LABOUR FORCE PROFILE & TARGET SECTOR STUDY

CLEARWATER COUNTY

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Clearwater County

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1. DATA SOURCES

Please note that every effort has been made to use the most current data available. There are 5 major sources of information for the remainder of this document:

- Canadian Business Registry (CBR) – June 2013 and June 2018
- Statistics Canada Census Profiles 2016
- Economic Modeling LLC (EMSI) 2019.Q3
- Alberta Office of Statistics and Information (OSI) https://www.alberta.ca/office-statistics-information.aspx
- Statistics Canada Trade Data Online tool: https://www.ic.gc.ca/eic/site/tdo-dcd.nsf/eng/home

Canadian Business Registry (CBR)

The major sources of information for the business registry are updated from the Statistics Canada survey program and 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.

EMSI: Economic Modeling

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 Clearwater County of 2001 is the same as the Clearwater County of 2019. This results in geographically detailed data (down to the Census Subdivision level) that applies to today's economy.

The data is detailed, providing 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, ensuring users have the most current information possible. Additionally, 10-year projections are prepared based on the CBR data.

EMSI Data Sources include:
Canadian Business Registry (CBR)
2001, 2006, and 2011 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. LABOUR FORCE PROFILING

This section profiles the labour force available for new and existing businesses locating in Clearwater County. This section illustrates the characteristics of the labour force available within the labour recruitment area for Clearwater County.

2.1. Workforce Commuting Flow

Before profiling the available workforce, commuting flows are used to define the boundaries of the labour recruitment area. The objective is to understand where businesses most commonly draw labour from. Tables 1 and 2 show commuting flows which provide information on persons reporting a **"usual place of work other than in their home or outside of Canada**", and reveals the following trends regarding labour force commuting:

- More than half (87%) of the Clearwater County labour force works outside of the community. Most residents that work outside the community commute to the Rocky Mountain House.
- About half (49%) of the persons working in Clearwater County are not residents in Clearwater County.
- Most of the non-residents working in Clearwater County are from Caroline, Sundre, and Rocky Mountain House

Table 1: Where Clearwater County Resident Labour Force Works, 2016

Place of Work	Total	%
Rocky Mountain House, T	2,065	66%
Clearwater County, MD	400	13%
Red Deer, CY	175	6%
Eckville, T	165	5%
Sundre, T	70	2%
Calgary, CY	55	2%
Red Deer County, MD	45	1%
Sylvan Lake, T	40	1%
Rimbey, T	35	1%
Big Horn 144A, IRI	30	1%
Innisfail, T	25	1%
Lacombe, CY	25	1%
Wood Buffalo, SM	20	1%
Total workforce residing in Clearwater County	**3,150**	**100%**
Total resident labour force with a usual place of work outside the county	**2,750**	**87%**

Source: Statistics Canada, 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016325.

Table 2: Place of Residence for Persons Working in Clearwater County, 2016

Place of Residence / Place of Work	Total	%
Clearwater County, MD	400	51%
Caroline, VL	70	9%
Sundre, T	50	6%
Rocky Mountain House, T	50	6%
Sylvan Lake, T	45	6%
Eckville, T	40	5%
Red Deer, CY	30	4%
Lacombe County, MD	30	4%
Mountain View County, MD	25	3%
Red Deer County, MD	20	3%
Innisfail, T	20	3%
Total workforce working in the county	**780**	**100%**
Total non-resident workforce with a 'usual place of work' in the County	**380**	**49%**

Source: Statistics Canada, 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016325.

The Labour Recruitment Area

The commuting flows reveals that over 75% of the labour working in Clearwater County comes form the census division called Division No.9. This is also primarily the area where residents of Clearwater County commute to. Division No. 9 encompasses municipalities where labour flows naturally to and from Clearwater County. Thus, Division No. 9 is considered to be the primary labour force recruitment area, which includes the following municipalities:

Division No. 9:
Big Horn 144A (Indian reserve)
Burnstick Lake (Summer village)
Caroline (Village)
Clearwater County (Municipal district)
O'Chiese 203 (Indian reserve)
Rocky Mountain House (Town)
Sunchild 202 (Indian reserve)

2.2. Regional Employment in Retrospect

This subsection illustrates the changes in population and, employment by industry sectors in the region, over the past 20 years. Since 1996, the population has been increasing, albeit at a decreasing pace (Table 3).

Table 3: Total Population on Growth Rate, 1996 to 2016

Division No.9	1996	2001	2006	2011	2016	2019
Total Population	18,196	19,573	20,351	21,290	20,869	21,416
Growth rate	8.7%	7.6%	4.0%	4.6%	-2.0%	n/c

Source: Statistics Canada Census Program 1996 to 2016. Manifold Superdemocracies 2019 Population Estimates.
Notes: Census surveyed method is different than population estimates prepared through mathematical models and are not comparable (n/c)

Key employment sectors have also changed significantly. Agriculture industries had the most notable change (30% decline), while most other industries increased in employment over the last 15 years (except wholesales trade, -17%) (Table 4). Utilities, transportation and professional services have had the fastest jobs growth in the 15 years recorded.

Table 4: Employment Levels by Industry, 2001 to 2016

North American Industry Classification System	2001	2006	2011	2016	Change	% Change
Total Population in the Labour Force	8,350	8,590	11,850	10,905	2555	31%
21 Mining and oil and gas extraction	770	855	1,815	1,430	660	86%
23 Construction	650	720	1,310	1,335	685	105%
44-45 Retail trade	955	1,045	1,125	1,080	125	13%
11 Agriculture, forestry, fishing and hunting	1,515	1,305	1,175	1,055	-460	-30%
62 Health care and social assistance	750	590	705	925	175	23%
61 Educational services	520	605	650	690	170	33%
72 Accommodation and food services	630	630	630	660	30	5%
81 Other services (except public)	550	575	780	635	85	15%
91 Public administration	335	340	510	495	160	48%
48-49 Transportation and warehousing	205	330	460	430	225	110%
54 Professional, scientific and technical services	195	330	600	430	235	121%
31-33 Manufacturing	400	385	420	420	20	5%
56 Admin/ support, waste & remediation services	175	175	435	330	155	89%
52 Finance and insurance	150	190	315	230	80	53%
41 Wholesale trade	270	175	285	225	-45	-17%
71 Arts, entertainment and recreation	100	95	220	190	90	90%
53 Real estate and rental and leasing	115	120	220	145	30	26%
22 Utilities	15	45	130	125	110	733%
51 Information and cultural industries	30	60	65	80	50	167%

Source: Statistics Canada Census Program 2001 to 2016.

2.3. Labour Skills Supply

This subsection illustrates the current, estimated supply of skills and knowledge by looking at the estimated number of residents by major field of study in 2019, and the estimated number of residents by employment occupation in 2019 for the Clearwater County Region, which will be used to refer to Division No.9 from here forth.

Table 5 shows that approximately 44% of residents 15 years and older have a postsecondary education. Alternatively, if we look at residents ages 25 to 64, the percentage increases to 51%. In 2019, approximately 7,477 residents in the Clearwater County Region with postsecondary education; 15% have trades or apprenticeships certificates; 18% have college diplomas; 9% have a degree at the bachelor level or above.

Table 5: Educational Attainment, Clearwater County Region, 2019

Highest certificate, diploma or degree	Total	%
Total population aged 15 years and over	17,037	100%
No certificate, diploma or degree	4,641	27%
Secondary (high) school diploma or equivalency certificate	4,918	29%
Postsecondary certificate, diploma or degree	7,477	44%
Apprenticeship or trades certificate or diploma	2,516	15%
College, CEGEP or other non-university certificate or diploma	3,039	18%
University certificate or diploma below bachelor level	427	3%
University certificate, diploma or degree at bachelor level or above	1,495	9%
Bachelor's degree	1,116	7%
University certificate or diploma above bachelor level	91	1%
Degree in medicine, dentistry, veterinary medicine or optometry	43	0%
Master's degree	228	1%
Earned doctorate	17	0%

Source: Manifold Super demographics 2019

Major field of study is collected for the highest certificate, diploma or degree above the high school or secondary school level. Table 6 shows **that programs related to health; mechanic and repairs technologies; and businesses, management and marketing are the top three most common in the region** (attained through postsecondary education) and represent an ample supply of these types of knowledge. There are clear differences, however, in knowledge types by sex. Most notably, women are overrepresented in knowledge categories related to health; education; business, management, marketing; and family and consumer sciences/human sciences. Meanwhile, men are overrepresented in mechanic and repair technologies; construction trades; precision production; and engineering technologies.

Table 6: Major Fields of Study for Residents in Clearwater County Region, 2019

Major Field of Study (by 2-digit CIP code)[1]	Total # of Residents	Female	Male
Total population aged 15 years and over in private households.	17,037	8,510	8,526
No postsecondary certificate, diploma or degree	9,430	4,710	4,720
51. Health professions and related programs	1104	966	138
47. Mechanic and repair technologies/technicians	925	31	894
52. Business, management, marketing and support	908	759	149
13. Education	661	526	136
46. Construction trades	659	22	637
48. Precision production	515	25	489
15. Engineering technologies and engineering-related	425	55	370
12. Personal and culinary services	356	248	108
19. Family and consumer sciences/human sciences	238	224	14
01. Agriculture, agriculture operations and sciences	238	94	144
03. Natural resources and conservation	190	86	104
50. Visual and performing arts	121	87	35
39. Theology and religious vocations	113	37	76
49. Transportation and materials moving	108	22	86
45. Social sciences	107	82	26
31. Parks, recreation, leisure and fitness studies	106	74	32
14. Engineering	97	11	86
43. Security and protective services	90	36	54
11. Computer and information sciences and services	89	37	52
22. Legal professions and studies	78	61	17
44. Public administration and social service professions	76	63	13
42. Psychology	54	49	5
24. Liberal arts & sciences, general studies and humanities	47	29	18
26. Biological and biomedical sciences	41	21	20
09. Communication, journalism and related programs	31	28	2
40. Physical sciences	26	15	11
25. Library science	26	5	21
30.01 Biological and physical sciences	24	10	14
41. Science technologies/technicians	22	6	15
54. History	21	18	3
05. Area, ethnic, cultural, gender, and group studies	21	21	0
27. Mathematics and statistics	15	6	9
30C Other interdisciplinary physical and life sciences	13	6	7
38. Philosophy and religious studies	12	11	1
23. English language and literature/letters	11	8	3
04. Architecture and related services	9	8	1

[1] Classification of instructional Program: https://www150.statcan.gc.ca/n1/en/catalogue/12-590-X

Major Field of Study (by 2-digit CIP code)[1]	Total # of Residents	Female	Male
60. Dental, medical and veterinary residency programs	9	0	9
10. Communications technologies/technicians and support services	7	3	4
16. Aboriginal and foreign languages, literatures and linguistics	6	5	2
55. French language and literature/letters	3	2	1
30B Interdisciplinary social and behavioural sciences	2	2	0
30A Interdisciplinary humanities	0	0	0
30.16 Accounting and computer science	0	0	0
30D Interdisciplinary mathematics, computer and information sciences	0	0	0
30.12 Historic preservation and conservation	0	0	0
28. Military science, leadership and operational art	0	0	0
29. Military technologies and applied sciences	0	0	0
30.99 Multidisciplinary/interdisciplinary studies, other	0	0	0

Source: Manifold Super demographics 2019

The supply of skills derived from job experience can be examined by looking at the occupations of residents, employed currently or who participated in the labour force over the past year. A job experience creates specific types of skills, beyond what is learnt through an educational program (i.e. workplace and occupation-specific skills). Table 7 shows what skills are most present in the region, based on the most prevalent types of occupations help by residents.

Table 7: Residents by Occupation, 2019

Occupations (by 2-digit NOCS[2])	Total	%
In the labour force	11,630	100%
Occupation - not applicable	170	1%
All occupations	11,487	99%
75 Transport and heavy equipment operation and related maintenance occupations	886	8%
07-09 Middle management occupations in trades, transportation, production and utilities	844	7%
72 Industrial, electrical and construction trades	759	7%
67 Service support and other service occupations, n.e.c.	612	5%
73 Maintenance and equipment operation trades	604	5%
12 Administrative and financial supervisors	515	4%
14 Office support occupations	465	4%

[2] National Occupational Classification: http://noc.esdc.gc.ca/English/noc/welcome.aspx?ver=16

Occupations (by 2-digit NOCS[2])	Total	%
82 Supervisors and technical occupations in natural resources, agriculture and related production	411	4%
44 Care providers and educational, legal and public protection	379	3%
22 Technical occupations related to natural and applied sciences	373	3%
92 Processing, manufacturing and utilities supervisors and central control operators	372	3%
65 Service representatives and other personal services	366	3%
06 Middle management occupations in retail and wholesale trade	350	3%
66 Sales support occupations	350	3%
64 Sales representatives and salespersons - Wholesale and retail	294	3%
40 Professional occupations in education services	289	2%
84 Workers in natural resources, agriculture and related production	272	2%
86 Harvesting, landscaping and natural resources labourers	248	2%
63 Service supervisors and specialized service occupations	236	2%
01-05 Specialized middle management occupations	224	2%
13 Finance, insurance and related business administrative	211	2%
62 Retail sales supervisors and specialized sales occupations	192	2%
15 Distribution, tracking and scheduling co-ordination occupations	191	2%
32 Technical occupations in health	187	2%
42 Paraprofessional occupations in legal, social, and education	184	2%
76 Trades helpers, construction labourers and related occupations	183	2%
52 Technical occupations in art, culture, recreation and sport	175	2%
21 Professional occupations in natural and applied sciences	158	1%
34 Assisting occupations in support of health services	143	1%
74 Other installers, repairers and servicers and material handlers	137	1%
30 Professional occupations in nursing	135	1%
41 Professional occupations in law and social, government services	118	1%
96 Labourers in processing, manufacturing and utilities	111	1%
11 Professional occupations in business and finance	106	1%
94 Processing and manufacturing machine operators and related	100	1%
51 Professional occupations in art and culture	85	1%
31 Professional occupations in health (except nursing)	69	1%
00 Senior management occupations	54	0%
43 Occupations in front-line public protection services	54	0%
95 Assemblers in manufacturing	43	0%

Source: Manifold Super demographics 2019

2.4. Labour Force Characteristics

This subsection looks at the labour force status for different groups in the Clearwater County Region. It identifies groups that are unemployed and underemployed by looking at labour force status by age, education level, field of study, and occupation. This analysis will provide insight into which groups require assistance with upskilling or entering the workforce by looking at participation, employment and unemployment rates, where:

$$\textbf{Participation rate} = \frac{Labour\ force}{Total\ population\ 15\ and\ older}$$

$$\textbf{Employment rate} = \frac{Labour\ force\ employed}{Total\ population\ 15\ and\ older}$$

$$\textbf{Unemployment rate} = \frac{Labour\ force\ unemployed}{Labour\ force}$$

Firstly, the labour force is analyzed by age and sex to draw basic demographic conclusions about labour market trends. The labour force status by age and gender shows that young males (ages 15 to 24) have the highest unemployment rate compared to all other age groups by gender, locally and compared to Alberta (see Table 8 and 9). Furthermore, women 25 and older appear significantly underutilized in the workforce. Compared to men in the same age group in the Clearwater County Region, women have a participation rate that is 14.2 percentage points lower. Participation and employment rates for women 25 and older in the Clearwater County Region is lower when compared to the same group at the provincial level.

Table 8: Labour Force Status for Young Adults (ages 15 to 24) by Sex, 2019

Labour force activity - population 15 to 24 years old	Clearwater County Region			Alberta		
	Total	Male	Female	Total	Male	Female
Total population 15 to 24	2,737	1,432	1,305	537,927	275,895	262,032
In the labour force	1,717	945	772	352,906	181,194	171,713
Employed	1,448	766	683	309,477	155,859	153,626
Unemployed	268	179	89	43,429	25,335	18,087
Not in the labour force	1,020	488	532	1,85,021	94,700	90,319
Participation rate	**62.72**	**65.94**	**59.2**	**65.6**	**65.68**	**65.53**
Employment rate	**52.92**	**53.44**	**52.34**	**57.53**	**56.49**	**58.63**
Unemployment rate	**15.63**	**18.95**	**11.57**	**12.31**	**13.98**	**10.53**

Source: Manifold Super demographics 2019

Table 9: Labour Force Status for Mature Adults (ages 25 and older) by Sex, 2019

Labour force activity - population 25 years and over	Clearwater County Region			Alberta		
	Total	Male	Female	Total	Male	Female
Total population 25 years and over	14,300	7,094	7,206	3,113,014	1,542,183	1,570,831
In the labour force	9,913	5,427	4,486	2,268,303	214,454	1,053,848
Employed	9,057	4,844	4,212	2,125,608	1,138,921	986,680
Unemployed	856	582	274	142,695	75,533	67,168
Not in the labour force	4,387	1,667	2,720	844,711	327,729	516,983
Participation rate	69.32	76.5	62.26	72.87	78.75	67.09
Employment rate	63.34	68.29	58.46	68.28	73.85	62.81
Unemployment rate	8.63	10.73	6.1	6.29	6.22	6.37

Source: Manifold Super demographics 2019

When examining the labour force status of residents of the Clearwater County Region by education level, it was found that generally, **individuals with less education tend to have higher unemployment rates, same as in Alberta (Table 10)**. However, individuals with apprentice and trades education in Clearwater County Region have a higher than normal unemployment rate (16%); one which is higher than that of persons in the labour force with only a high school education.

Table 10: Labour Force Status by Educational Attainment, 2016

Labour force activity	Less than Highschool	Highschool only	Apprentice or Trades	College	University	Total
Total population 15+	4,410	4,675	2,420	2,930	1,420	16,205
In the labour force	2,265	3,305	1,850	2,210	1,155	11,060
Employed	1,835	2,880	1,550	2,010	1,105	9,635
Unemployed	430	420	300	2,00	45	1,420
Not in the labour force	2,145	1,370	5,75	7,15	2,65	5,150
Participation rate	51.4	70.7	76.4	75.4	81.3	68.3
Employment rate	41.6	61.6	64.0	68.6	77.8	59.5
Unemployment rate	19.0	12.7	16.2	9.0	3.9	12.8

Source: Statistics Canada, 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016365.

Table 11 illustrates which types of knowledge, as captured by Major field of study attained through postsecondary education, have the highest level of unemployment.

Individuals with no postsecondary education represent a higher total number of unemployed persons, compared to all fields of study. The following knowledge categories have the highest number of unemployed persons, and thus, indicate knowledge types that are in excess supply:

- no postsecondary certificate, diploma or degree,
- precision production, and
- mechanic and repair technologies/technicians.

Table 11: Labour Force Status by Major Field of Study, 2016

Major field of study - Classification of Instructional Programs (CIP) 2016 (43)	Total 2016 population	In the labour force	Employed	Unemployed	Participation rate	Employment rate	Unemployment rate
Total population 15 and older	**16,205**	**11,055**	**9,635**	**1,420**	**68.2**	**59.5**	**12.8**
No postsecondary certificate, diploma or degree	9,080	5,565	4715	850	61.3	51.9	15.3
Precision production	470	400	280	115	85.1	59.6	28.8
Mechanic and repair technologies/technicians	885	710	615	95	80.2	69.5	13.4
Construction trades	615	500	430	70	81.3	69.9	14
Health professions and related programs	1055	775	720	50	73.5	68.2	6.5
Business, management, marketing and related support services	880	605	555	40	68.8	63.1	6.6
Engineering technologies and engineering-related fields	415	345	310	35	83.1	74.7	10.1
Agriculture, agriculture operations and related sciences	205	175	145	30	85.4	70.7	17.1
Personal and culinary services	325	255	230	25	78.5	70.8	9.8
Parks, recreation, leisure and fitness studies	115	75	65	15	65.2	56.5	20
Education	625	445	430	15	71.2	68.8	3.4
Legal professions and studies	45	25	20	10	55.6	44.4	40
Social sciences	75	50	45	10	66.7	60	20
Psychology	80	55	50	10	68.8	62.5	18.2
Engineering	135	110	105	10	81.5	77.8	9.1
Natural resources and conservation	175	150	140	10	85.7	80	6.7

Source: Statistics Canada, 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016283.

When examining unemployed persons by occupation, the following skills were found to be underemployed (or in excess supply) in the Clearwater County Region (see Table 12):

- Heavy equipment operators (except crane)
- Welders and related machine operators
- Transport truck drivers

Table 12: Unemployed persons by National Occupational Classification

National Occupational Classification	Total - Class of worker	Class of worker - not applicable	All classes of workers	Employee	Self-employed
Total unemployed labour force	1,420	155	1,270	1,095	170
Occupation - Not applicable	150	155	0	0	0
All occupations [8]	1,270	0	1,270	1,095	170
Heavy equipment operators (except crane)	110	0	110	115	0
Welders and related machine operators	80	0	80	35	40
Transport truck drivers	80	0	80	70	10
Construction trades helpers and labourers	55	0	55	55	10
Oil and gas drilling, servicing and related labourers	55	0	55	50	0
Administrative officers	35	0	35	30	0
Contractors and supervisors, heavy equipment operator crews	35	0	35	25	0
Contractors and supervisors, oil and gas drilling and services	35	0	35	25	15
Oil and gas well drilling and related workers and services operators	35	0	35	40	0
Administrative assistants	30	0	30	30	10
Cooks	30	0	35	25	0
Security guards and related security service occupations	30	0	25	25	0
Oil and gas well drillers, servicers, testers and related workers	30	0	35	15	15
Light duty cleaners	25	0	20	20	0
Automotive service technicians, truck and bus mechanics and mechanical repairers	25	0	30	25	0
General office support workers	20	0	15	20	0
Retail salespersons	20	0	20	20	0
Heavy-duty equipment mechanics	20	0	15	15	0

National Occupational Classification	Total - Class of worker	Class of worker - not applicable	All classes of workers	Employee	Self-employed
Construction managers	15	0	10	10	0
Managers in agriculture	15	0	15	0	10
Storekeepers and parts-persons	15	0	15	10	0
Nurse aides, orderlies and patient service associates	15	0	15	15	0
Food and beverage servers	15	0	10	0	10
Food counter attendants, kitchen helpers and related support occupations	15	0	15	10	0
Janitors, caretakers and building superintendents	15	0	20	15	0
Logging machinery operators	15	0	15	15	0
Landscaping and grounds maintenance labourers	15	0	10	15	0
Supervisors, petroleum, gas and chemical processing and utilities	15	0	15	10	10

Source: Statistics Canada, 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016291.

Notes: Occupation of the labour force refers to the kind of work performed by persons aged 15 years and over as determined by their kind of work and the description of the main activities in their job. Includes persons aged 15 years and over who have worked at some point in time between January 2015 and May 2016. The occupation data are produced according to the NOC 2016.

2.5. Labour Market Gaps and 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.). The 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 that occupation and participates in the labour force 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 Clearwater County Region and the number of workers living in Clearwater County Region that worked/work in that occupation (i.e. local supply). There are more workers than jobs in Clearwater County Region, making the town a net exporter of labour, **and a net surplus of approximately 1,700 workers.**

In Clearwater County Region, **the following occupations have the largest gaps** – where local labour supply does not meet demand and workers are imported from outside of the region;

- Contractors and supervisors, industrial, electrical and construction trades and related
- Sales and account representatives - wholesale trade (non-technical)
- Service supervisors
- Contractors and supervisors, maintenance trades, heavy equipment and transport
- Underground miners, oil and gas drillers and related occupations

In Clearwater County Region, **the following occupations have the largest market surpluses** –where local labour demand is less than the available supply, and local workers leave the region for work;

- Home care providers and educational support occupations
- Motor vehicle and transit drivers
- Retail salespersons
- Cleaners
- Harvesting, landscaping and natural resources labourers

Table 13 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 indicate the direction and magnitude of the local labour market imbalances.

Table 13: Labour Market Gaps/Surpluses by Occupation, 2019

Occupation Group	Jobs in Clearwater County Region	Residents in Clearwater County Region	Gap (-)/ Surplus
Home care providers and educational support occupations	192	373	181
Motor vehicle and transit drivers	416	582	166
Retail salespersons	162	279	117
Cleaners	245	357	112
Harvesting, landscaping and natural resources labourers	139	248	109
Automotive service technicians	130	233	103
Central control and process operators in processing and manufacturing	101	200	99
Labourers in processing, manufacturing and utilities	24	111	87
Retail and wholesale trade managers	161	242	81
General office workers	231	309	78
Supply chain logistics, tracking and scheduling co-ordination occupations	105	175	70
Security guards and related security service occupations	19	85	66
Machining, metal forming, shaping and erecting trades	162	225	63
Heavy equipment operators	208	271	63
Office administrative assistants - general, legal and medical	134	197	63
Utilities equipment operators and controllers	43	102	59
Trades helpers and labourers	115	174	59
Agriculture and horticulture workers	101	156	55
Carpenters and cabinetmakers	92	145	53
Administrative services supervisors	60	38	(22)
Cashiers	209	185	(24)
Therapy and assessment professionals	28	4	(24)
Auditors, accountants and investment professionals	96	67	(29)
Social and community service professionals	98	67	(31)
Contractors and supervisors, mining, oil and gas	233	202	(31)
Other occupations in personal service	60	28	(32)
Secondary and elementary school teachers and counsellors	289	255	(34)
Other technical occupations in health care	144	103	(41)
Assisting occupations in support of health services	190	143	(47)
Supervisors, assembly and fabrication	52	2	(50)
Machinery & transportation equipment mechanics (except vehicles)	229	164	(65)
Human resources and business service professionals	103	38	(65)
Retail sales supervisors	107	29	(78)
Finance, insurance and related business administrative occupations	292	211	(81)
Contractors and supervisors, industrial, electrical and construction trades and related workers	146	62	(84)
Sales and account representatives - wholesale trade (non-technical)	104	15	(89)
Service supervisors	129	40	(89)
Contractors and supervisors, maintenance trades and heavy equipment and transport operators	285	173	(112)
Underground miners, oil and gas drillers and related occupations	359	116	(243)
Total	**10,711**	**11,630**	**919**

Source: EMSI Analyst 2019 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 14) are **Mining, quarrying, and oil and gas extraction; Construction; and Utilities.** Industries that have labour surpluses and are currently labour intensive (versus machine intensive) 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.

Table 14: Labour Market Surplus by Sector, Division No.9, 2019

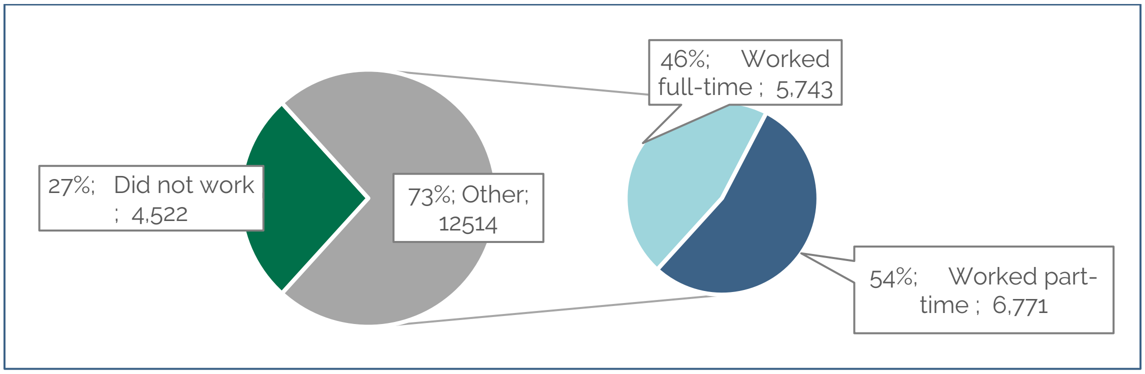
Sectors	Jobs in Region	Residents in Region	Gap (-)/ Surplus
Mining, quarrying, and oil and gas extraction	917	1479	562
Construction	940	1330	390
Utilities	45	191	146
Agriculture, forestry, fishing and hunting	961	1086	125
Professional, scientific and technical services	395	470	75
Finance and insurance	227	295	68
Transportation and warehousing	380	440	60
Manufacturing	418	459	41
Unclassified	140	170	30
Accommodation and food services	733	752	19
Management of companies and enterprises	0	18	18
Information and cultural industries	55	64	9
Wholesale trade	263	262	(1)
Arts, entertainment and recreation	181	175	(6)
Educational services	734	705	(29)
Real estate and rental and leasing	214	150	(64)
Health care and social assistance	999	921	(78)
Retail trade	1,173	1086	(87)
Administrative and support, waste management and remediation services	444	339	(105)
Public administration	663	550	(113)
Other services (except public administration)	829	688	(141)
Total	**10,711**	**11,630**	**919**

Source: EMSI Analyst 2019 and Manifold SuperDemographics 2019

2.6. Employment and Entrepreneurship

First, this analysis looks at whether individuals who worked in the past year were working part-time or full-time, to understand the types of work that exists in the region. Figure 2 shows that the Clearwater County Region has nearly as many workers in part-time jobs (46%) as full-time jobs (54%). This may present a challenge for workers in the region, as part-time work is associated with reduced income stability and health benefits. This also points to the fact that some workers may be underutilized, considering many work only part-time.

Figure 1: Work activity in the past 52 weeks, 2019



Source: Manifold Super demographics 2019

Workers can also be separated by those who work as employees versus those who are self-employed. Table 15 shows that the percentage of self-employed women is 8% lower than for men. That is, women are much less likely to work mainly for themselves, operating a business, farm or professional practice. On the other hand, approximately 20% of the total labour force 15 years and older are self-employed entrepreneurs. Business Development Canada released an interesting study on Our Nation's Entrepreneurship in 2019[3]. The report predicts a rise in women entrepreneurs (projected to reach parity by 2023) and, finds higher levels of managerial and technical skills are associated with higher levels of business performance and business ownership satisfaction.

Table 15: Class of Workers, Clearwater County Region, 2019

Labour force by class of worker	Total	Male	Female	%Total	%Male	%Female
Total labour force 15 years +	11,630	6,371	5,258	100%	100%	100%
Class of worker – n/a	170	75	94	1%	1%	2%
All classes of worker	11,460	6,296	5,164	99%	99%	98%
Employee	9,252	4,859	4,393	80%	76%	84%
Self-employed	2,208	1,437	771	19%	23%	15%

Source: Manifold Super demographics 2019
Notes: Unemployed persons 15 years and over who have never worked for pay or in self-employment or who had worked before. 'All workers' refers to the experienced labour force population: persons who are employed or who worked for pay or in self-employment.

[3] BDC. A Nation of Entrepreneurs. 2019 Available at: https://www.bdc.ca/EN/Documents/analysis_research/bdc-etude-sbw-nation-entrepreneurs.pdf?utm_campaign=Changing-faces-Study-2019--EN&utm_medium=email&utm_source=Eloqua

2.7. Emerging and in-Demand Occupations

This subsection outlines the occupations employed within the Clearwater County Region, which represents the labour shed available for businesses located in Clearwater County. The aim is to understand which occupations are present, growing, and emerging, and could be leveraged to drive economic growth. 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 potentially likely to flourish as a result of those skills being available. The occupations are analyzed at the four-digit National Occupation Classification[4]. The following tables and charts illustrate the following:

- Occupations with a large number of jobs in 2018.
- Occupations with a large percentage of job growth between 2014-2019.
- Occupations with a large projected job growth between 2019-2024.
- Occupations that are concentrated in the labour shed relative to the rest of Canada.

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

Table 16 presents jobs by occupation which can be considered a proxy for the demand for labour and skills within the labour shed. Jobs are 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 code), major (2-digit code), minor (3-digit code) and unit groups (4-digit code).

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

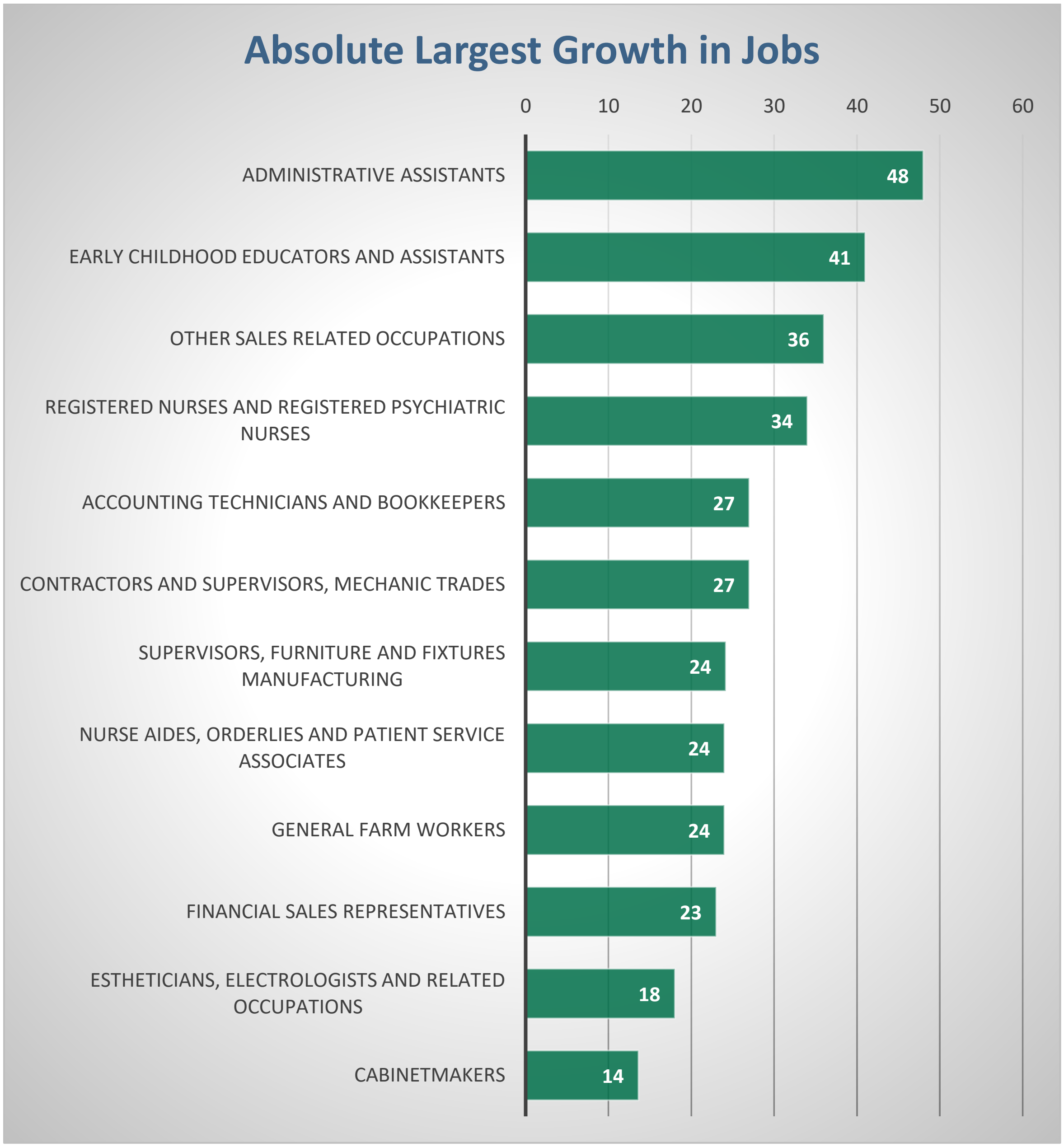
Table 16: Occupations with Highest Level of Employment in the Labour Shed, 2014-2019

Occupations	2014 Jobs	2019 Jobs	2014 - 2019 Change	2014 - 2019 % Change
Managers in agriculture	666	604	(62)	(9%)
Transport truck drivers	433	351	(82)	(19%)
Oil and gas well drillers, servicers, testers and related workers	342	338	(4)	(1%)
Accounting technicians and bookkeepers	261	288	27	10%
Contractors and supervisors, oil and gas drilling and services	282	220	(62)	(22%)
Cashiers	230	209	(21)	(9%)
Food counter attendants, kitchen helpers and related support occupations	215	183	(32)	(15%)
Heavy equipment operators (except crane)	277	175	(102)	(37%)
Administrative officers	181	172	(9)	(5%)
Nurse aides, orderlies and patient service associates	139	163	24	17%
Retail salespersons	219	162	(57)	(26%)
Retail and wholesale trade managers	202	161	(41)	(20%)
Heavy-duty equipment mechanics	181	153	(28)	(15%)
Unclassified	107	140	33	31%
Cooks	152	131	(21)	(14%)
Janitors, caretakers and building superintendents	136	126	(10)	(7%)
Elementary school and kindergarten teachers	108	121	13	12%
General office support workers	141	119	(22)	(16%)
Registered nurses and registered psychiatric nurses	85	119	34	40%
Contractors and supervisors, mechanic trades	90	117	27	30%
Administrative assistants	69	117	48	70%
Secondary and elementary school teachers and educational counsellors, n.e.c.	114	116	2	2%
Elementary and secondary school teacher assistants	116	116	0	0%
Welders and related machine operators	157	114	(43)	(27%)
Early childhood educators and assistants	70	111	41	59%
Contractors and supervisors, heavy equipment operator crews	171	109	(62)	(36%)
Retail sales supervisors	104	107	3	3%
Receptionists	113	104	(9)	(8%)

Source: EMSI Analyst 2019.Q3. Negative numbers are indicated using red text and parenthesis.

Figure 3 illustrates occupations with the largest total number of new jobs added to the labour shed's economy between 2014 and 2019.

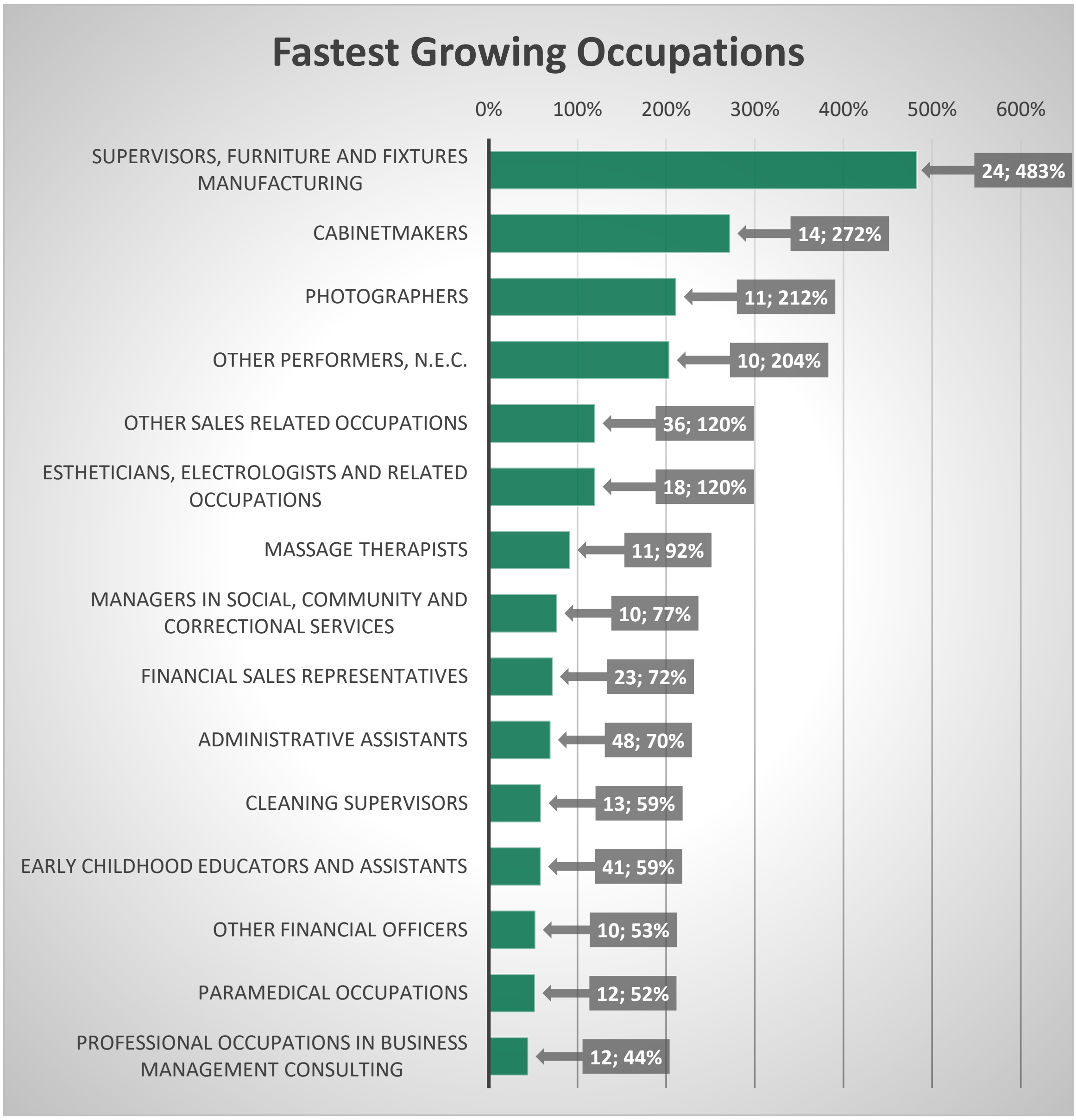
Figure 2: Occupations with the Largest Absolute Job Growth in the Labour Shed, 2014-19



Source: EMSI Analyst 2019.Q3

Figure 4 illustrates the fastest-growing occupations by percentage job growth, which highlights the pace of growth. This figure illustrates occupations that had the most intense growth based on demand for those jobs. The fastest-growing occupations considered added a minimum of 10 jobs to the labour shed (0.1% of total jobs) between 2014 and 2019.

Figure 3: Occupations with the Fastest Job Growth in the Labour Shed, 2014-2019



Source: EMSI Analyst 2019.Q2

Location Quotient analysis is a measure of relative concentration of an occupation, which compares the percentage of jobs by occupation in the labour shed, relative to the total percentage of jobs in the same occupation in Canada. As an example, a location quotient of 2 means the labour shed employs twice as many jobs in that occupation than is typical in Canada.

Table 17 illustrates the occupations that represent relevant and growing industries (added minimum 10 jobs to the labour shed over the past 5 years) and that are concentrated in the labour shed, 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 17: Concentrated Occupations, 2018

Occupations	2018 Jobs	2013 - 2018 Change	2018 Location Quotient
Supervisors, furniture and fixtures manufacturing	29	24	6.08
Other performers, n.e.c.	15	10	4.71
Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	45	3	4.66
Supervisors, printing and related occupations	20	5	4.49
Court reporters, medical transcriptionists and related occupations	25	6	3.89
Contractors and supervisors, mechanic trades	117	27	3.26
Agricultural service contractors, farm supervisors and specialized livestock workers	22	8	3.18
Waterworks and gas maintenance workers	10	5	3.16
Accounting technicians and bookkeepers	288	27	3.09
Cabinetmakers	19	14	3.07
Other sales related occupations	66	36	2.96
Other automotive mechanical installers and servicers	24	9	2.55
Supervisors, mining and quarrying	13	8	2.44
Paramedical occupations	35	12	2.34
General farm workers	95	24	2.27
Power engineers and power systems operators	36	1	2.24

Source: EMSI Analyst 2019.Q3

Lastly, occupations with strong projected growth over the next five years in the labour shed are illustrated below.

Table 18: Large Total Projected Job Growth in the Labour Shed, 2019-2026

Description	2019 Jobs	2026 Jobs	2019 - 2026 Change	2019 - 2026 % Change
Nurse aides, orderlies and patient service associates	163	197	34	21%
Estheticians, electrologists and related occupations	33	63	30	91%
Registered nurses and registered psychiatric nurses	119	147	28	24%
Administrative officers	172	196	24	14%
Contractors and supervisors, mechanic trades	117	135	18	15%
Accounting technicians and bookkeepers	288	302	14	5%
Supervisors, furniture and fixtures manufacturing	29	38	9	31%
Administrative assistants	117	126	9	8%
Receptionists	104	113	9	9%
Other sales related occupations	66	75	9	14%
Food counter attendants, kitchen helpers and related support occupations	183	192	9	5%
Financial sales representatives	55	64	9	16%
Paramedical occupations	35	42	7	20%
Licensed practical nurses	57	64	7	12%
Janitors, caretakers and building superintendents	126	133	7	6%
Landscaping and grounds maintenance labourers	58	65	7	12%
Police officers (except commissioned)	34	40	6	18%
Other performers, n.e.c.	15	21	6	40%
Hairstylists and barbers	41	47	6	15%
Cooks	131	137	6	5%

Source: EMSI Analyst 2019.Q3

3. ECONOMIC BASE ANALYSIS

This section investigates patterns in the regional economy pertinent for Clearwater County; that is, the jobs and businesses that drive Division the No.9 economy. As such, the central focus of this section **will be the Division No. 9, which will be benchmarked by Alberta and Canada.**

This section reports on industry metrics related to exports, sales, competitiveness, employment, and business growth for the local economy to uncover 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:

Sector Level	31-33 Manufacturing industries
Sub-sector Level	311 Food manufacturing
Industry Level	3111 Animal food manufacturing

3.1. Employment Profile

Between 2014 and 2019, employment in the regional economy of Division No. 9 declined by approximately **1,379 jobs (-11%)**. The province did not grow total employment significantly between 2014 and 2019 (1%), compared to the national employment growth rate (7%). Table 19 indicates the percentage of job growth, between 2013 and 2018, by sector for each of these economies. Note that negative numbers are indicated by red text. The top 2 growth sectors for Division No. 9 are highlighted in light green.

Table 19: Employment Growth by Sector, Division No. 9, Alberta, and Canada, 2014-2019

NAIC	Description	Jobs in Division No. 9	Division No. 9 % Change	Alberta % Jobs Change	Canada % Jobs Change
11	Agriculture, forestry, fishing and hunting	35	4%	(13%)	(8%)
21	Mining, quarrying, and oil and gas extraction	(367)	(29%)	(17%)	(10%)
22	Utilities	(17)	(27%)	(7%)	2%
23	Construction	(957)	(50%)	(3%)	6%
41	Wholesale trade	(118)	(31%)	(3%)	3%
51	Information and cultural industries	(16)	(23%)	(14%)	2%
52	Finance and insurance	45	25%	2%	6%
53	Real estate and rental and leasing	(24)	(10%)	11%	8%
54	Professional, scientific and technical services	(204)	(34%)	(2%)	9%
55	Management of companies and enterprises	0	0%	(22%)	(9%)
56	Administrative and support, waste management and remediation services	152	52%	4%	6%
61	Educational services	50	7%	12%	8%
62	Health care and social assistance	245	32%	21%	15%
71	Arts, entertainment and recreation	21	13%	21%	18%
72	Accommodation and food services	(164)	(18%)	2%	12%
81	Other services (except public administration)	41	5%	(1%)	(0%)
91	Public administration	113	21%	8%	5%
31-33	Manufacturing	(151)	(27%)	(12%)	2%
44-45	Retail trade	106	10%	2%	3%
48-49	Transportation and warehousing	(202)	(35%)	7%	9%
X0	Unclassified	33	31%	10%	37%
All	**Total**	(1,379)	(11%)	1%	7%

Source: EMSI Analyst 2019.Q2. Negative numbers are indicated using red text and parenthesis

The following is a summary of key changes in industry employment (not including public administration, primary and secondary education, and retail trade in the Albertan economy.

Figure 4: Employment Changes in Alberta By Industry (4-Digit Naics):

Largest Growth Industries by Total Employment Change	Recent Fast-Growing Industries by Employment Growth (%) 2014-2019	Industries with Largest Projected Growth Employment 2019-2024
1. Computer systems design and related services	1. Other transportation equipment manufacturing	1. Residential developmental handicap, mental health and substance abuse facilities
2. Full-service restaurants and limited-service eating places	2. Motor vehicle manufacturing	2. Community care facilities for the elderly
3. Universities	3. Securities and commodity exchanges	3. Individual and family services
4. Health and personal care stores	4. Charter bus industry	4. Medical and diagnostic laboratories
5. Other amusement and recreation industries	5. Industrial machinery manufacturing	5. Computer systems design and related services
6. Services to buildings and dwellings	6. Non-metallic mineral mining and quarrying	6. Investigation and security services
7. Investigation and security services	7. Other non-metallic mineral product manufacturing	7. Other heavy and civil engineering construction

Source: EMSI Analyst, 2019.Q2

Notes:
Largest Industries by Total Employment is defined as the top 7 largest industries by the number of jobs, not including industries that are solely funded by the government such as healthcare and education.

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 at least 0.5 % of total new jobs in 2018 (145 new jobs).

Industries with Largest Projected[5] Growth Employment is defined as the industries projected to have the largest percentage job growth over the next five years, including only industries that will add 0.5 % of total jobs (443 new jobs).

[5] 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.

To better understand how each industry supports regional jobs, the following table below shows the **largest industries in Division No. 9 by the number of jobs in 2019**; changes to employment is also illustrated to indicate the relative performance of these industries. This analysis leaves out public administration, primary and secondary education, and retail, as these industries are population serving and thus, not of interest for target industry selection. Top three industries with the fastest (%) are highlighted in light green.

Table 20: Largest Industries by Number of Jobs, Division No. 9

NAICS	Description	2019 Jobs	2014 - 2019 Change	2014 - 2019 % Change
1110	Farms	763	(33)	(4%)
2131	Support activities for mining, and oil and gas extraction	591	(281)	(32%)
7225	Full-service restaurants and limited-service eating places	512	(119)	(19%)
2371	Utility system construction	328	(697)	(68%)
2111	Oil and gas extraction	326	(84)	(20%)
8113	Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	278	13	5%
8111	Automotive repair and maintenance	267	77	41%
6221	General medical and surgical hospitals	218	85	64%
4842	Specialized freight trucking	210	(104)	(33%)
5617	Services to buildings and dwellings	165	38	30%
5221	Depository credit intermediation	160	40	33%
2389	Other specialty trade contractors	153	(89)	(37%)
5412	Accounting, tax preparation, bookkeeping and payroll services	150	14	10%
6232	Residential developmental handicap, mental health and substance abuse facilities	143	33	30%
2373	Highway, street and bridge construction	126	(82)	(39%)
4441	Building material and supplies dealers	123	55	81%
6241	Individual and family services	122	48	65%
7211	Traveller accommodation	122	(50)	(29%)
6233	Community care facilities for the elderly	121	33	38%

Source: EMSI Analyst, 2019.Q2. Negative numbers are indicated using red text and parenthesis.

Employment growth is used to understand the magnitude of the impact industry has had in the local economy in terms of jobs, over the past 5 years. The following table identifies industries with the largest absolute growth in employment between 2014 and 2019. Again, the top 3 fastest (%) growth industries with high employment growth impact are highlighted in light green.

Table 21: Growth Industries by Total Number of New Jobs, Division No. 9, 2014-2019

NAICS	Description	2019 Jobs	2014 - 2019 Change	2014 - 2019 % Change
6221	General medical and surgical hospitals	218	85	64%
8111	Automotive repair and maintenance	267	77	41%
4441	Building material and supplies dealers	123	55	81%
1133	Logging	116	55	90%
4543	Direct selling establishments	82	51	165%
5311	Lessors of real estate	120	49	69%
6241	Individual and family services	122	48	65%
4461	Health and personal care stores	116	46	66%
4413	Automotive parts, accessories and tire stores	88	46	110%
7115	Independent artists, writers and performers	76	46	153%
5221	Depository credit intermediation	160	40	33%
5617	Services to buildings and dwellings	165	38	30%
3371	Household and institutional furniture and kitchen cabinet manufacturing	39	33	675%
6232	Residential developmental handicap, mental health and substance abuse facilities	143	33	30%
6233	Community care facilities for the elderly	121	33	38%
4442	Lawn and garden equipment and supplies stores	33	33	300%
5613	Employment services	45	28	165%
6211	Offices of physicians	92	26	39%
5611	Office administrative services	88	25	40%
6244	Child day-care services	88	23	35%
5622	Waste treatment and disposal	37	22	147%

Source: EMSI Analyst, 2019.Q2

The following table identifies the industries that had the fastest employment growth, as measured by the percentage change in employment. Only industries which added a minimum of 0.5% of new jobs (i.e. 10 new jobs), between 2014 and 2019, to the Division No. 9 area, are indicated.

Table 22: Industries with the Largest % Change in Employment, 2014-2019

NAICS	Description	2019 Jobs	2014 - 2019 Change	2014 - 2019 % Change
3371	Household and institutional furniture and kitchen cabinet manufacturing	39	34	675%
4483	Jewellery, luggage and leather goods stores	29	24	490%
5615	Travel arrangement and reservation services	21	16	324%
4442	Lawn and garden equipment and supplies stores	33	33	300%
4121	Petroleum and petroleum products merchant wholesalers	33	22	200%
5613	Employment services	45	28	165%
4543	Direct selling establishments	82	51	165%
7115	Independent artists, writers and performers	76	46	153%
3262	Rubber product manufacturing	25	15	150%
5622	Waste treatment and disposal	37	22	147%
4413	Automotive parts, accessories and tire stores	88	46	110%
4539	Other miscellaneous store retailers	49	25	104%
6219	Other ambulatory health care services	44	21	91%
1133	Logging	116	55	90%
9112	Other federal services (9112-9119)	102	47	85%
4441	Building material and supplies dealers	123	55	81%
5313	Activities related to real estate	34	15	79%
8129	Other personal services	42	18	75%
4152	New motor vehicle parts and accessories merchant wholesalers	35	15	75%
5311	Lessors of real estate	120	49	69%
4461	Health and personal care stores	116	46	66%

Source: EMSI Analyst, 2019.Q2

3.2. Export Sales

Statistics Canada Trade Data Online[6] was used to understand what industries at a granular level (5-digit NAICS) are producing the largest in-flow of dollars into Alberta and Canada. This information is only available at the nation, provinces and territorial levels on an annual basis.

Currently, in Canada, the top seven industries generating the largest amount of export sales are the following:

1. 21111 - Oil and Gas Extraction (-18.12% Change 2019/2018)
2. 33611 - Automobile and Light-Duty Motor Vehicle Manufacturing (-6.58% Change 2019/2018)
3. 21222 - Gold and Silver Ore Mining (16.01% Change 2019/2018)
4. 32411 - Petroleum Refineries (-6.23% Change 2019/2018)
5. 33641 - Aerospace Product and Parts Manufacturing (26.62% Change 2019/2018)
6. 32541 - Pharmaceutical and Medicine Manufacturing (13.6% Change 2019/2018)
7. 32211 - Pulp Mills (7.09% Change 2019/2018)

However, over the past five years, **the fastest-growing industries in terms of export sales are all related to manufacturing in Canada**. More specifically, these include:

1. 32541 - Pharmaceutical and Medicine Manufacturing
2. 32121 - Veneer, Plywood and Engineered Wood Product Manufacturing
3. 33361 - Engine, Turbine and Power Transmission Equipment Manufacturing
4. 32619 - Other Plastic Product Manufacturing
5. 33131 - Alumina and Aluminum Production and Processing
6. 33451 - Navigational, Measuring, Medical and Control Instruments Manufacturing
7. 33111 - Iron and Steel Mills and Ferro-Alloy Manufacturing

In Alberta, the industries generating the largest export sales in 2019 are the following:

1. 21111 - Oil and Gas Extraction (- 21.1% Change 2019/2018)
2. 32411 - Petroleum Refineries (26.4% Change 2019/2018)
3. 32521 - Resin and Synthetic Rubber Manufacturing (-12.8% Change 2019/2018)
4. 31161 - Animal Slaughtering and Processing (32.6% Change 2019/2018)
5. 32211 - Pulp Mills (29.9% Change 2019/2018)

[6] Statistics Canada Trade Data Online tool: https://www.ic.gc.ca/eic/site/tdo-dcd.nsf/eng/home

6. 11114 - Wheat Farming (4.2% Change 2019/2018)
7. 32519 - Other Basic Organic Chemical Manufacturing (-11.7% Change 2019/2018)

The industries with the fastest-growing export sales (between 2013 and 2018) in Alberta are primarily related to agriculture and manufacturing.

1. 32121 - Veneer, Plywood and Engineered Wood Product Manufacturing
2. 11113 - Dry Pea and Bean Farming
3. 33149 - Non-Ferrous Metal (except Copper and Aluminum) Rolling, Drawing, Extruding and Alloying
4. 32111 - Sawmills and Wood Preservation
5. 31122 - Starch and Vegetable Fat and Oil Manufacturing
6. 31141 - Frozen Food Manufacturing
7. 31161 - Animal Slaughtering and Processing

3.2.1. Exports Sales in Division No. 9

This subsection now investigates export sales by industry in Division No. 9. Export sales, in this case, show the amount of money that is spent by industries located outside of the region (domestically and internationally) in exchange for goods or services produced by an industry located in the Division No. 9. The Division No. 9 region has **total export sales of $1.6 billion, which is based on the number of sales made to industries outside of Division No. 9 within Canada, and abroad.**

After the oil and gas extraction, the second-largest generator of dollars flowing into the Division No.9 is 'Utility system construction', which includes distribution lines and related buildings and structures for utilities (i.e., water, sewer, petroleum, gas, power, and communication). This industry is strongly related to construction and energy.

Table 23: Top Export Dollars Flowing into Division No. 9 by Industry

NAICS	Industry	Division No. 9
2111	Oil and gas extraction	$384,707,431
2371	Utility system construction	$177,909,178
3241	Petroleum and coal product manufacturing	$140,626,885
1110	Farms	$82,525,539
3212	Veneer, plywood and engineered wood product manufacturing	$71,836,071
2131	Support activities for mining, and oil and gas extraction	$60,990,787
4842	Specialized freight trucking	$58,356,488
6111	Elementary and secondary schools	$50,609,488
9120	Provincial and territorial public administration	$38,444,946
2389	Other specialty trade contractors	$28,485,839
9141	Aboriginal public administration	$26,980,676
8113	Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	$26,082,984
3211	Sawmills and wood preservation	$24,821,294
9130	Local, municipal and regional public administration	$24,506,460
2373	Highway, street and bridge construction	$24,018,937
7225	Full-service restaurants and limited-service eating places	$16,980,373
1133	Logging	$16,231,413
5611	Office administrative services	$14,837,881
4471	Gasoline stations	$14,300,627
6221	General medical and surgical hospitals	$13,300,566
5324	Commercial and industrial machinery and equipment rental and leasing	$12,693,533
3221	Pulp, paper and paperboard mills	$12,096,746
9112	Other federal services (9112-9119)	$11,838,697
4884	Support activities for road transportation	$10,991,754
7212	Recreational vehicle (RV) parks and recreational camps	$10,751,986
5221	Depository credit intermediation	$10,312,790
1153	Support activities for forestry	$9,113,722
7211	Traveller accommodation	$8,639,551
3262	Rubber product manufacturing	$8,609,152

Source: EMSI 2019.Q2, based on 2015 National Input-Output Tables by StatsCan

The industries with the largest increases in export sales are illustrated in the following table. The table illustrates industries similar to those uncovered in the previous table. A notable difference is the appearance of professional services, electric power distribution, and metal and machine manufacturing (highlighted in light green in the following two tables).

Table 24: Largest Total Growth in Export Sales, Division No. 9

NAIC	Industry	Exports	Change	% Change
4842	Specialized freight trucking	$58,356,488	$48,041,572	466%
3212	Veneer, plywood and engineered wood product manufacturing	$71,836,071	$28,187,503	65%
1133	Logging	$16,231,413	$16,231,413	100%
8113	Commercial and industrial machinery and equipment repair and maintenance	$26,082,984	$15,962,250	158%
1110	Farms	$82,525,539	$15,457,452	23%
3221	Pulp, paper and paperboard mills	$12,096,746	$12,096,746	100%
5611	Office administrative services	$14,837,881	$9,700,066	189%
9112	Other federal services (9112-9119)	$11,838,697	$9,173,633	344%
1153	Support activities for forestry	$9,113,722	$9,113,722	100%
7212	Recreational vehicle (RV) parks and recreational camps	$10,751,986	$8,801,012	451%
3262	Rubber product manufacturing	$8,609,152	$8,609,152	100%
2361	Residential building construction	$7,593,849	$7,289,790	2397%
4862	Pipeline transportation of natural gas	$7,236,587	$7,236,587	100%
2389	Other specialty trade contractors	$28,485,839	$7,154,050	34%
6221	General medical and surgical hospitals	$13,300,566	$6,424,320	93%
5622	Waste treatment and disposal	$6,946,453	$6,189,234	817%
4121	Petroleum and petroleum products merchant wholesalers	$5,574,100	$5,574,100	100%
7211	Traveller accommodation	$8,639,551	$5,560,755	181%
3335	Metalworking machinery manufacturing	$5,389,182	$5,389,182	100%
8111	Automotive repair and maintenance	$7,540,436	$5,153,018	216%
3329	Other fabricated metal product manufacturing	$5,005,563	$5,005,563	100%
5416	Management, scientific and technical consulting services	$5,779,821	$4,598,090	389%
3339	Other general-purpose machinery manufacturing	$5,090,834	$4,349,223	586%
2211	Electric power generation, transmission and distribution	$7,032,580	$4,098,195	140%

Source: EMSI 2019.Q2, based on 2011- 2015 National Input-Output Tables by StatsCan

The following table illustrates the fastest growing industries as measured by the highest percentage change in export sales. However, it only considers industries that accounted for at least 0.01% or more of total exports.

Table 25: Largest Percentage Export Sales Growth, Division No. 9

NAICS	Industry	Total Exports	Change	% Change
4543	Direct selling establishments	$2,156,143	$2,100,635	3784%
2361	Residential building construction	$7,593,849	$7,289,790	2397%
5622	Waste treatment and disposal	$6,946,453	$6,189,234	817%
3339	Other general-purpose machinery manufacturing	$5,090,834	$4,349,223	586%
4842	Specialized freight trucking	$58,356,488	$48,041,572	466%
7212	Recreational vehicle (RV) parks and recreational camps	$10,751,986	$8,801,012	451%
5416	Management, scientific and technical consulting services	$5,779,821	$4,598,090	389%
6219	Other ambulatory health care services	$2,520,595	$1,986,730	372%
9112	Other federal services (9112-9119)	$11,838,697	$9,173,633	344%
6233	Community care facilities for the elderly	$3,837,064	$2,959,875	337%
5111	Newspaper, periodical, book and directory publishers	$2,559,631	$1,935,847	310%
4471	Gasoline stations	$14,300,627	$10,171,814	246%
8111	Automotive repair and maintenance	$7,540,436	$5,153,018	216%
5322	Consumer goods rental	$3,877,024	$2,643,350	214%
5611	Office administrative services	$14,837,881	$9,700,066	189%
7211	Traveller accommodation	$8,639,551	$5,560,755	181%
8113	Commercial and industrial machinery and equipment repair and maintenance	$26,082,984	$15,962,250	158%
2211	Electric power generation, transmission and distribution	$7,032,580	$4,098,195	140%

Source: EMSI 2019.Q2, based on 2011- 2015 National Input-Output Tables by StatsCan

3.3. Total Sales

Sales is a measure of what industries actually buy or sell. Total Sales in Division No. 9 amounted to $2.2 billion. Sales can be seen either as the Total Gross Output (TGO) or Total Gross Input (TGI). TGO can also be referred to as total gross expenditures. Essentially, this is the measure of total economic activity in the production of goods and services in an accounting period. It is a much broader measure of the economy than gross domestic product (GDP), which is limited to final output (finished goods and services). The following table indicates the largest industries by Total Sales.

Table 26: Total Sales/Total Gross Output by Industry, Division No. 9

NAICS	Industry	Sales	Change	% Change
2111	Oil and gas extraction	$479,302,727	($516,816,520)	-52%
2371	Utility system construction	$223,123,900	($17,417,622)	-7%
3241	Petroleum and coal product manufacturing	$181,614,059	($112,182,350)	-38%
1110	Farms	$108,319,913	$14,685,246	16%
2131	Support activities for mining, and oil and gas extraction	$99,578,879	($85,231,919)	-46%
3212	Veneer, plywood and engineered wood product manufacturing	$77,658,332	$31,370,140	68%
4842	Specialized freight trucking	$73,476,673	$57,983,612	374%
6111	Elementary and secondary schools	$61,548,206	$12,994,442	27%
2389	Other specialty trade contractors	$45,657,393	$9,138,179	25%
7225	Full-service restaurants and limited-service eating places	$41,395,836	($6,540,897)	-14%
9120	Provincial and territorial public administration	$40,269,310	$6,241,743	18%
2373	Highway, street and bridge construction	$35,771,330	$2,376,196	7%
1133	Logging	$32,548,150	$32,548,150	100%
8113	Commercial and industrial machinery and equipment repair and maintenance	$30,973,074	$17,354,153	127%
3211	Sawmills and wood preservation	$29,562,942	($18,551,542)	-39%
9130	Local, municipal and regional public administration	$28,776,694	($4,512,220)	-14%
9141	Aboriginal public administration	$27,022,824	$14,987,527	125%
2361	Residential building construction	$25,714,375	$24,672,691	2,369%
5221	Depository credit intermediation	$21,463,472	($3,578,321)	-14%
2382	Building equipment contractors	$21,265,791	($18,228,678)	-46%

Source: EMSI 2019.Q2 based on 2011- 2015 National Input-Output tables. Negative numbers are illustrated in red text

The following table illustrates industries with the largest growth in total sales:

Table 27: Highest Total Growth in Total Sales/Total Gross Output, Division No. 9

NAICS	Industries	Total Sales	Change	% Change
4842	Specialized freight trucking	$73,476,673	$57,983,612	374%
1133	Logging	$32,548,150	$32,548,150	100%
3212	Veneer, plywood and engineered wood product manufacturing	$77,658,332	$31,370,140	68%
2361	Residential building construction	$25,714,375	$24,672,691	2369%
8113	Commercial and industrial machinery and repair and maintenance	$30,973,074	$17,354,153	127%
9141	Aboriginal public administration	$27,022,824	$14,987,527	125%
1110	Farms	$108,319,913	$14,685,246	16%
1153	Support activities for forestry	$14,260,422	$14,260,422	100%
3221	Pulp, paper and paperboard mills	$13,389,802	$13,389,802	100%
6111	Elementary and secondary schools	$61,548,206	$12,994,442	27%
4471	Gasoline stations	$19,284,936	$12,354,631	178%
3262	Rubber product manufacturing	$12,303,635	$12,303,635	100%
5611	Office administrative services	$19,291,142	$11,763,480	156%
2381	Foundation, structure, and building exterior contractors	$11,713,525	$11,713,525	100%
9112	Other federal services (9112-9119)	$13,187,426	$10,256,656	350%
7211	Traveller accommodation	$16,560,764	$9,514,243	135%
7212	Recreational vehicle (RV) parks and recreational camps	$12,112,995	$9,499,774	364%
2389	Other specialty trade contractors	$45,657,393	$9,138,179	25%
6221	General medical and surgical hospitals	$19,232,974	$8,829,122	85%
2211	Electric power generation, transmission and distribution	$14,731,856	$8,748,977	146%
5622	Waste treatment and disposal	$10,035,467	$8,677,990	639%
4862	Pipeline transportation of natural gas	$8,312,697	$8,312,697	100%
4121	Petroleum and petroleum products merchant wholesalers	$8,174,509	$8,174,509	100%
4152	New motor vehicle parts and accessories merchant wholesalers	$8,077,207	$8,077,207	100%

Source: EMSI 2019.Q2 based on 2011- 2015 National Input-Output tables

The following table illustrates industries that experienced fast growth in total sales, as measured by percentage growth in total sales. Moreover, the analysis only considered industries that represent 0.01% of the total sales. A large number of supply chain industries for wood product manufacturing and clean energy production and machine manufacturing are found in this list (highlighted in light green).

Table 28: Fast Growing Industries by % Change in Total Sales, Division No. 9

NAICS	Industries	Total Sales	Change	% Change
4413	Automotive parts, accessories and tire stores	$2,609,057	$2,529,352	3,173%
2361	Residential building construction	$25,714,375	$24,672,691	2,369%
4543	Direct selling establishments	$3,614,496	$3,460,362	2,245%
2383	Building finishing contractors	$3,808,683	$3,532,681	1,280%
5622	Waste treatment and disposal	$10,035,467	$8,677,990	639%
3339	Other general-purpose machinery manufacturing	$8,054,952	$6,802,306	543%
4842	Specialized freight trucking	$73,476,673	$57,983,612	374%
7212	Recreational vehicle (RV) parks and recreational camps	$12,112,995	$9,499,774	364%
9112	Other federal services (9112-9119)	$13,187,426	$10,256,656	350%
5416	Management, scientific and technical consulting services	$9,243,403	$7,144,039	340%
6219	Other ambulatory health care services	$3,251,878	$2,442,138	302%
6233	Community care facilities for the elderly	$5,239,390	$3,904,671	293%
4471	Gasoline stations	$19,284,936	$12,354,631	178%
5611	Office administrative services	$19,291,142	$11,763,480	156%
8111	Automotive repair and maintenance	$13,046,281	$7,953,438	156%
5322	Consumer goods rental	$4,940,882	$2,956,107	149%
2211	Electric power generation, transmission and distribution	$14,731,856	$8,748,977	146%
7211	Traveller accommodation	$16,560,764	$9,514,243	135%
8113	Commercial and industrial machinery and equipment repair and maintenance	$30,973,074	$17,354,153	127%
9141	Aboriginal public administration	$27,022,824	$14,987,527	125%
6211	Offices of physicians	$8,914,672	$4,572,957	105%
3327	Machine shops, turned product, and screw, nut and bolt manufacturing	$5,975,381	$3,012,250	102%
1133	Logging	$32,548,150	$32,548,150	100%
1153	Support activities for forestry	$14,260,422	$14,260,422	100%
3221	Pulp, paper and paperboard mills	$13,389,802	$13,389,802	100%
3262	Rubber product manufacturing	$12,303,635	$12,303,635	100%

Source: EMSI 2019.Q2 based on 2011- 2015 National Input-Output tables

3.4. Location Quotient Analysis

Location Quotient analysis compares the level of employment/business concentration (or specialization) in a relevant localized economy (i.e. Division No. 9) 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/businesses in specific industries than the benchmark area?

"Benchmarking" employment in Division No. 9 to Alberta and Canada provides information on:

1. The extent to which the Division No. 9 region 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).

2. Whether the Division No. 9 regional economy is producing goods or services above 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 a 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 same proportion of that industry's jobs to all local jobs as to that of the benchmark, in this case, Canada and 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/businesses than is required to sustain the needs of the community; therefore, it will export its goods or services and bring money into the community.

3.4.1. Location Quotient Analysis at the Sector Level

This subsection examines employment concentrations at the sector level (2-digit NAICS codes) in Division No. 9 and Clearwater County, relative to the province and Canada.

Table 29: Concentrated Sectors in Division No. 9, 2019

Relative to Alberta	Relative to Canada
Agriculture, forestry, fishing and hunting	Agriculture, forestry, fishing and hunting
Mining, quarrying, and oil and gas extraction	Mining, quarrying, and oil and gas extraction
Construction	Other services (except public administration)
Other services (except public administration)	Public administration

Source: 2019 jobs per industry by EMSI 2019 Q2. Location quotients are calculated by McSweeney & Associates.

Table 30: Concentrated Sectors in Clearwater County, 2019

Relative to Division No 9	Relative to Alberta	Relative to Canada
Agriculture, forestry, fishing and hunting	Agriculture, forestry, fishing and hunting	Agriculture, forestry, fishing and hunting
Mining, quarrying, and oil and gas extraction	Mining, quarrying, and oil and gas extraction	Mining, quarrying, and oil and gas extraction
Arts, entertainment and recreation	Other services (except public administration)	Construction
Real estate and rental and leasing		Other services (except public administration)
Transportation and warehousing		Transportation and warehousing
Professional, scientific and technical services		

Source: 2019 jobs per industry by EMSI 2019 Q2. Location quotients are calculated by McSweeney & Associates.

Clearwater County and the regional economy have common concentrations across Canada and Alberta in the sectors related to agriculture, mining/oil/gas, construction, and other services (outside of public administrations). Clearwater County, however, has unique concentrations relative to arts, entertainment and recreation; real estate and rental and leasing; transportation and warehousing; and professional, scientific and technical services, relative to the regional economy of Division No. 9.

3.4.2. Location Quotient Analysis at the Subsector Level

We now take a more granular lens which explores relative concentrations at the subsector level for Division No.9 (see Table 31). Note that the table highlights concentrated industries in green (LQ greater than 1.25), normal industries are shown in yellow (LQ between 0.75 and 1.24), and underrepresented industries, which may be experiencing leakage, are shown in red (LQ below than 0.75).

The subsectors with the highest level of employment that are concentrated in Division No.9, relative to Alberta and Canada, are either directly or indirectly related to oil and gas extraction, these include:

- Support activities for mining, and oil and gas extraction
- Repair and maintenance
- Heavy and civil engineering construction
- Oil and gas extraction

Aboriginal and public administration was the most concentrated subsector, and the fifth largest employer of all concentrated industries. This could be indicative of the growing organizational capacity of First Nations and could represent an opportunity to work more closely and share in the benefits of developing neighbouring First Nations.

Several subsectors related to manufacturing were also found to be concentrated in Division No. 9, relative to the province and/or the nation:

- Wood product manufacturing
- Furniture and related product manufacturing
- Petroleum and coal product manufacturing
- Plastics and rubber products manufacturing

Several subsectors related to agriculture were also found to be concentrated in Division No. 9, relative to the province and/or the nation:

- Forestry and logging
- Support activities for agriculture and forestry
- Farms
- Building material and garden equipment and supplies dealers

Two subsectors related to tourism were found to be concentrated in Division No. 9, relative to the province and/or the nations:

- Accommodation services
- Heritage institutions

Table 31: Concentrated in Division No. 9, relative to Alberta and Canada, 2019

NAICS CODE	Subsectors (by NAICS)	# Jobs in Division No. 9	% Jobs Division No. 9	LQ Division No. 9 vs Alberta	LQ Division No. 9 vs Canada
914	Aboriginal public administration	308	2.9%	10.55	9.83
113	Forestry and logging	116	1.1%	9.01	6.67
115	Support activities for agriculture and forestry	79	0.7%	6.08	5.63
321	Wood product manufacturing	176	1.6%	4.22	3.36
111	Farms	763	7.1%	3.22	4.74
447	Gasoline stations	165	1.5%	2.87	3.36
454	Non-store retailers	82	0.8%	2.61	2.31
811	Repair and maintenance	545	5.1%	2.57	3.51
337	Furniture and related product manufacturing	40	0.4%	2.29	0.95
237	Heavy and civil engineering construction	453	4.2%	2.18	4.77
712	Heritage institutions	31	0.3%	2.17	2.09
213	Support activities for mining, and oil and gas extraction	591	5.5%	2.14	11.67
444	Building material and garden equipment and supplies dealers	156	1.5%	2.08	1.83
418	Miscellaneous merchant wholesalers	89	0.8%	1.77	1.46
623	Nursing and residential care facilities	276	2.6%	1.46	1.14
211	Oil and gas extraction	326	3.0%	1.43	10.45
562	Waste management and remediation services	57	0.5%	1.43	1.94
512	Motion picture and sound recording industries	21	0.2%	1.38	0.51
324	Petroleum and coal product manufacturing	31	0.3%	1.37	3.20
326	Plastics and rubber products manufacturing	34	0.3%	1.34	0.62
484	Truck transportation	292	2.7%	1.32	1.80
721	Accommodation services	194	1.8%	1.28	1.66

Source: 2019 jobs per industry by EMSI 2019 Q2. Location quotients are calculated by McSweeney & Associates.

The same subsector level analysis on employment concentrations was conducted for Clearwater County (see Table 32). Similar to the previous table, concentrated industries are highlighted in green (LQ greater than 1.25), normal industries are highlighted in yellow (LQ between 0.75 and 1.24), and underrepresented industries, which may be experiencing leakage, are shown in red (LQ below than 0.75).

The subsectors with the highest level of employment that are concentrated in Clearwater County, relative to Division No.9, Alberta and Canada, include:

- Farms
- Support activities for mining, and oil and gas extraction
- Repair and maintenance
- Truck transportation
- Heavy and civil engineering construction

Two subsectors related to manufacturing were found to be concentrated in Clearwater County, relative to Division No. 9, Alberta and Canada:

- Furniture and related product manufacturing
- Fabricated metal product manufacturing
- Wood product manufacturing

Lastly, there are several subsectors related to the knowledge and creative economy that are concentrated in Clearwater County, relative to the region, the province and /or the nation, including:

- Motion picture and sound recording industries
- Performing arts, spectator sports and related industries
- Professional, scientific and technical services

Table 32: Concentrated in Clearwater County, relative to Alberta and Canada, 2019

NAICS CODE	Subsector	# Jobs Clearwater	% Jobs Clearwater	LQ Clearwater relative to Alberta	LQ Clearwater relative to Division No. 9	LQ Clearwater Vs Canada
337	Furniture and related product manufacturing	40	1.2%	7.47	3.26	3.11
332	Fabricated metal product manufacturing	50	1.5%	1.77	3.14	1.81
111	Farms	689	20.9%	9.45	2.94	13.93
512	Motion picture and sound recording industries	18	0.5%	3.75	2.71	1.38
711	Performing arts, spectator sports and related industries	60	1.8%	3.06	2.57	2.45
448	Clothing and clothing accessories stores	35	1.1%	0.86	2.26	0.87
562	Waste management and remediation services	39	1.2%	3.23	2.26	4.37
484	Truck transportation	196	5.9%	2.88	2.18	3.93
531	Real estate	83	2.5%	1.56	1.72	1.44
412	Petroleum and petroleum products merchant wholesalers	16	0.5%	1.84	1.61	5.82
418	Miscellaneous merchant wholesalers	39	1.2%	2.55	1.44	2.10
213	Support activities for mining, and oil and gas extraction	259	7.9%	3.04	1.42	16.62
541	Professional, scientific and technical services	172	5.2%	0.70	1.42	0.74
811	Repair and maintenance	228	6.9%	3.51	1.37	4.80
236	Construction of buildings	26	0.8%	0.34	1.33	0.39
237	Heavy and civil engineering construction	174	5.3%	2.72	1.25	5.96
211	Oil and gas extraction	114	3.5%	1.63	1.14	11.87
454	Non-store retailers	28	0.9%	2.91	1.12	2.58
446	Health and personal care stores	38	1.2%	1.29	1.08	1.07
113	Forestry and logging	38	1.2%	9.62	1.07	7.12
321	Wood product manufacturing	33	1.0%	2.57	0.61	2.05

Source: 2019 jobs per industry by EMSI 2019 Q2. Location quotients are calculated by McSweeney & Associates.

3.4.3. Location Quotient Analysis at the Industry Level

We now take the most granular lens possible by exploring relative concentrations at the industry level (4-digit NAICS) for Division No.9 (see Table 33). Note that the table below highlights concentrated industries in green (LQ greater than 1.25), normal industries are shown in yellow (LQ between 0.75 and 1.24), and underrepresented industries which may be experiencing leakage are shown in red (LQ below than 0.75).

The location quotient analysis at the industry level indicates that the regional economy, namely Division No 9, has specializations across the entire wood product manufacturing supply chain. Industry concentrations were found in:

- Veneer, plywood and engineered wood product manufacturing
- Logging
- Sawmills and wood preservation

Division No 9. has concentrations in two industries, relative to the province and/or the nation, that would support a tourism cluster; these are:

- Recreational vehicle (RV) parks and recreational camps
- Independent artists, writers and performers

Division No. 9 has several concentrated industries, relative to the province and the nation, that could support the energy sector (renewables or other), namely:

- Utility system construction
- Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance
- Support activities for mining, and oil and gas extraction
- Other speciality trade contractors

Lastly, Division No. 9 has several concentrated industries, relative to the province and/or the nation, which could support the professional services industries, including:

- Office administrative services
- Depository credit intermediation
- Lessors of real estate
- Accounting, tax preparation, bookkeeping and payroll services

Table 33: Concentrated in Division No. 9, relative to Alberta and Canada, 2019

NAICS CODE	Industry	# Jobs in Division No. 9	% Jobs Division No. 9	LQ Division No. 9 relative to Alberta	LQ Division No. 9 vs Canada
7212	Recreational vehicle (RV) parks and recreational camps	72	0.7%	13.8	6.7
3212	Veneer, plywood and engineered wood product manufacturing	95	0.9%	9.5	9.6
1133	Logging	116	1.1%	9.2	7.0
6232	Residential developmental handicap, mental health and substance abuse facilities	143	1.3%	3.8	3.8
4543	Direct selling establishments	82	0.8%	3.5	3.9
3211	Sawmills and wood preservation	61	0.6%	3.3	3.0
2373	Highway, street and bridge construction	126	1.2%	3.2	4.1
1110	Farms	763	7.1%	3.2	4.7
8113	Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	278	2.6%	2.9	6.7
7115	Independent artists, writers and performers	76	0.7%	2.9	2.1
4471	Gasoline stations	165	1.5%	2.9	3.4
8111	Automotive repair and maintenance	267	2.5%	2.9	3.1
4413	Automotive parts, accessories and tire stores	88	0.8%	2.6	3.7
2371	Utility system construction	328	3.1%	2.2	8.1
2131	Support activities for mining, and oil and gas extraction	591	5.5%	2.1	11.7
5611	Office administrative services	88	0.8%	2.1	2.8
4842	Specialized freight trucking	210	2.0%	1.7	3.6
6111	Elementary and secondary schools	660	6.2%	1.7	1.6
2111	Oil and gas extraction	326	3.0%	1.4	10.5
5221	Depository credit intermediation	160	1.5%	1.4	1.0
5311	Lessors of real estate	120	1.1%	1.4	1.4
5412	Accounting, tax preparation, bookkeeping and payroll services	150	1.4%	1.4	1.6
6241	Individual and family services	122	1.1%	1.3	1.2
2389	Other specialty trade contractors	153	1.4%	1.3	2.1

Source: 2019 jobs per industry by EMSI 2019 Q2. Location quotients are calculated by McSweeney & Associates.

The industry level location quotient analysis for Clearwater County can be seen in Table 34. The following industries are the largest employing industries which are concentrated locally, relative to Division No. 9, Alberta and Canada:

- Farms
- Support activities for mining, and oil and gas extraction
- Automotive repair and maintenance
- Utility system construction
- Specialized freight trucking

Furthermore, the location quotient analysis demonstrates that Clearwater County has concentrations in industries related to professional services relative to Division No.9, which suggests that Clearwater County could be a service provider for the region for the following concentrated industries:

- Accounting, tax preparation, bookkeeping and payroll services
- Management, scientific and technical consulting services
- Advertising, public relations, and related services
- Specialized design services

Clearwater County also has several concentrated industries related to manufacturing, relative to the region, the province and the nation:

- Machine shops, turned product, and screw, nut and bolt manufacturing
- Household and institutional furniture and kitchen cabinet manufacturing
- Sawmills and wood preservation

Clearwater County also has two key industries that are related to transportation and warehousing, which are concentrated relative to the region, the province and the nation, namely:

- Specialized freight trucking
- General freight trucking

Lastly, other industries of interest in Clearwater County which are concentrated, relative to the region, the province and the nation include:

- Utility system construction
- Foundation, structure, and building exterior contractors
- Independent artists, writers and performers
- Waste treatment and disposal
- Recyclable material merchant wholesalers

Table 34: Concentrated in Clearwater, relative to all Benchmarks, 2019

NAICS CODE	Industry	# Jobs Clearwater	% Jobs Clearwater	LQ Clearwater vs Alberta	LQ Clearwater vs Division No. 9	LQ Clearwater vs Canada
1110	Farms	689	20.9%	9.4	2.9	13.9
2131	Support activities for mining, and oil and gas extraction	259	7.9%	3.0	1.4	16.6
8111	Automotive repair and maintenance	145	4.4%	5.1	1.8	5.5
2371	Utility system construction	142	4.3%	3.1	1.4	11.4
4842	Specialized freight trucking	125	3.8%	3.4	1.9	6.9
4841	General freight trucking	71	2.2%	2.3	2.8	2.2
5412	Accounting, tax preparation, bookkeeping and payroll services	68	2.1%	2.1	1.5	2.3
5311	Lessors of real estate	63	1.9%	2.5	1.7	2.3
2381	Foundation, structure, and building exterior contractors	61	1.9%	1.6	3.1	2.2
7115	Independent artists, writers and performers	60	1.8%	7.5	2.6	5.5
3327	Machine shops, turned product, and screw, nut and bolt manufacturing	42	1.3%	8.1	3.3	7.1
3371	Household and institutional furniture and kitchen cabinet manufacturing	39	1.2%	10.9	3.3	4.6
5622	Waste treatment and disposal	37	1.1%	8.2	3.3	14.6
8131	Religious organizations	34	1.0%	3.5	1.9	3.4
5414	Specialized design services	33	1.0%	5.8	3.3	3.5
3211	Sawmills and wood preservation	32	1.0%	5.7	1.7	5.1
4483	Jewellery, luggage and leather goods stores	28	0.8%	7.4	3.1	7.5
5416	Management, scientific and technical consulting services	26	0.8%	0.7	1.8	0.9
2361	Residential building construction	26	0.8%	0.6	1.3	0.5
4453	Beer, wine and liquor stores	24	0.7%	2.1	1.4	2.8
4181	Recyclable material merchant wholesalers	23	0.7%	8.6	2.9	6.0
5418	Advertising, public relations, and related services	22	0.7%	3.1	3.3	1.5
6219	Other ambulatory health care services	20	0.6%	4.8	1.5	3.3
8129	Other personal services	20	0.6%	2.4	1.5	2.8

Source: 2019 jobs per industry by EMSI 2019 Q2. Location quotients are calculated by McSweeney & Associates.

3.5. Shift-Share Analysis

Shift-share analysis compares employment growth/decline of 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 and attributes growth, stability, or decline in particular industries overtime 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 provides greater descriptive power than the location quotient method. It has been applied to NAICS Industries using employment by place of work statistics. Shift-share analysis allows the examination of changes through time (trends) versus the static snapshot of location quotients.

To set the stage, we first look at where there has been competitive growth in Alberta. **The following subsectors had the highest level of job growth in Alberta that can be attributed to Albert's competitiveness**. These industries had the largest job growth in Alberta, after removing job changes that can be attributed to overall national and industry patterns. Alberta's competitiveness over the past five years was centred around health, education, manufacturing, transportation and amusement and recreation.

1. Educational services
2. Nursing and residential care facilities
3. Hospitals
4. Ambulatory health care services
5. Rental and leasing services
6. Social assistance
7. Personal and laundry services
8. Non-metallic mineral product manufacturing
9. Transit and ground passenger transportation
10. Private households
11. Food manufacturing
12. Insurance carriers and related activities
13. Health and personal care stores
14. Federal government public administration
15. Amusement, gambling and recreation industries

3.5.1. Shift-Share Analysis at the Regional level

This subsection examines industries with the largest employment shifts associated with the regional competitiveness of Division No. 9. Table 35 allocates employment changes of Division No. 9 industries to national, industry and regional/local effects. An example of how to interpret the data follows the table.

Table 35: Shift-Share Analysis: Competitive Industries, Division No. 9, 2014-2019

Description	2014 - 2019 Change	2014 - 2019 % Change	Ind. Mix Effect	Nat'l Growth Effect	Competitive Effect
General medical and surgical hospitals	85	64%	1	10	74
Automotive repair and maintenance	77	41%	2	15	59
Logging	55	90%	(8)	5	58
Aboriginal public administration	76	33%	8	18	51
Office administrative services	25	40%	(28)	5	49
Independent artists, writers and performers	46	153%	1	2	44
Lessors of real estate	49	69%	1	5	42
Other federal services (9112-9119)	47	85%	2	4	41
Household and institutional furniture and kitchen cabinet manufacturing	34	675%	0	0	37
Depository credit intermediation	40	33%	(6)	9	36
Farms	(33)	(4%)	(128)	61	34
Residential developmental handicap, mental health and substance abuse facilities	33	30%	(4)	8	28
Individual and family services	48	65%	15	6	27
Employment services	28	165%	1	1	26
Waste treatment and disposal	22	147%	(4)	1	25
Services to buildings and dwellings	38	30%	5	10	23
Foundation, structure, and building exterior contractors	20	44%	(3)	3	19
Travel arrangement and reservation services	16	324%	(0)	0	16
Business support services	18	50%	0	3	16
Other ambulatory health care services	21	91%	5	2	15
Machine shops, turned product, and screw, nut and bolt manufacturing	14	50%	(4)	2	15
Child day-care services	23	35%	3	5	15
Rubber product manufacturing	15	150%	0	1	14

Source: EMSI Analyst 2019.Q2 Negative numbers are indicated using red text and parenthesis

An example of how to interpret the table above:

General medical and surgical hospitals grew by 85 jobs between 2014 and 2019. This may be attributed to the following:

1 National Growth	2 Industry Growth	3 Locally Driven Growth
10 jobs can be attributed to overall growth in the national economy.	1 new job in this industry can be attributed to employment growth in the industry nationally.	Thus, 74 jobs in this industry in Division No. 9 economy can be attributed to a "regional competitive growth effect", since 10 new jobs can be attributed to the growth of the national economy, and 1 job attributed to industry growth nationally (i.e. 10+ 1+ 74 = 85)

In comparison, the shift-share analysis for Alberta and Canada reveals economic growth driven by the following industries:

Economic Growth Driven by a competitive effect in Alberta	Economic Growth Driven by a competitive Industries in Canada
General medical and surgical hospitals	Computer systems design and related services
Investigation and security services	Offices of other health practitioners
Universities	Employment services
Residential developmental handicap, mental health and substance abuse facilities	Health and personal care stores
Offices of physicians	Nursing care facilities
Computer systems design and related services	Offices of physicians
Legal services	Accounting, tax preparation, bookkeeping and payroll services

3.6. Employer Structure

This subsection illustrates the number and size of employers by industry in Division No.9. 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.

According to the Canadian Business Registry, as of December 2018, the Division No. 9 Census Division had 3,273 businesses; 1,124 (34%) of which had employees. This would indicate that there are many small start-up/home-based businesses in Division No. 9. There were 1,017 less businesses in 2018 than in 2013 (24% decline).

Division No. 9's largest sub-sectors (3-digit NAICS) by the number of businesses can be broken down as follows:

With Employees	Without Employees
1. Professional, scientific and technical services 2. Repair and maintenance 3. Support activities for mining, and oil and gas extraction 4. Specialty trade contractors 5. Truck transportation 6. Heavy and civil engineering construction 7. Farms 8. Ambulatory health care	1. Farms 2. Real estate 3. Professional, scientific and technical services 4. Specialty trade contractors 5. Support activities for mining, and oil and gas extraction 6. Repair and maintenance 7. Securities, commodity contracts, and other financial investments 8. Administrative and support services

The industries (6-digit NAICS) with the largest total number of businesses (including with and without employees) in Division No. 9 are:

Table 36: Largest Industries by Number of Businesses in Division No.9, December 2018

Description	2018 Without employees	2018 With employees	2018 Total
Beef cattle ranching and farming, including feedlots	351	20	371
Services to oil and gas extraction	62	78	140
Lessors of residential buildings and dwellings (except social housing projects)	131	6	137
Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	53	68	121
Hay farming	91	5	96
Other scientific and technical consulting services	35	35	70
Lessors of non-residential buildings (except mini-warehouses)	55	4	59
Oil and gas pipeline and related structures construction	27	31	58
Miscellaneous intermediation	54	0	54
Site preparation contractors	24	21	45
Residential building construction	22	20	42
All other miscellaneous crop farming	40	1	41
Animal combination farming	38	1	39
Horse and other equine production	37	0	37

Source: EMSI 2019.Q2 from Canadian Business Patterns December 2018

The following two tables illustrate industries with the largest business growth, between 2013 and 2018, for businesses with and without employees.

Table 37: Change in Businesses without Employees, Division No. 9, 2013-2018

NAICS Code	Industry	Without employees	Total Change
5311	Lessors of real estate	74	64
8121	Personal care services	12	7
5239	Other financial investment activities	10	7
4543	Direct selling establishments	9	7
6116	Other schools and instruction	9	4
6213	Offices of other health practitioners	9	6
8129	Other personal services	7	7
5614	Business support services	6	2
6244	Child day-care services	6	4
8111	Automotive repair and maintenance	6	(16)
5312	Offices of real estate agents and brokers	5	(2)
7115	Independent artists, writers and performers	5	5
8131	Religious organizations	5	(2)
3345	Navigational, measuring, medical and control instruments manufacturing	3	2
5617	Services to buildings and dwellings	3	(9)
6219	Other ambulatory health care services	3	6
3261	Plastic product manufacturing	2	2

Source: EMSI 2019.Q2 and Canadian Business Patterns 2013 and 2018

Table 38: Growth in Businesses with Employees, Division No. 9, 2013-2019

NAICS Code	Industry	With Employees	Total Change
6219	Other ambulatory health care services	3	6
5179	Other telecommunications	2	2
5616	Investigation and security services	2	2
5417	Scientific research and development services	2	1
7223	Special food services	1	3
3335	Metalworking machinery manufacturing	1	2
4132	Beverage merchant wholesalers	1	2
1131	Timber tract operations	1	1
4133	Cigarette and tobacco product merchant wholesalers	1	1
4145	Pharmaceuticals, toiletries, cosmetics wholesalers	1	1
5231	Securities and commodity intermediation and brokerage	1	1
5269	Other funds and financial vehicles	1	1
5418	Advertising, public relations, and related services	1	1
7114	Agents and managers for artists, athletes, entertainers and other public figures	1	1
2212	Natural gas distribution	1	0
3231	Printing and related support activities	1	0
3251	Basic chemical manufacturing	1	0

Source: EMSI 2019.Q2 and Canadian Business Patterns 2013 and 2018

3.7. Supply Chain Gaps and Opportunities

Understanding supply chain gaps means knowing where money is leaking out of the region. Understanding gaps in required services and specific niche industries will help facilitate recruitment and attraction of additional services to the region. The following table quantifies the goods and services that the region requires from each industry, as well as the degree to which those requirements are met from outside the region. Industries which already present (i.e. 15 to 25% of Demand is met In-region) in the region and could be further attracted for import substitution are highlighted in green.

Table 39: Regional Requirements by Industry

Demand for	% Demand met In-region	Demand met by Imports	% Demand met by Imports	Total Demand
Oil and gas extraction	26.3%	$264,344,213	73.7%	$358,476,741
Petroleum and coal product manufacturing	41.2%	$58,267,874	58.8%	$99,163,705
Architectural, engineering and related services	5.9%	$44,222,278	94.1%	$47,012,596
Lessors of real estate	19.2%	$37,073,467	80.8%	$45,857,642
Utility system construction	24.0%	$34,755,054	76.0%	$45,708,659
Farms	40.1%	$34,467,266	59.9%	$57,578,437
Motor vehicle manufacturing	0.0%	$32,446,866	100.0%	$32,446,866
Residential building construction	35.8%	$31,741,583	64.2%	$49,409,267
Veneer, plywood and engineered wood product manufacturing	15.8%	$30,896,665	84.2%	$36,676,067
General medical and surgical hospitals	16.0%	$30,154,111	84.0%	$35,880,779
Insurance carriers	0.5%	$29,658,339	99.5%	$29,799,466
Depository credit intermediation	27.3%	$29,607,701	72.7%	$40,739,238
Other federal services (9112-9119)	4.8%	$26,475,349	95.2%	$27,824,078
Support activities for mining, oil and gas extraction	60.8%	$24,488,324	39.2%	$62,461,807
Wired and wireless telecommunications carriers	7.4%	$22,612,005	92.6%	$24,408,871
Electric power generation, transmission and distribution	24.5%	$22,344,997	75.5%	$29,607,482
Building equipment contractors	35.8%	$20,806,252	64.2%	$32,422,377
General freight trucking	18.1%	$19,261,037	81.9%	$23,531,149
Specialized freight trucking	43.7%	$19,253,657	56.3%	$34,183,719
Sawmills and wood preservation	20.3%	$18,617,383	79.7%	$23,346,511
Computer systems design and related services	2.5%	$18,243,689	97.5%	$18,711,204
Agricultural, construction and mining machinery manufacturing	0.0%	$17,499,962	100.0%	$17,499,962
Universities	0.5%	$16,296,059	99.5%	$16,385,067
Architectural and structural metals manufacturing	0.5%	$14,327,585	99.5%	$14,394,355
Steel product manufacturing from steel	0.0%	$12,665,161	100.0%	$12,665,161
Other general-purpose machinery manufacturing	18.4%	$12,511,213	81.6%	$15,330,001

Source: EMSI 2019.Q2, based on 2015 National Input-Output Tables by StatsCan

4. TARGET INDUSTRY ANALYSIS

Apart from the data analyzed in the previous sections, qualitative research was undertaken, which included a document review, as well as a review of community assets and available lands through a community tour. The following key findings from the qualitative research were important in the selection of target industries:

- Investment in mining and oil and gas extraction accounts for approximately 45% of total investment in the region, which is above the provincial average of 41%. Investment in utilities represents the next most prominent industry, which is also above the provincial average. Investment in housing and transport are below the provincial average; these two types of infrastructure (along with educational institutions) are critical for building a strong workforce.[7]

- Clearwater County holds key infrastructural assets including a recreational airport and flying club (which currently has 30+ hangers and a quarter section of excess, undeveloped land), Dycore's private rail spur, a hospital, and the Red Deer College satellite campus for training and skills development.

- Clearwater County has approximately 40 acres of developed land (privately owned) with access to gas and electricity but not water and sewer, ideal for storage, warehousing, and other dry operations. Other than that, the Country has limited land zoned or developed for industrial uses. The County currently also has a limited supply of buildings for commercial or professional services operations. Space for doing business is a limiting factor for Clearwater County.

- Broadband remains a challenge for economic development opportunities. Currently, there is limited fibre available within Clearwater County through a private connection concentrated in a small area. Enhancing fibre and connectivity infrastructure could have tremendous impacts on the community by boosting entrepreneurship and supporting various sectors of the local economy.

- 70% of the census division's labour supply completed apprenticeship or trade certificates, high school education, or less. There is a huge opportunity to invest in up-skilling or reskills this workforce within growing sectors such as machine manufacturing, clean technologies, wood and food product manufacturing.

- The region has historical roots in agriculture, which means there is traditional knowledge that has been passed down through generations about farming practices in the region. Although employment in this sector of the economy has diminished over time, and the

[7] Nichols Applied Management (2018). "The economic contribution of Rural Alberta". Retrieved online: https://rmalberta.com/wp-content/uploads/2019/05/The-Economic-Contribution-of-Rural-Alberta-AAMDC-FINAL-.pdf

industry has low levels of diversity, there is an opportunity to leverage those skills to generate greater levels of food production, reduce imports, and drive local food consumption. The County has at least 6 commercial kitchens, several caterers and many residents involved in hunting and trapping.

- The David Thompson Country Tourism Region represents an effort by the region to coordinate, promote and develop tourism assets and events. The tourism industry would benefit from a greater supply of businesses developing experiential tourism opportunities within the plethora of outdoor activities available in the region. Furthermore, regional programs for skills development are needed for primary occupations (gaming, cooking, hospitality, publishing, and digital media) and secondary occupations (accounting, business management, marketing, etc)

Targeted industries were selected through a regional cluster identification exercise. Clearwater County covers a vast geographic area, where labour, residents, and tourists/consumers commute regularly within the census division. The regional economies, those captured in the census division, are closely interconnected and depend on each other for fulfillment of their supply chains. The regional clusters were identified based on regional strengths measured by industry performance, as well as regional infrastructure and assets.

Regional cluster development will require collaboration between regional leaders, decision-makers, and stakeholders to determine a mutually beneficial path for regional growth and development. The Division No. 9 census division depends on leaders form from economic development, workforce development, education/training, and business associations to drive economic diversification and sustainability. Through a data-driven decision-making process, the following five key target regional clusters have been identified for Division No. 9:

- Wood Products Manufacturing
- Food Product Manufacturing
- Advanced Machine Manufacturing
- Tourism
- Cleantech And Clean Energy

These clusters show strong potential for growth and diversification for the regional economy but require the regional leaders to pool resources and champion initiatives to assist the growth of local businesses and entrepreneurs, recruit new industry, and leverage other opportunities for economic growth. Specific strategies and opportunities include coordination resources between regional stakeholders, such as food safety organizations, Red Deer College and Olds College; other training program institutions in the region; as well as manufacturers and technology firms in the region.

In the following sections, these clusters are broken down and potential target industries for Clearwater County are highlighted.

Wood Product and Paper Manufacturing

The wood product and paper manufacturing cluster is comprised of core industries ranging from logging and sawmills to different types of wood manufacturing. Logging and sawmills are represented within the core industries of the regional economy. Other industrial inputs include the engineering and industrial machinery that supply the core industries. Purchasers and distributors include broad industries such as hospitals, which require a wide range of wood and paper products, to narrower industries, such as beverage and food manufacturers, which primarily buy specific products (i.e. cardboard).

The regional economy has seen a rise in logging jobs, exports, and total sales. The location quotient analysis found that the region has a competitive advantage in logging, support activities for forestry, and sawmills and wood preservation. Lastly, there is ample supply of skills within the region, attained through trades and certificate of apprenticeships, which could be transferable/useful in furniture and pulp/paper product manufacturing.

The Sawmills and Wood Production industry in Canada is expected to continue to grow over the five years to 2024, albeit at a slower rate than in the previous five years[8]. Sawmills and wood product demand is largely affected by the North American housing market. The US housing market is projected to continue growing, albeit at a slower pace during this period, limiting potential growth.

The Wood Pulp Mills industry produces a range of wood pulp products that are used by downstream manufacturers to create paper products such as packaging paper, household and sanitary paper, advertisements, books, magazines, office paper and stationery. The Wood Pulp Mills industry in Canada is a heavy consumer of energy and water, making locations with access to low-cost utilities and natural resources ideal[9], as is the case in Clearwater County.

The Wood Panelling Manufacturing industry in Canada has experienced strong growth over the five years to 2019, driven by strong housing markets across North America, while a constrained timber supply has helped to bolster product prices.

Currently, household furniture manufacturing operators have low barriers to entry, and the level of competition in the industry is low. One indicator of the industry's low barriers to entry is the percentage of solopreneurs. In 2019, about half of industry operators were solopreneurs (i.e. non-employers)[10]. An industry with a high share of

[8] IBISWorld 2019
[9] Ibid.
[10] Ibid.

solopreneurs indicates that entry costs are relatively low, as small operators are still able to compete effectively. A key factor for success in furniture manufacturing is found in establishing links with key suppliers to provide a steady flow of key inputs which provide cost savings for bulk purchases. This includes a steady flow of high-quality, low-priced raw materials used in the production process. This supply chain opportunity already exists within the census division given the existence of the logging and sawmill industries. Staff is required to assemble wooden cabinets and countertops efficiently and provide quality workmanship. Strong product quality will ensure repeat purchases. Therefore, a highly skilled and trained staff is essential.

Table 40: Wood Product and Paper Manufacturing Cluster Summary

NAICS	Description	2019 Jobs	2014 - 2019 Change	LQ 2019	Total Imports	Business with Employment	Business without Employment
1131	Timber tract operations	0	0	0.0	$386,476	1	2
1132	Forest nurseries and gathering of forest products	0	0	0.0	$480,385	0	0
1133	Logging	116	55	7.0	$10,680,190	12	11
1153	Support activities for forestry	73	16	8.9	$245,577	3	5
3211	Sawmills and wood preservation	61	(81)	9.6	$29,562,942	3	3
3212	Veneer, plywood and engineered wood product manufacturing	95	(92)	0.9	$30,896,665	1	0
3219	Other wood product manufacturing	20	(15)	0.9	$3,097,301	1	0
3221	Pulp, paper and paperboard mills	11	(4)	0.3	$9,532,550	0	0
3222	Converted paper product manufacturing	0	0	0.0	$4,331,806	0	0
3371	Household and institutional furniture and kitchen cabinet manufacturing	39	34	0.0	$4,230,933	0	1
3372	Office furniture (including fixtures) manufacturing	5	4	0.3	$1,521,052	0	1
3379	Other furniture-related product manufacturing	5	4	0.0	$640,034	0	0

Source: McSweeney and Associates from EMSI 2019

Potential Target Industries:
- Veneer, plywood and engineered wood product manufacturing
- Household and institutional furniture and kitchen cabinet manufacturing
- Converted paper product manufacturing

Food and Beverage Production

The food production cluster in the region is comprised of core industries involved in agriculture production, hunting, trapping, as well as the transformation of the agriculture products, livestock, and other consumable natural resources into products for immediate and final consumption. The cluster contains supply chain components ranging from agribusiness, transportation and distribution, and final consumption such as supermarkets and restaurants.

The regional economy has a significant number of the population involved in farming and employed by restaurants. However, the link between thee two industries—food production—is completely missing from the regional economy. The region imports pretty much all foods it consumes. Given that there are available commercial kitchens, several farming operators, and skills and operators in transportation and warehousing, there is an opportunity to create a local food and beverage production industry that satisfies at least part of the local demand. For example, the census division does not currently have a beer brewing company nor a distillery. Industry-specific training programs and culinary innovation hubs could evoke local production.

The Snack Food Production industry in Canada is expected to continue to grow, albeit at a slower pace, over the next five years to 2024[11]. Canadian consumers have been increasingly turning to imports to satisfy their craving for snacks. Consumption is also forecasted to grow over the five years to 2024, and as such import penetration is forecast to continue to rise, despite a weakened domestic dollar. To keep up with health trends, producers are expected to continue the development of new products, in addition to healthier versions of existing offerings.

The Frozen Food Production industry in Canada is anticipated to grow moderately over the five years to 2024. Although demand for frozen foods is determined by several factors, the distinctive convenience and affordability of frozen foods relative to other food groups will likely be the primary driver for industry growth over the next five years[12]. The industry has potential for higher profitability in regions where operators can stabilize costs of key inputs such as vegetables and meat. Although the Division No 9. does not have the highest quality soils, or an abattoir, the region can offer food and beverage producers access to key inputs such as vegetables, grains, and corn syrup.

The Special Food Services industry includes cafeteria dining services, on-site restaurants, catering and banquet services, retail outlets and concessions, as well as

[11] IBISWorld 2019
[12] Ibid.

food and nutrition services. In Canada, the industry will continue to benefit from increased consumer spending and higher corporate profit over the five years to 2024[13]. There is an opportunity in for the region to leverage access to key inputs (i.e. farming), transportation assets, and market access to provide specialty food services, specially as businesses and institutions increasingly outsource food services across a range of the industry's major markets.

Lastly, in 2019, the degree of government regulation affecting the cannabis industry is expected to decline with the passage of the Cannabis Act in October 2018, and edibles will enter the market. This development is expected to represent a potential opportunity for the industry.

Table 41: Food Services and Product Manufacturing Cluster Summary

NAICS	Description	2019 Jobs	2014 - 2019 Change	LQ 2019	Total Imports	Business with Employment	Business without Employment
1110	Farms	763	(33)	4.7	$34,467,266	38	620
1142	Hunting and trapping	5	4	3.7	$3,738	0	7
3111	Animal food manufacturing	0	0	0.0	$7,609,182	0	0
3112	Grain and oilseed milling	0	0	0.0	$3,431,035	0	0
3113	Sugar and confectionery product manufacturing	0	0	0.0	$2,167,686	0	0
3114	Fruit and vegetable preserving and specialty food manufacturing	0	0	0.0	$4,440,202	0	0
3115	Dairy product manufacturing	0	0	0.0	$7,264,526	0	0
3116	Meat product manufacturing	0	0	0.0	$11,532,936	0	0
3117	Seafood product preparation and packaging	0	0	0.0	$1,918,525	0	0
3118	Bakeries and tortilla manufacturing	0	0	0.0	$4,920,008	1	0
3119	Other food manufacturing	0	0	0.0	$5,771,260	0	0
7223	Special food services	12	2	0.3	$1,288,393	4	7
7224	Drinking places (alcoholic beverages)	14	9	0.6	$971,095	1	1
7225	Full-service restaurants and limited-service eating places	512	(119)	0.9	$7,875,090	28	5
7223	Special food services	12	2	0.3	$2,559,016	4	7
3121	Beverage manufacturing	0	0	0.0	$9,349,853	0	0

Source: McSweeney and Associates from EMSI 2019

[13] IBISWorld 2019

Potential Target Industries:

- Baking Mix & Frozen Food Manufacturing
- Food Service Contractors
- Breweries & Distilleries
- Cannabis-Infused Food & Beverage Products

Advanced Machine Manufacturing

The industries in this cluster support manufacturers in a wide range of general-purpose machinery and related products, including power-driven hand tools, welding and soldering equipment, packaging machinery, industrial-process furnaces and ovens, fluid-power cylinders and actuators, fluid-power pumps and motors, scales and balances and a myriad of other miscellaneous general-purpose machinery.

Advanced manufacturing will utilize cutting-edge technology, innovative applications, and best practices to improve processes and deliver more complex and highly functional products. These technologies boost machine capabilities within manufacturing, logistics and transportation, mining operations and more. As the regional oil and gas extraction industries continue to evolve towards automation and computing, the region will require new skills in engineering, computing and mathematics skills to better support the industry. Oil Drilling and Gas Extraction Industries in Canada (IBISWorld report 21111CA) are anticipated to gradually increase over the next five years. Additionally, investment is expected to improve significantly and grow at an annualized 2.5% during the next year, which is expected to drive activity and demand for repair and maintenance (R&M) services.

Over the past decade, Machine Shop Services industry operators in Canada successfully shifted from a reliance on manual labour and skilled machinists to a production process dominated by computer-aided design and numerically controlled machines. The domestic Machine Shop Services industry produces components for manufacturing machinery and machined finished products. For example, machined goods are commonly found in heavy machinery manufacturing equipment, such as power-generating turbines and earthmoving and construction equipment. Rising consumer spending and global demand for Canadian natural resources are anticipated to boost demand.

The growth of several key domestic manufacturing industries, along with favourable export conditions, has driven the Metalworking Machinery Manufacturing industry in Canada to post strong growth figures over the five years to 2019; this effect has been mirrored by the regional economy. In order to stay competitive, operators in this industry will need to compete in the efficiency of production processes through specialized skills and production techniques. Regional investment in innovative education programs and research are imperative for this industry to become competitive in the region.

Table 42: Machine Manufacturing Cluster Summary

NAICS	Description	2019 Jobs	2014 - 2019 Change	LQ 2019	Total Imports	Business with Employment	Business without Employment
3323	Architectural and structural metals manufacturing	0	(5)	0.1	$14,327,585	0	0
3327	Machine shops, turned product, and screw, nut and bolt manufacturing	42	14	0.0	$3,799,184	5	0
3329	Other fabricated metal product manufacturing	5	0	0.0	$8,845,386	0	0
3331	Agricultural, construction and mining machinery manufacturing	0	(32)	0.0	$17,499,962	1	2
3332	Industrial machinery manufacturing	0	0	0.0	$3,450,846	0	0
3335	Metalworking machinery manufacturing	27	9	0.0	$3,471,158	1	1
3339	Other general-purpose machinery manufacturing	5	(15)	0.1	$12,511,213	2	0
3353	Electrical equipment manufacturing	5	4	0.7	$6,274,651	0	1
3359	Other electrical equipment and component manufacturing	5	4	0.0	$7,475,226	0	1

Source: McSweeney and Associates from EMSI 2019

Potential Target Industries:

- Machine shops, turned product, and screw, nut and bolt manufacturing
- Metalworking machinery manufacturing
- Commercial and industrial machinery and equipment repair and maintenance

Tourism

The core industries range from gambling to camping to sporting to arts and culture to accommodation industries. The industrial inputs include administrative services, marketing, landscaping services, computer design systems, beverage manufacturing and food services contractors. Industries benefiting from tourism, such as restaurants, represent the purchasing industries.

The David Thompson Country Tourism Region represents an effort by the region to coordinate, promote and develop tourism assets and events. Travel and accommodation businesses have been traditionally well supported by oil and gas workers. As the oil and gas industries shift towards more automation and less labour, hotels and the like will need to cater and advertise to a different type of visitor. The tourism industry in the region has a plethora of outdoor activities to offer but a limited supply of organized experiential tourism products. Furthermore, regional programs for skills development are needed for primary occupations (gaming, cooking, hospitality, publishing, and digital media) and secondary occupations (accounting, business management, marketing, etc)

Over the next five years to 2024, strengthening economic conditions will present opportunities for growth for sightseeing and tour services industry. Moving forward, the internet will continue to be the primary medium for travel arrangements, limiting demand for brick-and-mortar visitor information bureaus. As such, local tourism businesses could be provided with incentives and support to commercialize their businesses online.

The Campgrounds and Recreational Vehicle (RV) Parks industries in Canada are poised for growth over the five years to 2024. For instance, per capita disposable income in Canada is expected to increase at an annualized rate of 2.7% over the next five years[14], indicating that more consumers will be able to make big-ticket purchases of RVs and extended camping trips.

Sporting goods store and rentals offer revenue streams and ensure visitors pay to experience tourism assets in the region. The Sporting Goods Stores industry in Canada is expected to exhibit growth over the five years to 2024 as more health-conscious consumers purchase sporting goods to bolster their health and wellness[15]. Linking local activities, equipment rentals, transportation and sightseeing opportunities, with health and wellness opportunities could offer an experience package that increases tourism revenues in the region.

[14] IBISWorld 2019
[15] Ibid.

Potential Target industries:

- Outdoor/sporting stores and rentals
- Recreational vehicle (RV) parks and recreational camps
- Scenic and sightseeing transportation, land and water

Table 43: Tourism Cluster Summary

NAICS	Description	2019 Jobs	2014 - 2019 Change	LQ 2019	Total Imports	Business with Employment	Business without Employment
7112	Spectator sports	0	0	0.0	$789,570	0	1
7113	Promoters (presenters) of performing arts, sports and similar events	0	0	0.0	$1,119,778	0	3
7114	Agents and managers for artists, athletes, entertainers and other public figures	0	0	0.0	$106,803	1	0
7115	Independent artists, writers and performers	76	46	2.1	$230,180	0	5
7121	Heritage institutions	31	(12)	2.1	$874,831	2	1
7131	Amusement parks and arcades	0	0	0.0	$307,074	0	0
7132	Gambling industries	0	0	0.0	$3,571,126	0	0
7139	Other amusement and recreation industries	74	(14)	0.7	$2,449,586	8	8
7211	Traveller accommodation	122	(50)	1.2	$2,262,503	14	8
7212	Recreational vehicle (RV) parks and recreational camps	72	(3)	6.7	$1,499,810	14	11
7213	Rooming and boarding houses	0	0	0.0	$1,067,150	0	0
4871	Scenic and sightseeing transportation, land and water	0	0	0.2	$76,176	0	0
4811	Scheduled air transportation	0	(5)	0.0	$10,729,156	1	0
4812	Non-scheduled air transportation	0	(5)	0.8	$2,448,535	0	2
5615	Travel arrangement and reservation services	21	16	0.8	$2,262,503	1	2

Source: McSweeney and Associates from EMSI 2019

Clean-tech & Clean Energy

Poised to become a leader in the development and advancement of clean technologies (Cleantech), Canada is attracting international attention to serving clients at home and abroad. With immense economic potential, the governments of Canada and Alberta have prioritized clean technology innovation which will support research, development and demonstration activities. Technologies being developed will be integrated into energy systems including, but are not restricted to, automated buildings, energy storage, smart grids, waste heat recovery, electric vehicle sharing, clean energy solutions, geothermal systems, and the development of energy efficiency programs.

Large engineering and construction companies are most successful in international markets for Cleantech as they can offer fully integrated solutions to transportation and utilities (e.g. energy storage, energy and power substitution, renewable natural gas, water technologies, methane reduction technologies, carbon capture etc.).

Access to a highly skilled workforce in trades and engineering services is available in the region and offers sufficient human capital to support some activities in this cluster. The region requires targeted partnerships between industry and research and training institutions to create interdisciplinary and cross-sector partnerships. Moreover, these industries are usually partly funded by the government and partly funded by the private sector, making private-public-partnerships essential for the development of these industries.

Providing investment for research and innovation spaces, coupled with regional training in life sciences could allow the region to capture a share of the growing global clean technology demand while improving environmental outcomes for the province. The heavy engineering and utility systems construction industries in Canada are responsible for the building and maintenance of large-scale infrastructure, including mass transit systems, hydroelectric plants, power plant construction, tunnels and various marine structures, as well as buildings and structures for utilities (i.e., water, sewer, petroleum, gas, power, and communication). Potential Cleantech technologies related to these projects, which may be well suited for the regional economy, given existing industry and infrastructure, include bio/waste to energy, pipe leak inspection/detection, quality monitoring, and digital water tech for water use reduction.

The utility systems construction industry is well represented within the regional economy in terms of jobs, exports and sales. This industry will be one of the primary drivers of the green revolution in the region. Regions that begin to invest in sustainable energy alternatives (non-finite) and clean technologies will be positioned to gain access to future jobs and investment.

Developing resources and transforming bioenergy can be as simple as a log fire or as complex as an advanced second-generation liquid biofuel. There is a wide range of feedstocks that can be used, and technologies and processes for extracting energy. There is an opportunity to clean energy options like bioenergy, which the region may be able to provide key inputs for from local industries such as forestry and agriculture, and can lead to reduced carbon emissions and new business opportunities.

Table 44: Clean-tech & Clean Energy Cluster Summary

NAICS	Description	2019 Jobs	2014 - 2019 Change	LQ 2019	Total Imports	Business with Employment	Business without Employment
2371	Utility system construction	328	(697)	8.1	$34,755,054	32	30
2381	Foundation, structure, and building exterior contractors	65	20	0.7	$6,923,000	9	12
4181	Recyclable material merchant wholesalers	25	1	1.4	$1,251,672	0	0
5416	Management, scientific and technical consulting services	47	(38)	0.5	$7,339,286	58	65
5621	Waste collection	19	5	1.8	$0	0	4
5622	Waste treatment and disposal	37	22	4.5	$2,084,781	5	1
2211	Electric power generation, transmission and distribution	24	(3)	0.5	$22,344,997	3	0
3336	Engine, turbine and power transmission equipment manufacturing	0	0	0.5	$5,489,217	0	1
3344	Semiconductor and other electronic component manufacturing	0	0	0.0	$823,671	0	0
5413	Architectural, engineering and related services	73	(67)	0.5	$44,222,278	28	35
5414	Specialized design services	33	(21)	1.1	$1,879,804	1	1
5417	Scientific research and development services	5	(87)	0.2	$2,990,265	2	1

Source: McSweeney and Associates from EMSI 2019

Potential Target Industries:

- Waste treatment and disposal
- Management, scientific and technical consulting services
- Electric power generation, transmission and distribution
- Utility systems construction