-2046



Sources: Statistics Canada and Alberta Treasury Board and Finance

Regional Age Structure

Overall increase in children, but regional variation

There is considerable regional variation in the proportion of 0 to 14 year olds. At the top end, 28% of CD 17's (Slave Lake) population was under the age of 15, while at the bottom end of the spectrum, the proportion of children in CD 15 (Banff) was 14% in 2020. The share of children is projected to drop or remain fairly stable in most of the CDs, however this depends on the region. CD 16 (Wood Buffalo) is expected to show the greatest drop in the share of 0 to 14 year olds (3.5 percentage points), which is primarily due to population aging and the shrinking proportions of women of child-bearing age. CD 3 is expected to see the largest increase (2.0 percentage points), due to higher than average fertility in the region. CDs 17 and 15 will continue to have the highest and lowest population shares of children, respectively, in 2046.

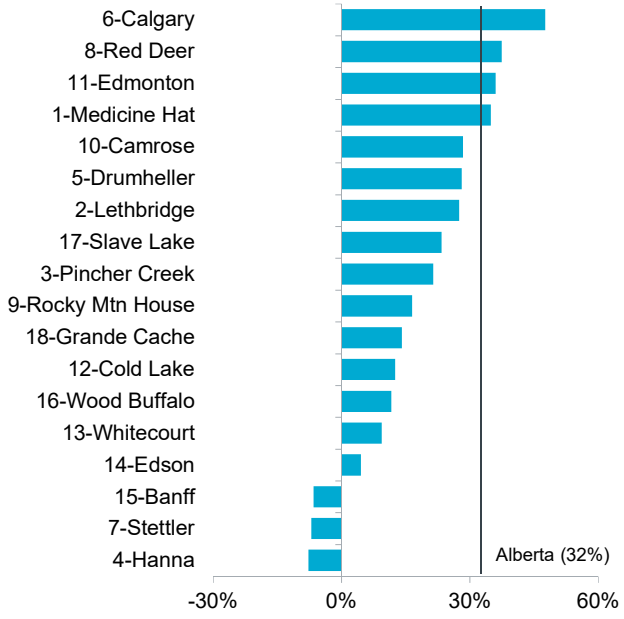
The absolute number of children will increase in most census divisions (Figure 11). Due to their large populations, the largest absolute increases in the number of children are expected in CD 8 (Red Deer), CD 6 (Calgary), and CD 11 (Edmonton). These three census divisions, together with CD 19 (Grande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

Proportion of working-age population to shrink in every region

All but seven census divisions are projected to have increased populations in the working-ages (15 to 64 years) between 2020 and 2046 (Figure 12). Since migrants are predominantly young adults, regions receiving the most net migrants are expected to see the largest gains in their working-aged populations. CD 6 (Calgary) takes the top spot, followed by CD 11 (Edmonton), CD 8 (Red Deer). and CD 2 (Lethbridge).

FIGURE 11: PERCENT CHANGE OF 0 TO 14 YEAR OLDS

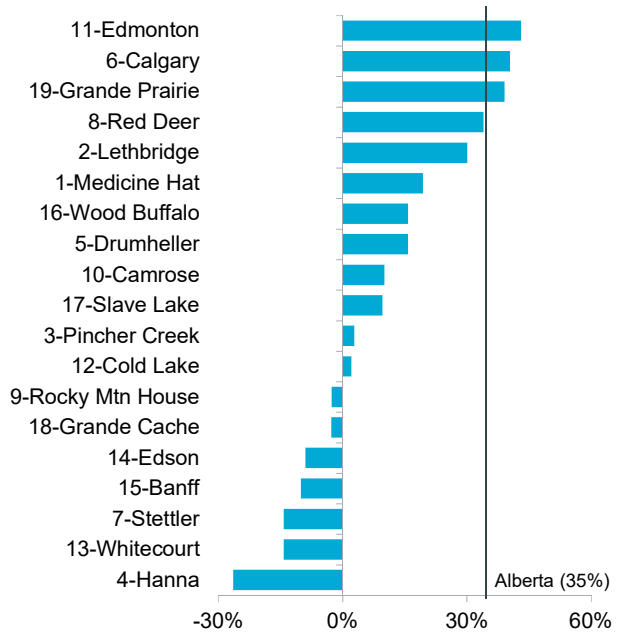
Census Divisions, 2020-2046



Sources: Statistics Canada and Alberta Treasury Board and Finance

FIGURE 12: PERCENT CHANGE OF 15 TO 64 YEAR OLDS

Census Divisions, 2020-2046



Sources: Statistics Canada and Alberta Treasury Board and Finance

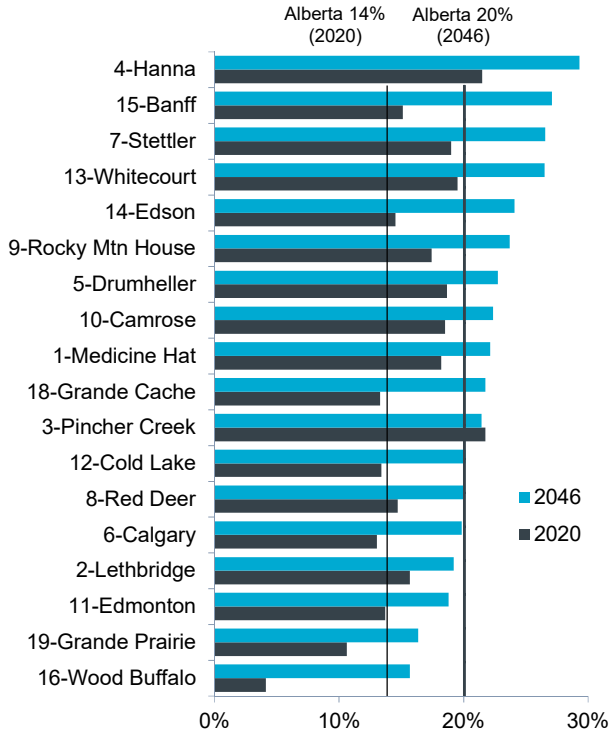
In 2020, the regions with the highest share of the working-age population were CD 16 (Wood Buffalo), CD 15 (Banff), CD 6 (Calgary), CD 11 (Edmonton) and CD 19 (Grande Prairie); all had shares over the Alberta average of about 68%. In contrast, 58% of people in CD 3 (Pincher Creek) were of working age. The share of population aged 15 to 64 will decline in all census divisions between 2020 and 2046. However, CD 16, CD 11 and CD 6 will continue to have the highest shares, above the provincial average of 63% (Figure 12).

Regional differences in population aging

In 2020, 14% of Albertans were 65 years of age and older, and this number is expected to increase to 20% 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 2020, CD 3 (Pincher Creek) and CD 4 (Hanna) had the highest proportion of seniors among the CDs at 22% and 21%, respectively, while Wood Buffalo (CD 16) had the lowest share (4%). In 2046, it is expected that CD 4 (Hanna) will continue to have the highest percentage of seniors at 29%, whereas CD 17 (Slave Lake) will have the smallest share with about 14% of the population aged 65 years and over.

FIGURE 13: POPULATION AGED 65 AND OVER AS A PERCENT OF TOTAL POPULATION

Census Divisions, 2020 and 2046



Sources: Statistics Canada and Alberta Treasury Board and Finance

Focus on selected regions

Recession in Alberta: around the province

Although Alberta is coming out of a recession, restrictions on travel continue to weigh on population growth over the short term. While all regions of the province are expected to be impacted, particular effects are expected in CD 6 (Calgary), CD 11 (Edmonton), CD 8 (Red Deer), CD 16 (Wood Buffalo) and CD 15 (Banff).

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 almost 77% of the population and is the most urbanized area of the province. Projected growth in this region will outpace the provincial average (Appendix Map 3). By 2046, 80% of 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, this area tends to attract most of the migrants arriving from outside of the province. In the past decade, 86% of immigrants and 77% of the net migrants from other parts of Canada settled in this region. In addition, these CDs tend to gain residents through migration from other parts of the province.

Wood Buffalo: growth slows

CD 16 (Wood Buffalo) was hit hard by the 2015-2016 recession. Strong net outflows of interprovincial and intraprovincial migrants and NPRs caused this region's population to shrink between 2014 and 2017 as the economy adjusted to lower oil prices and a decline in oil sands investment. Additionally, a devastating wildfire in 2016 forced the largest evacuation in Alberta's history and halted oil sands operations. Thereafter, this region experienced modest economic improvements, with rising production and improved oil prices. However, the pandemic-induced decline in oil demand and a collapse in oil prices led to companies scaling back bitumen production. CD 16 is expected to have net outflows of migrants between 2020 and 2024, and the population is forecast to contract for the period of 2020 to 2022. Following a few years of net outflows, CD 16 is expected to reach positive levels of net migration once again. Between 2026 and 2028, higher oil sands investment, due to improving market access for Alberta crude and growing confidence, should result in a modest boost in migration to this region. Over the entire projection period, natural increase is expected to contribute over 25% to CD 16's growth. This is the second highest contribution among regions in the province, and well

above the provincial level (Appendix Map 1). Due to its youthful population, there are relatively fewer deaths and a significant number of births in CD 16 when compared with other regions. Overall, average annual growth for CD 16 is projected at 1.0% between 2020 and 2046.

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 1.6%, the region's average annual growth (between 2020 and 2046) is expected to remain well above the provincial level (Appendix Map 3). This 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 and both areas have abundant reserves of oil and gas. While resource activities may attract more male migrants, the service sector is expected to attract a more balanced mix of people. Compared with CD 16 (Wood Buffalo), for example, the sex ratio of CD 19 (Grande Prairie) is less skewed towards 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 in 2015-2016, and saw net outflows of migrants between 2015 and 2017. This region is forecast to once again have net outflows of migrants between 2020 and 2022. However, because of its economic diversity and the up-tick in conventional drilling, CD 19 should see its migration levels recover more significantly than other oil dependent regions such as CD 12 and CD 16. In the short term, this region could also see benefits from strong demand in the agriculture and forestry sectors.

Lethbridge: growth potential

CD 2, which includes the City of Lethbridge, is an economically diverse region with industries such as agriculture, government and manufacturing. This puts the region in a better position to cope with an economic recession when compared with some other regions of the province. CD 2 has become an increasingly attractive destination for migrants and their families, as well as for young adults due to its postsecondary institutions. Given its relatively young age structure and higher-than-average fertility, CD 2 has the potential for continued future growth. There has also been an uptick in renewable resource development, which should support growth in the short term.

Mountain parks: migration supports growth

Throughout the pandemic, CD 15 (home to both Banff and Jasper) has experienced a significant slowdown in tourism. This was the result of restricted international travel and fewer interprovincial visitors due to COVID-19. This economic slowdown in tourism also affected demand for temporary foreign workers (a sub-category of NPRs). As a result, this region is expected to see continued net outflows of migrants over the next couple of years. By 2023, international travel is expected to resume, which should provide a boost to tourism, leading to a rebound in migration.

Over the projection period, CD 15 is expected to have negative growth from natural increase (-1.2%), due mainly to low fertility (Appendix Map 1). Although there is a large number of young adults, they tend to leave the region before they start families. However, net migration will support overall population growth of 0.20% annually (Appendix Map 3), offsetting the impacts of negative growth due to natural increase.

For more information on the Population Projections see:

Data for Alberta Population Projections.

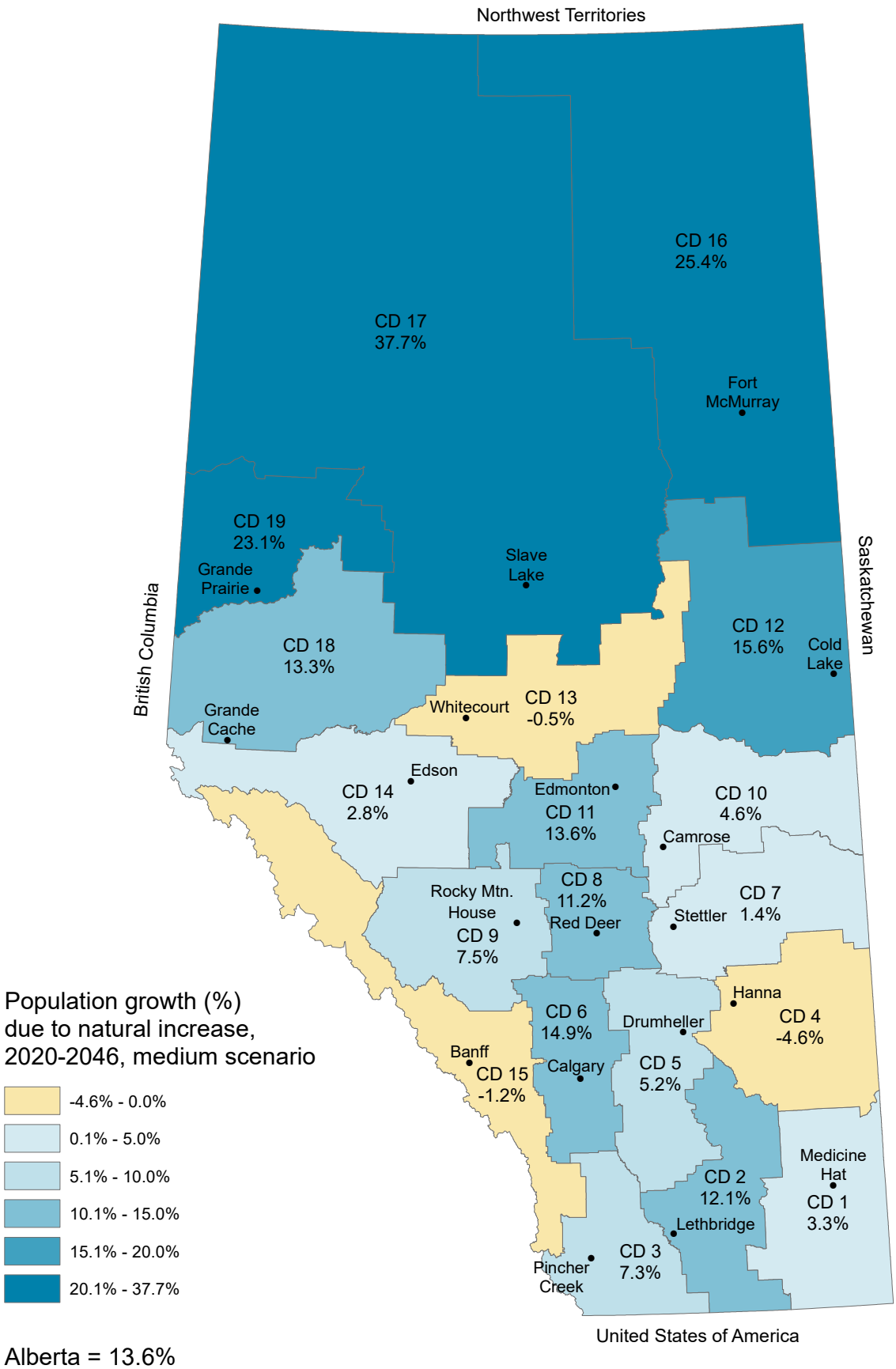
Includes estimated (1996-2020) and projected (2021-2046) population of Alberta and its 19 Census Divisions by single year of age and sex as well as some summary statistics.

Population Projection Methodology and Assumptions.

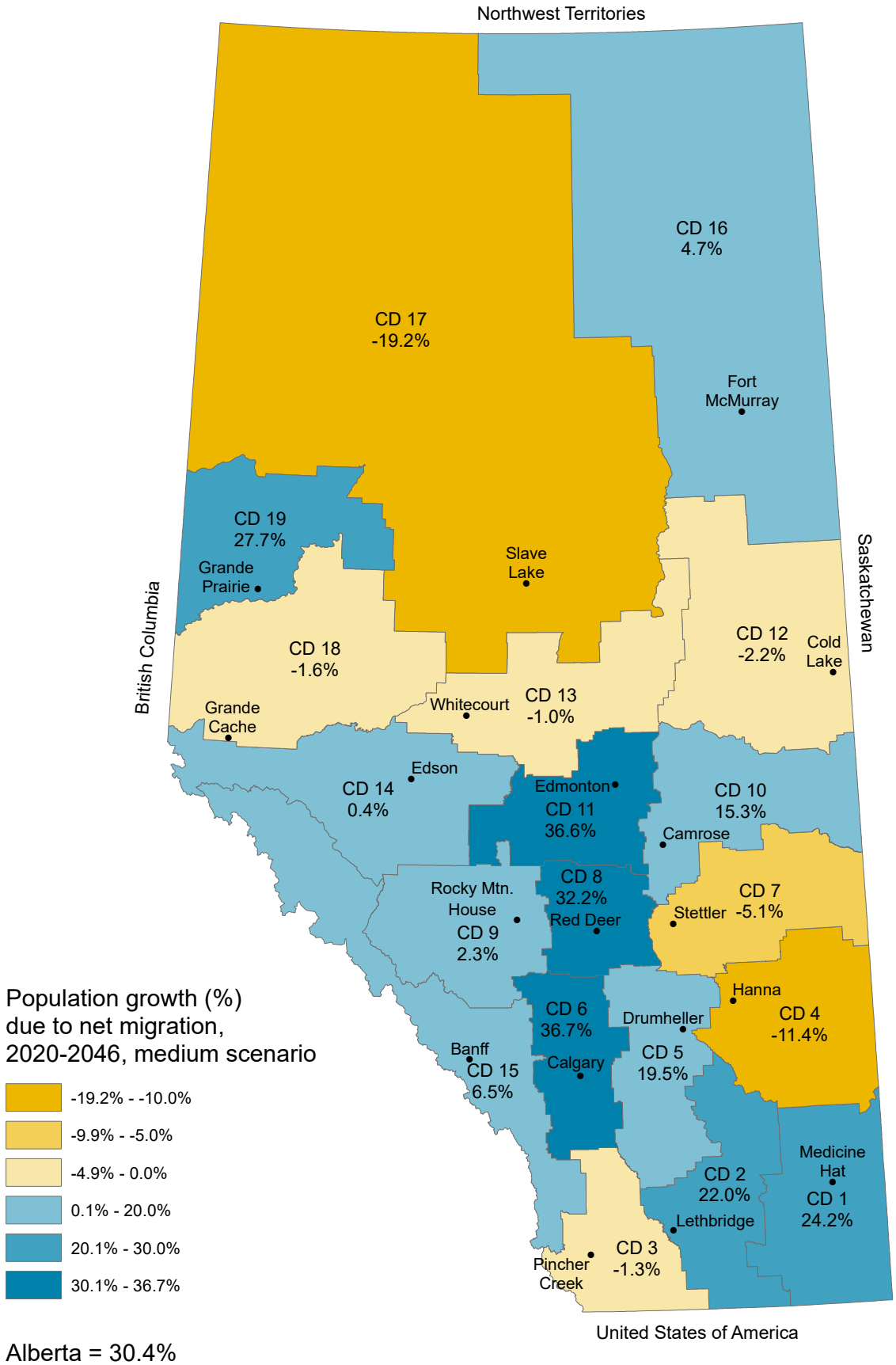
Details the methodology and assumptions of the long-term population projections.

Contact Jennifer Hansen at 780.427.8811

MAP 1: POPULATION GROWTH DUE TO NATURAL INCREASE, 2020-2046, MEDIUM SCENARIO



MAP 2: POPULATION GROWTH DUE TO NET MIGRATION, 2020-2046, MEDIUM SCENARIO



MAP 3: AVERAGE ANNUAL POPULATION GROWTH (PERCENT), 2020-2046, MEDIUM SCENARIO