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Situational Analysis

for Community Futures

Yellowhead East

Community
Futures



Yellowhead East



SITUATIONAL ANALYSIS

FOR COMMUNITY FUTURES

YELLOWHEAD EAST

June 2019



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Economic SNAPSHOT

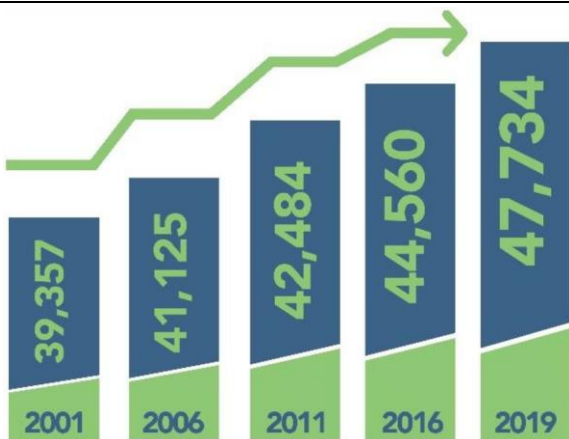
of Community Futures

YELLOWHEAD EAST

Community
Futures Yellowhead East

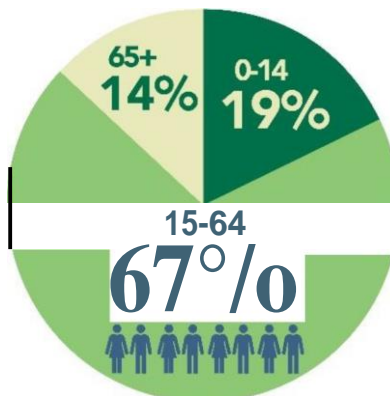
POPULATION

Total Population

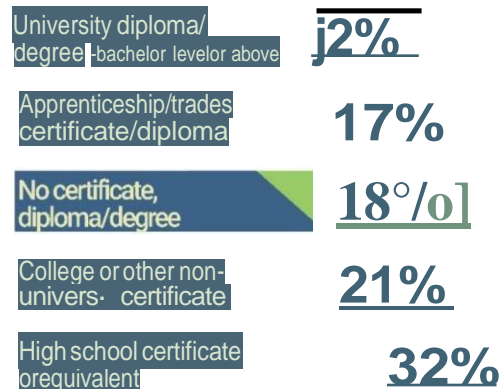


Census Population Data, Statistics Canada, 2001-2016.

Age Profile



Educational Attainment



For the population aged 24-65.



HOUSING

Dwelling Value

Average Value **\$437,904**

Median Value **\$421,335**

Total number of households

18,592



75% Single Detached House

14%

Movable Dwelling

7%

Apartment/ detached duplex

30%

Semi-detached House

2%

Row House

Dwelling Income



\$126,076

Average Household
Total Income

\$99,276

Median Household
Total Income



11% 3/4

of CF Yellowhead East's population
spends 30% or more of household
total income on shelter costs

Economic SNAPSHOT

of Community Futures

YELLOWHEAD EAST

Community
Futures Yellowhead East



LABOUR FORCE & LOCAL ECONOMY

Top 5 Employment Industries



12%
Construction



10%
Mining, Quarrying,
and Oil & Gas Extraction



10%
Retail Trade



9%
Agriculture, Forestry,
Fishing & Hunting



8%
Health Care &
Social Assistance

Top 5 Employment Occupations



25%
Trades, Transport
& Equipment Operators



18%
Sales & Service



14%
Management



12%
Business, Finance
& Administration



8%
Natural Resources, Agriculture
& Related Production

Participation

70.6%

ALBERTA
71.8%

Employment

64.90%

ALBERTA
66.7%

Unemployment

8.1%

ALBERTA
7.1%



\$62.9**
million in value of
construction permits

\$3.5
billion in exports

Income	Income
\$47,697	\$62,283
ALBERTA MEDIAN	ALBERTA AVERAGE
\$48,190	\$69,431

**Statistics from the Government of Alberta
All data sourced from Manifold SuperDemographics 2019, unless otherwise specified.

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EXECUTIVE SUMMARY OF THE SITUATION

The area serviced by the CF Yellowhead has been analyzed in order to understand current trends in demographics, jobs, businesses, and exports. The region of study was defined using Statistics Canada's regional boundaries. All the census subdivisions (CSDs) that fell within the service area of the CF Yellowhead were summer together to make the region of study. The Data Sources Section has a list of the CSDs included, and their respective census number.

The regional population of CF Yellowhead East grew by 8.4% between the past two census periods (2006 to 2016) and is estimates to grow by 7.1% between 2016 and 2019. Most of the population (67%) is within working age; between the ages of 15 to 64. The region enjoys similar employment and household income levels, and lower housing prices, compared to the province. Women in the CF Yellowhead East area, however, have significantly lower median and average employment income levels compared to men (116% and 84% lower, respectively).

CF Yellowhead East has a labour force of approximately 27,261 persons. The area has a slightly higher unemployment rates (8.1%), compared to the province (7.1%), for persons 15 and older participating in the labour force. The largest underutilized labour group for the area is young perosns ages 15 to 24. Currently this group has an unemployment rate of 19%, compared to 12% for the same age group in the province. There is an opportunity for employers and educational institutions to collaborate in the creation of high-quality educational-work experiences and move to flexible work arrangements to make better use of this participating labour group.

Furthermore, the region has large labour surpluses (more employees than jobs) in the 'Construction'; 'Mining, quarrying, and oil and gas'; 'Wholesale trade'; 'Manufacturing'; and 'Agriculture, forestry, fishing and hunting' sectors. These are industries that could be further attracted to the local economy, as they can be well supported by the local workforce.

In terms of employment by industry in CF Yellowhead East, the farming industry is currently the largest employer. The 'Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance' industry has had the largest growth in jobs over the past 5 years. The 'Meat product manufacturing' industry is the fastest growing employment industry by percentage jobs growth (2013 to 2018). CF Yellowhead East has several concentrated industries—relative to both the nation and the province (in terms of employment)—related to manufacturing, namely:

- Pulp, paper and paperboard mills
- Sawmills and wood preservation

- Other fabricated metal product manufacturing

CF Yellowhead East also has concentrated industries—relative to both the nation and the province (in terms of employment)—related to repair and maintenance, oil and gas extraction, transportation and warehousing, and agriculture/forestry.

In terms of external revenues, ‘Manufacturing’, and ‘Transportation and warehousing’ sectors have been the most stable largest, and growing sectors to the CF Yellowhead East’s export base. The industries that generated the highest inflow of dollars (measured by export sales) into the local economy in 2015 (before the recession, and the most current available data) were:

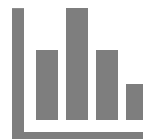
1. Oil and gas extraction
2. Pulp, paper and paperboard mills
3. Farms
4. Specialized freight trucking
5. Support activities for mining, and oil and gas extraction
6. Sawmills and wood preservation
7. Other fabricated metal product manufacturing

Lastly, business patterns were analyzed using Statistics Canada’s Businesses Registry (2013-2018). According to this data base, the following are the industries with the largest number of businesses in the area:

With Employees	Without Employees
1. Services to oil and gas extraction	1. Beef cattle ranching and farming, including feedlots
2. Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	2. Lessors of residential buildings and dwellings (except social housing projects)
3. Residential building construction	3. Services to oil and gas extraction
4. Electrical contractors and other wiring installation contractors	4. Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance
5. All other specialty trade contractors	5. Other grain farming
6. Site preparation contractors	6. Residential building construction
7. Beef cattle ranching and farming, including feedlots	7. Hay farming
8. Other scientific and technical consulting services	8. Animal combination farming
9. Oil and gas pipeline and related structures construction	9. Oilseed (except soybean) farming
10. Full-service restaurants	10. Other scientific and technical consulting services

1. DATA SOURCES

Please note that every effort has been made to use the most current data available. Information for this study was gathered for the region of the CF Yellowhead East, which includes the following communities:



CF Yellowhead East: Census Subdivisions (CSD) Included	
CSD Name	CSD CODE
Alberta Beach, Village	4813012
Castle Island, Summer Village	4813009
Sandy Beach, Summer Village	4813016
Sunrise Beach, Summer Village	4813017
South View, Summer Village	4813015
Sunset Point, Summer Village	4813011
Swan Hills, Town	4817024
Val Quentin, Summer Village	4813005
West Cove, Summer Village	4813006
Whitecourt, Town	4813030
Yellowstone, Summer Village	4813007
Barrhead, County	4813018
Barrhead, Town	4813019
Fox Creek, Town	4818002
Mayerthorpe, Town	4813002
Onoway, Town	4813014
Lac Ste. Anne, County	4813001
Woodlands, County	4813029

There are four major sources of information for the remainder of this document:

- The 2006 to 2016 Census from Statistics Canada.
- Canadian Business Registry (CBR) - December 2014 and December 2019
- SuperDemographics 2019 from Manifold Data Mining Inc.
- EMSI Analyst 2019.Q1

Canadian Business Registry (CBR)

The major sources of information for the business registry are updates from the Statistics Canada survey program and from Canada Revenue Agency's (CRA) Business Number account files. This CRA administrative data source allows for the creation of a complete set of all business entities.

Manifold Projection Method

Production of 2019 Demographic data estimates is partially based on population statistics collected by Statistics Canada Census Program. Manifold estimates demographic data annually, including population projections for 5 and 10 years in the future. Manifold methodologies are based on the following techniques:

- Enhanced cohort survival methods;
- Nearest neighbourhood and regression techniques; and
- Structural coherence techniques.

Manifold Data Sources include:

Statistics Canada	Real Estate Boards/Companies
Health Canada	Canadian Bankers Association
Regional Health Ministries	Bank of Canada
Citizenship and Immigration Canada	Canada Post Corporation
Regional School Boards	Consumer and business directories books
Flyer Distribution Association	Proprietary survey and research
Publication of hospitals, CMHC, BBM and partners	

EMSI Analyst

EMSI data brings the various snapshots of the Canadian economy together in a single picture. First, it aligns the geographies of the data from 2001 to the present, which means the Community Futures region of 2001 is the same as the Community Futures region of 2019. This results in geographically detailed data (down to the Census Subdivision level) that is applicable to today's economy.

The data is remarkably detailed, giving you information on 305 industry classifications using the North American International Classification System (NAICS) system and 522 occupations from Statistics Canada's National Occupational Classification (NOCs) classification system in over 4,300 integrated geographical areas. The data is updated twice a year so users have the most current information possible. And to top it all off, it adds 10-year projections based on the CBR data so that it provides an idea of the future alongside the past and present.

EMSI Data Sources include:

Canadian Business Registry (CBR)

2001, 2006, and 2011, 2016 Census data

Survey of Employment, Payroll and Hours (SEPH)

Labour Force Surveys (LFS)

Canadian Occupational Projection System (COPS)

CANSIM Demographics

Post-secondary Student Information System (PSIS) Education Data

2. DEMOGRAPHIC ANALYSIS

2.1. Population Growth

This subsection illustrates population characteristics for the region of Community Futures Yellowhead East, referred to as 'CF Yellowhead East' throughout the document. The wider economic landscape relevant to the region is explored by using **Alberta as a benchmark**.

Table 1 illustrates population growth over the past 20 years, including the estimated growth between 2016 and 2019. The census population grew by 8.4% between 2006 and 2016 (compared to 23.6% growth population growth in the province). The average annual growth rate between 2006 to 2016 was 4.2%, compared to 11% in the province.

Table 1: Population Change, CF Yellowhead East vs. Alberta, 2001-2019

	2006	2011	2016	2019*
CF Yellowhead East Population Count	41,125	42,484	44,560	47,734
% Change from Previous Census	4.5%	3.3%	4.9%	7.1%
Alberta Population Count	3,290,350	3,645,257	4,067,175	4,522,106
% Change from Previous Census	10.6%	10.8%	11.6%	11.2%

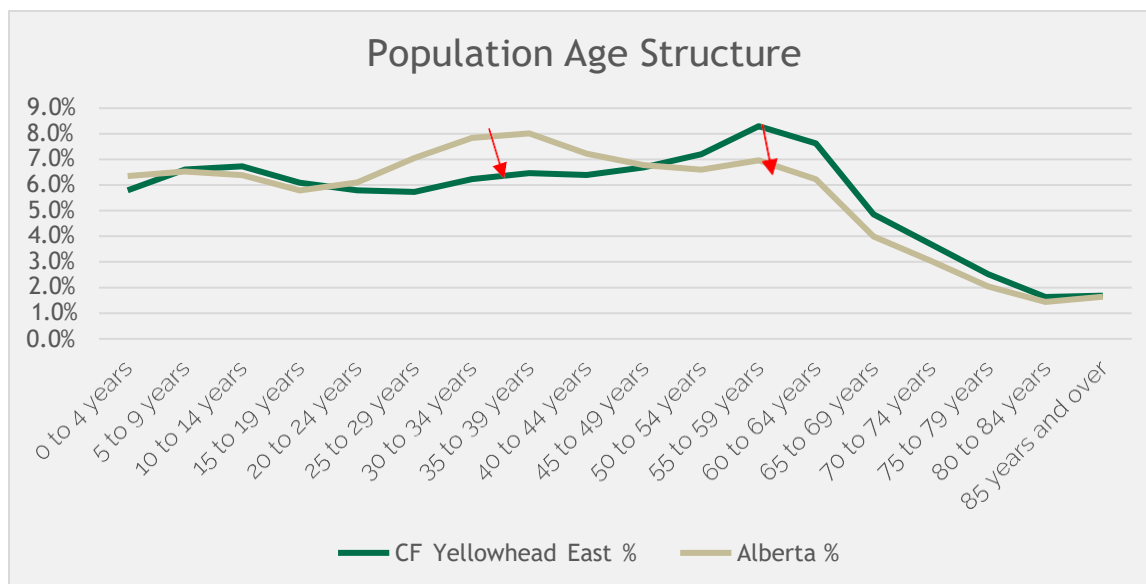
Source: Statistics Canada Census data 1996, 2001, 2006, 2011 2016; Manifold SuperDemographics 2019.

*Manifold population estimates vs. Census data are not directly comparable.

The census population in CF Yellowhead East grew by 8.4% over the past 2 census periods

Figure 1 contrasts the age profile of residents in CF Yellowhead East and Alberta, in 2019. CF Yellowhead East has a slightly smaller percentage of young to middle age adults (ages 25 to 50), compared to Alberta.

Figure 1: Percent Population by Age, CF Yellowhead East vs. Alberta, 2019



Source: McSweeney & Associates and Manifold Data Mining Inc. SuperDemographics 2019

Compared to Alberta, the region of CF Yellowhead East has a larger percentage of its population within the age range of 55 to 75 and less of its population in the age range of 0 to 25 years of age. **Ultimately, CF Yellowhead East has a slightly smaller percentage of persons within the working age groups, compared to Alberta.**

2019 Age Profile Snapshot		
Age Group	CF Yellowhead East	Alberta
0-14	19.1%	19.3%
15-64	66.5%	68.6%
65+	14.4%	12.2%

CF Yellowhead East has a population slightly older compared to Alberta, as measured by the average age and median age.

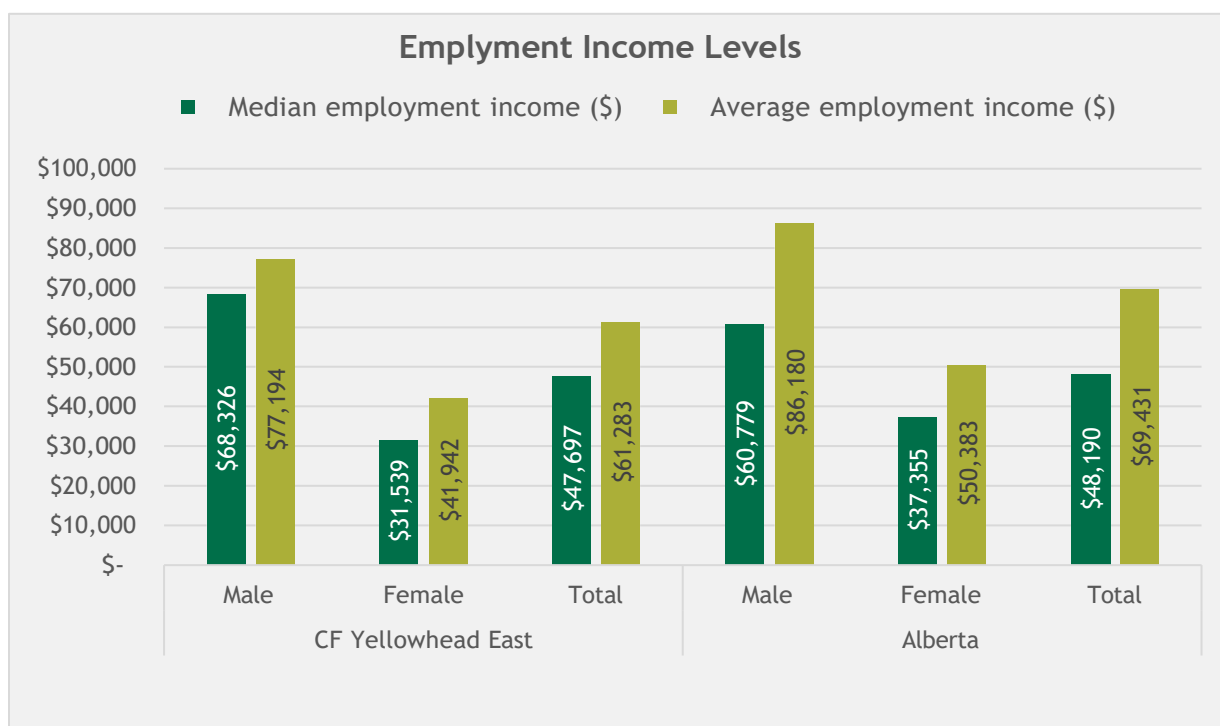


2.2. Households, Income, and Housing Attainability

This subsection describes the income and housing costs of the populations. With regards to employment income, the following observations can be made¹:

- CF Yellowhead East region had a median employment income was \$47,697, that is, 1% lower than in Alberta (\$48,190).
- The average employment income for CF Yellowhead East residents was \$61,283, that is, 12% higher than in Alberta (\$69,431).

Figure 2: Employment income of the Population aged 15 and over, 2019



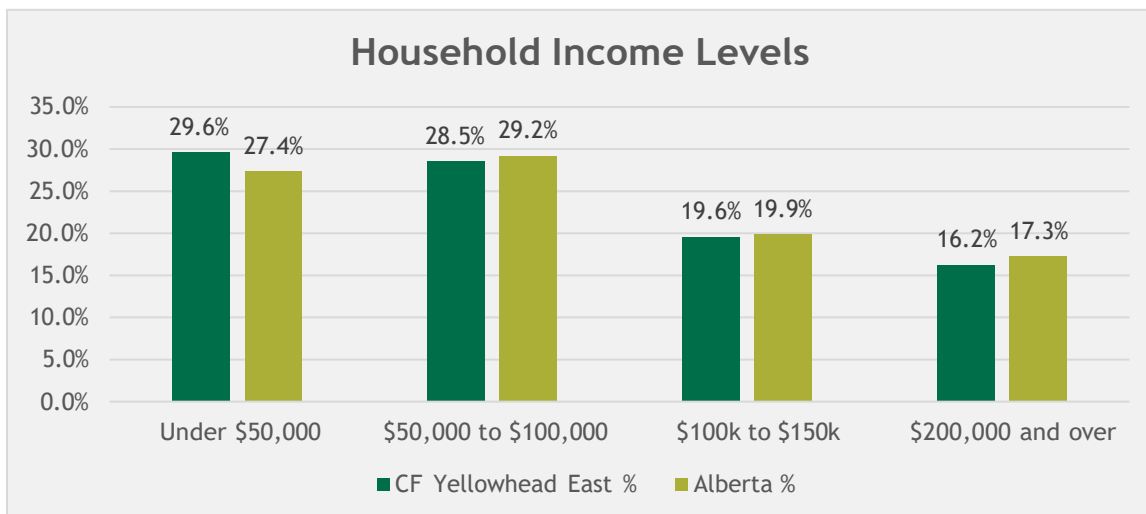
Source: Manifold Data Mining Inc. 2019 (2018 incomes).

Figure 3 illustrates the distribution of incomes. Approximately 50.7% of households in CF Yellowhead East earn over \$100,000, compared to 48.6% in Alberta.

- Median household total income in CF Yellowhead East: \$115,223 vs. \$106,932 in Alberta
- Average household total income in CF Yellowhead East: \$190,987 vs. \$145,808 in Alberta

¹ As noted previously, all income data uses the year previous; therefore 2019 data uses 2018 incomes.

Figure 3: Household Income Levels by Percentage of the Population, 2019



Source: Manifold Data Mining Inc. 2019 (2018 incomes).

Over 50% of CF Yellowhead East households have an income below \$100,000.

On average, the residents of CF Yellowhead East enjoy higher levels of employment and household income compared to Alberta. The affluence of this community affects the type of housing available and the cost of housing.

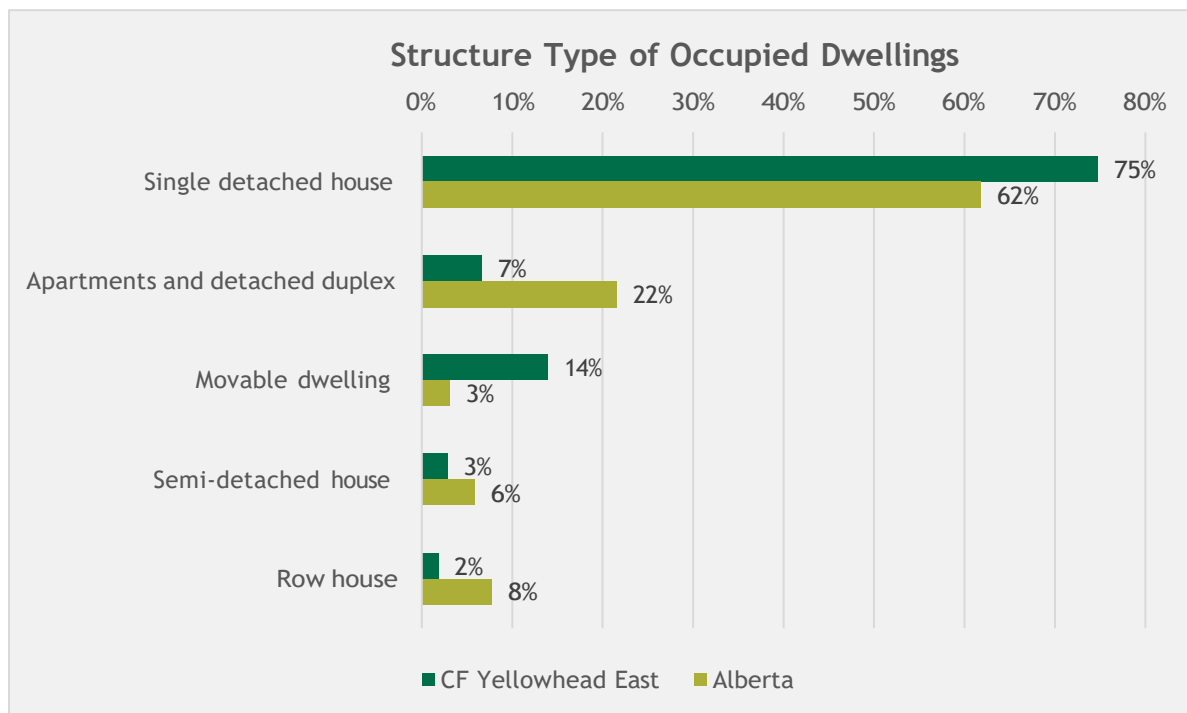
Table 2 and Figure 4 (next page) highlight key housing characteristics for CF Yellowhead East compared to Alberta. CF Yellowhead East has a lower cost of living but much less variety in housing stock, compared to Alberta (see Figure 4).

Table 2: Households and Dwelling Affordability, CF Yellowhead East, 2019

Housing Characteristics	CF Yellowhead East	Alberta
Total Number of Households	18,592	1,680,288
Average value of dwelling (\$)	\$437,904	\$574,171
Median value of dwellings (\$)	\$421,335	\$502,293
Median monthly shelter costs for owned dwellings (\$)	\$1,238	\$1,599
Average monthly shelter costs for owned dwellings (\$)	\$1,424	\$1,727
% of households owned	82%	72%
% of households rented	18%	28%
Average number of persons in private households	2.51	2.63
Population spending 30% or more of household total income on shelter costs	17%	20%

Source: McSweeney & Associates from Manifold Data Mining Inc. SuperDemographics. 2019

Figure 4: Structure Types of Occupied Dwellings, CF Yellowhead East, 2019

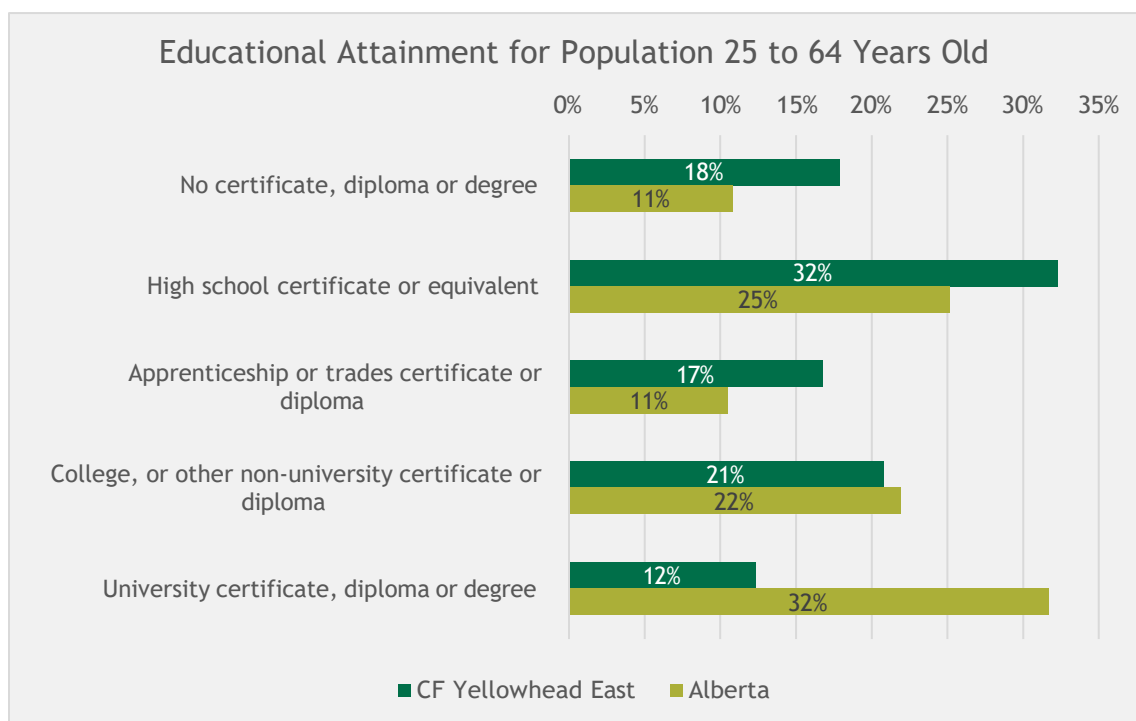


Source: McSweeney & Associates from Manifold Data Mining Inc. SuperDemographics. 2019

2.3. Education, Skills and Training

This subsection reviews the level of education and major fields of study for residents of CF Yellowhead East and Alberta. Figures 5 and 6 outline the education levels obtained by CF Yellowhead East residents ages 25-64, as compared to Alberta. Definitions may be found in the footnote.

Figure 5: Educational Attainment Breakdown for CF Yellowhead East, 2019²



Source: McSweeney & Associates from Manifold Data Mining Inc. SuperDemographics 2019

² 'High school diploma or equivalent' includes persons who have graduated from a secondary school or equivalent. It excludes persons with a post-secondary certificate diploma or degree.

'Post-secondary certificate diploma or degree' includes 'apprenticeship or trades certificates or diplomas' 'college CEGEP or other non-university certificates or diplomas' and university certificates diplomas and degrees.

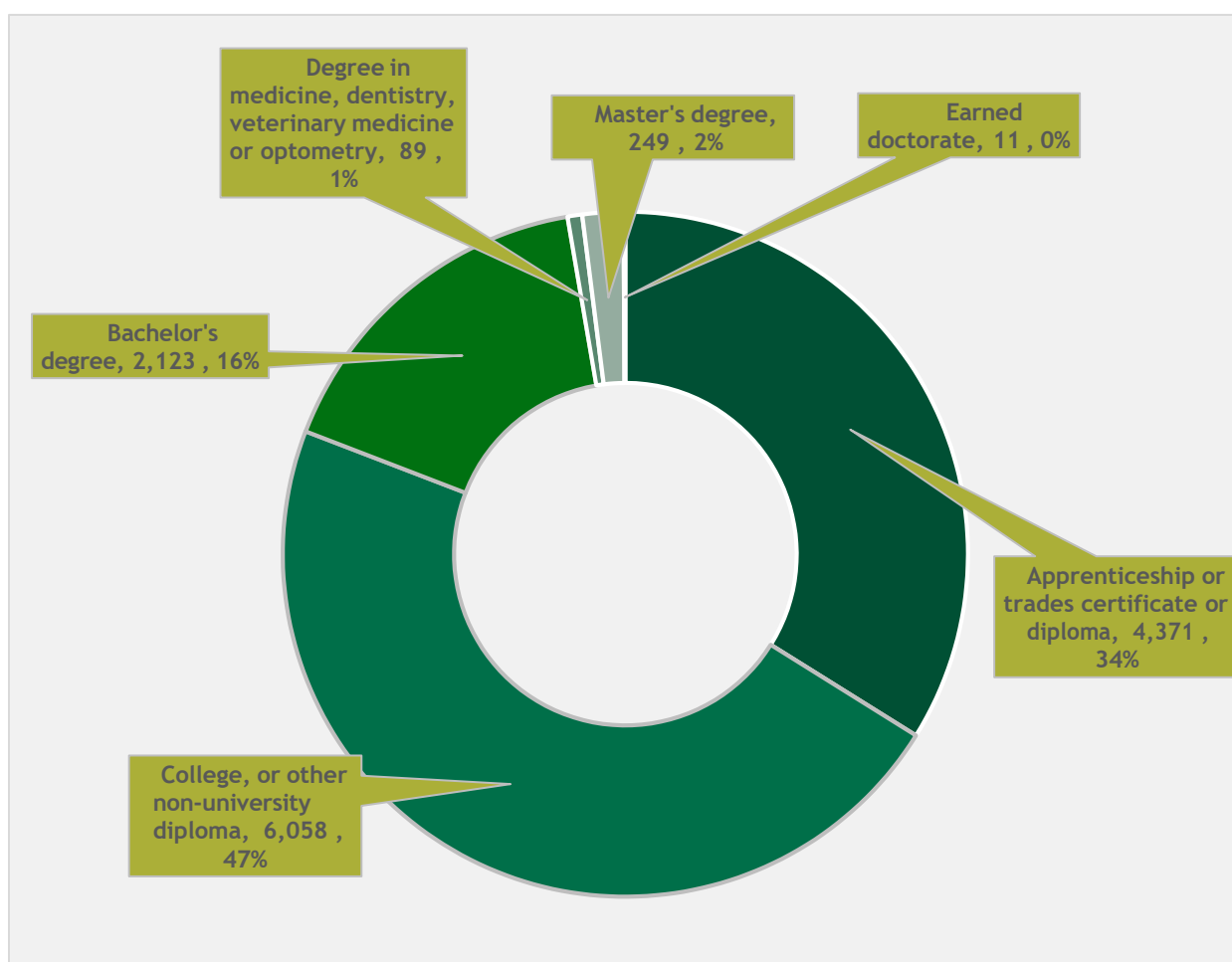
'Apprenticeship or trades certificate or diploma' includes Registered Apprenticeship certificates

'University certificate diploma or degree' includes the categories 'University certificate or diploma above bachelor level' 'Degree in medicine dentistry veterinary medicine or optometry' 'Master's degree' and 'Earned doctorate.'

Figure 6 illustrates post-secondary educational attainment by CF Yellowhead East's residents. Based on Figure 6, it can be concluded that:

- Of residents ages 25 to 64, approximately 12,993 residents have a post-secondary education; that is 50% of mature adults (ages 25 to 64).
- A College degree is the most common type of post-secondary education, attained by 47% of CF Yellowhead East residents with post secondary education, ages 25 to 64 (attained by 6,058 residents).

Figure 6: Residents aged 25- 64 with Post-Secondary Attainment, 2019



Source: McSweeney & Associates from Manifold SuperDemographics 2019

Figure 7 illustrates the major fields of study³ from most prominent to least. **for all residents 15 years and older, collected for the highest certificate, diploma or degree completed.** The largest fields of study are Health professions and related programs, and Business, Management and Public Administration.

Figure 7: Post-Secondary Major Field of Study, CF Yellowhead East, 2019

Description	Total	Female	Male
Total population aged 15 years and over in private households.	38,610	18,711	19,899
No post-secondary certificate, diploma or degree	21,357	10,355	11,002
With post-secondary education	17,253	8,356	8,897
51. Health professions and related programs	2,611	2,380	231
52. Business, management, marketing and related support services	2,286	1,851	436
47. Mechanic and repair technologies/technicians	2,170	93	2,077
46. Construction trades	1,701	50	1,651
13. Education	1,380	1,088	291
15. Engineering technologies and engineering-related fields	917	122	794
48. Precision production	858	12	846
12. Personal and culinary services	845	637	208
01. Agriculture, agriculture operations and related sciences	642	186	456
03. Natural resources and conservation	437	117	320
49. Transportation and materials moving	343	86	257
19. Family and consumer sciences/human sciences	285	242	43
11. Computer and information sciences and support services	271	80	191
50. Visual and performing arts	263	166	98
14. Engineering	263	34	230
43. Security and protective services	223	85	138
45. Social sciences	183	146	37
22. Legal professions and studies	182	145	37
44. Public administration and social service professions	149	123	26
39. Theology and religious vocations	136	73	63
26. Biological and biomedical sciences	127	51	76
42. Psychology	119	90	29
31. Parks, recreation, leisure and fitness studies	116	83	33
30. Biological and physical sciences	90	35	55
09. Communication, journalism and related programs	81	61	20

Source: McSweeney & Associates from Manifold Data Mining Inc. SuperDemographics 2019.

³ 'Major Field of study' is defined by Classification of Instructional Programs (CIP) 2016 for the population aged 15 years and over in private households. It is collected for the highest certificate, diploma or degree above the high school or secondary school level: www.statcan.gc.ca/concepts/classification-eng.htm.

3. LABOUR FORCE PROFILING & ANALYSIS

3.1. Key Indicators

CF Yellowhead East has a labour force of 10,191 persons. The region has a higher unemployment rate and lower employment and participation rates compared to Alberta.



The male and female participation rates are slightly lower compared to those in Alberta. Females in CF Yellowhead East have the lowest participation rate when compared to males and females in Alberta. This indicates an opportunity to grow the labour force by increasing female participation (an underutilized group).

Table 3: Key Labour Force Statistics by Gender, CF Yellowhead East, 2019

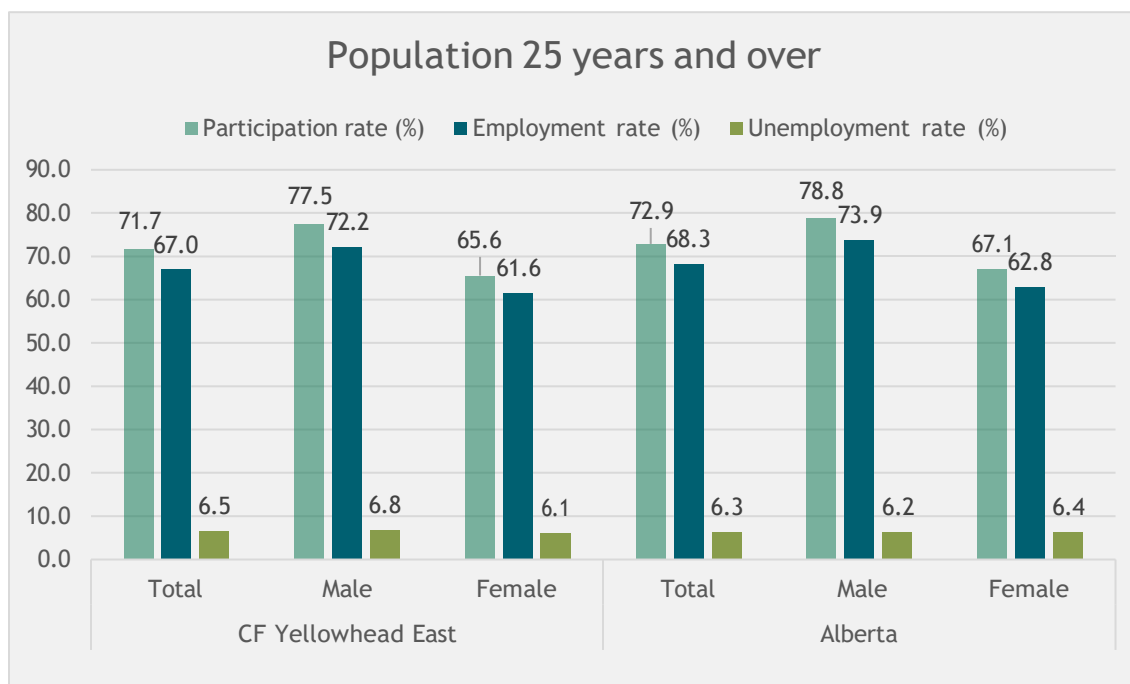
Labour Force Activity	CF Yellowhead East			Alberta		
	Total	Male	Female	Total	Male	Female
Total population 15 years and over	38,610	19,899	18,711	3,650,941	1,818,078	1,832,863
In the labour force	27,261	15,110	12,152	2,621,208	1,395,648	1,225,560
Employed	25,047	13,805	11,242	2,435,085	1,294,776	1,140,309
Unemployed:	2,214	1,304	910	186,123	100,872	85,251
Not in the labour force	11,349	4,789	6,560	1,029,732	422,429	607,303
Participation rate (%)	70.6	75.9	64.9	71.8	76.8	66.9
Employment rate (%)	64.9	69.4	60.1	66.7	71.2	62.2
Unemployment rate (%)	8.1	8.6	7.5	7.1	7.2	6.9

Source: McSweeney & Associates from Manifold Data Mining Inc. SuperDemographics 2019

CF Yellowhead East has a slightly higher unemployment rate than Alberta.

Key labour force indicators are used to highlight the underemployed/underutilized labour groups. The unemployment rate, for persons 25 and over in CF Yellowhead East, is only slightly higher than the provincial (Figure 8) and national rate (5.0%)⁴. Moreover, men's and women's participation rates are very similar to provincial and national figures. Thus, this section of the population (25 and over) is not underutilized, or underemployed. See Figure 8.

Figure 8: Labour Force Statistics by Gender, Population 25 and over, 2019



Source: Manifold SuperDemographics 2019

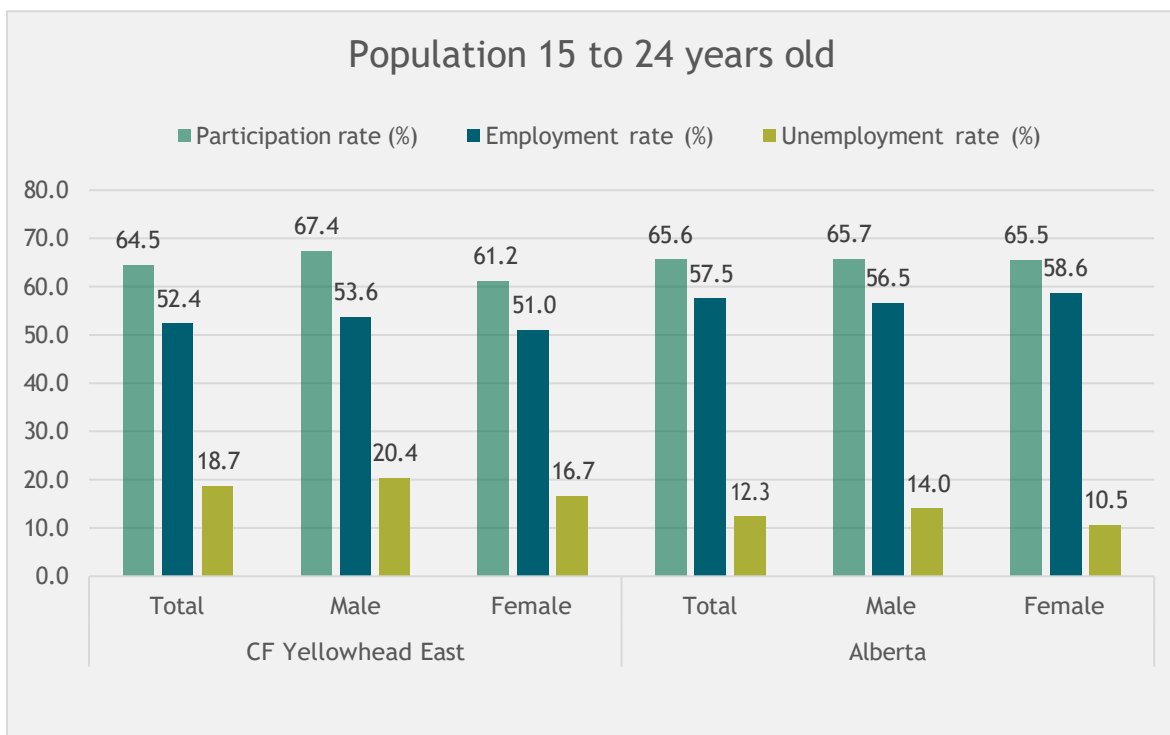
⁴ According to Statistics Canada's Labour Force Survey of Canadians 25 and over, April 2019: Female participation and unemployment rates are 61.1% and 4.7%, respectively. Male participation and unemployment rates are 71.3% and 5.2%, respectively.

Examining labour force by gender and by age (Figure 9) shows that males, aged 15 to 24, have the highest unemployment rate compared to all other groups. This highly underemployed group represents an opportunity for retraining and skills development which would lead to increased workforce employability.

Youth unemployment (15-24 years old) is less prevalent amongst women in CF Yellowhead East, but not compared to the province. Furthermore, young females have the lowest participation rate compared all other groups examined in CF Yellowhead East and the province. Increased youth female's participation remains an opportunity as well, as they are an underutilized labour group in CF Yellowhead East. See Figure 9.

To effectively utilize the youth workforce, employers may need to provide flexible work arrangements (flexible times, job-sharing, compressed work weeks, telecommuting employees, etc.), and at the same time, work with academic institutions and community partners to provide well designed work-integrated learning. The provision of high-quality educational work experiences for students exists in various learning contexts and can benefit the student, the academic institution, the host institution/employer and the community.

Figure 9: Labour Force Statistics by Gender, Population 15 to 24, 2019



Source: Manifold SuperDemographics 2019

3.2. Labour Supply in CF Yellowhead East

Firstly, this subsection examined the available labour force supply for each industry sector, which estimates the experienced labour force which refers to persons aged 15 years and over who are employed or the unemployed who have worked for pay or self-employment within the sector in 2019.



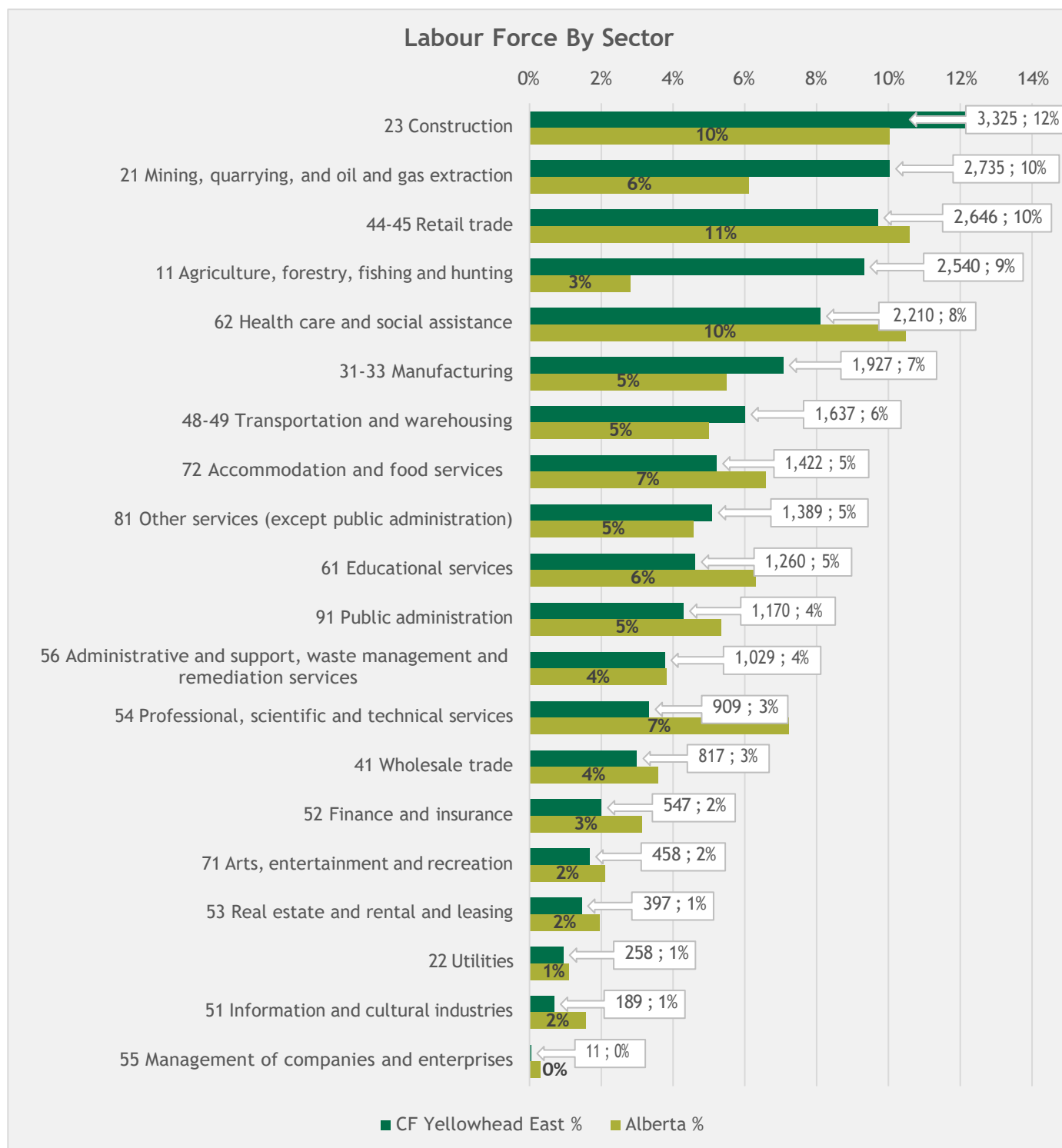
Figure 10 shows that CF Yellowhead East residents most commonly work in the following sectors:

- Construction
- Mining, quarrying, and oil and gas extraction
- Retail trade
- Agriculture, forestry, fishing and hunting

Figure 10 also shows that CF Yellowhead East has a larger share of its residents working within the following sectors, compared to Alberta:

- Construction
- Mining, quarrying, and oil and gas extraction
- Agriculture, forestry, fishing and hunting
- Manufacturing

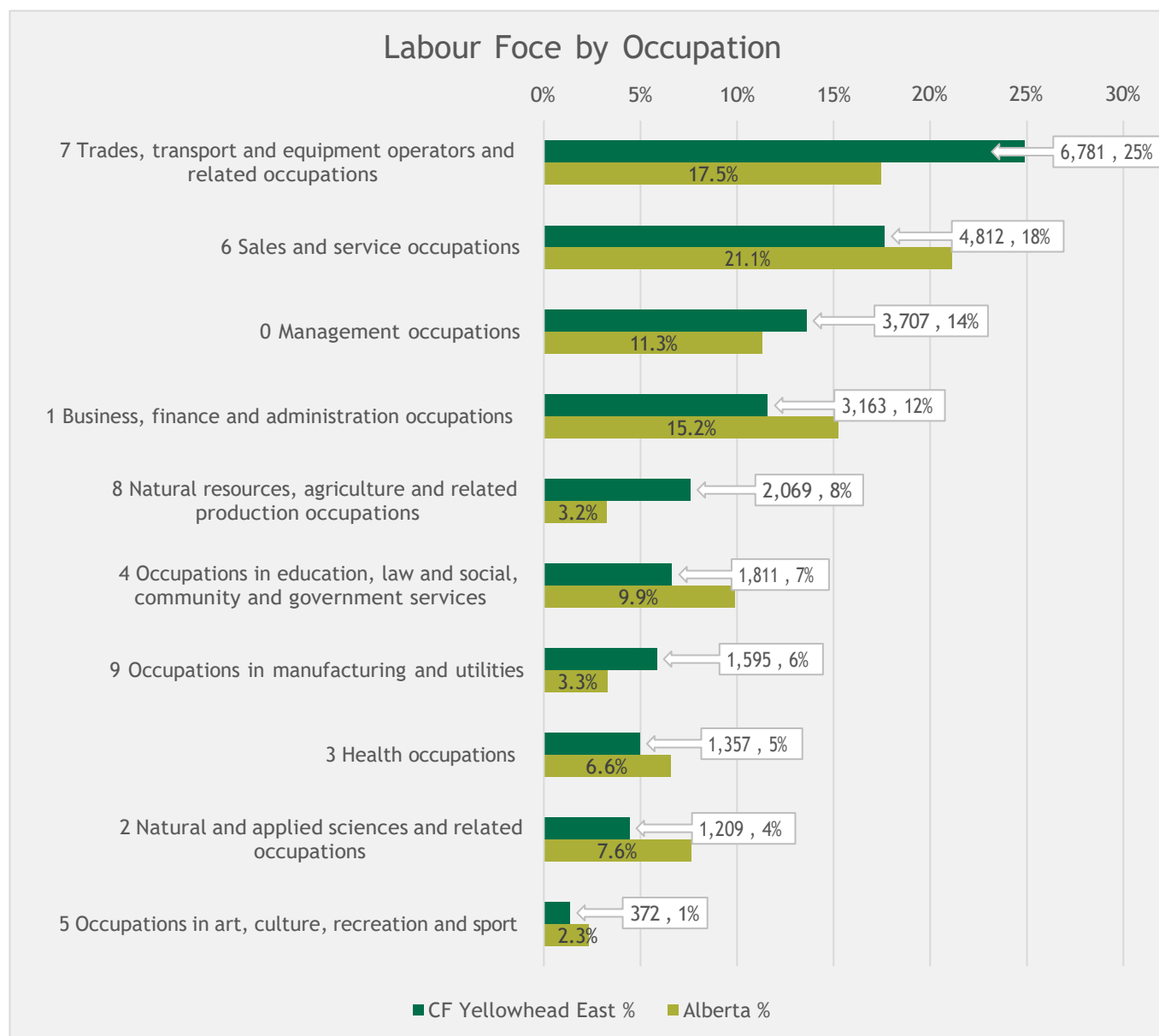
Figure 10: Resident Labour Force by Industry Sector, 2019



Source: Manifold SuperDemographics 2019. Note that the numbers beside the bars represent the total number of CF Yellowhead East residents, and percentage working in that occupation.

The following figure illustrates the supply of labour that CF Yellowhead East residents provide for specific occupations. CF Yellowhead East has a large supply of residents that can work in trades, equipment operators, sales, services, and management occupations.

Figure 11: Labour Force by Occupation, 2019



Source: Manifold SuperDemographics 2019. Note that the numbers beside the bars represent the total number of Town of CF Yellowhead East residents, and percentage working in that industry.

3.3. Labour Market Gaps/Surpluses

Labour market gaps/surpluses are a measure of how well labour supply meets local demand. Total occupational demand is difficult to map, as businesses change and alter demand based on a variety of factors (i.e. season, economic/financial outlook, technology, resource availability, etc.). A total number of jobs is used as a proxy for current occupational demand. Similarly, labour supply for a given occupation can be difficult to calculate since skills could be considered adaptable and could supply several occupations. Here, the resident labour force that has worked in an occupation (it is their current position or the position of the longest duration in the past year), is used as a proxy for local occupational supply.

The labour market gap/surplus is defined as the difference between the number of jobs (i.e. demand by occupation) in CF Yellowhead East and the number of workers living in CF Yellowhead East that worked/work in that occupation (i.e. local supply). There are more workers than jobs in CF Yellowhead East, making the town a net exporter of labour. **In the region of CF Yellowhead East, there is a net surplus of approximately 3,310 workers.**

In CF Yellowhead East, **the following occupations have the largest gaps** -where occupations have more jobs available than skilled workers to fill them;

- Underground miners, oil and gas drillers and related occupations
- Contractors and supervisors, maintenance trades and heavy equipment and transport operators
- Contractors and supervisors, mining, oil and gas
- Retail sales supervisors
- Machinery and transportation equipment mechanics (except motor vehicles)

In CF Yellowhead East, **the following occupations have the largest market surpluses** -where occupations have more available workers than jobs in the region;

- Agriculture and horticulture workers
- Cleaners
- Retail salespersons
- Trades helpers and labourers
- General office workers

The following table shows partial demand (# of jobs locally) and partial supply (residents that work or have worked in a given occupation in the last year), as well as the local gaps/surpluses of labour by occupation. These gaps/surpluses are only an approximation since local demand could be higher than the total number of jobs (i.e. there may be unfilled positions), and supply could be higher if we account for persons who have transferable skills and could potentially fill other occupations. Nevertheless,

the results on the table below give an indication of the direction and magnitude of the local labour market imbalances.

Table 4: Labour Market Gaps/Surpluses by Occupation

Occupation Group	Jobs in CF Yellowhead East	Live in CF Yellowhead East	Gap (-)/ Surplus
Agriculture and horticulture workers	280	638	358
Cleaners	596	920	324
Retail salespersons	412	728	316
Trades helpers and labourers	245	535	290
General office workers	415	665	250
Occupations in food and beverage service	191	383	192
Motor vehicle and transit drivers	1,373	1553	180
Harvesting, landscaping and natural resources labourers	322	501	179
Labourers in processing, manufacturing and utilities	103	274	171
Machine operators and related workers in pulp and paper production and wood processing and manufacturing	79	243	164
Automotive service technicians	273	419	146
Customer and information services representatives	101	245	144
Administrative services managers	58	198	140
Legislators and senior management	26	161	135
Plumbers, pipefitters and gas fitters	189	323	134
Central control and process operators in processing and manufacturing	248	376	128
Office administrative assistants - general, legal and medical	270	397	127
Administrative and regulatory occupations	397	523	126
Home care providers and educational support occupations	322	444	122
Carpenters and cabinetmakers	241	359	118
Other technical inspectors and regulatory officers	217	335	118
Heavy equipment operators	507	622	115
Utilities equipment operators and controllers	122	222	100
Underground miners, oil and gas drillers and related occupations	891	169	(722)
Contractors and supervisors, maintenance trades and heavy equipment and transport operators	681	256	(425)
Contractors and supervisors, mining, oil and gas	562	347	(215)
Retail sales supervisors	246	42	(204)
Machinery and transportation equipment mechanics (except motor vehicles)	716	565	(151)
Contractors and supervisors, industrial, electrical and construction	412	279	(133)
Service supervisors	248	134	(114)
Finance, insurance and related business administrative	477	385	(92)
Sales and account representatives - wholesale trade	175	105	(70)
Mine service workers and operators in oil and gas drilling	208	145	(63)
Supervisors, assembly and fabrication	87	26	(61)
Human resources and business service professionals	116	65	(51)
Contractors and supervisors, agriculture, horticulture and related	126	76	(50)
Specialized occupations in personal and customer services	219	172	(47)
Managers in agriculture, horticulture and aquaculture	1,371	1325	(46)

Occupation Group	Jobs in CF Yellowhead East	Live in CF Yellowhead East	Gap (-)/ Surplus
Tourism and amusement services occupations	63	18	(45)
Administrative services supervisors	130	86	(44)
Total Labour Force 15 years and older	23,950	27,261	3,311

Source: EMSI Analyst 2019.Q1 and Manifold SuperDemographics 2019

The same type of analysis can be done for labour supply and demand for local industries. The industries with the largest surpluses (Table 5) are 'Mining, quarrying, and oil and gas extraction', 'Construction', and 'Wholesale trade'. These are industries that could be further attracted to the local economy, as they can be well supported by the local workforce. Conversely, where the municipality has labour gaps it could present a challenge in terms of developing these industries further. The numbers in brackets and red text indicate negative numbers, and in this case, the gaps in labour

Table 5: Labour Market Surplus by Sector, 2019

Sectors	Jobs in CF Yellowhead East	Live in CF Yellowhead East	Gaps (-)/ Surpluses
Other services (except public administration)	1,705	1,389	(316)
Administrative and support, waste management and remediation services	1,253	1,029	(224)
Transportation and warehousing	1,749	1,637	(112)
Real estate and rental and leasing	430	397	(33)
Arts, entertainment and recreation	463	458	(5)
Retail trade	2,645	2,646	1
Management of companies and enterprises	0	11	11
Educational services	1,229	1,260	31
Accommodation and food services	1,355	1,422	67
Unclassified	309	386	77
Information and cultural industries	73	189	116
Utilities	86	258	172
Professional, scientific and technical services	681	909	228
Finance and insurance	306	547	241
Health care and social assistance	1,919	2,210	291
Agriculture, forestry, fishing and hunting	2,220	2,540	320
Manufacturing	1,592	1,927	335
Public administration	820	1,170	350
Wholesale trade	434	817	383
Mining, quarrying, and oil and gas extraction	2,196	2,735	539
Construction	2,486	3,325	839
Total Labour Force 15 years and older	23,950	27,261	3,311

Source: EMSI Analyst 2019. Q1 and Manifold SuperDemographics 2019

3.4. Labour Recruitment Area: Emerging and in-Demand Occupations

This subsection outlines the occupations employed within CF Yellowhead East, as a labour recruitment area, regardless of where workers live. The objective is to understand which occupations are present, growing, and emerging, and could possibly be leveraged to drive economic growth in CF Yellowhead East. Examining occupation by location will help discern where there is a concentration of talent/skills, and that in turn, will help identify the industries that are likely to flourish as a result of those skills being available. The occupations are analyzed at the four-digit National Occupation Classification⁵. The following tables and charts illustrate the following:

- Occupations with a large number of jobs in 2019.
- Occupations with a large percentage of job growth between 2014-2019.
- Occupations with a large projected job growth between 2019-2023.
- Occupations that are concentrated in labour shed relative to the rest of Canada.

The objective is to understand which occupations are present, growing and emerging in the labour recruiting area

Employed persons can be classified using the National Occupational Classification (NOCs) codes; a four-tiered hierarchical arrangement of occupational groups with successive levels of disaggregation. It contains broad occupational categories (1-digit), major (2-digit code), minor (3-digit code) and unit groups (4-digit code). Going forward, jobs by occupation are analyzed at the 4-digit code level for the region of CF Yellowhead East.

⁵ National Occupation Classification: <https://www.canada.ca/en/immigration-refugees-citizenship/services/immigrate-canada/express-entry/eligibility/find-national-occupation-code.html>

The labour available to support businesses in CF Yellowhead East had 23,950 jobs in 2019, a total that decreased by 3% since 2014. The following table shows occupations (at the 4-digit NOCs) which account for the largest number of jobs within CF Yellowhead East region. Numbers in red text and brackets indicate negative numbers.

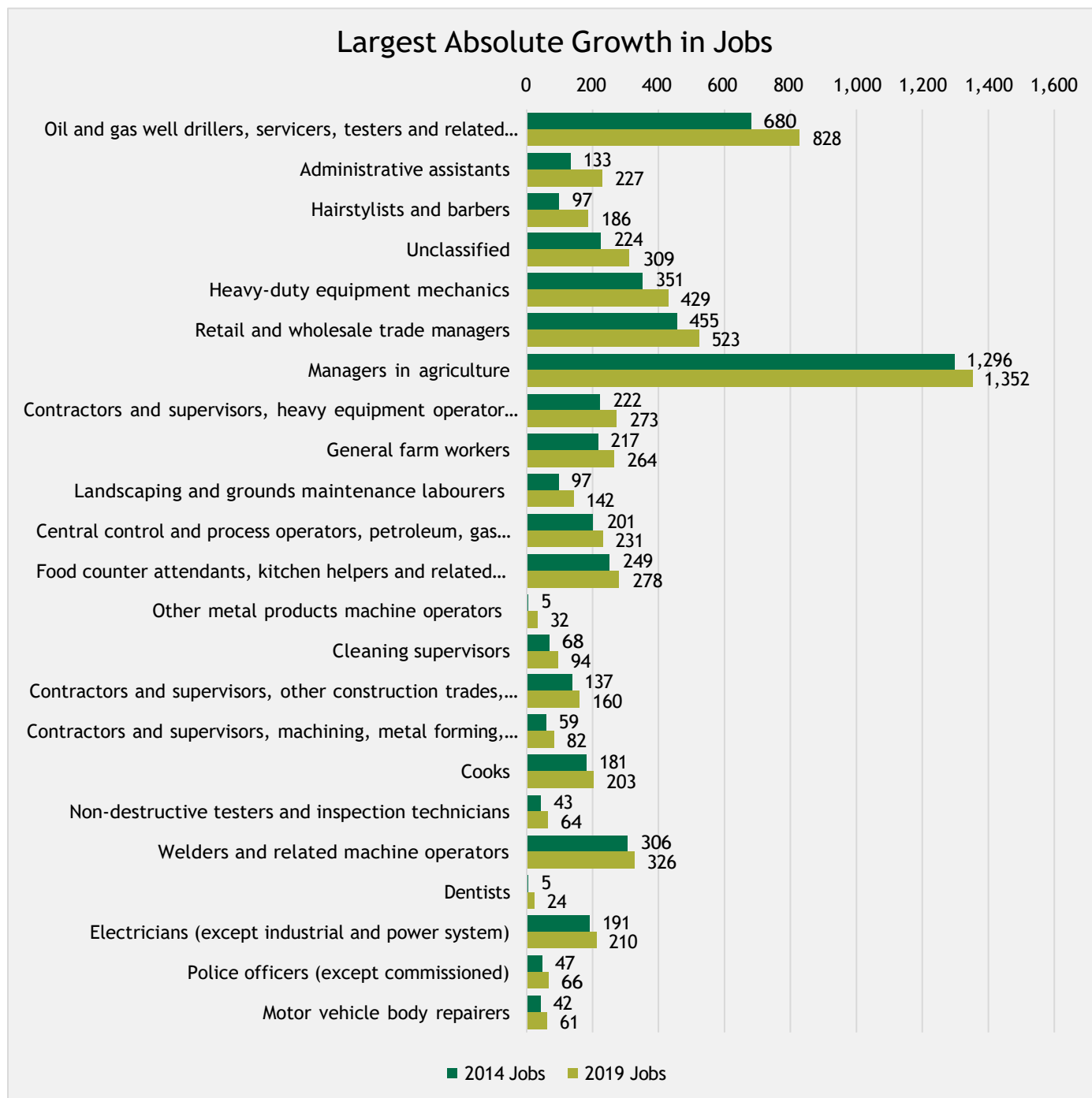
Table 6: Occupations with Highest Employment in CF Yellowhead East, 2014-2019

Occupations	2014 Jobs	2019 Jobs	2014 - 2019 Change	2014 - 2019 % Change
Transport truck drivers	1,246	1,220	(26)	(2%)
Oil and gas well drillers, servicers, testers and related workers	680	828	148	22%
Retail and wholesale trade managers	455	523	68	15%
Contractors and supervisors, oil and gas drilling and services	548	519	(29)	(5%)
Accounting technicians and bookkeepers	525	463	(62)	(12%)
Heavy equipment operators (except crane)	450	444	(6)	(1%)
Heavy-duty equipment mechanics	351	429	78	22%
Cashiers	419	417	(2)	(0%)
Retail salespersons	512	412	(100)	(20%)
Welders and related machine operators	306	326	20	7%
Unclassified	224	309	85	38%
Administrative officers	348	302	(46)	(13%)
Food counter attendants, kitchen helpers and related support occupations	249	278	29	12%
Light duty cleaners	306	274	(32)	(10%)
Contractors and supervisors, heavy equipment operator crews	222	273	51	23%
Registered nurses and registered psychiatric nurses	279	271	(8)	(3%)
General farm workers	217	264	47	22%
Construction millwrights and industrial mechanics	259	255	(4)	(2%)
Janitors, caretakers and building superintendents	271	251	(20)	(7%)
Store shelf stockers, clerks and order fillers	290	248	(42)	(14%)
Central control and process operators, petroleum, gas and chemical processing	201	231	30	15%
Administrative assistants	133	227	94	71%
General office support workers	283	221	(62)	(22%)
Contractors and supervisors, mechanic trades	207	214	7	3%
Automotive service technicians, truck and bus mechanics and mechanical repairers	229	212	(17)	(7%)
Electricians (except industrial and power system)	191	210	19	10%

Source: EMSI Analyst 2019.Q1

Figure 12 illustrates occupations that added the largest total number of jobs to the economy of the CF Yellowhead East region.

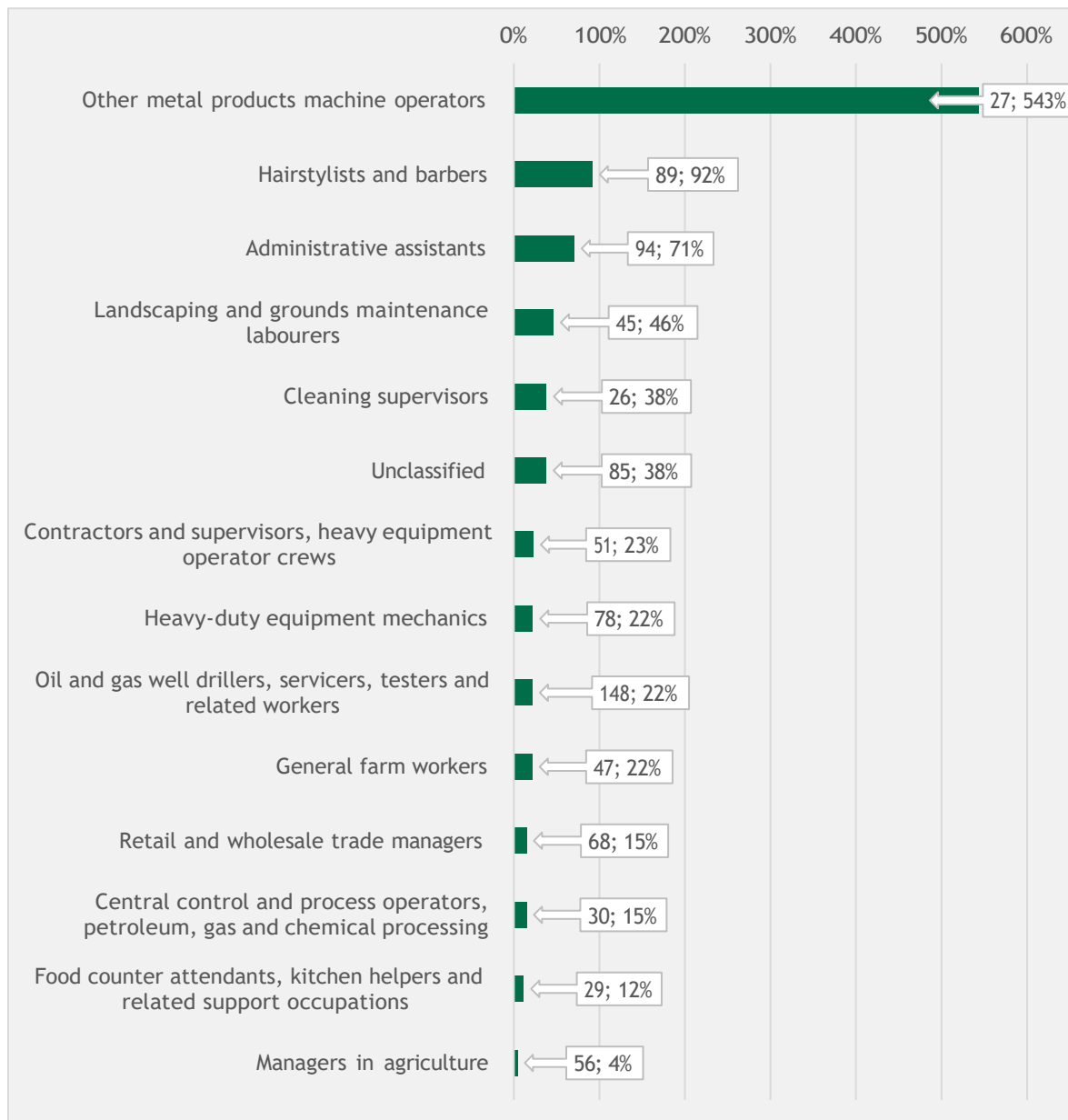
Figure 12: Largest Absolute Job Growth in CF Yellowhead East, 2014-2019



Source: EMSI Analyst 2019.Q1

Figure 13 illustrates the fastest growing occupations. Using percentage change, the figure highlights the pace of growth. It illustrates occupations that had the most intense growth in demand, but also had a relevant impact on the economy as they added a minimum of 25 jobs to CF Yellowhead East (0.01% of new jobs). The fastest growing occupation was Other metal products machine operators, which added 27 new jobs between 2014 and 2019; 543% growth.

Figure 13: Occupations with the Fastest Growth in CF Yellowhead East, 2014-2019



Source: EMSI Analyst 2019.Q1

Location Quotient is used to measure the relative concentration of an occupation; that is, it compares the percentage of jobs per occupation in the labour shed, relative to the total percentage of jobs in the same occupation in Canada. A location quotient above 2 means the labour recruiting area employs twice as many jobs in that occupation than is typical in the nation. Such a high concentration shows that there is some momentum in growing or attracting these jobs that is unique to the region.

Table 7 illustrates the occupations that represent a significant percentage of the jobs (0.01%), are growing and are concentrated in CF Yellowhead East, relative to the rest of Canada—using a location quotient measure. **Occupations are considered to be concentrated if they have a location quotient greater than 1.25.**

Table 7: Concentrated Occupations, CF Yellowhead East, 2019

Occupations	2019 Jobs	2019 Location Quotient
Oil and gas well drillers, servicers, testers and related workers	828	22.31
Central control and process operators, petroleum, gas and chemical processing	231	12.07
Managers in agriculture	1,352	7.48
Non-destructive testers and inspection technicians	64	6.32
Heavy-duty equipment mechanics	429	5.19
Contractors and supervisors, heavy equipment operator crews	273	5.12
Agricultural service contractors, farm supervisors and specialized livestock workers	59	3.90
Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	82	3.78
Supervisors, motor transport and other ground transit operators	183	3.59
Supervisors, mining and quarrying	43	3.57
Power engineers and power systems operators	103	2.87
Contractors and supervisors, pipefitting trades	44	2.84
General farm workers	264	2.82
Supervisors, petroleum, gas and chemical processing and utilities	70	2.76
Welders and related machine operators	326	2.70
Contractors and supervisors, mechanic trades	214	2.67
Industrial electricians	94	2.38
Utilities managers	25	2.27
Inspectors in public and environmental health and occupational health and safety	99	2.23
Underground production and development miners	63	2.13
Cleaning supervisors	94	2.01

Source: EMSI Analyst 2019.Q1

Lastly, we investigate which occupations have strong projected growth over the next five years in the defined labour recruitment area. In Alberta, the following occupations are expected to have the largest growth in jobs:

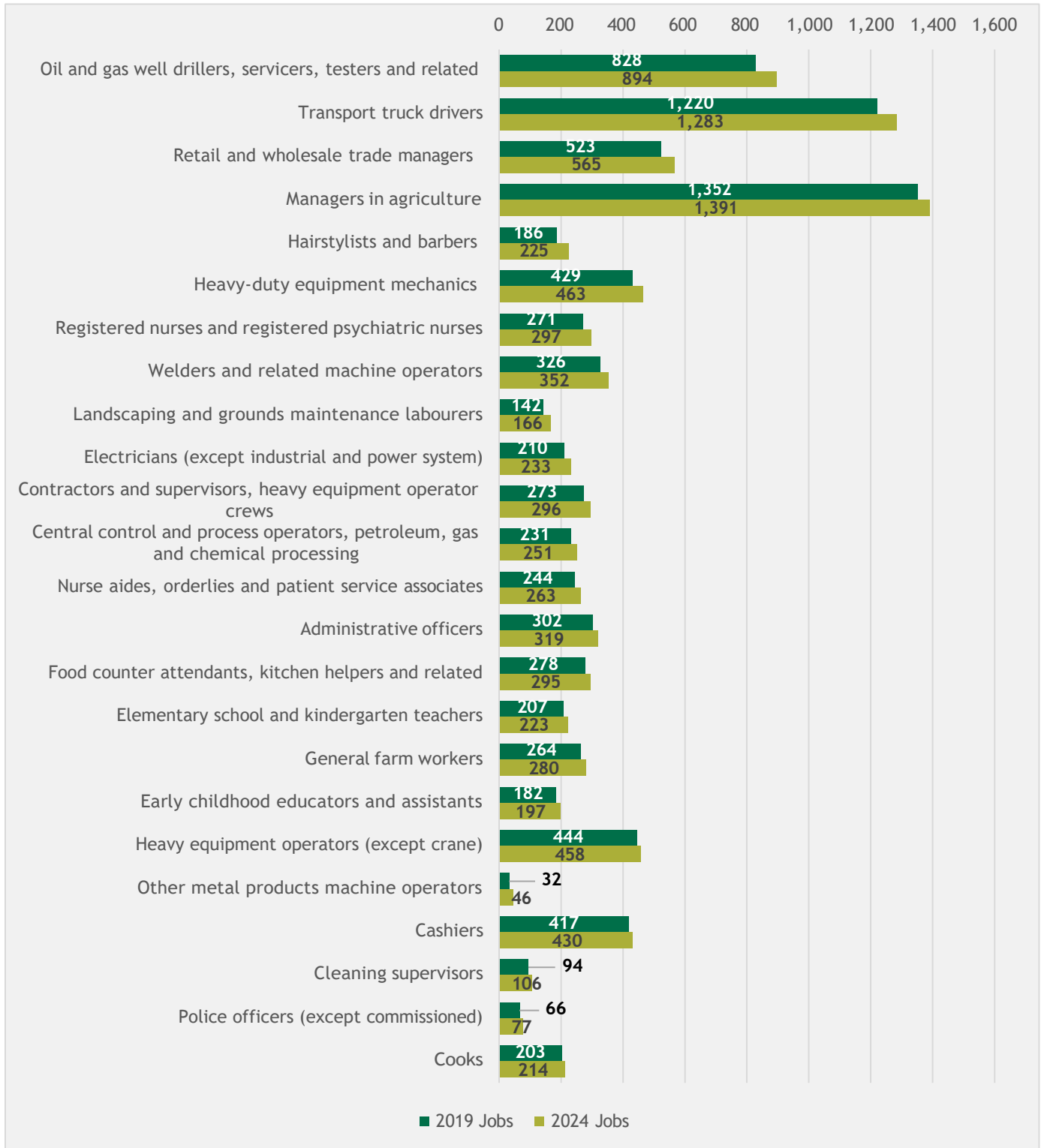
- Registered nurses and registered psychiatric nurses
- Nurse aides, orderlies and patient service associates
- Food counter attendants, kitchen helpers and related support occupations
- Secondary and elementary school teachers
- Light duty cleaners
- Transport truck drivers
- Electricians (except industrial and power system)

In comparison, the following occupations are expected to have the largest job growth in the CF Yellowhead East region:

- Oil and gas well drillers, servicers, testers and related workers
- Transport truck drivers
- Retail and wholesale trade managers
- Managers in agriculture
- Hairstylists and barbers
- Heavy-duty equipment mechanics
- Registered nurses and registered psychiatric nurses

The following page/table illustrates the occupations that are expected to have the largest job growth between 2019 and 2024.

Figure 14: Large Projected Job Growth, 2019-2024



Source: EMSI Analyst 2019.Q1

3.5. Key Occupations for Labour-Based Investment Attraction

Some key occupations stand out in the labour recruitment area, as they are growing, projected to grow and/or are concentrated. The following list represents occupations that have performed well in the labour recruitment area analysis and represent a strong possibility for labour-based investment attraction for CF Yellowhead East.

Key Occupations	Large Demand	Significant Growth	Fast Growth	Concentrated	Significant Projected Growth
Managers in agriculture	✓	✓	✓	✓	✓
Heavy-duty equipment mechanics	✓	✓	✓	✓	✓
Contractors and supervisors, heavy equipment operator crews	✓	✓	✓	✓	✓
General farm workers	✓	✓	✓	✓	✓
Central control and process operators, petroleum, gas and chemical processing	✓	✓	✓	✓	✓
Oil and gas well drillers, servicers, testers and related workers	✓	✓	✓	✓	✓
Retail and wholesale trade managers	✓	✓	✓		✓
Welders and related machine operators	✓	✓		✓	✓
Cleaning supervisors		✓	✓	✓	✓

Note: The top 15 occupations based on largest number of jobs in the commuter shed. Significant growth indicates a top 15 occupation with largest absolute growth between 2014-2019 in the labour shed. Fast Growth means that the occupation grew by a minimum of 800 jobs and was within the top 15 percentage rates of growth between 2014 and 2019. Concentrated means the occupation had a Location Quotient higher than 1.25. Significant projected growth means the occupation is poised to be one of the top 15 to add new jobs to the labour shed between 2019 and 2023.

The above occupations form a group of what will be referred to as “**key occupations**”, which are widely employed and increasingly in demand within the region. They represent the best opportunity in terms of attracting industry to CF Yellowhead East based on labour availability. In what follows, the industries that most commonly hire these key occupations are revealed using inverse staffing patterns.

Table 10 shows which industries in Alberta most commonly employ (by largest number of jobs) all of the identified key occupations. The last column shows the percentage of the industry’s jobs found within the key occupations. ‘Architectural, engineering’ and related services and ‘Specialized freight trucking’ are poised to have the largest employment growth over the next 5 years.

Table 8: Staffing Patterns of Key Occupations, 2019-2024

Industry	Key Occupations Group Jobs in Industry (2019)	Key Occupations Group Jobs in Industry (2024)	% Change (2019-2024)	% of Total Jobs in Industry (2019)
Farms	39,937	36,128	(10%)	77.5%
Support activities for mining, oil & gas extraction	17,974	18,993	6%	28.2%
Commercial & industrial machinery (except auto and electronic) repair and maintenance	11,848	12,507	6%	48.5%
Oil and gas extraction	9,598	9,814	2%	17.9%
Services to buildings and dwellings	5,052	5,903	17%	10.3%
Utility system construction	5,352	5,676	6%	16.9%
Other specialty trade contractors	3,987	4,275	7%	14.4%
Automobile dealers	3,406	3,693	8%	15.1%
Construction, forestry, mining, and industrial machinery, equipment and supplies wholesalers	3,477	3,684	6%	16.2%
Grocery stores	3,626	3,518	(3%)	8.2%
Clothing stores	3,449	3,515	2%	15.0%
Commercial and industrial machinery and equipment rental and leasing	2,191	2,436	11%	16.1%
Farm, lawn and garden machinery and equipment merchant wholesalers	2,129	2,332	10%	46.1%
Highway, street and bridge construction	2,193	2,268	3%	22.9%
Sporting, hobby & musical instrument stores	2,029	2,146	6%	16.0%
Automotive repair and maintenance	2,013	2,107	5%	9.1%
Ag, construction and mining machinery manufacturing	2,085	2,089	0%	24.6%
Gasoline stations	2,029	1,983	(2%)	15.0%
Architectural, engineering and related services	1,640	1,937	18%	2.8%
Automotive parts, accessories and tire stores	1,758	1,891	8%	21.1%
Architectural & structural metals manufacturing	1,767	1,888	7%	18.9%
Specialized freight trucking	1,579	1,864	18%	5.3%

Source: EMSI Analyst 2019.Q1

4. ECONOMIC BASE ANALYSIS

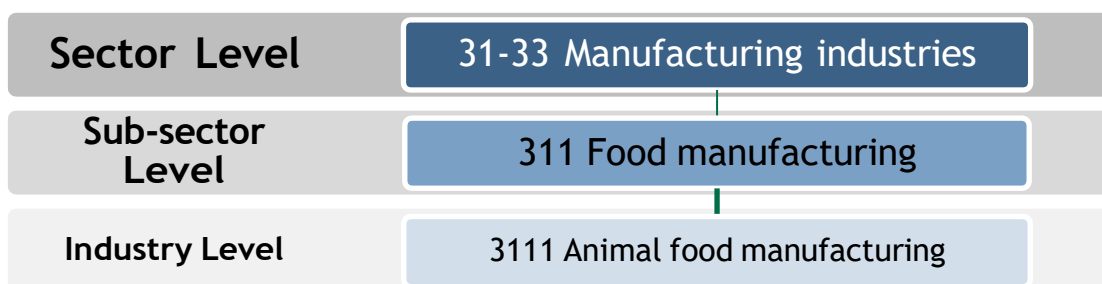
The list of industries in Table 8 is an indication of industries which could be successful to CF Yellowhead East given the labour force supply and could be further developed alongside supporting industries.



This section investigates the local economy pertinent to the town of CF Yellowhead East; that is, the jobs and businesses that drive the local economy. As such, the central focus of this section **will be CF Yellowhead East, benchmarked by Alberta.**

This section reports industry statistics related to exports, employment, and business growth for the local economy with the aim of uncovering key industries that either exist or are emerging in the region today.

The Statistics Canada “North American Industry Classification System” (NAICS) of classifying industries is used for this report. The largest groupings or aggregations of industries categories are called sectors, which are broken down into sub-sectors, which are then further broken down into Industries. An example of this breakdown follows:



4.1. Employment Profile

Between 2014 and 2019, the local economy of CF Yellowhead East decreased by **727 jobs (-3%)** to a total of **23,950 jobs**. 9 indicates the percentage job growth, between 2014 and 2019, by sector for the CF Yellowhead East and Alberta economies. Note that negative numbers are indicated by red text in brackets.

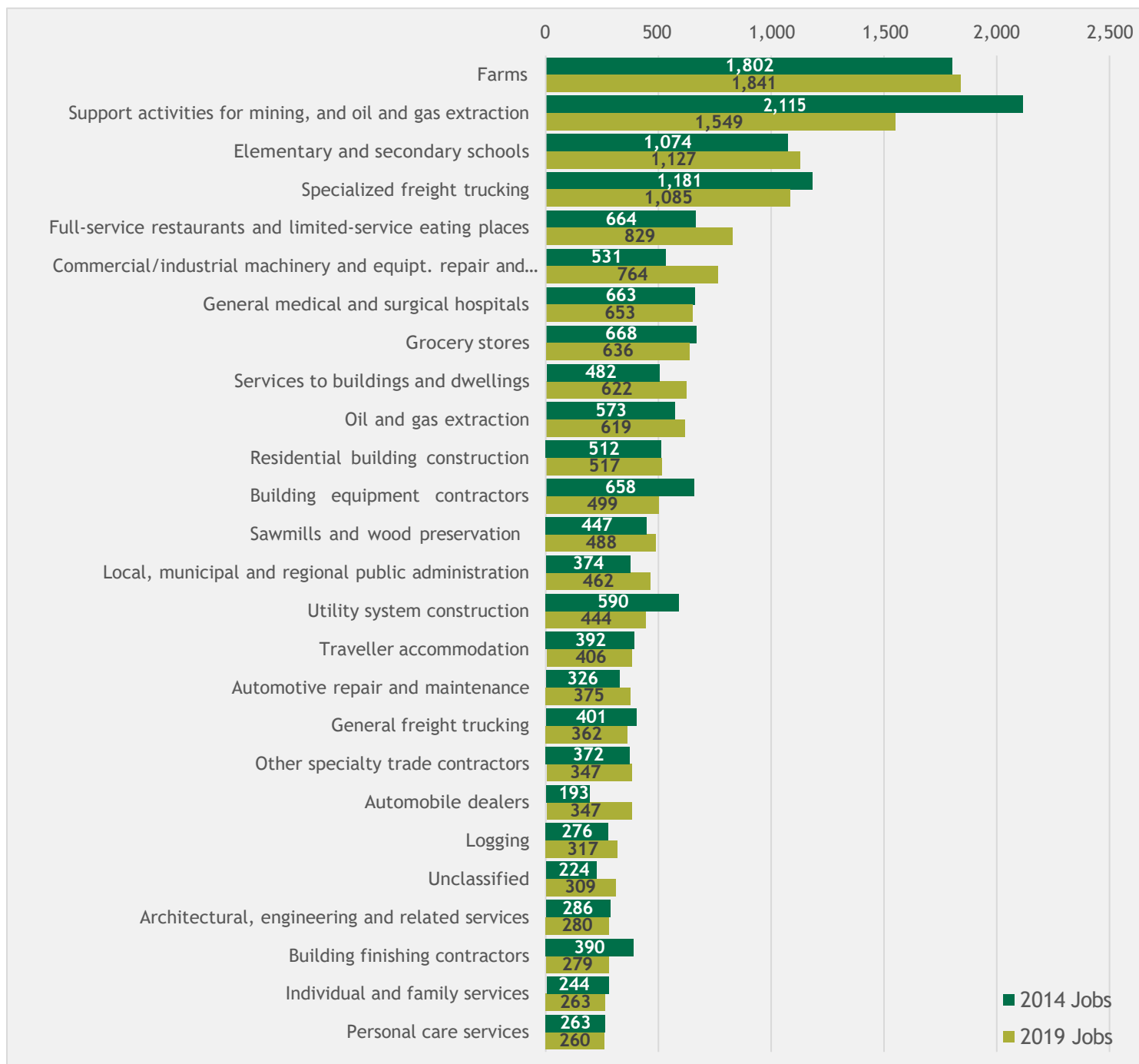
Table 9: Employment Growth by Sector, CF Yellowhead East, Division No. 15 and Alberta, 2014-2019

NAIC	Description	Jobs in CF Yellowhead East 2019	CF Yellowhead East % Change	Alberta % Jobs Change
11	Agriculture, forestry, fishing and hunting	35	2%	(15%)
21	Mining, quarrying, and oil and gas extraction	(527)	(19%)	(20%)
22	Utilities	(54)	(39%)	(3%)
23	Construction	(569)	(19%)	(11%)
41	Wholesale trade	(104)	(19%)	(6%)
51	Information and cultural industries	(1)	(1%)	(8%)
52	Finance and insurance	(58)	(16%)	1%
53	Real estate and rental and leasing	55	15%	6%
54	Professional, scientific and technical services	(172)	(20%)	(5%)
55	Management of companies and enterprises	-5	Insf. Data	(7%)
56	Administrative and support, waste management and remediation services	85	7%	5%
61	Educational services	78	7%	14%
62	Health care and social assistance	(19)	(1%)	21%
71	Arts, entertainment and recreation	178	62%	22%
72	Accommodation and food services	189	16%	(2%)
81	Other services (except public administration)	219	15%	(2%)
91	Public administration	119	17%	5%
31-33	Manufacturing	(165)	(9%)	(8%)
44-45	Retail trade	127	5%	(0%)
48-49	Transportation and warehousing	(220)	(11%)	4%
X0	Unclassified	85	38%	44%
All	Total	(727)	(3%)	(0%)

Source: EMSI Analyst 2019.Q1

To better understand how each sector supports jobs, Figure 15 shows the **largest industries in CF Yellowhead East** by number of jobs in 2019. Jobs in 2014 are also shown to illustrate employment change.

Figure 15: Largest Industries by Number of Jobs, 2014-2019



Source: EMSI Analyst, 2019.Q1

Based on EMSI Analyst data on employment by industry, the following can be concluded about industry employment for the local economy of CF Yellowhead East.

Largest Growth Industries by Total Employment	Recent Fast-Growing Industries by Employment Growth (%)	Industries with Largest Projected Growth Employment
<ol style="list-style-type: none"> Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance Full-service restaurants and limited-service eating places Other amusement and recreation industries Waste treatment and disposal Independent artists, writers and performers Employment services Jewellery, luggage and leather goods stores 	<ol style="list-style-type: none"> Meat product manufacturing Jewellery, luggage and leather goods stores Independent artists, writers and performers Machine shops, turned product, and screw, nut and bolt manufacturing Automobile dealers Other machinery, equipment and supplies merchant wholesalers Other amusement and recreation industries 	<ol style="list-style-type: none"> Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance Specialized freight trucking Other amusement and recreation industries Full-service restaurants and limited-service eating places Automotive repair and maintenance Commercial and industrial machinery and equipment rental and leasing Architectural, engineering and related services

Notes:

Largest Industries by Total Employment is defined as top 7 largest industries by number of jobs,

Recent Fast-Growing Industries by Employment Growth (%) is defined as industries that had the largest percentage job growth in the economy, including only industries that grew jobs by 0.01 % of total jobs in 2019 (85 new jobs) between 2014 and 2019. Industries indicated here that are not included in the first category can signal emerging industries.

Industries with Largest Projected⁶ Growth Employment is defined as the industries projected to have the largest absolute job growth over the next five years.

⁶ Projections are calculated using robust industry data. First, simple short-, mid-, and long-term trend lines are made for every industry and municipality based on the historical data. Those lines are then averaged and dampened to prevent extreme change. EMSI then incorporates national industry projections (COPS national employment projections) as well as province and regional projections provided by province labour market organizations to adjust these numbers again.

4.2. Export Sales

This subsection investigates export sales by industry. Exports show the amount of money that is spent by industries located outside the region (domestically and internationally) in exchange for goods or services produced by an industry located in CF Yellowhead East. **The town's total export sales amount to \$564 million.** Listed below are the largest drivers or external revenues into CF Yellowhead East, and the percentage of exports each CF Yellowhead East industry represents in the region

CF Yellowhead East's largest generators of new dollars or known revenues coming from outside of CF Yellowhead East's local region are focused around energy production, resource management, transportation and manufacturing.

Table 10: Export Dollars Flowing into CF Yellowhead East by Industry, 2015

Industry	Total Export Sales	CF Yellowhead East %
Oil and gas extraction	\$644,778,601	17.8%
Pulp, paper and paperboard mills	\$315,435,040	8.7%
Farms	\$283,023,502	7.8%
Specialized freight trucking	\$232,994,273	6.4%
Support activities for mining, and oil and gas extraction	\$187,997,060	5.2%
Sawmills and wood preservation	\$181,393,688	5.0%
Other fabricated metal product manufacturing	\$118,231,556	3.3%
Pipeline transportation of crude oil	\$101,777,512	2.8%
Waste treatment and disposal	\$78,062,923	2.2%
Commercial and industrial machinery and equipment rental and leasing	\$74,639,279	2.1%
Utility system construction	\$68,127,344	1.9%
Petroleum and coal product manufacturing	\$65,375,994	1.8%
Logging	\$56,958,559	1.6%
General medical and surgical hospitals	\$51,563,064	1.4%
General freight trucking	\$50,464,890	1.4%
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	\$45,986,449	1.3%
Basic chemical manufacturing	\$39,040,780	1.1%
Residential building construction	\$34,948,154	1.0%
Pipeline transportation of natural gas	\$29,900,920	0.8%
Traveller accommodation	\$29,088,253	0.8%
Veneer, plywood and engineered wood product manufacturing	\$27,618,018	0.8%

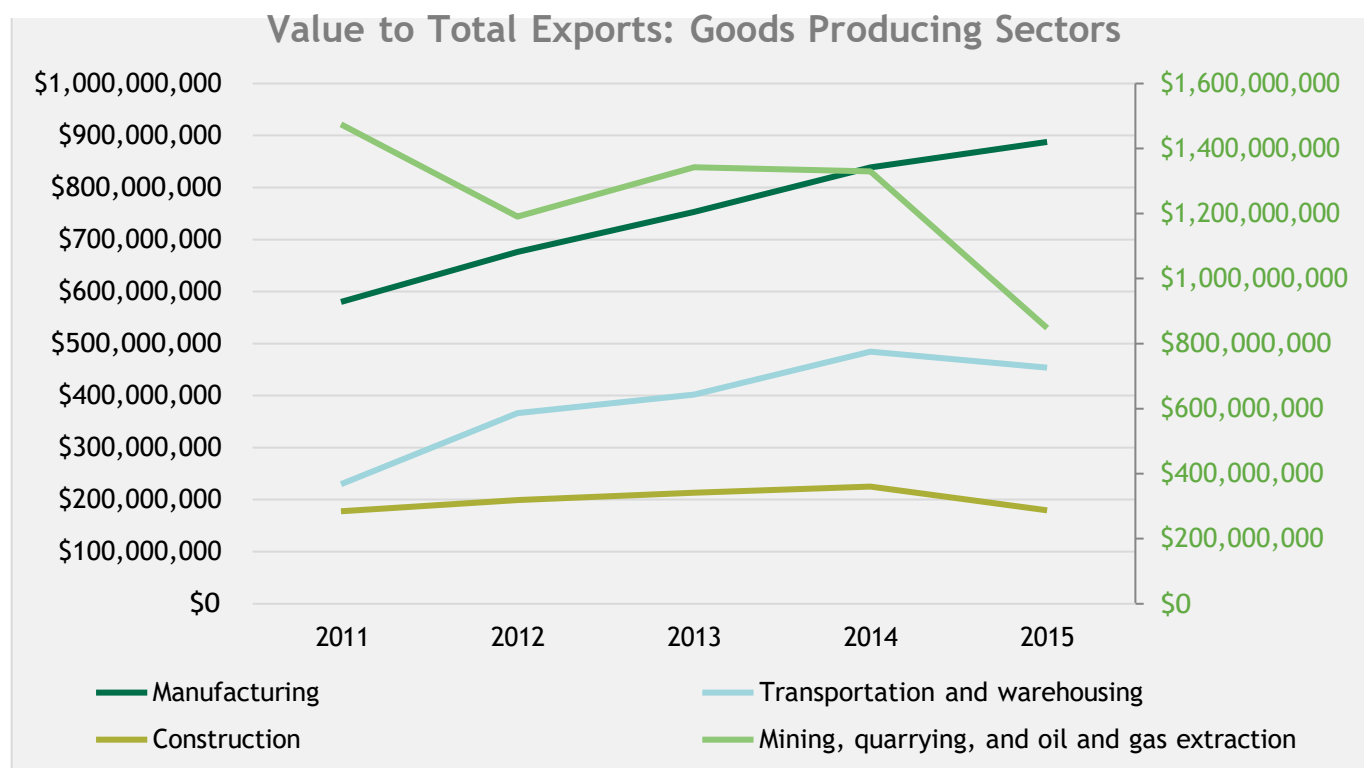
Source: 2019.Q1 EMSI Analyst, based on 2015 National Input-Output Tables by StatsCan

Similarly, in Alberta, the top industries generating the largest amount of export revenues are the following:

- Petroleum and coal product manufacturing (\$26,811,106,894)
- Utility system construction (\$11,996,161,875)
- Support activities for mining, and oil and gas extraction (\$10,707,703,670)
- Agricultural, construction and mining machinery manufacturing (\$6,875,780,707)
- Specialized freight trucking (\$6,515,925,938)
- Architectural, engineering and related services (\$6,057,920,406)

Figure 16 illustrates the total value of exports for the goods-producing sectors in CF Yellowhead East, plus transportation and warehousing since this sector is closely tied to the goods-producing sectors. 'Mining quarrying and oil and gas extraction' are shown on a secondary axis on the right so as to better illustrate changes over time (by not over extending the left axis range). The 'Manufacturing', and 'Transportation and warehousing' sectors have been the most stable, and largest growing sectors to the CF Yellowhead East's export base.

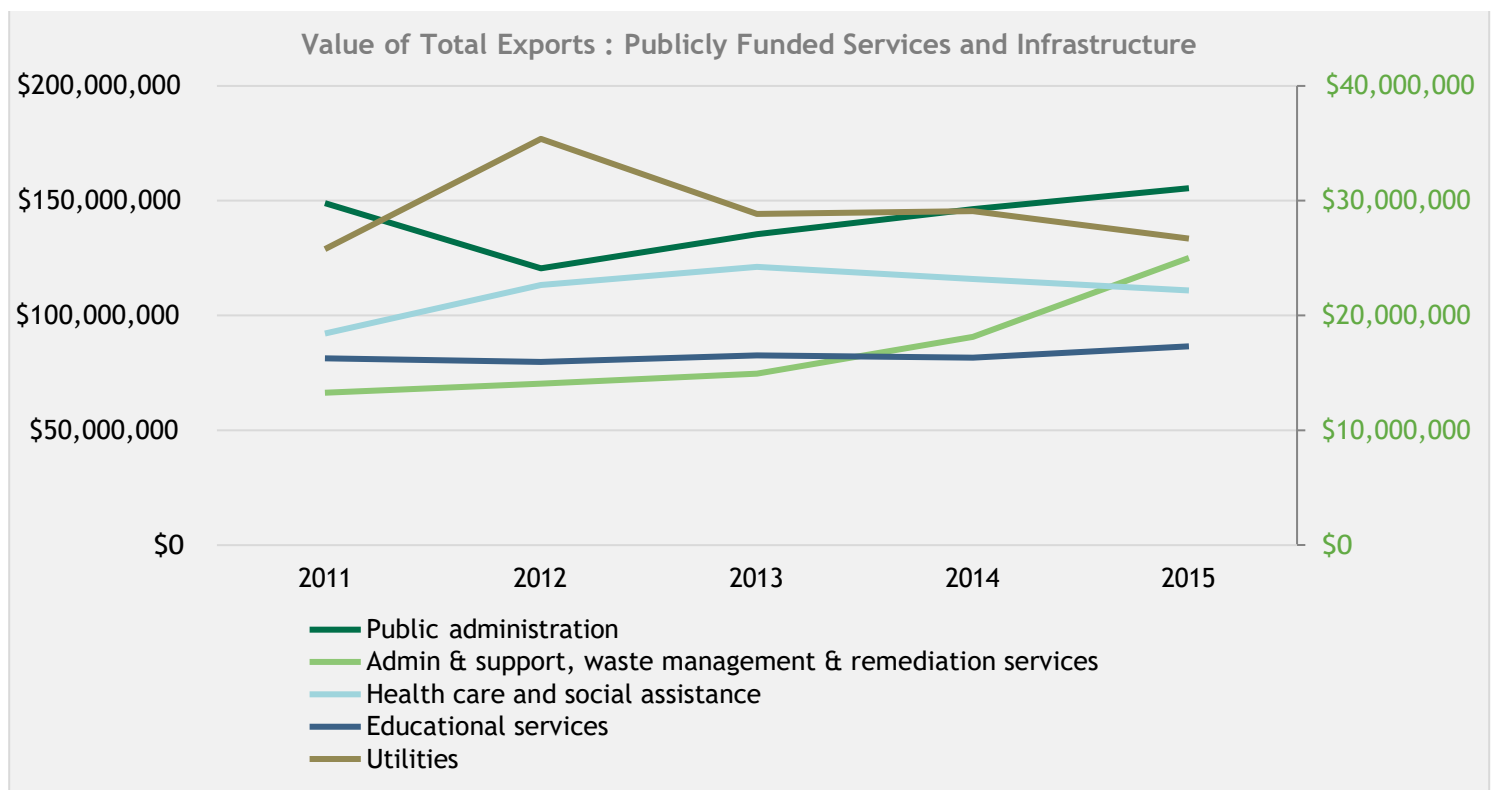
Figure 16: Total Exports Trends for the Goods Producing Sectors, 2011-2015



Source: EMSI 2019.Q1

In order to provide the same analysis for the service side of the economy, service sectors are divided into two categories: publicly funded services and infrastructure, and consumer-based industries. The Publicly Funded Services and Infrastructure group is comprised of sectors which maintain, build and support public goods and services. Figure 17 illustrates growth trends and highlights the fact that the 'Administration and support, waste management' sector has had the most stable growth but represents a significantly lower value of exports, and thus it is plotted on a secondary axis (right vertical axis).

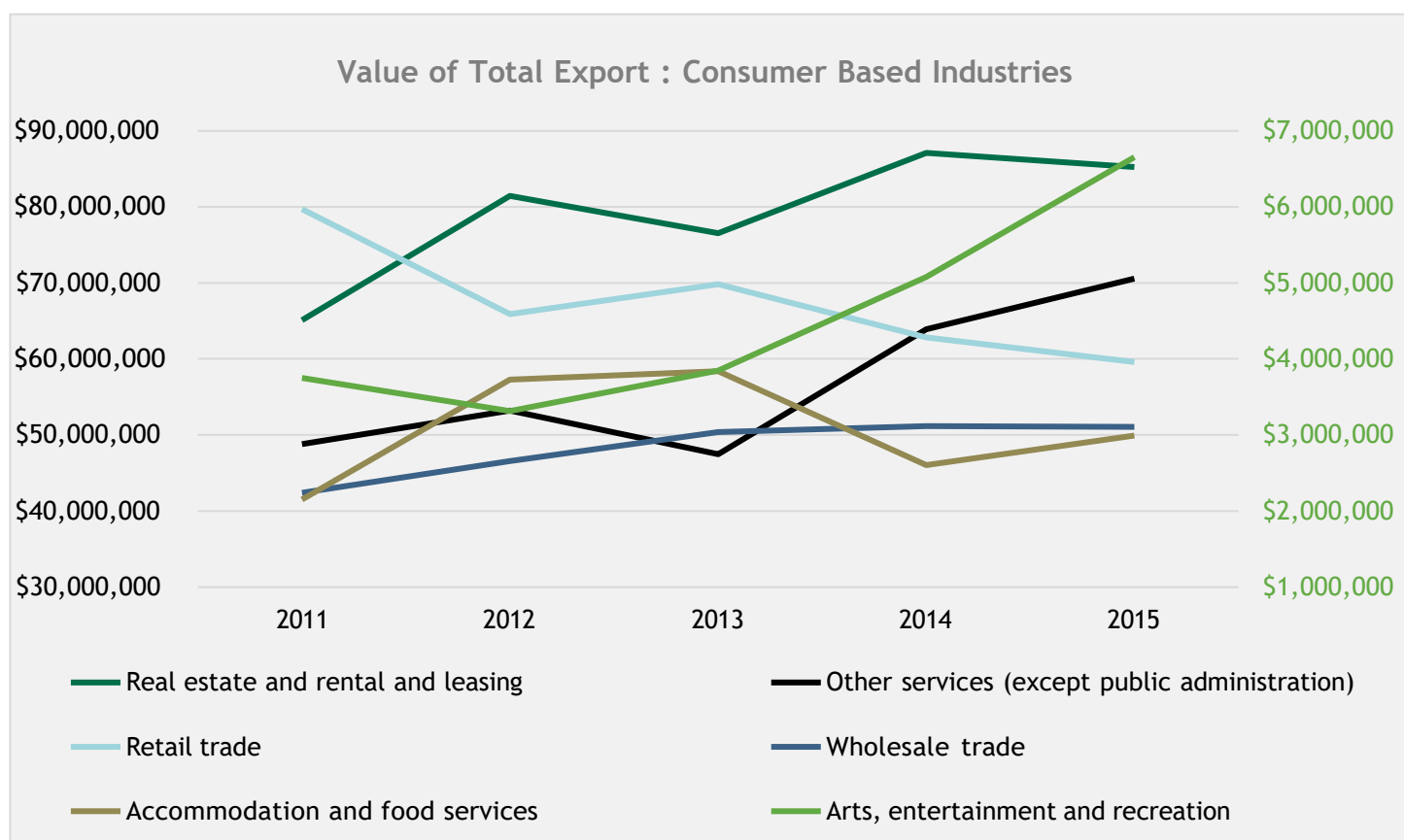
Figure 17: Total Exports Trends for Publicly Funded Services and Infrastructure, 2011 to 2015



Source: EMSI 2019.Q1

Consumer-based industries are illustrated in Figure 18. Real estate and rental and leasing, and other services (excludes public admin, includes personal, household, laundry, repair and maintenance) are both growing since 2013, and represent the largest external revenues generators in this group. Arts, entertainment and recreation industries have had the fastest growth over the past five years; however, this sector is much smaller in terms of export sales than the rest of the consumer-based industries, and thus is plotted on a secondary axis.

Figure 18: Total Export Trends for Consumer Based Industries, 2011 - 2015



Source: EMSI 2019.Q1

The sector-wide trends highlight some important features of the CF Yellowhead East economy. Firstly, oil and gas and related industries are large but unstable generators of export dollars. Manufacturing is a close second which has had significant, stable growth. Transportation and warehousing, which is directly tied to both of these sectors, had large gains in exports over the time period of 2011 to 2015. On the service side of things, waste management and remediation services; and art, entertainment and recreation are emerging sectors, as they demonstrated stable growth patterns between 2011 to 2015.

In terms of specific industries, Table 11 illustrates those that had the largest percentage growth between 2011 and 2015.

Table 11: Fastest Growing Industries By Percentage Change In Export Sales, 2011-2015

Industry	Exports 2015	2011 -2015 % Change
Specialized freight trucking	\$232,994,273	3.56%
Other fabricated metal product manufacturing	\$118,231,556	3.31%
Pulp, paper and paperboard mills	\$315,435,040	2.25%
Farms	\$283,023,502	2.18%
Pipeline transportation of crude oil	\$101,777,512	2.11%
Waste treatment and disposal	\$78,062,923	1.70%
Sawmills and wood preservation	\$181,393,688	1.12%
Pipeline transportation of natural gas	\$29,900,920	0.85%
General freight trucking	\$50,464,890	0.69%
Household appliance manufacturing	\$23,541,575	0.67%
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	\$45,986,449	0.65%
Grain and oilseed milling	\$21,913,120	0.62%
Office administrative services	\$26,302,928	0.57%
Veneer, plywood and engineered wood product manufacturing	\$27,618,018	0.54%
Residential building construction	\$34,948,154	0.48%
General medical and surgical hospitals	\$51,563,064	0.41%
Traveller accommodation	\$29,088,253	0.35%
Other specialty trade contractors	\$15,340,780	0.35%
Commercial and industrial machinery and equipment rental and leasing	\$74,639,279	0.30%
Lessors of real estate	\$9,552,376	0.27%
Petroleum and coal product manufacturing	\$65,375,994	0.24%
Agencies, brokerages and other insurance related activities	\$8,140,813	0.21%
Coating, engraving, cold and heat treating and allied activities	\$6,351,476	0.18%

4.3. Location Quotient Analysis

An economic base analysis is an analysis of how the local economy functions. It does not provide solutions to economic problems but instead provides useful information required for decision-making about economic strategies.

The economic base analysis helps determine which economic activities “bring money in”, and where money might be “leaking out”. While the actual flow of money in and out of the community would be the most accurate means of describing the economic base of the area, data or statistics for this form of cash flow analysis are not readily available. As such, a proxy for cash flow is required, and the most common substitute is employment which uses an economic base analysis tool called “Location Quotient Analysis”. This method compares the level of employment concentration (or specialization) in a relevant localized economy (i.e. CF Yellowhead East) to the level of employment concentration in one or more benchmark areas. In other words, does the local economy have proportionately more or fewer employees in specific industries than the benchmark area?

“Benchmarking” employment in the town of CF Yellowhead East to Alberta provides information on:

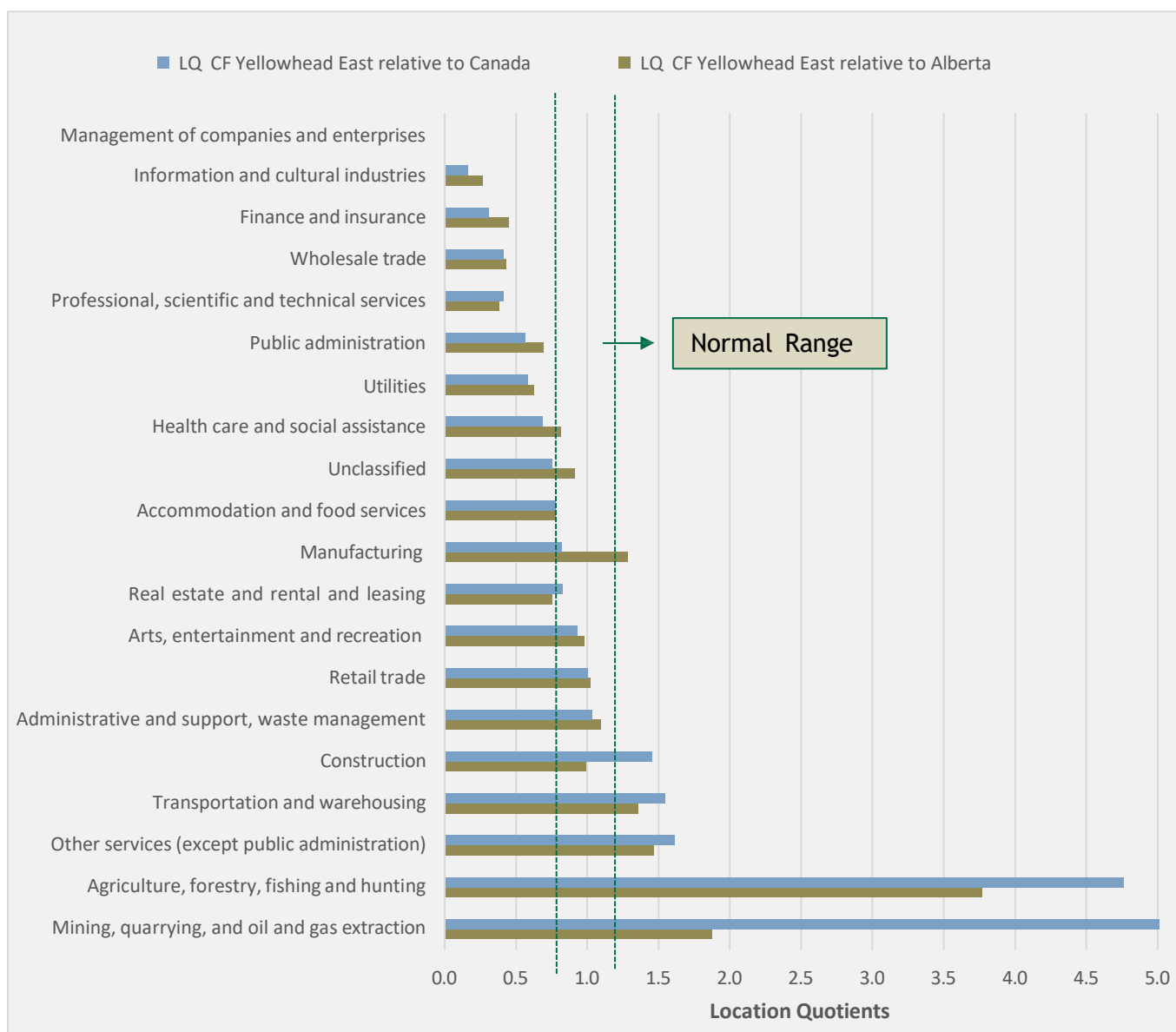
- The extent to which CF Yellowhead East is producing all of the goods or services required for consumption locally (this potentially identifies opportunities to replace the imports with locally provided goods and services).
- Whether the CF Yellowhead East economy is producing goods or services in excess of quantities required for local consumption, indicating a high degree of development and specialization (or industry concentration) that results from the goods or services being consumed by non-residents.

The location quotient method is a “first cut” analysis that requires interpretation of the results, but it will point to the economic sectors that deserve more thorough and in-depth analysis and “street-level” validation. A location quotient of between 0.75 and 1.25 generally indicates the local economy is self-sufficient in that industry. A 1.0 would indicate the exact same proportion of that industry’s jobs to all local jobs as to that of the benchmark, in this case, Alberta. A location quotient of less than 0.75 usually indicates a lack of self-sufficiency, requiring the importation of goods or services, as there is insufficient local employment to produce the required goods/services. A location quotient of greater than 1.25 usually indicates the industry has more local employment than is required to sustain the needs of the community. Therefore, it will export its goods or services and bring money into the community.

4.3.1. Location Quotient Analysis by Sector

Location Quotients (LQ) help to identify strengths of the community. Scores above 1.25 indicate a high concentration relative to the benchmark. Figure 17 illustrates the level of concentration of all sectors in CF Yellowhead East relative to the rest of the region (Division No. 15) and the province.

Figure 19: Concentrated Sectors in CF Yellowhead East relative to Alberta and Canada, 2019



Source: Total number of jobs 2019 per sector are estimated by EMSI Analyst. Location quotients are calculated by McSweeney & Associates.

The location quotient at the highest level (sectors) indicates that CF Yellowhead East has the strongest specializations relative to Alberta and Canada in the following sectors:

Concentrated Sectors for CF Yellowhead East	
Relative to Alberta	Relative to Canada
Agriculture, forestry, fishing and hunting	Mining, quarrying, and oil and gas extraction
Mining, quarrying, and oil and gas extraction	Agriculture, forestry, fishing and hunting
Other services (except public administration)	Other services (except public administration)
Transportation and warehousing	Transportation and warehousing
Manufacturing	Construction

4.3.2. Location Quotient Analysis by Sub-Sectors

The following tables illustrate the **sub-sector** (3-digit NAICS) concentrations in the local economy relative to Canada and Alberta. Sub-sectors are an important lens as they help to uncover a lower level of specialization and potential clusters. Note that the sub-sectors selected and illustrated in the following table have the largest 2019 location quotients and represent a minimum of 0.5% of total jobs in CF Yellowhead. Location quotients that are not highlighted in green text are not above the 1.25 threshold for specialization.

Table 12: Concentrated Sub-Sectors in CF Yellowhead East Relative Alberta and Canada, 2019

Sectors (by NAICS)	# Jobs CF Yellowhead East	% CF Yellowhead East	LQ: CF Yellowhead East relative to Alberta	LQ: CF Yellowhead East relative to Canada
Total	23950	100%	/	
Forestry and logging	317	1.3%	10.99	8.09
Paper manufacturing	176	0.7%	9.11	2.71
Wood product manufacturing	639	2.7%	6.85	5.42
Farms	1,841	7.7%	3.47	4.91
Waste management and remediation services	298	1.2%	3.37	4.68
Truck transportation	1,447	6.0%	2.93	4.01
Repair and maintenance	1,204	5.0%	2.54	3.58
Support activities for mining, and oil and gas extraction	1,549	6.5%	2.50	13.42
Gasoline stations	239	1.0%	1.86	2.17
Fabricated metal product manufacturing	320	1.3%	1.57	1.62
Rental and leasing services	267	1.1%	1.51	3.06
Motor vehicle and parts dealers	469	2.0%	1.47	1.63
Accommodation services	491	2.1%	1.44	1.86
Heavy and civil engineering construction	654	2.7%	1.41	3.08
Food and beverage stores	806	3.4%	1.35	1.24
Building material and garden equipment and supplies dealers	216	0.9%	1.29	1.15
Oil and gas extraction	619	2.6%	1.22	8.89

Source: 2019 jobs per sub-sector by EMSI Analyst 2019.Q1. Location quotients are calculated by McSweeney & Associates

CF Yellowhead East also has a concentration, relative to the rest of Alberta, in three manufacturing subsectors: paper, wood product and fabricated metal products. Moreover, accommodation and food stores are also concentrated; key support subsectors for tourism-related industries

4.3.3. Location Quotient Analysis by Industry

This subsection investigates employment concentrations at a more granular level – the industry groups. The following table highlights **industries** that are concentrated in CF Yellowhead East’s local economy, and that account for a minimum of 0.5% of jobs in the local economy. Location quotients that are not highlighted in green text are not above the 1.25 threshold for specialization.

In accordance with the previous conclusions from sector and sub-sector location quotient analysis, Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance

- Automotive repair and maintenance

Lastly, and perhaps most interestingly, CF Yellowhead has employment concentrations—relative to the province and the nation—related to the development public infrastructure concerned with energy transmission and resource management (i.e. energy and waste management), namely:

- Waste treatment and disposal
- Utility system construction

Table 13 highlights CF Yellowhead East strengths in manufacturing, farming, logging, commercial/industrial machine repair and maintenance and specialized freight trucking, all industries that should be propped up, supported and strategically organized to develop new industry clusters and other specializations.

CF Yellowhead East has several concentrated industries—relative to both the nation and the province—related to manufacturing, namely:

- Pulp, paper and paperboard mills
- Sawmills and wood preservation
- Other fabricated metal product manufacturing

CF Yellowhead East has concentrated industries—relative to both the nation and the province—related to repair and maintenance:

- Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance
- Automotive repair and maintenance

Lastly, and perhaps most interestingly, CF Yellowhead has employment concentrations—relative to the province and the nation—related to the development public infrastructure concerned with energy transmission and resource management (i.e. energy and waste management), namely:

- Waste treatment and disposal
- Utility system construction

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Table 13: Concentrated Industries in CF Yellowhead East, relative to Alberta and Canada, 2019

Industry (by NAICS)	# Jobs CF Yellowhead East	% Jobs in CF Yellowhead East	LQ: CF Yellowhead East relative to Alberta	LQ: CF Yellowhead East relative to Canada
Total	23950	100%	/	/
Pulp, paper and paperboard mills	176	0.7%	14.0	6.4
Sawmills and wood preservation	488	2.0%	13.8	10.6
Logging	317	1.3%	10.7	8.6
Other fabricated metal product manufacturing	182	0.8%	7.1	6.4
Waste treatment and disposal	207	0.9%	5.5	11.1
Specialized freight trucking	1085	4.5%	4.0	8.3
Farms	1841	7.7%	3.7	5.1
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	764	3.2%	3.2	8.3
Support activities for mining, and oil and gas extraction	1549	6.5%	2.5	13.7
Highway, street and bridge construction	185	0.8%	2.0	2.7
Commercial and industrial machinery and equipment rental and leasing	251	1.0%	1.9	5.8
Gasoline stations	239	1.0%	1.8	2.2
Automotive repair and maintenance	375	1.6%	1.7	1.9
General freight trucking	362	1.5%	1.7	1.6
Automobile dealers	347	1.4%	1.6	1.7
Nursing care facilities	216	0.9%	1.6	0.9
Utility system construction	444	1.9%	1.5	4.9
Grocery stores	636	2.7%	1.5	1.3
Residential building construction	517	2.2%	1.4	1.5
Office administrative services	116	0.5%	1.4	1.7
Traveller accommodation	406	1.7%	1.4	1.8
Building material and supplies dealers	208	0.9%	1.4	1.2
Services to buildings and dwellings	622	2.6%	1.3	1.5
Other specialty trade contractors	347	1.4%	1.3	2.1
Elementary and secondary schools	1,127	4.7%	1.3	1.2
Individual and family services	263	1.1%	1.2	1.1
Oil and gas extraction	619	2.6%	1.2	8.9

Source: 2019 jobs per industry by EMSI Analyst 2019 Q1. Location quotients are calculated by McSweeney & Associates.

4.4. Shift-Share Analysis

Shift-share analysis compares the local employment growth/decline of regional jobs by industry to the employment growth/decline of that industry within Canada, as well as the job growth overall for Canada. More specifically, this analytical tool examines the job growth/decline by attributing growth, stability, or decline in particular industries over time due to three distinct forces:

- Canadian economic growth: regional job growth/decline that is attributable to the growth, stability, or decline of the entire Canadian economy.
- Industry growth: regional job growth/decline that is attributable to the growth, stability, or decline of that particular economic activity in the Canadian economy (with the economic growth component removed).
- Local economic growth: local job growth/decline that is attributable to the local economy because it is growing/declining more or less quickly than jobs in the larger economy (with the Canadian economic and industry growth components removed).

This tool, when correctly interpreted, provides greater descriptive power than the location quotient method. It has been applied to NAICS Industries using place of work statistics. Shift-share analysis allows the examination of changes through time (trends) versus the static snapshot of location quotients.

4.4.1. Shift-Share Analysis

This subsection examines industries with the largest employment shifts associated to local factors. Table 14 allocates employment changes of these industries to national, industry and regional/local effects. An example on how to interpret the data follows the table.

Table 14: Shift-Share Analysis: Competitive Industries, CF Yellowhead East, 2014-2019

Industry (NAICS classification)	Growth/ Decline	% Growth/ Decline	National Economic Effect	Industry Growth Effect	Regional / Local Effect
Total	-727	-3%	1,890	-808	-1,809
Farms	39	2%	138	-290	191
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	233	44%	41	9	184
Automobile dealers	154	80%	15	3	136
Oil and gas extraction	46	8%	44	-117	119
Waste treatment and disposal	60	41%	11	-37	85
Services to buildings and dwellings	140	29%	37	20	84
Local, municipal and regional public administration	88	24%	29	-5	65
Full-service restaurants and limited- service eating places	165	25%	51	55	60
Logging	41	15%	21	-34	54
Jewellery, luggage and leather goods stores	50	179%	2	-5	52
Independent artists, writers and performers	56	140%	3	1	52
Employment services	55	74%	6	4	45
Other amusement and recreation industries	81	54%	12	29	41
Meat product manufacturing	43	179%	2	1	41
Machine shops, turned product, and screw, nut and bolt manufacturing	32	103%	2	-5	34
Gambling industries	28	42%	5	-5	28
Other machinery, equipment and supplies merchant wholesalers	29	74%	3	-2	28
Agencies, brokerages and other insurance related activities	32	46%	5	1	26
Building material and supplies dealers	43	26%	13	5	25
Furniture stores	29	73%	3	1	25
Office administrative services	-32	-22%	11	-67	24

Source: EMSI Analyst 2019.Q1

An example of how to interpret the table follows:

The farming industry grew by
39 jobs between 2014 and 2019. This may be
attributed to the following:

National Growth	Industry Decline	Local Growth
138 jobs can be attributed to overall growth in the national economy.	-290 jobs can be attributed to employment decline in the industry nationally.	Thus, 191 jobs in the industry in CF Yellowhead East economy can be attributed to a “local growth effect”, since 138 new jobs can be attributed to the growth of the national economy, and 290 jobs lost due to industry decline nationally (i.e. $138 - 290 + 191 = 39$)

The shift-share analysis identified the following industries in CF Yellowhead East to have the **strongest local economic growth**, considering national and industry growth/decline:

1. Farms
2. Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance
3. Automobile dealers
4. Oil and gas extraction
5. Waste treatment and disposal

Meanwhile, shift-share analysis identified the following industries in CF Yellowhead East to have the **strongest local economic decline**, considering national and industry growth/decline:

1. Building equipment contractors
2. Pulp, paper and paperboard mills
3. Management, scientific and technical consulting services
4. Support activities for mining, and oil and gas extraction
5. Building finishing contractors

4.5. Employer Structure

This subsection illustrates the number and size of employers by industry in the region. The data in this section comes from Statistics Canada's Canadian Business Patterns dataset. Employers in this dataset include businesses in the Business Register, which are all Canadian businesses that meet at least one of the three following criteria:



- Have an employee workforce for which they submit payroll remittances to Canada Revenue Agency; or
- Have a minimum of \$30,000 in annual revenue; or
- Are incorporated under a federal or provincial act and have filed a federal corporate income tax form within the past three years.

Statistics Canada divides businesses into two major groupings:

1. Businesses with a determinate number of employees; and
2. Businesses with an indeterminate number of employees.

Businesses without employees correspond to the “indeterminate” employment category from the previous reference periods. During times of economic decline, there is a rise in the number of indeterminate businesses, as people set up business enterprises, which may or may not become active.

For economic development purposes, businesses with a determinate number of employees (one or more) are of greater interest than indeterminate businesses (which frequently are not active or have very low levels of economic activity). An increase in the number of indeterminate businesses can, however, signal potential new business startups.

According to the Canadian Business Registry, CF Yellowhead East had 1,574 more businesses in December 2018 than in December 2013; that is, 29% growth in the total number of businesses. The area lost 167 businesses with employees and gained 1,741 businesses without employees between 2018 and 2013. This would indicate that there has been a surge of small start-up/home-based businesses in CF Yellowhead East, over the past 5 years.

Sectors with the largest total number of businesses in CF Yellowhead East are:

1. Agriculture, forestry, fishing and hunting
2. Construction
3. Real estate and rental and leasing
4. Other services (except public administration)
5. Unclassified
6. Transportation and warehousing
7. Professional, scientific and technical services

The industries that had the largest total number of new businesses in the past 5 years were:

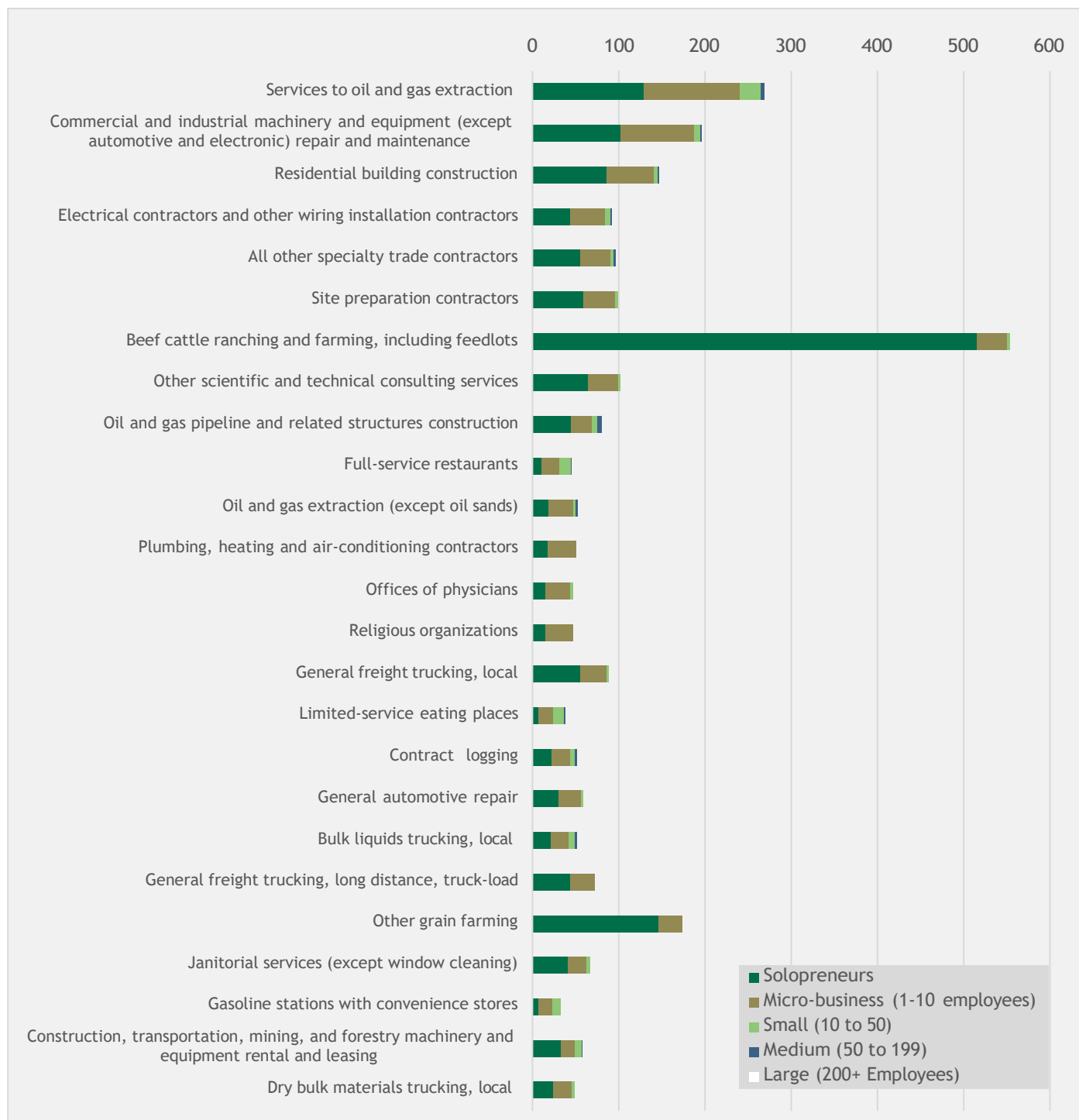
1. Farms
2. Lessors of real estate
3. Support activities for mining, and oil and gas extraction
4. Specialized freight trucking
5. Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance
6. Other specialty trade contractors
7. Management, scientific and technical consulting services

The industries that saw the largest number of new businesses, with employees, in the past 5 years were:

1. Gasoline stations
2. Other miscellaneous store retailers
3. Non-residential building construction
4. Beer, wine and liquor stores
5. Support activities for farms
6. Offices of physicians
7. Other amusement and recreation industries

Figure 20 shows, in declining order, industries with the largest number of businesses with employees. The number of businesses without employees (labelled as “Solopreneurs”) are also illustrated in the stacked bars in order to illustrate the total number of businesses. Note that none of the largest industries by number of businesses have large employers (200+ employees).

Figure 20: Largest Industries Sorted by # of Business Establishments with Employees (6-digit NAICS), December 2018



Source: 2018 Statistics Canada Business Patterns from EMSI 2019

The following table illustrates the industries that added the largest number of businesses, with employees, to the local economy over the past 5 years:

Table 15: Industries: Largest Growth in # of Businesses with Employees, 2014-2019

Description	2018 Total # of Businesses	# of Businesses with Employees	2013-2018 Change in # of Businesses with Employees	% Change in # of Businesses with Employees
Gasoline stations	17	51	12	55%
Other miscellaneous store retailers	10	23	6	86%
Non-residential building construction	23	41	5	38%
Beer, wine and liquor stores	1	21	5	33%
Support activities for farms	39	54	4	36%
Offices of physicians	15	47	4	14%
Other amusement and recreation industries	19	34	4	36%
Civic and social organizations	17	31	4	40%
Individual and family services	6	14	4	100%
Services to buildings and dwellings	64	105	3	8%
Land subdivision	29	35	3	100%
Automotive parts, accessories and tire stores	5	23	3	20%
Lessors of real estate	456	500	2	5%
Recreational vehicle (RV) parks and recreational camps	22	29	2	40%
Other personal services	19	26	2	40%
Specialty food stores	8	16	2	33%
Computer systems design and related services	5	12	2	40%
Special food services	8	12	2	100%
Specialized design services	8	10	2	33%
Lumber, millwork, hardware and other building supplies merchant wholesalers	1	9	2	33%
Other heavy and civil engineering construction	4	8	2	100%
Waste collection	1	8	2	40%
Architectural and structural metals manufacturing	2	8	2	50%

Source: Statistics Canada's Canadian Business Registry

Other notable industries that are quickly growing in the number of businesses in the local economy (without employees) are illustrated in the following table.

Table 16: Industries: Largest Growth in # of Businesses without Employees, 2013-2018

Description	2018 Total # of Businesses	Total # of Businesses without Employees	2013-2018 Change in # of Businesses without Employees	% Change in # of Businesses without Employees
Farms	1,350	1,206	397	49%
Lessors of real estate	500	456	279	158%
Other financial investment activities	108	96	44	85%
Residential building construction	146	86	34	65%
Services to buildings and dwellings	105	64	28	78%
Child day-care services	33	28	27	2700%
Support activities for farms	54	39	19	95%
Foundation, structure, and building exterior contractors	78	41	22	116%
Other specialty trade contractors	195	114	39	52%
Accounting, tax preparation, bookkeeping and payroll services	70	39	18	86%
Offices of physicians	47	15	12	400%
Land subdivision	35	29	13	81%
Other personal services	26	19	14	280%
Automotive repair and maintenance	100	51	17	50%
Other professional, scientific and technical services	90	56	18	47%
Other miscellaneous store retailers	23	10	8	400%
Offices of other health practitioners	30	20	15	300%
Utility system construction	94	54	22	69%
Personal care services	55	39	17	77%
Civic and social organizations	31	17	7	70%
Other schools and instruction	26	18	10	125%
Direct selling establishments	23	14	9	180%
Business support services	16	13	8	160%

Source: Statistics Canada's Canadian Business Registry 2019-2014

4.6. Supply Chain Gaps

Understanding supply chain gaps means knowing where money is leaking out of the region. The most straight forward way to support growing businesses or establish a cluster is to understand when key employers are forced to procure supplies from outside of the community. Certain raw materials will always be imported, however, understanding gaps in required services and specific niche industries, will help facilitate recruitment and attraction of additional services to the region. Industries that already exist, and which could be further attracted into the economy to reduce leakage have been highlighted in green.

Table 17: Supply Chain Gaps Analysis, CF Yellowhead East.

Purchases from	Estimated Import Value 2015	% Imported from outside of CF Yellowhead East 2015
Oil and gas extraction	\$409,672,154	82.1%
Pulp, paper and paperboard mills	\$217,391,812	92.5%
Farms	\$121,051,347	57.8%
Petroleum and coal product manufacturing	\$114,722,243	67.8%
Sawmills and wood preservation	\$117,918,534	76.6%
Specialized freight trucking	\$69,530,606	55.7%
Logging	\$42,088,064	34.1%
Residential building construction	\$10,976,501	10.6%
Lessors of real estate	\$80,614,629	82.2%
Depository credit intermediation	\$66,709,917	73.5%
General freight trucking	\$59,972,564	67.6%
Support activities for mining, and oil and gas extraction	\$11,366,732	12.8%
Electric power generation, transmission and distribution	\$68,400,649	79.8%
General medical and surgical hospitals	\$52,388,957	69.1%
Architectural, engineering and related services	\$55,936,115	75.4%
Building equipment contractors	\$33,801,100	45.6%
Insurance carriers	\$68,447,019	97.1%
Motor vehicle manufacturing	\$69,605,425	100.0%
Full-service restaurants and limited-service eating places	\$39,396,824	58.7%
Pipeline transportation of crude oil	\$50,559,717	90.1%
Wired and wireless telecommunications carriers (except satellite)	\$51,929,139	97.6%
Other fabricated metal product manufacturing	\$32,779,563	66.5%
Basic chemical manufacturing	\$29,881,201	71.2%
Computer systems design and related services	\$39,641,358	96.9%
Utility system construction	\$18,692,897	46.6%

Source: EMSI 2019.Q1 based on National input-output tables from 2019