





TABLE OF CONTENTS

LAND ACKNOWLEDGEMENT		6. Regional outlook	31
MINISTER'S MESSAGE	1	6.1. Vancouver Island/Coast	32
OTHER ACKNOWLEDGEMENTS	2	6.2. Mainland/Southwest	35
EXECUTIVE SUMMARY	3	6.3. Thompson-Okanagan	38
Strong demand for workers	3	6.4. Kootenay	41
Regional shifts	4	6.5. Cariboo	44
Emerging industries	4	6.6. North Coast and Nechako	47
ABOUT THIS REPORT	5	6.7. Northeast	50
What is the Labour Market Outlook?	5	7. Indigenous labour market information	53
Who is the Labour Market Outlook for?	5	8. Construction industry	54
Where do the numbers come from?	5	9. Clean Economy	57
What are the major changes in this edition?	6	10. Care Economy	59
LABOUR MARKET OUTLOOK	7	APPENDIX 1: DEFINITIONS	60
1. Ten-year overview	7	Labour market definitions	60
1.1. Changes from the 2021 Edition Forecast	8	O*Net skills and competencies definitions	60
2. Year-over-year outlook	8	APPENDIX 2: MODEL METHODOLOGY	63
3. Education and training	11	APPENDIX 3: JOB OPENINGS, EMPLOYMENT AND WAGES FOR 500 OCCUPATIONS, B.C.	64
4. Industry outlook	11	APPENDIX 4: SOURCES OF NEW SUPPLY FOR 500 OCCUPATIONS, B.C., 2022-2032	84
5. Occupational outlook	16	APPENDIX 5: ESTIMATING AND FORECASTING ENVIRONMENTAL WORKERS	106
5.1. Overview	16	APPENDIX 6: CARE ECONOMY OCCUPATIONS	107
5.2. High Opportunity Occupations Methodology	18		
5.3. Outlook by skills and competencies	26		

LAND ACKNOWLEDGEMENT

We respectfully acknowledge the Lekwungen-speaking peoples (Songhees and Esquimalt Nations) and other Coast Salish Nations on whose traditional lands we have developed this forecast and report.



MINISTER'S MESSAGE

The BC Labour Market Outlook: 2022 Edition offers British Columbians a look into our future.

As Minister of Post-Secondary Education and Future Skills, I want every British Columbian to have the opportunity to get the training they need to unlock their full potential, adapt to our changing labour market and thrive with the kind of good-paying jobs that support families and communities.

People are B.C.'s most important asset. Everyone has a vital role to play in our economy over the next decade, and we want to ensure that all British Columbians have the skills they need for the jobs of the future.

Investing in the skills and talents of British Columbians is at the heart of our government's [StrongerBC Economic Plan](#). Nearly 80 per cent of job openings over the next ten years will require some form of post-secondary education or skills training. That's why, after years where it got harder and more expensive for people to access training, our government is continuing to take action – both immediate and longer-term – through the StrongerBC Future Ready Plan to make post-secondary education and skills training more accessible, affordable and relevant. These steps will help prepare British Columbians for the jobs of tomorrow and help ensure employers can access the workers they need to support a dynamic economy.

As we increase skills training opportunities throughout the province, we're helping today's workers upgrade their skills and train for new jobs, while helping close labour and post-secondary gaps.

At a time when we have more job openings than people in B.C. looking for work, we also know that training is just one of the ways we tackle global labour shortages. Our government is expanding access to supports like affordable, accessible childcare that help people return to work, and we're building a province that's welcoming people from across Canada and around the world.

Adding to those already in B.C., people are coming to the province in record numbers – more than 100,000 people moved here in 2021. These new British Columbians will drive innovation and are an important part of our work to help fill the more than one million openings in the next ten years – as we also work to deliver the infrastructure, housing and services to support this growth.

My hope is that students, parents, educators and employers will use the Labour Market Outlook to plan for the future. Students can use it to find a career path; employers can use it to form long-term plans; and post-secondary educators can empower students with the skills and knowledge to succeed.



Honourable Selina Robinson
Minister of Post-Secondary Education and Future Skills



OTHER ACKNOWLEDGEMENTS

We also acknowledge the valuable information and feedback provided by representatives of Indigenous communities, industry associations, employer associations, unions, training organizations, federal and local governments, labour market consultants, business groups, education institutions and associations and colleagues across the provincial government.



EXECUTIVE SUMMARY

The British Columbia Labour Market Outlook: 2022 Edition provides an updated forecast for B.C., based on demographic and industry trends and other wide-ranging economic developments. This Labour Market Outlook can help prepare British Columbians by equipping them with knowledge of what the in-demand skills and job opportunities will be in the future.

British Columbians can look forward to a wide choice of job opportunities and possible career paths over the next ten years. Individuals looking to get their first job, change careers or get back into the workforce will see strong demand from employers.

Jobs will continue to change and evolve over the next decade. Some occupations will become more complex because of innovation and changes in technology. Many jobs will involve tasks that have not been invented yet. Today's job seekers can build and expand their skills and competencies, which will allow them to adapt successfully to the changing nature of work.

Employment in British Columbia is at a record high, the unemployment rate is near an historical low, and job vacancies continue to be higher than the number of people who are unemployed. All of which indicates that B.C. has a very tight labour market. While more people have been able to find jobs, employers in jurisdictions around the world **are facing challenges finding enough trained workers to meet their needs.**

Strong demand for workers

Employment in B.C. is expected to reach 3.1 million by 2032, up from the 2.7 million jobs forecasted in 2022. Employment will grow by 1.3 per cent a year on average for the forecast period. Key growth areas will be the technology and health care sectors.

Nearly 80 per cent of job openings over the next ten years will require some form of post-secondary education or training.

More than one million job openings (1,017,000) are expected between 2022 and 2032. Of these, 37 per cent are due to expansion in the economy and 63 per cent are due to the need to replace retiring workers.

The 2022 BC Labour Market Outlook projects that 636,000 workers will leave the workforce over the coming decade, and only 474,000 young people will enter the workforce to replace them. New residents will fill most of the remaining jobs, but B.C. will still need over 8,000 additional workers each year to fully meet the demand.

The top five major industry groups in terms of job openings through the forecast period are Health care and social assistance (149,700 job openings); Professional, scientific and technical services (148,000); Retail trade (115,500); Construction (72,700); and Educational services (64,500).

The Professional, scientific and technical services industry, the core of B.C.'s tech sector, is one of the fastest growing industries at 2.7 per cent per year, driven by increased use of digital technologies across the economy. The Health care and social assistance industry is expected to grow at 1.6 per cent per year, driven by population growth and the needs of an aging population.

Some industries also have strong growth over the first year or two due to the ongoing recovery from the pandemic, including Information, culture and recreation and Accommodation and food services.



Regional shifts

From a regional perspective, two-thirds of B.C.'s job openings will be in the Mainland/Southwest, where employment is expected to grow annually by 1.3 per cent. However, the BC Labour Market Outlook forecasts stronger annual growth in the Vancouver Island/Coast (+1.5 per cent) and the Thompson-Okanagan (+1.4 per cent) as workers and employers alike take advantage of comparatively lower housing costs while seeking the amenities of a larger city in centres such as Kelowna, Victoria and Nanaimo.

In all regions, most jobs will come from the need to replace retiring workers rather than expansion. The North Coast and Nechako region is forecasting the highest percentage of job openings from expansion, at 40 per cent, while the Cariboo will have the least, at seven per cent.

Emerging industries

Each edition of the BC Labour Market Outlook summarizes the forecast by major industry grouping and in detail for 64 individual industries. However, these traditional industry groupings don't define important emergent groupings of economic activities. The 2022 BC Labour Market Outlook begins exploring two of these less well-defined sectors of the economy, specifically the Clean Economy which relates to growing the economy while addressing climate change and the environment, and the Care Economy which provides services that care for the wellbeing of people. Both play a critical role in B.C.'s economic and societal well-being and will remain important for many years to come. Anticipating the skills and training needed to support these growing industries now will help prepare for the future.



ABOUT THIS REPORT

What is the Labour Market Outlook?

The BC Labour Market Outlook is a ten-year forecast of the expected supply and demand for labour in the province. The purpose of this report is to provide British Columbians with the knowledge they need to make informed decisions on careers, education, training and hiring.

The 2022 BC Labour Market Outlook covers the period from 2022 through 2032. It estimates future supply and demand by industry, occupation, education and geographic region. It highlights the kinds of jobs, skills and competencies that will be most in demand regionally and province-wide over the coming decade.

Who is the Labour Market Outlook for?

The Labour Market Outlook is a valuable resource for students, job seekers and those considering a career change; for educators and planners; for employers; and for government.

- » The Labour Market Outlook can help young people, those who are mid-career, and more mature workers know what to expect as they plan their careers and evaluate future choices about the education and training they will need.
- » Educators and counsellors can use the Labour Market Outlook to plan the courses that will be needed, and to inform students about career opportunities that will be available both close to home and across the province.
- » Employers and industry stakeholders can use the information for long-term planning and to identify necessary skills and appropriate training opportunities.

- » Governments at all levels rely on the Labour Market Outlook's projections of employment and skill needs to inform a wide variety of policies that will strengthen the future of British Columbia.

The report also has a role to play in making the B.C. labour market more inclusive by ensuring that Indigenous communities have access to information about labour demand, both across the province and within the regions where they live. It is also a tool that can help people who are under-represented in the labour market, such as people of colour, immigrants, women and people living with disabilities, to learn about all of the opportunities available to them.

Professionals, from entrepreneurs to public and private sector planners, use the detailed Labour Market Outlook data posted on the [B.C. Data Catalogue](#) to analyze and plan in their specific fields.

Where do the numbers come from?

The Labour Market Outlook uses the most reliable, relevant and up-to-date data from sources including BC Stats, B.C. Ministry of Finance, Statistics Canada and other federal departments. Analysts use a specialized economic modelling system to study the data and factors affecting labour market supply and demand.¹ Analysts also look at other factors such as geographic region, industry, occupation, skills and competencies. The model projects economic growth, productivity trends and the need to replace retiring workers. It includes factors related to population growth, the number of people seeking work and the impact of training and job matching on unemployment.

¹ Appendix 2 outlines the methodology, and a full [technical description](#) of the model is posted on the website of the Labour Market Information Council.

The model's projections are tested with employers, unions, industry groups and post-secondary institutions. This is done by holding individual meetings with stakeholders, taking part in large group meetings, presenting the forecasts at conferences and working with sector or occupation-specific task forces or committees.

In addition, the Ministry of Post-Secondary Education and Future Skills sponsors [Sector Labour Market Partnership](#) projects that provide valuable input and opportunities to evaluate Labour Market Outlook forecasts. Researchers review and update data and assumptions each year to reflect technical innovations and other factors affecting labour supply and demand.

The projections in the Labour Market Outlook are evidence-based and industry-tested. They provide individuals, Indigenous communities, businesses and governments with a high degree of confidence that they can make sound decisions about the labour force.

What are the major changes in this edition?

The 2022 BC Labour Market Outlook reflects the economic recovery in 2022 from the COVID-19 pandemic and forecasts how impacted industries will continue to recover.

Key changes in the 2022 BC Labour Market Outlook include:

1. More comprehensive reporting on the Construction industry: Forecasting for four sub-industries increases accuracy and better represents key segments of the industry. The four new sub-industries are:

- › **Residential building construction**
- › **Non-residential building construction**
- › **Heavy and civil engineering construction**
- › **Specialty trade contractors**

See Section 8 of this report for more information.

2. An initial employment and occupational forecast for B.C.'s Clean Economy focusing on the key major occupational groups within the sector. See Section 9 of this report for more information.
3. An occupational forecast for B.C.'s Care Economy. See Section 10 of this report for more information.



LABOUR MARKET OUTLOOK

1. Ten-year overview

From 2022 to 2032, the 2022 BC Labour Market Outlook projects that B.C. will have **1,017,000 job openings**. Each year, job openings will account for approximately 3.5 per cent of employment.

FIGURE 1-1: JOB OPENINGS, B.C., 2022-2032

Total job openings: 1,017,000

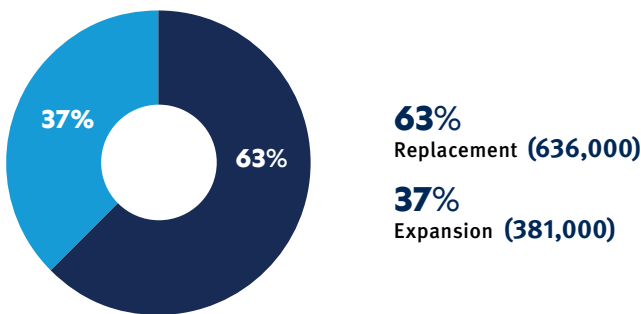
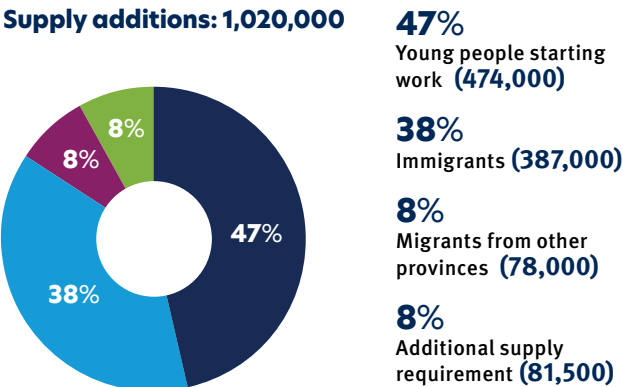


FIGURE 1-2: SOURCES OF NEW LABOUR SUPPLY, B.C., 2022-2032

Supply additions: 1,020,000



The population and the labour force will continue to age, and employers will need to replace retiring workers. Approximately **636,000 job openings are for replacement**. This represents about 63 per cent of job openings that will need to be filled to replace workers permanently leaving the labour force.

The other **381,000 job openings are expansion**. These will be new jobs created through economic growth and to a lesser extent through recovery from the COVID-19 pandemic. Employment will reach 3.1 million by 2032, up from 2.7 million in 2022. Employment grows steadily throughout the forecast, although growth in the first year or two is driven by industries bouncing back from COVID-19. Key growth industries over the forecast period are the technology and health care sectors.

These future job openings will be filled through a variety of labour supply additions. Young people (aged 29 or younger) entering the labour force for the first time are expected to fill 47 per cent of future job openings. New people to Canada will fill 38 per cent of the openings, and workers coming from other parts of Canada will fill 8 per cent of the jobs.

After taking into account these sources of supply, the forecast identifies a need for an additional 81,500 workers to meet projected demand. Additional supply will come from more people joining or returning to the labour force. Education and skills training will increase labour force participation. Removing the employment barriers that some British Columbians experience will also help. In addition, more rapid automation may help close the gap.



1.1. Changes from the 2021 Edition Forecast

The 2022 BC Labour Market Outlook projects 13,000 more job openings over the 2022-2032 period than the 2021 Labour Market Outlook projected: 12,000 more expansion job openings and 1,000 more replacement job openings.

The higher number of expansion job openings results from: increased population growth due to higher federal immigration targets; an increase in demand for technology occupations; and the tail end of recovery in industries negatively impacted by COVID-19.

The 2022 BC Labour Market Outlook also forecasts 14,000 more workers than in the 2021 edition. The combination of 13,000 more job openings and 14,000 more workers means that the additional supply requirement (or supply gap) over the next ten years remains similar, decreasing slightly to 81,500 from 83,000 in the 2021 Labour Market Outlook.

2. Year-over-year outlook

The 2022 BC Labour Market Outlook forecasts that the number of job openings in B.C. will increase by 101,000 in 2023, driven by sustained economic and labour market recovery from the COVID-19 pandemic. Between 2024 and 2032, the Labour Market Outlook forecasts 101,000 job openings each year on average, varying from a low of 94,000 in 2026 to a high of 108,000 in 2032.

The Labour Market Outlook expects approximately 64,000 workers will leave B.C.'s labour force permanently every year on average, mainly due to retirement. As the population continues to age and the number of retirees grows, the number of job openings due to replacement demand will increase gradually year over year, rising from 63,000 in 2023 to 66,000 in 2032.

Economic growth creates expansion job openings and the ongoing economic recovery from COVID-19 will continue into 2023, generating 44,000 job openings. The Labour Market Outlook assumes that the economy will then return to a sustainable long-term growth path, with expansion job openings varying between 31,000 and 43,000 from 2024 to 2032.

Figure 2-1 illustrates annual job openings in B.C., with a breakdown of replacement and expansion job openings.

FIGURE 2-1: REPLACEMENT AND EXPANSION JOB OPENINGS, B.C., 2022-2032, ANNUAL



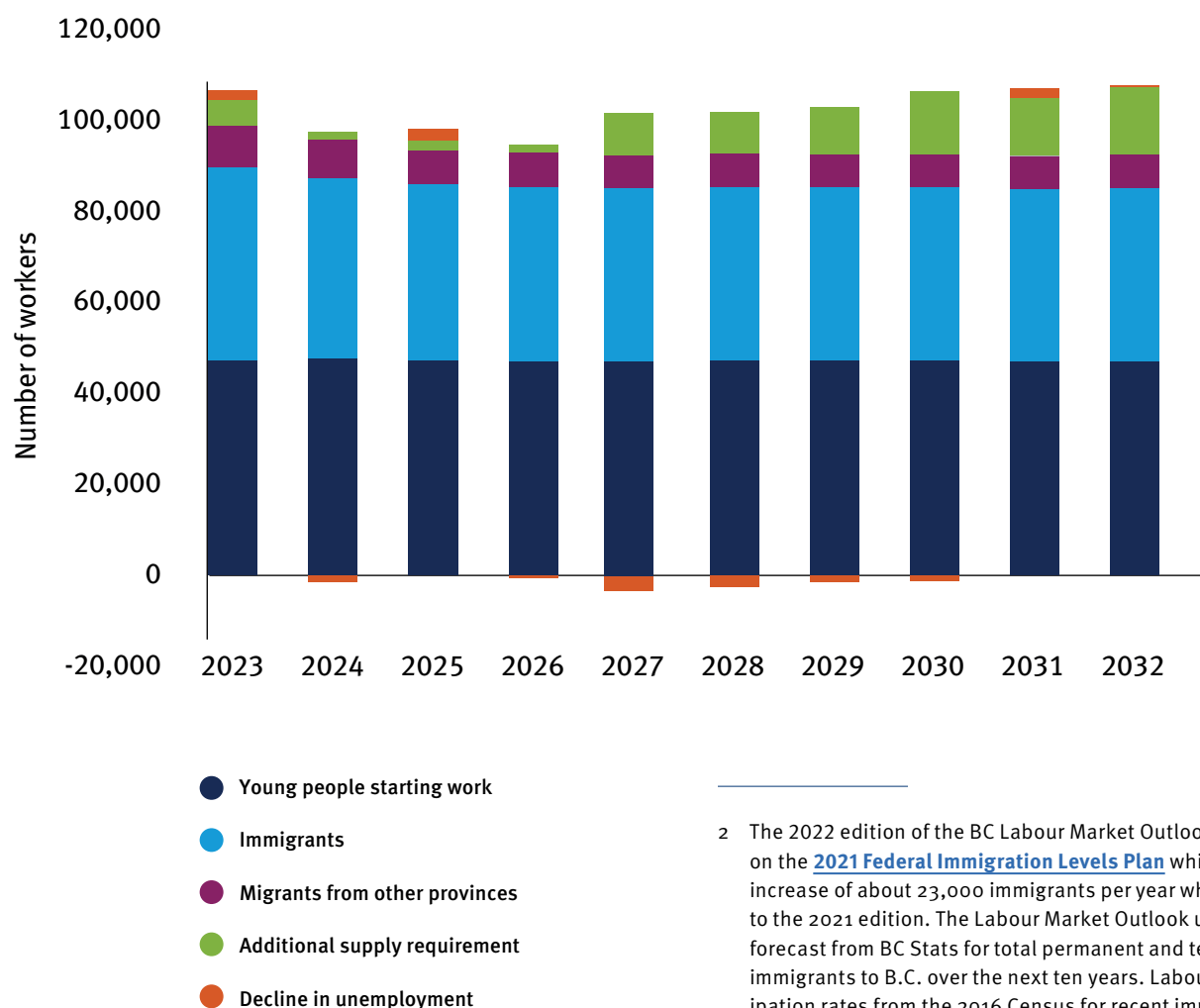
To fill these job openings every year, B.C. will need various sources of labour, including young people starting work, international immigrants, interprovincial migrants and increased labour force participation. Figure 2-2 breaks down the annual sources of new labour supply.

Young people entering the workforce will continue to be the largest source of new labour supply, filling over 47,000 job openings or 47 per cent of the total each year between 2022 and 2032. Figure 2-3 shows a stable number of young people starting work over the forecast period. For every four people expected to leave the labour force, only three young people are expected to join.

The second largest source of new workers is new international immigrants. The 2022 BC Labour Market Outlook projects 39,000 new immigrants will join B.C.'s labour force each year on average over the next decade, ranging from over 42,000 in 2023 to just under 38,000 in 2032. Compared to the 2021 Labour Market Outlook, there are 4,000 more new immigrants for each year of the 2022 forecast due to the increase in immigration².

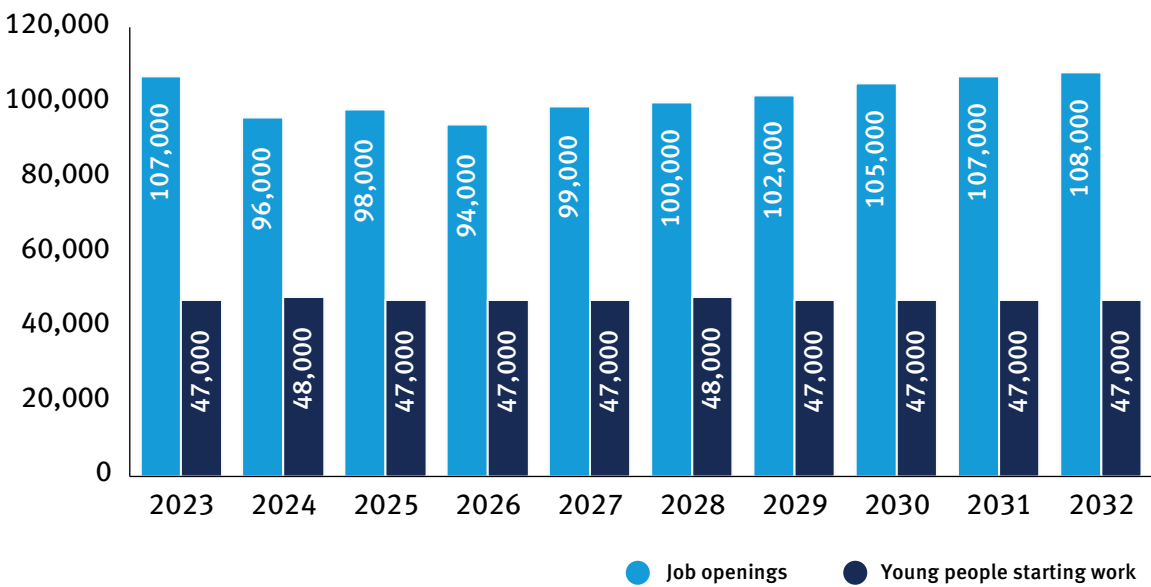
Migrants from other provinces and territories will account for almost 8 per cent of the expected total new labour supply, close to 8,000 new workers annually, on average.

FIGURE 2-2: SOURCES OF NEW WORKERS, B.C., 2022-2032, ANNUAL



² The 2022 edition of the BC Labour Market Outlook was based on the [2021 Federal Immigration Levels Plan](#) which meant an increase of about 23,000 immigrants per year when compared to the 2021 edition. The Labour Market Outlook uses the latest forecast from BC Stats for total permanent and temporary immigrants to B.C. over the next ten years. Labour force participation rates from the 2016 Census for recent immigrants are used to project how many of them will join the labour force.

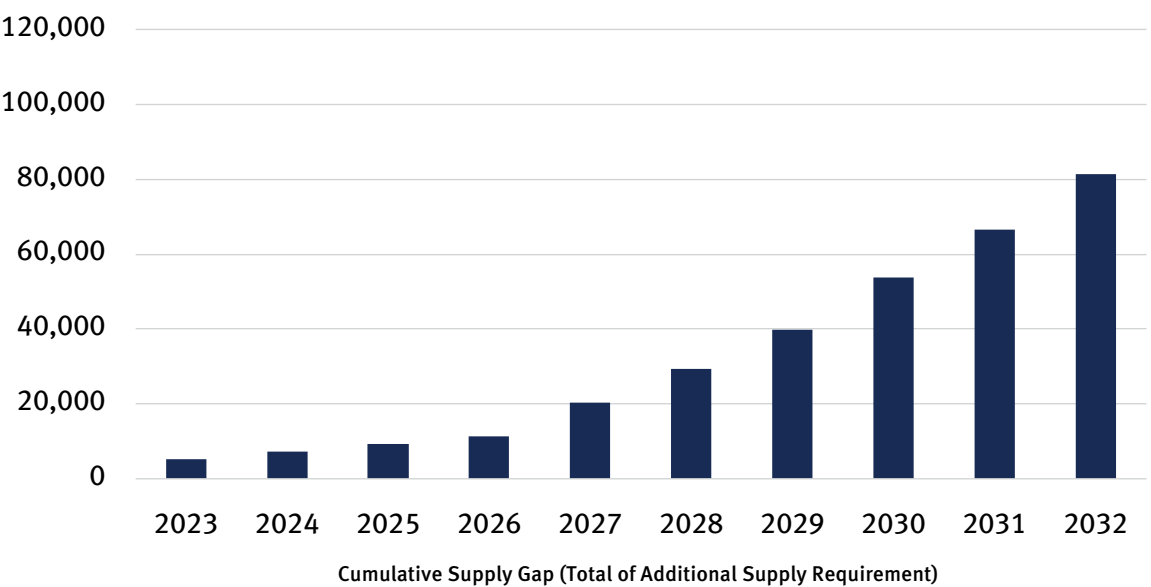
FIGURE 2-3: YOUNG PEOPLE STARTING WORK VS. JOB OPENINGS, B.C., 2022-2032, ANNUAL



British Columbia could meet its need for over 8,000 additional workers each year through increased labour force participation and increased adoption of automation,

innovation and other labour-saving processes. Figure 2-4 shows the anticipated cumulative supply gap over the next ten years.

FIGURE 2-4: CUMULATIVE SUPPLY GAP, B.C., 2022-2032, ANNUAL

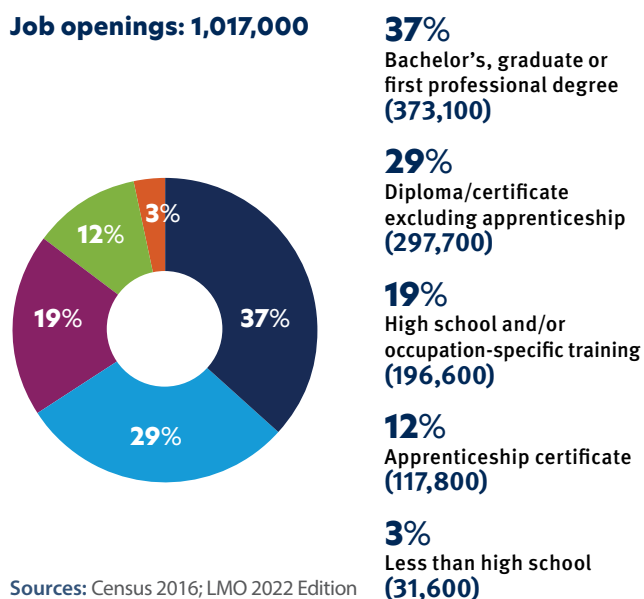


3. Education and training

Between 2022 and 2032, nearly 80 per cent or 789,000 of all job openings will require some type of post-secondary education or training. Figure 3-1 shows that 37 per cent of the total job openings will be filled by people with a bachelor's, graduate or first professional degree. Workers with diplomas or certificates excluding apprenticeships will fill 29 per cent of openings, and those with an apprenticeship certificate will account for 12 per cent. The other 22 per cent of job openings will be available for those with high school education or less.

FIGURE 3-1: JOB OPENINGS BY TYPE OF EDUCATION, B.C., 2022-2032

Job openings: 1,017,000



Sources: Census 2016; LMO 2022 Edition

4. Industry outlook

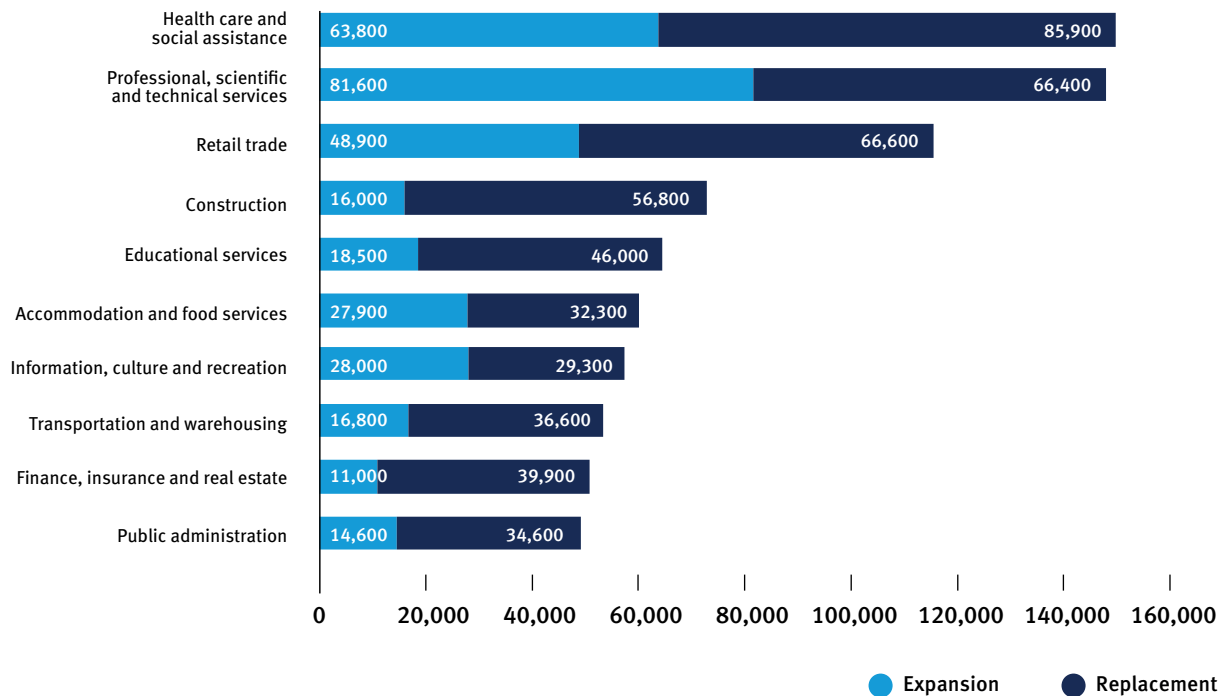
Five industries will generate about half of all jobs over the next ten years in British Columbia.

- » **Health care and social assistance**
(149,700 job openings; 15 per cent of total)
- » **Professional, scientific and technical services**
(148,000 job openings; 15 per cent of total)
- » **Retail trade**
(115,500 job openings; 11 per cent of total)
- » **Construction**
(72,700 job openings; 7 per cent of total)
- » **Educational services**
(64,500 job openings; 6 per cent of total)

As B.C.'s workforce continues to age, the requirement to replace retiring workers will account for about 63 per cent of total job openings. In some industries, the need to replace retiring workers is even higher. Figure 4-1 shows that the need to replace retiring workers will create nearly 60 per cent of job openings for half of B.C.'s major industries over the next ten years.



FIGURE 4-1: JOB OPENINGS BY MAJOR INDUSTRY GROUP – TOP TEN, B.C., 2022-2032



Health care and social assistance will post the largest number of job openings from 2022 to 2032, as B.C.'s population continues to age and, with increasing immigration, to grow. The need to replace workers leaving the industry will account for 57 per cent of these openings. The remaining 43 per cent will emerge from growth in the health system to meet the aging population's increasing health care needs; to help people with mental health and substance use issues; and to respond to expansion of the Care Economy.

Professional, scientific and technical services industries are growing rapidly, and this will continue over the next ten years. Economic growth will drive 55 per cent of expansion job openings in this sector, compared to 37 per cent of job openings across all industries. Over half of the 148,000 job openings will be in Computer systems design and related services.

Retail trade is a large industry in B.C., accounting for 12 per cent of overall employment in the first year of the forecast. Employment in this sector is expected to grow at a rate similar to overall employment growth, with 115,500 job openings over the next ten years.

The construction industry will have about 72,700 job openings, 78 per cent of which will come from replacing workers, mainly due to retirement.

Educational services will have about 64,500 job openings, half of which will be concentrated in Elementary and secondary schools. About 71 per cent of these job openings will be due to replacing exiting workers.

Table 4-1 lists the forecasts for all 18 industries at the aggregate level and 64 industries at the detailed level.



TABLE 4-1: EMPLOYMENT OUTLOOK BY INDUSTRY, B.C., 2022-2032

Industry	Employment 2022	Employment growth (Compound Annual Growth Rate)			Expansion Job Openings	Replacement Job Openings	Total Job Openings
		2022-27	2027-32	2022-32	2022-32	2022-32	2022-32
All industries	2,728,900	1.3	1.3	1.3	380,900	635,800	1,016,700
Agriculture and fishing	27,800	0.4	0.3	0.3	900	6,400	7,300
Farms and support activities	25,700	0.3	0.4	0.4	900	6,000	6,900
Fishing, hunting and trapping	2,200	1.4	-1.1	0.1	—	500	500
Forestry, logging and support activities	19,100	-1.8	-0.9	-1.4	-2,800	4,800	2,100
Mining and oil and gas extraction	29,700	2.2	0.2	1.2	3,900	8,100	12,000
Oil and gas extraction	5,800	5.1	-0.5	2.3	1,500	1,700	3,200
Mining	16,100	1.5	0.3	0.9	1,500	4,300	5,800
Support activities for mining and oil and gas extraction	7,800	1.5	0.7	1.1	900	2,100	3,000
Utilities	16,600	0.3	0.2	0.3	400	4,100	4,500
Construction	225,800	1.0	0.4	0.7	16,000	56,800	72,700
Residential building construction	59,500	-0.3	2.6	1.1	7,200	16,400	23,600
Non-residential building construction	11,200	1.0	0.0	0.5	600	3,000	3,600
Heavy and civil engineering construction	28,500	0.8	1.2	1.0	3,000	7,500	10,400
Specialty trade contractors	126,600	1.6	-0.7	0.4	5,100	29,900	35,000
Manufacturing	179,100	0.2	0.4	0.3	4,700	44,500	49,200
Food, beverage and tobacco manufacturing	37,100	1.0	0.7	0.8	3,200	8,800	12,000
Wood product manufacturing	23,500	-2.0	-0.6	-1.3	-3,100	6,000	2,900
Paper manufacturing	11,700	-2.3	0.1	-1.1	-1,400	2,900	1,600
Primary metal manufacturing	6,100	0.2	0.5	0.3	200	1,400	1,600
Fabricated metal product manufacturing	12,000	0.8	0.4	0.6	700	3,000	3,700
Machinery manufacturing	11,600	0.3	0.8	0.5	600	2,900	3,500
Ship and boat building	4,100	1.7	0.5	1.1	500	1,100	1,600
Transportation equipment manufacturing (excluding shipbuilding)	7,500	0.6	0.4	0.5	400	1,900	2,200
Other manufacturing	65,500	0.6	0.4	0.5	3,600	16,500	20,100
Wholesale trade	89,700	0.9	1.5	1.2	11,200	21,900	33,100
Retail trade	322,700	1.3	1.5	1.4	48,900	66,600	115,500
Motor vehicle and parts dealers	32,800	2.5	1.2	1.8	6,700	7,600	14,300
Health and personal care stores	29,900	0.7	1.5	1.1	3,400	5,900	9,300
Online shopping	14,800	4.2	3.9	4.1	7,500	4,000	11,500
Other retail trade (excluding cars, online shopping and personal care)	245,200	1.1	1.3	1.2	31,400	49,100	80,500
Transportation and warehousing	146,800	1.1	1.1	1.1	16,800	36,600	53,400
Air transportation and support activities	20,200	2.1	0.8	1.4	3,100	5,100	8,200

TABLE 4-1: EMPLOYMENT OUTLOOK BY INDUSTRY, B.C., 2022-2032 (Continued)

Industry	Employment 2022	Employment growth (Compound Annual Growth Rate)			Expansion Job Openings	Replacement Job Openings	Total Job Openings
		2022-27	2027-32	2022-32	2022-32	2022-32	2022-32
Rail transportation and support activities	6,400	0.7	1.1	0.9	600	1,600	2,300
Water transportation	6,200	2.3	1.2	1.8	1,200	1,600	2,800
Ports and freight transportation arrangement	14,900	2.4	2.0	2.2	3,700	4,100	7,800
Truck transportation and support activities	40,700	0.3	0.8	0.5	2,300	10,000	12,300
Transit, sightseeing and pipeline transportation	25,500	1.1	0.5	0.8	2,000	6,600	8,600
Postal service, couriers and messengers	23,900	0.3	1.7	1.0	2,600	5,500	8,100
Warehousing and storage	8,900	1.5	1.1	1.3	1,200	2,000	3,200
Finance, insurance and real estate	166,000	0.4	0.9	0.6	11,000	39,900	50,900
Finance	70,300	-0.1	1.3	0.6	4,000	16,400	20,400
Insurance carriers and related activities	38,900	1.2	0.5	0.8	3,500	9,200	12,700
Real estate and rental and leasing	56,900	0.5	0.7	0.6	3,500	14,300	17,800
Professional, scientific and technical services	263,600	2.8	2.6	2.7	81,600	66,400	148,000
Architectural, engineering and related services	50,600	1.9	2.0	1.9	10,900	12,300	23,200
Computer systems design and related services	89,700	4.5	4.6	4.6	51,800	24,100	75,800
Management, scientific and technical consulting services	27,400	1.8	1.5	1.6	4,900	6,800	11,700
Legal, accounting, design, research and advertising services	95,900	1.8	0.9	1.4	14,100	23,100	37,300
Business, building and other support services	112,200	0.7	1.8	1.2	15,100	26,000	41,100
Travel arrangement services	13,300	1.6	1.5	1.5	2,300	3,000	5,200
Business and building support services (excluding travel)	98,900	0.6	1.8	1.2	12,900	23,000	35,900
Educational services	191,500	1.1	0.8	0.9	18,500	46,000	64,500
Elementary and secondary schools	102,500	1.0	0.6	0.8	8,200	27,000	35,200
Community colleges	14,100	1.5	1.1	1.3	2,000	3,600	5,600
Universities	41,300	1.1	0.4	0.8	3,300	8,700	12,000
Private and trades education	33,600	1.1	1.6	1.4	5,000	6,700	11,700
Health care and social assistance	360,400	1.6	1.7	1.6	63,800	85,900	149,700
Ambulatory health care services	102,900	1.0	2.3	1.6	18,600	24,500	43,200
Hospitals	132,100	1.1	1.3	1.2	17,000	30,600	47,600
Nursing and residential care facilities	54,300	3.7	2.0	2.8	17,900	14,200	32,200
Social assistance	71,200	1.5	1.1	1.3	10,200	16,500	26,700
Information, culture and recreation	132,400	2.2	1.6	1.9	28,000	29,300	57,200
Publishing industries	13,800	0.3	0.3	0.3	400	3,200	3,700
Motion picture and sound recording industries	24,200	4.5	1.5	3.0	8,700	5,700	14,400
Telecommunications	18,000	-1.1	1.4	0.1	200	4,200	4,300
Broadcasting, data processing and information	10,000	-0.2	1.4	0.6	600	2,400	3,000
Performing arts, spectator sports and related industries	21,500	2.2	1.5	1.8	4,400	4,600	9,000
Amusement, gambling and recreation industries	40,800	3.4	2.1	2.7	12,900	8,200	21,100
Museums, galleries and parks	4,000	1.5	1.7	1.6	700	1,000	1,700
Accommodation and food services	191,900	1.5	1.2	1.3	27,900	32,300	60,200
Accommodation services	34,000	2.0	1.6	1.8	6,900	8,000	14,900
Food services and drinking places	157,900	1.4	1.1	1.2	21,000	24,300	45,200

TABLE 4-1: EMPLOYMENT OUTLOOK BY INDUSTRY, B.C., 2022-2032 (Continued)

Industry	Employment 2022	Employment growth (Compound Annual Growth Rate)			Expansion Job Openings	Replacement Job Openings	Total Job Openings
		2022-27	2027-32	2022-32	2022-32	2022-32	2022-32
Repair, personal and non-profit services	122,900	1.3	1.8	1.5	20,400	25,700	46,100
Automotive repair and maintenance	21,400	0.7	1.2	0.9	2,100	4,600	6,700
Personal, non-automotive repair and non-profit services	101,500	1.4	1.9	1.6	18,300	21,100	39,500
Public administration	130,700	1.0	1.1	1.1	14,600	34,600	49,200
Federal government public administration	47,400	0.9	1.0	1.0	4,800	12,400	17,200
Provincial and territorial public administration	38,100	0.6	0.7	0.7	2,600	10,300	12,900
Local and Indigenous public administration	45,200	1.4	1.5	1.5	7,300	11,900	19,100

Note: Due to rounding, the components may not add to the totals.



5. Occupational outlook

5.1. Overview

Canada's workforce is grouped into ten major occupational groups in the 2016 [National Occupational Classification](#) (NOC 2016 V1.3)³. Despite the unique characteristics and different workforce sizes of the groups, every occupational group will post some job openings.

Over the next decade, close to three quarters (73 per cent) of the projected job openings in B.C. are in the top five occupational groups. In particular, the top three occupational groups will account for more than half (51 per cent) of the total job openings in the province.

» Sales and service

(208,500 job openings; 21 per cent of total)

» Business, finance and administration

(158,300 job openings; 16 per cent of total)

» Management

(149,900 job openings; 15 per cent of total)

» Trades, transport and equipment operators and related

(117,100 job openings; 12 per cent of total)

» Education, law and social, community and government services

(112,600 job openings; 11 per cent of total)

Total job openings include replacement job openings and expansion job openings. As Figure 5.1-1 shows, replacement job openings will outpace expansion job openings in eight out of the ten major occupational groups. The exceptions are Natural and applied sciences and related occupations and Art, culture, recreation and sport occupations. The larger number of expansion openings indicates faster employment growth in these two groups.

The Natural and applied sciences and related occupational group will expand its workforce faster than other occupational groups. Driven by accelerated digitalization and increased automation, employment in this occupational group is expected to increase by 2.2 per cent each year on average, compared with the 1.3 per cent annual employment growth for all occupations in B.C.

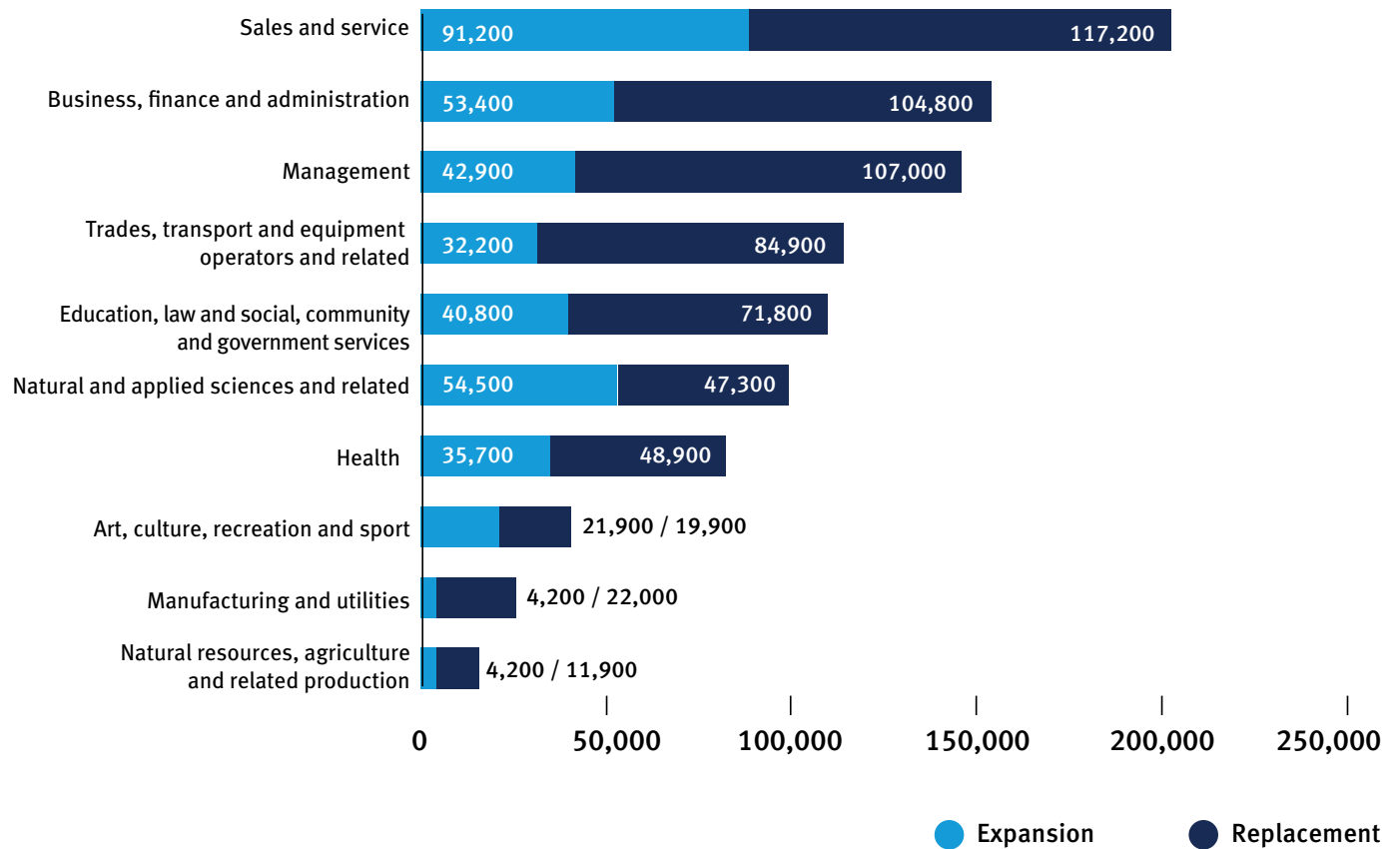
The Art, culture, recreation and sport occupational group will also grow strongly at 1.9 per cent each year, as this group of occupations will continue to recover from the pandemic and expand. In addition, the Health occupational group is also projected to experience faster-than-average employment growth of 1.5 per cent each year.

For the other eight occupational groups, the number of job openings from replacement outnumber those from expansion. In four of these groups, job openings from replacement will account for over 70 per cent of the total. Some of this is due to limited expansion due to slower growth in Manufacturing and utilities and the Natural resources, agriculture and related production groups. Other occupational groups, like Management, have a larger proportion of older workers which increases the share of retirements.



³ In September 2021, NOC-2021 v1.0 was released and represented a major structural revision of NOC-2016. However, due to the timing of the release and the unavailability of 2021 Census data when the forecast was developed, this edition of the Labour Market Outlook is based on NOC 2016. The 2023 Edition of the Labour Market Outlook will use NOC 2021 to group occupations.

FIGURE 5.1-1: JOB OPENINGS BY MAJOR OCCUPATIONAL GROUP, B.C., 2022-2032



The NOC 2016 v1.3 groups the whole workforce into 500 occupations. Appendix 3 presents the forecasted job openings for all 500 occupations.



Top in-demand trades

Occupations in skilled trades require on-the-job training and in-class training. They offer excellent earning potential. Over the next decade, over 83,000 job openings are expected in the skilled trades.

The trades occupations with the highest projected job openings over the next ten years are:

- » **Cooks**
- » **Automotive service technicians, truck and bus mechanics and mechanical repairers**
- » **Construction trades helpers and labourers**
- » **Hairstylists and barbers**
- » **Carpenters**
- » **Heavy equipment operators (except crane)**
- » **Electricians (except industrial and power system)**
- » **Painters and decorators (except interior decorators)**
- » **Construction millwrights and industrial mechanics**
- » **Bakers**
- » **Welders and related machine operators**
- » **Plumbers**
- » **Heavy-duty equipment mechanics**
- » **Motor vehicle body repairers**
- » **Industrial electricians**

5.2. High opportunity occupations

Every occupation plays a role in the prosperity and integrity of B.C.'s labour market. However, some occupations offer greater employment opportunities to workers. The High Opportunity Occupations list identifies these occupations.

When compared to other occupations, there will be higher demand for High Opportunity Occupations and they will offer better pay. British Columbia's list of High Opportunity Occupations helps people make informed decisions about their future career. It shows which occupations offer the most opportunity, as well as the level of education and training that each occupation typically requires.

Methodology

To identify High Opportunity Occupations each occupation is assessed using seven labour market indicators under four categories as shown in Table 5.2-1 and Table 5.2-2. These indicators provide information on current and future labour market conditions for each of the 500 occupations.

TABLE 5.2-1: CRITERIA OF HIGH OPPORTUNITY OCCUPATIONS LIST

1	How many job opportunities will be available? The number of job openings and the strength in employment growth
2	How easy will it be to get a job in the future? Forecasted labour market tightness
3	How easy is it to get a job now? Most recent unemployment and employment insurance rates
4	How much is the wage? Current wage rate

Each indicator is assigned a weight (from 10 to 20 per cent) to reflect how much it affects labour market conditions. Each occupation receives a composite weighted score based on these indicators and weights. Table 5.2-2 shows the factors in the composite score.

High Opportunity Occupations are primarily selected based on the ranking of all 500 occupations by the composite score. The top 125 occupations from this

ranking form the main part of the High Opportunity Occupations list. To show more representative education and skill levels, five additional occupations with typical education backgrounds of either an apprenticeship certificate or a high school education were added to the list. Table 5.2-3 shows the list of 130 occupations identified as High Opportunity Occupations for B.C. at the provincial level.

TABLE 5.2-2: COMPONENTS OF THE OPPORTUNITY INDICATOR RANKING

INDICATOR AND WEIGHT	RATIONALE
How many job opportunities will be available?	Absolute and relative job opportunities
Forecasted number of job openings (20 per cent) Ratio of job openings to employment (10 per cent) Forecasted employment growth rate (20 per cent)	Occupations with a larger number of job openings, both the level and the ratio to employment, offer more opportunities to job seekers and have a bigger impact on the overall economy. Occupations with faster forecasted employment growth offer more new job opportunities to job seekers.
How easy will it be to get a job in the future?	Occupations with more limited future supply relative to demand
Forecasted unemployment rate (20 per cent)	Occupations with a lower expected unemployment rate will offer more job opportunities to job seekers in the future.
How easy is it to get a job now?	Occupations with more limited current supply relative to demand
Recent unemployment rate (10 per cent) Ratio of employment insurance beneficiaries to employment (10 per cent)	Occupations with a lower unemployment rate and a lower ratio of employment insurance beneficiaries to employment offer more opportunities to job seekers.
How much is the wage?	Wage rate
Current wage rate (10 per cent)	Occupations with a higher wage rate represent better opportunities.

The High Opportunity Occupations are different in each of B.C.'s seven economic regions. A list of High Opportunity Occupations for each region, developed using the same methodology, shows the top 125 occupations in the region or the top occupations that account for up to 50 per cent of the regional job openings, whichever is met first.

The WorkBC.ca [High Opportunity Occupations website](#) allows High Opportunity Occupations to be filtered by education level, region and occupational interest.

TABLE 5.2-3: HIGH OPPORTUNITY OCCUPATIONS BY TYPICAL EDUCATION BACKGROUND, B.C., 2022-2032

NOC	Occupation Title	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
3012	Registered nurses and registered psychiatric nurses	22,080	\$30.00	\$41.00	\$47.00	Degree
2171	Information systems analysts and consultants	13,680	\$22.50	\$37.00	\$60.10	Degree
2174	Computer programmers and interactive media developers	13,490	\$26.44	\$43.27	\$60.10	Degree
1111	Financial auditors and accountants	11,630	\$20.00	\$29.59	\$48.72	Degree
2173	Software engineers and designers	9,980	\$28.85	\$52.00	\$72.12	Degree
0213	Computer and information systems managers	8,560	\$26.44	\$50.00	\$71.79	Degree
0013	Senior managers — financial, communications and other business services	6,700	\$30.00	\$63.19	\$96.15	Degree
6221	Technical sales specialists — wholesale trade	5,960	\$15.50	\$27.00	\$40.87	Degree
1114	Other financial officers	5,650	\$21.98	\$33.33	\$57.69	Degree
0632	Accommodation service managers	5,590	\$15.38	\$26.44	\$66.67	Degree
1123	Professional occupations in advertising, marketing and public relations	5,380	\$18.00	\$28.72	\$44.05	Degree
4021	College and other vocational instructors	5,300	\$21.98	\$42.31	\$69.71	Degree
4112	Lawyers and Quebec notaries	5,180	*\$37,400	*\$115,621	*\$242,117	Degree
0111	Financial managers	5,050	\$28.85	\$45.67	\$67.31	Degree
1122	Professional occupations in business management consulting	4,910	\$26.92	\$37.97	\$54.95	Degree
2131	Civil engineers	4,670	\$30.77	\$41.83	\$68.68	Degree
2175	Web designers and developers	4,640	\$16.73	\$32.21	\$48.08	Degree
0124	Advertising, marketing and public relations managers	4,510	\$24.04	\$39.32	\$67.31	Degree
4163	Business development officers and marketing researchers and consultants	4,340	\$24.04	\$33.33	\$68.10	Degree
0015	Senior managers — trade, broadcasting and other services, n.e.c.	4,070	\$15.20	\$36.15	\$124.19	Degree
0016	Senior managers — construction, transportation, production and utilities	3,990	\$15.20	\$49.32	\$154.74	Degree

TABLE 5.2-3: HIGH OPPORTUNITY OCCUPATIONS BY TYPICAL EDUCATION BACKGROUND, B.C., 2022-2032 (Continued)

NOC	Occupation Title	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
0122	Banking, credit and other investment managers	3,560	\$25.64	\$43.59	\$64.10	Degree
3112	General practitioners and family physicians	3,460	*\$66,967	*\$164,237	*\$302,235	Degree
0311	Managers in health care	3,420	\$25.96	\$46.00	\$62.42	Degree
1121	Human resources professionals	3,360	\$24.39	\$37.00	\$56.73	Degree
3111	Specialist physicians	3,160	*\$91,441	*\$256,202	*\$517,240	Degree
0121	Insurance, real estate and financial brokerage managers	3,060	\$25.30	\$48.08	\$72.12	Degree
4152	Social workers	3,040	\$23.76	\$37.00	\$45.00	Degree
0112	Human resources managers	3,020	\$24.04	\$50.48	\$71.79	Degree
0114	Other administrative services managers	2,990	\$27.83	\$43.59	\$72.12	Degree
0423	Managers in social, community and correctional services	2,750	\$23.00	\$34.62	\$55.77	Degree
0014	Senior managers — health, education, social and community services and membership organizations	2,670	\$21.76	\$45.96	\$88.00	Degree
5131	Producers, directors, choreographers and related occupations	2,640	\$18.72	\$32.00	\$58.55	Degree
2133	Electrical and electronics engineers	2,530	\$27.00	\$44.38	\$68.92	Degree
1225	Purchasing agents and officers	2,510	\$23.08	\$30.77	\$45.33	Degree
4153	Family, marriage and other related counsellors	2,500	\$19.23	\$31.20	\$43.58	Degree
0125	Other business services managers	2,490	\$27.12	\$45.67	\$57.69	Degree
1222	Executive assistants	2,430	\$20.88	\$30.77	\$43.58	Degree
2132	Mechanical engineers	2,320	\$26.54	\$37.50	\$57.52	Degree
5121	Authors and writers	2,190	\$18.78	\$30.10	\$38.97	Degree
0601	Corporate sales managers	2,130	\$23.08	\$31.25	\$73.56	Degree
5136	Painters, sculptors and other visual artists	2,050	\$18.09	\$34.93	\$50.00	Degree
3011	Nursing co-ordinators and supervisors	2,040	\$21.33	\$43.25	\$53.00	Degree
0422	School principals and administrators of elementary and secondary education	2,030	\$30.58	\$48.08	\$71.43	Degree
3142	Physiotherapists	1,930	\$35.13	\$41.39	\$54.30	Degree
4154	Professional occupations in religion	1,890	\$15.20	\$23.33	\$37.50	Degree
4164	Social policy researchers, consultants and program officers	1,830	\$24.04	\$35.03	\$53.01	Degree

TABLE 5.2-3: HIGH OPPORTUNITY OCCUPATIONS BY TYPICAL EDUCATION BACKGROUND, B.C., 2022-2032 (Continued)

NOC	Occupation Title	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
4165	Health policy researchers, consultants and program officers	1,810	\$18.00	\$34.13	\$52.40	Degree
2147	Computer engineers (except software engineers and designers)	1,770	\$26.44	\$53.85	\$79.33	Degree
0211	Engineering managers	1,730	\$31.25	\$50.00	\$71.79	Degree
2151	Architects	1,660	\$25.00	\$36.06	\$60.00	Degree
0421	Administrators — post-secondary education and vocational training	1,620	\$25.96	\$50.48	\$69.23	Degree
0113	Purchasing managers	1,580	\$26.00	\$44.71	\$67.31	Degree
2172	Database analysts and data administrators	1,560	\$20.19	\$37.50	\$56.41	Degree
1228	Employment insurance, immigration, border services and revenue officers	1,560	\$24.00	\$30.51	\$43.08	Degree
3131	Pharmacists	1,550	*\$68,708	*\$98,725	*\$127,387	Degree
3113	Dentists	1,540	*\$32,011	*\$104,055	*\$214,663	Degree
1112	Financial and investment analysts	1,530	\$25.00	\$36.06	\$57.69	Degree
0012	Senior government managers and officials	1,450	\$38.46	\$56.83	\$67.31	Degree
0513	Recreation, sports and fitness program and service directors	1,320	—	—	—	Degree
1212	Supervisors, finance and insurance office workers	1,280	\$19.23	\$33.65	\$49.28	Degree
2121	Biologists and related scientists	1,250	\$22.53	\$40.87	\$53.85	Degree
3143	Occupational therapists	1,050	\$25.00	\$42.00	\$50.00	Degree
0512	Managers — publishing, motion pictures, broadcasting and performing arts	950	\$19.08	\$33.68	\$60.48	Degree
0912	Utilities managers	930	\$43.64	\$61.30	\$75.00	Degree
3132	Dietitians and nutritionists	890	\$16.50	\$35.27	\$43.58	Degree
2283	Information systems testing technicians	870	\$22.00	\$32.69	\$48.72	Degree
2113	Geoscientists and oceanographers	850	\$23.00	\$48.08	\$72.12	Degree
3114	Veterinarians	780	*\$35,894	*\$85,140	*\$141,503	Degree
0212	Architecture and science managers	780	\$33.45	\$50.55	\$67.31	Degree
3144	Other professional occupations in therapy and assessment	750	\$19.00	\$25.00	\$38.29	Degree
3124	Allied primary health practitioners	720	\$21.00	\$45.00	\$59.81	Degree
2153	Urban and land use planners	690	\$29.23	\$39.56	\$48.08	Degree

TABLE 5.2-3: HIGH OPPORTUNITY OCCUPATIONS BY TYPICAL EDUCATION BACKGROUND, B.C., 2022-2032 (Continued)

NOC	Occupation Title	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
0412	Government managers — economic analysis, policy development and program administration	650	\$40.00	\$53.42	\$64.01	Degree
0414	Other managers in public administration	620	\$35.00	\$52.82	\$76.92	Degree
0011	Legislators	540	*\$32,011	*\$65,769	*\$144,465	Degree
3141	Audiologists and speech-language pathologists	530	\$28.00	\$41.91	\$48.61	Degree
3122	Chiropractors	530	*\$32,011	*\$53,032	*\$118,501	Degree
2144	Geological engineers	500	\$30.30	\$48.10	\$99.61	Degree
2148	Other professional engineers, n.e.c.	410	\$25.15	\$43.27	\$64.00	Degree
2161	Mathematicians, statisticians and actuaries	360	—	—	—	Degree
3216	Medical sonographers	350	\$35.00	\$36.71	\$38.95	Degree
3121	Optometrists	340	*\$32,011	*\$73,717	*\$135,876	Degree
3125	Other professional occupations in health diagnosing and treating	260	*\$32,011	*\$55,235	*\$105,319	Degree
2152	Landscape architects	210	\$15.20	\$32.19	\$63.48	Degree
2145	Petroleum engineers	100	—	—	—	Degree
0621	Retail and wholesale trade managers	21,810	\$17.50	\$29.80	\$57.69	Diploma/Certificate Excluding Apprenticeship
1221	Administrative officers	19,540	\$18.00	\$26.44	\$39.00	Diploma/Certificate Excluding Apprenticeship
3413	Nurse aides, orderlies and patient service associates	18,320	\$18.30	\$22.75	\$25.33	Diploma/Certificate Excluding Apprenticeship
4214	Early childhood educators and assistants	12,420	\$15.20	\$18.94	\$24.00	Diploma/Certificate Excluding Apprenticeship
0712	Home building and renovation managers	9,840	\$17.00	\$22.75	\$33.00	Diploma/Certificate Excluding Apprenticeship
1311	Accounting technicians and bookkeepers	9,540	\$16.00	\$24.04	\$36.82	Diploma/Certificate Excluding Apprenticeship
2282	User support technicians	8,310	\$19.55	\$31.25	\$46.15	Diploma/Certificate Excluding Apprenticeship
0711	Construction managers	8,140	\$23.00	\$40.38	\$64.90	Diploma/Certificate Excluding Apprenticeship
5241	Graphic designers and illustrators	6,110	\$19.05	\$28.13	\$50.00	Diploma/Certificate Excluding Apprenticeship
0714	Facility operation and maintenance managers	5,390	\$24.62	\$33.08	\$52.08	Diploma/Certificate Excluding Apprenticeship

TABLE 5.2-3: HIGH OPPORTUNITY OCCUPATIONS BY TYPICAL EDUCATION BACKGROUND, B.C., 2022-2032 (Continued)

NOC	Occupation Title	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
3233	Licensed practical nurses	4,740	\$24.24	\$29.48	\$32.02	Diploma/Certificate Excluding Apprenticeship
2281	Computer network technicians	4,620	\$20.00	\$28.85	\$50.00	Diploma/Certificate Excluding Apprenticeship
4311	Police officers (except commissioned)	4,120	\$25.48	\$42.00	\$61.06	Diploma/Certificate Excluding Apprenticeship
2242	Electronic service technicians (household and business equipment)	3,600	\$17.00	\$26.00	\$40.87	Diploma/Certificate Excluding Apprenticeship
1215	Supervisors, supply chain, tracking and scheduling co-ordination occupations	3,130	\$17.00	\$25.00	\$42.31	Diploma/Certificate Excluding Apprenticeship
0731	Managers in transportation	3,040	\$26.44	\$40.87	\$61.54	Diploma/Certificate Excluding Apprenticeship
3236	Massage therapists	2,380	\$15.20	\$30.00	\$50.00	Diploma/Certificate Excluding Apprenticeship
0651	Managers in customer and personal services, n.e.c.	2,230	\$15.20	\$26.91	\$62.50	Diploma/Certificate Excluding Apprenticeship
3414	Other assisting occupations in support of health services	2,220	\$15.20	\$22.25	\$26.00	Diploma/Certificate Excluding Apprenticeship
1243	Medical administrative assistants	1,990	\$19.23	\$23.08	\$30.00	Diploma/Certificate Excluding Apprenticeship
4312	Firefighters	1,960	\$35.00	\$46.00	\$56.41	Diploma/Certificate Excluding Apprenticeship
3212	Medical laboratory technicians and pathologists' assistants	1,800	\$22.05	\$25.00	\$37.00	Diploma/Certificate Excluding Apprenticeship
1312	Insurance adjusters and claims examiners	1,600	\$24.04	\$36.41	\$54.95	Diploma/Certificate Excluding Apprenticeship
3211	Medical laboratory technologists	1,600	\$22.00	\$35.00	\$42.50	Diploma/Certificate Excluding Apprenticeship
3222	Dental hygienists and dental therapists	1,280	\$28.00	\$44.10	\$49.00	Diploma/Certificate Excluding Apprenticeship
3215	Medical radiation technologists	1,230	\$29.00	\$38.50	\$43.00	Diploma/Certificate Excluding Apprenticeship
3232	Practitioners of natural healing	1,150	—	—	—	Diploma/Certificate Excluding Apprenticeship
1251	Court reporters, medical transcriptionists and related occupations	780	\$15.20	\$23.00	\$30.00	Diploma/Certificate Excluding Apprenticeship
2251	Architectural technologists and technicians	750	\$20.00	\$30.07	\$41.14	Diploma/Certificate Excluding Apprenticeship
2273	Deck officers, water transport	740	\$19.50	\$37.69	\$50.00	Diploma/Certificate Excluding Apprenticeship

TABLE 5.2-3: HIGH OPPORTUNITY OCCUPATIONS BY TYPICAL EDUCATION BACKGROUND, B.C., 2022-2032 (Continued)

NOC	Occupation Title	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
3214	Respiratory therapists, clinical perfusionists and cardiopulmonary technologists	680	\$28.00	\$36.24	\$39.72	Diploma/Certificate Excluding Apprenticeship
7361	Railway and yard locomotive engineers	400	\$26.44	\$42.50	\$56.25	Diploma/Certificate Excluding Apprenticeship
0432	Fire chiefs and senior firefighting officers	390	\$34.50	\$57.87	\$79.55	Diploma/Certificate Excluding Apprenticeship
1252	Health information management occupations	350	\$21.35	\$32.04	\$44.37	Diploma/Certificate Excluding Apprenticeship
2274	Engineer officers, water transport	280	\$25.90	\$43.00	\$45.00	Diploma/Certificate Excluding Apprenticeship
0431	Commissioned police officers	150	—	—	—	Diploma/Certificate Excluding Apprenticeship
7321	Automotive service technicians, truck and bus mechanics and mechanical repairers	6,670	\$16.00	\$25.00	\$38.00	Apprenticeship Certificate
6341	Hairstylists and barbers	5,860	\$15.20	\$17.00	\$30.00	Apprenticeship Certificate
7302	Contractors and supervisors, heavy equipment operator crews	2,970	\$23.81	\$35.00	\$48.08	Apprenticeship Certificate
7301	Contractors and supervisors, mechanic trades	1,220	\$22.15	\$39.65	\$57.14	Apprenticeship Certificate
7334	Motorcycle, all-terrain vehicle and other related mechanics	400	\$17.00	\$26.00	\$38.00	Apprenticeship Certificate
6211	Retail sales supervisors	14,700	\$15.20	\$21.00	\$32.91	High School
0631	Restaurant and food service managers	8,880	\$16.50	\$25.00	\$41.21	High School
7451	Longshore workers	2,120	\$26.00	\$43.00	\$50.00	High School

Notes:
Job Openings

- Job openings are rounded to the nearest 10.

Wage Rate

- The wage rate refers to the Job Bank hourly wage rate (Employment and Social Development Canada, updated in 2021), unless otherwise noted.
- For occupations with a “**”, the annual wage rate is provided because the hourly wage rate is not available. In some cases, no wage data is available and this is denoted by a “—”.

Typical Education Background Definition

- Degree: Usually requiring a bachelor's, graduate or first professional degree
- Diploma/certificate excluding apprenticeship: Usually requiring a diploma or certificate, excluding apprenticeship training
- Apprenticeship certificate: Usually requiring apprenticeship training
- High school: Usually requiring high school and/or occupation-specific training
- Less than high school: Usually requiring on-the-job training

5.3. Outlook by skills and competencies

The nature of work is changing because of technological advancements such as artificial intelligence, robotics and automation, along with demographic and socio-economic shifts. These changes affect the future demand for labour as well as the skills and competencies required. British Columbians will need a strong foundation of skills and workforce competencies to keep pace with the changing nature of work.

Employers may face labour shortages (a lack of candidates for a specific job) and skills shortages (a lack of candidates with required skills). Identifying future in-demand skills and competencies will help employers recruit and train workers and manage human resources.

Job seekers and workers can benefit by anticipating the skills needed for the future of work and gaining the skills that will be in demand. This section describes the skills and competencies that the projected B.C. job openings will call for over the next ten years.

This report uses the following terms as defined in the U.S. Occupational Information Network (O*NET) Content Model:

- » **Skill** – the ability to perform tasks based on one’s knowledge, learning or practice
- » **Competency** – the ability to apply skills and knowledge to perform complex tasks well and to adapt easily to the activities of a variety of jobs

In this report, the term “skills” refers to “skills and competencies” unless specified. Appendix 1 gives additional definitions.

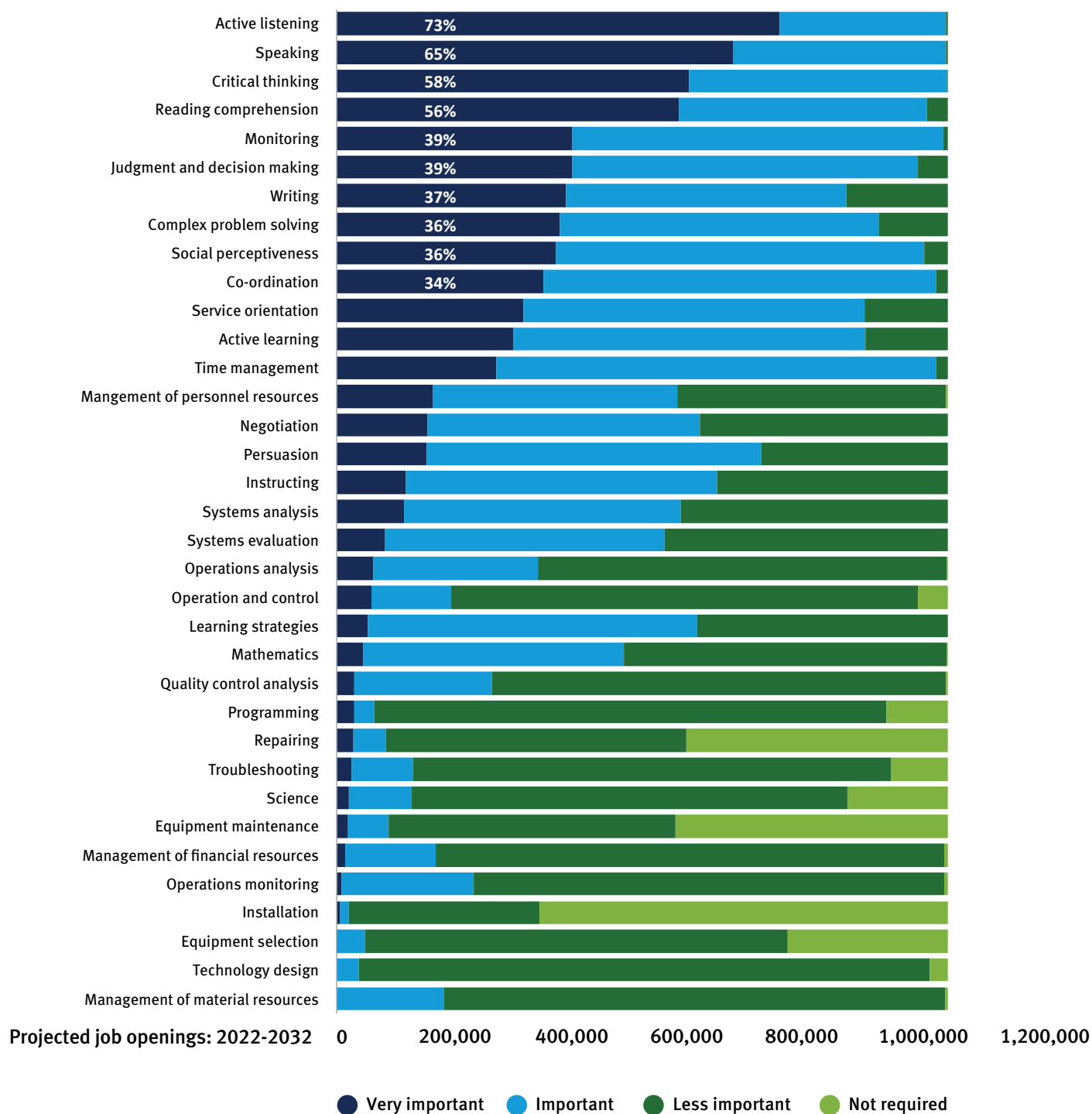
The 2022 BC Labour Market Outlook updates the forecast of in-demand skills considering workplace adaptations to new ways of working after the COVID-19 pandemic; new 2022 to 2032 occupational outlooks; and updated skills data.

The 2022 BC Labour Market Outlook estimates the demand for skills and competencies for 500 NOC (2016 v1.3) occupations⁴ by linking B.C.’s projected job openings with [O*NET](#). O*NET is one of the world’s largest, most comprehensive, widely used public repositories for skills data at the occupational level. Comparable information for Canada is not available, but O*NET is sufficiently relevant to the B.C. situation until data for Canada becomes available.

The projection in the 2022 BC Labour Market Outlook is based on the current O*NET structure of the skills and competencies required for each occupation. Figure 5.3-1 summarizes the projected demand for skills and competencies.



4 Ten occupations have been dropped out through the process of mapping the O*NET dataset in SOC (Standard Occupational Classification) to NOC, including Legislators (NOC 0011), Financial and investment analysts (NOC 1112), Health information management occupations (NOC 1252), Industrial instrument technicians and mechanics (NOC 2243), Employment counsellors (NOC 4156), Non-commissioned ranks of the Canadian Armed Forces (NOC 4313), Elementary and secondary school teacher assistants (NOC 4413), Other personal service occupations (NOC 6564), Taxi and limousine drivers and chauffeurs (NOC 7513), and Logging and forestry labourers (NOC 8616). This accounted for 1.3 per cent of total projected job openings in British Columbia from 2022 to 2032.

FIGURE 5.3-1: PROJECTED DEMAND FOR SKILLS AND COMPETENCIES, B.C., 2022-2032

Note: The chart indicates the share of projected job openings in descending order for each of the 35 work-related skills and competencies identified as very important.

Source: The analysis was based on the U.S. Department of Labor, Employment and Training Administration's [O*NET database](#) version 26.3, released in May 2022, and British Columbia Labour Market Outlook: 2022 Edition.

The Labour Market Outlook expects strong demand for people skills – specifically communication skills such as Active listening, Speaking and Reading comprehension – as well as Critical thinking and Monitoring.

For competencies, the Labour Market Outlook shows Judgment and decision making, Complex problem solving and Social perceptiveness as “very important” for almost 40 per cent of the total projected job openings by 2032.

Top ten in-demand skills and competencies for the period from 2022 to 2032 are similar to those projected for 2021 to 2031, with some small differences. Judgment and decision making and Complex problem solving are more important in this edition of the Labour Market Outlook while Social perceptiveness is less important. However, it is still one of the top ten “very important” skills in the 2022 Labour Market Outlook. Table 5.3-1 lists the top ten future skills and competencies for the two forecasts.

Top skills of the future

- » Active listening is identified as a very important skill for 73 per cent of total projected job openings in B.C.
- » Speaking is very important for 65 per cent of job openings.
- » Critical thinking is very important for 58 per cent of job openings.
- » Reading comprehension is very important for 56 per cent of job openings.

Top competencies of the future

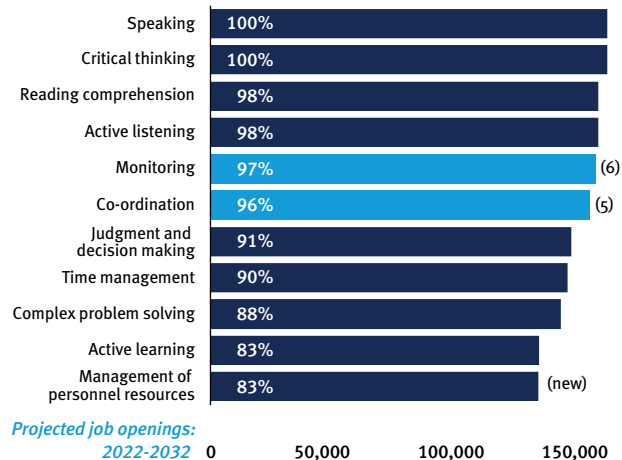
- » Judgment and decision making, Complex problem solving and Social perceptiveness are identified as very important for almost 40 per cent of job openings.

TABLE 5.3-1: TOP TEN FUTURE SKILLS AND COMPETENCIES, B.C., 2021-2031 AND 2022-2032

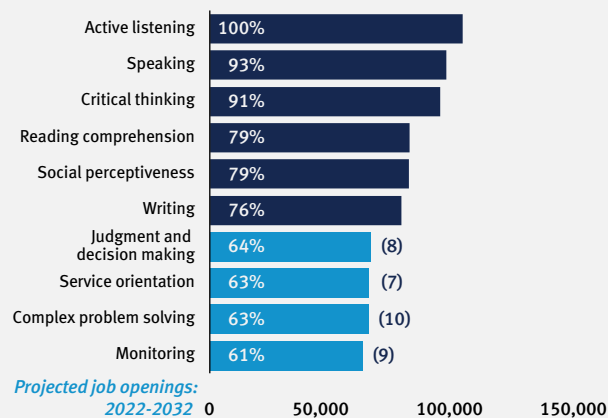
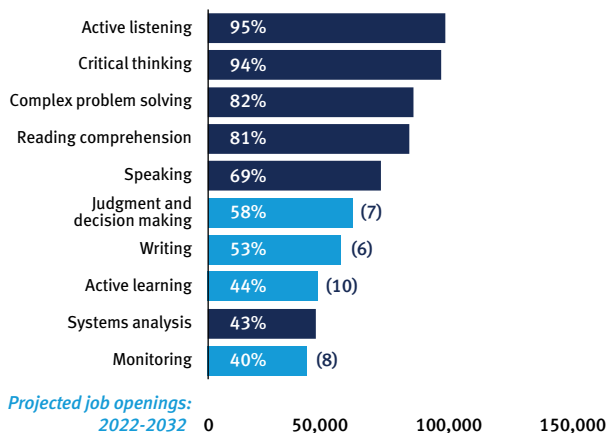
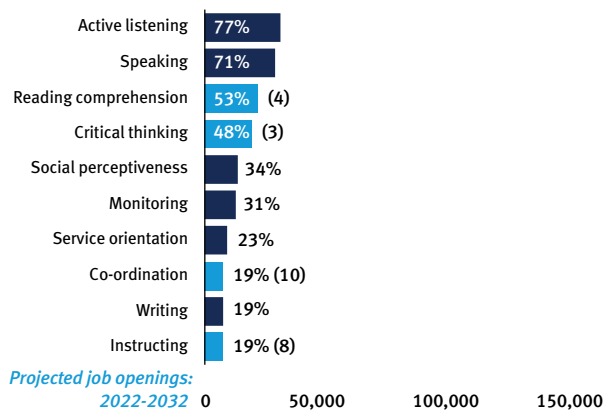
2021-2031	2022-2032
1. Active listening	1. Active listening
2. Speaking	2. Speaking
3. Critical thinking	3. Critical thinking
4. Reading comprehension	4. Reading comprehension
5. Monitoring	5. Monitoring
6. Social perceptiveness	6. Judgment and decision making
7. Writing	7. Writing
8. Judgment and decision making	8. Complex problem solving
9. Complex problem solving	9. Social perceptiveness
10. Co-ordination	10. Co-ordination

The findings do not show strong demand for digital skills such as Programming, Technology design, System analysis and System evaluation. They are critical for some specific occupations but are not used widely across a range of occupations.

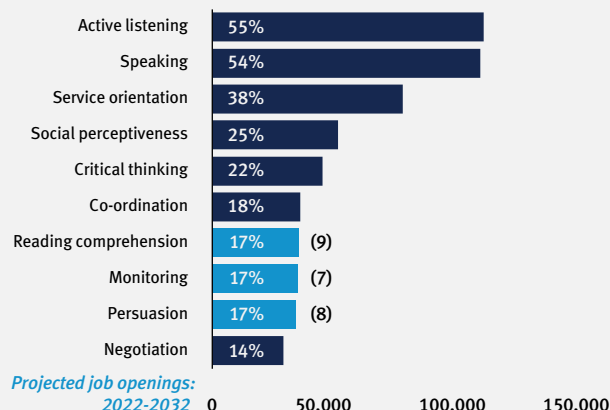
The competencies required to do a job vary across occupational groups. For instance, Social perceptiveness and Service orientation are very important for Health as well as Sales and service occupations. By contrast, Operations analysis is essential for Trade, transport and equipment operators and related occupations, as well as for occupations in Manufacturing and utilities. Figure 5.3-2 shows the projected demand for skills and competencies by occupational group.

FIGURE 5.3-2: PROJECTED DEMAND FOR SKILLS AND COMPETENCIES BY OCCUPATIONAL GROUP, B.C., 2022-2032
MANAGEMENT OCCUPATIONS

HEALTH OCCUPATIONS

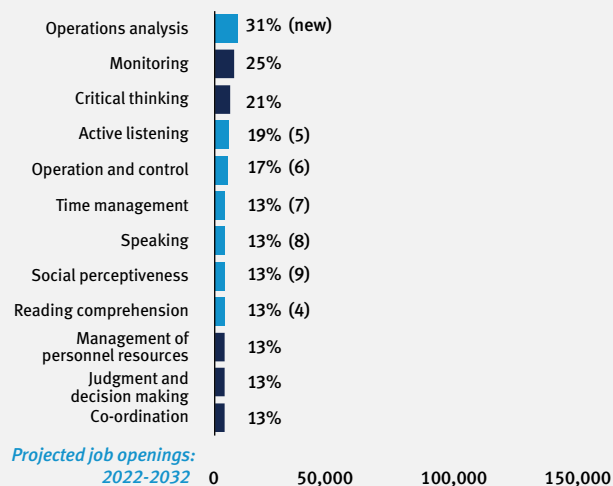
BUSINESS, FINANCE AND ADMINISTRATION OCCUPATIONS

OCCUPATIONS IN EDUCATION, LAW AND SOCIAL, COMMUNITY AND GOVERNMENT SERVICES

NATURAL AND APPLIED SCIENCES AND RELATED OCCUPATIONS

OCCUPATIONS IN ART, CULTURE, RECREATION AND SPORT


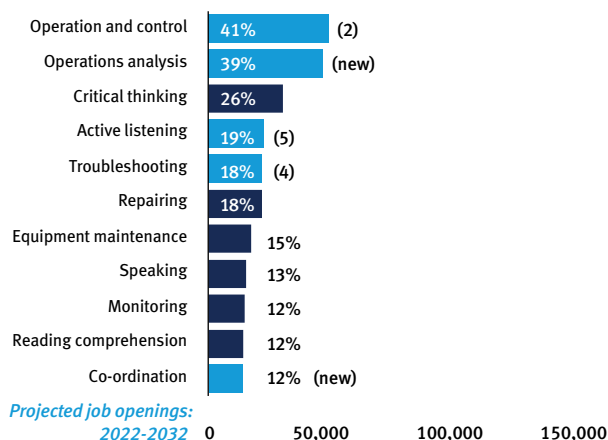
SALES AND SERVICE OCCUPATIONS



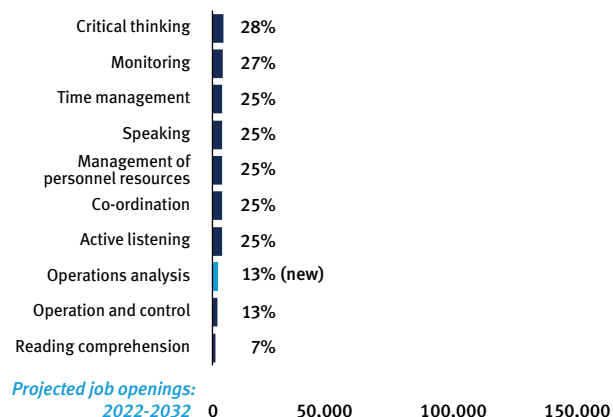
OCCUPATIONS IN MANUFACTURING AND UTILITIES



TRADES, TRANSPORT AND EQUIPMENT OPERATORS AND RELATED OCCUPATIONS



NATURAL RESOURCES, AGRICULTURE AND RELATED PRODUCTION OCCUPATIONS



Note:

The length of the bars indicates the share of projected job openings that employers identified as “very important.” The percentage figure on the bars expresses the share of total projected job openings of each occupational group for top ten work-related skills and competencies that employers identified as “very important” in descending order.

The light blue bars refer to skills and competencies that the ranking has changed compared to the 2021-2031 projection. The numbers in the brackets are the ranking in the 2021-2031 projection. Skills and competencies not in the 2021-2031 projection are indicated as new.

Source: The analysis was based on the U.S. Department of Labor, Employment and Training Administration’s [O*NET database](#) version 26.3, released in May 2022, and British Columbia Labour Market Outlook: 2022 Edition.

As with the projected in-demand skills overall, the findings for the occupational groups also show the importance of communication skills and critical thinking. Top ten in-demand skills and competencies by occupational group in the 2022 Labour Market Outlook are mostly consistent with those projected in the 2021 Labour Market Outlook, with some changes in ranking or in the share of projected job openings.

6. Regional outlook

B.C. and its seven economic regions have unique economies and labour market conditions. As a result, each offers a distinct variety of job opportunities.

This section highlights the opportunities within each economic region. Figure 6-1 identifies the seven regions and Table 6-1 summarizes the projected job openings in each region.

FIGURE 6-1 TOTAL JOB OPENINGS BY DEVELOPMENT REGION, B.C., 2022-2032

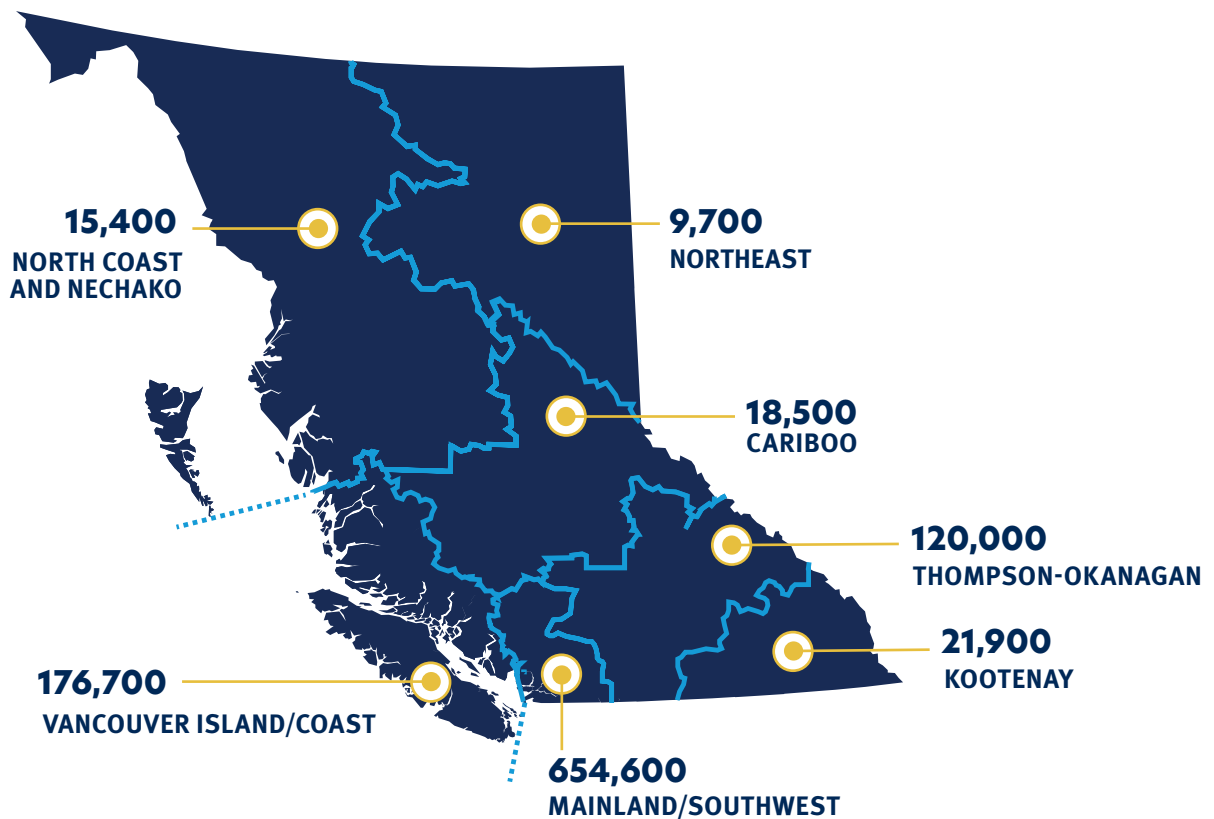


TABLE 6-1: EMPLOYMENT AND JOB OPENINGS BY DEVELOPMENT REGION, B.C., 2022-2032

Region	Employment 2022	Ten-year Employment Growth Rate 2022-32	Job Openings 2022-2032		
			Expansion	Replacement	Total
Vancouver Island/Coast	425,200	1.5%	67,100	109,600	176,700
Mainland/Southwest	1,749,100	1.3%	255,600	399,000	654,600
Thompson-Okanagan	304,100	1.4%	45,900	74,000	120,000
Kootenay	80,500	0.4%	2,900	19,000	21,900
Cariboo	87,700	0.2%	1,300	17,200	18,500
Northeast	38,500	0.5%	1,900	7,800	9,700
North Coast/Nechako	43,900	1.3%	6,200	9,200	15,400
British Columbia	2,728,900	1.3%	380,900	635,800	1,016,700

Note: Total of regions may not sum to the B.C. total due to rounding

6.1. Vancouver Island/Coast

Vancouver Island/Coast is British Columbia's second most populated region. Much of this area remains rural and sparsely populated. Most residents live in the capital region around Victoria and in the mid-island region stretching from Duncan north to Campbell River.

With its scenic location and mild climate, the region attracts retirees. In recent years younger people have moved into the area to avoid the more competitive housing market in Mainland/Southwest. The Vancouver Island/Coast region accounts for about 16 per cent of B.C.'s workers.

The largest industries by employment size are Other retail trade (excluding cars, online shopping and personal care); Food services and drinking places; Hospitals; Specialty trade contractors; Business and building support services (excluding travel); Provincial and territorial public administration; and Elementary and secondary schools. Service-based industries



dominate employment opportunities in the region, which is reflected in the forecasted job openings in the top ten industries through 2032.

TABLE 6.1-1: TOP TEN INDUSTRIES BY JOB OPENINGS, VANCOUVER ISLAND/COAST, 2022-2032

Industry	Employment 2022	Employment Growth Rate			Job Openings 2022-2032			Annual Replacement Rate
		2022-27	2027-32	2022-32	Expansion	Replacement	Total	
Other retail trade (excluding cars, online shopping and personal care)	42,180	1.1%	1.4%	1.2%	5,620	8,820	14,430	2.0%
Business and building support services (excluding travel)	19,440	1.9%	2.9%	2.4%	5,430	5,060	10,480	2.3%
Computer systems design and related services	8,850	6.4%	5.5%	5.9%	7,020	2,940	9,950	2.4%
Ambulatory health care services	17,560	1.7%	3.1%	2.4%	4,830	4,940	9,770	2.5%
Food services and drinking places	26,960	1.4%	1.3%	1.3%	3,900	4,670	8,560	1.6%
Personal, non-automotive repair and non-profit services	14,300	2.9%	2.6%	2.8%	4,630	3,810	8,440	2.3%
Hospitals	22,300	1.0%	1.1%	1.0%	2,440	5,760	8,200	2.5%
Nursing and residential care facilities	10,820	4.9%	2.0%	3.5%	4,510	3,320	7,830	2.5%
Specialty trade contractors	20,630	1.8%	0.1%	0.9%	2,050	5,560	7,600	2.5%
Provincial and territorial public administration	18,790	0.7%	0.7%	0.7%	1,320	5,650	6,970	2.9%

Note: Small discrepancies may arise due to rounding.

In the coming ten years, the Vancouver Island/Coast region is expected to have 176,700 job openings, of which 62 per cent will replace retiring workers. Employment demand is projected to increase by an annual average of 1.5 per cent, a bit faster than the provincial average (1.3 per cent).

Over the ten years of the forecast, the region's fastest growing sectors are expected to be Computer systems design and related services; Support activities for mining and oil and gas extraction; Primary metal manufacturing; Travel arrangement services; Nursing and residential care facilities; Management, scientific and technical consulting services; and Personal, non-automotive repair and non-profit services.

Vancouver Island/Coast



6.1-2: OCCUPATION OUTLOOK, VANCOUVER ISLAND/COAST, 2022-2032

Typical Education Background	NOC	Occupation Title	Employment 2022	Expansion 2022-32	Replacement 2022-32	Total Job Openings 2022-32
Degree	3012	Registered nurses and registered psychiatric nurses	10,370	1,630	2,690	4,320
	2171	Information systems analysts and consultants	3,410	1,370	970	2,340
	4032	Elementary school and kindergarten teachers	6,700	650	1,600	2,250
	2174	Computer programmers and interactive media developers	2,360	1,340	540	1,880
	4031	Secondary school teachers	3,900	370	1,020	1,390
	0632	Accommodation service managers	2,320	510	850	1,360
	1111	Financial auditors and accountants	3,450	380	920	1,300
	0213	Computer and information systems managers	1,240	480	620	1,100
	4011	University professors and lecturers	2,750	370	680	1,040
	1122	Professional occupations in business management consulting	1,810	470	570	1,030

6.1-2: OCCUPATION OUTLOOK, VANCOUVER ISLAND/COAST, 2022-2032 (Continued)

Typical Education Background	NOC	Occupation Title	Employment 2022	Expansion 2022-32	Replacement 2022-32	Total Job Openings 2022-32
Apprenticeship certificate	6322	Cooks	6,930	1,280	1,330	2,610
	6341	Hairstylists and barbers	2,550	890	610	1,500
	7271	Carpenters	4,270	240	1,010	1,250
	7321	Automotive service technicians, truck and bus mechanics and mechanical repairers	2,920	180	650	840
	7241	Electricians (except industrial and power system)	2,770	280	510	800
	7521	Heavy equipment operators (except crane)	1,980	290	490	780
	6562	Estheticians, electrologists and related occupations	1,500	440	260	700
	7205	Contractors and supervisors, other construction trades, installers, repairers and servicers	1,370	150	490	640
	6332	Bakers	1,410	290	270	560
	7251	Plumbers	1,520	160	390	550
Diploma/ certificate excluding apprenticeship	3413	Nurse aides, orderlies and patient service associates	7,750	1,990	2,140	4,130
	1221	Administrative officers	6,750	1,090	2,780	3,880
	0621	Retail and wholesale trade managers	8,200	1,190	2,480	3,670
	4212	Social and community service workers	5,840	990	1,600	2,590
	1411	General office support workers	6,210	920	1,640	2,560
	1241	Administrative assistants	4,640	680	1,280	1,960
	1311	Accounting technicians and bookkeepers	4,340	550	1,280	1,830
	1414	Receptionists	4,060	810	920	1,730
	4412	Home support workers, housekeepers and related occupations	3,570	660	1,050	1,720
	4214	Early childhood educators and assistants	3,760	800	790	1,590
High school	6421	Retail salespersons	13,890	1,940	2,240	4,180
	6211	Retail sales supervisors	6,470	890	2,040	2,930
	6733	Janitors, caretakers and building superintendents	5,920	1,180	1,660	2,830
	6731	Light duty cleaners	6,070	1,440	1,320	2,760
	6711	Food counter attendants, kitchen helpers and related support occupations	10,520	1,610	1,040	2,660
	8612	Landscaping and grounds maintenance labourers	4,770	1,270	850	2,130
	6611	Cashiers	7,510	1,020	920	1,930
	0631	Restaurant and food service managers	3,430	480	1,220	1,700
	6513	Food and beverage servers	5,850	870	810	1,680
	7511	Transport truck drivers	3,680	350	1,130	1,480
Less than high school	9618	Labourers in fish and seafood processing	290	80	60	140

Note: Small discrepancies may arise due to rounding.

6.2. Mainland/Southwest

Vancouver is the centre of this region, which extends east through the Fraser Valley to Hope and north to Lillooet. The region shares a border with the U.S. While it is geographically the smallest region in B.C., it has the largest population and is economically the most significant in the province. It employs about 64 per cent of B.C.'s workers.

The largest industries by employment size are Other retail trade (excluding cars, online shopping and personal care); Food services and drinking places; Hospitals; Specialty trade contractors; Computer systems design and related services; Legal, accounting, design, research and advertising services; and Personal, non-automotive repair and non-profit services.

Up to 2032, a total of 654,600 job openings are anticipated. About 61 per cent of these job openings will replace exiting workers, while the remaining 39 per cent



will come from economic growth. The total makes up almost two-thirds of B.C.'s total forecasted job openings over the next ten years.

Employment demand is anticipated to increase 1.3 per cent on average every year over the next ten years, similar to B.C.'s average annual growth.

TABLE 6.2-1: TOP TEN INDUSTRIES BY JOB OPENINGS, MAINLAND/SOUTHWEST, 2022-2032

Industry	Employment 2022	Employment Growth Rate			Job Openings 2022-2032			Annual Replacement Rate
		2022-27	2027-32	2022-32	Expansion	Replacement	Total	
Computer systems design and related services	73,740	4.4%	4.5%	4.4%	41,170	19,340	60,520	2.1%
Other retail trade (excluding cars, online shopping and personal care)	154,520	1.2%	1.3%	1.2%	20,830	30,120	50,950	1.8%
Hospitals	81,430	1.0%	1.3%	1.2%	10,340	18,670	29,010	2.2%
Legal, accounting, design, research and advertising services	68,840	2.3%	1.0%	1.7%	12,640	16,170	28,820	2.1%
Ambulatory health care services	63,500	1.4%	2.5%	1.9%	13,760	14,870	28,630	2.2%
Food services and drinking places	99,320	1.3%	1.0%	1.1%	12,170	14,310	26,480	1.4%
Wholesale trade	67,200	0.7%	1.5%	1.1%	7,860	16,120	23,980	2.3%
Personal, non-automotive repair and non-profit services	67,460	0.9%	1.8%	1.3%	9,860	13,610	23,470	1.9%
Elementary and secondary schools	59,240	1.3%	0.8%	1.0%	6,540	16,100	22,650	2.6%
Specialty trade contractors	76,360	1.7%	-0.9%	0.4%	3,050	16,980	20,030	2.1%

Note: Small discrepancies may arise due to rounding.

Mainland/Southwest

Over the ten-year forecast, the region's fastest growing sectors are expected to be Online shopping; Computer systems design and related services; Motion picture and sound recording industries; Amusement, gambling and recreation industries; Water transportation; Nursing and residential care facilities; and Ship and boat building.



TABLE 6.2-2: OCCUPATION OUTLOOK, MAINLAND/SOUTHWEST, 2022-2032

Typical Education Background	NOC	Occupation Title	Employment 2022	Expansion 2022-32	Replacement 2022-32	Total Job Openings 2022-32
Degree	3012	Registered nurses and registered psychiatric nurses	38,010	5520	8410	13930
	2174	Computer programmers and interactive media developers	17,820	7500	3280	10790
	2171	Information systems analysts and consultants	18,450	6230	4120	10350
	1111	Financial auditors and accountants	23,820	3610	5450	9070
	2173	Software engineers and designers	13,950	5560	3230	8790
	4032	Elementary school and kindergarten teachers	20,950	2350	5600	7950
	0213	Computer and information systems managers	9,300	3060	3800	6850
	4031	Secondary school teachers	13,360	1500	3820	5320
	0013	Senior managers - financial, communications and other business services	8,820	2360	2850	5210
	6221	Technical sales specialists - wholesale trade	9,250	1830	2810	4640

TABLE 6.2-2: OCCUPATION OUTLOOK, MAINLAND/SOUTHWEST, 2022-2032 (Continued)

Typical Education Background	NOC	Occupation Title	Employment 2022	Expansion 2022-32	Replacement 2022-32	Total Job Openings 2022-32
Apprenticeship certificate	6322	Cooks	20,760	3360	3560	6920
	7321	Automotive service technicians, truck and bus mechanics and mechanical repairers	11,690	1660	2550	4210
	6341	Hairstylists and barbers	10,150	1750	1510	3260
	7271	Carpenters	10,230	1060	2030	3090
	7205	Contractors and supervisors, other construction trades, installers, repairers and servicers	4,910	320	1570	1890
	6562	Estheticians, electrologists and related occupations	7,070	990	860	1850
	7241	Electricians (except industrial and power system)	9,060	540	1250	1790
	6332	Bakers	5,190	660	1080	1740
	7302	Contractors and supervisors, heavy equipment operator crews	3,280	370	1150	1520
	7237	Welders and related machine operators	4,780	430	1020	1450
Diploma/certificate excluding apprenticeship	0621	Retail and wholesale trade managers	33,350	5310	8520	13820
	1221	Administrative officers	24,290	3420	8270	11680
	3413	Nurse aides, orderlies and patient service associates	21,960	4460	5560	10020
	1411	General office support workers	26,990	3460	6170	9620
	6411	Sales and account representatives - wholesale trade (non-technical)	27,130	2930	6360	9290
	4214	Early childhood educators and assistants	15,480	5320	3350	8670
	0712	Home building and renovation managers	13,050	2270	4340	6600
	1241	Administrative assistants	18,060	2200	4340	6540
	2282	User support technicians	12,470	3590	2800	6390
	4212	Social and community service workers	15,940	2660	3680	6340
High school	6421	Retail salespersons	57,280	8140	8670	16810
	6211	Retail sales supervisors	21,870	3020	6150	9170
	6711	Food counter attendants, kitchen helpers and related support occupations	33,560	4570	2750	7320
	6611	Cashiers	27,800	3860	3290	7150
	6733	Janitors, caretakers and building superintendents	17,260	1770	5010	6780
	7511	Transport truck drivers	22,940	1160	5290	6450
	6731	Light duty cleaners	17,340	2040	4050	6090
	7452	Material handlers	19,850	2170	3590	5760
	0631	Restaurant and food service managers	12,460	1530	3760	5290
	6513	Food and beverage servers	22,180	2960	2150	5110
Less than high school	8611	Harvesting labourers	1,040	40	260	300
	9618	Labourers in fish and seafood processing	800	70	220	290

Note: Small discrepancies may arise due to rounding.

6.3. Thompson-Okanagan

Thompson-Okanagan includes B.C.'s biggest wine and fruit producing area – the Okanagan Valley – as well as two large urban centres – Kelowna and Kamloops. The region is in the southern interior of B.C. and shares a border with the U.S.

In terms of employment size, Thompson-Okanagan's top industries are Other retail trade (excluding cars, online shopping and personal care); Specialty trade contractors; Food services and drinking places; Hospitals; Ambulatory health care services; Elementary and secondary schools; Personal, non-automotive repair and non-profit services.

Over the ten-year forecast period, employment demand is anticipated to increase by 1.4 per cent on average each year and 120,000 job openings are expected. Of these, 62 per cent will replace retirees and the remaining 38 per cent will come from economic growth.



TABLE 6.3-1: TOP TEN INDUSTRIES BY JOB OPENINGS, THOMPSON-OKANAGAN, 2022-2032

Industry	Employment 2022	Employment Growth Rate			Job Openings 2022-2032			Annual Replacement Rate
		2022-27	2027-32	2022-32	Expansion	Replacement	Total	
Other retail trade (excluding cars, online shopping and personal care)	24,610	1.8%	1.5%	1.7%	4,490	5,750	10,250	2.1%
Hospitals	15,680	2.3%	2.0%	2.1%	3,730	3,640	7,360	2.1%
Food services and drinking places	18,290	2.0%	1.5%	1.8%	3,620	3,490	7,110	1.7%
Business and building support services (excluding travel)	10,440	3.1%	2.4%	2.7%	3,410	2,610	6,010	2.1%
Nursing and residential care facilities	8,630	4.5%	2.4%	3.4%	3,570	2,210	5,790	2.1%
Specialty trade contractors	19,300	1.2%	-0.8%	0.2%	260	5,160	5,430	2.6%
Personal, non-automotive repair and non-profit services	11,140	2.1%	1.8%	2.0%	2,460	2,140	4,610	1.7%
Computer systems design and related services	4,920	5.0%	4.7%	4.8%	3,050	1,270	4,320	2.0%
Elementary and secondary schools	11,710	0.9%	0.6%	0.7%	890	3,340	4,230	2.7%
Social assistance	9,940	0.7%	1.5%	1.1%	1,210	2,300	3,510	2.2%

Note: Small discrepancies may arise due to rounding.

Thompson-Okanagan

The fastest growing industries in the upcoming ten years are anticipated to be Water transportation; Computer systems design and related services; Management, scientific and technical consulting services; Nursing and residential care facilities; Ports and freight transportation arrangement; Travel arrangement services; and Non-residential building construction.



TABLE 6.3-2: OCCUPATION OUTLOOK, THOMPSON-OKANAGAN, 2022-2032

Typical Education Background	NOC	Occupation Title	Employment 2022	Expansion 2022-32	Replacement 2022-32	Total Job Openings 2022-32
Degree	3012	Registered nurses and registered psychiatric nurses	6,330	1,430	1,260	2,690
	4032	Elementary school and kindergarten teachers	4,070	330	1,140	1,460
	4031	Secondary school teachers	2,410	190	750	950
	0632	Accommodation service managers	1,400	380	530	910
	1111	Financial auditors and accountants	2,290	240	640	880
	2171	Information systems analysts and consultants	1,360	480	270	750
	2174	Computer programmers and interactive media developers	1,110	520	180	700
	6221	Technical sales specialists - wholesale trade	970	210	380	600
	0013	Senior managers - financial, communications and other business services	790	230	310	540
Apprenticeship certificate	6322	Cooks	4,120	990	860	1,850
	7321	Automotive service technicians, truck and bus mechanics and mechanical repairers	2,700	510	540	1,050
	7521	Heavy equipment operators (except crane)	3,080	310	720	1,030
	7271	Carpenters	2,750	260	660	930
	6341	Hairstylists and barbers	2,110	510	180	700
	7241	Electricians (except industrial and power system)	2,480	70	520	590
	7311	Construction millwrights and industrial mechanics	1,720	90	460	550

TABLE 6.3-2: OCCUPATION OUTLOOK, THOMPSON-OKANAGAN, 2022-2032 (Continued)

Typical Education Background	NOC	Occupation Title	Employment 2022	Expansion 2022-32	Replacement 2022-32	Total Job Openings 2022-32
Diploma/ certificate excluding apprenticeship	3413	Nurse aides, orderlies and patient service associates	6,180	1,710	1,390	3,100
	0621	Retail and wholesale trade managers	5,630	960	1,770	2,730
	1221	Administrative officers	4,670	640	2,030	2,660
	1411	General office support workers	4,210	630	920	1,560
	1311	Accounting technicians and bookkeepers	3,580	400	1,130	1,530
	4212	Social and community service workers	3,560	540	900	1,440
	4214	Early childhood educators and assistants	2,740	780	550	1,330
	6411	Sales and account representatives - wholesale trade (non-technical)	3,260	480	840	1,320
	1241	Administrative assistants	3,230	440	820	1,260
	0711	Construction managers	2,060	260	920	1,180
High school	6421	Retail salespersons	9,270	1,620	1,850	3,470
	7511	Transport truck drivers	5,500	740	1,640	2,370
	6711	Food counter attendants, kitchen helpers and related support occupations	6,740	1,410	830	2,250
	6611	Cashiers	5,180	920	890	1,810
	6731	Light duty cleaners	4,010	1,070	730	1,800
	6733	Janitors, caretakers and building superintendents	3,830	790	990	1,780
	6211	Retail sales supervisors	3,380	530	1,130	1,660
	6513	Food and beverage servers	4,240	860	720	1,580
	8612	Landscaping and grounds maintenance labourers	2,970	840	380	1,220
	0631	Restaurant and food service managers	2,240	440	780	1,210

Note: Small discrepancies may arise due to rounding.



6.4. Kootenay

The Kootenay economic region is situated in the southeast corner of the province, along the Rockies and the Canada/ U.S. border. The rural areas are rich in natural resources.

The largest industries in the Kootenay area are mainly service based: Other retail trade (excluding cars, online shopping and personal care); Mining; Elementary and secondary schools; Hospitals; Specialty trade contractors; Food services and drinking places; and Ambulatory health care services.

Up to 2032, 21,900 job openings are expected in this region, about 87 per cent of which will come from retirements.

Employment demand is forecasted to increase at an average of 0.4 per cent each year for the next ten years.



TABLE 6.4-1: TOP TEN INDUSTRIES BY JOB OPENINGS, KOOTENAY, 2022-2032

Industry	Employment 2022	Employment Growth Rate			Job Openings 2022-2032			Annual Replacement Rate
		2022-27	2027-32	2022-32	Expansion	Replacement	Total	
Other retail trade (excluding cars, online shopping and personal care)	8,390	-0.2%	0.8%	0.3%	210	1,800	2,010	2.1%
Mining	5,250	1.3%	-0.9%	0.2%	90	1,350	1,450	2.5%
Elementary and secondary schools	4,280	0.4%	-0.6%	-0.1%	-60	1,180	1,120	2.7%
Personal, non-automotive repair and non-profit services	3,130	1.7%	1.4%	1.5%	520	600	1,120	1.8%
Nursing and residential care facilities	2,070	2.1%	2.2%	2.1%	500	480	980	2.1%
Hospitals	3,980	0.0%	0.6%	0.3%	130	800	930	2.0%
Business and building support services (excluding travel)	2,000	1.9%	1.6%	1.8%	390	450	840	2.0%
Ambulatory health care services	3,340	0.4%	-0.4%	0.0%	-10	810	800	2.4%
Food services and drinking places	3,810	-0.3%	0.8%	0.3%	100	670	770	1.8%
Residential building construction	2,860	-0.2%	-0.2%	-0.2%	-80	840	760	2.9%

Note: Small discrepancies may arise due to rounding.

Kootenay

The industries anticipated to have the fastest growth rate in employment over the next ten years are Motion picture and sound recording industries; Telecommunications; Universities; Ports and freight transportation arrangement; Warehousing and storage; Rail transportation and support activities; and Online shopping.

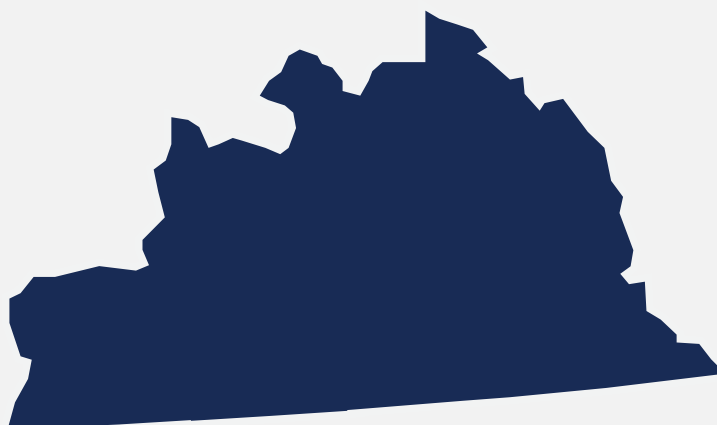


TABLE 6.4-2: OCCUPATION OUTLOOK, KOOTENAY, 2022-2032

Typical Education Background	NOC	Occupation Title	Employment 2022	Expansion 2022-32	Replacement 2022-32	Total Job Openings 2022-32
Degree	4032	Elementary school and kindergarten teachers	1,640	-20	440	420
	3012	Registered nurses and registered psychiatric nurses	1,650	90	300	380
	4021	College and other vocational instructors	600	130	190	320
	0632	Accommodation service managers	510	120	200	310
	4031	Secondary school teachers	730	0	220	210
	1111	Financial auditors and accountants	420	0	110	110
	0111	Financial managers	190	20	80	100
	0122	Banking, credit and other investment managers	160	30	70	100
Apprenticeship certificate	7521	Heavy equipment operators (except crane)	1,940	-10	430	420
	6322	Cooks	1,000	80	190	270
	7271	Carpenters	1,190	-60	260	200
	6341	Hairstylists and barbers	640	120	50	180
	7311	Construction millwrights and industrial mechanics	680	-20	180	160
	7312	Heavy-duty equipment mechanics	720	10	150	160
	8231	Underground production and development miners	460	10	130	140
	7321	Automotive service technicians, truck and bus mechanics and mechanical repairers	620	20	120	140
	7302	Contractors and supervisors, heavy equipment operator crews	360	-10	140	130
Diploma/ certificate excluding apprenticeship	0621	Retail and wholesale trade managers	1,960	110	580	700
	1221	Administrative officers	1,090	30	440	470
	3413	Nurse aides, orderlies and patient service associates	1,380	170	290	450
	0712	Home building and renovation managers	1,160	-10	410	410
	4212	Social and community service workers	1,080	80	270	350
	1311	Accounting technicians and bookkeepers	970	-10	290	280
High school	6421	Retail salespersons	2,430	120	450	570
	7511	Transport truck drivers	1,720	-60	460	410
	6733	Janitors, caretakers and building superintendents	1,220	90	300	390
	6731	Light duty cleaners	890	150	160	300
	6611	Cashiers	1,490	60	240	300
	6211	Retail sales supervisors	820	30	260	280
	6711	Food counter attendants, kitchen helpers and related support occupations	1,540	80	170	260

Note: Small discrepancies may arise due to rounding.

6.5. Cariboo

The Cariboo region is in the centre of B.C. It has many logging towns in mostly rural areas with large forests. Besides the urban centre of Prince George, the area is known for the logging hubs of Williams Lake and Quesnel.

The region is the third largest in geographical size, but less than five per cent of B.C. residents live and work here.

The region's largest industries are Other retail trade (excluding cars, online shopping and personal care); Hospitals; Food services and drinking places; Elementary and secondary schools; Wood product manufacturing; Ambulatory health care services; and Forestry, logging and support activities.

In the next ten years, the Cariboo region is expected to have 18,500 job openings. About 93 per cent of these jobs will replace exiting workers and 7 per cent will come through economic growth. Employment demand is expected to grow at an average of 0.2 per cent annually during the next ten years.



TABLE 6.5-1: TOP TEN INDUSTRIES BY JOB OPENINGS, CARIBOO, 2022-2032

Industry	Employment 2022	Employment Growth Rate			Job Openings 2022-2032			Annual Replacement Rate
		2022-27	2027-32	2022-32	Expansion	Replacement	Total	
Hospitals	5,620	0.7%	0.5%	0.6%	330	1,150	1,490	2.0%
Other retail trade (excluding cars, online shopping and personal care)	7,680	-0.4%	0.5%	0.0%	10	1,280	1,290	1.7%
Food services and drinking places	4,900	1.4%	0.9%	1.1%	590	570	1,150	1.1%
Personal, non-automotive repair and non-profit services	2,730	0.9%	1.5%	1.2%	370	490	850	1.7%
Universities	1,000	2.9%	5.5%	4.2%	520	260	770	2.1%
Wholesale trade	2,510	1.3%	0.5%	0.9%	240	530	770	2.0%
Business and building support services (excluding travel)	2,480	1.3%	0.4%	0.8%	220	510	730	1.9%
Social assistance	2,710	0.4%	0.2%	0.3%	80	600	670	2.2%
Other manufacturing	1,270	4.5%	-0.1%	2.1%	310	290	600	1.9%
Paper manufacturing	3,230	-1.0%	0.0%	-0.5%	-190	790	600	2.5%

Note: Small discrepancies may arise due to rounding.

Cariboo

During the next ten years, the industries with the fastest growth will be Publishing industries; Travel arrangement services; Museums, galleries and parks; Private and trades education; Universities; Oil and gas extraction; and Warehousing and storage.



TABLE 6.5-2: OCCUPATION OUTLOOK, CARIBOO, 2022-2032

Typical Education Background	NOC	Occupation Title	Employment 2022	Expansion 2022-32	Replacement 2022-32	Total Job Openings 2022-32
Degree	3012	Registered nurses and registered psychiatric nurses	1,990	120	370	490
	4011	University professors and lecturers	290	150	80	230
	0632	Accommodation service managers	530	60	160	220
	1111	Financial auditors and accountants	640	-	150	160
	4021	College and other vocational instructors	310	40	110	140
	4152	Social workers	470	10	90	100
	4012	Post-secondary teaching and research assistants	140	70	20	90
	0912	Utilities managers	190	10	80	90
Apprenticeship certificate	6322	Cooks	1,380	170	230	390
	7521	Heavy equipment operators (except crane)	1,060	-40	230	190
	7311	Construction millwrights and industrial mechanics	1,160	-50	230	180
	7321	Automotive service technicians, truck and bus mechanics and mechanical repairers	850	-10	170	160
	9432	Pulp mill machine operators	360	-20	160	140
	1522	Storekeepers and partspersons	490	10	100	110
	6341	Hairstylists and barbers	390	60	40	100
	7312	Heavy-duty equipment mechanics	600	-10	100	90

TABLE 6.5-2: OCCUPATION OUTLOOK, CARIBOO, 2022-2032 *(Continued)*

Typical Education Background	NOC	Occupation Title	Employment 2022	Expansion 2022-32	Replacement 2022-32	Total Job Openings 2022-32
Diploma/ certificate excluding apprenticeship	0621	Retail and wholesale trade managers	1,600	30	370	410
	4212	Social and community service workers	1,660	40	360	400
	1221	Administrative officers	1,150	40	350	390
	3413	Nurse aides, orderlies and patient service associates	1,230	70	250	320
	1411	General office support workers	1,380	50	270	320
	4214	Early childhood educators and assistants	620	110	150	270
	1311	Accounting technicians and bookkeepers	950	-	220	220
	1241	Administrative assistants	990	-	200	200
	6411	Sales and account representatives - wholesale trade (non-technical)	700	70	130	200
High school	7511	Transport truck drivers	1,920	20	470	490
	6421	Retail salespersons	2,460	40	360	400
	6733	Janitors, caretakers and building superintendents	1,550	50	300	350
	6211	Retail sales supervisors	1,480	40	300	340
	6731	Light duty cleaners	1,330	80	250	330
	6711	Food counter attendants, kitchen helpers and related support occupations	1,770	190	70	260
	6611	Cashiers	1,580	40	190	230
	0631	Restaurant and food service managers	570	60	150	210
	9215	Supervisors, forest products processing	440	-30	230	200
	6513	Food and beverage servers	970	110	60	170

Note: Small discrepancies may arise due to rounding.



6.6. North Coast and Nechako

This coastal region stretches along the northwestern tip of the province and includes Haida Gwaii, the north coast of the province and the inland area of Nechako. The area is the second largest of B.C.'s seven economic regions in terms of geographical size. Key cities in the region are Prince Rupert, Terrace, Kitimat and Smithers.

While the region is the most sparsely populated of the province, it is rich in pristine landscapes and natural resources. Mining and quarrying and forestry are among the key natural resource industries. In addition, Prince Rupert is the location of one of Canada's key ports, which is projected to expand significantly over the next ten years.

Over the next ten years, employment demand is expected to increase at an average of 1.3 per cent annually, on par with the provincial average. A total of 15,400 job openings are expected in the region over the ten-year forecast.

The largest industries by employment size are Other retail trade (excluding cars, online shopping and



personal care); Food services and drinking places; Elementary and secondary schools; Primary metal manufacturing; Social assistance; Forestry, logging and support activities; and Hospitals.

TABLE 6.6-1: TOP TEN INDUSTRIES BY JOB OPENINGS, NORTH COAST AND NECHAKO, 2022-2032

Industry	Employment 2022	Employment Growth Rate			Job Openings 2022-2032			Annual Replacement Rate
		2022-27	2027-32	2022-32	Expansion	Replacement	Total	
Other retail trade (excluding cars, online shopping and personal care)	3,970	0.1%	1.1%	0.6%	240	690	930	1.7%
Truck transportation and support activities	1,090	5.9%	2.5%	4.2%	580	320	900	2.2%
Primary metal manufacturing	2,140	2.1%	0.9%	1.5%	350	460	820	1.9%
Food services and drinking places	2,620	1.9%	1.4%	1.6%	470	340	810	1.2%
Ports and freight transportation arrangement	1,010	5.1%	2.5%	3.8%	480	210	690	1.6%
Residential building construction	1,210	4.8%	0.1%	2.4%	340	280	620	1.9%
Hospitals	1,750	1.0%	0.9%	0.9%	170	350	520	1.9%
Personal, non-automotive repair and non-profit services	770	3.5%	3.2%	3.4%	310	150	460	1.6%
Social assistance	1,860	0.0%	0.6%	0.3%	50	410	460	2.2%
Ambulatory health care services	1,400	1.8%	0.6%	1.2%	170	280	460	1.9%

Note: Small discrepancies may arise due to rounding.

North Coast and Nechako

Over the next ten years, the industries forecasted to grow the fastest are Performing arts, spectator sports and related industries; Computer systems design and related services; Travel arrangement services; Insurance carriers and related activities; Postal service, couriers and messengers; Online shopping; and Universities. In addition, the expansion of the Port of Prince Rupert will result in expanded employment in a number of transportation industries.



TABLE 6.6-2: OCCUPATION OUTLOOK, NORTH COAST AND NECHAKO, 2022-2032

Typical Education Background	NOC	Occupation Title	Employment 2022	Expansion 2022-32	Replacement 2022-32	Total Job Openings 2022-32
Degree	0632	Accommodation service managers	510	60	150	210
	3012	Registered nurses and registered psychiatric nurses	570	60	110	170
	4032	Elementary school and kindergarten teachers	810	-40	130	90
	4152	Social workers	270	20	50	70
	4021	College and other vocational instructors	170	10	60	70
	6235	Financial sales representatives	120	40	20	60
	0122	Banking, credit and other investment managers	100	30	30	60
	2263	Inspectors in public and environmental health and occupational health and safety	180	20	40	60
	4031	Secondary school teachers	430	-20	80	50
	1114	Other financial officers	90	30	20	50
Apprenticeship certificate	6322	Cooks	870	160	150	310
	7311	Construction millwrights and industrial mechanics	680	90	150	240
	7521	Heavy equipment operators (except crane)	630	50	150	200
	7321	Automotive service technicians, truck and bus mechanics and mechanical repairers	610	70	130	200
	7271	Carpenters	590	110	80	190
	7302	Contractors and supervisors, heavy equipment operator crews	280	50	100	150
Diploma/ certificate excluding apprenticeship	0621	Retail and wholesale trade managers	830	70	200	270
	1221	Administrative officers	510	70	160	240
	1311	Accounting technicians and bookkeepers	630	70	150	220
	1411	General office support workers	640	90	130	220
	4214	Early childhood educators and assistants	460	80	110	200
	4212	Social and community service workers	760	30	160	200
High school	7511	Transport truck drivers	1,200	350	340	680
	7451	Longshore workers	480	230	60	300
	6733	Janitors, caretakers and building superintendents	860	110	180	290
	6421	Retail salespersons	1,120	100	170	260
	6731	Light duty cleaners	620	70	120	190
	7452	Material handlers	430	100	80	180
	6711	Food counter attendants, kitchen helpers and related support occupations	830	140	40	180
	6611	Cashiers	800	70	100	170
	7611	Construction trades helpers and labourers	590	100	70	170
Less than high school	9618	Labourers in fish and seafood processing	50	20	10	30

Note: Small discrepancies may arise due to rounding.

6.7. Northeast

B.C.'s largest region in terms of land size is situated on the northeastern corner of the province. It borders Alberta to the east and the Yukon and Northwest Territories to the north. This region is sparsely populated and mainly rural, aside from the cities of Dawson Creek and Fort St. John. The region is the centre of the province's oil and gas industry.

The region's major industries are: Other retail trade (excluding cars, online shopping and personal care); Food services and drinking places; Personal, non-automotive repair and non-profit services; Support activities for mining and oil and gas extraction; Specialty trade contractors; Heavy and civil engineering construction; and Elementary and secondary schools.



TABLE 6.7-1: TOP TEN INDUSTRIES BY JOB OPENINGS, NORTHEAST, 2022-2032

Industry	Employment 2022	Employment Growth Rate			Job Openings 2022-2032			Annual Replacement Rate
		2022-27	2027-32	2022-32	Expansion	Replacement	Total	
Specialty trade contractors	1,920	5.9%	-1.1%	2.4%	530	450	980	1.9%
Support activities for mining and oil and gas extraction	1,950	2.0%	0.2%	1.1%	230	450	680	2.1%
Other retail trade (excluding cars, online shopping and personal care)	3,820	-0.8%	0.8%	0.0%	-30	640	610	1.7%
Oil and gas extraction	1,360	4.9%	-1.6%	1.6%	250	340	580	2.1%
Heavy and civil engineering construction	1,900	0.7%	0.8%	0.8%	150	420	570	2.1%
Personal, non-automotive repair and non-profit services	2,010	0.6%	1.0%	0.8%	170	330	500	1.6%
Nursing and residential care facilities	160	25.3%	1.6%	12.8%	380	90	480	1.9%
Truck transportation and support activities	1,400	0.9%	0.7%	0.8%	110	350	460	2.4%
Utilities	1,090	2.2%	0.3%	1.3%	140	250	390	2.1%
Food services and drinking places	2,040	0.8%	0.3%	0.6%	120	240	360	1.1%

Note: Small discrepancies may arise due to rounding.

Northeast

Employment demand in the region is forecasted to increase each year by 0.5 per cent on average until 2032. Over the next ten years, a total of 9,700 job openings are anticipated, of which 20 per cent will be generated by economic growth.

Industries that are expected to grow fastest are: Nursing and residential care facilities; Universities; Fishing, hunting and trapping; Online shopping; Private and trades education; Telecommunications; and Postal service, couriers and messengers.



TABLE 6.7-2: OCCUPATION OUTLOOK, NORTHEAST, 2022-2032

Typical Education Background	NOC	Occupation Title	Employment 2022	Expansion 2022-32	Replacement 2022-32	Total Job Openings 2022-32
Degree	3012	Registered nurses and registered psychiatric nurses	580	—	110	110
	0811	Managers in natural resources production and fishing	260	10	90	110
	4032	Elementary school and kindergarten teachers	690	-10	110	100
	0632	Accommodation service managers	230	30	70	90
	2263	Inspectors in public and environmental health and occupational health and safety	240	20	50	70
	1225	Purchasing agents and officers	210	10	50	60
Apprenticeship certificate	7521	Heavy equipment operators (except crane)	670	50	160	200
	7311	Construction millwrights and industrial mechanics	520	40	120	160
	6322	Cooks	480	60	80	140
	7241	Electricians (except industrial and power system)	330	80	40	130
	8222	Contractors and supervisors, oil and gas drilling and services	290	40	80	120
	7302	Contractors and supervisors, heavy equipment operator crews	250	30	80	110
	7321	Automotive service technicians, truck and bus mechanics and mechanical repairers	540	-10	100	90
Diploma/ certificate excluding apprenticeship	1221	Administrative officers	600	30	180	210
	9232	Central control and process operators, petroleum, gas and chemical processing	630	90	130	210
	0621	Retail and wholesale trade managers	870	10	200	210
	1311	Accounting technicians and bookkeepers	670	40	160	200
	3413	Nurse aides, orderlies and patient service associates	310	90	80	170
	1411	General office support workers	690	20	130	150
High school	7511	Transport truck drivers	1,420	100	350	460
	6733	Janitors, caretakers and building superintendents	840	20	160	180
	6421	Retail salespersons	1,180	—	170	170
	6211	Retail sales supervisors	700	—	140	140
	7611	Construction trades helpers and labourers	560	60	70	130
	6731	Light duty cleaners	500	10	90	100
	0631	Restaurant and food service managers	330	10	80	100

Note: Small discrepancies may arise due to rounding.

7. Indigenous labour market information

Labour market information related to Indigenous communities – First Nations, Inuit and Métis – in British Columbia is limited. As a result, the data lacks content on Indigenous peoples' experience in the labour market and their contributions to it. For example, the federal Labour Force Survey does not include on reserve populations. The Canadian Census generally provides good basic data, but some Indigenous communities have low census participation rates, and the data is only available every five years, which limits its relevance. Furthermore, this data was not designed, collected or delivered with full participation from Indigenous communities.



2021 Census Data

In September 2022, Statistics Canada released new information on Indigenous people living in B.C. and Canada from the 2021 Census. The 2021 Census counted 290,210 Indigenous people of all ages living in B.C., up 7.3 per cent from 2016 and accounting for 5.9 per cent of the total population in British Columbia. Of the 290,210, the Census counted 220,135 who were 15 years of age or older, with just under one in five (41,535) living on reserve.

The core working-age (25 to 54) Indigenous population continues to grow but is slowing. The 2021 Census shows that the number of on and off reserve Indigenous people aged 25 to 54 increased by 6.8 per cent from 2016 to 2021, which matched the growth rate of the non-Indigenous population over the same period. Of the working-age population, the Census counted 93,215 Indigenous people living off reserve and 19,785 living on reserve.



Many Indigenous communities value a wide range of activities that are often not captured by labour market methodologies. For example, some Indigenous communities spend substantial time harvesting, fishing and hunting for food during specific seasons throughout the year. Indigenous people also undertake duties contributing to community, ceremonial and other cultural events. These activities are left out of most official labour market statistics.

The Ministry of Post-Secondary Education and Future Skills is in the early stages of building partnerships with Indigenous communities and organizations to explore Indigenous-led and collaborative approaches to gathering

labour market information that meets the needs of Indigenous communities. The intention of these partnerships is to provide a more relevant and inclusive picture of labour market experiences and outcomes.

Through this process, the Province recognizes the need for Indigenous data sovereignty, in alignment with the Truth and Reconciliation Commission Calls to Action and the United Nations Declaration on the Rights of Indigenous Peoples. For example, data governance measures should align with the First Nations Information Governance Centre's Ownership, Control, Access and Possession (OCAP) principles. This will be a critical element of focus for the partners involved in supporting the development of improved labour market information on Indigenous communities.

The Sector Labour Market Partnerships program (SLMP) is one resource that is helping Indigenous communities develop better labour market information. This program helps sectors, regions and populations understand and respond to labour market changes.

The SLMP program has partnered on projects with Indigenous communities and organizations to research labour opportunities and find solutions to barriers.

Recent projects include:

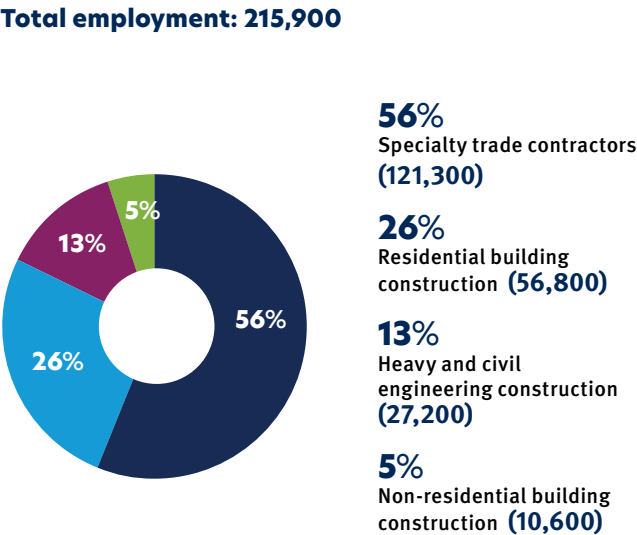
- » Employment Services and Training Labour Market Study, Nisga'a Lisims Government
- » OnTrack: Piloting a Skills Inventory, Tahltan Central Government
- » Indigenous Leadership in Technology: Researching Indigenous Participation in the B.C. Technology Sector's Workforce, First Nations Technology Council
- » Indigenous Tourism Labour Market Study and Workforce Development Strategy, Indigenous Tourism BC
- » Labour Market Study and Strategy to Examine the Role of Mentorship in Career Advancement of Indigenous Peoples in the Forestry Sector, First Nations Forestry Council of BC

8. Construction industry

Construction is B.C.'s fourth largest industry and employed 216,000 workers in 2021. Between 2022 and 2032, the Construction industry will post 72,700 job openings, accounting for over 7 per cent of the total job openings in the province. Most construction job openings will be replacement openings – 56,800 job openings or 78 per cent of the total (compared to 63 per cent for all industries). The other 16,000 job openings or 22 per cent are due to economic expansion.

The Construction industry includes Residential building construction, Non-residential building construction, Heavy and civil engineering construction and Speciality trade contractors.⁵ Figure 8-1 shows total employment among the four sub-industries in 2021.

FIGURE 8-1: COMPOSITION OF CONSTRUCTION EMPLOYMENT IN 2021, B.C.



5 The sub-industries are defined according to Statistics Canada's North American Industry Classification System (NAICS). Residential building construction and Non-residential building construction are limited to general contractors, operative builders and remodelers of structures, project construction management firms and design-build firms. Specialty trade contractors are not included in these sub-industries and are grouped in a separate sub-industry. Specialty trade contractors act as contractors (e.g., electricians, drywallers and painters) for projects in the other sub-industries. However, there are some specialty trade occupations found only in Heavy and civil engineering construction and they are considered part of this sub-industry.

The 2022 Labour Market Outlook considers these sub-industries separately, analyzing drivers for each. Specialty trade contractors are expected to have 35,000 job openings, accounting for 48 per cent of the total job openings in construction. This industry is followed by Residential building construction (23,600 job openings), Heavy and civil engineering construction (10,400 job openings) and Non-residential building construction (3,600 job openings). Detailed forecasts for construction and its sub-industries are shown in Table 8-1.



TABLE 8-1: LABOUR MARKET OUTLOOK FOR CONSTRUCTION AND ITS SUB-INDUSTRIES, B.C., 2022-2032

Industry	Employment 2022	Employment Growth Rate			Job openings 2022-2032		
		2022-27	2027-32	2022-32	Expansion	Replacement	Total
Construction	225,800	1.0%	0.4%	0.7%	16,000	56,800	72,700
Residential building construction	59,500	-0.3%	2.6%	1.1%	7,200	16,400	23,600
Non-residential building construction	11,200	1.0%	0%	0.5%	600	3,000	3,600
Heavy and civil engineering construction	28,500	0.8%	1.2%	1.0%	3,000	7,500	10,400
Specialty trade contractors	126,600	1.6%	-0.7%	0.4%	5,100	29,900	35,000



Employment in the B.C. Construction industry is expected to be 226,000 in 2022 and projected to grow to 242,000 by 2032, expanding by 0.7 per cent per year on average over the forecast period.

B.C.'s Residential building construction workforce will grow at 1.1 per cent per year driven by a growing population forming new households, and the need to repair and renovate existing homes. Building off record high housing starts in 2021, the 2022 BC Labour Market Outlook predicts slower growth in the first five years of the forecast with stronger growth thereafter.

Non-residential building construction will experience slower employment growth than Residential building construction, increasing by 0.5 per cent annually, with little to no growth anticipated during the later years of the forecast. This is due to a slowdown in institutional and government building construction as projects such as seismic upgrades for schools, and the expansion of hospitals or new health care centres are completed. Employment in Heavy and civil engineering construction will continue its upward trend and grow by 1.0 per cent each year, due to large infrastructure projects such as



highways, bridges and SkyTrain lines. Specialty trade contractors will expand 0.4 per cent per year on average.

The top ten construction occupations with the most job openings over the ten-year period are listed in Table 8-2.

TABLE 8-2: TOP TEN OCCUPATIONS BY JOB OPENINGS IN THE CONSTRUCTION INDUSTRY, B.C., 2022-2032

NOC	Occupation Title	Employment 2022	Job Openings 2022-2032		
			Expansion	Replacement	Total
0712	Home building and renovation managers	20,890	2,510	7,160	9,670
0711	Construction managers	13,520	1,180	5,230	6,410
7611	Construction trades helpers and labourers	19,920	1,670	3,480	5,150
7271	Carpenters	17,230	1,240	3,550	4,790
7294	Painters and decorators (except interior decorators)	8,970	430	2,430	2,860
7241	Electricians (except industrial and power system)	13,550	600	2,150	2,750
7205	Contractors and supervisors, other construction trades, installers, repairers and servicers	6,630	310	2,210	2,520
7251	Plumbers	9,260	400	1,850	2,240
7521	Heavy equipment operators (except crane)	7,560	480	1,600	2,080
7302	Contractors and supervisors, heavy equipment operator crews	4,330	340	1,600	1,930

Note: Employment and job openings numbers refer to the construction industry only.

9. Clean Economy

Across the world there is increasing focus on taking action to address climate change and invest in environmental sustainability initiatives. This focus has a profound impact on the labour market and the skills that will be needed to enable and sustain this transition. British Columbia has established leading initiatives in alternative and renewable energy, energy efficiency and green building. These initiatives include the [CleanBC Roadmap](#) that sets out a comprehensive plan of meeting the province's commitments on greenhouse gas emissions.

As B.C. shifts towards a cleaner and greener economy, the labour market is undergoing structural changes, with impacts in industries that rely on fossil fuels and other natural resources and the emergence of new industries to mitigate the effects of climate change. As a result, there will be new jobs, many jobs will transform, and some jobs will disappear. The overall impact is expected to be positive as new and transformed jobs will outnumber the ones that disappear but impacts will be spread unevenly across sectors. Identifying these job changes will support the development of appropriate education, skills training and support programs to ensure B.C. has the workforce to meet its Clean Economy goals.

In the last five years, changes to environmental policies and expectations have continued to rapidly increase the potential scope of B.C.'s Clean Economy. A 2019 labour market forecast of the CleanBC Plan used methodologies based on traditional industries and occupations, and the

result failed to capture the growing scope of Clean Economy jobs across many other industries and occupations.

Recognizing the growing importance of assessing the broader Clean Economy labour market, several Canadian labour market information organizations are in the early stages of developing forecasting methodologies. Although definitions, scope and approach vary amongst these organizations, the foundation of the Clean Economy workforce can be defined as core environmental workers.

Outlook for Core Environmental Workers

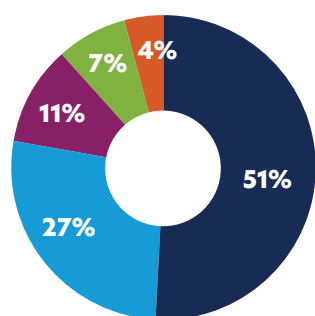
The 2022 Labour Market Outlook uses Environmental Careers Organization of Canada (ECO Canada) estimates of environmental job openings and applies them to the Labour Market Outlook forecast of employment by major occupational group. Figure 9-1 shows the distribution of core environmental workers by major occupational group in 2022.

Core Environmental Workers

Core environmental workers are those who require specialized environmental competencies, regardless of the industry employer (e.g., biological technologists and technicians).

FIGURE 9-1: ENVIRONMENTAL WORKERS IN CORE ENVIRONMENTAL OCCUPATIONS BY MAJOR OCCUPATIONAL GROUP, 2022

Clean jobs in 2022: 72,100



51%

Natural and applied science and related **(36,600)**

27%

Management **(19,500)**

11%

Education, law and social, community and government services **(7,600)**

7%

Business, finance and administration **(5,300)**

4%

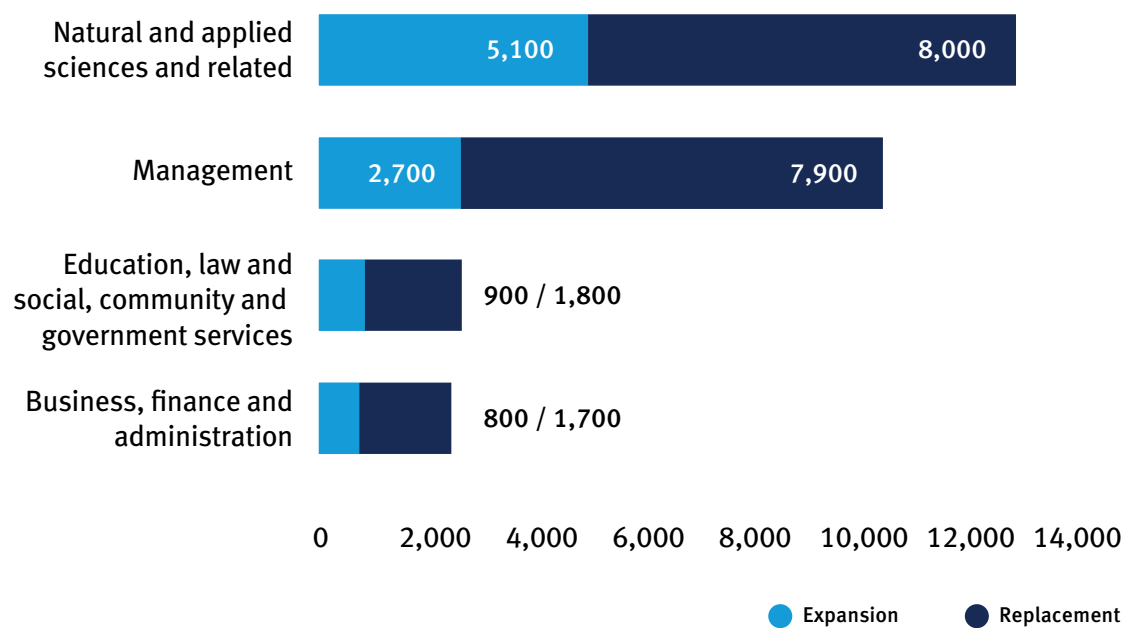
Other **(3,000)**

Overall, B.C. employment in core environmental occupations is expected to increase from 72,100 in 2022, to 81,800 by 2032 for an average annual increase of 1.3 per cent per year. Over the same period, the Labour Market Outlook forecasts 30,000 core environmental job openings. Most of these job openings will be replacement openings – 20,300 job openings or 68 per cent of the total (compared to 63 per cent for all industries). The other 9,700 job openings or 32 per cent are due to economic expansion.

Of the major occupational groups, the Natural and applied sciences and related occupations are expected to have 13,000 job openings, accounting for 43 per cent of all job openings in core environmental occupations. This is followed by Management (10,600 job openings), Education, law and social, community and government services (2,800 job openings), and Business, finance and administration occupations (2,400 job openings).

Figure 9-2 shows that replacement job openings will outpace expansion job openings in all four of the major occupational groups.

FIGURE 9-2: CORE ENVIRONMENTAL JOB OPENINGS IN THE TOP FOUR MAJOR OCCUPATIONAL GROUPS, B.C., 2022-2032



Appendix 5 provides further information on methods of estimating clean economy jobs and more information on how the forecast of core environmental workers was calculated for the 2022 BC Labour Market Outlook.

10. Care Economy

The “Care Economy” is a broad group of inter-related occupations that provide services such as childcare, eldercare, education, health and social assistance, both paid and unpaid.

Parts of the Care Economy, for example childcare, also play an important role in supporting labour force participation, which influences the supply of workers in the overall economy.

In B.C.’s tight labour market, it is becoming increasingly challenging to recruit and retain workers in the Care Economy. As the population grows, the demands for Care Economy work also grows and a significant number of Care Economy workers are at or near retirement. Given these factors, recruiting and retaining workers will continue to require sustained efforts for some time to come.

Care Economy outlook: Paid occupations providing direct care

The 2022 BC Labour Market Outlook examines the paid direct care component of the Care Economy. These are 57 occupations in the Education, Social services or Health care sectors. See Appendix 6 for a listing of all 57 occupations.

Defining the Care Economy

The Care Economy includes paid and unpaid labour and services that provide care. Unpaid labour and services play a crucial role in the overall Care Economy. Some definitions of the Care Economy include both direct care occupations (e.g., caregivers that meet needs recipients cannot meet themselves) and indirect care occupations (e.g., support workers not directly involved in care).

The Labour Market Outlook forecasts that there will be 175,900 job openings in the Care Economy between 2022 and 2032 (56,000 in Education, 33,300 in Social services and 86,600 in Health care), 67,700 (38 per cent) of the openings are due to expansion and 108,200 (62 per cent) due to replacement of existing workers. Table 10-1 lists the top ten occupations in terms of job openings.

TABLE 10-1: TOP TEN CARE ECONOMY OCCUPATIONS, B.C., 2022-2032

NOC	Occupation Title	Job Openings 2022-2032	Employment Growth Rate 2022-2032
3012	Registered nurses and registered psychiatric nurses	22,080	1.4%
3413	Nurse aides, orderlies and patient service associates	18,320	2.0%
4214	Early childhood educators and assistants	12,420	2.6%
4032	Elementary school and kindergarten teachers	12,260	0.8%
4212	Social and community service workers	11,460	1.4%
4031	Secondary school teachers	7,980	0.8%
4412	Home support workers, housekeepers and related occupations	6,880	1.5%
4413	Elementary and secondary school teacher assistants	5,500	0.5%
4021	College and other vocational instructors	5,300	1.3%
3233	Licensed practical nurses	4,740	1.8%

APPENDIX 1: Definitions

Labour market definitions

- » **Additional supply requirement:** The need for a supply of labour not met by young people starting work, international in-migration or migration within Canada
- » **Decline in unemployment:** The decline in the number of unemployed workers
- » **Employment:** The number of employed workers
- » **Immigrants:** Net in-migration from persons moving to British Columbia from outside of Canada
- » **Job openings – expansion:** New job openings that arise due to economic growth during the forecast period
- » **Job openings – replacement:** Job openings to fill positions that are generated by a permanent exit from the labour force during the forecast period, including exits due to retirements, illness, disabilities, deaths and other reasons
- » **Job openings – total:** The total of expansion job openings and replacement job openings
- » **Inter-occupational mobility:** The movement of workers to switch occupations
- » **Labour demand:** The number of employed people plus unfilled positions
- » **Labour supply:** The number of employed people and those who are actively looking for work
- » **Migrants from other provinces or territories:** Net in-migration from provinces and territories in Canada outside of British Columbia
- » **Net additions to supply:** The total of young people starting work, immigrants, migrants from other provinces or territories, inter-occupational mobility and additional supply requirements
- » **Young people starting work:** Persons, 17 to 29 years old, starting work for the first time after graduating from or leaving the education system

O*Net skills and competencies definitions

The United States' [O*NET](#) is a comprehensive database that contains information on occupational characteristics as well as worker characteristics and requirements for almost 1,000 occupations based on the Standard Occupational Classification (SOC). The O*NET database is collected and updated through ongoing surveys of workers in each occupation, supplemented in some cases by occupation experts. The database describes occupations in terms of the skills, knowledge, education and abilities required, as well as how the work is performed in terms of tasks, work activities and other work characteristics. There is no comparable data available for Canada at this time and the data is considered sufficiently relevant to the B.C. labour market.

The O*NET dataset identifies a total of 35 work-related skills:

- » 10 basic skills (called skills in this report):
 - › Reading comprehension
 - › Active listening
 - › Writing
 - › Speaking
 - › Numeracy
 - › Science
 - › Critical thinking
 - › Active learning
 - › Learning strategies
 - › Monitoring
- » 25 cross-functional skills (called competencies in this report):
 - › Social perceptiveness
 - › Co-ordination
 - › Persuasion
 - › Negotiation
 - › Instructing
 - › Service orientation

- › Complex problem solving
 - › Judgment and decision making
 - › Systems analysis
 - › Systems evaluation
 - › Time management
 - › Management of financial resources
 - › Management of material resources
 - › Management of personnel resources
 - › Operations analysis
 - › Technology design
 - › Equipment selection
 - › Installation
 - › Programming
 - › Operations monitoring
 - › Operation and control
 - › Equipment maintenance
 - › Troubleshooting
 - › Repairing
 - › Quality control analysis
- » **Active learning:** Understanding how new information could be used to solve current and future problems in making decisions
 - » **Active listening:** Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate and not interrupting at inappropriate times
 - » **Competencies:** Ability to perform specific tasks well and to adapt easily to the activities of a variety of jobs
 - » **Complex problem solving:** Being able to solve novel, ill-defined problems in complex, real-world settings
 - » **Co-ordination:** Organizing the different elements of a complex initiative or activity so as to enable items, tasks and people to work together effectively
 - » **Critical thinking:** Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems
 - » **Equipment maintenance:** Performing routine maintenance on equipment and determining when and what kind of maintenance is needed
 - » **Equipment selection:** Determining the kinds of tools and equipment needed to do a job
 - » **Installation:** Installing equipment, machines, wiring or programs to meet specifications
 - » **Instructing:** Teaching others how to do something
 - » **Judgment and decision making:** Considering the relative costs and benefits of potential actions to choose the most appropriate one
 - » **Learning strategies:** Choosing and using training, instructional methods and procedures appropriate for the situation when learning or teaching new things
 - » **Management of financial resources:** Determining how money will be spent to get the work done and accounting for these expenses
 - » **Management of material resources:** Ensuring the appropriate use of equipment, facilities and materials needed to do identified tasks and projects
 - » **Management of personnel resources:** Motivating, developing and directing people as they work, and identifying the best people and skills for the job
 - » **Monitoring:** Keeping track of and assessing the performance of oneself, other individuals or organizations to make improvements or take corrective action
 - » **Negotiation:** Bringing others together and trying to reconcile differences
 - » **Numeracy:** Using mathematics to solve problems
 - » **Operation and control:** Controlling operations of equipment or systems

- » **Operations monitoring:** Watching gauges, dials or other indicators to make sure that a machine is working properly
- » **Operations analysis:** Analyzing operational and product needs to create a design
- » **Persuasion:** Convincing others to change their mind or behaviour
- » **Programming:** Writing computer programs for various purposes
- » **Quality control analysis:** Conducting tests and inspections of products, services or processes to evaluate quality or performance
- » **Reading comprehension:** Understanding written sentences and paragraphs in work-related documents
- » **Repairing:** Repairing machines or systems using the needed tools
- » **Science:** Using scientific rules and methods to solve problems
- » **Service orientation:** Actively looking for ways to help people
- » **Skills:** Ability to perform tasks as a result of one's knowledge, learning or practice
- » **Social perceptiveness:** Being aware of others' reactions and understanding why they react as they do
- » **Speaking:** Talking to others to share information effectively
- » **Systems analysis:** Determining how a system should work and how changes in conditions, operations and the environment will affect outcomes

- » **Systems evaluation:** Identifying measures or indicators of system performance and the actions needed to improve or correct performance, while meeting the goals of the system
- » **Technology design:** Creating or adapting equipment and technology to serve user needs
- » **Time management:** Managing one's own time and the time of others
- » **Troubleshooting:** Determining causes of operating errors and identifying solutions
- » **Writing:** Communicating effectively through composing text as appropriate for the needs of the audience

The O*NET dataset is measured in two different scale types, a five-point importance scale and a seven-point level scale.

- » Importance scale indicates the degree of importance a particular skill is to the occupation. The 2022 Labour Market Outlook analysis used the importance scale.
- » Level scale indicates the degree to which a particular skill is required or needed to perform the occupation.

APPENDIX 2: Model methodology

The Labour Market Outlook forecasting model is a labour market forecasting system to generate ten-year projections of labour demand and supply, covering 500 occupations and 64 industries for B.C. and its economic development regions. Three simplified steps illustrate how the B.C. labour market forecasting model works:

- » Expected economic growth, industry performance and labour productivity determine labour demand.
- » Demographic shifts, economic performance and labour force participation drive labour supply and its components of change.
- » Both demand for and supply of labour in each occupation determine labour market conditions for the occupation.

Specifically, the forecasting system is composed of three sets of regional models: macroeconomic models, industry employment models and occupational models. The combined results of the regional models generate the provincial forecast.

Macroeconomic models

- » Each of the seven regional macroeconomic models has two main sections: an economic and a demographic component.
- » The economic component generates industry employment estimates and forecasts. It links to the labour demand projections in the occupational model.
- » The demographic component links to the labour supply projections in the occupational model.
- » Each regional macroeconomic model splits the entire regional economy into 15 high-level industries based on the 2017 North American Industry Classification System (NAICS) structure.

Industry employment models

- » Each of the seven regional industry employment models converts employment for high-level industries from the macroeconomic model into employment estimates and forecasts for 64 industries.

Occupational models

- » For labour demand, each of the seven regional occupational models produces labour demand projections for 500 occupations based on the provincial level estimates.
- » For labour supply, the seven regional models are aggregated into four regions to produce labour supply forecasts for 500 occupations. The aggregated regions are Mainland/Southwest, Vancouver Island/Coast, Southeast (Thompson-Okanagan and Kootenay combined) and North (Cariboo, North Coast and Nechako, and Northeast combined).

A full description of the [methodology](#) is available on the website of the Labour Market Information Council.

APPENDIX 3: Job Openings, Employment and Wages for 500 Occupations, B.C.

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
0011	Legislators	990	540	*\$32,011	*\$65,769	*\$144,465	Degree
0012	Senior government managers and officials	2,290	1,450	\$38.46	\$56.83	\$67.31	Degree
0013	Senior managers — financial, communications and other business services	10,980	6,700	\$30.00	\$63.19	\$96.15	Degree
0014	Senior managers — health, education, social and community services and membership organizations	4,140	2,670	\$21.76	\$45.96	\$88.00	Degree
0015	Senior managers — trade, broadcasting and other services, n.e.c.	6,950	4,070	\$15.20	\$36.15	\$124.19	Degree
0016	Senior managers — construction, transportation, production and utilities	8,220	3,990	\$15.20	\$49.32	\$154.74	Degree
0111	Financial managers	10,130	5,050	\$28.85	\$45.67	\$67.31	Degree
0112	Human resources managers	6,210	3,020	\$24.04	\$50.48	\$71.79	Degree
0113	Purchasing managers	2,680	1,580	\$26.00	\$44.71	\$67.31	Degree
0114	Other administrative services managers	5,030	2,990	\$27.83	\$43.59	\$72.12	Degree
0121	Insurance, real estate and financial brokerage managers	7,530	3,060	\$25.30	\$48.08	\$72.12	Degree
0122	Banking, credit and other investment managers	9,000	3,560	\$25.64	\$43.59	\$64.10	Degree
0124	Advertising, marketing and public relations managers	11,270	4,510	\$24.04	\$39.32	\$67.31	Degree
0125	Other business services managers	4,090	2,490	\$27.12	\$45.67	\$57.69	Degree
0131	Telecommunication carriers managers	1,580	670	—	—	—	Degree
0132	Postal and courier services managers	710	210	\$15.20	\$28.76	\$46.74	Diploma/Certificate Excluding Apprenticeship
0211	Engineering managers	3,100	1,730	\$31.25	\$50.00	\$71.79	Degree
0212	Architecture and science managers	1,350	780	\$33.45	\$50.55	\$67.31	Degree
0213	Computer and information systems managers	11,510	8,560	\$26.44	\$50.00	\$71.79	Degree
0311	Managers in health care	6,020	3,420	\$25.96	\$46.00	\$62.42	Degree
0411	Government managers — health and social policy development and program administration	630	350	\$31.34	\$43.83	\$57.20	Degree
0412	Government managers — economic analysis, policy development and program administration	1,110	650	\$40.00	\$53.42	\$64.01	Degree
0413	Government managers — education policy development and program administration	140	80	—	—	—	Degree
0414	Other managers in public administration	1,010	620	\$35.00	\$52.82	\$76.92	Degree
0421	Administrators — post-secondary education and vocational training	3,380	1,620	\$25.96	\$50.48	\$69.23	Degree
0422	School principals and administrators of elementary and secondary education	3,740	2,030	\$30.58	\$48.08	\$71.43	Degree
0423	Managers in social, community and correctional services	5,320	2,750	\$23.00	\$34.62	\$55.77	Degree
0431	Commissioned police officers	180	150	—	—	—	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
0432	Fire chiefs and senior firefighting officers	440	390	\$34.50	\$57.87	\$79.55	Diploma/Certificate Excluding Apprenticeship
0433	Commissioned officers of the Canadian Armed Forces	990	510	\$24.53	\$42.34	\$59.10	Degree
0511	Library, archive, museum and art gallery managers	600	300	\$15.20	\$31.01	\$59.13	Degree
0512	Managers — publishing, motion pictures, broadcasting and performing arts	1,310	950	\$19.08	\$33.68	\$60.48	Degree
0513	Recreation, sports and fitness program and service directors	2,260	1,320	—	—	—	Degree
0601	Corporate sales managers	3,610	2,130	\$23.08	\$31.25	\$73.56	Degree
0621	Retail and wholesale trade managers	52,440	21,810	\$17.50	\$29.80	\$57.69	Diploma/Certificate Excluding Apprenticeship
0631	Restaurant and food service managers	20,010	8,880	\$16.50	\$25.00	\$41.21	High School
0632	Accommodation service managers	11,000	5,590	\$15.38	\$26.44	\$66.67	Degree
0651	Managers in customer and personal services, n.e.c.	5,440	2,230	\$15.20	\$26.91	\$62.50	Diploma/Certificate Excluding Apprenticeship
0711	Construction managers	16,740	8,140	\$23.00	\$40.38	\$64.90	Diploma/Certificate Excluding Apprenticeship
0712	Home building and renovation managers	21,220	9,840	\$17.00	\$22.75	\$33.00	Diploma/Certificate Excluding Apprenticeship
0714	Facility operation and maintenance managers	10,100	5,390	\$24.62	\$33.08	\$52.08	Diploma/Certificate Excluding Apprenticeship
0731	Managers in transportation	6,450	3,040	\$26.44	\$40.87	\$61.54	Diploma/Certificate Excluding Apprenticeship
0811	Managers in natural resources production and fishing	2,220	1,150	\$30.61	\$53.85	\$86.54	Degree
0821	Managers in agriculture	10,160	3,340	\$15.38	\$23.08	\$37.50	Diploma/Certificate Excluding Apprenticeship
0822	Managers in horticulture	850	280	\$16.75	\$20.00	\$30.00	Diploma/Certificate Excluding Apprenticeship
0823	Managers in aquaculture	490	150	\$15.20	\$31.58	\$47.13	High School
0911	Manufacturing managers	10,410	4,260	\$24.04	\$40.00	\$72.92	Diploma/Certificate Excluding Apprenticeship
0912	Utilities managers	1,640	930	\$43.64	\$61.30	\$75.00	Degree
1111	Financial auditors and accountants	30,960	11,630	\$20.00	\$29.59	\$48.72	Degree
1112	Financial and investment analysts	4,670	1,530	\$25.00	\$36.06	\$57.69	Degree
1113	Securities agents, investment dealers and brokers	2,720	970	\$19.20	\$32.88	\$76.92	Degree
1114	Other financial officers	18,420	5,650	\$21.98	\$33.33	\$57.69	Degree
1121	Human resources professionals	9,080	3,360	\$24.39	\$37.00	\$56.73	Degree
1122	Professional occupations in business management consulting	11,500	4,910	\$26.92	\$37.97	\$54.95	Degree

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
1123	Professional occupations in advertising, marketing and public relations	13,720	5,380	\$18.00	\$28.72	\$44.05	Degree
1211	Supervisors, general office and administrative support workers	1,920	1,010	\$19.23	\$28.72	\$43.27	Diploma/Certificate Excluding Apprenticeship
1212	Supervisors, finance and insurance office workers	2,430	1,280	\$19.23	\$33.65	\$49.28	Degree
1213	Supervisors, library, correspondence and related information workers	420	230	—	—	—	Degree
1214	Supervisors, mail and message distribution occupations	970	470	\$18.76	\$30.70	\$42.64	Diploma/Certificate Excluding Apprenticeship
1215	Supervisors, supply chain, tracking and scheduling co-ordination occupations	6,640	3,130	\$17.00	\$25.00	\$42.31	Diploma/Certificate Excluding Apprenticeship
1221	Administrative officers	39,060	19,540	\$18.00	\$26.44	\$39.00	Diploma/Certificate Excluding Apprenticeship
1222	Executive assistants	6,280	2,430	\$20.88	\$30.77	\$43.58	Degree
1223	Human resources and recruitment officers	3,580	1,300	\$20.19	\$28.85	\$43.59	Degree
1224	Property administrators	10,270	3,890	\$15.20	\$24.00	\$41.54	Diploma/Certificate Excluding Apprenticeship
1225	Purchasing agents and officers	5,840	2,510	\$23.08	\$30.77	\$45.33	Degree
1226	Conference and event planners	3,920	1,360	\$15.85	\$23.08	\$36.92	Degree
1227	Court officers and justices of the peace	380	160	\$23.00	\$38.00	\$50.00	Diploma/Certificate Excluding Apprenticeship
1228	Employment insurance, immigration, border services and revenue officers	4,070	1,560	\$24.00	\$30.51	\$43.08	Degree
1241	Administrative assistants	28,750	10,480	\$16.00	\$24.00	\$35.00	Diploma/Certificate Excluding Apprenticeship
1242	Legal administrative assistants	7,020	2,420	\$18.00	\$23.59	\$35.71	Diploma/Certificate Excluding Apprenticeship
1243	Medical administrative assistants	4,720	1,990	\$19.23	\$23.08	\$30.00	Diploma/Certificate Excluding Apprenticeship
1251	Court reporters, medical transcriptionists and related occupations	1,870	780	\$15.20	\$23.00	\$30.00	Diploma/Certificate Excluding Apprenticeship
1252	Health information management occupations	770	350	\$21.35	\$32.04	\$44.37	Diploma/Certificate Excluding Apprenticeship
1253	Records management technicians	590	250	\$18.15	\$24.18	\$33.75	Diploma/Certificate Excluding Apprenticeship
1254	Statistical officers and related research support occupations	520	190	\$16.89	\$27.50	\$42.55	Degree
1311	Accounting technicians and bookkeepers	24,720	9,540	\$16.00	\$24.04	\$36.82	Diploma/Certificate Excluding Apprenticeship
1312	Insurance adjusters and claims examiners	4,780	1,600	\$24.04	\$36.41	\$54.95	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
1313	Insurance underwriters	1,580	530	\$20.67	\$36.92	\$68.68	Degree
1314	Assessors, valuers and appraisers	1,700	560	\$15.20	\$32.45	\$54.65	Degree
1315	Customs, ship and other brokers	700	350	\$15.20	\$24.32	\$48.35	Diploma/Certificate Excluding Apprenticeship
1411	General office support workers	41,090	14,680	\$16.00	\$23.00	\$33.96	Diploma/Certificate Excluding Apprenticeship
1414	Receptionists	27,730	9,490	\$15.20	\$20.00	\$25.00	Diploma/Certificate Excluding Apprenticeship
1415	Personnel clerks	2,040	770	\$16.00	\$24.83	\$31.28	Degree
1416	Court clerks	480	160	\$22.52	\$26.17	\$29.92	Diploma/Certificate Excluding Apprenticeship
1422	Data entry clerks	4,530	1,540	\$15.20	\$20.00	\$26.67	Diploma/Certificate Excluding Apprenticeship
1423	Desktop publishing operators and related occupations	320	130	\$15.75	\$35.00	\$57.25	Diploma/Certificate Excluding Apprenticeship
1431	Accounting and related clerks	21,060	8,020	\$17.00	\$23.08	\$34.62	Diploma/Certificate Excluding Apprenticeship
1432	Payroll administrators	5,300	2,020	\$19.00	\$25.00	\$35.00	Diploma/Certificate Excluding Apprenticeship
1434	Banking, insurance and other financial clerks	3,150	950	\$15.20	\$23.08	\$34.87	Degree
1435	Collectors	1,380	440	\$16.00	\$22.00	\$32.74	Diploma/Certificate Excluding Apprenticeship
1451	Library assistants and clerks	1,710	480	\$15.20	\$20.00	\$27.65	Degree
1452	Correspondence, publication and regulatory clerks	3,670	1,400	\$17.86	\$25.00	\$36.63	Degree
1454	Survey interviewers and statistical clerks	1,690	600	\$15.20	\$24.75	\$30.00	Diploma/Certificate Excluding Apprenticeship
1511	Mail, postal and related workers	4,580	1,620	\$15.20	\$23.00	\$27.16	High School
1512	Letter carriers	5,310	1,860	\$19.89	\$26.00	\$28.68	High School
1513	Couriers, messengers and door-to-door distributors	4,910	1,570	\$15.20	\$15.20	\$29.97	High School
1521	Shippers and receivers	13,090	4,310	\$15.20	\$19.00	\$30.11	High School
1522	Storekeepers and partspersons	5,300	1,930	\$15.77	\$25.00	\$41.00	Apprenticeship Certificate
1523	Production logistics co-ordinators	3,350	1,330	\$22.00	\$25.00	\$38.46	Diploma/Certificate Excluding Apprenticeship
1524	Purchasing and inventory control workers	3,910	1,450	\$16.00	\$21.99	\$30.00	Diploma/Certificate Excluding Apprenticeship
1525	Dispatchers	5,160	1,970	\$15.75	\$28.55	\$36.22	Diploma/Certificate Excluding Apprenticeship
1526	Transportation route and crew schedulers	730	260	—	—	—	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
2111	Physicists and astronomers	440	160	\$29.77	\$52.23	\$75.29	Degree
2112	Chemists	1,360	540	\$24.76	\$33.65	\$45.67	Degree
2113	Geoscientists and oceanographers	2,150	850	\$23.00	\$48.08	\$72.12	Degree
2114	Meteorologists and climatologists	170	50	—	—	—	Degree
2115	Other professional occupations in physical sciences	220	70	—	—	—	Degree
2121	Biologists and related scientists	4,240	1,250	\$22.53	\$40.87	\$53.85	Degree
2122	Forestry professionals	2,060	370	\$30.29	\$38.46	\$50.26	Degree
2123	Agricultural representatives, consultants and specialists	450	170	\$15.20	\$30.93	\$53.63	Degree
2131	Civil engineers	10,230	4,670	\$30.77	\$41.83	\$68.68	Degree
2132	Mechanical engineers	6,890	2,320	\$26.54	\$37.50	\$57.52	Degree
2133	Electrical and electronics engineers	6,950	2,530	\$27.00	\$44.38	\$68.92	Degree
2134	Chemical engineers	1,320	460	\$25.00	\$40.51	\$76.44	Degree
2141	Industrial and manufacturing engineers	1,370	550	\$32.00	\$41.03	\$46.25	Degree
2142	Metallurgical and materials engineers	410	140	\$23.16	\$49.65	\$87.66	Degree
2143	Mining engineers	920	270	\$18.00	\$48.99	\$62.50	Degree
2144	Geological engineers	1,330	500	\$30.30	\$48.10	\$99.61	Degree
2145	Petroleum engineers	240	100	—	—	—	Degree
2146	Aerospace engineers	360	120	\$27.00	\$42.50	\$53.32	Degree
2147	Computer engineers (except software engineers and designers)	3,320	1,770	\$26.44	\$53.85	\$79.33	Degree
2148	Other professional engineers, n.e.c.	1,130	410	\$25.15	\$43.27	\$64.00	Degree
2151	Architects	4,310	1,660	\$25.00	\$36.06	\$60.00	Degree
2152	Landscape architects	470	210	\$15.20	\$32.19	\$63.48	Degree
2153	Urban and land use planners	2,060	690	\$29.23	\$39.56	\$48.08	Degree
2154	Land surveyors	1,420	510	\$28.00	\$31.25	\$64.10	Diploma/Certificate Excluding Apprenticeship
2161	Mathematicians, statisticians and actuaries	980	360	—	—	—	Degree
2171	Information systems analysts and consultants	23,920	13,680	\$22.50	\$37.00	\$60.10	Degree
2172	Database analysts and data administrators	3,020	1,560	\$20.19	\$37.50	\$56.41	Degree
2173	Software engineers and designers	15,590	9,980	\$28.85	\$52.00	\$72.12	Degree
2174	Computer programmers and interactive media developers	21,660	13,490	\$26.44	\$43.27	\$60.10	Degree

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
2175	Web designers and developers	7,760	4,640	\$16.73	\$32.21	\$48.08	Degree
2211	Chemical technologists and technicians	2,690	890	\$15.20	\$21.00	\$33.00	Degree
2212	Geological and mineral technologists and technicians	1,140	400	\$20.90	\$32.97	\$45.79	Diploma/Certificate Excluding Apprenticeship
2221	Biological technologists and technicians	1,610	470	\$16.12	\$21.00	\$30.00	Degree
2222	Agricultural and fish products inspectors	770	280	—	—	—	Degree
2223	Forestry technologists and technicians	2,910	540	\$20.00	\$29.00	\$46.83	Diploma/Certificate Excluding Apprenticeship
2224	Conservation and fishery officers	930	300	\$20.00	\$37.98	\$44.00	Diploma/Certificate Excluding Apprenticeship
2225	Landscape and horticulture technicians and specialists	3,720	1,130	\$15.20	\$22.00	\$39.42	Apprenticeship Certificate
2231	Civil engineering technologists and technicians	3,120	1,200	\$22.00	\$34.00	\$54.00	Diploma/Certificate Excluding Apprenticeship
2232	Mechanical engineering technologists and technicians	2,240	770	\$20.00	\$27.00	\$51.28	Diploma/Certificate Excluding Apprenticeship
2233	Industrial engineering and manufacturing technologists and technicians	1,900	610	\$20.00	\$34.32	\$49.25	Diploma/Certificate Excluding Apprenticeship
2234	Construction estimators	3,200	920	\$15.20	\$28.85	\$48.08	Diploma/Certificate Excluding Apprenticeship
2241	Electrical and electronics engineering technologists and technicians	5,700	2,000	\$23.00	\$31.79	\$51.28	Diploma/Certificate Excluding Apprenticeship
2242	Electronic service technicians (household and business equipment)	8,630	3,600	\$17.00	\$26.00	\$40.87	Diploma/Certificate Excluding Apprenticeship
2243	Industrial instrument technicians and mechanics	1,110	320	\$20.00	\$40.00	\$50.00	Apprenticeship Certificate
2244	Aircraft instrument, electrical and avionics mechanics, technicians and inspectors	780	270	\$25.00	\$37.37	\$55.25	Diploma/Certificate Excluding Apprenticeship
2251	Architectural technologists and technicians	1,660	750	\$20.00	\$30.07	\$41.14	Diploma/Certificate Excluding Apprenticeship
2252	Industrial designers	1,410	590	\$20.37	\$32.33	\$53.13	Degree
2253	Drafting technologists and technicians	4,370	1,690	\$20.88	\$31.00	\$39.00	Diploma/Certificate Excluding Apprenticeship
2254	Land survey technologists and technicians	620	220	\$20.00	\$28.00	\$67.69	Diploma/Certificate Excluding Apprenticeship
2255	Technical occupations in geomatics and meteorology	1,940	730	\$23.00	\$31.90	\$45.00	Degree
2261	Non-destructive testers and inspection technicians	690	290	\$22.00	\$37.75	\$50.94	Diploma/Certificate Excluding Apprenticeship
2262	Engineering inspectors and regulatory officers	700	270	\$22.50	\$42.19	\$67.31	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
2263	Inspectors in public and environmental health and occupational health and safety	4,570	1,700	\$22.43	\$42.05	\$54.07	Degree
2264	Construction inspectors	2,790	1,330	\$20.00	\$30.00	\$45.00	Diploma/Certificate Excluding Apprenticeship
2271	Air pilots, flight engineers and flying instructors	3,670	1,210	—	—	—	Diploma/Certificate Excluding Apprenticeship
2272	Air traffic controllers and related occupations	770	330	\$20.74	\$49.88	\$109.04	Diploma/Certificate Excluding Apprenticeship
2273	Deck officers, water transport	1,620	740	\$19.50	\$37.69	\$50.00	Diploma/Certificate Excluding Apprenticeship
2274	Engineer officers, water transport	600	280	\$25.90	\$43.00	\$45.00	Diploma/Certificate Excluding Apprenticeship
2275	Railway traffic controllers and marine traffic regulators	180	60	—	—	—	Diploma/Certificate Excluding Apprenticeship
2281	Computer network technicians	9,420	4,620	\$20.00	\$28.85	\$50.00	Diploma/Certificate Excluding Apprenticeship
2282	User support technicians	16,260	8,310	\$19.55	\$31.25	\$46.15	Diploma/Certificate Excluding Apprenticeship
2283	Information systems testing technicians	1,570	870	\$22.00	\$32.69	\$48.72	Degree
3011	Nursing co-ordinators and supervisors	3,200	2,040	\$21.33	\$43.25	\$53.00	Degree
3012	Registered nurses and registered psychiatric nurses	59,480	22,080	\$30.00	\$41.00	\$47.00	Degree
3111	Specialist physicians	7,970	3,160	*\$91,441	*\$256,202	*\$517,240	Degree
3112	General practitioners and family physicians	9,020	3,460	*\$66,967	*\$164,237	*\$302,235	Degree
3113	Dentists	3,710	1,540	*\$32,011	*\$104,055	*\$214,663	Degree
3114	Veterinarians	1,440	780	*\$35,894	*\$85,140	*\$141,503	Degree
3121	Optometrists	700	340	*\$32,011	*\$73,717	*\$135,876	Degree
3122	Chiropractors	1,220	530	*\$32,011	*\$53,032	*\$118,501	Degree
3124	Allied primary health practitioners	1,330	720	\$21.00	\$45.00	\$59.81	Degree
3125	Other professional occupations in health diagnosing and treating	550	260	*\$32,011	*\$55,235	*\$105,319	Degree
3131	Pharmacists	5,330	1,550	*\$68,708	*\$98,725	*\$127,387	Degree
3132	Dietitians and nutritionists	2,100	890	\$16.50	\$35.27	\$43.58	Degree
3141	Audiologists and speech-language pathologists	1,410	530	\$28.00	\$41.91	\$48.61	Degree
3142	Physiotherapists	4,430	1,930	\$35.13	\$41.39	\$54.30	Degree
3143	Occupational therapists	2,600	1,050	\$25.00	\$42.00	\$50.00	Degree
3144	Other professional occupations in therapy and assessment	2,310	750	\$19.00	\$25.00	\$38.29	Degree

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
3211	Medical laboratory technologists	3,790	1,600	\$22.00	\$35.00	\$42.50	Diploma/Certificate Excluding Apprenticeship
3212	Medical laboratory technicians and pathologists' assistants	4,720	1,800	\$22.05	\$25.00	\$37.00	Diploma/Certificate Excluding Apprenticeship
3213	Animal health technologists and veterinary technicians	2,230	650	\$15.20	\$18.00	\$31.29	Diploma/Certificate Excluding Apprenticeship
3214	Respiratory therapists, clinical perfusionists and cardiopulmonary technologists	1,730	680	\$28.00	\$36.24	\$39.72	Diploma/Certificate Excluding Apprenticeship
3215	Medical radiation technologists	3,290	1,230	\$29.00	\$38.50	\$43.00	Diploma/Certificate Excluding Apprenticeship
3216	Medical sonographers	910	350	\$35.00	\$36.71	\$38.95	Degree
3217	Cardiology technologists and electrophysiological diagnostic technologists, n.e.c.	590	200	\$21.15	\$31.34	\$36.93	Diploma/Certificate Excluding Apprenticeship
3219	Other medical technologists and technicians (except dental health)	6,270	1,750	\$15.20	\$19.00	\$28.70	Diploma/Certificate Excluding Apprenticeship
3221	Denturists	190	70	—	—	—	Diploma/Certificate Excluding Apprenticeship
3222	Dental hygienists and dental therapists	3,430	1,280	\$28.00	\$44.10	\$49.00	Diploma/Certificate Excluding Apprenticeship
3223	Dental technologists, technicians and laboratory assistants	1,050	430	\$22.00	\$25.00	\$38.46	Diploma/Certificate Excluding Apprenticeship
3231	Opticians	1,210	510	\$16.50	\$20.00	\$30.57	Diploma/Certificate Excluding Apprenticeship
3232	Practitioners of natural healing	2,540	1,150	—	—	—	Diploma/Certificate Excluding Apprenticeship
3233	Licensed practical nurses	11,380	4,740	\$24.24	\$29.48	\$32.02	Diploma/Certificate Excluding Apprenticeship
3234	Paramedical occupations	3,680	1,270	\$18.20	\$27.00	\$36.06	Diploma/Certificate Excluding Apprenticeship
3236	Massage therapists	5,660	2,380	\$15.20	\$30.00	\$50.00	Diploma/Certificate Excluding Apprenticeship
3237	Other technical occupations in therapy and assessment	1,060	390	\$15.85	\$24.00	\$45.00	Diploma/Certificate Excluding Apprenticeship
3411	Dental assistants	5,900	1,990	\$18.00	\$25.50	\$31.50	Diploma/Certificate Excluding Apprenticeship
3413	Nurse aides, orderlies and patient service associates	39,200	18,320	\$18.30	\$22.75	\$25.33	Diploma/Certificate Excluding Apprenticeship
3414	Other assisting occupations in support of health services	6,060	2,220	\$15.20	\$22.25	\$26.00	Diploma/Certificate Excluding Apprenticeship
4011	University professors and lecturers	11,300	3,420	\$21.63	\$43.27	\$69.71	Degree

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
4012	Post-secondary teaching and research assistants	9,450	1,470	\$15.20	\$21.58	\$44.71	Degree
4021	College and other vocational instructors	13,400	5,300	\$21.98	\$42.31	\$69.71	Degree
4031	Secondary school teachers	21,990	7,980	\$27.47	\$38.46	\$51.28	Degree
4032	Elementary school and kindergarten teachers	36,250	12,260	\$24.29	\$36.20	\$51.28	Degree
4033	Educational counsellors	3,490	1,220	\$26.63	\$36.81	\$51.10	Degree
4111	Judges	370	160	*\$282,250	*\$282,250	*\$372,284	Degree
4112	Lawyers and Quebec notaries	13,430	5,180	*\$37,400	*\$115,621	*\$242,117	Degree
4151	Psychologists	2,880	1,010	\$39.49	\$50.00	\$60.00	Degree
4152	Social workers	8,580	3,040	\$23.76	\$37.00	\$45.00	Degree
4153	Family, marriage and other related counsellors	6,400	2,500	\$19.23	\$31.20	\$43.58	Degree
4154	Professional occupations in religion	5,560	1,890	\$15.20	\$23.33	\$37.50	Degree
4155	Probation and parole officers and related occupations	1,200	430	\$32.74	\$40.00	\$45.13	Degree
4156	Employment counsellors	2,660	940	\$21.00	\$24.65	\$31.00	Degree
4161	Natural and applied science policy researchers, consultants and program officers	3,950	1,450	\$20.83	\$36.06	\$57.00	Degree
4162	Economists and economic policy researchers and analysts	1,740	610	\$24.04	\$41.03	\$48.90	Degree
4163	Business development officers and marketing researchers and consultants	11,360	4,340	\$24.04	\$33.33	\$68.10	Degree
4164	Social policy researchers, consultants and program officers	4,670	1,830	\$24.04	\$35.03	\$53.01	Degree
4165	Health policy researchers, consultants and program officers	4,830	1,810	\$18.00	\$34.13	\$52.40	Degree
4166	Education policy researchers, consultants and program officers	3,720	1,240	\$27.20	\$38.46	\$56.00	Degree
4167	Recreation, sports and fitness policy researchers, consultants and program officers	1,860	660	\$23.00	\$26.15	\$45.05	Degree
4168	Program officers unique to government	1,470	470	\$28.00	\$38.97	\$60.10	Degree
4169	Other professional occupations in social science, n.e.c.	1,050	370	\$17.75	\$31.09	\$52.13	Degree
4211	Paralegal and related occupations	3,970	1,380	\$19.59	\$30.22	\$47.00	Diploma/Certificate Excluding Apprenticeship
4212	Social and community service workers	29,210	11,460	\$18.00	\$21.75	\$28.68	Diploma/Certificate Excluding Apprenticeship
4214	Early childhood educators and assistants	23,920	12,420	\$15.20	\$18.94	\$24.00	Diploma/Certificate Excluding Apprenticeship
4215	Instructors of persons with disabilities	1,450	510	\$18.00	\$25.25	\$34.35	Diploma/Certificate Excluding Apprenticeship
4216	Other instructors	7,100	2,230	\$15.20	\$17.31	\$40.00	Degree
4217	Other religious occupations	1,360	440	\$15.20	\$18.00	\$30.00	Degree
4311	Police officers (except commissioned)	11,500	4,120	\$25.48	\$42.00	\$61.06	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
4312	Firefighters	4,520	1,960	\$35.00	\$46.00	\$56.41	Diploma/Certificate Excluding Apprenticeship
4313	Non-commissioned ranks of the Canadian Armed Forces	4,620	1,430	\$23.63	\$34.57	\$45.28	High School
4411	Home child care providers	8,350	2,420	\$15.20	\$15.20	\$23.63	Diploma/Certificate Excluding Apprenticeship
4412	Home support workers, housekeepers and related occupations	16,110	6,880	\$15.20	\$20.00	\$24.00	Diploma/Certificate Excluding Apprenticeship
4413	Elementary and secondary school teacher assistants	18,190	5,500	\$19.89	\$25.32	\$28.56	Diploma/Certificate Excluding Apprenticeship
4421	Sheriffs and bailiffs	620	230	\$15.20	\$31.56	\$41.35	Diploma/Certificate Excluding Apprenticeship
4422	Correctional service officers	3,630	1,430	\$25.00	\$33.33	\$45.64	Diploma/Certificate Excluding Apprenticeship
4423	By-law enforcement and other regulatory officers, n.e.c.	1,390	590	\$24.00	\$32.75	\$45.00	Diploma/Certificate Excluding Apprenticeship
5111	Librarians	950	340	\$15.75	\$39.56	\$49.45	Degree
5112	Conservators and curators	280	110	—	—	—	Degree
5113	Archivists	130	60	—	—	—	Degree
5121	Authors and writers	5,200	2,190	\$18.78	\$30.10	\$38.97	Degree
5122	Editors	2,390	1,140	\$15.20	\$27.88	\$45.00	Degree
5123	Journalists	1,270	470	\$15.20	\$26.23	\$44.03	Degree
5125	Translators, terminologists and interpreters	1,710	670	\$18.00	\$27.28	\$41.84	Degree
5131	Producers, directors, choreographers and related occupations	4,780	2,640	\$18.72	\$32.00	\$58.55	Degree
5132	Conductors, composers and arrangers	630	280	*\$32,011	*\$34,695	*\$104,642	Degree
5133	Musicians and singers	7,310	2,610	—	—	—	Degree
5134	Dancers	2,040	540	\$20.00	\$31.77	\$46.00	Degree
5135	Actors and comedians	3,000	1,250	\$15.20	\$17.00	\$43.30	Degree
5136	Painters, sculptors and other visual artists	5,310	2,050	\$18.09	\$34.93	\$50.00	Degree
5211	Library and public archive technicians	860	350	\$18.00	\$22.50	\$29.85	Degree
5212	Technical occupations related to museums and art galleries	790	290	\$15.20	\$20.13	\$29.74	Degree
5221	Photographers	3,110	1,190	\$15.20	\$18.22	\$31.38	Diploma/Certificate Excluding Apprenticeship
5222	Film and video camera operators	1,030	490	\$18.00	\$34.83	\$54.98	Diploma/Certificate Excluding Apprenticeship
5223	Graphic arts technicians	1,320	500	\$19.00	\$33.00	\$54.78	Diploma/Certificate Excluding Apprenticeship
5224	Broadcast technicians	140	50	—	—	—	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
5225	Audio and video recording technicians	3,080	1,480	\$20.00	\$32.00	\$47.64	Diploma/Certificate Excluding Apprenticeship
5226	Other technical and co-ordinating occupations in motion pictures, broadcasting and the performing arts	3,980	2,130	\$20.50	\$32.00	\$39.33	Diploma/Certificate Excluding Apprenticeship
5227	Support occupations in motion pictures, broadcasting, photography and the performing arts	3,510	1,800	\$15.20	\$25.00	\$36.49	Diploma/Certificate Excluding Apprenticeship
5231	Announcers and other broadcasters	680	220	\$15.20	\$23.27	\$52.77	Diploma/Certificate Excluding Apprenticeship
5232	Other performers, n.e.c.	1,200	510	—	—	—	Diploma/Certificate Excluding Apprenticeship
5241	Graphic designers and illustrators	12,640	6,110	\$19.05	\$28.13	\$50.00	Diploma/Certificate Excluding Apprenticeship
5242	Interior designers and interior decorators	4,500	1,700	\$19.00	\$26.00	\$40.00	Diploma/Certificate Excluding Apprenticeship
5243	Theatre, fashion, exhibit and other creative designers	3,010	910	\$17.50	\$26.44	\$38.46	Diploma/Certificate Excluding Apprenticeship
5244	Artisans and craftspersons	3,450	1,440	\$15.20	\$20.00	\$30.55	Diploma/Certificate Excluding Apprenticeship
5245	Patternmakers — textile, leather and fur products	150	50	—	—	—	Diploma/Certificate Excluding Apprenticeship
5251	Athletes	660	210	—	—	—	High School
5252	Coaches	2,470	960	\$15.20	\$20.19	\$39.42	Degree
5253	Sports officials and referees	970	270	—	—	—	Degree
5254	Program leaders and instructors in recreation, sport and fitness	20,250	6,810	\$15.20	\$20.93	\$32.00	Diploma/Certificate Excluding Apprenticeship
6211	Retail sales supervisors	35,230	14,700	\$15.20	\$21.00	\$32.91	High School
6221	Technical sales specialists — wholesale trade	11,680	5,960	\$15.50	\$27.00	\$40.87	Degree
6222	Retail and wholesale buyers	5,160	2,220	\$15.20	\$22.00	\$40.49	Diploma/Certificate Excluding Apprenticeship
6231	Insurance agents and brokers	12,430	3,530	\$17.09	\$25.64	\$42.82	Diploma/Certificate Excluding Apprenticeship
6232	Real estate agents and salespersons	17,180	4,890	*\$32,011	*\$54,354	*\$139,847	Diploma/Certificate Excluding Apprenticeship
6235	Financial sales representatives	9,660	2,440	\$19.00	\$28.21	\$44.62	Degree
6311	Food service supervisors	6,140	1,900	\$15.20	\$17.00	\$25.00	High School
6312	Executive housekeepers	730	430	\$15.20	\$17.85	\$26.55	High School
6313	Accommodation, travel, tourism and related services supervisors	1,190	630	\$16.00	\$20.89	\$30.00	High School

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
6314	Customer and information services supervisors	1,240	540	\$15.20	\$29.69	\$35.90	Diploma/Certificate Excluding Apprenticeship
6315	Cleaning supervisors	1,430	700	\$18.00	\$26.00	\$42.74	High School
6316	Other services supervisors	2,170	1,030	\$15.20	\$20.00	\$28.08	Diploma/Certificate Excluding Apprenticeship
6321	Chefs	9,910	3,160	\$15.20	\$18.38	\$30.00	Diploma/Certificate Excluding Apprenticeship
6322	Cooks	35,540	12,500	\$15.20	\$16.00	\$21.77	Apprenticeship Certificate
6331	Butchers, meat cutters and fishmongers — retail and wholesale	2,610	880	\$15.20	\$19.00	\$26.65	Apprenticeship Certificate
6332	Bakers	8,530	2,840	\$15.20	\$15.20	\$27.00	Apprenticeship Certificate
6341	Hairstylists and barbers	16,240	5,860	\$15.20	\$17.00	\$30.00	Apprenticeship Certificate
6342	Tailors, dressmakers, furriers and milliners	2,600	990	\$15.20	\$19.50	\$25.00	Diploma/Certificate Excluding Apprenticeship
6343	Shoe repairers and shoemakers	240	100	—	—	—	High School
6344	Jewellers, jewellery and watch repairers and related occupations	920	310	—	—	—	Diploma/Certificate Excluding Apprenticeship
6345	Upholsterers	690	300	\$15.20	\$18.00	\$34.62	High School
6346	Funeral directors and embalmers	580	200	\$15.20	\$20.00	\$24.04	Apprenticeship Certificate
6411	Sales and account representatives — wholesale trade (non-technical)	35,510	12,610	\$16.00	\$27.50	\$43.27	Diploma/Certificate Excluding Apprenticeship
6421	Retail salespersons	87,610	25,870	\$15.20	\$15.20	\$26.75	High School
6511	Maitres d'hôtel and hosts/hostesses	4,860	870	\$15.20	\$16.25	\$23.00	High School
6512	Bartenders	5,340	1,390	\$15.20	\$17.50	\$27.50	High School
6513	Food and beverage servers	34,980	8,890	\$15.20	\$16.00	\$22.00	High School
6521	Travel counsellors	6,850	2,490	\$15.20	\$19.00	\$28.23	Diploma/Certificate Excluding Apprenticeship
6522	Pursers and flight attendants	2,950	1,300	\$15.20	\$31.99	\$50.00	Diploma/Certificate Excluding Apprenticeship
6523	Airline ticket and service agents	2,690	1,110	\$15.20	\$21.00	\$29.96	Diploma/Certificate Excluding Apprenticeship
6524	Ground and water transport ticket agents, cargo service representatives and related clerks	680	240	\$15.20	\$21.00	\$29.00	High School
6525	Hotel front desk clerks	3,560	1,270	\$15.20	\$17.00	\$25.64	Diploma/Certificate Excluding Apprenticeship
6531	Tour and travel guides	1,040	430	\$15.20	\$17.00	\$25.00	Degree
6532	Outdoor sport and recreational guides	1,240	550	\$15.50	\$20.00	\$35.00	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
6533	Casino occupations	3,060	1,680	\$15.20	\$20.00	\$28.00	High School
6541	Security guards and related security service occupations	15,470	5,150	\$15.20	\$18.00	\$30.00	Diploma/Certificate Excluding Apprenticeship
6551	Customer services representatives — financial institutions	10,080	2,280	\$15.50	\$19.82	\$26.00	Diploma/Certificate Excluding Apprenticeship
6552	Other customer and information services representatives	24,780	7,300	\$15.35	\$21.63	\$32.00	Diploma/Certificate Excluding Apprenticeship
6561	Image, social and other personal consultants	530	210	—	—	—	Diploma/Certificate Excluding Apprenticeship
6562	Estheticians, electrologists and related occupations	10,380	3,000	\$15.20	\$17.00	\$30.00	Apprenticeship Certificate
6563	Pet groomers and animal care workers	4,440	1,370	\$15.20	\$15.20	\$18.00	Diploma/Certificate Excluding Apprenticeship
6564	Other personal service occupations	570	250	\$15.20	\$20.00	\$41.71	High School
6611	Cashiers	44,890	11,660	\$15.20	\$15.20	\$18.46	High School
6621	Service station attendants	2,150	540	\$15.20	\$15.20	\$21.00	High School
6622	Store shelf stockers, clerks and order fillers	24,730	6,860	\$15.20	\$15.20	\$21.63	High School
6623	Other sales related occupations	4,550	1,430	\$15.20	\$15.20	\$25.00	Diploma/Certificate Excluding Apprenticeship
6711	Food counter attendants, kitchen helpers and related support occupations	55,710	12,990	\$15.20	\$15.20	\$19.00	High School
6721	Support occupations in accommodation, travel and facilities set-up services	1,130	350	\$15.20	\$17.50	\$25.80	Diploma/Certificate Excluding Apprenticeship
6722	Operators and attendants in amusement, recreation and sport	4,250	1,570	\$15.20	\$15.20	\$27.00	Diploma/Certificate Excluding Apprenticeship
6731	Light duty cleaners	30,750	11,580	\$15.20	\$17.00	\$22.50	High School
6732	Specialized cleaners	6,530	2,060	\$15.20	\$16.00	\$27.86	High School
6733	Janitors, caretakers and building superintendents	31,480	12,600	\$15.20	\$20.56	\$30.00	High School
6741	Dry cleaning, laundry and related occupations	3,230	1,350	\$15.20	\$16.00	\$20.92	High School
6742	Other service support occupations, n.e.c.	3,650	1,080	\$15.20	\$16.25	\$25.00	Diploma/Certificate Excluding Apprenticeship
7201	Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	1,970	950	\$30.00	\$38.00	\$48.00	Apprenticeship Certificate
7202	Contractors and supervisors, electrical trades and telecommunications occupations	3,040	1,280	\$25.00	\$37.80	\$50.54	Apprenticeship Certificate
7203	Contractors and supervisors, pipefitting trades	1,190	400	\$27.00	\$40.00	\$53.30	Apprenticeship Certificate
7204	Contractors and supervisors, carpentry trades	4,190	1,320	\$25.00	\$36.00	\$42.31	Apprenticeship Certificate
7205	Contractors and supervisors, other construction trades, installers, repairers and servicers	8,040	3,190	\$26.44	\$34.62	\$43.71	Apprenticeship Certificate

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
7231	Machinists and machining and tooling inspectors	3,290	1,090	\$21.00	\$32.69	\$41.85	Apprenticeship Certificate
7232	Tool and die makers	380	140	\$16.84	\$28.13	\$40.54	Apprenticeship Certificate
7233	Sheet metal workers	2,920	810	\$19.92	\$29.00	\$40.72	Apprenticeship Certificate
7234	Boilermakers	920	330	\$35.00	\$44.15	\$51.00	Apprenticeship Certificate
7235	Structural metal and platework fabricators and fitters	1,620	500	\$21.00	\$32.00	\$42.00	Apprenticeship Certificate
7236	Ironworkers	1,900	420	\$22.80	\$33.00	\$43.65	Apprenticeship Certificate
7237	Welders and related machine operators	9,730	2,790	\$22.00	\$30.00	\$44.97	Apprenticeship Certificate
7241	Electricians (except industrial and power system)	15,770	3,420	\$18.00	\$28.00	\$40.25	Apprenticeship Certificate
7242	Industrial electricians	4,710	1,350	\$29.50	\$39.50	\$46.00	Apprenticeship Certificate
7243	Power system electricians	930	310	\$33.00	\$42.37	\$46.60	Apprenticeship Certificate
7244	Electrical power line and cable workers	1,840	470	\$32.18	\$45.00	\$52.00	Apprenticeship Certificate
7245	Telecommunications line and cable workers	1,350	400	\$24.85	\$29.00	\$48.08	Diploma/Certificate Excluding Apprenticeship
7246	Telecommunications installation and repair workers	2,870	1,140	\$20.00	\$30.00	\$38.46	Diploma/Certificate Excluding Apprenticeship
7247	Cable television service and maintenance technicians	120	40	\$20.00	\$33.75	\$40.96	Diploma/Certificate Excluding Apprenticeship
7251	Plumbers	10,050	2,490	\$17.00	\$28.00	\$38.00	Apprenticeship Certificate
7252	Steamfitters, pipefitters and sprinkler system installers	3,050	830	\$22.00	\$38.56	\$46.31	Apprenticeship Certificate
7253	Gas fitters	1,340	420	\$28.37	\$34.00	\$43.00	Apprenticeship Certificate
7271	Carpenters	20,220	5,760	\$19.00	\$28.00	\$36.00	Apprenticeship Certificate
7272	Cabinetmakers	2,340	520	\$17.50	\$24.00	\$32.00	Apprenticeship Certificate
7281	Bricklayers	1,940	560	\$23.00	\$33.00	\$44.33	Apprenticeship Certificate
7282	Concrete finishers	1,980	620	\$22.00	\$30.00	\$37.80	High School
7283	Tilesetters	2,210	620	\$17.00	\$25.00	\$37.50	Apprenticeship Certificate
7284	Plasterers, drywall installers and finishers and lathers	5,120	1,240	\$18.34	\$27.00	\$35.00	Apprenticeship Certificate
7291	Roofers and shinglers	3,790	1,050	\$20.00	\$26.00	\$35.00	High School
7292	Glaziers	2,390	740	\$19.50	\$27.00	\$35.00	Apprenticeship Certificate

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
7293	Insulators	1,370	340	\$20.00	\$30.29	\$41.39	Apprenticeship Certificate
7294	Painters and decorators (except interior decorators)	9,950	3,260	\$17.50	\$24.00	\$31.20	High School
7295	Floor covering installers	3,250	910	\$18.00	\$22.00	\$31.50	High School
7301	Contractors and supervisors, mechanic trades	2,960	1,220	\$22.15	\$39.65	\$57.14	Apprenticeship Certificate
7302	Contractors and supervisors, heavy equipment operator crews	6,290	2,970	\$23.81	\$35.00	\$48.08	Apprenticeship Certificate
7303	Supervisors, printing and related occupations	300	100	\$15.20	\$25.93	\$43.76	Diploma/Certificate Excluding Apprenticeship
7304	Supervisors, railway transport operations	320	220	—	—	—	High School
7305	Supervisors, motor transport and other ground transit operators	1,290	590	\$15.38	\$25.38	\$38.46	Diploma/Certificate Excluding Apprenticeship
7311	Construction millwrights and industrial mechanics	9,160	2,900	\$22.75	\$34.00	\$46.15	Apprenticeship Certificate
7312	Heavy-duty equipment mechanics	6,200	1,900	\$24.04	\$38.00	\$48.00	Apprenticeship Certificate
7313	Heating, refrigeration and air conditioning mechanics	3,140	850	\$18.00	\$31.50	\$46.00	Apprenticeship Certificate
7314	Railway carmen/women	430	170	\$32.00	\$34.52	\$40.00	Apprenticeship Certificate
7315	Aircraft mechanics and aircraft inspectors	3,350	1,310	\$17.25	\$33.50	\$45.00	Apprenticeship Certificate
7316	Machine fitters	160	60	—	—	—	Diploma/Certificate Excluding Apprenticeship
7318	Elevator constructors and mechanics	1,030	330	\$28.77	\$49.17	\$69.62	Apprenticeship Certificate
7321	Automotive service technicians, truck and bus mechanics and mechanical repairers	19,940	6,670	\$16.00	\$25.00	\$38.00	Apprenticeship Certificate
7322	Motor vehicle body repairers	4,560	1,420	\$17.00	\$25.48	\$35.00	Apprenticeship Certificate
7331	Oil and solid fuel heating mechanics	100	40	—	—	—	Apprenticeship Certificate
7332	Appliance servicers and repairers	1,180	420	\$16.65	\$24.20	\$35.95	Apprenticeship Certificate
7333	Electrical mechanics	510	180	\$18.24	\$39.66	\$62.18	Apprenticeship Certificate
7334	Motorcycle, all-terrain vehicle and other related mechanics	1,050	400	\$17.00	\$26.00	\$38.00	Apprenticeship Certificate
7335	Other small engine and small equipment repairers	430	160	\$19.00	\$25.00	\$30.00	Diploma/Certificate Excluding Apprenticeship
7361	Railway and yard locomotive engineers	990	400	\$26.44	\$42.50	\$56.25	Diploma/Certificate Excluding Apprenticeship
7362	Railway conductors and brakemen/women	1,140	380	\$30.00	\$38.46	\$49.41	Diploma/Certificate Excluding Apprenticeship
7371	Crane operators	2,390	880	\$20.00	\$31.00	\$45.35	Apprenticeship Certificate

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
7372	Drillers and blasters — surface mining, quarrying and construction	680	220	\$27.00	\$34.16	\$42.00	Apprenticeship Certificate
7373	Water well drillers	50	20	—	—	—	Apprenticeship Certificate
7381	Printing press operators	1,530	490	\$17.00	\$25.17	\$37.94	High School
7384	Other trades and related occupations, n.e.c.	2,660	850	\$18.50	\$30.00	\$44.36	Apprenticeship Certificate
7441	Residential and commercial installers and servicers	8,530	2,090	\$17.00	\$23.00	\$31.90	High School
7442	Waterworks and gas maintenance workers	740	260	\$19.22	\$31.31	\$45.87	Diploma/Certificate Excluding Apprenticeship
7444	Pest controllers and fumigators	610	220	\$15.20	\$23.70	\$35.48	Diploma/Certificate Excluding Apprenticeship
7445	Other repairers and servicers	2,770	850	\$16.00	\$19.00	\$32.00	Diploma/Certificate Excluding Apprenticeship
7451	Longshore workers	4,050	2,120	\$26.00	\$43.00	\$50.00	High School
7452	Material handlers	27,210	7,740	\$15.20	\$19.23	\$33.24	High School
7511	Transport truck drivers	38,370	12,340	\$17.50	\$27.00	\$37.15	High School
7512	Bus drivers, subway operators and other transit operators	10,190	3,970	\$18.00	\$26.40	\$34.50	Diploma/Certificate Excluding Apprenticeship
7513	Taxi and limousine drivers and chauffeurs	8,270	2,480	\$15.20	\$16.25	\$25.17	High School
7514	Delivery and courier service drivers	13,410	4,360	\$15.20	\$16.80	\$27.00	High School
7521	Heavy equipment operators (except crane)	13,820	4,010	\$25.00	\$31.50	\$38.63	Apprenticeship Certificate
7522	Public works maintenance equipment operators and related workers	2,700	950	\$24.00	\$28.00	\$35.00	High School
7531	Railway yard and track maintenance workers	1,200	450	\$24.00	\$32.67	\$37.00	High School
7532	Water transport deck and engine room crew	1,410	530	\$19.46	\$26.00	\$30.22	Diploma/Certificate Excluding Apprenticeship
7533	Boat and cable ferry operators and related occupations	1,100	490	\$18.25	\$26.46	\$35.00	Diploma/Certificate Excluding Apprenticeship
7534	Air transport ramp attendants	2,150	770	\$15.20	\$18.50	\$28.85	High School
7535	Other automotive mechanical installers and servicers	2,610	660	\$15.20	\$17.75	\$28.13	High School
7611	Construction trades helpers and labourers	24,600	6,460	\$15.20	\$20.00	\$30.00	High School
7612	Other trades helpers and labourers	1,300	290	\$15.20	\$22.65	\$34.51	Apprenticeship Certificate
7621	Public works and maintenance labourers	3,010	990	\$15.20	\$29.07	\$38.53	High School
7622	Railway and motor transport labourers	530	170	\$15.51	\$20.00	\$30.15	High School
8211	Supervisors, logging and forestry	1,460	660	\$25.17	\$38.00	\$47.00	Diploma/Certificate Excluding Apprenticeship
8221	Supervisors, mining and quarrying	1,160	630	\$34.00	\$46.00	\$64.00	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
8222	Contractors and supervisors, oil and gas drilling and services	1,050	550	\$30.00	\$43.50	\$56.01	Apprenticeship Certificate
8231	Underground production and development miners	1,420	560	\$28.00	\$37.30	\$43.71	Apprenticeship Certificate
8232	Oil and gas well drillers, servicers, testers and related workers	940	320	\$23.36	\$38.41	\$45.00	High School
8241	Logging machinery operators	2,680	370	\$28.00	\$32.00	\$40.00	High School
8252	Agricultural service contractors, farm supervisors and specialized livestock workers	1,090	470	\$15.20	\$18.00	\$25.00	Diploma/Certificate Excluding Apprenticeship
8255	Contractors and supervisors, landscaping, grounds maintenance and horticulture services	3,710	2,090	\$16.15	\$25.00	\$32.50	High School
8261	Fishing masters and officers	150	60	—	—	—	Apprenticeship Certificate
8262	Fishermen/women	1,100	220	\$20.00	\$30.00	\$95.00	High School
8411	Underground mine service and support workers	250	90	\$30.00	\$35.00	\$37.00	Apprenticeship Certificate
8412	Oil and gas well drilling and related workers and services operators	600	230	\$27.00	\$34.75	\$38.62	Apprenticeship Certificate
8421	Chain saw and skidder operators	2,070	470	\$23.00	\$32.00	\$42.50	High School
8422	Silviculture and forestry workers	1,330	120	\$18.00	\$23.49	\$36.05	Diploma/Certificate Excluding Apprenticeship
8431	General farm workers	6,900	1,450	\$15.20	\$19.00	\$27.75	High School
8432	Nursery and greenhouse workers	2,620	630	\$15.20	\$17.78	\$31.50	High School
8441	Fishing vessel deckhands	240	30	\$18.72	\$30.00	\$50.00	High School
8442	Trappers and hunters	10	0	—	—	—	Less than High School
8611	Harvesting labourers	1,190	320	\$15.20	\$15.20	\$28.00	Less than High School
8612	Landscaping and grounds maintenance labourers	18,630	6,200	\$15.20	\$18.00	\$28.11	High School
8613	Aquaculture and marine harvest labourers	420	140	\$15.20	\$18.55	\$30.00	High School
8614	Mine labourers	710	90	\$18.00	\$27.00	\$38.87	High School
8615	Oil and gas drilling, servicing and related labourers	430	150	\$21.00	\$27.70	\$33.75	High School
8616	Logging and forestry labourers	2,240	190	\$17.19	\$29.43	\$43.75	High School
9211	Supervisors, mineral and metal processing	730	320	\$19.00	\$32.05	\$46.37	Diploma/Certificate Excluding Apprenticeship
9212	Supervisors, petroleum, gas and chemical processing and utilities	1,280	600	\$19.25	\$34.00	\$56.25	Diploma/Certificate Excluding Apprenticeship
9213	Supervisors, food and beverage processing	2,050	890	\$15.75	\$23.65	\$41.03	Diploma/Certificate Excluding Apprenticeship
9214	Supervisors, plastic and rubber products manufacturing	250	130	\$25.00	\$25.00	\$55.77	High School
9215	Supervisors, forest products processing	1,690	880	\$22.15	\$35.00	\$50.96	High School
9217	Supervisors, textile, fabric, fur and leather products processing and manufacturing	120	50	\$16.83	\$18.51	\$30.00	High School

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
9221	Supervisors, motor vehicle assembling	100	50	—	—	—	High School
9222	Supervisors, electronics manufacturing	210	120	—	—	—	Diploma/Certificate Excluding Apprenticeship
9223	Supervisors, electrical products manufacturing	90	50	—	—	—	Diploma/Certificate Excluding Apprenticeship
9224	Supervisors, furniture and fixtures manufacturing	200	80	\$21.00	\$28.00	\$42.27	High School
9226	Supervisors, other mechanical and metal products manufacturing	200	110	\$26.00	\$36.71	\$55.00	Diploma/Certificate Excluding Apprenticeship
9227	Supervisors, other products manufacturing and assembly	350	180	—	—	—	Diploma/Certificate Excluding Apprenticeship
9231	Central control and process operators, mineral and metal processing	500	160	\$35.00	\$40.00	\$42.05	Diploma/Certificate Excluding Apprenticeship
9232	Central control and process operators, petroleum, gas and chemical processing	1,530	600	\$30.77	\$43.00	\$60.00	Diploma/Certificate Excluding Apprenticeship
9235	Pulping, papermaking and coating control operators	650	130	—	—	—	Diploma/Certificate Excluding Apprenticeship
9241	Power engineers and power systems operators	4,450	1,440	\$28.00	\$38.00	\$55.00	Diploma/Certificate Excluding Apprenticeship
9243	Water and waste treatment plant operators	1,700	560	\$26.00	\$34.00	\$34.57	Diploma/Certificate Excluding Apprenticeship
9411	Machine operators, mineral and metal processing	990	290	\$28.00	\$38.06	\$43.19	Apprenticeship Certificate
9412	Foundry workers	270	60	—	—	—	Apprenticeship Certificate
9413	Glass forming and finishing machine operators and glass cutters	510	140	\$15.20	\$18.04	\$23.98	High School
9414	Concrete, clay and stone forming operators	840	200	\$17.50	\$25.00	\$33.00	High School
9415	Inspectors and testers, mineral and metal processing	140	50	—	—	—	Diploma/Certificate Excluding Apprenticeship
9416	Metalworking and forging machine operators	1,220	350	\$18.00	\$25.70	\$34.85	High School
9417	Machining tool operators	330	110	\$17.00	\$22.34	\$32.54	Diploma/Certificate Excluding Apprenticeship
9418	Other metal products machine operators	470	120	\$15.20	\$22.03	\$33.50	High School
9421	Chemical plant machine operators	740	240	\$16.50	\$18.59	\$29.64	High School
9422	Plastics processing machine operators	950	400	\$15.20	\$18.00	\$25.00	High School
9423	Rubber processing machine operators and related workers	500	130	—	—	—	High School
9431	Sawmill machine operators	2,580	710	\$20.00	\$31.16	\$43.59	High School
9432	Pulp mill machine operators	770	210	\$18.00	\$33.45	\$39.70	Apprenticeship Certificate
9433	Papermaking and finishing machine operators	530	180	\$21.92	\$28.00	\$39.00	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
9434	Other wood processing machine operators	1,580	350	\$17.00	\$30.54	\$33.28	High School
9435	Paper converting machine operators	360	90	—	—	—	High School
9436	Lumber graders and other wood processing inspectors and graders	990	230	\$17.00	\$32.00	\$34.58	High School
9437	Woodworking machine operators	870	240	\$15.40	\$22.00	\$32.35	High School
9441	Textile fibre and yarn, hide and pelt processing machine operators and workers	180	40	—	—	—	High School
9442	Weavers, knitters and other fabric making occupations	420	180	—	—	—	High School
9445	Fabric, fur and leather cutters	170	80	—	—	—	High School
9446	Industrial sewing machine operators	1,790	660	\$15.20	\$16.00	\$20.00	High School
9447	Inspectors and graders, textile, fabric, fur and leather products manufacturing	210	90	\$15.20	\$15.20	\$20.00	Diploma/Certificate Excluding Apprenticeship
9461	Process control and machine operators, food and beverage processing	5,200	1,450	\$15.20	\$18.88	\$28.15	High School
9462	Industrial butchers and meat cutters, poultry preparers and related workers	1,770	630	\$15.20	\$20.00	\$23.75	High School
9463	Fish and seafood plant workers	1,390	590	\$15.20	\$17.00	\$21.50	High School
9465	Testers and graders, food and beverage processing	630	220	—	—	—	Degree
9471	Plateless printing equipment operators	760	240	—	—	—	Diploma/Certificate Excluding Apprenticeship
9472	Camera, platemaking and other prepress occupations	360	130	\$15.38	\$21.68	\$34.71	Diploma/Certificate Excluding Apprenticeship
9473	Binding and finishing machine operators	450	140	\$15.20	\$19.42	\$30.84	High School
9474	Photographic and film processors	400	140	—	—	—	Diploma/Certificate Excluding Apprenticeship
9521	Aircraft assemblers and aircraft assembly inspectors	210	90	—	—	—	Apprenticeship Certificate
9522	Motor vehicle assemblers, inspectors and testers	770	310	\$15.20	\$19.00	\$28.68	High School
9523	Electronics assemblers, fabricators, inspectors and testers	1,540	560	\$15.20	\$18.22	\$25.50	Diploma/Certificate Excluding Apprenticeship
9524	Assemblers and inspectors, electrical appliance, apparatus and equipment manufacturing	620	210	\$15.20	\$17.39	\$20.00	Diploma/Certificate Excluding Apprenticeship
9525	Assemblers, fabricators and inspectors, industrial electrical motors and transformers	150	50	\$15.20	\$19.30	\$30.00	Diploma/Certificate Excluding Apprenticeship
9526	Mechanical assemblers and inspectors	740	260	\$17.00	\$29.50	\$36.00	High School
9527	Machine operators and inspectors, electrical apparatus manufacturing	100	30	\$16.00	\$20.06	\$31.16	Diploma/Certificate Excluding Apprenticeship
9531	Boat assemblers and inspectors	560	210	\$15.20	\$24.18	\$42.87	Diploma/Certificate Excluding Apprenticeship
9532	Furniture and fixture assemblers and inspectors	1,120	260	\$16.00	\$20.00	\$26.00	High School
9533	Other wood products assemblers and inspectors	1,340	330	\$16.25	\$22.40	\$32.25	High School

NOC	Occupation Title	Employment 2022	Job Openings 2022-32	Wage Rate Low 2021	Wage Rate Median 2021	Wage Rate High 2021	Typical Education Background
9534	Furniture finishers and refinishers	900	290	\$16.00	\$21.00	\$30.00	High School
9535	Plastic products assemblers, finishers and inspectors	730	220	\$15.20	\$19.30	\$30.44	High School
9536	Industrial painters, coaters and metal finishing process operators	1,480	490	\$17.00	\$26.00	\$43.00	High School
9537	Other products assemblers, finishers and inspectors	2,710	610	\$15.20	\$18.50	\$30.00	High School
9611	Labourers in mineral and metal processing	780	230	\$16.00	\$22.80	\$35.00	High School
9612	Labourers in metal fabrication	1,230	250	\$16.00	\$22.00	\$31.50	High School
9613	Labourers in chemical products processing and utilities	870	250	\$16.00	\$21.38	\$34.29	High School
9614	Labourers in wood, pulp and paper processing	5,350	840	\$17.00	\$29.18	\$33.67	High School
9615	Labourers in rubber and plastic products manufacturing	440	110	\$15.20	\$18.00	\$25.00	High School
9616	Labourers in textile processing	260	100	—	—	—	High School
9617	Labourers in food and beverage processing	9,710	3,120	\$15.20	\$17.00	\$27.16	High School
9618	Labourers in fish and seafood processing	1,150	460	\$15.20	\$16.00	\$20.50	Less than High School
9619	Other labourers in processing, manufacturing and utilities	6,580	1,780	\$15.20	\$17.09	\$28.89	High School

Notes:

Job Openings and Employment

- Job openings and employment are rounded to the nearest 10.

Wage Rate

- The wage rate refers to the Job Bank hourly wage rate (Employment and Social Development Canada, 2021), unless otherwise noted.
- For occupations with a “*”, the annual wage rate is provided because the hourly wage rate is not available. In some cases, no wage data is available and this is denoted by a “—”.

Typical Education Background

- **Degree:** Usually requiring a bachelor’s, graduate or first professional degree
- **Diploma/certificate excluding apprenticeship:** Usually requiring a diploma or certificate, excluding apprenticeship training
- **Apprenticeship certificate:** Usually requiring apprenticeship training
- **High school:** Usually requiring high school and/or occupation-specific training
- **Less than high school:** Usually requiring on-the-job training

APPENDIX 4: Sources of New Supply for 500 Occupations, B.C., 2022-2032

This table provides projections for sources of new supply for each occupation from 2022 to 2032. Note that the Additional Supply Requirement can be considered a supply shortage to be addressed through increased labour force participation and increased automation.

» Net additions to supply = Young people starting work + Immigrants + Migrants from other provinces + Inter-occupational mobility + Additional supply requirements

» Job Openings = Net additions to supply + Decline in unemployment

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Decline in Unemployment	Typical Education Background
0011	Legislators	0	10	20	460	40	530	540	0	Degree
0012	Senior government managers and officials	0	80	50	1,200	120	1,450	1,450	0	Degree
0013	Senior managers — financial, communications and other business services	0	1,130	-30	5,040	560	6,700	6,700	0	Degree
0014	Senior managers — health, education, social and community services and membership organizations	0	260	20	2,200	210	2,690	2,670	-20	Degree
0015	Senior managers — trade, broadcasting and other services, n.e.c.	0	840	-20	2,940	330	4,090	4,070	-20	Degree
0016	Senior managers — construction, transportation, production and utilities	0	700	-10	2,960	320	3,970	3,990	10	Degree
0111	Financial managers	0	840	10	3,770	410	5,050	5,050	10	Degree
0112	Human resources managers	0	490	0	2,280	250	3,010	3,020	10	Degree
0113	Purchasing managers	0	420	-10	1,030	130	1,570	1,580	10	Degree
0114	Other administrative services managers	0	510	10	2,220	240	2,990	2,990	0	Degree
0121	Insurance, real estate and financial brokerage managers	0	830	0	1,900	250	2,970	3,060	90	Degree
0122	Banking, credit and other investment managers	0	620	10	2,610	320	3,570	3,560	-10	Degree
0124	Advertising, marketing and public relations managers	0	1,380	-40	2,780	370	4,500	4,510	10	Degree
0125	Other business services managers	0	350	10	1,920	210	2,500	2,490	-10	Degree
0131	Telecommunication carriers managers	0	180	-10	390	60	630	670	40	Degree
0132	Postal and courier services managers	0	40	0	140	20	200	210	10	Diploma/Certificate Excluding Apprenticeship
0211	Engineering managers	0	320	-10	1,260	140	1,710	1,730	10	Degree
0212	Architecture and science managers	0	170	0	540	60	770	780	10	Degree

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Decline in Unemployment	Typical Education Background
0213	Computer and information systems managers	0	1,430	-70	6,500	720	8,580	8,560	-20	Degree
0311	Managers in health care	0	300	20	2,810	280	3,410	3,420	10	Degree
0411	Government managers — health and social policy development and program administration	0	30	10	280	30	350	350	0	Degree
0412	Government managers — economic analysis, policy development and program administration	0	50	10	530	50	650	650	0	Degree
0413	Government managers — education policy development and program administration	0	0	0	70	10	80	80	0	Degree
0414	Other managers in public administration	0	40	20	510	50	610	620	0	Degree
0421	Administrators — post-secondary education and vocational training	0	290	10	1,190	130	1,620	1,620	0	Degree
0422	School principals and administrators of elementary and secondary education	0	220	20	1,620	160	2,030	2,030	10	Degree
0423	Managers in social, community and correctional services	0	240	20	2,270	220	2,760	2,750	-10	Degree
0431	Commissioned police officers	0	10	0	130	10	140	150	0	Diploma/Certificate Excluding Apprenticeship
0432	Fire chiefs and senior firefighting officers	0	10	10	330	30	390	390	10	Diploma/Certificate Excluding Apprenticeship
0433	Commissioned officers of the Canadian Armed Forces	0	10	30	430	40	510	510	0	Degree
0511	Library, archive, museum and art gallery managers	0	30	0	240	20	300	300	0	Degree
0512	Managers — publishing, motion pictures, broadcasting and performing arts	0	190	0	680	70	940	950	0	Degree
0513	Recreation, sports and fitness program and service directors	0	210	10	1,030	100	1,360	1,320	-40	Degree
0601	Corporate sales managers	0	750	-10	1,210	180	2,130	2,130	0	Degree
0621	Retail and wholesale trade managers	0	5,290	150	14,590	1,810	21,850	21,810	-40	Diploma/Certificate Excluding Apprenticeship
0631	Restaurant and food service managers	0	3,490	100	4,770	720	9,070	8,880	-190	High School
0632	Accommodation service managers	0	840	130	4,340	440	5,750	5,590	-160	Degree
0651	Managers in customer and personal services, n.e.c.	0	530	30	1,530	190	2,280	2,230	-50	Diploma/Certificate Excluding Apprenticeship
0711	Construction managers	0	1,280	50	6,140	670	8,130	8,140	10	Diploma/Certificate Excluding Apprenticeship
0712	Home building and renovation managers	0	900	30	7,960	900	9,790	9,840	40	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Decline in Unemployment	Typical Education Background
0714	Facility operation and maintenance managers	0	750	50	4,190	430	5,420	5,390	-30	Diploma/Certificate Excluding Apprenticeship
0731	Managers in transportation	0	590	0	2,230	250	3,060	3,040	-20	Diploma/Certificate Excluding Apprenticeship
0811	Managers in natural resources production and fishing	0	170	30	880	90	1,160	1,150	-10	Degree
0821	Managers in agriculture	0	680	110	2,430	260	3,480	3,340	-140	Diploma/Certificate Excluding Apprenticeship
0822	Managers in horticulture	0	120	10	140	20	290	280	-10	Diploma/Certificate Excluding Apprenticeship
0823	Managers in aquaculture	0	0	10	130	10	160	150	-10	High School
0911	Manufacturing managers	0	960	10	2,900	340	4,220	4,260	40	Diploma/Certificate Excluding Apprenticeship
0912	Utilities managers	0	110	10	720	70	910	930	20	Degree
1111	Financial auditors and accountants	6,610	5,430	100	-1,450	890	11,580	11,630	50	Degree
1112	Financial and investment analysts	950	690	80	-330	130	1,520	1,530	20	Degree
1113	Securities agents, investment dealers and brokers	540	450	-40	-80	90	960	970	10	Degree
1114	Other financial officers	3,730	2,110	-20	-720	500	5,600	5,650	50	Degree
1121	Human resources professionals	1,940	1,280	300	-450	270	3,350	3,360	10	Degree
1122	Professional occupations in business management consulting	2,480	2,110	630	-730	390	4,880	4,910	30	Degree
1123	Professional occupations in advertising, marketing and public relations	2,960	2,220	210	-430	430	5,390	5,380	0	Degree
1211	Supervisors, general office and administrative support workers	0	160	10	760	80	1,000	1,010	0	Diploma/Certificate Excluding Apprenticeship
1212	Supervisors, finance and insurance office workers	0	270	0	900	100	1,270	1,280	10	Degree
1213	Supervisors, library, correspondence and related information workers	0	10	0	190	20	220	230	10	Degree
1214	Supervisors, mail and message distribution occupations	0	20	0	410	40	470	470	10	Diploma/Certificate Excluding Apprenticeship
1215	Supervisors, supply chain, tracking and scheduling co-ordination occupations	0	580	-30	2,310	260	3,120	3,130	10	Diploma/Certificate Excluding Apprenticeship
1221	Administrative officers	0	2,880	210	14,880	1,590	19,560	19,540	-20	Diploma/Certificate Excluding Apprenticeship
1222	Executive assistants	0	1,440	250	540	200	2,420	2,430	10	Degree
1223	Human resources and recruitment officers	0	930	130	120	110	1,290	1,300	10	Degree

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Decline in Unemployment	Typical Education Background
1224	Property administrators	0	2,450	1,030	110	300	3,890	3,890	-10	Diploma/Certificate Excluding Apprenticeship
1225	Purchasing agents and officers	0	1,540	510	260	200	2,500	2,510	10	Degree
1226	Conference and event planners	0	990	160	120	110	1,390	1,360	-30	Degree
1227	Court officers and justices of the peace	0	80	20	50	10	160	160	0	Diploma/Certificate Excluding Apprenticeship
1228	Employment insurance, immigration, border services and revenue officers	0	920	-160	640	130	1,520	1,560	40	Degree
1241	Administrative assistants	6,160	3,730	1,230	-1,480	820	10,460	10,480	20	Diploma/Certificate Excluding Apprenticeship
1242	Legal administrative assistants	1,510	840	60	-160	170	2,420	2,420	0	Diploma/Certificate Excluding Apprenticeship
1243	Medical administrative assistants	1,030	580	290	-80	160	1,980	1,990	10	Diploma/Certificate Excluding Apprenticeship
1251	Court reporters, medical transcriptionists and related occupations	410	170	240	-90	60	780	780	0	Diploma/Certificate Excluding Apprenticeship
1252	Health information management occupations	170	110	0	30	30	340	350	0	Diploma/Certificate Excluding Apprenticeship
1253	Records management technicians	120	90	20	0	20	250	250	0	Diploma/Certificate Excluding Apprenticeship
1254	Statistical officers and related research support occupations	110	50	10	-10	20	180	190	0	Degree
1311	Accounting technicians and bookkeepers	5,350	3,520	1,690	-1,660	720	9,610	9,540	-70	Diploma/Certificate Excluding Apprenticeship
1312	Insurance adjusters and claims examiners	1,010	380	-90	60	110	1,480	1,600	130	Diploma/Certificate Excluding Apprenticeship
1313	Insurance underwriters	330	170	-50	0	40	480	530	50	Degree
1314	Assessors, valuers and appraisers	360	100	100	-50	40	560	560	0	Degree
1315	Customs, ship and other brokers	150	150	-40	70	30	350	350	0	Diploma/Certificate Excluding Apprenticeship
1411	General office support workers	8,790	4,830	1,320	-1,520	1,160	14,590	14,680	90	Diploma/Certificate Excluding Apprenticeship
1414	Receptionists	5,990	3,290	880	-1,410	780	9,530	9,490	-40	Diploma/Certificate Excluding Apprenticeship
1415	Personnel clerks	440	220	110	-60	60	770	770	0	Degree
1416	Court clerks	100	30	10	10	10	160	160	0	Diploma/Certificate Excluding Apprenticeship
1422	Data entry clerks	970	610	110	-280	120	1,520	1,540	20	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Decline in Unemployment	Typical Education Background
1423	Desktop publishing operators and related occupations	70	50	10	-10	10	120	130	0	Diploma/Certificate Excluding Apprenticeship
1431	Accounting and related clerks	4,500	3,340	460	-930	630	8,000	8,020	20	Diploma/Certificate Excluding Apprenticeship
1432	Payroll administrators	1,140	580	190	-50	160	2,010	2,020	0	Diploma/Certificate Excluding Apprenticeship
1434	Banking, insurance and other financial clerks	650	370	-60	-120	80	910	950	40	Degree
1435	Collectors	280	100	70	-60	40	430	440	10	Diploma/Certificate Excluding Apprenticeship
1451	Library assistants and clerks	340	90	0	-40	40	440	480	40	Degree
1452	Correspondence, publication and regulatory clerks	790	510	80	-100	110	1,390	1,400	10	Degree
1454	Survey interviewers and statistical clerks	370	230	20	-70	50	590	600	10	Diploma/Certificate Excluding Apprenticeship
1511	Mail, postal and related workers	950	380	220	-110	140	1,570	1,620	40	High School
1512	Letter carriers	1,090	360	250	-40	160	1,810	1,860	50	High School
1513	Couriers, messengers and door-to-door distributors	1,020	540	270	-410	130	1,540	1,570	30	High School
1521	Shippers and receivers	2,780	1,680	90	-620	350	4,290	4,310	20	High School
1522	Storekeepers and partspersons	1,190	430	290	-110	150	1,950	1,930	-20	Apprenticeship Certificate
1523	Production logistics co-ordinators	720	590	110	-200	100	1,320	1,330	10	Diploma/Certificate Excluding Apprenticeship
1524	Purchasing and inventory control workers	840	790	40	-340	120	1,440	1,450	10	Diploma/Certificate Excluding Apprenticeship
1525	Dispatchers	1,090	720	180	-190	160	1,960	1,970	20	Diploma/Certificate Excluding Apprenticeship
1526	Transportation route and crew schedulers	150	100	10	-20	20	270	260	0	Diploma/Certificate Excluding Apprenticeship
2111	Physicists and astronomers	90	90	0	-30	10	160	160	0	Degree
2112	Chemists	290	280	-20	-60	40	530	540	10	Degree
2113	Geoscientists and oceanographers	470	380	110	-180	70	850	850	0	Degree
2114	Meteorologists and climatologists	40	30	10	-30	0	50	50	0	Degree
2115	Other professional occupations in physical sciences	50	30	10	-20	10	70	70	0	Degree
2121	Biologists and related scientists	930	490	160	-420	100	1,260	1,250	-10	Degree
2122	Forestry professionals	450	-20	-20	-70	30	380	370	-10	Degree
2123	Agricultural representatives, consultants and specialists	100	50	40	-30	10	170	170	0	Degree
2131	Civil engineers	2,220	2,220	40	-230	370	4,620	4,670	60	Degree

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Dedine in Unemployment	Typical Education Background
2132	Mechanical engineers	1,480	1,280	0	-660	190	2,290	2,320	30	Degree
2133	Electrical and electronics engineers	1,490	1,420	-40	-590	200	2,480	2,530	50	Degree
2134	Chemical engineers	290	280	-30	-120	40	450	460	10	Degree
2141	Industrial and manufacturing engineers	290	370	0	-160	40	540	550	10	Degree
2142	Metallurgical and materials engineers	90	100	0	-60	10	140	140	0	Degree
2143	Mining engineers	200	230	-40	-150	20	270	270	0	Degree
2144	Geological engineers	290	250	20	-110	40	490	500	10	Degree
2145	Petroleum engineers	50	90	30	-80	10	100	100	0	Degree
2146	Aerospace engineers	80	20	0	10	10	120	120	0	Degree
2147	Computer engineers (except software engineers and designers)	740	1,010	-110	-30	150	1,760	1,770	10	Degree
2148	Other professional engineers, n.e.c.	240	290	10	-160	30	410	410	0	Degree
2151	Architects	940	1,080	-30	-500	130	1,620	1,660	30	Degree
2152	Landscape architects	100	110	-10	-10	20	210	210	0	Degree
2153	Urban and land use planners	450	240	70	-150	60	670	690	20	Degree
2154	Land surveyors	320	150	60	-70	40	500	510	0	Diploma/Certificate Excluding Apprenticeship
2161	Mathematicians, statisticians and actuaries	210	190	0	-80	30	350	360	10	Degree
2171	Information systems analysts and consultants	5,500	6,300	530	250	1,140	13,720	13,680	-40	Degree
2172	Database analysts and data administrators	670	810	80	-110	130	1,570	1,560	0	Degree
2173	Software engineers and designers	3,660	6,040	-790	270	830	10,010	9,980	-30	Degree
2174	Computer programmers and interactive media developers	5,170	6,600	60	620	1,120	13,570	13,490	-80	Degree
2175	Web designers and developers	1,880	2,030	460	-60	390	4,680	4,640	-50	Degree
2211	Chemical technologists and technicians	580	460	-30	-200	70	880	890	10	Degree
2212	Geological and mineral technologists and technicians	250	120	50	-50	30	410	400	0	Diploma/Certificate Excluding Apprenticeship
2221	Biological technologists and technicians	340	170	40	-120	40	470	470	0	Degree
2222	Agricultural and fish products inspectors	160	100	10	-20	20	270	280	10	Degree
2223	Forestry technologists and technicians	630	-20	10	-120	50	550	540	-10	Diploma/Certificate Excluding Apprenticeship
2224	Conservation and fishery officers	210	60	50	-40	20	300	300	0	Diploma/Certificate Excluding Apprenticeship
2225	Landscape and horticulture technicians and specialists	800	400	330	-480	100	1,150	1,130	-10	Apprenticeship Certificate

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Dedine in Unemployment	Typical Education Background
2231	Civil engineering technologists and technicians	680	340	220	-150	100	1,190	1,200	10	Diploma/Certificate Excluding Apprenticeship
2232	Mechanical engineering technologists and technicians	480	260	60	-110	60	760	770	0	Diploma/Certificate Excluding Apprenticeship
2233	Industrial engineering and manufacturing technologists and technicians	400	240	20	-100	50	600	610	10	Diploma/Certificate Excluding Apprenticeship
2234	Construction estimators	680	350	90	-270	70	920	920	0	Diploma/Certificate Excluding Apprenticeship
2241	Electrical and electronics engineering technologists and technicians	1,230	760	110	-250	160	1,990	2,000	10	Diploma/Certificate Excluding Apprenticeship
2242	Electronic service technicians (household and business equipment)	1,890	1,180	510	-240	290	3,630	3,600	-30	Diploma/Certificate Excluding Apprenticeship
2243	Industrial instrument technicians and mechanics	260	70	20	-50	20	330	320	0	Apprenticeship Certificate
2244	Aircraft instrument, electrical and avionics mechanics, technicians and inspectors	170	80	10	0	20	280	270	-10	Diploma/Certificate Excluding Apprenticeship
2251	Architectural technologists and technicians	360	490	40	-220	60	740	750	10	Diploma/Certificate Excluding Apprenticeship
2252	Industrial designers	300	350	-20	-90	50	580	590	10	Degree
2253	Drafting technologists and technicians	950	800	60	-270	140	1,680	1,690	20	Diploma/Certificate Excluding Apprenticeship
2254	Land survey technologists and technicians	140	50	40	-30	20	220	220	0	Diploma/Certificate Excluding Apprenticeship
2255	Technical occupations in geomatics and meteorology	430	180	140	-80	60	730	730	0	Degree
2261	Non-destructive testers and inspection technicians	150	70	70	-30	20	290	290	0	Diploma/Certificate Excluding Apprenticeship
2262	Engineering inspectors and regulatory officers	150	90	10	0	20	270	270	0	Diploma/Certificate Excluding Apprenticeship
2263	Inspectors in public and environmental health and occupational health and safety	1,010	460	260	-160	130	1,700	1,700	0	Degree
2264	Construction inspectors	610	400	230	-20	100	1,320	1,330	10	Diploma/Certificate Excluding Apprenticeship
2271	Air pilots, flight engineers and flying instructors	810	350	40	-10	90	1,280	1,210	-70	Diploma/Certificate Excluding Apprenticeship
2272	Air traffic controllers and related occupations	170	120	10	20	20	350	330	-20	Diploma/Certificate Excluding Apprenticeship
2273	Deck officers, water transport	0	350	240	130	60	770	740	-30	Diploma/Certificate Excluding Apprenticeship
2274	Engineer officers, water transport	130	120	30	-10	20	290	280	-10	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Dedine in Unemployment	Typical Education Background
2275	Railway traffic controllers and marine traffic regulators	40	10	0	10	10	60	60	0	Diploma/Certificate Excluding Apprenticeship
2281	Computer network technicians	2,110	1,910	350	-140	390	4,620	4,620	0	Diploma/Certificate Excluding Apprenticeship
2282	User support technicians	3,650	2,930	170	870	700	8,320	8,310	-10	Diploma/Certificate Excluding Apprenticeship
2283	Information systems testing technicians	360	420	0	20	70	870	870	0	Degree
3011	Nursing co-ordinators and supervisors	0	120	20	1,730	170	2,030	2,040	10	Degree
3012	Registered nurses and registered psychiatric nurses	12,780	6,030	2,660	-1,410	1,790	21,840	22,080	240	Degree
3111	Specialist physicians	1,690	1,360	230	-410	260	3,130	3,160	30	Degree
3112	General practitioners and family physicians	1,930	1,300	340	-430	290	3,440	3,460	20	Degree
3113	Dentists	790	600	0	20	130	1,540	1,540	0	Degree
3114	Veterinarians	330	320	110	-20	60	790	780	-10	Degree
3121	Optometrists	150	140	50	-30	30	340	340	0	Degree
3122	Chiropractors	260	160	70	-10	50	530	530	0	Degree
3124	Allied primary health practitioners	310	240	100	30	60	730	720	-10	Degree
3125	Other professional occupations in health diagnosing and treating	120	60	30	30	20	260	260	0	Degree
3131	Pharmacists	1,120	730	130	-610	130	1,510	1,550	40	Degree
3132	Dietitians and nutritionists	450	300	110	-40	70	890	890	0	Degree
3141	Audiologists and speech-language pathologists	300	180	50	-40	40	530	530	0	Degree
3142	Physiotherapists	950	830	200	-220	160	1,920	1,930	10	Degree
3143	Occupational therapists	560	350	110	-70	90	1,040	1,050	10	Degree
3144	Other professional occupations in therapy and assessment	510	180	50	-40	60	750	750	-10	Degree
3211	Medical laboratory technologists	820	410	230	-10	130	1,590	1,600	10	Diploma/Certificate Excluding Apprenticeship
3212	Medical laboratory technicians and pathologists' assistants	1,010	550	130	-60	150	1,780	1,800	20	Diploma/Certificate Excluding Apprenticeship
3213	Animal health technologists and veterinary technicians	480	190	40	-100	50	650	650	-10	Diploma/Certificate Excluding Apprenticeship
3214	Respiratory therapists, clinical perfusionists and cardiopulmonary technologists	370	160	80	20	60	670	680	10	Diploma/Certificate Excluding Apprenticeship
3215	Medical radiation technologists	710	300	150	-40	100	1,220	1,230	10	Diploma/Certificate Excluding Apprenticeship
3216	Medical sonographers	190	100	10	20	30	350	350	0	Degree

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Dedine in Unemployment	Typical Education Background
3217	Cardiology technologists and electrophysiological diagnostic technologists, n.e.c.	120	30	20	0	20	200	200	0	Diploma/Certificate Excluding Apprenticeship
3219	Other medical technologists and technicians (except dental health)	1,320	740	190	-690	150	1,720	1,750	40	Diploma/Certificate Excluding Apprenticeship
3221	Denturists	40	30	10	-20	10	60	70	0	Diploma/Certificate Excluding Apprenticeship
3222	Dental hygienists and dental therapists	740	300	90	40	110	1,280	1,280	0	Diploma/Certificate Excluding Apprenticeship
3223	Dental technologists, technicians and laboratory assistants	220	380	-10	-210	40	420	430	0	Diploma/Certificate Excluding Apprenticeship
3231	Opticians	250	130	60	20	40	500	510	10	Diploma/Certificate Excluding Apprenticeship
3232	Practitioners of natural healing	550	470	80	-40	100	1,150	1,150	0	Diploma/Certificate Excluding Apprenticeship
3233	Licensed practical nurses	2,540	1,320	1,050	-520	370	4,760	4,740	-20	Diploma/Certificate Excluding Apprenticeship
3234	Paramedical occupations	800	270	180	-90	110	1,270	1,270	-10	Diploma/Certificate Excluding Apprenticeship
3236	Massage therapists	1,210	720	340	-90	210	2,390	2,380	-10	Diploma/Certificate Excluding Apprenticeship
3237	Other technical occupations in therapy and assessment	230	190	50	-110	30	390	390	0	Diploma/Certificate Excluding Apprenticeship
3411	Dental assistants	1,260	640	80	-170	180	1,990	1,990	0	Diploma/Certificate Excluding Apprenticeship
3413	Nurse aides, orderlies and patient service associates	8,830	9,080	3,920	-4,710	1,400	18,520	18,320	-200	Diploma/Certificate Excluding Apprenticeship
3414	Other assisting occupations in support of health services	1,320	720	420	-420	180	2,220	2,220	0	Diploma/Certificate Excluding Apprenticeship
4011	University professors and lecturers	2,380	1,750	850	-1,830	260	3,410	3,420	20	Degree
4012	Post-secondary teaching and research assistants	1,970	1,250	410	-2,300	110	1,440	1,470	30	Degree
4021	College and other vocational instructors	2,880	2,050	830	-870	410	5,290	5,300	10	Degree
4031	Secondary school teachers	4,650	2,240	490	-60	600	7,910	7,980	70	Degree
4032	Elementary school and kindergarten teachers	7,680	3,270	630	-340	930	12,160	12,260	100	Degree
4033	Educational counsellors	740	420	180	-230	90	1,210	1,220	10	Degree
4111	Judges	0	10	0	140	10	160	160	0	Degree
4112	Lawyers and Quebec notaries	2,890	1,580	30	310	370	5,190	5,180	0	Degree
4151	Psychologists	610	390	70	-150	80	1,000	1,010	10	Degree
4152	Social workers	1,850	740	460	-260	240	3,040	3,040	0	Degree

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Dedine in Unemployment	Typical Education Background
4153	Family, marriage and other related counsellors	1,380	670	310	-60	190	2,490	2,500	10	Degree
4154	Professional occupations in religion	1,210	830	360	-600	160	1,970	1,890	-80	Degree
4155	Probation and parole officers and related occupations	260	90	10	50	30	430	430	0	Degree
4156	Employment counsellors	570	350	180	-230	80	950	940	-10	Degree
4161	Natural and applied science policy researchers, consultants and program officers	860	380	290	-200	110	1,440	1,450	0	Degree
4162	Economists and economic policy researchers and analysts	360	320	80	-200	50	600	610	0	Degree
4163	Business development officers and marketing researchers and consultants	2,470	2,200	90	-800	350	4,320	4,340	20	Degree
4164	Social policy researchers, consultants and program officers	1,000	730	220	-280	140	1,820	1,830	10	Degree
4165	Health policy researchers, consultants and program officers	1,030	620	270	-260	140	1,810	1,810	10	Degree
4166	Education policy researchers, consultants and program officers	790	400	210	-260	100	1,240	1,240	-10	Degree
4167	Recreation, sports and fitness policy researchers, consultants and program officers	410	160	120	-70	50	670	660	0	Degree
4168	Program officers unique to government	310	100	70	-50	40	470	470	0	Degree
4169	Other professional occupations in social science, n.e.c.	230	120	50	-50	30	370	370	0	Degree
4211	Paralegal and related occupations	850	450	0	-20	100	1,380	1,380	10	Diploma/Certificate Excluding Apprenticeship
4212	Social and community service workers	6,430	3,680	1,940	-1,440	890	11,490	11,460	-30	Diploma/Certificate Excluding Apprenticeship
4214	Early childhood educators and assistants	5,550	5,080	820	-60	990	12,390	12,420	30	Diploma/Certificate Excluding Apprenticeship
4215	Instructors of persons with disabilities	310	160	80	-90	40	500	510	0	Diploma/Certificate Excluding Apprenticeship
4216	Other instructors	1,500	1,070	240	-740	180	2,250	2,230	-10	Degree
4217	Other religious occupations	290	190	40	-100	40	460	440	-20	Degree
4311	Police officers (except commissioned)	2,390	880	-170	530	330	3,970	4,120	150	Diploma/Certificate Excluding Apprenticeship
4312	Firefighters	980	450	150	170	160	1,900	1,960	60	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Decline in Unemployment	Typical Education Background
4313	Non-commissioned ranks of the Canadian Armed Forces	940	140	370	-160	120	1,420	1,430	20	High School
4411	Home child care providers	1,790	4,090	110	-3,730	190	2,460	2,420	-30	Diploma/Certificate Excluding Apprenticeship
4412	Home support workers, housekeepers and related occupations	3,510	4,340	1,260	-2,690	540	6,950	6,880	-70	Diploma/Certificate Excluding Apprenticeship
4413	Elementary and secondary school teacher assistants	3,800	1,710	210	-550	430	5,600	5,500	-90	Diploma/Certificate Excluding Apprenticeship
4421	Sheriffs and bailiffs	130	40	20	10	20	230	230	0	Diploma/Certificate Excluding Apprenticeship
4422	Correctional service officers	770	430	30	80	110	1,420	1,430	10	Diploma/Certificate Excluding Apprenticeship
4423	By-law enforcement and other regulatory officers, n.e.c.	300	200	110	-60	50	590	590	10	Diploma/Certificate Excluding Apprenticeship
5111	Librarians	190	140	10	-60	30	320	340	20	Degree
5112	Conservators and curators	60	70	20	-50	10	110	110	0	Degree
5113	Archivists	30	50	0	-30	0	50	60	0	Degree
5121	Authors and writers	1,150	880	230	-200	170	2,220	2,190	-40	Degree
5122	Editors	0	260	10	770	90	1,130	1,140	10	Degree
5123	Journalists	270	190	80	-110	40	460	470	10	Degree
5125	Translators, terminologists and interpreters	370	540	-20	-270	50	660	670	0	Degree
5131	Producers, directors, choreographers and related occupations	0	470	-40	2,000	190	2,620	2,640	30	Degree
5132	Conductors, composers and arrangers	140	100	10	20	20	290	280	-10	Degree
5133	Musicians and singers	1,570	970	350	-420	210	2,680	2,610	-70	Degree
5134	Dancers	440	140	70	-140	40	560	540	-20	Degree
5135	Actors and comedians	690	620	-130	0	90	1,260	1,250	-20	Degree
5136	Painters, sculptors and other visual artists	1,160	940	210	-380	160	2,090	2,050	-40	Degree
5211	Library and public archive technicians	180	110	20	0	30	330	350	10	Degree
5212	Technical occupations related to museums and art galleries	170	90	60	-40	20	290	290	-10	Degree
5221	Photographers	670	550	50	-170	90	1,200	1,190	-10	Diploma/Certificate Excluding Apprenticeship
5222	Film and video camera operators	240	230	-50	30	30	480	490	10	Diploma/Certificate Excluding Apprenticeship
5223	Graphic arts technicians	290	240	10	-90	40	500	500	10	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Dedine in Unemployment	Typical Education Background
5224	Broadcast technicians	30	10	-10	10	0	50	50	0	Diploma/Certificate Excluding Apprenticeship
5225	Audio and video recording technicians	720	960	-150	-180	100	1,460	1,480	20	Diploma/Certificate Excluding Apprenticeship
5226	Other technical and co-ordinating occupations in motion pictures, broadcasting and the performing arts	940	1,050	-280	240	150	2,100	2,130	30	Diploma/Certificate Excluding Apprenticeship
5227	Support occupations in motion pictures, broadcasting, photography and the performing arts	830	900	-240	160	120	1,770	1,800	30	Diploma/Certificate Excluding Apprenticeship
5231	Announcers and other broadcasters	150	120	0	-80	20	210	220	10	Diploma/Certificate Excluding Apprenticeship
5232	Other performers, n.e.c.	270	220	30	-30	40	520	510	-10	Diploma/Certificate Excluding Apprenticeship
5241	Graphic designers and illustrators	2,820	3,320	-160	-350	470	6,090	6,110	20	Diploma/Certificate Excluding Apprenticeship
5242	Interior designers and interior decorators	970	720	-10	-110	130	1,700	1,700	0	Diploma/Certificate Excluding Apprenticeship
5243	Theatre, fashion, exhibit and other creative designers	650	400	-20	-200	70	900	910	10	Diploma/Certificate Excluding Apprenticeship
5244	Artisans and craftspersons	730	480	370	-240	110	1,460	1,440	-20	Diploma/Certificate Excluding Apprenticeship
5245	Patternmakers — textile, leather and fur products	30	30	0	-20	0	50	50	0	Diploma/Certificate Excluding Apprenticeship
5251	Athletes	150	110	20	-60	20	220	210	-10	High School
5252	Coaches	540	440	170	-230	80	990	960	-30	Degree
5253	Sports officials and referees	220	70	10	-30	20	290	270	-20	Degree
5254	Program leaders and instructors in recreation, sport and fitness	4,550	2,220	770	-1,000	540	7,080	6,810	-260	Diploma/Certificate Excluding Apprenticeship
6211	Retail sales supervisors	0	1,450	110	11,920	1,230	14,710	14,700	-20	High School
6221	Technical sales specialists — wholesale trade	0	790	-40	4,680	500	5,930	5,960	30	Degree
6222	Retail and wholesale buyers	0	580	10	1,450	180	2,220	2,220	0	Diploma/Certificate Excluding Apprenticeship
6231	Insurance agents and brokers	2,650	1,150	-340	-450	250	3,250	3,530	280	Diploma/Certificate Excluding Apprenticeship
6232	Real estate agents and salespersons	3,510	1,190	720	-1,020	390	4,780	4,890	100	Diploma/Certificate Excluding Apprenticeship
6235	Financial sales representatives	1,950	1,130	-70	-810	230	2,440	2,440	0	Degree
6311	Food service supervisors	0	1,260	20	520	160	1,950	1,900	-50	High School
6312	Executive housekeepers	0	180	10	220	30	440	430	-10	High School

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Decline in Unemployment	Typical Education Background
6313	Accommodation, travel, tourism and related services supervisors	0	120	0	490	50	660	630	-30	High School
6314	Customer and information services supervisors	0	80	0	420	50	540	540	10	Diploma/Certificate Excluding Apprenticeship
6315	Cleaning supervisors	0	130	10	500	60	700	700	0	High School
6316	Other services supervisors	0	180	0	780	90	1,050	1,030	-10	Diploma/Certificate Excluding Apprenticeship
6321	Chefs	2,140	3,270	360	-2,770	250	3,250	3,160	-90	Diploma/Certificate Excluding Apprenticeship
6322	Cooks	7,870	7,740	2,190	-5,900	960	12,870	12,500	-370	Apprenticeship Certificate
6331	Butchers, meat cutters and fishmongers — retail and wholesale	560	390	90	-230	70	880	880	0	Apprenticeship Certificate
6332	Bakers	1,850	1,540	250	-1,000	220	2,860	2,840	-30	Apprenticeship Certificate
6341	Hairstylists and barbers	3,590	2,140	1,090	-1,200	490	6,110	5,860	-260	Apprenticeship Certificate
6342	Tailors, dressmakers, furriers and milliners	550	690	50	-370	80	990	990	-10	Diploma/Certificate Excluding Apprenticeship
6343	Shoe repairers and shoemakers	50	40	10	-10	10	100	100	0	High School
6344	Jewellers, jewellery and watch repairers and related occupations	190	110	40	-50	20	320	310	0	Diploma/Certificate Excluding Apprenticeship
6345	Upholsterers	150	90	70	-20	20	300	300	-10	High School
6346	Funeral directors and embalmers	130	30	60	-10	20	210	200	-10	Apprenticeship Certificate
6411	Sales and account representatives — wholesale trade (non-technical)	7,450	3,740	830	-480	1,020	12,560	12,610	50	Diploma/Certificate Excluding Apprenticeship
6421	Retail salespersons	18,750	13,010	2,300	-10,200	2,090	25,940	25,870	-70	High School
6511	Maitres d'hôtel and hosts/hostesses	1,040	230	150	-580	70	920	870	-50	High School
6512	Bartenders	1,160	350	300	-480	110	1,450	1,390	-60	High School
6513	Food and beverage servers	7,570	5,750	1,420	-6,190	710	9,260	8,890	-370	High School
6521	Travel counsellors	1,460	1,110	290	-450	190	2,590	2,490	-100	Diploma/Certificate Excluding Apprenticeship
6522	Pursers and flight attendants	650	510	-120	240	90	1,380	1,300	-80	Diploma/Certificate Excluding Apprenticeship
6523	Airline ticket and service agents	590	530	-50	10	80	1,160	1,110	-50	Diploma/Certificate Excluding Apprenticeship
6524	Ground and water transport ticket agents, cargo service representatives and related clerks	150	90	20	-20	20	260	240	-10	High School
6525	Hotel front desk clerks	800	1,060	220	-850	100	1,330	1,270	-60	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Decline in Unemployment	Typical Education Background
6531	Tour and travel guides	220	250	50	-100	30	450	430	-10	Degree
6532	Outdoor sport and recreational guides	290	150	190	-90	40	570	550	-20	Diploma/Certificate Excluding Apprenticeship
6533	Casino occupations	730	1,060	-80	-50	130	1,780	1,680	-100	High School
6541	Security guards and related security service occupations	3,250	3,020	880	-2,460	450	5,140	5,150	10	Diploma/Certificate Excluding Apprenticeship
6551	Customer services representatives — financial institutions	2,050	960	-40	-910	220	2,290	2,280	-10	Diploma/Certificate Excluding Apprenticeship
6552	Other customer and information services representatives	5,250	2,540	320	-1,520	620	7,200	7,300	90	Diploma/Certificate Excluding Apprenticeship
6561	Image, social and other personal consultants	110	80	30	-20	20	220	210	0	Diploma/Certificate Excluding Apprenticeship
6562	Estheticians, electrologists and related occupations	2,230	1,930	380	-1,680	260	3,130	3,000	-120	Apprenticeship Certificate
6563	Pet groomers and animal care workers	970	450	260	-370	110	1,430	1,370	-60	Diploma/Certificate Excluding Apprenticeship
6564	Other personal service occupations	120	210	10	-110	20	260	250	0	High School
6611	Cashiers	9,630	7,110	1,040	-6,970	950	11,770	11,660	-110	High School
6621	Service station attendants	460	250	20	-240	50	540	540	-10	High School
6622	Store shelf stockers, clerks and order fillers	5,290	3,160	340	-2,490	570	6,870	6,860	-10	High School
6623	Other sales related occupations	980	650	40	-360	120	1,430	1,430	0	Diploma/Certificate Excluding Apprenticeship
6711	Food counter attendants, kitchen helpers and related support occupations	12,100	12,190	1,500	-13,290	1,000	13,490	12,990	-510	High School
6721	Support occupations in accommodation, travel and facilities set-up services	240	170	10	-80	30	360	350	-10	Diploma/Certificate Excluding Apprenticeship
6722	Operators and attendants in amusement, recreation and sport	980	460	220	-130	120	1,650	1,570	-90	Diploma/Certificate Excluding Apprenticeship
6731	Light duty cleaners	6,680	8,050	2,440	-6,410	960	11,720	11,580	-140	High School
6732	Specialized cleaners	1,420	1,070	280	-850	170	2,090	2,060	-30	High School
6733	Janitors, caretakers and building superintendents	6,800	5,390	2,430	-2,960	1,000	12,670	12,600	-70	High School
6741	Dry cleaning, laundry and related occupations	700	900	240	-550	110	1,400	1,350	-40	High School
6742	Other service support occupations, n.e.c.	810	420	40	-230	80	1,120	1,080	-40	Diploma/Certificate Excluding Apprenticeship
7201	Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	0	120	10	760	70	960	950	-10	Apprenticeship Certificate
7202	Contractors and supervisors, electrical trades and telecommunications occupations	0	130	20	1,040	90	1,280	1,280	-10	Apprenticeship Certificate

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Dedine in Unemployment	Typical Education Background
7203	Contractors and supervisors, pipefitting trades	0	50	10	330	30	410	400	0	Apprenticeship Certificate
7204	Contractors and supervisors, carpentry trades	0	250	10	940	120	1,320	1,320	0	Apprenticeship Certificate
7205	Contractors and supervisors, other construction trades, installers, repairers and servicers	0	660	40	2,280	230	3,220	3,190	-30	Apprenticeship Certificate
7231	Machinists and machining and tooling inspectors	690	370	20	-80	80	1,080	1,090	10	Apprenticeship Certificate
7232	Tool and die makers	80	30	20	10	10	140	140	0	Apprenticeship Certificate
7233	Sheet metal workers	620	210	130	-180	60	830	810	-10	Apprenticeship Certificate
7234	Boilermakers	200	50	80	-20	20	340	330	-10	Apprenticeship Certificate
7235	Structural metal and platework fabricators and fitters	330	130	-10	10	40	500	500	0	Apprenticeship Certificate
7236	Ironworkers	400	300	50	-350	30	430	420	-10	Apprenticeship Certificate
7237	Welders and related machine operators	2,120	930	260	-700	220	2,830	2,790	-40	Apprenticeship Certificate
7241	Electricians (except industrial and power system)	3,380	1,240	240	-1,560	200	3,500	3,420	-80	Apprenticeship Certificate
7242	Industrial electricians	1,040	280	200	-260	100	1,360	1,350	-20	Apprenticeship Certificate
7243	Power system electricians	210	20	50	0	20	310	310	0	Apprenticeship Certificate
7244	Electrical power line and cable workers	400	60	20	-40	40	470	470	0	Apprenticeship Certificate
7245	Telecommunications line and cable workers	270	50	30	0	40	390	400	20	Diploma/Certificate Excluding Apprenticeship
7246	Telecommunications installation and repair workers	580	370	90	-30	100	1,110	1,140	30	Diploma/Certificate Excluding Apprenticeship
7247	Cable television service and maintenance technicians	20	0	0	0	0	30	40	0	Diploma/Certificate Excluding Apprenticeship
7251	Plumbers	2,130	830	370	-940	150	2,540	2,490	-40	Apprenticeship Certificate
7252	Steamfitters, pipefitters and sprinkler system installers	660	100	110	-100	60	830	830	-10	Apprenticeship Certificate
7253	Gas fitters	290	140	70	-100	30	430	420	0	Apprenticeship Certificate
7271	Carpenters	4,270	3,020	540	-2,460	460	5,830	5,760	-60	Apprenticeship Certificate
7272	Cabinetmakers	480	280	70	-350	40	520	520	0	Apprenticeship Certificate
7281	Bricklayers	410	310	100	-280	40	570	560	-10	Apprenticeship Certificate
7282	Concrete finishers	420	410	100	-340	40	620	620	-10	High School

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Dedine in Unemployment	Typical Education Background
7283	Tilesetters	460	480	50	-410	40	620	620	-10	Apprenticeship Certificate
7284	Plasterers, drywall installers and finishers and lathers	1,080	780	130	-800	80	1,270	1,240	-30	Apprenticeship Certificate
7291	Roofers and shinglers	800	380	120	-320	80	1,070	1,050	-10	High School
7292	Glaziers	500	320	90	-220	50	740	740	0	Apprenticeship Certificate
7293	Insulators	290	120	10	-100	20	350	340	-10	Apprenticeship Certificate
7294	Painters and decorators (except interior decorators)	2,100	1,840	440	-1,280	210	3,300	3,260	-40	High School
7295	Floor covering installers	680	330	180	-320	60	920	910	-20	High School
7301	Contractors and supervisors, mechanic trades	0	130	20	990	90	1,240	1,220	-20	Apprenticeship Certificate
7302	Contractors and supervisors, heavy equipment operator crews	0	320	40	2,390	240	2,990	2,970	-10	Apprenticeship Certificate
7303	Supervisors, printing and related occupations	0	30	0	70	10	100	100	0	Diploma/Certificate Excluding Apprenticeship
7304	Supervisors, railway transport operations	0	10	0	190	20	220	220	0	High School
7305	Supervisors, motor transport and other ground transit operators	0	50	0	480	50	590	590	0	Diploma/Certificate Excluding Apprenticeship
7311	Construction millwrights and industrial mechanics	2,020	650	470	-450	230	2,930	2,900	-30	Apprenticeship Certificate
7312	Heavy-duty equipment mechanics	1,390	270	410	-280	150	1,940	1,900	-40	Apprenticeship Certificate
7313	Heating, refrigeration and air conditioning mechanics	670	150	140	-160	60	860	850	-10	Apprenticeship Certificate
7314	Railway carmen/women	100	30	50	-10	10	170	170	0	Apprenticeship Certificate
7315	Aircraft mechanics and aircraft inspectors	740	400	-20	130	100	1,350	1,310	-40	Apprenticeship Certificate
7316	Machine fitters	30	40	10	-30	0	60	60	0	Diploma/Certificate Excluding Apprenticeship
7318	Elevator constructors and mechanics	220	140	10	-50	20	340	330	0	Apprenticeship Certificate
7321	Automotive service technicians, truck and bus mechanics and mechanical repairers	4,340	2,430	450	-1,000	530	6,760	6,670	-80	Apprenticeship Certificate
7322	Motor vehicle body repairers	970	440	70	-150	120	1,440	1,420	-20	Apprenticeship Certificate
7331	Oil and solid fuel heating mechanics	20	0	10	0	0	40	40	0	Apprenticeship Certificate
7332	Appliance servicers and repairers	250	200	70	-110	30	430	420	-10	Apprenticeship Certificate
7333	Electrical mechanics	110	40	0	20	10	180	180	0	Apprenticeship Certificate

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Dedine in Unemployment	Typical Education Background
7334	Motorcycle, all-terrain vehicle and other related mechanics	230	100	80	-20	30	410	400	-10	Apprenticeship Certificate
7335	Other small engine and small equipment repairers	90	40	60	-40	10	170	160	0	Diploma/Certificate Excluding Apprenticeship
7361	Railway and yard locomotive engineers	0	120	260	-10	30	400	400	0	Diploma/Certificate Excluding Apprenticeship
7362	Railway conductors and brakemen/women	0	140	250	-40	30	390	380	0	Diploma/Certificate Excluding Apprenticeship
7371	Crane operators	530	220	150	-70	60	890	880	-10	Apprenticeship Certificate
7372	Drillers and blasters — surface mining, quarrying and construction	150	70	60	-70	20	220	220	0	Apprenticeship Certificate
7373	Water well drillers	10	0	10	0	0	20	20	0	Apprenticeship Certificate
7381	Printing press operators	310	180	0	-50	40	480	490	10	High School
7384	Other trades and related occupations, n.e.c.	570	200	140	-130	70	860	850	-10	Apprenticeship Certificate
7441	Residential and commercial installers and servicers	1,800	890	220	-940	150	2,120	2,090	-30	High School
7442	Waterworks and gas maintenance workers	170	100	30	-50	20	260	260	0	Diploma/Certificate Excluding Apprenticeship
7444	Pest controllers and fumigators	130	70	60	-60	20	220	220	0	Diploma/Certificate Excluding Apprenticeship
7445	Other repairers and servicers	600	340	60	-220	70	860	850	-10	Diploma/Certificate Excluding Apprenticeship
7451	Longshore workers	940	760	-220	490	170	2,140	2,120	-20	High School
7452	Material handlers	5,730	3,960	80	-2,720	640	7,700	7,740	40	High School
7511	Transport truck drivers	8,140	4,570	2,480	-3,780	1,010	12,420	12,340	-80	High School
7512	Bus drivers, subway operators and other transit operators	2,140	1,000	580	-10	290	4,000	3,970	-30	Diploma/Certificate Excluding Apprenticeship
7513	Taxi and limousine drivers and chauffeurs	1,740	930	400	-750	180	2,500	2,480	-20	High School
7514	Delivery and courier service drivers	2,830	1,590	340	-780	360	4,330	4,360	30	High School
7521	Heavy equipment operators (except crane)	3,050	280	940	-490	300	4,090	4,010	-80	Apprenticeship Certificate
7522	Public works maintenance equipment operators and related workers	590	180	300	-200	80	950	950	0	High School
7531	Railway yard and track maintenance workers	0	220	300	-100	40	450	450	0	High School
7532	Water transport deck and engine room crew	310	70	50	80	40	560	530	-30	Diploma/Certificate Excluding Apprenticeship
7533	Boat and cable ferry operators and related occupations	250	100	80	50	40	510	490	-20	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Decline in Unemployment	Typical Education Background
7534	Air transport ramp attendants	470	370	-80	-10	60	810	770	-40	High School
7535	Other automotive mechanical installers and servicers	580	230	0	-190	50	670	660	-20	High School
7611	Construction trades helpers and labourers	5,210	4,120	280	-3,640	530	6,500	6,460	-40	High School
7612	Other trades helpers and labourers	280	120	0	-120	20	300	290	0	Apprenticeship Certificate
7621	Public works and maintenance labourers	660	250	140	-170	80	970	990	20	High School
7622	Railway and motor transport labourers	110	50	10	-10	10	170	170	0	High School
8211	Supervisors, logging and forestry	0	40	20	550	50	660	660	0	Diploma/Certificate Excluding Apprenticeship
8221	Supervisors, mining and quarrying	0	10	30	550	50	640	630	-10	Diploma/Certificate Excluding Apprenticeship
8222	Contractors and supervisors, oil and gas drilling and services	0	40	20	470	40	570	550	-20	Apprenticeship Certificate
8231	Underground production and development miners	330	60	270	-130	40	580	560	-10	Apprenticeship Certificate
8232	Oil and gas well drillers, servicers, testers and related workers	220	80	120	-110	20	340	320	-20	High School
8241	Logging machinery operators	550	-60	-120	-30	30	380	370	-10	High School
8252	Agricultural service contractors, farm supervisors and specialized livestock workers	0	130	0	310	40	480	470	-10	Diploma/Certificate Excluding Apprenticeship
8255	Contractors and supervisors, landscaping, grounds maintenance and horticulture services	0	340	50	1,510	180	2,090	2,090	0	High School
8261	Fishing masters and officers	0	0	0	50	0	60	60	0	Apprenticeship Certificate
8262	Fishermen/women	0	150	120	-40	10	240	220	-10	High School
8411	Underground mine service and support workers	60	30	50	-50	10	90	90	0	Apprenticeship Certificate
8412	Oil and gas well drilling and related workers and services operators	150	20	80	-30	20	240	230	-10	Apprenticeship Certificate
8421	Chain saw and skidder operators	410	20	100	-100	40	470	470	0	High School
8422	Silviculture and forestry workers	280	20	-110	-80	10	120	120	0	Diploma/Certificate Excluding Apprenticeship
8431	General farm workers	1,450	2,740	-140	-2,630	120	1,530	1,450	-80	High School
8432	Nursery and greenhouse workers	530	1,180	-10	-1,100	50	640	630	-10	High School
8441	Fishing vessel deckhands	50	0	10	-20	0	30	30	0	High School
8442	Trappers and hunters	0	0	0	0	0	0	0	0	Less than High School

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Decline in Unemployment	Typical Education Background
8611	Harvesting labourers	240	1,960	-40	-1,870	20	320	320	0	Less than High School
8612	Landscaping and grounds maintenance labourers	4,030	1,560	2,000	-1,860	550	6,270	6,200	-70	High School
8613	Aquaculture and marine harvest labourers	90	20	60	-20	10	150	140	-10	High School
8614	Mine labourers	150	0	-70	10	10	100	90	-10	High School
8615	Oil and gas drilling, servicing and related labourers	110	40	50	-60	10	150	150	-10	High School
8616	Logging and forestry labourers	450	-70	-150	-60	20	200	190	0	High School
9211	Supervisors, mineral and metal processing	0	30	0	260	20	320	320	0	Diploma/Certificate Excluding Apprenticeship
9212	Supervisors, petroleum, gas and chemical processing and utilities	0	70	10	460	50	590	600	0	Diploma/Certificate Excluding Apprenticeship
9213	Supervisors, food and beverage processing	0	110	0	710	70	890	890	0	Diploma/Certificate Excluding Apprenticeship
9214	Supervisors, plastic and rubber products manufacturing	0	30	0	90	10	130	130	0	High School
9215	Supervisors, forest products processing	0	60	10	730	70	870	880	0	High School
9217	Supervisors, textile, fabric, fur and leather products processing and manufacturing	0	0	0	40	0	50	50	0	High School
9221	Supervisors, motor vehicle assembling	0	0	0	50	0	50	50	0	High School
9222	Supervisors, electronics manufacturing	0	30	0	90	10	120	120	0	Diploma/Certificate Excluding Apprenticeship
9223	Supervisors, electrical products manufacturing	0	0	0	40	0	50	50	0	Diploma/Certificate Excluding Apprenticeship
9224	Supervisors, furniture and fixtures manufacturing	0	20	0	50	10	80	80	0	High School
9226	Supervisors, other mechanical and metal products manufacturing	0	30	0	80	10	110	110	0	Diploma/Certificate Excluding Apprenticeship
9227	Supervisors, other products manufacturing and assembly	0	40	0	120	10	170	180	0	Diploma/Certificate Excluding Apprenticeship
9231	Central control and process operators, mineral and metal processing	0	60	130	-40	10	160	160	0	Diploma/Certificate Excluding Apprenticeship
9232	Central control and process operators, petroleum, gas and chemical processing	190	240	310	-160	40	630	600	-30	Diploma/Certificate Excluding Apprenticeship
9235	Pulping, papermaking and coating control operators	0	30	50	30	10	120	130	0	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Dedine in Unemployment	Typical Education Background
9241	Power engineers and power systems operators	490	460	420	-50	110	1,440	1,440	0	Diploma/Certificate Excluding Apprenticeship
9243	Water and waste treatment plant operators	190	150	260	-90	50	550	560	0	Diploma/Certificate Excluding Apprenticeship
9411	Machine operators, mineral and metal processing	0	170	210	-100	20	300	290	0	Apprenticeship Certificate
9412	Foundry workers	60	10	30	-30	10	60	60	0	Apprenticeship Certificate
9413	Glass forming and finishing machine operators and glass cutters	50	260	-20	-170	10	130	140	0	High School
9414	Concrete, clay and stone forming operators	90	200	0	-100	20	200	200	0	High School
9415	Inspectors and testers, mineral and metal processing	0	70	0	-30	0	50	50	0	Diploma/Certificate Excluding Apprenticeship
9416	Metalworking and forging machine operators	130	220	50	-70	30	350	350	0	High School
9417	Machining tool operators	0	90	-20	40	10	110	110	0	Diploma/Certificate Excluding Apprenticeship
9418	Other metal products machine operators	50	60	10	0	10	120	120	0	High School
9421	Chemical plant machine operators	80	240	20	-120	20	240	240	0	High School
9422	Plastics processing machine operators	100	320	-20	-40	30	390	400	10	High School
9423	Rubber processing machine operators and related workers	50	70	40	-50	10	130	130	0	High School
9431	Sawmill machine operators	260	260	280	-160	60	710	710	0	High School
9432	Pulp mill machine operators	0	20	120	50	20	210	210	10	Apprenticeship Certificate
9433	Papermaking and finishing machine operators	0	80	70	20	20	180	180	0	Diploma/Certificate Excluding Apprenticeship
9434	Other wood processing machine operators	160	220	90	-150	30	350	350	0	High School
9435	Paper converting machine operators	30	60	-20	0	10	80	90	0	High School
9436	Lumber graders and other wood processing inspectors and graders	200	70	20	-80	20	230	230	0	High School
9437	Woodworking machine operators	180	120	10	-90	20	240	240	0	High School
9441	Textile fibre and yarn, hide and pelt processing machine operators and workers	40	0	0	0	0	40	40	0	High School
9442	Weavers, knitters and other fabric making occupations	90	70	20	-20	10	180	180	0	High School
9445	Fabric, fur and leather cutters	40	40	0	-10	10	80	80	0	High School
9446	Industrial sewing machine operators	360	330	-40	-50	50	650	660	10	High School
9447	Inspectors and graders, textile, fabric, fur and leather products manufacturing	40	60	-10	-10	10	90	90	0	Diploma/Certificate Excluding Apprenticeship

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Decline in Unemployment	Typical Education Background
9461	Process control and machine operators, food and beverage processing	1,090	800	100	-650	110	1,460	1,450	0	High School
9462	Industrial butchers and meat cutters, poultry preparers and related workers	370	510	-30	-270	50	630	630	0	High School
9463	Fish and seafood plant workers	300	330	50	-120	40	600	590	0	High School
9465	Testers and graders, food and beverage processing	130	140	30	-110	20	220	220	0	Degree
9471	Plateless printing equipment operators	150	150	10	-90	20	240	240	10	Diploma/Certificate Excluding Apprenticeship
9472	Camera, platemaking and other prepress occupations	70	50	-10	0	10	130	130	0	Diploma/Certificate Excluding Apprenticeship
9473	Binding and finishing machine operators	90	30	0	20	10	140	140	0	High School
9474	Photographic and film processors	90	50	10	-10	10	140	140	0	Diploma/Certificate Excluding Apprenticeship
9521	Aircraft assemblers and aircraft assembly inspectors	40	50	-10	0	10	90	90	0	Apprenticeship Certificate
9522	Motor vehicle assemblers, inspectors and testers	160	120	20	-30	20	300	310	10	High School
9523	Electronics assemblers, fabricators, inspectors and testers	320	470	-50	-230	50	550	560	10	Diploma/Certificate Excluding Apprenticeship
9524	Assemblers and inspectors, electrical appliance, apparatus and equipment manufacturing	130	170	-10	-90	20	200	210	0	Diploma/Certificate Excluding Apprenticeship
9525	Assemblers, fabricators and inspectors, industrial electrical motors and transformers	30	10	10	0	0	50	50	0	Diploma/Certificate Excluding Apprenticeship
9526	Mechanical assemblers and inspectors	150	120	30	-70	20	250	260	10	High School
9527	Machine operators and inspectors, electrical apparatus manufacturing	20	30	0	-20	0	30	30	0	Diploma/Certificate Excluding Apprenticeship
9531	Boat assemblers and inspectors	120	60	30	-20	10	210	210	0	Diploma/Certificate Excluding Apprenticeship
9532	Furniture and fixture assemblers and inspectors	230	250	10	-250	20	260	260	10	High School
9533	Other wood products assemblers and inspectors	260	210	20	-200	30	320	330	0	High School
9534	Furniture finishers and refinishers	190	280	30	-240	20	290	290	0	High School
9535	Plastic products assemblers, finishers and inspectors	150	130	-10	-80	20	220	220	0	High School
9536	Industrial painters, coaters and metal finishing process operators	310	230	20	-110	40	490	490	0	High School

NOC	Occupation Title	Young People Starting Work	Immigrants	Migrants from Other Provinces	Inter-occupational Mobility	Additional Supply Requirement	Net Additions to Supply	Job Openings	Dedine in Unemployment	Typical Education Background
9537	Other products assemblers, finishers and inspectors	560	580	10	-590	50	600	610	10	High School
9611	Labourers in mineral and metal processing	170	150	20	-130	20	230	230	0	High School
9612	Labourers in metal fabrication	260	100	0	-130	20	250	250	0	High School
9613	Labourers in chemical products processing and utilities	180	190	10	-150	20	250	250	0	High School
9614	Labourers in wood, pulp and paper processing	1,070	240	-260	-310	80	830	840	10	High School
9615	Labourers in rubber and plastic products manufacturing	90	60	0	-60	10	110	110	0	High School
9616	Labourers in textile processing	50	70	0	-40	10	90	100	0	High School
9617	Labourers in food and beverage processing	2,000	3,160	-200	-2,120	250	3,090	3,120	30	High School
9618	Labourers in fish and seafood processing	250	300	60	-180	30	460	460	0	Less than High School
9619	Other labourers in processing, manufacturing and utilities	1,360	1,470	50	-1,270	150	1,770	1,780	20	High School

Notes:**Sources of New Supply Indicators**

- Values of indicators for the sources of new supply are rounded to the nearest 10.

Wage Rate

- The wage rate refers to the Job Bank hourly wage rate (Employment and Social Development Canada, 2021), unless otherwise noted.
- For occupations with a “*”, the annual wage rate is provided because the hourly wage rate is not available. In some cases, no wage data is available and this is denoted by a “–”.

Typical Education Background

- **Degree:** Usually requiring a bachelor's, graduate or first professional degree
- **Diploma/certificate excluding apprenticeship:** Usually requiring a diploma or certificate, excluding apprenticeship training
- **Apprenticeship certificate:** Usually requiring apprenticeship training
- **High school:** Usually requiring high school and/or occupation-specific training
- **Less than high school:** Usually requiring on-the-job training

APPENDIX 5: Estimating and Forecasting Environmental Workers

Since 2018 a number of approaches to estimate clean jobs in B.C. have been investigated, including Statistics Canada's Environmental and Clean Technology Products Economic Account (ECTPEA) and Environmental Careers Organization of Canada (ECO Canada) EnviroShares.

Statistics Canada's Environmental and Clean Technology Products Economic Account (ECTPEA)

The Statistics Canada approach defines environmental and clean technology products as any process, product or service that reduces environmental impacts through any of the following three strategies:

- » Environmental protection activities that prevent, reduce or eliminate pollution or any other degradation of the environment
- » Resource management activities that result in the more efficient use of natural resources, thus safeguarding against their depletion
- » The use of goods that have been adapted to be significantly less energy or resource intensive than the industry standard

The estimates of employment from ECTPEA are based on the GDP share of Environmental and clean technology products.

According to ECTPEA, 1.6 per cent of jobs in B.C. in 2020 (37,282) can be attributed to the Environmental and clean technology products sector, compared to 1.8 per cent in Canada.

Environmental Careers Organization of Canada (ECO Canada) EnviroShares

ECO Canada uses a method based on a search of online job postings that refer to environmental interests to estimate the number of clean job openings.

According to its definition, an environmental job involves:

“The performance of activities that seek to manage sustainable use of resources, assess or minimize environmental impacts, and maintain or restore

ecological integrity of the environment. These activities relate to planning, implementing and/or managing environmental initiatives, programs, products or services, and/or developing and disseminating environmental knowledge and awareness.”

ECO Canada developed a list of key words to identify environmental occupations in job postings. Applying these keywords, ECO Canada estimated the share of environmental jobs, or EnviroShares, by province, occupation and industry. The EnviroShares were then applied to estimated and forecasted employment data from Employment and Social Development Canada's Canadian Occupational Projection System (COPS) to derive the number of environmental jobs.

ECO Canada groups the occupations (or workers) into two categories, core environmental workers and non-core environmental workers. Core environmental workers are workers who require specialized environmental competencies, regardless of the industry employer (e.g., Biological technologists and technicians). Non-core workers include the core workers as well as those employed by environmental goods and services firms who do not require environmental-specific competencies (e.g., Information systems analysts).

2022 BC Labour Market Outlook forecast of core environmental workers

The ECO Canada approach was adopted for the BC Labour Market Outlook. While the use of EnviroShares based on job postings to estimate future employment makes broad assumptions about a relationship between job postings and future employment data, it is a straightforward method to apply. The Labour Market Outlook forecast looks at core environmental workers only.

The 2022 Labour Market Outlook applied the 2021 EnviroShares for B.C. to the BC Labour Market Outlook forecast of employment by occupation and industry to generate a forecast of core environmental jobs in British Columbia.

APPENDIX 6: Care Economy Occupations

Education

0421 – Administrators - post-secondary education and vocational training
0422 – School principals and administrators of elementary and secondary education
4011 – University professors and lecturers
4012 – Post-secondary teaching and research assistants
4021 – College and other vocational instructors
4031 – Secondary school teachers
4032 – Elementary school and kindergarten teachers
4033 – Educational counsellors
4214 – Early childhood educators and assistants
4215 – Instructors of persons with disabilities
4216 – Other instructors
4413 – Elementary and secondary school teacher assistants

Social services

0423 – Managers in social, community services
4151 – Psychologists
4152 – Social workers
4153 – Family, marriage and other related counsellors
4154 – Professional occupations in religion
4156 – Employment counsellors
4212 – Social and community service workers
4217 – Other religious occupations
4411 – Home childcare providers
4412 – Home support workers, housekeepers and related occupations

Health care

0311 – Managers in health care
3011 – Nursing co-ordinators and supervisors
3012 – Registered nurses and registered psychiatric nurses
3111 – Specialist physicians
3112 – General practitioners and family physicians
3113 – Dentists
3121 – Optometrists
3122 – Chiropractors
3124 – Allied primary health practitioners
3125 – Other professional occupations in health diagnosing and treating
3131 – Pharmacists
3132 – Dietitians and nutritionists
3141 – Audiologists and speech-language pathologists
3142 – Physiotherapists
3143 – Occupational therapists
3144 – Other professional occupations in therapy and assessment
3211 – Medical laboratory technologists
3212 – Medical laboratory technicians and pathologists' assistants
3214 – Respiratory therapists, clinical perfusionists and cardiopulmonary technologists
3215 – Medical radiation technologists
3216 – Medical sonographers
3217 – Cardiology technologists and electrophysiological diagnostic technologists, n.e.c.
3219 – Other medical technologists and technicians (except dental health)
3221 – Denturists
3222 – Dental hygienists and dental therapists
3223 – Dental technologists, technicians and laboratory assistants
3231 – Opticians
3232 – Practitioners of natural healing
3233 – Licensed practical nurses
3234 – Paramedical occupations
3236 – Massage therapists
3237 – Other technical occupations in therapy and assessment
3411 – Dental assistants
3413 – Nurse aides, orderlies and patient service associates
3414 – Other assisting occupations in support of health services



