

Columbia Basin-Boundary Age & Gender Update

RESEARCH BRIEF



INTRODUCTION

2016 marked the first Census year in Canadian history where more seniors were counted than children.¹ Across Canada, fundamental changes in the population structure driven by low birthrates, longer life expectancies, and most notably, the aging baby boomers, are gaining momentum. In some parts of rural Canada, including the Columbia Basin-Boundary region, these trends are compounded by unique issues like the out-migration of youth and in-migration of retirees seeking the types of amenities that accompany rural living.²

Demographic shifts have important consequences for our communities. Different age groups and household structures have different needs in terms of housing, services (e.g., health, education), employment, and consumption. A reduction in the number of working-age people can challenge economies because of the smaller tax base and larger number of residents living with fixed incomes. On the other hand, baby boomers are retiring with better health and more wealth than previous generations, meaning that traditional concepts of aging are also shifting. Rural communities across BC and Canada are grappling with these issues and positioning to capitalize on associated opportunities.

This research brief provides updated data related to age and sex for the Columbia Basin-Boundary region based on the 2016 [Census](#). Data from [BC Stats](#) is also discussed in the section on population projections. Various geographies are addressed, including census subdivisions (municipalities, regional district electoral areas, and Indian reserves), local health areas, and development regions. Comparisons to figures for British Columbia (BC) and Canada are also included.

TRENDS & CURRENT CONDITIONS

Gender

The Columbia Basin-Boundary region has an even gender balance, with a ratio of one male per female in the total population (Figure 1). This differs from the overall BC and Canada figures, which both show slightly more females (51%) than males. It is common in developed countries for the population’s gender balance to lean slightly toward females. In Canada, this has been the case for almost 40 years and is primarily attributed to the female population’s longer life expectancy.³

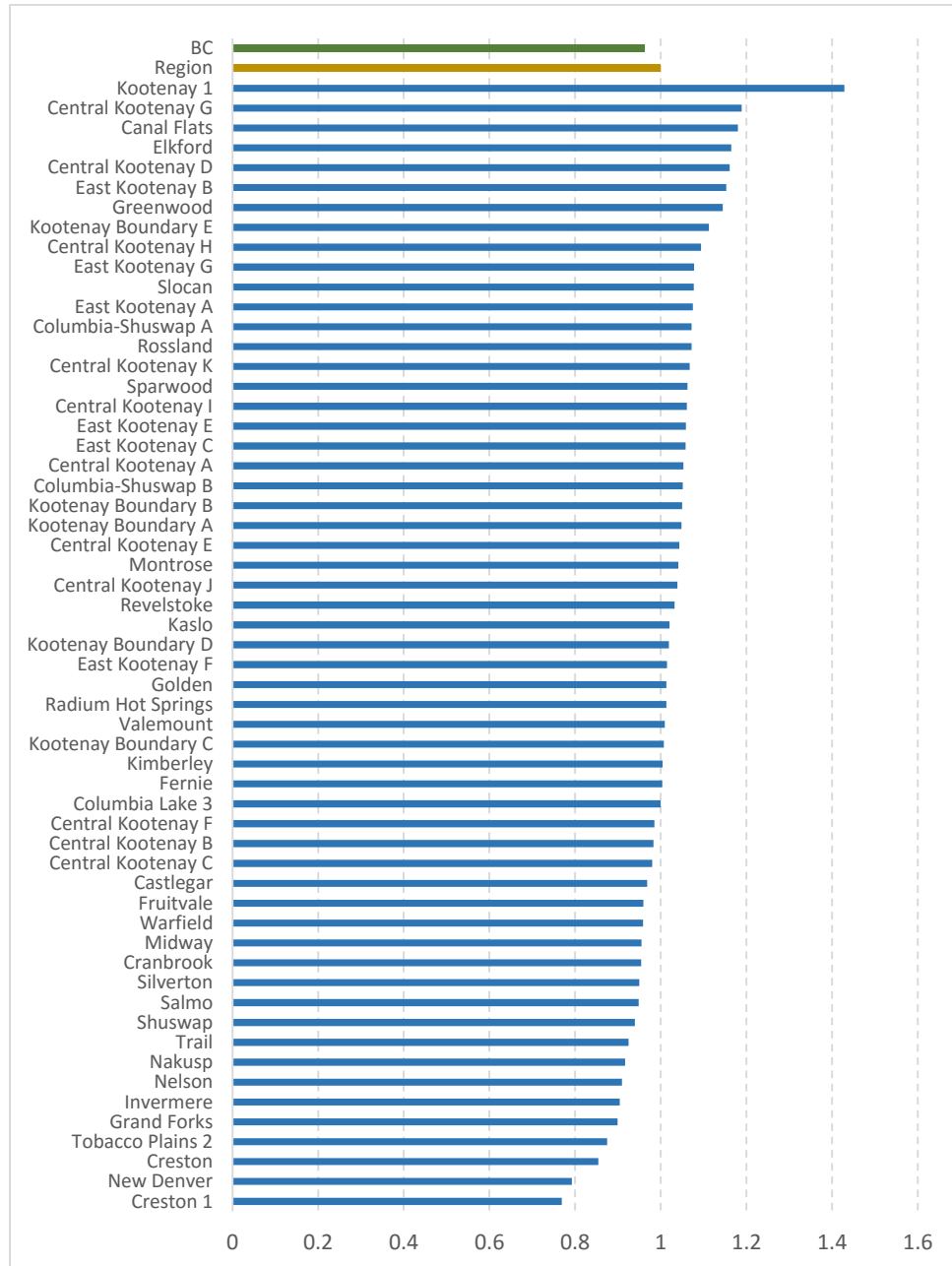


Figure 1: Sex ratios (male : female) for Columbia Basin-Boundary census subdivisions⁴

At the census sub-division scale, sex ratios vary. The communities with the highest male-to-female ratios (i.e., highest percentage of males) are the Kootenay 1 reserve and Central Kootenay Area G, with ratios of 1.42 and 1.19 respectively. The communities with the lowest male-to-female ratios (i.e., the highest percentage of females) are the Creston 1 reserve and New Denver, with ratios of 0.77 and 0.79 respectively. It is important to note that for communities with very small populations, including the Kootenay 1 and Creston 1 reserves (both with populations of under 200 individuals), the addition or loss of a few males or females can have a significant impact on the sex ratio. Therefore, planners in these communities may choose to consider long-term trends in the population structure, rather than current conditions, when determining how best to arrange services to meet the needs of residents.

Women are typically over-represented in the older age cohorts. This may further influence the gender balance as the population ages. In the Columbia Basin-Boundary region, there are only 76 males for every 100 females over 80 years of age. This point is especially notable when considered with the fact that boys are typically over-represented in the younger age cohorts.³ There are 106 males for every 100 females under 10 years of age in our region.

Average Age

In past Census years, Statistics Canada has reported *median* age as a summary of a population's age structure. In 2016, the switch to *average* age was made as it is anticipated that the average will adjust better as the baby boomers move to older age cohorts. Unfortunately, the change in methodology will prohibit comparison of this year's Census data to that from any year prior to 2011.

Table 1 shows the 2011 and 2016 average and median age for Basin-Boundary census sub-divisions. Most communities have higher average and median ages than BC or Canada as a whole. The Indigenous communities in our region tend to have the youngest populations, with the Creston 1, Kootenay 1, and Shuswap reserves showing the lowest average ages (31.9, 36.5, and 36.6, respectively). Silverton, Greenwood, and New Denver show the highest average ages (55.0, 54.8, and 54.4, respectively). The range in average age between Basin-Boundary populations exemplifies the diversity of our region's communities.

	Average Age			Median Age		
	2016	2011	Change	2016	2011	Change
Canal Flats	42.8	39.6	+3.2	46.7	41.5	+5.2
Castlegar	44.9	44.2	+0.7	46.7	46.1	+0.6
Central Kootenay A	52.6	50.9	+1.7	58.5	56.2	+2.3
Central Kootenay B	45.4	43.3	+2.1	52.0	48.6	+3.4
Central Kootenay C	48.5	46.9	+1.6	54.8	52.8	+2.0
Central Kootenay D	49.4	46.3	+3.1	54.9	51.9	+3.0
Central Kootenay E	45.8	43.7	+2.1	49.6	47.4	+2.2
Central Kootenay F	44.3	42.8	+1.5	47.2	46.2	+1.0
Central Kootenay G	42.3	41.0	+1.3	44.6	43.8	+0.8
Central Kootenay H	43.2	42.5	+0.7	45.5	45.1	+0.4
Central Kootenay I	44.6	42.3	+2.3	48.2	45.1	+3.0
Central Kootenay J	43.4	41.6	+1.8	46.9	45.0	+1.8
Central Kootenay K	52.9	49.2	+3.7	58.6	55.0	+3.6
Columbia Lake 3	41.4	43.4	-2.0	42.5	46.8	-4.3
Columbia-Shuswap A	43.2	40.3	+2.9	46.0	42.8	+3.2
Columbia-Shuswap B	45.0	43.6	+1.4	49.0	48.2	+0.8

	Average Age			Median Age		
	2011	2016	Change	2011	2016	Change
Cranbrook	43.1	41.8	+1.3	44.5	43.1	+1.4
Creston	52.2	50.5	+1.7	57.7	55.2	+2.5
Creston 1	31.9	31.1	+0.8	28.0	32.5	-4.5
East Kootenay A	41.4	39.7	+1.7	43.1	40.9	+2.1
East Kootenay B	46.1	43.8	+2.3	51.1	48.4	+2.7
East Kootenay C	44.8	43.5	+1.3	49.8	48.0	+1.8
East Kootenay E	48.8	48.0	+0.8	54.0	52.3	+1.8
East Kootenay F	50.0	46.0	+4.0	55.5	51.0	+4.5
East Kootenay G	45.5	44.2	+1.3	51.1	48.9	+2.2
Elkford	37.4	36.8	+0.6	38.0	38.3	-0.4
Fernie	39.2	40.2	-1.0	38.0	39.9	-1.9
Fruitvale	45.5	42.8	+2.7	48.8	45.3	+3.5
Golden	41.0	39.1	+1.9	40.2	38.1	+2.1
Grand Forks	50.4	48.4	+2.0	55.1	52.3	+2.8
Greenwood	54.8	51.8	+3.0	60.5	57.6	+2.9
Invermere	43.1	43.9	-0.8	42.9	45.8	-2.9
Kaslo	49.6	45.6	+4.0	56.0	49.9	+6.1
Kimberley	44.6	44.2	+0.4	46.2	46.3	-0.1
Kootenay 1	36.5	31.8	+4.7	37.0	28.5	+8.5
Kootenay Boundary A	43.6	42.5	+1.1	47.8	46.9	+0.9
Kootenay Boundary B	48.0	46.4	+1.6	53.9	51.2	+2.7
Kootenay Boundary C	52.6	48.8	+3.8	58.6	53.8	+4.7
Kootenay Boundary D	49.9	47.5	+2.4	55.4	52.3	+3.1
Kootenay Boundary E	47.4	46.3	+1.1	53.3	51.9	+1.4
Midway	54.2	52.8	+1.4	60.3	58.3	+1.9
Montrose	46.0	44.8	+1.2	50.9	50.0	+0.8
Nakusp	47.8	47.0	+0.8	51.4	50.6	+0.8
Nelson	42.5	41.1	+1.4	42.3	40.9	+1.4
New Denver	54.4	52.3	+2.1	60.9	56.5	+4.4
Radium Hot Springs	47.3	43.0	+4.3	52.3	47.4	+4.9
Revelstoke	40.2	40.2	+0.0	39.1	40.3	-1.2
Rosland	40.0	38.9	+1.1	41.1	39.9	+1.3
Salmo	46.5	43.1	+3.4	50.6	45.7	+4.9
Shuswap	36.6		N/A	34.3		N/A
Silverton	55.9	51.0	+4.9	60.1	55.0	+5.1
Slocan	45.8	43.0	+2.8	51.0	47.5	+3.5
Sparwood	39.2	38.8	+0.4	39.8	39.5	+0.3
Tobacco Plains 2	37.5		N/A	36.5		N/A
Trail	47.1	46.8	+0.3	50.6	49.8	+0.8
Valemount	42.9	41.9	+1.0	45.3	44.3	+1.0
Warfield	43.3	42.3	+1.0	45.3	45.4	-0.0
BC	42.3	41.2	+1.1	43.0	41.9	+1.1
Canada	41.0	40.1	+0.9	41.2	40.6	+0.6

Table 1: Change in average and median age for Basin-Boundary census subdivisions⁴

Only 3 of our 57 communities became younger overall over the period 2011 to 2016. These are Fernie, Invermere, and the Columbia Lake 3 reserve. While the average age in both BC and

Canada also rose from 2011 to 2016, our region, on the whole, is aging at a faster rate. Sixty-seven percent of Basin-Boundary census subdivisions saw a higher change in average age than BC, and 76% saw the same as compared to Canada.

The Kootenay Development Region, which includes the Kootenay Boundary, Central Kootenay, and East Kootenay regional districts, ranks as the third oldest in BC with an average age of 45.0 years, behind the Thompson-Okanagan Development Region (45.2) and the Vancouver Island / Coast Development region (45.3). The youngest populations in the province are concentrated in the north and the Lower Mainland (Figure 2).

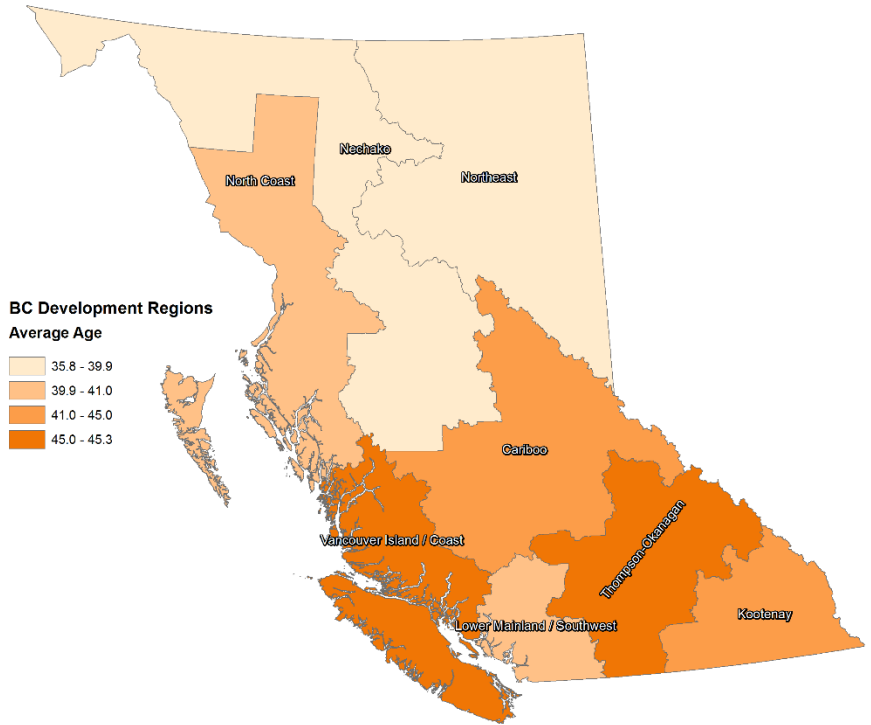


Figure 2: Average age by BC Development Region⁷

Age Structure & Dependency

The region’s population pyramid (Figure 3) is characterized by a large bulge in the population aged 50-70 (the baby boomers) and progressively smaller cohorts in the older population groups.

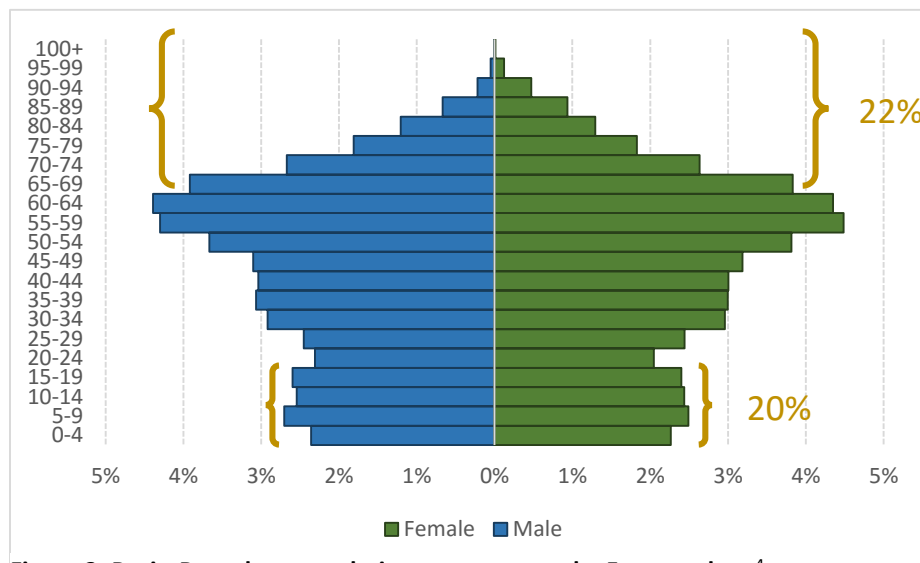


Figure 3: Basin-Boundary population age structure by 5-year cohort⁴

A notable dip in the 20-29 age group is common to population pyramids in predominantly rural areas, and indicates an out-migration of young adults seeking employment and education opportunities elsewhere. The senior component (65+) is slightly larger than the youth component (under 20). This represents a shift from the 2011 Census, when the youth component represented 21% of the population, and the senior component represented 18%.

Demographic researchers commonly compare the component of the population that is considered to be of working age (20-64) with the senior and youth components to get a sense of an economy’s level of dependency on workers. Our region’s total dependency ratio is 0.71 (Figure 4), up from 0.65 in 2011. This means that for every person of working age, there are 0.71 dependants. The change is primarily driven by an increase in the senior dependency ratio from 0.30 to 0.37. The youth dependency ratio dropped slightly from 0.35 in 2011 to 0.34 in 2016.

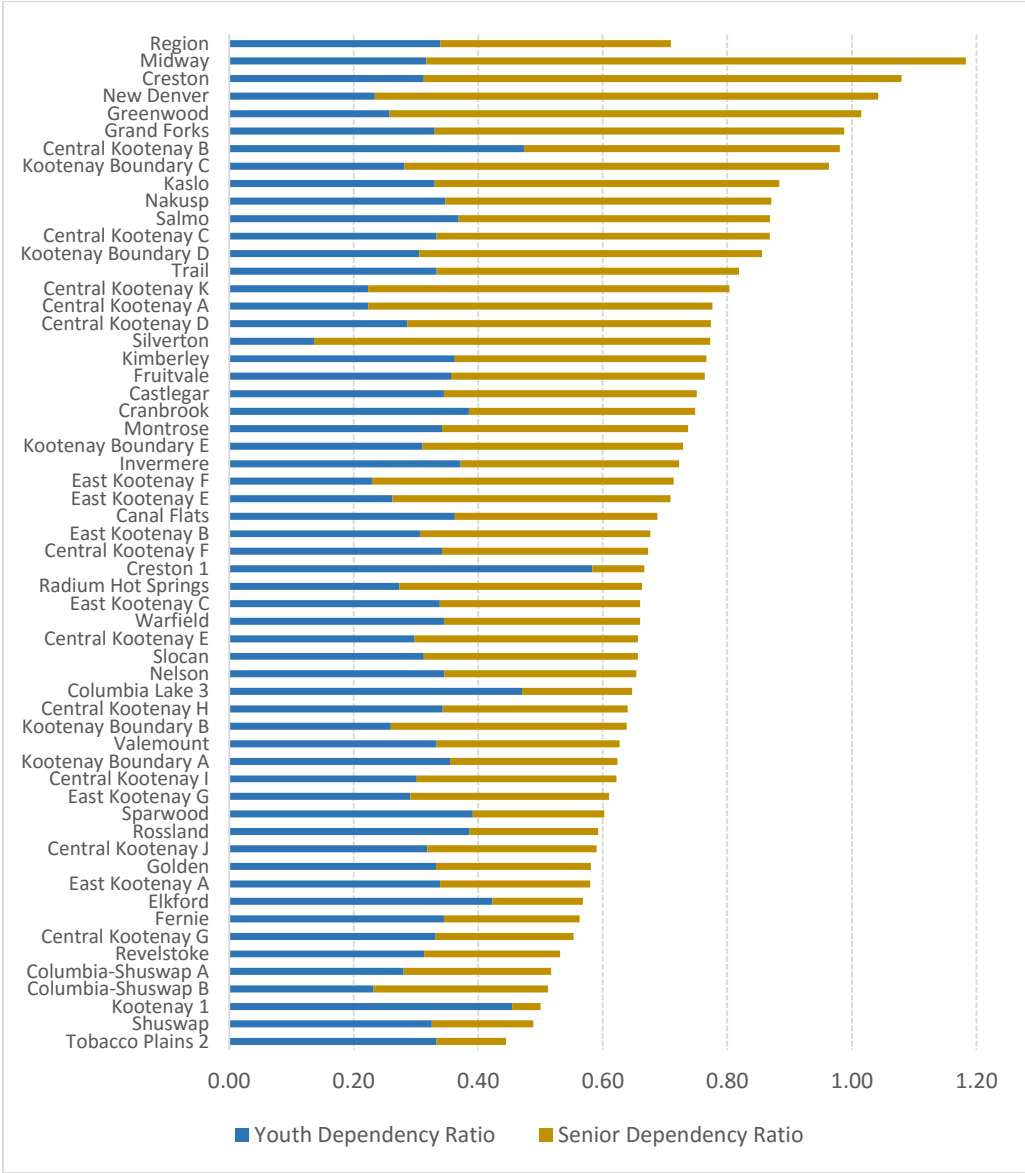


Figure 4: Dependency ratios for Basin-Boundary census sub-divisions⁴

Dependency ratios vary significantly by community. Those with the highest overall rates of dependency include Midway, Creston, New Denver, and Greenwood. Each of these communities have more dependants than workers, and the dependency is primarily driven by the large senior population. The communities with the lowest rates of dependency include the Tobacco Plains 2, Shuswap, and Kootenay 1 reserves. Dependency in the Indigenous communities in our region is primarily driven by the large youth population.

Note that dependency ratios are calculated strictly based on the age of the population. They do not account for people of working age that do not work, or vice-versa. Dependency ratios are useful for comparative purposes and to understand the general structure of a population, but they are not a true reflection of the component of the population that is economically dependent.

PROJECTIONS

BC Stats provides population projections to the scale of the Local Health Area, of which there are 14 in the Basin-Boundary region. Note that Valemount is not included in these calculations because of its inclusion in the Prince George Local Health Area. BC Stats’ projections are based on past conditions and possible future changes related to fertility, mortality and migration. They represent the anticipated outcome of only one possible future scenario, and should therefore be used with caution.⁵

Figure 5 shows our region’s projected youth (under 20) worker (20-64) and senior (65+) population to 2041. Inclusion of historic data shows that our region has recently undergone a major shift, where the senior component has overtaken the youth component in size. Projections show that the senior component will continue to grow as the baby boomers age. At the same time, the worker population will shrink. These trends will stabilize in the late 2020s before the population begins a slow shift back toward a population with a more sizeable worker component.

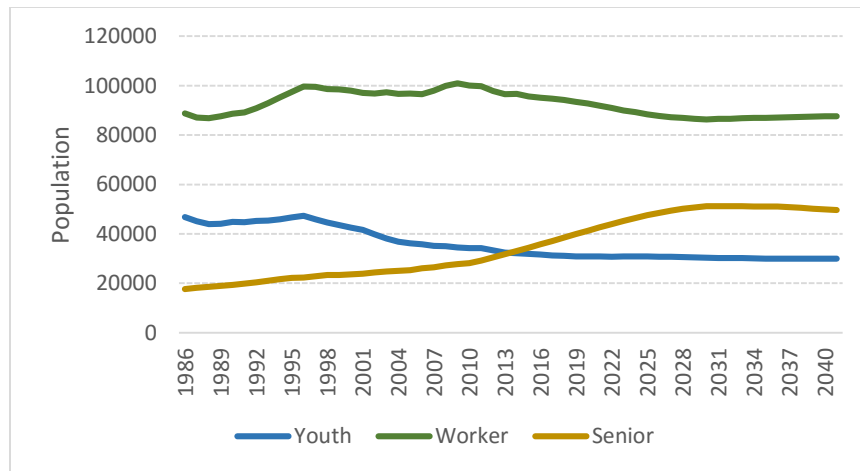
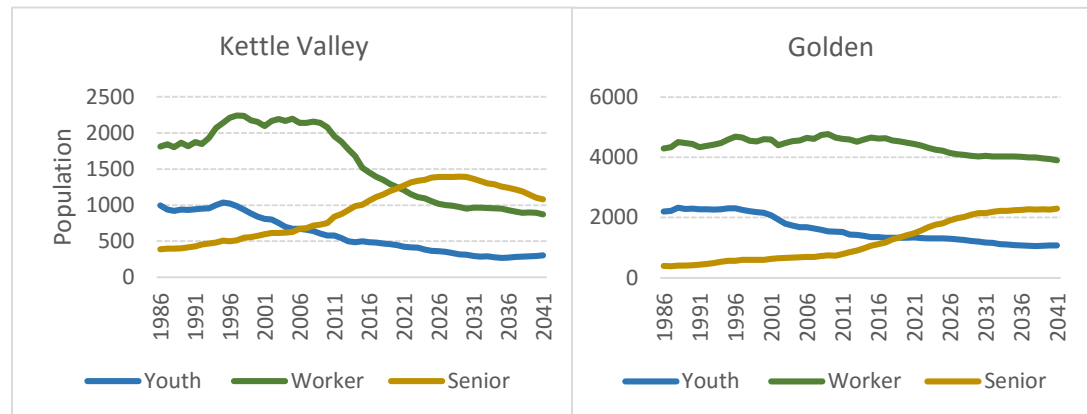


Figure 5: Combined projected population to 2041 for all Basin-Boundary Local Health Areas, by population component⁶

Again, the data varies by community. Figures 6 and 7 compare population projections for a Basin-Boundary Local Health Area with an historically high average age (Kettle Valley) to one with an historically low average age (Golden). In both graphs, the senior component overtakes the youth component, but the Kettle Valley data shows that this shift has already happened, while the

Golden data shows that it will happen in 2019. The Kettle Valley projections are notable in that they show the senior component overtaking the worker component within the next five years.



Figures 6 and 7: Projected population to 2041 for the Kettle and Golden Local Health Areas, by population component⁶

DATA RELIABILITY

The data discussed in this report is primarily sourced from the Census of Canada. The Census is the most reliable source of demographic information available to researchers due to its lengthy record, and rigorous and consistent approach. Other agencies (such as BC Stats) sometimes report demographic information that conflicts with Census results. The reasons for these discrepancies, and the advantages and disadvantages of various datasets, are discussed at length in the RDI's [Columbia Basin Boundary Population Update](#) from spring 2017.

REFERENCES & RESOURCES

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The Columbia Basin Rural Development Institute, at Selkirk College, is a regional research centre with a mandate to support informed decision-making by Columbia Basin-Boundary communities through the provision of information, applied research, and related outreach and extension support. Visit www.cbrdi.ca for more information.