

# BC LABOUR MARKET GUIDE

by Christian Saint Cyr - Published by Labour Market Solutions



## 2019 EDITION

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## Introduction



# Using labour market information to make effective career decisions

Employment in British Columbia has never been better. We are benefiting from a skills shortage, that has existed for years, but now a labour shortage as well. The unemployment rate for working age adults in British Columbia was 4.3% in May 2019, down 0.3 percentage points from April and down 0.5% from 12 months ago.

This shortage is due to a strong economy but also because of a worker imbalance. As *Baby-Boomers* continue to retire, we simply don't have the workers necessary to replace them. This is prompting many employers to invest in technology which is replacing a great number of entry-level jobs. This is expected to increase to the point where workers with low levels of education and training will increasingly struggle to find work.

In the coming decade, more than 40% of new jobs will be created for graduates with a diploma, certificate, or apprenticeship training. The second largest area of education is those who complete a university program at 36%. Jobs for high school graduates will only amount to one in five jobs, and this area is eroding the fastest of all occupation groups. Just 3% of jobs are available to workers who haven't completed high school or post – secondary instruction.

If we are looking at the jobs, the ones with the best outlook will be higher skilled but also jobs that are more people-oriented rather than technology-oriented. Increasingly, attributes that make for successful workers will be those rooted in '*human ability*' and not '*technological ability*'. Workers will be called on to make workplace decisions based on expedience and interpreting situations based on personalities and prevailing attitudes. Individuals will need to evaluate the best course of action based on multiple abstract factors. These are activities which can't be done well by technology.

The skills which will be integral to future occupations will be abilities such as writing, teaching, composition, communication, motivating, supervision, interpretation, delegation, making meaning, strategizing and creating a fun environment. Technical skills will also be essential, but it will be the workers who to augment technical abilities with these skills who will be most successful.

The British Columbia Labour Market Guide brings together critical information and valuable resources to help professionals and individuals in career transition make the most beneficial career decisions possible. Career decisions need to be made with a comprehensive understanding of the occupation, the sector, the future of BC's labour market and an individual's strengths and abilities. We hope you find this guide valuable!

Christian Saint Cyr  
*Publisher*

**BC Labour Market Report — May 2019**

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# Overview of BC's Labour Market

## CHAPTER 1



Industry	May 2019	Apr. 2019	May 2019	May 2018	May 2019
	<i>employment (thousands)</i>			<i>Unemployment Rate</i>	
<b>British Columbia - All industries</b>	2,483.30	2,549.80	2,590.90	4.9%	4.5%
<b>Goods-producing sector</b>	500	493.6	509.6	4.0%	3.2%
Agriculture	24.3	26.5	30.7	-	-
Forestry, fishing, mining, quarrying, oil and gas	49	47	46.2	8.8%	6.1%
Utilities	13.5	12	13.7	-	-
Construction	235.9	242	242.8	4.0%	3.5%
Manufacturing	177.3	166.1	176.2	3.2%	2.3%
<b>Services-producing sector</b>	1,983.30	2,056.20	2,081.30	2.7%	2.7%
Wholesale and retail trade	365.2	370.5	385.4	4.7%	2.0%
Transportation and warehousing	137.3	137.7	143.4	2.1%	2.9%
Finance, insurance, real estate, rental and leasing	147.1	155.9	154.3	2.8%	2.3%
Professional, scientific and technical services	200.7	222.7	219.7	2.1%	2.1%
Business, building and other support services	99.2	117.9	123.4	5.5%	2%
Educational services	174.3	181.3	181.2	1.5%	4.4%
Health care and social assistance	324.5	309	310.7	0.7%	1.6%
Information, culture and recreation	126	133.6	138.5	2.3%	5.1%
Accommodation and food services	192.9	190.5	186.9	4.5%	3.7%
Other services (except public administration)	113.7	122.5	121.3	1.6%	5.4%
Public administration	102.5	114.5	116.4	-	-



## B.C. Economic Outlook 2019-2021

According to the B.C. Economic Outlook 2019-2021, prepared by Central1, B.C.'s economy will slow over the next three years as the policy-induced housing market downturn weighs temporarily on growth. The recent slump in housing demand and prices will trigger a sharp contraction in housing construction and the most pronounced drop in broader residential investment since 2009. Related spending will also slow; however, no recession is forecast. Growth will trend in a range of 2.0 to 2.5 per cent over the next two years and accelerate to 2.8 per cent in 2021.

Outside the housing market, economic conditions remain firm. The labour market remains tight with rising employment and a low jobless rate. Population continues to climb which continues to support domestic demand. The economy will also see a sharp rotation toward capital investment, which will be an important offset to the housing downturn. LNG Canada's massive liquefied natural gas project is expected to build-out at the same time as other major public works projects across the province. These will cushion and absorb negative labour market impacts in other sectors.

Net exports are expected to be a drag on growth. Global growth prospects have eroded with rising trade uncertainty, specifically between the U.S. and China, and a slowdown in Canada. Export growth slows to below three per cent. Imports are forecast to accelerate to above 4.5 per cent this year as major project investment lifts demand for materials and equipment.

Employers will continue to grapple with a tight labour market. Employment climbs 1.9 per cent this year before slipping in 2020 and 2021 due largely to availability of labour. Hiring is constrained in large part by population growth as the unemployment rate declines to about four per cent by 2021. Tight labour market conditions underpin wage growth of above three per cent, and a rising share of labour income in the economy.

Risks to this outlook include the evolution of trade negotiations between the U.S. and China, and general protectionism in the global economy. B.C.'s economic growth performance is also contingent on a number of major projects ramping up construction over the forecast period. While these are firm, various factors could delay construction.

### Current economic trends

B.C.'s economy decelerated over the past year following robust gains in 2017. Growth in real gross domestic product (GDP) is estimated to have eased to 2.8 per cent in 2018 from a robust 3.8 per cent in 2017. Sharp policy-induced deceleration in the housing market and slowing consumer demand have dampened household demand.

Federal B-20 mortgage 'stress tests' and provincial tax measures that were introduced in 2018 have led to a severe housing retrenchment in the existing home sales market. Retrenchment has been significant in larger urban markets, which will curtail new home activity in 2019. Home sales have fallen to a multi-year low pace. Credit constraints alongside higher interest rates have curtailed the purchasing power of some buyers, triggering price declines and slowing activity in ancillary sectors of the economy.

Retail sales rose a mere two per cent last year following a 9.3 per cent increase in 2017 and 6.6 per cent gain in 2016 despite support from rising wages, solid labour market and population growth. Sluggish housing market momentum and higher interest rates contributed to the dip. This was the weakest year of growth since 2012 as vehicle sales fell sharply and sales of furniture and furnishings slowed. That said, population and wage growth continue to support growth in the service sector.

Despite the drag from the household sector, various indicators still point to a firm B.C. economy although momentum looks to ease. International merchandise exports and manufacturing sales rose seven and nine per cent, albeit growth was slower than in 2017. A slowdown in forestry demand—and lower commodity prices owing to global growth concerns and trade uncertainty—has taken root pointing to slower momentum during the back half of the year. Merchandise export growth to the U.S. fell to about three per cent from six per cent in 2017, while shipments to China slowed to about five per cent from eight per cent the prior year. Lumber production has slowed, while lower copper prices have led to the suspension of production at Imperial Metals' Mount Polley mine. Energy export growth was flat in 2018 as natural gas sales eased, offsetting stronger demand for coal products and natural gas liquids.

Service exports have also been buoyant and have generally outperformed growth in real goods exports in recent years. International tourism inflows were up more than six per cent in 2018 as the low Canadian dollar and the politically charged environment in the U.S. funneled travel to Canada. Relatively stronger growth for commercial services, including technology

services and consulting, were positive drivers for exports.

Construction of major projects such as the Site C dam, preliminary work on the liquefied natural gas (LNG) plant and related projects and commercial projects have been drivers of investment spending. Government investments in hospitals and schools and the mentioned Site C dam drove large gains in spending.<sup>1</sup> Non-residential permit volume, which signals investment growth, was up nearly 20 per cent. Engineering investment growth likely temporarily eased following a surge in 2017 due to construction of several gas plants in northeast B.C.

Labour market conditions in B.C. remain tight. While Statistics Canada's Labour Force Survey (LFS) estimates of employment growth disappointed in 2018 at 1.1 per cent compared to the 3.7 per cent surge 2017—this understates the performance. Some of this weakness is likely a sampling error in the survey as the trend picked up sharply in the second half of the year. The survey of employers consistently showed hiring growth of more than 3.5 per cent.

B.C. is grappling with a shortage of workers. The unemployment rate sank below 4.5 per cent last year while the job vacancy rate was by far highest in the country as employers scrounged for skills to meet production demands. Meeting these needs is largely a supply story. Lower than peak labour force participation rates owe mostly to an aging population as employed individuals naturally age out of their working years. In fact, by age cohort, labour force participation rates for prime-age and older workers are at record highs pointing to little capacity for the existing workforce to add to labour supply. Higher international migration inflows have helped.

Aggregate compensation data highlights the strong labour demand in the province. Annual compensation in B.C. rose six per cent through, following full-year growth of 6.1 per cent in 2017. Gains in 2018 were above the national gain of five per cent and the highest among provinces for the fourth straight year and support overall consumption. Sectors including high tech services, utilities and professional services recorded some of the strongest gains.

## Forecast

Real GDP is forecast to slow to 2.1 per cent this year before rising to 2.4 per cent in 2020 and 2.8 per cent in 2021. Holding back growth will be the housing market slump, which is deeper than previously forecast and has had knock-on effects on housing starts and residential investment over the next three years. Exports will grow at a slower pace with an anticipated slowdown in global economic growth. However, a ramp up in major capital project construction in the private and public sectors, will be a strong offset to the decline in residential activity. Moderate population growth is also a persistent source of growth which will underpin consumer spending.

Global economic growth has hit a cyclical peak. Beset by uncertainty related to ongoing trade tensions between the U.S. and China which could intensify, impacts of Brexit, tighter financial conditions and new emission standards in Germany. The International Monetary Fund (IMF) shaved its growth outlook for 2019 and 2020 to 3.5 and 3.6 per cent, marking downward revisions of 0.2 and 0.1 percentage points from forecasts in October 2018.<sup>2</sup> The deceleration in growth is forecast to be steeper in advanced economies, from a 2.3 per cent rate in 2018 to 2.0 and 1.7 per cent in 2019 and 2020. Emerging and developing economic growth is also forecast to slow from 4.6 per cent in 2018 to 4.5 per cent in 2019, before picking up. Weaker growth in China is a key driver of the slowdown.

The IMF forecasts Canadian GDP growth to slow to 1.9 per cent in both 2019 and 2020. This is higher than our outlook of 1.7 per cent but aligns in its downward direction. Lower oil production following government mandated cuts in Alberta, policy-induced weakness in the housing market and slower consumer demand will drag on Canada's growth picture. B.C.'s economic growth trajectory follows the broad brushstrokes of the Canadian picture; however, growth will continue to perform the rest of the country.

The slowing macro-economic environment will mean a pause in the interest rate tightening cycle. After hiking seven times—or 1.75 percentage points since the beginning of 2017—the U.S. Federal Reserve has signaled a pause in the tightening cycle. In Canada, rate expectations have similarly dampened. We forecast a pause in the policy rate increases until the fourth quarter of 2019 after three hikes in 2018 have contributed to a slowdown in credit growth. We expect the Bank of Canada to stand pat and maintain rates at an accommodative level through to 2020.



### **B.C.'s economy rotates away from consumer demand**

A weak housing market remains the primary drag on economic growth. Policy shocks over the past two years have restrained housing transactions across the province and contribute to a moderate housing price correction in Metro Vancouver. Housing starts lag the sales cycle and are forecast to decline by 20 per cent this year to 32,600 before edging higher in subsequent years. The current downcycle in demand leads to higher new home inventory and reduced condominium pre-sale activity forcing developers to delay construction or cancel projects. Multi-family housing starts will drive most of the decline and be concentrated in Metro Vancouver. Government investment in housing will provide some offset to a decline in private investment. Residential investment spending declines eight per cent this year on fewer housing starts and a slowdown in renovation spending deteriorates in 2020 before turning higher. Existing home sales turn higher by mid-2019 as lower prices induce buyers to enter the market, but a substantial rebound is not expected. This downturn will be modest compared to previous episodes reflecting a policy-induced downturn, rather than economic-recession induced downturn.

Growth in consumer spending trends average 2.5 per cent this year and next year before accelerating in 2021. Growth slows from the robust pace of more than 3.5 per cent observed from 2014 through to 2017. Low housing sales and less price appreciation holds back spending on housing related goods and a gentle increase in interest rates also constrains spending on durable goods. Nevertheless, household spending, which makes up about two-thirds of spending in the economy, will continue to grow at a solid pace. Rising population, employment growth and wage gains will underpin demand. Specifically, demand for services will average more than three per cent per year, outpacing goods-consumption. Government spending will grow at a slower pace than the economy but above population growth.

Acceleration in investment is expected. Economic growth rotates towards major capital spending reflecting a ramp up in construction on the LNG plant in Kitimat and the associated Coastal Gaslink Pipeline that spans across northern B.C. While pegged as a \$40 billion project, the value includes upstream drilling that occurs in relation to the project. The project is slated to finish in 2023-2024. Adding to this are high levels of investment in government projects including ongoing work on the \$10.7 billion Site C dam in northeast B.C., Pattullo Bridge construction, Broadway subway construction and major hospital construction. The B.C. government's latest budget pegs taxpayer supported government spending at \$20.1 billion over the next three years. On average this represents an increase of more than 50 per cent above annual investment spending from 2013 through 2017; although, construction inflation is a factor. General business investment will remain steady as businesses invest on solid domestic demand in response to a tight labour market; albeit, global economic uncertainty is a risk. Weaker performance is expected in the mining and forestry sectors due to weaker metal, mineral and lumber prices, as well as long-term timber supply constraints affecting the latter sector.

Broadly, government capital investment climbs 13 per cent this year, extending two years of sharp gains before levelling out at strong pace. Non-residential business investment climbs sharply through the forecast period. However, about half of the investment related to the LNG plant will need to be imported, including parts and liquefaction equipment from Asia. A sharp increase in imported goods will offset the rise in domestic demand. Export benefits to the LNG project will not occur until completion.

While domestic demand generally remains firm, net exports will erode. Export growth eases to less than 2.5 per cent reflecting the global and national economic slowdown. Weaker commodities, supply constraints in the forestry sector and general demand deceleration curtails export expansion. With B.C.'s largest export partners in a trade dispute that is impacting growth in global markets, trade diversification can only provide so much upside. Service sector exports, including technology and professional services, will likely remain firm but also slow in expansion. The competitive Canadian dollar remains a key support. Record tourism flows will continue; however, further gains are limited. A trade agreement between the U.S. and China would provide some upside risk and lessen uncertainty in the broader economy.

On the industry front, diverging economic drivers contribute to significant variation. Following eight years of expansion, residential construction output contracts sharply in 2019 and 2020 before a rebound in 2021. Housing-related sectors, including finance, insurance and real estate slow to near two per cent after averaging more than three per cent growth since 2013. The retail sector slows to less than two per cent over the next two years before rising in 2021, reflecting the slowdown in consumer demand.

Export deceleration, weak commodity prices and related investment, means a downshift in mining output and lower growth in

manufacturing compared to recent years. Forestry outputs—direct harvesting and related wood products—are forecast to be at fl at, with risk of contraction. Growth in the sector is strained by a limited supply due to the long-term impacts of the mountain pine beetle epidemic from the late 1990s. A slowdown in housing construction domestically, will be a drag.

Non-residential construction sectors provide most of the offset over the forecast period, with engineering construction rising at more than ten per cent per year with major project build-outs. Building construction will be elevated but growth will be mild. Tourism-related sectors and hi-tech services will remain solid growth drivers.

### **Employment constrained by population growth**

Low unemployment rates, low employment insurance counts and high job vacancy rates speaks to a market that is constrained by labour availability. Statistics Canada's Labour Force Survey (LFS) employment growth is forecast to bounce back this year to 1.9 per cent owing in part to late-2018 momentum. However, it is predicted to slide to an annual pace of 1.5 and 1.7 per cent over 2019 and 2020, constrained mostly by population growth. The labour market participation rate, which has increased over the past year on strong hiring demand and rising wages, has limited upside and is expected to ease by 2021 as retirements rise.

While there is weakness in hiring demand in some sectors, particularly residential construction, transferable skillsets to non-residential activity will provide an outlet for displaced jobs. A period of fl at employment is anticipated in manufacturing and resources, with stronger gains related to service-oriented sectors of government, tourism and technology.

The unemployment rate declines from 4.7 per cent this year to 4.4 per cent in 2020, before sliding to 4.0 per cent and a near record low. Wage growth is forecast to remain firm above 3.5 per cent annually, although employers will also adapt by investing in productivity enhancing technologies and equipment. LFS employment may understate hiring momentum in the province as some positions will be filled by individuals residing in other parts of Canada.

### **Population growth trends near 1.3 per cent**

B.C.'s population is forecast to rise by an average of about 67,000 persons, or 1.3 per cent annually, through 2021. Growth reflects positive migration factors. Rising federal intake of international migrants is a key contributor to growth with inflows of permanent residents above 40,000 persons per year. Major project construction is also expected to induce a rise in non-permanent residents over the forecast period given insufficient domestic labour and a tight labour market.

Stronger labour market conditions in B.C. compared to the national picture and a deteriorating economy in Alberta, will lift interprovincial migration following a sharp deterioration in trend last year. Forecast net inflows to B.C. reach 11,300 persons in 2019 and more than 15,000 persons in 2020 and 2021 as workers shift westward for jobs. Demographic drivers including migration of retirees to B.C. will also contribute to net increases.

Household formation fluctuates near 31,500 households per year in this forecast, but actual numbers will depend on the household size. Levels are elevated relative to the past decade. Housing demand is sufficient to draw down inventory over time. While household formations are lower than housing starts, it should be noted starts are offset by demolitions of existing units.

### **Labour income growth outpaces headline nominal GDP growth**

Nominal GDP is forecast to slow from 6.0 per cent in 2018 to 4.4 per cent this year and 3.7 per cent in 2020 before rebounding. This deceleration reflects less growth in the real economy as well as a moderation in prices. Export price growth is dampened by commodity prices, while building construction price growth is tempered by the slower housing market.

Labour share of income is forecast to rise, reflecting the tight labour market, rising wages and modest export prices. Aggregate corporate profits are weak over the forecast period and expected to ease to 1.6 per cent this year and about one per cent thereafter. This follows strong growth over the past three years. Downward pressure on profits reflect large upcoming capital investments in LNG plant and other projects, which will drive a surge in import outlays over the medium-term. Higher export income from LNG exports will arise in the mid-2020s onward; although, this would be industry specific.

# Labour Market Projections

## CHAPTER

# 2



### Labour Market Outlook

The ***British Columbia Labour Market Outlook: 2018 Edition***, published by the **Ministry of Advanced Education, Skills and Training**, provides tremendous insight into our changing labour market. According to the report, over the past 50 years, baby boomers (people born between 1946 and 1965) have made up the largest segment of the B.C. workforce. The oldest baby boomers are now 72 and the youngest will be 63 in 2028 (the end of this Outlook’s forecast period). Over the next 10 years, a majority of this generation will be focusing on life after work.

At the same time, people in the large millennial generation are moving into their 30’s, with a smaller generation— GenZ— following them. The result is a decline in the number of people in their 20’s in the province over the next decade.

The workforce in B.C. continues to grow and evolve. As a result of two years of strong employment growth in 2016 and 2017, unemployment has fallen.

While more people have joined the labour force, there continues to be an ongoing challenge with having enough qualified workers in certain occupations and regions.

One of the factors that allowed the recent growth in employment was a surge of migration from other provinces. This peaked in 2016 and has started to decline because improved economic conditions in the rest of the country means that there are more jobs in many provinces and territories. A strong surge of immigration from outside of Canada has helped to offset this, resulting in total in-migration to B.C. reaching 60,000 in 2017—the highest since 2008 when in-migration reached 62,000 people.

From this all-time high in economic activity and employment, people in B.C. can look forward to positive growth over the next 10 years. High demand for labour will also mean strong wage growth. The availability of jobs combined with rising wages and access to education and training will be a key driver of economic growth and poverty reduction in British Columbia.

With unemployment currently low and labour force participation high, employment growth will be closely tied to population growth. The gap between births and deaths will continue to decline, resulting in a lower rate of natural population increase over the next decade. Immigration will only partially counteract this trend and as a result population growth overall will also decline. (Please see Appendix 5 for more detail on the key assumptions underlying the forecast.)

### Strategies to Address Labour Market Challenges

If B.C.’s economy is to continue to expand, it will be crucial to maintain or increase the availability of skilled workers in the province.

Key questions for educators, employers and policy makers in addressing this challenge include:

- *Could post-secondary education be completed in a faster, more efficient manner so that learners can start their careers sooner?*
- *Would a greater focus on developing applied skills and competencies result in faster, more efficient matching of workers to demand?*
- *Can the flow of required immigrants with the in-demand skills be increased?*
- *Is it possible to have more people in a position that allows them to delay retirement if that is what they want?*
- *Is there a way to more effectively and efficiently match individuals to jobs in order to achieve lower than projected unemployment rates?*
- *Could barriers to increased labour force participation be reduced?*
- *Is there a role for more rapid adoption of automation technologies?*

Making sure that there are enough trained workers to meet the needs of employers will be an ongoing challenge. At the same time, this challenge means that people throughout B.C. have exciting opportunities to build the careers they want.

It is expected that about 77 percent of job openings will require individuals with post-secondary education.

In addition, learners and their educators share a responsibility to focus on building a strong foundation of skills and competencies to complement their formal education credentials. Creating a solid base of employability will help people adapt and thrive as their lives change in response to a transforming local and global economy. Employers also have a critical role to play in providing their workers with training opportunities.

### 10-Year Outlook

On the labour demand side, the Outlook: 2018 Edition forecasts that there will be 903,000 total job openings between 2018 and 2028 (please see Table 2-1).

u About 68 percent of these openings will be to replace workers leaving the labour force (mainly due to retirements).

u The remaining 32 percent will be new jobs created through economic growth.

Currently, the average age of a worker within the B.C. labour force is 42 years of age. As the population and the labour force ages, the majority of future job openings are anticipated to happen because retiring workers will need to be replaced.

With an annual average employment growth of 1.1 percent, employment in B.C. is expected to reach almost 2.8 million by 2028. This is based on the predicted 1.9 percent average annual growth in B.C.'s real Gross Domestic Product (GDP) plus a 0.8 percent productivity growth each year on average over the 10-year period of this report.

On the supply side, young people starting work (B.C. residents aged 29 or younger who are entering the labour force) are expected to fill 50 percent of future job openings. Immigrants will fill 27 percent and workers coming from other parts of Canada will fill eight percent of the jobs. Additional workers will be needed to fill the other 15 percent of positions available.

**TABLE 2-1: Labour Market Outlook Highlights, B.C., 2018-2028**

<b>Total Job Openings</b>	<b>903,000</b>	<b>100%</b>
Economic growth (Expansion)	288,000	32%
Replacement	615,000	68%
<b>Supply Additions</b>	<b>903,000</b>	<b>100%</b>
Young people starting work	454,000	50%
Immigrants	243,000	27%
Migrants from other provinces	76,000	8%
Additional supply requirement	130,000	15%

*Note: values are rounded; percentages are shares of the total job openings; additional supply requirement is assumed to be met through a mix of higher labour force participation, lower unemployment and/or higher productivity/automation.*

## Year-Over-Year Outlook

The total number of job openings each year over the 10-year period of this Outlook will fall as low as 86,000 jobs in 2020 and as high as 97,000 in 2024, with the final year of this report (2028) falling in between the two at 91,000 open positions.

As older workers exit the workforce, the number of replacement job openings will grow gradually year over year. On average, 61,500 workers are forecast to leave the labour force permanently each year until 2028.

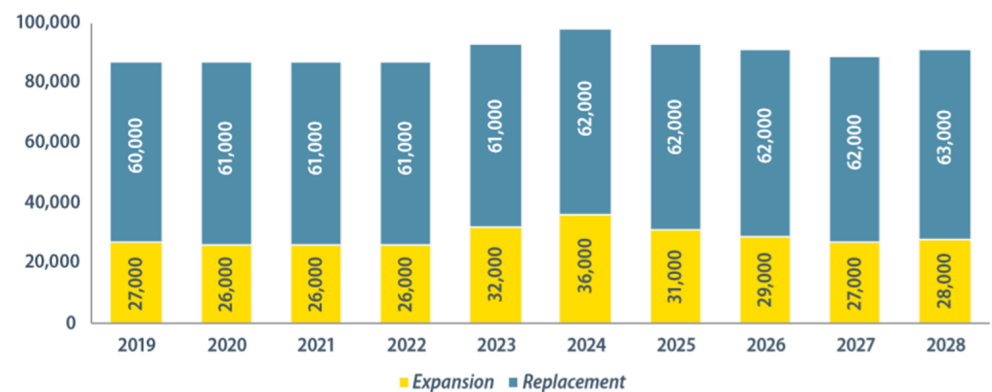
Job openings that are created by economic expansion will fluctuate over the 10-year period, ranging from 26,000 in the early 2020s, increasing to 36,000 in 2024 (due to growth in nonresidential construction) and decreasing to 28,000 in 2028 (please see Figure 2-1).

Young people entering the workforce for the first time will be the largest source of new workers, filling over 45,000 job openings each year during this 10-year period.

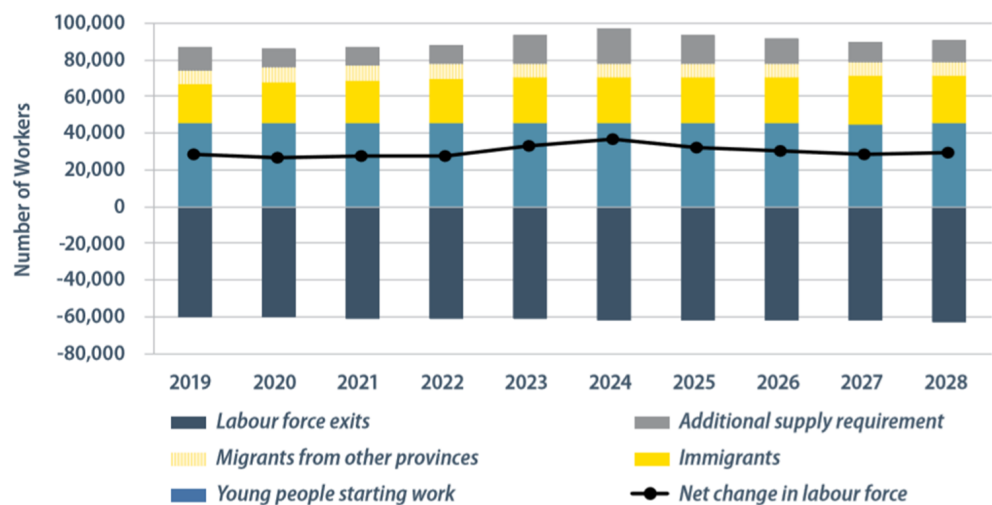
As shown in Figure 2-3, young people joining the workforce for the first time can only fill about half of the anticipated job openings. Immigrants from outside of Canada and migrants from within the country are also important in meeting the expected demand for workers. It is forecast that, on average, over 24,000 immigrants from other countries and nearly 8,000 migrants from other provinces will join B.C.'s labour force each year over the next decade.

While substantial, this is not enough to meet the anticipated needs of the workforce going forward. An average of an additional 13,000 people each year will be required to fill future job openings. These additional workers will join the labour force through greater labour force participation or reduced unemployment. Increased use of automation to address labour shortages could also play a role in addressing this supply gap.

**FIGURE 2-1: Job Openings, B.C., 2018-2028, Annual**



**FIGURE 2-2: Sources of New Workers, B.C., 2018-2028, Annual**



The ongoing test being faced in B.C. each year is filling the large gap between new entrants and the surplus of job openings that are forecast. In spite of these challenges, B.C.'s labour market is expected to be in balance over the next 10 years, as people adjust and respond to rising wages and ongoing education and skills training opportunities. As discussed in this report, an increase in automation will also have a role to play in helping to balance this out.

### Education and Training Needs

Education and training will play an increasingly important role in the labour market over the next 10 years. In an ever-changing world experiencing new technology, innovation and industry disruption, there is a shift in recognizing the value of learning new career skills. A broader base of knowledge and the ability to adapt to a changing work environment opens up more opportunities for students and workers alike.

A majority—77 percent—of the job openings expected in the next 10 years will require some level of post-secondary education or training. Forty-one percent will be in occupations requiring a diploma, certificate or apprenticeship training and 36 percent will be in positions requiring a bachelor's, graduate or first professional degree. In contrast, only three percent will be available for those with less than a high school education. The good news is that young British Columbians understand the opportunities that education will open up for them. Only a moderate increase in the percentage of young people in post-secondary education will be required to match people to the projected job openings.

### Industry Outlook

In British Columbia, five industries will account for about half of the total job openings projected over the next 10 years. They are:

- *Health Care and Social Assistance* (148,400 job openings; 16.4 percent of total job openings)
- *Professional, Scientific and Technical Services* (106,200 job openings; 11.8 percent of total job openings)
- *Retail Trade* (82,300 job openings; 9.1 percent of total job openings)
- *Accommodation and Food Services* (61,000 job openings; 6.8 percent of total job openings)
- *Finance, Insurance and Real Estate* (59,700 job openings; 6.6 percent of total job openings)

As B.C.'s population continues to age, health care and social assistance will see the largest increase in job openings in the next

FIGURE 2-3: Young People Starting Work vs. Job Openings, B.C., 2018-2028, Annual

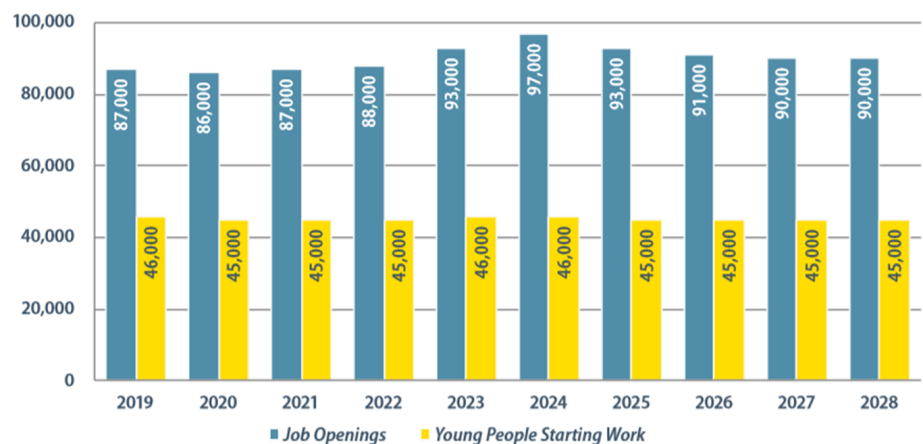
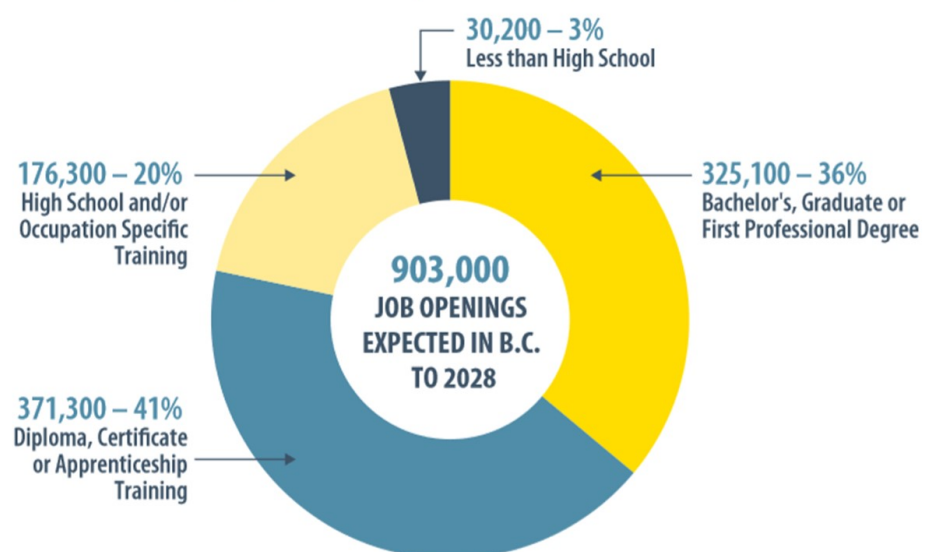


FIGURE 2-4: Job Openings by Education Requirements, B.C., 2018-2028



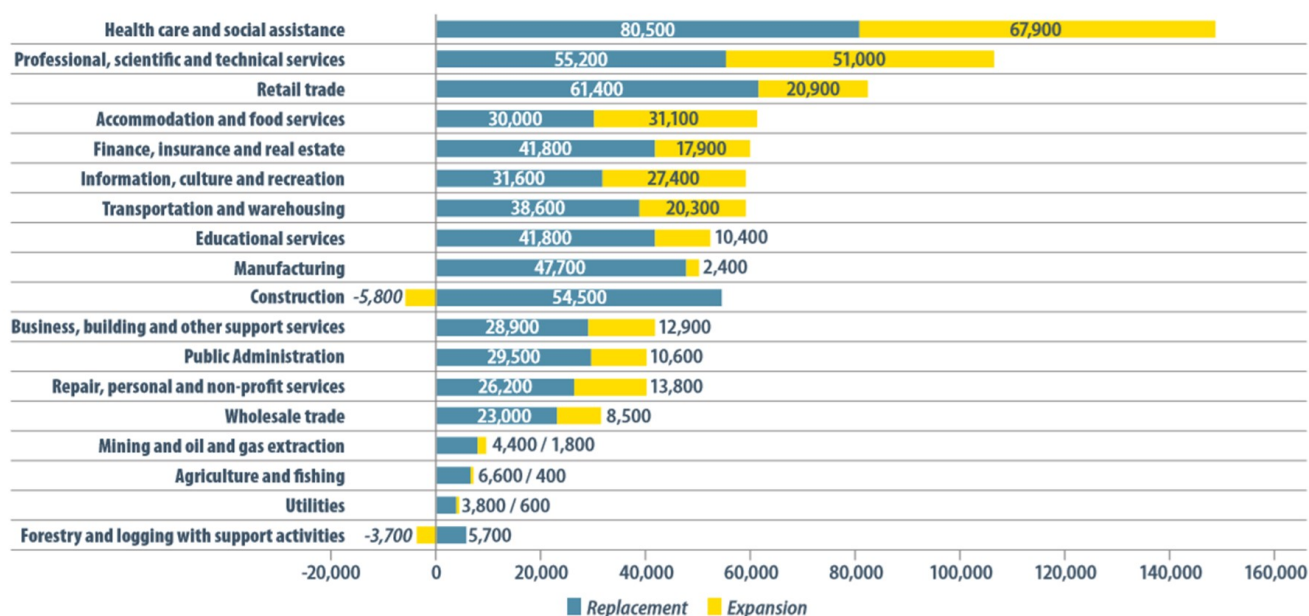


10 years. Fifty-four percent of these will come from the need to replace retiring workers, while an additional 46 percent will be as a result of expansion of the health system in response to the growing medical needs of an aging population.

Professional, Scientific and Technical Services has been a fast-growing industry and this trend will continue into the next decade. It is expected that economic growth will generate 48 percent of the job openings in this industry, compared to 32 percent of openings for all industries.

Future job openings come from the wide range of opportunities that will open up due to the growth in B.C.'s economy. In addition, even more opportunities will be available to replace retiring workers.

**FIGURE 2-5: Job Openings by Major Industry Group, B.C., 2018-2028**



As seen in Figure 2-5, the requirement to replace retiring workers will create more than half of the job openings for almost every major B.C. industry over the next 10 years.

Several industries will see more job openings because of economic growth and industry expansion. These include:

- Accommodation and Food Services (51 percent of job openings are due to economic growth)
- Professional, Scientific and Technical Services (48 percent of job openings are due to economic growth)
- Information, Culture and Recreation (46 percent of job openings are due to economic growth)
- Health Care and Social Assistance (46 percent of job openings are due to economic growth)

A more detailed forecast of employment and job openings for each of B.C.'s 18 major industry categories and the 59 more specific industry subsets can be found in Appendix 3. Profiles of each industry and industry category are also available at [WorkBC.ca/industry](http://WorkBC.ca/industry).

## Occupational Outlook

Within the 10 major occupational groups that are defined by Canada's National Occupational Classification, more than half (51 percent) of the projected job openings in B.C. over the next 10 years will come from the top three occupational categories (Sales and Service, Business, Finance and Administration and Management).

Nearly three quarters of those job openings are expected to be in the top five occupational groups, as shown in Figure 2-6:

- Sales and Service (186,100 job openings; 20.6 percent of total job openings)



- *Business, Finance and Administration (151,400 job openings; 16.8 percent of total job openings)*
- *Management (124,400 job openings; 13.8 percent of total job openings)*
- *Trades, Transport and Equipment Operators and Related (106,700 job openings; 11.8 percent of total job openings)*
- *Education, Law and Social, Community and Government Services (103,200 job openings; 11.4 percent of total job openings)*

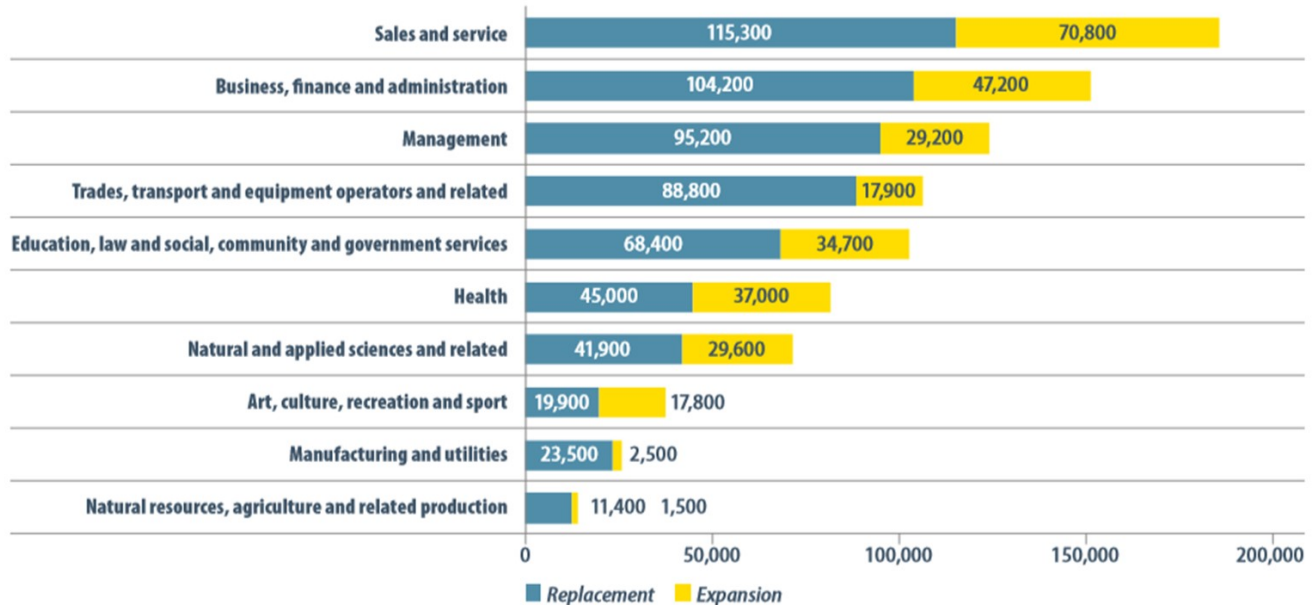
The replacement of retiring workers in the Sales and Service industry accounts for 62 percent of the 10-year forecasted job openings. Sales and Service positions are often thought of as an entry point into the workforce, providing new workers with opportunities to develop skills and competencies. However, that is not true. In addition to the more junior/entry-level jobs, there are many sales and service roles that require significant education and extensive experience.

Management has a greater share of older workers among the major occupational groups. In this category, the need to replace workers will account for 77 percent of total job openings.

The labour force in Business, Finance and Administration is also a relatively older group of workers. The forecast shows that 69 percent of the job openings in this area are to fill positions that will come open due to retirement.

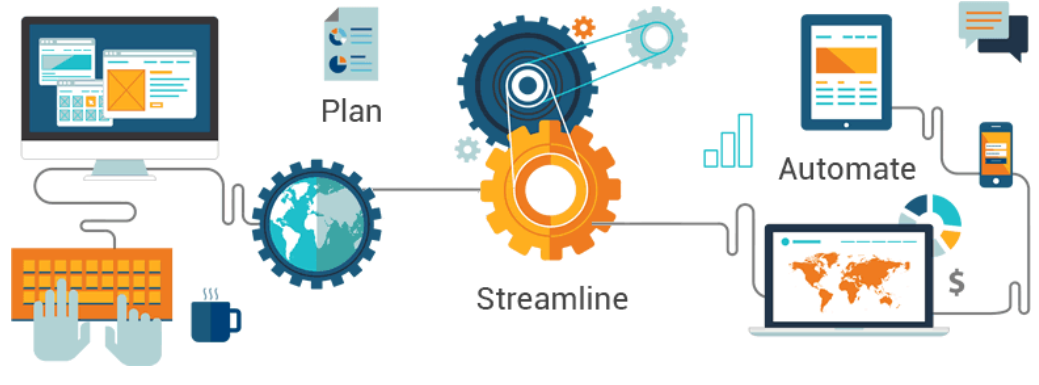
Business, Finance and Administration as well as Management occupational groups offer workers wide-ranging employment opportunities that are important to nearly every organization in the province.

**FIGURE 2-6: Job Openings by Major Occupational Group, B.C., 2018-2028**



# Automation in the Labour Market

## CHAPTER 3



The groundbreaking report, *'The Talented Mr. Robot, The Impact of Automation on Canada's Workforce'*, published by the **Brookfield Institute for Innovation and Entrepreneurship** at **Ryerson University**, does an incredible job of exploring the transformative impact automation will have on occupations in the coming two decades. According to the authors, automation and its impact on the labour force has been the subject of academic inquiry for many years. To help Canadians understand the impact that technology can have on jobs, we drew upon the findings and methodologies of some of the major researchers in the field. The following section outlines the studies that we used to build or inform our analysis.

In 2003, David H. Autor, et al., developed the Task Model to explain the impact of technology on the workforce. Their model showed that:

- 1) Technology can be a substitute for human labour in routine tasks,
- 2) Technology simultaneously increases productivity in non-routine, cognitive and interactive tasks.

These insights suggest that technology results in labour market restructuring and not necessarily long-term unemployment. For occupations where technology easily substitutes for labour, jobs are often lost and workers are required to relocate to other industries. For the occupations that require significant creativity, interaction and problem solving, technology often complements labour, which raises productivity. This, in turn, lowers a firm's costs and prices, which can increase demand and subsequently increase the need for additional labour. This improved productivity may also result in increased individual earnings and thus more demand for other goods and services. This creates a virtuous cycle that ultimately results in job creation.

### Impact of Automation on Occupation

#### Top Five High Risk Occupations

The data shows that the occupations at highest risk of being affected by automation are:

1. Retail sales persons, 92% probability of automation and more than 656,000 employees,
2. Administrative assistants, 96% probability of automation and nearly 329,000 employees,
3. Food counter attendants and kitchen and kitchen helpers, 91.5% probability of automation and nearly 313,000 employees,
4. Cashiers, 97% probability of automation and nearly 309,000 employees, and
5. Transport truck drivers, 79% probability of automation and nearly 262,000 employees.

#### Top Five Low Risk Occupations

The occupations at lowest risk of being affected by automation are:

1. Retail and wholesale trade managers, 20.5% probability of automation and more than 363,000 employees,
2. Registered nurses (psychiatric included), 0.9% probability of automation and more than 291,000 employees,

3. Elementary and kindergarten teachers, 0.4% probability of automation and more than 271,000 employees,
4. Early childhood educators and assistants, 0.7% probability of automation and nearly 188,000 employees, and
5. Secondary school teachers, 0.8% probability of automation and nearly 174,000 employees.

All of these findings suggest that over the next 10 to 20 years, automation will occur most significantly in occupations that are administrative, routine, or oriented toward sales and service. However, automation can also occur in occupations that are non-routine.

The occupations least at risk appear to rely on humans' cognitive advantage over technology and require more job-specific skills, complex problem solving, as well as people management and oversight.

### Wages

Figure 5 indicates that the occupations most at risk of being affected by automation have a much lower average income (received as wages and salaries) than occupations in other risk profiles. On average, people in occupations at a high risk of being affected by automation make over \$33,000 a year, which is nearly \$29,000 less than occupations at a low risk of being affected by automation.

To determine these figures, for each of the risk profiles a weighted average was calculated based on the average employment income for each specific occupation and the occupation's corresponding proportion of the employed labour force.

### Education Levels

In addition to earning less, those in occupations with a high risk of being affected by automation are also less educated. Figure 6 shows that just 12.7 percent of the labour force at a high risk of automation had a university education at a bachelor level or higher. The proportion of low-risk occupations with a university education is more than three times larger than the same proportion in high-risk occupations. This suggests that occupations that demand more university education are less likely to be at a risk of being affected by automation.

Figure 5: Average Income

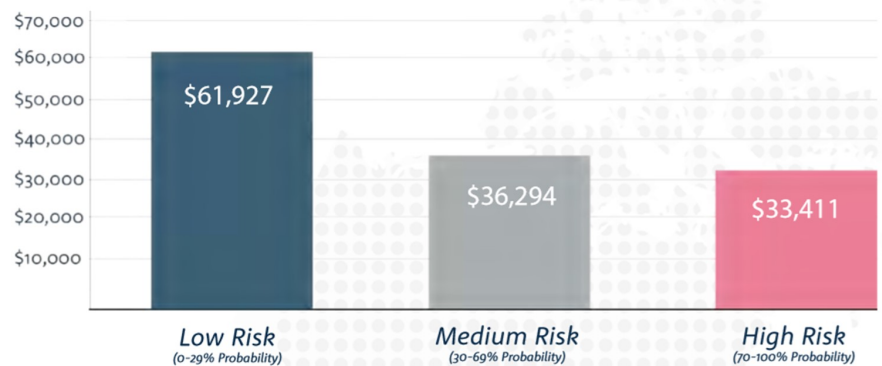


Figure 6: Proportion of Labour Force with University Degree (bachelor or above)

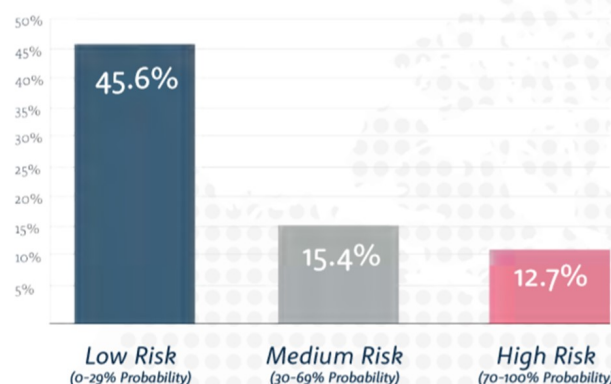
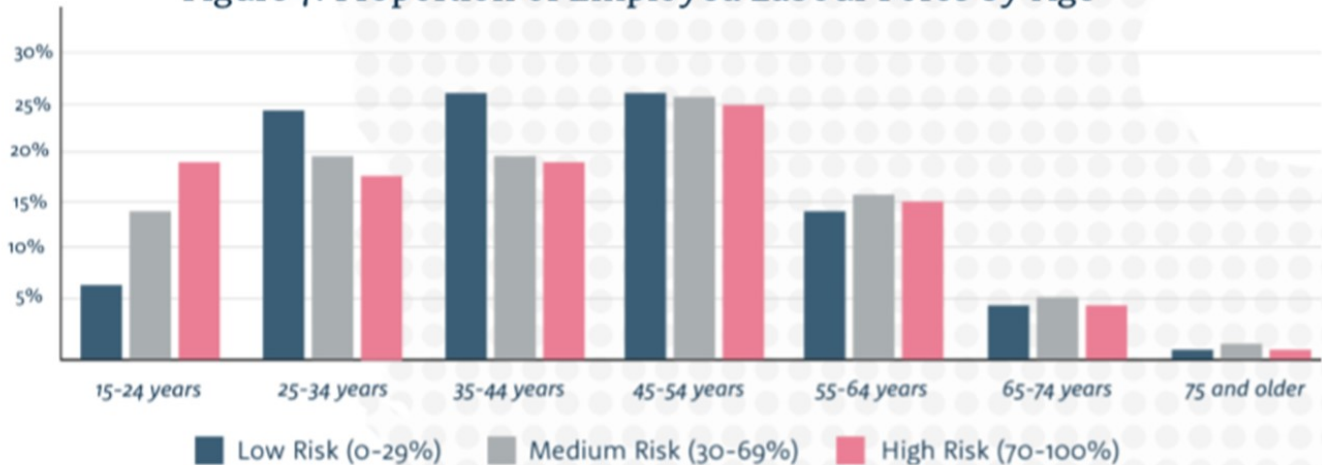


Figure 7: Proportion of Employed Labour Force by Age



### Age Distribution

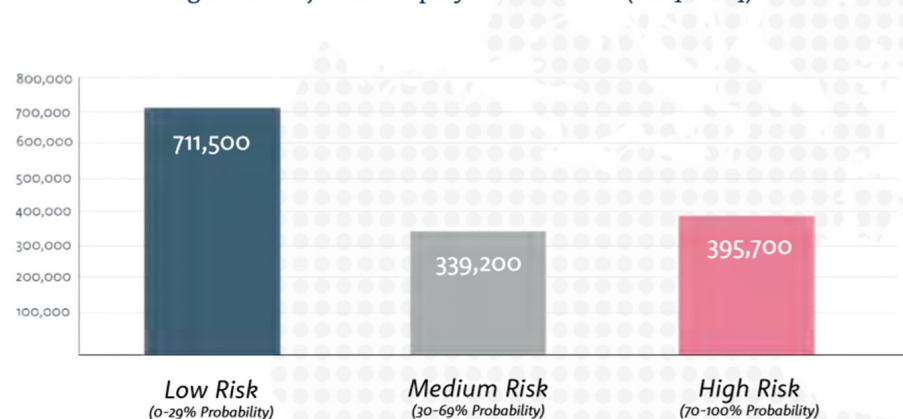
When examining the age distribution for each risk profile, a few trends emerge. Figure 7 shows that employees in occupations with a high risk of being affected by automation are disproportionately between the ages of 15 to 24, whereas employees in occupations with a low risk of being affected by automation are more likely to be “prime-aged workers,” between 25 and 54. This means that Canada’s core working population is more likely to be at a low risk of being affected by automation.

However, it also means that Canada’s younger and, to a lesser extent, older populations are more likely to be vulnerable to the effects of automation. This could suggest that younger workers are more likely to be employed in entry-level jobs, which may be at a higher risk of being affected by automation.

### Employment Growth

We also used the Canadian Occupation Projection System (COPS) to determine how jobs in different risk profiles are projected to expand over time. Overall, we found that occupations at a low risk of being affected by automation are expected to grow much more than those in the other risk profiles between 2014 and 2024. Figure 8 shows that during this period, there are expected to be nearly 712,000 new jobs in occupations at a low risk of being affected by automation, compared to nearly 396,000 new jobs in occupations at a high risk of being affected by automation.

Figure 8: Projected Employment Growth (2014-2024)



It must be noted that these projections are based on a macroeconomic scenario that does not take automation into consideration. If automation impacts the Canadian labour force as predicted, employment in occupations at a high risk will likely grow more slowly than projected, or potentially contract. The effect of automation on projected job creation in low-risk occupations will likely be more ambiguous.

Technology may complement labour, increase productivity and create more jobs in certain areas, but it may also substitute for labour in other areas.

However, using this system presented a few challenges for our analysis. Since COPS tracks aggregates of specific occupations, it only shows 292 occupation groups, as opposed to the full 500 occupations we considered in our analysis. To get around this, we calculated the average probability of all of the individual National Occupation Classifications (NOCs) for each COPS aggregate. We felt this was a reasonable estimate, since the probabilities under each aggregate were relatively similar.

### **Impact of Automation**

We also applied the findings of the 2015 McKinsey & Company report to Canadian data to examine the automation of tasks rather than full occupations in the near term. Using National Household Survey data, we estimated that nearly 42 percent of Canadian work activities could be automated using current technologies.

However, our findings also suggest that less than one percent of jobs in the labour market are fully automatable (meaning all of the tasks performed for the occupation could be automated). These occupations were primarily processing and manufacturing machine operators and related production workers.

We also found that nearly 18 percent of Canada's labour force could have 70 percent or more of their work activities automated. When broken down, many of these occupations correspond to those at a high risk of being affected by automation, identified using the Frey and Osborne methodology. This suggests that in the near term major job restructuring could occur in many of these occupations.

# Systems for Labour Market Research

## CHAPTER

# 4



## Gathering Local Labour Market Information

When I began writing about the labour market in 1999, I felt it was essential for people to learn about economic activity and discover job leads. Any career counsellor would tell you the hidden job market is jobs where an obvious candidate emerges (*a friend, friend of a friend or colleague*) without needing to advertise the position. Employers prefer this method for a variety of reasons including the belief that hiring people you know is safer to simply avoiding the hassle of screening many candidates.

Some estimates suggest that 80 per cent of jobs are never posted. So how is one to connect with these jobs without a strong network? One key is to actively pursue networking opportunities. The other alternative is to use labour market research to make you aware of factors that cause jobs to be created.

Jobs are often created when companies expand, receive contracts, change ownership, open new facilities, expand their area of focus, raise capital, relocate and experience a peak season, such as golf course, retail establishment or tourism resort. Jobs are also created when people quit, are fired or retire.

Labour market information isn't just information about an occupation or industry. Often it is very current information that allows you to better understand the inner workings of a local or niche company. Better understanding companies and other organizations, make you a better candidate and puts you on the inside track when a job opportunity emerges. The following is list of methods you might utilize for looking for these opportunities:

- Go to city hall and collect listings of new business licenses issued, looking for businesses that may be moving to your community. It would also be valuable to check in with local real estate offices and Chambers of Commerce for this same purpose.
- Set up a Google 'News Alert' to let you know about articles that have been written about your profession, industry and specific employers you would like to work for. Tailor these terms to include reference to your town or British Columbia and include terms like "hiring," "new contract", "expanding" and "recruiting."
- Identify industry associations (*many of which are specified later in this guide*) and sector councils related to your profession. Search their websites looking for news items and when you attend networking events and conferences specifically look for instances where someone has left one organization to join another.
- Read business publications such as **Business in Vancouver**, **BC Business**, the **Journal of Commerce**, **Business Examiner** and **Canadian Business Journal** for companies that are expanding or seeking growth funding. It's also essential to read the business sections of the **Vancouver Sun**, **The Province**, the **Times Colonist**, the **Nanaimo Daily Newspaper**, the **Kelowna Daily Courier**, **Kamloops this Week**, the **Prince George Citizen**, the **Globe and Mail**, the **National Post** or another of British Columbia's daily newspapers looking for new information about companies in 'growth' mode.

- Regularly conduct information interviews with local companies to inquire about areas of possible expansion. These conversations can also include competitors who may have received a new contract or are expanding.
- Regularly review the Facebook, LinkedIn and Twitter profiles for companies. Often nuggets will appear in social media that others will miss.
- Use your social media profiles to follow companies you would like to work for an industry associations connected with your profession. Very few people comment on social media posts and making positive comments can make your name and profile stand-out.

## Resources

While there are a wide range of websites to assist individuals with labour market research, there is tremendous value in seeking out industry associations and sector councils when looking for networking opportunities, industry news, occupational research, employer lists and new information.

Associations can include groups of professionals and businesses as well as unions. These organizations are typically fiercely representative of their membership as they only represent one group in a sector such as workers or businesses. Associations are also typically BC-based, but there are exceptions.

Although severely curtailed by budget cuts, some Sector Councils still exist in Canada. These are national organizations that look at the future labour market needs of various industries. In a Sector Council, all of the interests of a particular industry are represented including employers, workers, unions, government and educators. The purpose of a Sector Council is to conduct research and the research is often very detailed and regionally specific, in spite the councils' need to look at the whole country.

## Business Publications

Researching the labour market, I frequently turn to business publications to look for areas where jobs are being created, employment standards are changing, new vocational training is being created and where the labour market is going. Labour market information is after all the human ramifications of economics and business publications do an excellent job of learning where those trends are starting.

Seeing that a company is raising money puts you in a great position to write a short email or note to potential employers congratulating them on their success and offering to discuss any opportunities that may emerge to work for the company. This allows you to be on the inside of the hiring wave before it even starts. Company managers will also appreciate your insight and pro-active approach.

The following is just a sampling of the business publications I routinely turn to for research:

**Aquaculture North America**

<https://www.aquaculturenorthamerica.com/>

**Advocate, The**

<http://www.the-advocate.ca/>

**BC Broker Magazine**

<http://www.insurancepeople.ca/>

**BC Business**

<https://www.bcbusiness.ca/>

**BC Forest Professional Magazine**

<https://abcfp.ca/>

**BC Labour Market Report**

[www.labourmarketonline.com](http://www.labourmarketonline.com)

**BC Studies**

<http://www.bcstudies.com/>

**Business Examiner**

<https://businessexaminer.ca/>

**Business in Vancouver**

<https://www.biv.com/>

**Business Review Canada**

[www.businessreviewcanada.ca](http://www.businessreviewcanada.ca)

**Canadian Business**

[www.canadianbusiness.com](http://www.canadianbusiness.com)

**Canadian Business Journal**

[www.cbj.ca](http://www.cbj.ca)



**Canadian Immigrant Magazine**

<http://canadianimmigrant.ca/>

**CBC News - Business**

<http://www.cbc.ca/news/business>

**Canadian Teacher**

[www.canadianteachermagazine.com](http://www.canadianteachermagazine.com)

**Canadian Property Management**

[www.remينetwork.com/canadian-property-management/home/](http://www.remينetwork.com/canadian-property-management/home/)

**Canadian Journal of Economics**

<https://economics.ca/cje/en/index.php>

**Construction Business**

[www.remينetwork.com/construction-business/home/](http://www.remينetwork.com/construction-business/home/)

**Design Quarterly**

<https://www.remينetwork.com/design-quarterly/home/>

**Electrical Line Magazine**

<http://electricalline.com/>

**Fast Company**

[www.fastcompany.com](http://www.fastcompany.com)

**Financial Post**

[www.business.financialpost.com](http://www.business.financialpost.com)

**Focus Online**

<http://focusonline.ca/>

**Georgia Straight**

<https://www.straight.com/>

**Globe Advisor**

<http://www.globeadvisor.com/>

**Globe Investor**

<http://www.theglobeandmail.com/globe-investor/>

**GoogleNews.ca**

<https://news.google.com/news/>

**Hotelier Magazine**

[www.hoteliermagazine.com](http://www.hoteliermagazine.com)

**Insurance People**

<http://www.insurancepeople.ca/>

**IT Business Canada**

[www.itbusiness.ca](http://www.itbusiness.ca)

**Journal of Commerce**

<https://canada.constructconnect.com/joc>

**Oil and Gas Product News**

<http://www.baumpub.com/oil-gas-product-news>

**Pacific Affairs**

<http://www.pacificaffairs.ubc.ca/>

**Paper Industry Magazine**

<http://www.paperindustrymag.com/>

**PROFITguide**

[www.profitguide.com](http://www.profitguide.com)

**Recycling Product News**

<http://www.baumpub.com/recycling-product-news>

**Resource World Magazine**

<http://resourceworld.com/>

**Scrivener, The (Magazine)**

<https://www.notaries.bc.ca/resources/showContent.rails?resourceId=521>

**Silviculture Magazine**

<http://www.silviculturemagazine.com/>

**Small Farm Canada**

<http://smallfarmcanada.ca/>

**Sustainable Business Magazine**

[www.sustainablebusinessmagazine.net](http://www.sustainablebusinessmagazine.net)

**Teacher Librarian**

<http://teacherlibrarian.com/>

**Trade Talk**

<http://www.bcbuildingtrades.org/tradetalk.html>

**Truck LoggerBC**

<http://www.tla.ca/magazine>

**Vancouver Magazine**

<http://vanmag.com/>

**Western Investor**

<http://www.westerninvestor.com/>

# Networking and Information Interviews

## CHAPTER

# 5



## Networking Without a Network

For years, I've been a staunch advocate of networking. Unfortunately, many people sit down to think about who they know who can help them find a job and the page is pretty empty. There are young people new to the job market, new Canadians, those who've changed jobs and others who've found themselves unemployed after long careers. These groups have either not had a chance to build a network or didn't know they needed to.

That's okay, I believe far more in the benefits of building a network. The most valuable people to have in your network are people who are connected to your profession. This will include people capable of hiring you, potential colleagues, people working in industries connected to yours, those providing education and training in your chosen sector and individuals who work in professional associations or unions attached to your industry.

Often, it will be possible to meet these individuals at networking events. I remember a story the brilliant Lionel Laroche, author of *'Recruiting, Retaining and Promoting Culturally Different Employees'*, told about networking. A recent immigrant to Canada, he chose to attend a meeting of professional engineers, as he was an engineer, and it turned out to be the association's annual general meeting. The organization was eager to get board members and Lionel found himself, having attended the meeting for the first time, being voted in as treasurer. Laroche admitted that it was hard work but it put him in contact with hundreds of professionals and quickly provided job opportunities.

If your profession has an association, it's essential to be involved. Go to meetings, volunteer on committees, help organize events, write for the newsletter and come up with postings for their social media sites. If you can be a go-getter in your professional arena, this will tell your colleagues that you're a go-getter in the workplace.

One extremely valuable way to build a network is to go on as many information interviews as possible. Every time you meet with a prospective employer, you're adding one new potential contact. Ask for feedback on your resume, details on the hiring process, the most valuable education and training and areas where you can improve your job search. If you've applied for a job and haven't heard back, this is still a great way to connect with a potential network member. If you were turned down for a job, ask for things you could have done better in your resume or interview. Many employers who are incapable of hiring you may be able to refer you to an employer who is hiring.

The Internet has been an incredibly valuable tool for helping connect professionals. Aside from LinkedIn, there is MeetUp.com, the world's largest network of local groups. MeetUp makes it easy for anyone to organize a local group or find one of the thousands already meeting up face-to-face. More than 9,000 groups get together in local communities each day, each one with the goal of improving themselves or their communities. You can find groups that are both local to your British Columbia

community or local representatives in your profession.

Outside your profession, it would be valuable to seek any opportunity to take a community leadership role. Organizations like the Lions Club, the Chamber of Commerce, the Rotary Club, the Parent Advisory Council, Toastmasters, etc. can be great for connecting with people who will have a long-term impact on your career goals.

The most important suggestion is to not give up on networking. Many job seekers will use it as a method for getting a job and then give up on the meetings and the involvement. This is a huge mistake. Not only will it serve you well should you find yourself looking for work down the road, but it will also help you find better opportunities for career advancement without losing your job.

## Networking Opportunities

There are many opportunities for networking. Just like with a spider web, the connections are held together by points where the web meets. This will be your contacts. Rather than just shaking a person's hand and hoping they'll follow-up with you, go out of your way to gather names, phone numbers and email addresses. You should then track this information in a database or at the very least using index cards.

Contacts should be contacted on a regular basis and try to make the relationship as two-way as possible. If you have valuable information or insights, go out of your way to leave message or send an email. If the purpose of your call is to continually inquire whether a job opportunity has emerged, these individuals will begin dreading your calls.

**For each employer you should track the following information:**

- **Full name and salutation**
- **Organization**
- **Position Title**
- **Telephone / Fax**
- **Email Address**
- **Website**
- **Notes for each time you contact them referencing what you discusses, the date and future plans.**

The following is a list of the various types of networking opportunities you can pursue:

### MeetUp Groups

<http://canada.meetup.com/>

As noted in the guide, MeetUp groups are a revolutionary way of connecting with people in your profession and potential employers. Most managers appreciate someone who takes an active interest in their profession and attending or even starting a MeetUp group can be very impressive.

### Industry Associations

*(Tracked in Chapter 14 of the Guide)*

There are literally hundreds of business and professional associations in British Columbia. For the purposes of the BC Labour Market Guide, we have tracked these associations by industry type.

Industry associations provide opportunities to connect with other professionals, gather information, compile lists of contacts and identify networking events.

### Classes / Professional Development

Attending a class or professional development event may allow you to accomplish two things. Employers will respect you for broadening your skills and abilities and it will also allow you to make new connections in your profession.

## Blogging

Employers are often looking for workers who have new ideas and those who are keeping up on the latest information. Aside from posting in social media, it can be valuable for job seekers to post intelligent, informed posts on blog sites.

The most popular free blog sites include: Reddit, Tumblr, WordPress, Blogger, Weebly, Squarespace and TypePad. Just as with social media, blog posts should be professional and proactive. If you are writing blog posts, you can then contact social media sites run by businesses and associations in your profession, asking them to promote your blog posts to their followers.

## Volunteer BC

<http://volunteerbc.bc.ca/>

Volunteering is an excellent way of developing skills, broadening an individual's network, and building personal confidence. Volunteer BC works with various partners and serve all members of the public who want to volunteer and be engaged in their community through meaningful and productive volunteer opportunities. Volunteer BC has partnered with Volunteer Canada, AVRBC, the Social Planning & Research Council of BC (SPARC BC) and Learning Initiatives for Rural and Northern BC (LIRN). BC boasts over 35 volunteer centres, each providing unique mix of programs to fit the needs of the community.

## Mentorship

(See Chapter Six)

There are numerous networking groups in British Columbia and many of them are eager to pair their highly qualified mentors with individuals who want to better understand their industry. While a Google search of '*Mentorship BC*' can return a number of results, there are hundreds of options and programs that specialize in supporting youth, women, Aboriginals, immigrants as well as programs in a multitude of industries.

Mentorship has an incredible track record for creating beneficial job opportunities in a person's chosen field. We'll discuss this more in the next chapter.

## Toastmasters International

**Toastmasters—District 21** -- <http://d21toastmasters.org/>

**Toastmasters—District 96** -- [www.district96.ca/](http://www.district96.ca/)

Toastmasters International is a world leader in communication and leadership development. The organization has more than 352,000 memberships. Members improve their speaking and leadership skills by attending one of the 16,400 clubs in 141 countries that make up our global network of meeting locations.

**District 21** (*in British Columbia*) was born in August 1946 at the Toastmasters International Convention in Seattle, Washington. At the time District 21 was five Toastmasters clubs in British Columbia. In the years since District 21 has built new clubs, more communicators and powerful leaders who have served at all levels of the organization and beyond.

District 21 grew to more than 300 clubs in all of British Columbia before officially splitting into two districts on July 1, 2014. Today District 21 encompasses all Toastmasters clubs on Vancouver Island, the Lower Mainland south of the Fraser River up into the interior.

With approximately 2500 members meeting in Yukon and half of British Columbia, District 96 is one of the province's chapters of Toastmasters (*alongside with District 21 south of the Fraser River*). Home to the first club outside of the United States and a history of results in leadership development and communication excellence, District 96 facilitates Toastmasters' growth within its territory within British Columbia and Yukon.

Clubs within District 96 fall within 9 divisions spanning multiple municipalities including Vancouver, Burnaby, Tri-Cities area, Whistler, southern Sunshine Coast, Squamish, Whistler, "everything north of Kamloops in British Columbia" and Whitehorse in the Yukon.

**BC Chamber of Commerce**

<http://www.bcchamber.org/>

Boards of Trade and Chambers of Commerce perform the same functions as business organizations in Canada. In fact, Chambers of Commerce are incorporated under the Boards of Trade Act in Canada. The BC Chamber of Commerce was established in 1951 by B.C.'s local Chambers and Boards of Trade, with a mandate to drive business advocacy on behalf of its B.C.-wide network. Utilizing the BC Chamber of Commerce Membership Directory on their website, an individual can search for the website for most Chambers and Boards of Trade across the province.

Chamber meetings are excellent places to network, but the Chamber of Commerce membership list is also an excellent resource for creating a list of potential employers. Companies that join one of these organizations often do so to have a stronger connection to the community. Simply calling an employer, noting that you saw they are a member of the local Chamber of Commerce, can be just the introduction you need to schedule an information interview.

**Service Organizations**

Some of British Columbia's most prominent service organizations include the Rotary Club, Lions Club, Kiwanis and the Optimist Club. This coupled with athletic clubs and organizations for kids and schooling, represents an extremely large group of potential contacts. These organizations typically have a strong inclination for giving back to the community. While it would certainly be valuable to join one of these organizations, I would recommend you do so out of a genuine desire to support your community, rather than as a scheme for connecting with potential employers.

**Unions / Trade Associations**

Often union membership goes hand-in-hand with working in a profession. British Columbia teachers must be members of the BC Teachers Federation. This may limit your ability to attend meetings, although many unions have memberships for job seekers, but the websites and contacts within the union can still be valuable sources of support. Unions are unique in that their purpose is to support workers in the profession. Connecting with union leaders and contacts can lead to great networking opportunities.

**Faith-Based Organizations**

Similar to service organizations, I would recommend you become more active in a faith-based organization if you genuinely feel moved to do so. These groups can lead to employment opportunities, but many people in these organizations would be disturbed if they felt your motives were not sincere.

**Information Interviews**

*May I have 10 minutes of your time?* Who doesn't have 10 minutes to spare? Getting an employer to sit down for an hour is a near impossibility with the busy schedules people maintain these days but asking for 10 minutes is a reasonable request many employers can spare.

Information interviews are incredibly valuable opportunities to gather information, learn new perspectives and build your network. If you try to make it a formal process, employers are going to weigh it against their ever growing to-do list and turn you down. A short telephone call explaining that you are new to town, you've just completed your schooling or you're shifting your career goals and you'd like to get the perspective of someone who's directly involved in the work can make the difference in getting this valuable time.

While a telephone call will be your only option for a lot of large organizations, if you have the opportunity to drop-in and request ten minutes, this would be preferable, as finding 10 minutes some time in the future can be more daunting for employers than finding 10 minutes right now. It's also much harder to turn someone down who's politely asked in your lobby versus someone you've never met on the telephone.

While you may ask for 10 minutes, the employer is perfectly free to give you more and often will. Look for visual and verbal cues the employer is trying to wrap things up. If the conversation is going well and you're gathering lots of valuable information, it's perfectly reasonable to stretch it out.

Personally, I've participated in dozens of information interviews, some as short as 10 minutes others that ran two hours. The best interviews were those that lasted the longest. An engaging conversation is a powerful tool and it will leave a positive impression with a prospective employer or someone who might be able to recommend you to someone else.

This is an often misunderstood fact, but the reason so many jobs are given to friends and insiders is not because these people are the most qualified, although that's possible. It's because the person responsible for hiring had some level of affection or trust in the person. It's impossible to know, trust or like someone based on nothing more than their resume.

When you arrive at an information interview, dress professionally, act courteous to everyone and be prepared. You don't necessarily want to share your resume as it can be interpreted as a scheme to just submit it. You do want to research the company as much as possible before arriving. I've heard all too often that people come in unprepared for an information interview and it really irritates employers. Knowing the industry and the company will help better prepare your questions and the conversation you share.

It might be obvious, but bring prepared questions. The employer is not interviewing you, you are interviewing them. You only have ten minutes but bring far more questions than you can fit into that period of time in case the interview goes longer. Ask about the business, workforce, hiring process, opportunities for advancement and special benefits of working for the company. Avoid questions that would seem self-serving such as those about salary and benefits. That's certainly something you can ask if you're offered the job.

Above all, remember to be genuine and prepared. Information interviews have two purposes: 1. to gather information about a prospective employer, industry and occupation and 2. to help build a network in your sector. You have to approach it with this expectation. If you can't do the first part with sincerity and a genuine desire to gather information, you'll fail to do the second thing. Employers dislike speaking with people who are only asking vague questions with the underlying purpose of getting a job.

## Information Interview Questions

I've prepared some questions you might consider asking a prospective employer, but I must tell you that it would be tremendously beneficial to consider writing out questions that you yourself are curious about. That's what it comes right down to. If you want a successful information interview, you should be asking questions about things you're personally curious about rather than reading out some stiff, pre-prepared questions.

The questions below are intended to help you generate ideas. If you're asking an employer for just 10 minutes, you'll want to pick just 10 questions to start with and if the employer gives you more time have additional questions in reserve.

I've divided the questions into four categories for the types of questions you might ask. These categories include:

- ◇ **Occupation Questions:** These are questions related specifically to the job you hope to obtain.
- ◇ **Organization Questions:** If you're meeting with the owner or manager of the business, you'll want to ask questions about the organization generally.
- ◇ **Perspective Questions:** These are questions typically related to the individual's perspective on thing. These questions will be opinions about their business, their staff, the industry, competitors and their own personal choices.
- ◇ **Advising Questions:** Some of your questions will relate to you personally. In this case you may be asking the employer for an opinion about the next best steps for you. If you're going to ask these questions, it would be helpful to bring your resume so the employer can offer you feedback on your experience, skills and resume.

So the questions aren't too general, I've written the questions as though you are a **chef conducting an interview with the owner of a restaurant**. Obviously, you want your questions to reflect the job you're seeking and the type of organization you wish to work in. You can modify these questions to meet that expectation.

**Occupation Questions**

- How many cooks and chefs do you employ?
- How much experience do they typically have when you hire them?
- What sort training and education have they completed?
- Do you apprentice chefs or cooks?
- Do you have a preference for culinary schools?
- How would you evaluate the importance of education and training in the success of a chef?
- What are the skills you consider to be most important for a new chef?
- Are you more likely to hire externally or promote from within?
- When you recruit, how many resumes do you typically get?
- How do you decide who to interview?
- Can you tell me about an employee who really impressed you? What did they do?
- What sort of personality is good fit for a chef?
- What sort of hours and shifts do your staff work?
- Why staff are let go, what is the typical reason?

**Organization Questions**

- How long have you owned this restaurant?
- How many staff do you employ? What are the hardest staff roles to recruit and retain?
- How much turnover do you have in staffing?
- What distinguishes your restaurant from your competitors?
- How do you establish your menu? Do you change it often?
- What steps do you take to ensure quality and consistency in your dishes?
- How much supervision does your staff require?

**Perspective Questions**

- How long have you been a restaurateur?
- What attracted or attracts you to running a restaurant?
- What are some of the challenges you face in recruiting?
- Is there something that people do in an interview that kills their likelihood of getting hired?
- What do you do to keep your restaurant fresh and relevant?
- Do you ever think about changing careers?
- What is the part of your job you love the best?
- What is the part of your job that drives you crazy?
- Is there something you have difficulty getting your staff to understand?
- If you gave up your business tomorrow, what would you most miss?

**Advising Questions**

- What is the most important thing I can do to establish my own career as a chef?
- Do you think I can find work right away or should I consider going back to school?
- Based on my skills and experience, do you think you might consider hiring me at some point?
- What do you think of my resume? Can you give me some pointers?
- Do you think it would be helpful for me to start off in a junior position and try to get promoted?
- If I'm able to find a job as a chef or cook, what do you think I could do to nurture my career?
- Do you know of anyone in the sector who might be hiring?
- Would you mind if I follow-up with you in the future to check in if there are any new openings?

While preparing questions is essential, good note taking is equally important. An employer would prefer to see their answers are having some impact with you. Please remember to thank this person for taking the time to meet with you and follow-up with a thank you note a day later.

Many of these questions demonstrate a sincere interest in the occupation, the industry and this individual. Conducting interviews such as these will be a great way of establishing a network but the real benefits are becoming better informed, giving you a rich understanding of employer perspectives and helping shape your own career path.



# British Columbia's Brightest Occupations

## CHAPTER

# 6

## Job Opportunities

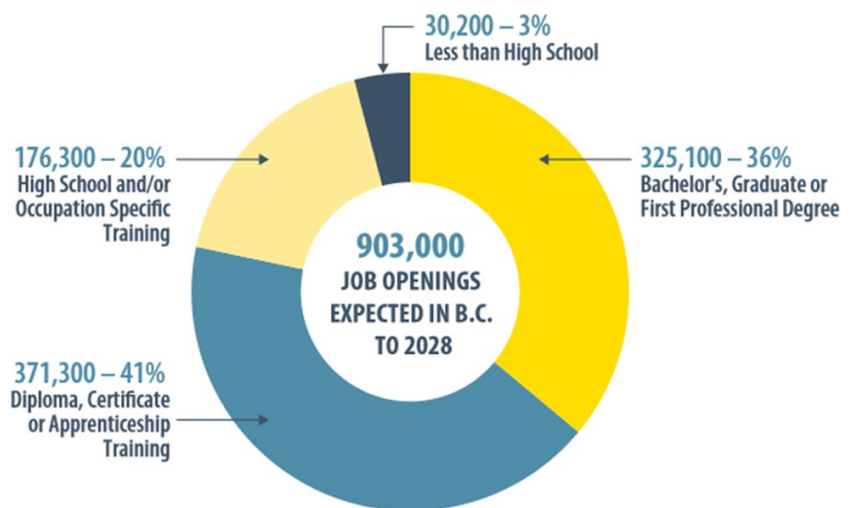
It is said by some that no jobs have been lost in the past 60 years as a result of automation. There is some truth to this, although, generally the jobs which remain after automation are far more skilled and there are a far fewer of them available.

In the coming decade it's projected that 903,000 new jobs will be created in B.C., 32% due to job growth and 68% due to replacing retiring workers. The table to the right details this growth.

<b>Total Job Openings</b>	<b>903,000</b>	<b>100%</b>
Economic Growth (Expansion)	288,000	32%
Replacement	615,000	68%
<b>Supply Additions</b>	<b>903,000</b>	<b>100%</b>
Young People Starting Work	454,000	50%
Immigrants	243,000	27%
Migrants from Other Provinces	76,000	8%
Additional Supply Requirements	130,000	15%

In the coming decade, more than 40% of new jobs will be created for graduates with a diploma, certificate, or apprenticeship training. The second largest area of education is those who complete a university program at 36%. Jobs for high school graduates will only amount to one in five jobs, and this area is eroding the fastest of all occupation groups. Just 3% of jobs are available to workers who haven't completed high school or post-secondary instruction.

The occupations with the brightest outlook are those requiring some vocational training or education and so we've included occupations in this guide which fall into one of the following three categories:



- 10 Occupations in Management
- 15 Occupations Requiring University Instruction
- 25 Occupations requiring College and/or Apprenticeship

### Top 10 Management Occupations

Rank	Occupation	NOC	New Jobs	Wage Range
1	Retail and wholesale trade managers	621	20,600	\$14,42-\$52.88/hr
2	Restaurant and food service managers	613	7,800	\$12.67-\$38.46/hr
3	Senior managers - financial, communications and other business services	13	5,100	N/A
4	Facility operation and maintenance managers	714	4,800	\$19.85-\$57.00/hr
5	Computer and information systems managers	213	4,800	\$26.44-\$69.40/hr
6	Financial managers	111	4,700	\$21.03-\$67.31/hr
7	Corporate sales managers	601	4,700	\$17.79-\$49.04/hr
8	Banking, credit and other investment managers	122	4,100	\$24.04-\$60.10/hr
9	Senior managers - construction, transportation, production and utilities	16	3,900	\$21.50-\$90.77/hr
10	Advertising, marketing and public relations managers	124	3,500	\$19.64-\$75.00/hr

### Top 15 University-Based Occupations

Rank	Occupation	NOC	New Jobs	Wage Range
1	Financial auditors and accountants	1,111	10,800	\$17.00-\$47.00/hr
2	Elementary school and kindergarten teachers	4032	10,100	\$20.51-\$46.63/hr
3	Information systems analysts and consultants	2,171	8,700	\$23.08-\$52.88/hr
4	Computer programmers and interactive media developers	2174	8,000	\$22.00-\$55.77/hr
5	Other financial officers	1114	6,600	\$20.19-\$57.69/hr
6	Lawyers	4112	5,400	\$39,811-\$269,702
7	Professional occupations in business management consulting	1122	4,800	\$20.00-\$51.43/hr
8	Software engineers and designers	2173	4,800	\$24.04-\$52.88/hr

Rank	Occupation	NOC	New Jobs	Wage Range
9	Professional occupations in advertising, marketing and public relations	1,123	4,300	\$16.00-\$48.08/hr
10	College and other vocational instructors	4021	4,000	\$17.00-\$50.48/hr
11	Civil engineers	2,131	3,900	\$20.19-\$67.00/hr
12	University professors and lecturers	4011	3,800	\$17.31-\$69.23/hr
13	Business development officers and marketing researchers and consultants	4163	3,300	\$16.00-\$43.59/hr
14	Human resources professionals	1121	3,100	\$17.58-\$54.87/hr
15	Producers, directors, choreographers and related occupations	5131	3,000	\$15.81-\$60.00/hr

### Top 25 Occupations Requiring a Diploma, Certificate and Diploma

Rank	Occupation	NOC	New Jobs	Wage Range
1	Administrative officers	1,221	17,100	\$15.00-\$33.00/hr
2	Social and community service workers	4212	11,800	\$15.00-\$28.85/hr
3	Accounting technicians and bookkeepers	1,311	10,600	\$13.13-\$32.05/hr
4	Administrative assistants	1241	9,700	\$14.42-\$30.00/hr
5	Early childhood educators and assistants	4214	8,900	\$13.00-\$24.04/hr
6	Real estate agents and salespersons*	6232	7,100	\$23,016-\$103,667*/yr
7	Automotive service technicians, truck and bus mechanics and mechanical repairers	7321	6,400	\$14.00-\$38.46/hr
8	Graphic designers and illustrators	5241	5,000	\$15.38-\$37.00/hr
9	Hairstylists and barbers	6341	5,000	\$11.35-\$22.50/hr
10	Program leaders and instructors in recreation, sport and fitness	5254	4,900	\$12.00-\$27.92/hr
11	Technical sales specialists - wholesale trade	6221	4,600	\$14.00-\$46.63/hr
12	Property administrators	1224	4,000	\$11.54-\$33.76/hr
13	Police officers (except commissioned)	4311	3,800	\$25.50-\$50.71/hr
14	Insurance agents and brokers	6231	3,500	\$14.00-\$35.90/hr
15	Financial sales representatives	6235	3,300	\$13.75-\$33.65/hr
16	Computer network technicians	2281	3,300	\$21.60-\$57.69/hr
17	Electronic service technicians (household and business equipment)	2242	3,000	\$15.70-\$38.31

Rank	Occupation	NOC	New Jobs	Wage Range
18	Retail sales supervisors	6211	2,800	\$11.51-\$33.65/hr
19	Supervisors, supply chain, tracking and scheduling co-ordination occupations	1215	2,700	\$15.00-\$40.06/hr
20	Legal administrative assistants	1242	2,700	\$15.00-\$32.00/hr
21	Executive assistants	1222	2,200	\$17.50-\$31.28/hr
22	User support technicians	2282	2,200	\$18.00-\$48.08/hr
23	Medical administrative assistants	1243	2,000	\$15.00-\$31.25/hr
24	Airline pilots, flight engineers and flying instructors	2271	1,600	N/A
25	Paralegal and related occupations	4211	1,500	\$13.85-\$45.67/hr

# Occupational Research

## CHAPTER

# 7



Occupations are incredibly complex and so often people don't have a full understanding of them until they actually have an opportunity to work in them. Unfortunately, if you need to complete years of education and training to work in your job, that is a real risk for the privilege of knowing if the job is good in the first place. Below, we've catalogued British Columbia, Canadian and international resources that provide a broad understanding of what is involved in various occupations.

While issues like salary, working conditions and occupational outlook are important, it's valuable to understand the nature of the work. Users can benefit from researching the Essential Skills occupations require; the ideal temperament, personality and values suitable to an occupation; and a detailed evaluation of the daily work activities and what people working the profession have to share about the work.

## Occupational Research Websites



### 2018 Labour Market Outlook

<https://www.workbc.ca/Labour-Market-Industry/Labour-Market-Outlook.aspx>

The 2018 edition of British Columbia's Labour Market Outlook is now available. The report provides the most up-to-date information on the types of jobs and skills that will be in demand in B.C. between now and 2028.

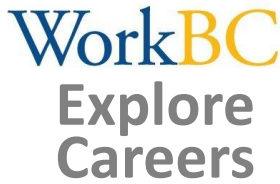
For students, parents and educators, the Outlook delivers valuable career, education and skills training information to help guide career choices. For employers and business owners, the Outlook supports long-term planning and identification of skills needs.

### Did you know?

- B.C.'s demographics are changing—about 8% of people are now at retirement age.
- Over the coming decade, 68% of all job openings will result from people leaving the workforce, mostly due to retirement.
- In all, B.C. is forecast to have 903,000 job openings between 2018 and 2028.
- 77% of future jobs will require some form of post-secondary education or training.

### Inside the Outlook

- A ten-year forecast of jobs in demand and the level of skill needed to get them
- A listing of the expected job opportunities in each of B.C.'s seven regions
- A look at the changing workforce, including how skills and competencies are shifting



### WorkBC: Explore Careers

[www.workbc.ca/Jobs-Careers/Explore-Careers.aspx](http://www.workbc.ca/Jobs-Careers/Explore-Careers.aspx)

Explore 500 career profiles and get all the details you need, from job duties and wages to projected demand in your region. Discover the occupations that are expected to have above-average opportunities over the coming decade.

The High Demand Occupations list is a key part of the Outlook. You can find an explanation of the main factors influencing demand on the website. Detailed information on how this list is developed is available in the Labour Market Outlook report.

Gold highlighted occupations in the table on the website are moving into balance. A moving to balance occupation is one where supply and demand for the occupation is moving into balance. If the trend continues in future years, the occupation may be removed from this list.

### Occupations can be searched by:

1. Job title or National Occupation Classification code
2. Education level & salary
3. Occupation categories

### For each occupation, the page provides the following information:

- About this job
- Earnings
- Work environment
- Workforce and employment statistics
- Job requirements
- BC Labour Market Outlook (2018-2028)
- Related careers
- Career paths and resources

### Topics on this section of the site also include:

- **Types of employment in B.C.** -- Learn about the many options to work in B.C., from full-time employment to telecommuting
- **Learn about self-employment options** -- Discover the various ways you can be self-employed in B.C. and see if one is right for you
- **Plan your career** -- Find online self-assessment resources to help you make the right career choice
- **Is self employment right for you?** Find the skills you need for entrepreneurship success and learn how to get started



### BC Stats

[www2.gov.bc.ca/gov/content/data/statistics/employment-labour/labour-market-statistics](http://www2.gov.bc.ca/gov/content/data/statistics/employment-labour/labour-market-statistics)

Published by BC Stats, the monthly Labour Force Survey (LFS) captures data about the labour market and provides estimates of employment and unemployment which are the most timely and important measures of performance of the Canadian economy.

In addition to unemployment rate, LFS data are used to produce other standard labour market indicators and employment estimates. It is one of five surveys used to describe labour market.

In-depth research available from BC Stats includes:

- Monthly Highlights
- Annual Averages

- Labour Market Forecasts
- Data Tables Available from CANSIM

## JOB BANK



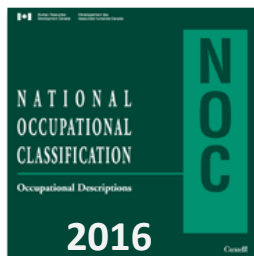
### Explore Careers - Job Bank

[www.jobbank.gc.ca/explorecareers.do](http://www.jobbank.gc.ca/explorecareers.do)

Explore careers, part of the Canada Job Bank, allows users to explore careers by:

- *Occupation*
- *Wages*
- *Outlook*
- *Fields of Study*
- *Skills and Knowledge*
- *Trends and News*

Users are able to narrow down their search by postal code to provide local information.



### National Occupational Classification

<http://noc.esdc.gc.ca/English/home.aspx>

The National Occupational Classification (NOC) 2016 is the authoritative resource on occupational information in Canada providing a standard taxonomy and framework for dialogue on Labour Market Information. It gathers more than 30,000 occupational titles into 500 Unit Groups, organized according to skill levels and skill types.

Ongoing research and updates to the NOC ensure that it continues to reflect occupational changes in the Labour Market. The NOC 2016 revision brought changes to 314 NOC occupational Unit Groups, added 204 new occupational titles, and modified another 21 titles in English. The review of the classification structure was not part of this revision.

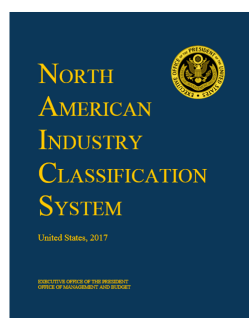


### Canadian Occupational Projection System (COPS)

<http://occupations.esdc.gc.ca/sppc-cops/w.2lc.4m.2@-eng.jsp>

Employment and Social Development Canada (ESDC) uses the models of the Canadian Occupational Projection System (COPS) and the National Occupational Classification (NOC, 2011 version) to develop projections of future trends in the numbers of job openings and job seekers for 292 occupational groupings at the national level, covering the entire workforce. The projections allow for identifying those occupations that may face labour shortage or labour surplus conditions over the medium term. The latest projections cover the 2015 to 2024 period.

Users can search for summaries of projection results by occupation or industry. Detailed projection results by occupation or industry, including information on the factors that are expected to influence occupational labour markets, such as demographics, labour force participation rates by age group and level of education; and synthesis documents covering the major components of the projections, i.e. the economic scenario, the industrial breakdown of economic activity, job openings by occupation, job seekers by occupation and projected labour market conditions by occupation.



### North American Industry Classification System

[www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=118464](http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=118464)

The North American Industry Classification System (NAICS) is an industry classification system developed by the statistical agencies of Canada, Mexico and the United States. At the highest level, it divides the economy into 20 sectors. Created against the background of the North American Free Trade Agreement, it is designed to provide common definitions of the industrial structure of the three countries and a common statistical framework to facilitate the analysis of the three economies. NAICS



is based on supply-side or production-oriented principles, to ensure that industrial data, classified to NAICS, are suitable for the analysis of production-related issues such as industrial performance.

### Canadian Industry Statistics

[www.ic.gc.ca/app/scr/app/cis/search-recherche?lang=eng](http://www.ic.gc.ca/app/scr/app/cis/search-recherche?lang=eng)

Canadian Industry Statistics (CIS) analyses industry data on many economic indicators using the most recent data from Statistics Canada. CIS looks at industry trends and financial information, such as GDP, Labour Productivity, Manufacturing and Trade data.



### PayScale

[www.payscale.com/research/CA/Country=Canada/Salary](http://www.payscale.com/research/CA/Country=Canada/Salary)

PayScale administers the largest real-time salary survey in the world with more than 150,000 new survey records added every month. The database of more than 54 million total salary profiles is updated nightly to reflect the most detailed, up-to-date compensation information available. Our data collection is strongly correlated with the size of the pool being considered, representing the diversity of the general workforce.

People complete a salary profile on PayScale's website for many reasons, but mostly to prepare to ask for a raise, evaluate a job offer, or just to know how they stack up against others in similar positions. Upon completing PayScale's salary survey, individuals receive a series of reports that show how their salary compares to other people with similar education, skills and work experience. Individuals can also explore how changes such as moving to a different city, getting a promotion and going back to school can affect their future earning potential.



### Glass Door

[www.glassdoor.ca/Salaries/index.htm](http://www.glassdoor.ca/Salaries/index.htm)

Glassdoor holds a growing database of millions of company reviews, CEO approval ratings, salary reports, interview reviews and questions, benefits reviews, office photos and more. Unlike other jobs sites, all of this information is entirely shared by those who know a company best — the employees. Add to that millions of the latest jobs — no other site allows you to see which employers are hiring, what it's really like to work or interview there according to employees, and how much you could earn. Glassdoor is also available via its mobile app on iOS and Android platforms.

For employers, Glassdoor offers effective recruiting and employer branding solutions via Glassdoor for Employers. They help thousands of clients and partners promote their employer brand to candidates researching them and advertise their jobs to ideal candidates who may not be aware of them. What differentiates Glassdoor from other recruiting channels is the quality of job candidates they deliver and their influence on candidates' decisions as they research jobs and companies.

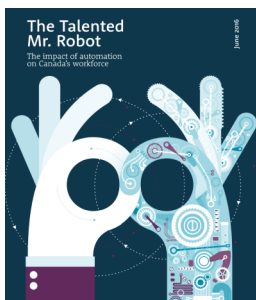
### The Talented Mr. Robot: The Impact of Automation on Canada's Workforce

[https://brookfieldinstitute.ca/wp-content/uploads/TalentedMrRobot\\_BIIE-1.pdf](https://brookfieldinstitute.ca/wp-content/uploads/TalentedMrRobot_BIIE-1.pdf)

Researchers found that nearly 42% of the Canadian labour force is at a high risk of being affected by automation in the next decade or two. They also discovered that major job restructuring will likely occur as a result of new technology. Using a different methodology, they found that 42% of the tasks that Canadians are currently paid to do can be automated using existing technology.

Read this report to help you:

- Search specific occupations for the number of tasks that can be automated and the likelihood the entire occupation will be automated within 10-20 years.



- *Understand the effects that automation can have on the Canadian labour force.*
- *Identify income, education and demographic characteristics of Canadian occupations based on their risk of being affected by automation.*
- *Identify how automation is expected to impact the specific tasks the Canadian labour force performs.*

**O\*NET OnLine**

[https://brookfieldinstitute.ca/wp-content/uploads/TalentedMrRobot\\_BIIE-1.pdf](https://brookfieldinstitute.ca/wp-content/uploads/TalentedMrRobot_BIIE-1.pdf)

O\*NET OnLine has detailed descriptions of the world of work for use by job seekers, workforce development and HR professionals, students, and researchers. Central to the website is the O\*NET database, containing information on hundreds of standardized and occupation-specific descriptors. The database, which is available to the public at no cost, is continually updated by surveying a broad range of workers from each occupation. Information from this database forms the heart of O\*NET OnLine, an interactive application for exploring and searching occupations. The database also provides the basis for their Career Exploration Tools, a set of valuable assessment instruments for workers and students looking to find or change careers.

# Educational Research and Planning

## CHAPTER 8



### Educational Outcomes

In 2016, Statistics Canada published a study titled *Labour Market Outcomes of Young Postsecondary Graduates*, examining the outcomes of Canadian-born individuals aged 25 to 34 who are college graduates or hold a bachelor's degree. The research provides an illuminating understanding of the occupations which provide the best financial prospects and labour market attachment. The following is a summary of this research.

#### Introduction

Since the recession of the late 2000s, concerns have been raised as to whether the labour market outcomes of young postsecondary graduates have deteriorated in recent years. Given the considerable financial and time investment associated with a postsecondary education, this question is of interest to policy makers, students and their families, and postsecondary institutions.

While previous research has established that earnings of university and college graduates differ across fields of study, it is not known whether earnings and employment patterns of graduates from different fields of study have followed a similar trajectory in recent years.

This study assesses how real annual wages and salaries of young Canadian-born postsecondary graduates evolved by field of study over the 2005-to-2012 period. It also compares employment patterns across fields of study, documenting which postsecondary graduates were more likely to be employed full time on a full-year basis, i.e., for 49 weeks or more. For both outcomes—earnings and employment patterns—results for bachelor's degree holders and college graduates are compared to those observed for high school graduates.

#### Earnings increased for male postsecondary graduates in Engineering and for female postsecondary graduates in Health

In 2005, Canadian-born male and female bachelor's degree holders aged 25 to 34 earned on average \$65,400 and \$46,500 (in 2012 dollars) in wages and salaries, respectively. This was more than \$20,000 higher than the earnings received by their counterparts with only a high school diploma. While young female bachelor's degree holders saw their earnings rise from 2005 to 2012, young male bachelor's degree holders experienced a slight decline in real earnings from 2007 to 2010 and little change afterwards. By 2012, young male and female university graduates earned 4.9% and 8.5% more, on average, than their counterparts did in 2005.

Earnings growth was not uniform across fields of study. From 2005 to 2012—a period characterized by rising oil prices — young men with a bachelor's degree in Engineering recorded a 10% increase in real average earnings. In contrast, their counterparts with a bachelor's degree in Social Sciences, Business Administration, and Mathematics, Computer, and Information Science

experienced no growth in real average earnings during that period. Even though the average real wages and salaries of young male bachelor's degree holders in Education, were higher in 2012 than in 2005, the difference is not statistically significant at conventional levels.

Young female bachelor's degree holders saw their average earnings rise in several fields of study. Those who graduated in Education, Health, and Business Administration recorded increases in average real wages and salaries that varied between 10% and 12% from 2005 to 2012. In contrast, those who graduated in Humanities experienced no growth in average earnings. Changes in average earnings observed in other fields of study were not statistically significant at conventional levels.

Overall, depending on the field of study considered, young men with a bachelor's degree earned on average between \$9,500 and \$38,900 more than young men with a high school diploma in 2012. Young women with a bachelor's degree earned on average between \$12,700 and \$32,900 more than young women with a high school diploma.

Among male college graduates, average earnings reached a peak of \$56,200 in 2007, fell from 2007 to 2010 and increased to \$55,800 in 2012. By 2012, young male college graduates earned on average 7.1% more than their counterparts did in 2005. Young female college graduates also displayed some growth in earnings during this period but this was found to be not statistically significant.

Similar to young men with a bachelor's degree in Engineering, young men with a college certificate in Engineering also fared well from 2005 to 2012. Their average real earnings grew by 13% during this period, rising from \$56,800 in 2005 to \$64,200 in 2012. Average real earnings of male college graduates in Mathematics, Computer, and Information Science grew at a similar pace. Male college graduates in Personal and Protective Services saw their average real earnings increase by 18%.

Young female college graduates in Health saw their average wages and salaries rise by 9% from 2005 to 2012, an increase that is similar to that experienced by young women with a bachelor's degree in health.

Young male postsecondary graduates in Engineering and young female postsecondary graduates in Health experienced moderate earnings growth from 2005 to 2012 while young male bachelor's degree holders in Mathematics, Computer, and Information Science did not see their earnings rise. Nevertheless, earnings of young male college graduates in Mathematics, Computer, and Information Science did increase, along with those of young female bachelor's degree holders in Education and Business Administration. Considering the fields of study, there is no evidence of a substantial deterioration in the earnings of young postsecondary graduates in recent years.

### **School enrollment rates changed little for young postsecondary graduates from 2005 to 2012**

The relative stability of earnings observed from 2005 to 2012 might be misleading if, in response to reduced employment opportunities, some postsecondary graduates left the labour market in 2012, earned no wages and salaries that year, and enrolled in school to pursue their schooling. If so, school enrollment rates of young postsecondary graduates should be higher in 2012 than in 2005.

Whether this is the case or not is investigated in Charts 3 and 4, using data from the *Labour Force Survey* (LFS). The percentage of young Canadian-born male and female postsecondary graduates enrolled in school is plotted from 2006 to 2014. Since the distinction between Canadian-born and immigrant postsecondary graduates can be made in the LFS only starting in 2006, the percentage of young postsecondary graduates—both immigrant and Canadian-born—enrolled in school is also plotted from 2005 onwards to allow inferences over the 2005-to-2012 period.

### **Employment Patterns**

The success of individuals in the labour market can be gauged not only by their annual earnings, but also by the degree to which individuals succeed in securing full-time employment. Of all young men with a bachelor's degree in 2010, 82% worked full time on a full-year basis, i.e., for 49 weeks or more. In contrast, their counterparts with a high school diploma did so to a lesser extent: only 66% of them worked full year, full time that year. The percentage of young female bachelor's degree holders working full year, full time in 2010 was, at 65%, 14 percentage points higher than the corresponding proportion for young female high school graduates.

Following the 2008/2009 recession, young men with a bachelor's degree saw their rate of full-year full-time employment drop in 2010 relative to 2005. In contrast, overall rates of full-year, full-time employment changed little for college graduates and young female bachelor's degree holders during that period.

Differences in rates of full-year, full-time employment observed across fields of study for young men with a bachelor's degree are substantial. Both in 2005 and 2010, no more than three-quarters of young men with a bachelor's degree in Humanities worked full year, full time, much less than the rates of 90% and 87% observed, respectively, among their counterparts in Engineering. Differences across fields of study for young female bachelor's degree holders or for young male and female college graduates are less pronounced. For both sexes and both years, young college graduates and bachelor's degree holders in most fields of study had higher rates of full-year, full-time employment than young high school graduates.

## Educational Resources

### BC Student Outcomes

[www.outcomes.bcstats.gov.bc.ca](http://www.outcomes.bcstats.gov.bc.ca)

*Each year, BC Student Outcomes information is received from tens of thousands of former post-secondary students across British Columbia. They are asked a series of questions related to their educational experiences, subsequent employment and further studies.*

*Currently, BC Student Outcomes includes three annual surveys:*

- *Diploma, Associate Degree, and x Certificate Student Outcomes Survey*
- *Baccalaureate Graduates Survey*
- *Apprenticeship Student Outcomes Survey*

### BC Transfer Guide

[www.bctransferguide.ca](http://www.bctransferguide.ca)

*BC's post-secondary institutions offer a variety of programs, and transfer opens up new possibilities for accessing these programs. For example, if a student does not meet the admission requirements for entering a BC university directly, they may be eligible to apply for admission later as a transfer student. Students can complete up to two years credit (and sometimes more!) and transfer to a university to finish their degree.*

*Students can also transfer between non-degree programs. For example, you may start a diploma at one institution and finish it at another. Or you can take distance education courses from a variety of places, and transfer the credits back to your "home" institution. Transfer allows students to begin their studies at an institution of their choice, opening up possibilities of taking courses close to home, smaller class sizes, and more affordable tuition fees.*

### British Columbia Council on Admissions & Transfer

[www.bccat.ca](http://www.bccat.ca)

The BC Council on Admissions & Transfer (BCCAT) oversees the BC Transfer System, enabling links between the BC post-secondary institutions, the education ministries, and the public and private education sectors.

BCCAT facilitates admission, articulation, application, and transfer arrangements among BC post-secondary institutions for the benefit of students.

This involves:

- **Engagement:** BCCAT engages post-secondary partners by working collaboratively to address credit transfer challenges and opportunities
- **Information:** BCCAT informs institutions and other post-secondary partners through conducting research, providing advice, and answering questions related to student transfer, mobility, and success in the BC post-secondary system.

- **Support:** BCCAT supports BC students by providing web-based planning tools (EducationPlanner.ca and BCTransferGuide.ca), and assists the transfer and articulation community by delivering substantive resources and streamlined services

### Canada-BC Job Grant

[www.workbc.ca/Employer-Resources/Canada-BC-Job-Grant.aspx](http://www.workbc.ca/Employer-Resources/Canada-BC-Job-Grant.aspx)

The Canada-B.C. Job Grant (CJG) is an employer-driven, cost-sharing program that helps employers invest in training for their current or future employees. The CJG assists eligible employers to offset the cost of training up to a maximum of \$10,000 per participant per fiscal year, and up to a maximum of \$15,000 per participant per fiscal year for the Unemployed Stream. The employer contributes at least one-third to the cost of training, with the exception of the Unemployed stream. The employer of all streams must have a job for the participant at the end of training.

The goals of the CJG are to increase participation of British Columbians in the labour force by helping them develop the skills they need to find and keep a job. The CJG is also an opportunity for employers to invest in training that is better aligned to job opportunities. Please refer to CJG criteria to fully understand the eligibility requirements of the program before you apply.

### Canadian Academic English Language (CAEL) Assessment

[www.cael.ca](http://www.cael.ca)

*The Canadian Academic English Language Assessment is designed to measure the English language proficiency of students planning to study in Canadian post-secondary institutions.*

### Canadian Association for Prior Learning Assessment (CAPLA)

<http://capla.ca/>

*The Canadian Association for Prior Learning Assessment (CAPLA) has been the national voice for prior learning assessment and recognition (PLAR) since 1994. It has over 400 members from across Canada and abroad, including PLAR practitioners, occupational bodies, governments, academic institutions, training organizations, career counsellors, NGOs, settlement and integration organizations, industry councils, researchers, employers, labour and adult learners.*

### EducationPlannerBC

[www.educationplannerbc.ca](http://www.educationplannerbc.ca)

*The EducationPlannerBC Steering Committee and Working Groups are made up of representatives from BC public post-secondary institutions, including Registrars, Provosts, Vice Presidents Student Affairs, and Chief Information Officers. Representatives from a large variety of the 25 BC public post-secondary institutions have been involved in the initial development and planning, and will be involved in varying degrees moving forward.*

*EducationPlannerBC goals include:*

1. *Students will explore potential career pathways and the variety of post-secondary opportunities available in BC to help them achieve their personal goals.*
2. *Students will use a single online resource to easily and conveniently apply to BC post-secondary institutions.*
3. *Post-secondary institutions and government will access system-wide data regarding the usage of educational/career planning information and applicant behaviour to inform policy decisions.*

### Education Quality Assurance

[www2.gov.bc.ca/gov/content/education-training/post-secondary-education/institution-resources-administration/education-quality-assurance](http://www2.gov.bc.ca/gov/content/education-training/post-secondary-education/institution-resources-administration/education-quality-assurance)

*Education Quality Assurance (EQA) designation is available to public and private institutions in B.C. that meet or exceed quality assurance standards set by the province of B.C.*

*Institutions carrying the EQA designation meet criteria beyond what's required by legislation, regulatory bodies and*

accreditation processes. This means:

- Students can be assured they will receive a minimum standard of educational quality
- The institution also meets legislated requirements
- The institution is in good standing with related education bodies
- The institution meets EQA suitability requirements and is abiding by the EQA Standards of Conduct

### Industry Training Authority of British Columbia

[www.itabc.ca](http://www.itabc.ca)

*The Industry Training Authority (ITA) leads and coordinates British Columbia's skilled trades system. ITA works with employers, apprentices, industry, labour, training providers and government to issue credentials, supports apprenticeships, fund programs, set program standards and increase opportunities in the trades.*

*Ministry of Advanced Education, Skills & Training*

[www2.gov.bc.ca/gov/content/governments/organizational-structure/ministries-organizations/ministries/advanced-education-skills-training](http://www2.gov.bc.ca/gov/content/governments/organizational-structure/ministries-organizations/ministries/advanced-education-skills-training)

*The Ministry of Advanced Education, Skills & Training provides leadership and direction for post-secondary education and skills training systems in British Columbia as well as labour market information and programs.*

### International Credential Assessment Service of Canada (ICAS)

[www.icascanada.ca](http://www.icascanada.ca)

*Academic Documents and Transcripts: Provides general (document-by-document) assessments and comprehensive (course-by-course) assessments for both secondary and postsecondary studies.*

### Literacy and Essential Skills

[www.canada.ca/en/employment-social-development/programs/essential-skills.html](http://www.canada.ca/en/employment-social-development/programs/essential-skills.html)

*Essential skills include the skills associated with literacy (i.e. reading, writing, document use and numeracy) but goes beyond to also include thinking skills, oral communication, computer use/digital skills, working with others and the skills associated with continuous learning. They provide the foundation for learning all other skills and enable people to better prepare for, get and keep a job, and adapt and succeed at work.*

### Occupation-Specific Language Training

<http://co-oslt.org/en/>

*Free Occupation-specific Language Training for newcomers offers*

- Language training geared to your occupation.
- Practical exercises based on actual workplace communications tasks.
- Career-planning assistance.
- Opportunities to connect with local employers, industries and resources.

### Private Training Institutions Branch

[www.privatetraininginstitutions.gov.bc.ca](http://www.privatetraininginstitutions.gov.bc.ca)

*Private training institutions in British Columbia require a certificate from the Private Training Institutions Branch (PTIB) if they provide, or offer to provide, at least one career-related program with 40 hours or more of instructional time, and tuition of at least \$4000.*

*Over 51,000 students enroll in private training institutions in B.C. each year. Students are trained for a broad range of occupations from sound and audio technicians to licensed practical nurses to commercial pilots.*

*The Private Training Institutions Branch (PTIB) of the Ministry of Advanced Education, Skills & Training administers the Private Training Act and associated regulations.*

**Red Seal**

[www.red-seal.ca](http://www.red-seal.ca)

*The Red Seal Program is the Canadian standard of excellence for skilled trades. Formally known as the Interprovincial Standards Red Seal Program, it sets common standards to assess the skills of tradespersons across Canada. Tradespersons who meet the Red Seal standards receive a Red Seal endorsement on their provincial/territorial trade certificates.*

**Sector Labour Market Partnerships**

[www.workbc.ca/Employment-Services/Community-and-Employer-Partnerships/Labour-Market-Partnerships.aspx](http://www.workbc.ca/Employment-Services/Community-and-Employer-Partnerships/Labour-Market-Partnerships.aspx)

The Sector Labour Market Partnerships (LMP) Program helps industry and employers understand and respond to changing labour market demands. The Program provides funding for partnership-led projects that address broader sector and regional labour market issues within British Columbia's diverse economy.

Progress from one phase to another is based on demonstrated need and satisfactory completion of project deliverables outlined in the previous phase. Not all phases are mandatory. For example, some projects are already led by strong partnerships, and a Sector Engagement Phase is not required.

To be eligible for funding, projects must clearly address sector or regional labour market issues within British Columbia. Generally, this means a current or anticipated imbalance between supply (workers) and demand (jobs), or a lack of appropriate skills and experience to meet the needs of a changing workplace.

**TOEFL**

[www.ets.org/toefl](http://www.ets.org/toefl)

*The TOEFL test is the most widely respected English-language test in the world, recognized by more than 10,000 colleges, universities and agencies in more than 130 countries, including Australia, Canada, the U.K. and the United States. Wherever you want to study, the TOEFL test can help you get there.*

**World Education Services (WES)**

[www.wes.org/ca/ocasca.asp](http://www.wes.org/ca/ocasca.asp)

*Academic Documents and Transcripts: Provides general (document-by-document) assessments for both secondary and postsecondary studies and comprehensive (course-by-course) assessments for postsecondary studies only.*



# Career Planning

## CHAPTER

# 9



## Holistic Approach to Career Planning

All too often people select career paths based on someone they know who is already in the profession, the suggestions of friends and family members or the financial rewards an occupation provides.

When people do participate in career planning, it is usually based on a handful of career testing tools, if not just one.

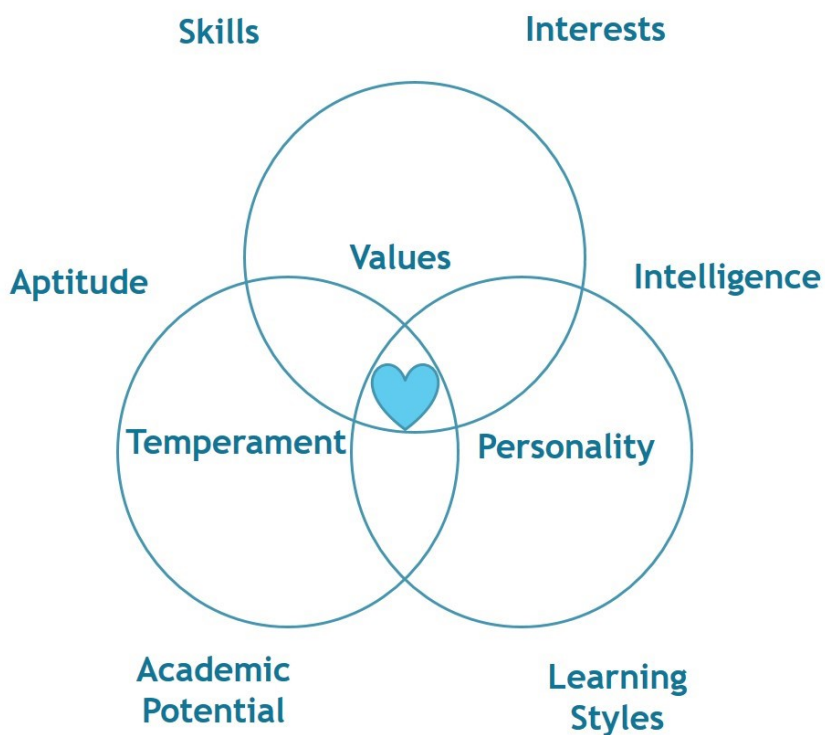
The challenge with either approach is that it gives you a very limited understanding of yourself and your occupational goals.

In my experience, at the heart of career success is personal satisfaction you derive from the duties, responsibilities and work environment of any occupation. To this end, an individual's personality, temperament and work values should be in alignment for someone to love their work.

**Personality** is very much who you've become based on life experience while **temperament** is the qualities with which you were born. **Work values** are the beliefs and ideas that are important to you and which you use to guide your actions. In my experience, if people's work is not in harmony with their temperament, personality and values, individuals will be very unhappy in their work.

Beyond a person's core, exist other attributes of career success. These include:

- **Skills:** These represent the abilities a person has developed over time through training and/or experience. Based on the Government of Canada's Essential Skills, these may include: reading, document use, numeracy, writing, oral communication, working with others, thinking, computer use and continuous learning.
- **Aptitude:** This is the natural capacity of an individual to acquire competence or skill through training. These are the qualities that make some individuals better writers, more proficient at math and better communicators when they



develop the skills. Young people often score low in skills testing, due to a lack of life experience, but score highly in aptitude testing.

- **Interests:** Self explanatory, interests are the sectors, tasks and roles which most appeal to individuals. Understanding a person's array of interests can be influential in developing an understanding of suitable occupations.
- **Intelligence:** Better known as IQ, intelligence is a person's ability to make mental leaps between concepts and ideas. While intelligence has been a key factor in selecting individuals for occupations, it represents just one type of aptitude and can contribute to a person's being able to learn some new tasks more effectively. This said, high – intelligence can be an important factor in success in a number of occupations.
- **Learning Styles:** While many people speak about three learning styles: *auditory* — taking information in through the ears and processing it; *visual* — taking information in through visual illustrations; and *kinesthetic* — learning through active participation, typically individuals do not fall into just one learning style. Many individuals might be suited to combinations of learning styles. As such, an individual who might be suited to a visual learning environment could still value the auditory process the instructor provides. The key is for people to understand their natural learning styles and seek educational alternatives and learning environments that suit this natural orientation.
- **Academic Potential:** So often people have struggled in one educational environment and prospered in another. Many individuals who've had difficulty in university instruction, have thrived in a hands-on-learning such as apprenticeship. Meanwhile, some students who've excelled in university, struggle to learn effectively in an apprenticeship.

Vocational and psychometric testing instruments are available in each of these areas and a comprehensive exploration can provide individuals with a well-rounded understanding of themselves, their career options and the work environment and tasks that would best serve their interests, skills, aptitude, personality, temperament and work values.

The following includes two of the most valuable resources for career professionals wanting to provide a more comprehensive suite of career guidance resources.

#### Psychometrics Canada

[www.psychometrics.com](http://www.psychometrics.com)

Psychometrics Canada has provided expertise in the field of business psychology since 1976. Their clients range from independent consultants, corporations, and all levels of government and education. They help organizations select employees and develop their talent through the use of psychometric assessment.

The firm tailors an approach for each client they work with: developing an appropriate methodology and providing tools to suit each client's goals and expected outcomes. With flexible testing offered both online and delivered through their store, they can help uncover human potential for any situation or need.

Just some of the assessments available from Psychometrics Canada include: Myers-Briggs Type Indicator® (MBTI®); Thomas-Kilmann Conflict Mode Instrument (TKI®); Work Personality Index® (WPI); Psychometrics 360°; Career Interest Profiler; and the Strong Interest Inventory.

#### Career Cruising

<https://public.careercruising.com/en/>

Used by 5 million people in 20,000 schools, centres and libraries, Career Cruising has become the definitive resource for career planning. In Canada.

Career Cruising was launched over fifteen years ago by three friends fresh out of university who shared a big dream of their own. They wanted to create a life-changing career program that would engage and inspire people everywhere.

What started as a dream is now a reality. And one that continues to evolve. Today, Career Cruising is used by more students, parents, educators and libraries than any other career development program in North America.

# Trades and Apprenticeship Resources

## CHAPTER 10



### Value of Apprenticeship

According to recent data from **Statistics Canada**, more than eight out of 10 apprentices were employed in 2015. Immigrant apprentices had a similar employment rate to apprentices overall at 80%, while Aboriginal apprentices (76%) and women (73%) had somewhat lower employment rates.

Among the top 10 Red Seal trades, the majority of those who completed their programs (89%) held a job related to the trade of their apprenticeships. Results ranged from 80% for hairstylists to 96% for plumbers. The **Interprovincial Red Seal Program** is the Canadian standard for skilled trades and allows tradespeople to have their skills recognized across the country. The majority of apprentices (78%) were enrolled in the program.

Provinces and territories invest in apprenticeships to develop tradespeople that contribute to their economies. **National Apprenticeship Survey** results showed that following their apprenticeship programs, the majority of apprentices, whether they completed their program (94%) or not (90%), were employed in the same province or territory where they had trained.

Apprentices continued to be mainly young men who were born in Canada. There was a notable underrepresentation of women and immigrants in these programs. Women form about half of the population in Canada, but they accounted for 14% of apprentices. Similarly, immigrants accounted for 9% of apprentices, less than half their share (23%) of the population of Canada aged 15 and over.

Things were somewhat different for apprentices who were Aboriginal. Aboriginal apprentices accounted for 6% of all apprentices in 2015, a slightly higher representation than their share of the Canadian population (4% of those 15 years and over). Looking specifically at Métis apprentices, they made up 3% of all apprentices in Canada, more than double their representation among Canadians 15 and over (1.3%).

Apprentices can be certified in trades that are not designated Red Seal, however, a large share of apprentices were in the Red Seal trades. For example, over half of all apprentices were in the top 10 Red Seal trades. In fact, 13% of all apprentices were in the Red Seal trade of carpenter, and another 12% were in the construction electrician trade.

### Overview of Apprenticeship in British Columbia

The Industry Training Authority is the agency tasked with overseeing apprenticeship in British Columbia. To guide both sponsors and apprentices, the ITA has provided the following guidance:

#### What is an apprenticeship?

An apprenticeship is a combination of on-the-job training and classroom learning that leads to a trade credential

– or “ticket”. Once you complete your apprenticeship and receive your ticket, you are qualified to work in a skilled trade. You can be an apprentice during high school or after you graduate.

Apprenticeship training helps you get a Certificate of Qualification (CoQ), which is accepted across BC. About 50 trades also offer an Interprovincial (IP) Red Seal, which certifies you to work across Canada.

### **Who can be an apprentice?**

Apprenticeships are open to women, men, and youth. Everyone is welcome, even if you’re in high school, finished college, or simply want a career change.

ITA also offers several training programs for Aboriginal people, women, and youth interested in trades careers.

### **What does certification mean?**

Upon completion of classroom training, on-the-job hours, and a final exam, a certified journeyperson will confirm your skill level and competence. Once you receive your ticket, whether Interprovincial Red Seal, or BC Certificate of Qualification, you’ll be recognized by colleagues and the public as a skilled professional in your trade.

### **Is an apprenticeship work or school?**

It is both. Apprentices spend about 80% of their time learning on the job. That means you earn money while you learn.

About 20% of your apprenticeship is spent in classroom-based training – also known as technical training.

### **Who trains apprentices?**

Skilled trades professionals teach apprentices on the job and pass on their wisdom from years of experience in the industry.

In addition to this hands-on training, apprentices also receive classroom training at a college, university, or training institution. Class instructors are certified journeypersons with experience in the field.

### **Are there exams?**

Yes, each trade has a final written exam and some trades may also have exams for each level.

### **Find an employer**

If you're ready to start an apprenticeship, you'll need to find a job with an employer who will sponsor and train you. The ITA and WorkBC have launched a new innovative online Apprentice Job Match tool which will better connect British Columbian apprentices looking for on-the-job training they need to boost their skills and achieve certification in their chosen trade.

Jobseekers can use the tool to identify themselves as an apprentice, for example a Level 2 Plumber, and then search to see which employers in this province are looking to sponsor an apprentice in that particular trade and level.

### **Foundations Programs**

A foundation program allows you to learn the basic knowledge and skills needed for entry into a trade. It is typically taught in both a classroom and in-school shop setting. You do not need an employer sponsor to participate. In fact, one of the main reasons to complete a foundation program is to gain some experience and familiarity with the trade to make it easier for you to find an employer who will sponsor your apprenticeship.

Foundation programs were previously called Entry Level Trades Training (ELTT) programs. They cover material

related to one or more apprenticeship programs and generally also provide credit towards completion of an apprenticeship. For example, if you complete the Piping foundation program, you will receive credit for level 1 technical training and 375 work-based training hours when you register as an apprentice in either the Plumber, Steamfitter/Pipefitter or Sprinkler System Installer programs.

### Direct Access

Direct Access is the Industry Training Authority's tool for managing apprenticeship. The ITA has also released their new Direct Access How-To Guides. They have created these guides to help you get the most out of Direct Access and stay on top of your apprenticeship. Check back regularly as they are continually creating new guides. Guides currently include:

- Creating your account
- Registering with a sponsor
- Viewing your transcript
- Entering work based hours

## Online Apprenticeship Resources

### Industry Training Authority of British Columbia

[www.itabc.ca](http://www.itabc.ca)

*The Industry Training Authority (ITA) leads and coordinates British Columbia's skilled trades system. ITA works with employers, apprentices, industry, labour, training providers and government to issue credentials, supports apprenticeships, fund programs, set program standards and increase opportunities in the trades.*

### ICBA Apprenticeship

<https://icba.ca/training/apprenticeship/>

*Through ICBA's apprenticeship support program, we act as a liaison between the employer and the Industry Training Authority. In doing so, we help the apprentice and the employer navigate the system, assist with paperwork, record progress, and facilitate continuous employment. This allows apprentices to focus on their training to become a construction industry professional.*

*When a contract ends, the apprentice returns to our system and we help them find a new site. ICBA's support program ensures that an apprentice stays gainfully employed to complete their training.*

### Red Seal

[www.red-seal.ca](http://www.red-seal.ca)

*The Red Seal Program is the Canadian standard of excellence for skilled trades. Formally known as the Interprovincial Standards Red Seal Program, it sets common standards to assess the skills of tradespersons across Canada. Tradespersons who meet the Red Seal standards receive a Red Seal endorsement on their provincial/territorial trade certificates.*

### Skilled Trades Employment Program (STEP)

[www.stepbc.ca](http://www.stepbc.ca)

*The Skilled Trades Employment Program (STEP) launched in 2006. From the start, STEP has focused on finding motivated, trained, and ready-to-work candidates for construction employers with jobs to fill.*

*STEP is unique because they start with the job, then find candidates that are a great fit. In this way, the BCCA has made STEP an integral part of BC's construction sector, and advanced thousands of British Columbians along a rewarding career path in the skilled trades. Whether they're connecting BC employers to entry-level workers or new apprentices, we're here to build skills, careers, and opportunities.*

*More than 10,000 individuals have been connected with new career opportunities through STEP. Today, a network of 11 STEP offices throughout the province connects employers and job seekers every day.*

**Skills Canada (British Columbia)**

[www.skillscanada.bc.ca](http://www.skillscanada.bc.ca)

*Our unique programming allows Skills BC to position itself as an early influencer; offering youth in grades K – 12 and in post secondary, safe and engaging environments in which to explore trade & technology careers. This programming also provides our partners with the opportunity to directly network and reach approximately 30,000 students in communities across the province each year.*

**Trades Training BC**

[www.tradetrainingbc.ca](http://www.tradetrainingbc.ca)

*Trades Training BC is a consortium of 15 public post-secondary educational institutions created to promote trades training in British Columbia. Trades Training BC's primary function is to encourage students and others considering career retraining to explore trades as a viable career option. Additionally, Trades Training BC acts as an advocate for the member institutions in their communication with the public, government, businesses and other stakeholders.*

# The Gig Economy

## CHAPTER 11



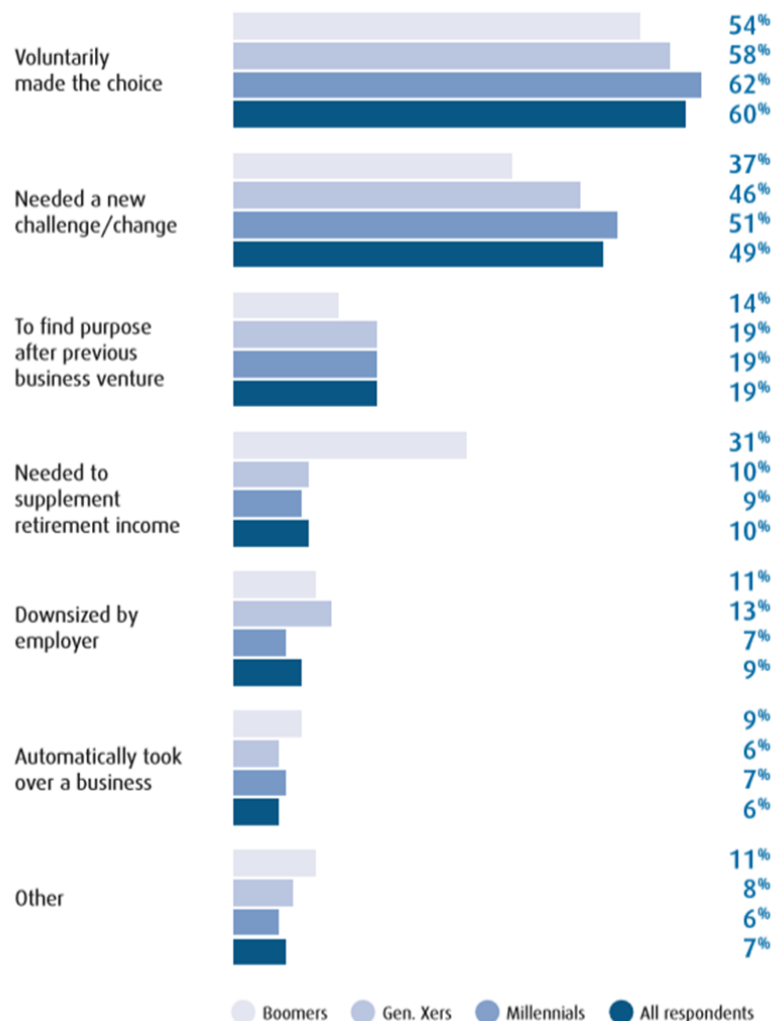
According to a report titled, *'The Gig Economy'*, published by **BMO Wealth Management**, the labour market has shifted from one characterized by stable or permanent employment to a “gig economy” of temporary or contracted employment, where an on-demand, freelance or contingent workforce is becoming the norm. A gig can be defined as “any job, especially one of short or uncertain duration.”

This type of staffing model allows an organization to fill skills gaps by hiring on a temporary, on-demand basis. These are not the “temps” of the past; instead, they are short- or long-term contracts for personnel ranging from blue-collar light-industrial workers to highly skilled IT, engineering, accounting and HR professionals.

Depending on the industry, these temporary employees may be called contingent workers, virtual or remote workers, independent contractors, consultants or freelance workers. Regardless of the title, this workforce includes highly skilled specialists and consultants from every industry, and large corporations are increasingly hiring them to supplement their permanent staff. The gig economy in Canada is growing at a phenomenal rate that shows no signs of slowing down.

Freelancers often rely on websites and apps like Handy, LinkedIn and TaskRabbit to

Top reasons for being self-employed, by generation<sup>5</sup>





connect them with paying jobs. The flexibility and choice about when, where and how to work may give them greater job satisfaction, while their employers benefit by accessing a rich pool of talent, skills and experience without having to hire permanently.

A survey was commissioned by BMO Wealth Management to learn more about the gig economy and the views of its workforce on employment and related challenges. It reveals that boomers, millennials and generation-Xers have distinct outlooks and reasons for working in the gig economy. The report suggests some ways that this flexible workforce can achieve financial wellness with confidence.

The survey asked respondents of their reasons for becoming self-employed. Voluntarily making the choice was the most popular reason (cited by 60% of respondents), followed by needing a new challenge or change (49%), and to find purpose after a previous business venture (19%). More men than women (55% vs. 43%) needed a new challenge, and more millennials voluntarily made the choice (62%) compared to generation-Xers (58%) and boomers (54%).

Another interesting (but perhaps predictable) result from this survey question was that more boomers felt they needed to supplement their retirement income (31%) than did generation-Xers (10%) or millennials (9%).

For the purposes of the survey, highly skilled professionals who chose to freelance or pursue project-based careers independently were considered to be participating in the gig economy. Of respondents who were self-employed, about 40% felt they were part of the gig economy, now or in the past.

### **The gig economy is a growing trend in employment**

Technology has changed just about every facet of our economy and society – how we travel, how we bank and how we communicate with each other. But perhaps no part of the economy has been as fundamentally transformed as the nation's workforce.

According to Statistics Canada, 2.18 million Canadians were categorized as temporary workers in September 2017. This is a group that includes people who take on term, contract or temporary employment, such as freelancers.

According to a report from one of Canada's largest temp agencies, organizations are hiring a broad variety of such workers already consisting between 20% and 30% of their workforce, and more than one in four employees are freelancers. Part-time workers are less prevalent than contingent or freelance workers, averaging less than a quarter of the workforce. Employers estimate almost a quarter of their workforce is working virtually or remotely. Eighty-five per cent of the companies surveyed in the report foresee an increasing move to an "agile workforce" in the next few years.

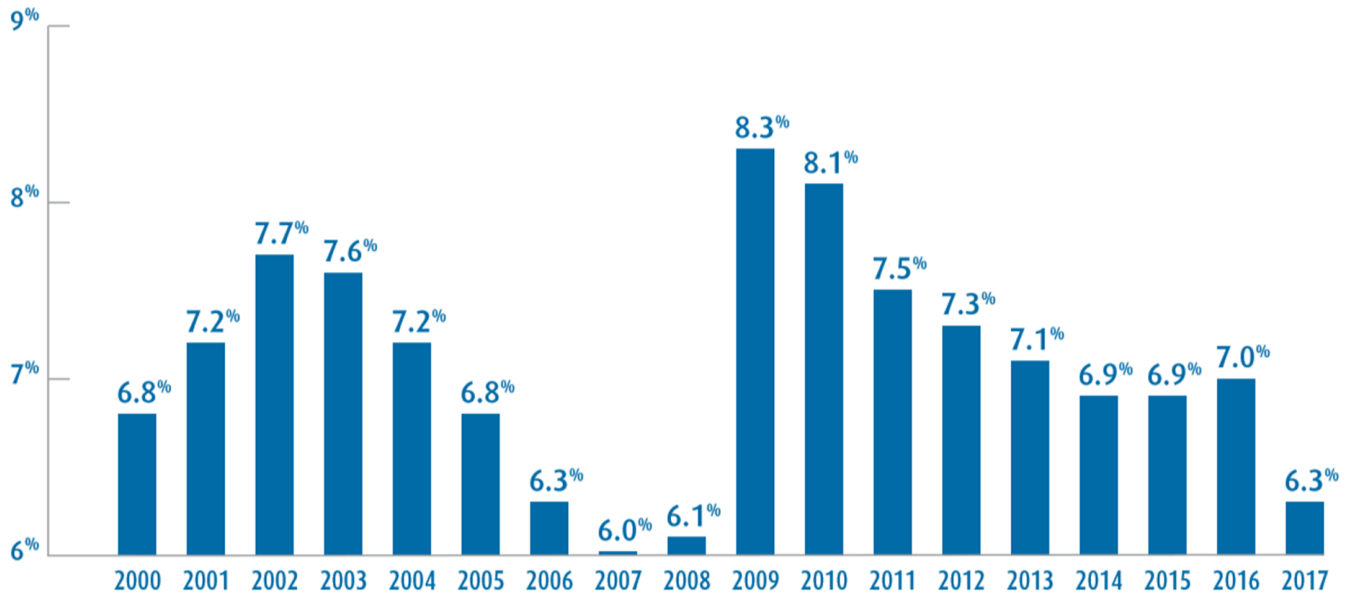
In 2016, 87% of employees had permanent positions (full-time and part-time) with no predetermined termination date. Non-permanent jobs include term or contract, seasonal, casual and other temporary jobs. The rate of job permanency has been relatively unchanged since 2010.

Core-aged workers (25–54) were most likely to have a permanent job (90%), while those aged 15–24 were least likely (69%). Among people 55 and older, 89% had permanent positions.

### **The global financial crisis and jobs**

Ever since the global financial and economic crisis in 2008, non-permanent jobs have become more common. The unemployment rate in Canada has remained above pre-crisis levels for the last decade, and the crash has played an influential role in the labour market and employment opportunities for Canadians. In 2007, the unemployment rate in Canada for those aged 15 or more hit a low of 6.0%, peaked at 8.3% in 2009, and was still just above pre-crisis levels in 2017.

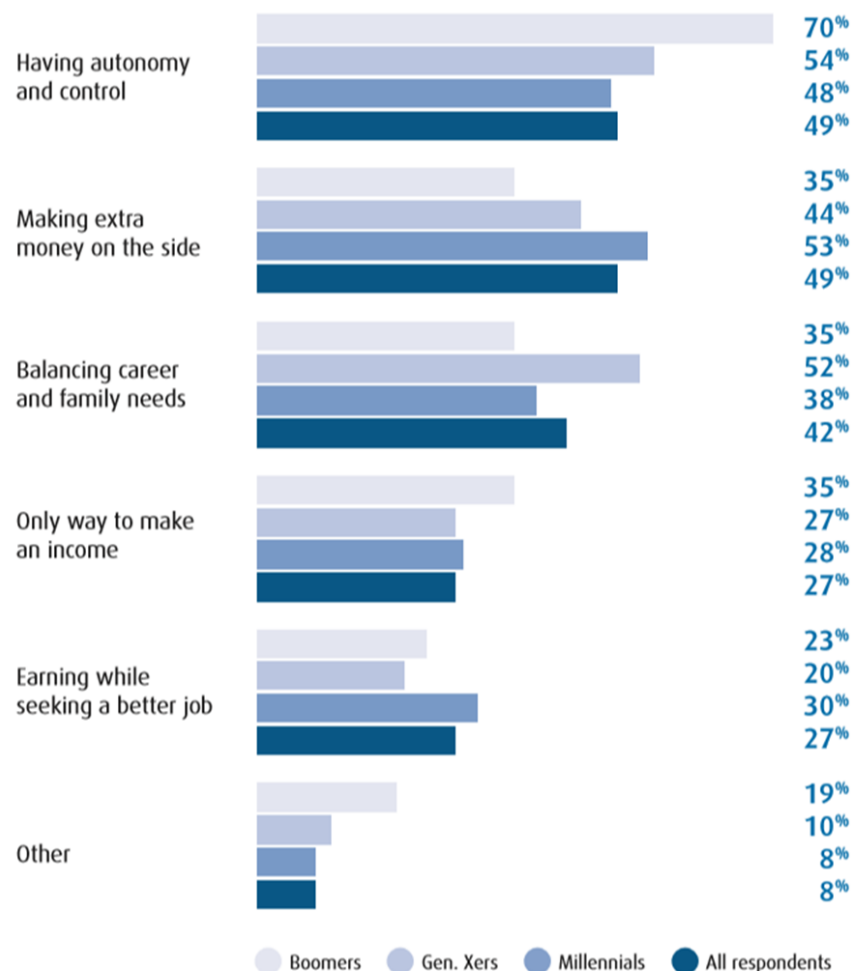
### Rate of unemployment in Canada from 2000 to 2017



### While enticing and lucrative, the gig economy has its challenges

Whatever the reasons, choosing to work in the gig economy can present financial downsides. When asked in the survey about their three biggest challenges, having no benefits (such as medical, dental or disability) was the biggest challenge (cited by 69% of respondents), followed by not getting paid when sick (55%) and not earning enough (41%).

### Top reasons for working in the gig economy, by generation<sup>5</sup>



# WorkBC | Labour Market Research

## CHAPTER 12

WorkBC Job Search



### WorkBC

WorkBC is the provincial government's access point to the world of work in British Columbia. It was created with one key goal – to help all British Columbians to successfully navigate B.C.'s labour market.

WorkBC helps people find jobs, explore career options and improve their skills. We also help employers fill jobs, find the right talent and grow their businesses.

Other people who regularly use WorkBC products and services include parents, teachers, career and employment counsellors, human resources professionals, researchers and decision-makers.

In addition to a wealth of practical information, WorkBC offers:

- the most comprehensive database of B.C. job postings
- career tools that bring occupations to life
- a blog featuring trends, job-search tips, employment programs and more
- an interactive map of WorkBC Employment Services Centres across the province
- live chat for instant help with using the website and finding information

### WorkBC Website Features

Visiting WorkBC.ca, visitors are provided with the following sections, with separate links to each of the subcomponents. These include:

#### Jobs & Careers

- **Work in BC:** Find out why B.C. is one of the most desirable places to settle and work in Canada.
- **Find Jobs:** Find everything you need to help you find a job, from job search boards to tips on resume writing, interviewing, networking and more.
- **Explore Careers:** View 500 career options and get the details you need, from job duties to projected demand. Search for a career that interests you.
- **Career Toolkit:** Resources in our Career Toolkit are designed to help you find the right career and assist you on your career path. Research career planning resources, take a career quiz or watch career videos. You can also discover which region of the province is right for you.
- **Find Your Fit Tour:** The Find Your Fit tour is a fun, interactive event that helps students discover B.C. careers. They can explore careers—from a nurse to a technologist to a welder—getting hands-on experience at up to 16 different stations. Sign up and have the tour visit your community today.

- **Success Stories:** Read stories or watch videos of British Columbians who have found success in a range of roles and industries. Their stories inspire you, give you ideas and open doors to new opportunities. You'll also learn how WorkBC's programs and services can help you reach your goals.

## Employment Services

- **WorkBC Centres:** Access employment services including job search resources, skills assessment, training, work experience placement and online services.
- **Community & Employer Partnerships:** Learn how this initiative creates jobs with the use of agency and business partnerships, innovation, information and technology.
- **Services d'emploi:** Accédez à une gamme de services et de mesures de soutien à vous aider à trouver un emploi.
- **Labour Market Partnerships Program:** Labour Market Partnerships help communities and employers respond to changing labour market demands with funding.
- **Apprenticeship Training Supports:** It's a great time to embark on a career in trades. Take advantage of many options for apprenticeship training support.
- **Labour Market Programs:** Not sure where to start on your job search or how to make a career change? Explore programs that could help you get started.

## Training and Education

- **Post-Secondary:** Plan your post-secondary journey. Learn how your choice of academic, vocational, technical and trades programs prepares you for a great job.
- **Trades Training:** Learn about trades training in B.C. and the financial support that may be available to you.
- **Co-Operative Education:** Learn how co-op education programs work and how they could benefit you.
- **Trades Success Stories:** Read about people who found their fit in the trades in B.C.'s growing economy.
- **Finance Your Education:** Find the information you need to pay for post-secondary information and budgeting during school.

## Labour Market & Industry

- **BC's Economy:** Learn about B.C.'s economy. Read about B.C.'s industries, employment and regions and discover the jobs that will be most in demand.
- **BC's Labour Market Outlook - 2018 Edition:** Discover what drives B.C.'s economy. Learn about population changes, industries, regions, and the employment outlook for the next 10 years.
- **High Demand Occupations:** Explore careers that are expected to have above-average opportunities over the next decade.
- **Industry Information:** Explore employment and job opening outlooks, including key occupations and wages. Learn about workforce challenges and industry solutions.
- **BC Regional Profiles:** Find labour market details about B.C. and its seven economic development regions, including 10 year employment outlooks and more.

## Employer Resources

- **Post Jobs for Free:** Secure talent through our free job board.
- **Your Workforce:** Find out how to expand your sources of labour, get advice on training and keeping workers, and learn about Apprentice Job Match.
- **Skills Training:** Invest in your business with training and skills development for your workers.
- **Funding & Programs:** The Sector Labour Market Partnerships Program helps industry and employers respond to changing labour market demands with funding.
- **Success Stories:** Read how employers benefit from participating in B.C. labour market programs.
- **Business Resources:** Tap into essential B.C. business resources that can help you launch or grow your enterprise.
- **Canada-BC Job Grant:** Invest in training to hire new employees or up-skill existing employees.

## Research for Underrepresented Groups

# CHAPTER 13



### Aboriginals, Youth, Women, Those with Disabilities and Immigrant Research

The coming decade will bring significant changes as baby-boomers retire and a major skills shortage sets in. Underrepresented groups such as Aboriginals, youth, women, those with disabilities and immigrants will be essential for filling those gaps. Nevertheless, these groups face cultural, institutional, academic, geographic and occupational challenges which limit their employment outcomes.

Many times, these individuals do not fit the ideal-employee profile many employers conceptualize. As such they face prejudice in the traditional hiring process. A key factor for these individuals will be educating employers about the contribution they are able to make and seek opportunities to negate these challenges.

Below, we've included research that documents these populations and some of the challenges they face in transitioning into the labour market.



### Aboriginals

#### Aboriginal People Living Off-Reserve and the Labour Market: Estimates from the Labour Force Survey, 2007-2015

March 2017

Statistics Canada

#### Highlights

- In general, Aboriginal people in Canada have lower participation and employment rates, and a higher unemployment rate, than non-Aboriginal people. The labour market integration of Aboriginal people living off-reserve was affected more severely, and for a longer duration, by the 2008/2009 economic downturn than was that of non-Aboriginal people. However, their employment and participation rates recovered swiftly between 2010 and 2012, reaching pre-recession levels and remaining that way until 2014.
- The period of 2014 to 2015 saw some deterioration in employment, unemployment, and participation rates for the Aboriginal population—both in absolute and relative terms. This deterioration was concentrated among Aboriginal women and First Nations people. Geographically, it was concentrated in Alberta and Quebec.
- Levels of educational attainment were lower among the Aboriginal population,

compared to the non-Aboriginal population in 2015. Schooling somewhat insulated Aboriginal people from labour market disadvantage. However, even among those with completed postsecondary education, disparities between Aboriginal and non-Aboriginal people in employment, participation and unemployment rates remained.

- Related to their relatively low levels of educational attainment, Aboriginal people were less likely than their non-Aboriginal counterparts to be employed in so-called “knowledge occupations”, which tend to pay higher wages.
- Aboriginal people earned less on average than non-Aboriginal people in 2015, largely due to their lower levels of educational attainment. Among those with a postsecondary certificate/diploma or a university degree, Aboriginal people earned at least as much on average as their non-Aboriginal counterparts.
- In 2015, Aboriginal people with children aged 12 and under were more than twice as likely as non-Aboriginal people to be lone parents. Regardless of Aboriginal group, lone parents had lower rates of labour force participation and employment, and higher rates of unemployment. Among lone Aboriginal parents, this situation was intensified.

Link: <http://www.statcan.gc.ca/pub/71-588-x/71-588-x2017001-eng.pdf>



## Those with Disabilities

### Inclusive Employment for Canadians with Disabilities

by Michael J. Prince

August 2016

Institute for Research on Public Policy

### Summary

Canadians with disabilities have consistently experienced low levels of employment, as well as barriers in the educational, economic and social spheres. They face massive obstacles in participating in the labour market, especially those with severe disabilities or low educational attainment. Many need work accommodations and supports.

In this IRPP study, Michael Prince analyzes the employment situation and the policy context for working-age adults with mental or physical disabilities. He finds a disproportionate number of them are unemployed, even if they are able and wish to participate in the labour force. Of those who are employed, many work for below minimum wage and are not protected by labour legislation.

While over the years governments have developed measures to enable Canadians with disabilities to participate in the labour force, their efforts have been inconsistent. Federal, provincial and local programs for Canadians with disabilities are, says Prince, “a disjointed patchwork of widely varying practices and uneven accessibility, affordability and responsiveness.”

This situation is in good part the result of policy choices made by the federal government over the past, such as the transfer — starting in the late 1990s — of the employment insurance funds for labour market programs and services to the provinces and territories; a decrease in spending on programs for persons with disabilities over the past decade; and neglect of the Labour Market Agreements for Persons with Disabilities.

The federal government has committed to introduce accessibility and inclusion legislation over the course of its mandate. Michael Prince argues that in order to eliminate systemic barriers and deliver equality of opportunity, priorities for decision-makers should include connecting employers and people with disabilities, and supporting employers in the provision of work accommodations and job-related

supports.

The author proposes a six-point strategy for governments to improve labour force participation by people with disabilities: (1) renew the Canadian vision on disability and citizenship; (2) improve transition planning for youth; (3) expand post-secondary education; (4) foster improvement in workplace practices; (5) enhance employment services and supports; and (6) modernize labour market agreements.

Canadians with disabilities should have access to real work for real pay, and their rights should be protected by labour legislation and safety standards, on an equal basis with other workers.

Link: <http://irpp.org/wp-content/uploads/2016/08/study-no60.pdf>



## Immigrants

### Changing Immigrant Characteristics and Entry

*by Feng Hou and Garnett Picot*

Statistics Canada

February 2016

#### Executive Summary

Immigration selection policies changed significantly during the 1990s and 2000s, at least in part to improve immigrant entry earnings. After the decline in both relative (to the Canadian-born) and absolute entry earnings during the 1980s and early 1990s, there was a strong desire to improve the economic outcomes of immigrants shortly after their landing. Changes in selection policies and other factors altered immigrants' characteristics across a number of dimensions, including demographics, source region, work experience and geographic distributions. This paper examines whether immigrants' earnings immediately after their landing improved as a result of these changes and, if so, which characteristics contributed the most to this improvement.

Among all new immigrants, abstracting from economic cyclical variation, entry earnings—defined as earnings in the first two full years after landing—remained more or less constant throughout the 1990s and 2000s. The situation was very similar for principal applicants (PAs) in the economic class. During the 1990s, rising educational attainment at landing and the increasing share of immigrants in the economic class increased entry earnings. During the 2000s, a much more complex period in terms of immigrant selection, the factors that positively influenced immigrant entry earnings included changing distribution by immigration class, notably the rise of the Provincial Nominee Program (PNP); changing source region; and, for immigrant women, rising educational attainment at landing. These factors were offset by less favourable economic conditions in destination cities and regions in the late 2000s.

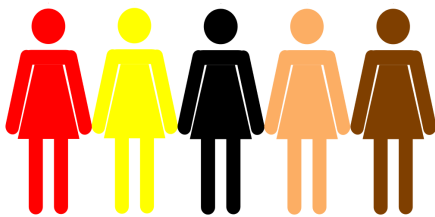
However, one factor dominated all others: the rise in the share of new immigrants who had Canadian work experience, often in high-paying jobs, prior to obtaining permanent residency. Changes in this factor tended to increase entry earnings during the 2000s far more than any other variable studied. The increase in pre-landing Canadian work experience accounted for most of the positive effect of the rise of the PNP on entry earnings during the 2000s, since the increase in work experience was heavily concentrated among provincial nominees. Furthermore, differences in pre-landing Canadian work experience between provincial nominees (with more Canadian work experience) and skilled workers (SWs) (with less) accounted for virtually all of the entry earnings advantage that the provincial nominees held over the SWs during the 2000s. While other factors, such as differences in geographic distribution (more settled in the West), educational attainment at landing, unemployment in the destination regions and cities, and source region, contributed, either in a small positive or negative



manner, to the entry earnings differences between provincial nominees and SWs, their contribution paled in comparison with the prelanding Canadian work experience factor. Once adjusted for differences in pre-landing Canadian work experience, entry earnings were virtually identical between provincial nominees and SWs. These conclusions were found for all new immigrants, as well as for PAs in the economic class, and were evident for both men and women.

It is likely that the pre-landing Canadian work experience variable used here captures at least three effects. First is the effect of Canadian work experience on earnings early in immigrants' working life after landing. Employers appear to be more willing to remunerate such experience relative to foreign work experience. Second, this variable may also reflect a selection effect. When immigrants are selected from the pool of temporary foreign workers, they come with information regarding how well they performed in their jobs in Canada. If an employer seeks to change the status of temporary foreign workers to a permanent one, it is likely because they have done well in their jobs. Hence, much of the effect on entry earnings could be because of this selection process. Third, during the 2000s, many of the workers on temporary visas who attained permanent status worked in high-paying jobs.

Link: <http://www.statcan.gc.ca/pub/11f0019m/11f0019m2016374-eng.pdf>



## Women

Women and Paid Work  
Statistics Canada  
March 2017

### Introduction

Based on the Labour Force Survey (LFS), 82.0% of women in the core working ages of 25 to 54 years (6 million) participated in the labour market in 2015. This compared to 21.6% (563,000) of women in 1950 and 65.2% (3.3 million) in 1983. Although women continue to be somewhat less likely than their male counterparts to participate in the labour market, this gender disparity<sup>2</sup> has decreased considerably over the years, from 75.5 percentage points in 1950 to 28.3 percentage points in 1983 and 8.9 percentage points in 2015. In spite of this trend, women's experiences of paid work tend to differ from those of men, being shaped to a greater extent by their caregiving roles<sup>3,4,5,6</sup> and/or their employers' presumptions of these roles.<sup>7,8</sup>

Using primarily annual data from the LFS, this chapter of Women in Canada examines women's labour market experiences in comparison with men's and, where relevant, explores how they have evolved over time. Specifically, historical trends in women's labour force participation in Canada are documented and situated against other G-7 countries. In addition, employment patterns across a variety of personal and work characteristics are considered: province, educational attainment, marital status, presence of dependent children and age of youngest child in the household, lone parenthood, work hours, self-employment, sector of employment (e.g., public or private), "precarious" employment (i.e., part-time and/or temporary employment), industry, and occupation. Unemployment patterns by age, province, and reason are also considered, including Employment Insurance claims and beneficiaries.

Most analyses in this chapter focus on women (and men) in the core working ages of 25 to 54 years, as youth's (15 to 24 years) labour market experiences tend to be shaped by school attendance and, in the case of those 55 years and older, their labour market experiences tend to be shaped by retirement. However, gender differences in labour market indicators among young and older women are considered separately at the end of this chapter.

Gender often overlaps with other social characteristics, such as visible minority status, Aboriginal status, immigrant status (i.e., Canadian-born or foreign-born) and class. These social characteristics may intersect, creating diverse labour market experiences among women (and men). In this chapter, labour market indicators for women versus men are not further disaggregated by the aforementioned social characteristics, as they are covered in other chapters of Women in Canada.

Link: <http://www.statcan.gc.ca/pub/89-503-x/2015001/article/14694-eng.pdf>



## Youth

### Perspectives on the Youth Labour Market in Canada, 1976 to 2015

December 2016

Statistics Canada

#### Summary

While youth unemployment in recent years stood at levels comparable to those of the mid-1970s, the proportion of youth employed in full-time or permanent jobs has fallen substantially over the last four decades, a trend also observed in many Organisation for Economic Co-operation and Development (OECD) countries.

The unemployment rate of youth—individuals aged 15 to 24—averaged 13.2% in 2015, slightly higher than the rate of 12.4% observed in 1976. Canada's youth unemployment rate was slightly lower than the OECD average for this group at 14.0% in 2015.

In both 1976 and 2015, the youth unemployment rate was about 2.3 times higher than the rate among individuals aged 25 and older. Over the 1953-to-2015 period, the youth unemployment rate was 2.1 times higher on average.

But while the youth unemployment rate is comparable with levels observed during the mid-1970s, the degree to which young Canadians hold full-time jobs or permanent jobs has changed markedly over the last four decades.

Of all young individuals who are not full-time students, proportionately fewer are now employed full time—that is, in jobs that involve at least 30 work hours per week—than they were four decades ago. Among those who are employed full time, a greater percentage hold temporary jobs.

From 1976 to 1978, the full-time employment rate—the percentage of the population with a full-time job—averaged 76% for men aged 17 to 24 and 58% for women in the same age group who were not in school full time. By the mid-2010s, that is from the beginning of 2014 to the third quarter of 2016, the corresponding percentages were 59% for men and 49% for women.

The drop in youth full-time employment rates was already apparent in the late 1990s and thus originated long before the 2008-2009 recession.

The decline in full-time employment among youth has been widespread and substantial. From the late 1970s to the mid-2010s, the full-time employment rates of men aged 17 to 24 fell by between 9 and 24 percentage points in every province except Newfoundland and Labrador.

The full-time employment rates of young women declined by between 8 and 15 percentage points in the four most populous provinces of Quebec, Ontario, Alberta and British Columbia. Young women in New Brunswick, Prince Edward Island and Newfoundland and Labrador saw their full-time employment rate rise by

between 5 and 10 percentage points.

In an accounting sense, the decline in youth full-time employment rates was driven mainly by increases in the incidence of part-time employment rather than by decreases in youth labour force participation or increases in youth unemployment.

Among men aged 25 to 34, the full-time employment rate nationwide declined from 90% in the late 1970s to 81% in the mid-2010s. Among women in the same age group, full-time employment rates increased from 42% to 65%, the result of rising labour force participation.

As proportionately fewer youth landed full-time jobs, those who did increasingly became employed in temporary jobs. Of all men under the age of 25 who were employed full time in 1989—the first year for which data on temporary employment are available—7% held temporary jobs. By the mid-2010s, that percentage had risen to 24%, mainly as a result of a sharp increase in temporary employment during the 1990s.

The corresponding percentages for young women were 8% in 1989 and 26% in the mid-2010s. Again, full-time students are excluded from these figures.

Full-time workers aged 25 to 34 also experienced an increase in temporary employment, although to a lesser extent than their younger counterparts.

These changes in job types were not unique to Canada. In many OECD countries, the prevalence of part-time and temporary jobs as a share of total employment has risen since the mid-1980s.

Link: <http://www.statcan.gc.ca/daily-quotidien/161205/dq161205a-eng.pdf>

# Industry Research

## CHAPTER 14



### Links Resources and Outlooks for British Columbia Industries

To assist with labour market research, we've provided information for British Columbia's most important sectors. Each profile includes: An Overview of the Sector; Total Employment; Job Growth; Average Wages; Educational Outcomes; and a Sector Outlook 2015-2024.

**The following is a list of the industries we're profiling:**

- Construction
- Education
- Finance, Insurance, Real Estate
- Government
- Health Care and Social Services
- Manufacturing
- Media and Communications
- Natural Resources
- Professional Services
- Retail
- Science and Technology
- Tourism, Accommodation and Hospitality
- Transportation

# Construction Sector



## Key Points

*The Construction industry includes businesses involved in constructing, repairing and renovating buildings, engineering projects, and sub-dividing and developing land.*

*Businesses or people in this industry may work independently or as sub-contractors. They can be responsible for large projects from start to finish, or they may work on a specific stage of a project.*

- The Construction industry has a large, mostly male workforce.
- The industry has undergone unprecedented expansion in the last 10 years, and in that time made the largest contribution to strong provincial economic growth.
- Wages for most construction workers are similar to the provincial wage average for all industries.

Construction Sector — British Columbia	
Total Employment	219,700
Employment Growth 2005-2014	3.7%
Employment Growth 2015-2024	0.8%
Increase / Decrease January 2017-January 2018	11.5%
Employers Across British Columbia	23,260
Average Weekly Earnings (December 2017)	\$1,177.27
Wage Increases in Past Year	2.0%

## Construction Outcomes in British Columbia

**Employment Growth (2014-2015):** 0.5%

**Job Growth (2014-2015):** +1,000

**Total Employment (2015):** 201,500

**Local Employment (distribution of local workforce):**

- Vancouver Island — 16.5%
- Mainland / Southwest — 60.8%
- Thompson / Okanagan — 10.3%
- Kootenay — 4.2%
- Cariboo — 3.1%
- North Coast & Nechako — 2.0%
- Northeast BC — 3.0%

## Overview

*Based on the North American Industry Classification System (NAICS) Canada*

This sector comprises establishments primarily engaged in constructing, repairing and renovating buildings and engineering works, and in subdividing and developing land. These establishments may operate on their own account or under contract to other establishments or property owners. They may produce complete projects or just parts of projects. Establishments often subcontract some or all of the work involved in a project, or work together in joint ventures. Establishments may produce new construction, or undertake repairs and renovations to existing structures.

A construction establishment may be the only establishment of an enterprise, or one of several establishments of an integrated real estate enterprise engaged in the land assembly, development, financing, building and sale of large projects.

## Construction Sector Outlook 2015-2024

*Based on the Canadian Occupational Projection System*

This industry comprises establishments primarily engaged in constructing, repairing and renovating buildings and engineering works, and in subdividing and developing land. It is composed of three segments: construction of residential and non-residential buildings (industrial, commercial and institutional); heavy and civil engineering construction (such as highways, bridges, utility systems, oil and gas facilities); and specialty trade contractors (such as masonry, painting and electrical work). Construction activities are domestic-oriented and particularly sensitive to the business cycle, financial conditions and demographic trends. The industry employed 1.4 million workers in 2014 (7.7% of total employment in the economy), with 56% in specialty trade contractors, 32% in residential and non-residential construction, and 12% in heavy and civil engineering construction. The workforce is characterized by a significant concentration of self-employed, accounting for 29% of all workers. Major occupations include: managers in construction and transportation (NOC 071); contractors and supervisors, trades and related workers (NOC 721); carpenters and cabinetmakers (NOC 727); and trades helpers and labourers (NOC 761).

The industry was an important driver of growth in Canadian GDP and employment between the early 2000s and the onset of the latest recession. During that period, production and employment growth in construction largely exceeded the respective rates of growth recorded for the overall economy. This impressive performance was propelled by a substantial increase in non-residential investment, particularly in the energy sector for the development of the oil sands in Alberta, and a sizeable increase in residential investment, driven by new housing construction and renovation spending (although growth in new housing investment slowed significantly from 2004 to 2008). In 2009, the industry's GDP and employment were severely impacted by the recession as non-residential and residential investment fell sharply, down by 20% and 7% respectively. The industry rebounded markedly in 2010 and posted solid growth in the subsequent four years, spurred by substantial increases in capital expenditures on energy projects and mortgage rates at all-time lows. On average, real GDP in the construction industry grew at an annual rate of 3.4% over the period 2005-2014, while employment grew at a slightly faster pace of 3.7% annually (although employment in 2014 remained essentially unchanged from 2013).

Over the projection period, real GDP growth in the construction industry is projected to slow markedly, primarily reflecting much weaker growth in non-residential investment relative to the period 2005-2014, as a result of major investment cutbacks in oil and gas engineering structures (due to the sharp decline in crude oil prices) and slower investment growth in electric power and government engineering structures (such as highways, bridges, sewage systems and waterworks). For example, the weaker outlook for energy prices is expected to result in delays or cancellations of higher-cost energy projects, ranging from oil sands development in Alberta to the building of liquefied natural gas terminals in British Columbia. In addition to much weaker investment growth in engineering construction, investment growth in non-residential building construction is also projected to weaken somewhat over the projection period as the slower pace of growth anticipated in employment at the national level is expected to hold back office construction. Technological advances and the increasing use of teleworking are also expected to restrain the demand for new office space, while the bankruptcy and the closure of several stores by large retail chains have left lots of existing space empty, increasing vacancy rates for several years. However, renewed growth anticipated in manufacturing activity is expected to spur investment in industrial building construction (such as plants and facilities), while continued strength in government spending infrastructure (which remains a priority despite deficits) is expected to support investment in institutional building construction (such as schools and hospitals), offsetting some of the weakness anticipated in investment related to commercial building construction (such as office and retail space). Finally, the modest pace of growth anticipated in residential investment is an additional factor expected to restrain GDP growth in construction over the projection period. Indeed, with the gradual decline in the formation of new households and the progressive increase anticipated in interest and mortgage rates, new housing investment is expected to trend down starting in 2021, while renovation spending is projected to grow at a slower pace. Population aging is also expected to lead to a shift in the composition of housing starts from single- to multiple-dwellings, which require less investment per unit of housing. As a result of much weaker growth in non-residential investment and subdued growth in residential investment, real GDP and employment growth in the construction industry is projected to slow markedly over the period 2015-2024, down to an average annual rate of 1.3% and 0.8% respectively.

## Construction Sector Research

**BC Construction Association**

[www.bccassn.com](http://www.bccassn.com)

**BC Electrical Association**

[www.bcea.bc.ca](http://www.bcea.bc.ca)

**BC Industrial Designers Association**

[www.bcid.com](http://www.bcid.com)

**BC Marine Trades Association**

[www.bcmta.com](http://www.bcmta.com)

**BC Road Builders and Heavy Construction Association**

[www.roadbuilders.bc.ca](http://www.roadbuilders.bc.ca)

**BC Sheet Metal Association (SMACNA-BC)**

[www.smacna-bc.org](http://www.smacna-bc.org)

**BC Water & Waste Association**

[www.bcwwa.org](http://www.bcwwa.org)

**BC Wood Specialties Group**

[www.bcwood.com](http://www.bcwood.com)

**Building Officials Association of BC**

[www.boabc.org](http://www.boabc.org)

**Canadian Association of Home & Property Inspectors**

[www.cahpi.bc.ca](http://www.cahpi.bc.ca)

**Canadian Home Builders' Association of BC**

[www.chbabc.org](http://www.chbabc.org)

**Canadian Kitchen Cabinet Association**

[www.ckca.ca/](http://www.ckca.ca/)

**Consulting Engineers of BC**

[www.cebc.org](http://www.cebc.org)

**Council of Tourism Associations of BC**

[www.cotabc.com](http://www.cotabc.com)

**Corporation of Land Surveyors of BC**

[www.abcls.ca/](http://www.abcls.ca/)

**Electrical Contractors Association of B.C**

[www.eca.bc.ca/](http://www.eca.bc.ca/)

**Greater Vancouver Home Builders Association**

[www.vancouverhomebuilders.org](http://www.vancouverhomebuilders.org)

**Independent Contractors and Businesses Association of BC**

[www.icba.bc.ca](http://www.icba.bc.ca)

**Master Painters and Decorators Association**

[www.paintinfo.com](http://www.paintinfo.com)

**Mechanical Contractors Association  
of BC**

[www.mcabc.org](http://www.mcabc.org)

**Recycling Council of BC - Vancouver**

[www.rcbc.bc.ca](http://www.rcbc.bc.ca)

**Roofing Contractors' Association of British Columbia**

[www.rcabc.org](http://www.rcabc.org)

**Southern Interior Construction Association**

[www.sica.bc.ca](http://www.sica.bc.ca)

# Education Sector



## Key Points

*The Educational Services industry is made up of institutions that are engaged primarily in providing instruction and training in a wide breadth of subjects. These establishments may be public or privately owned, and for-profit or non-profit.*

- The unemployment rate in this industry is low compared to the provincial average.
- Women account for two-thirds of the industry's workforce.
- Temporary work in this industry is notably higher than the provincial average.
- The majority of employees in this industry are in the public sector.
- This industry is highly unionized.

Educational Sector — British Columbia	
Total Employment	163,300
Employment Growth 2005-2014	1.8%
Employment Growth 2015-2024	0.8%
Increase / Decrease January 2017-January 2018	-0.6%
Employers Across British Columbia	2,600
Average Weekly Earnings (December 2017)	\$1,006.34
Wage Increases in Past Year	-4.6%

## Educational Outcomes in British Columbia

**Employment Growth (2014-2015):** -1.7%

**Job Growth (2014-2015):** -2,900

**Total Employment (2015):** 163,400

**Local Employment (distribution of local workforce):**

- Vancouver Island — 16.6%
- Mainland / Southwest — 66.1%
- Thompson / Okanagan — 8.6%
- Kootenay — 2.6%
- Cariboo — 3.1%
- North Coast & Nechako — 1.8%
- Northeast BC — 1.1%

## Overview

*Based on the North American Industry Classification System (NAICS) Canada*

This sector comprises establishments primarily engaged in providing instruction and training in a wide variety of subjects. This instruction and training is provided by specialized establishments, such as schools, colleges, universities and training centres. These establishments may be privately owned and operated, either for profit or not, or they may be publicly owned and operated. They may also offer food and accommodation services to their students.

Educational services are usually delivered by teachers who explain, tell, demonstrate, supervise and direct self-learning. Instruction is imparted in diverse settings, such as educational institutions, the workplace or the home (through correspondence, television or other means). The lessons can be adapted to the particular needs of the students, for example sign language can replace verbal language for teaching students with hearing impairments. All industries in the sector share this commonality of process, namely, labour inputs of teachers with the requisite subject matter expertise and teaching ability.



## Education Sector Outlook 2015-2024

*Based on the Canadian Occupational Projection System*

Elementary and secondary schools account for the largest share of employment (60%), followed by universities (20%), and colleges (9%). Educational services are mainly driven by demographic factors and largely sensitive to government expenditures in education programs. It employed 1.2 million workers in 2014, distributed proportionately to population: 40% in Ontario, 22% in Quebec, 13% in British Columbia, 10% in Alberta, and 14% in the remaining provinces. The workforce is characterised by a relatively high share of part-time employees (26%) and a strong concentration of women in elementary and secondary schools (75%). Major occupations include: secondary and elementary school teachers and educational counsellors (NOC 414); university professors and assistants (NOC 412); childcare and home support workers (NOC 647); and college and other vocational instructors (NOC 413).

Educational services posted above average growth in output and employment over the period 2005-2014, reflecting significant growth in public spending within the education system. Universities showed the strongest pace of job creation (+28%), due to significant increases in post-secondary enrolment rates. Solid employment gains (+13%) were also recorded in primary and secondary schools, as the echo-boom generation (the children of the baby-boomers) continued to support demand for elementary and secondary education. Educational services continued to expand during and after the recession of 2008-2009, partly reflecting the fact that during bad economic times, youth usually stay in school longer or return to school in response to poorer job opportunities. On average, real GDP and employment grew at annual rates of 2.1% and 1.8% respectively from 2005 to 2014.

Over the projection period, demographic trends and provincial fiscal constraints are projected to result in slower output and employment growth in educational services. The anticipated increase in population aged 5 to 17 will be partly offset by the projected decline in population aged 18 to 25, restraining growth in youth population (aged 5 to 25). While those demographic changes are expected to have a positive impact on enrolment in elementary and secondary schools, they are also expected to have a negative impact on enrolment in post-secondary establishments, although the growing demand for higher educated and skilled workers should continue to push up enrolment rates in colleges and universities in Canada. Despite higher post-secondary enrolment rates, the pace of growth in the number of students in colleges and universities is projected to slow significantly relative to the period 2005-2014, as a result of the significant decline in population aged 18-25. Furthermore, provincial fiscal constraints are expected to restrain growth in government spending on education, limiting output and employment growth in educational services, particularly in the high debt provinces of Ontario and Quebec. The growing popularity of online courses and e-learning applications is also expected to restrain demand for new teachers. Those factors will be tempered, however, by the faster pace of growth projected in the number of students in elementary and secondary schools, as a result of the large increase in population aged 5-17. Nevertheless, the resulting growth in real GDP and employment in educational services is projected to weaken significantly over the period 2015-2024, averaging 1.0% and 0.8% per year respectively.

## Education Sector Research

**BC Family Child Care Association : BCFCCA**  
[www.bcfcca.ca](http://www.bcfcca.ca)

**BC Principals and Vice-Principals Association**  
[www.bcpvpa.bc.ca/](http://www.bcpvpa.bc.ca/)

**BC Registered Music Teachers' Association**  
[www.bcrmta.bc.ca](http://www.bcrmta.bc.ca)

**BC Retired Teachers' Association**  
[www.bcrta.ca](http://www.bcrta.ca)

**British Columbia Teacher's Federation**  
[www.bctf.ca](http://www.bctf.ca)

**British Columbia Teachers of English as an Additional Language**  
[www.bcteal.org](http://www.bcteal.org)

**Canadian Child Care Federation**  
[www.cccf-fcsge.ca](http://www.cccf-fcsge.ca)

**Canadian Teachers' Federation**  
[www.ctf-fce.ca](http://www.ctf-fce.ca)

**Early Childhood Educators of BC**  
[www.ecebc.ca](http://www.ecebc.ca)

# Finance, Insurance, Real Estate Sector



## Key Points

*The Finance, Insurance, Real Estate and Leasing industry is made up of businesses that handle or arrange financial transactions on behalf of clients. Such businesses include banks and credit unions; insurance, real estate and leasing companies; and brokerages.*

- This industry accounts for about one-quarter of province's total GDP.
- The majority of employment in this industry occurs in the Greater Toronto Area.
- Only a small percentage of employees have union coverage.
- The unemployment rate is about half the provincial average.

Finance, Insurance, Real Estate Sector — British Columbia	
Total Employment	153,500
Employment Growth 2005-2014	-1.7%
Employment Growth 2015-2024	1.3%
Increase / Decrease January 2017-January 2018	7.6%
Employers Across British Columbia	6,144
Average Weekly Earnings (December 2017)	\$1,251.02
Wage Increases in Past Year	-6.7%

## Finance, Insurance, Real Estate Outcomes in British Columbia

**Employment Growth (2014-2015):** -6.3%

**Job Growth (2014-2015):** -8,600

**Total Employment (2015):** 128,600

**Local Employment (distribution of local workforce):**

- Vancouver Island — 13.5%
- Mainland / Southwest — 70.8%
- Thompson / Okanagan — 9.2%
- Kootenay — 2.0%
- Cariboo — 2.4%
- North Coast & Nechako — 1.2%
- Northeast BC — n/a

## Overview

*Based on the North American Industry Classification System (NAICS) Canada*

Finance and insurance comprises establishments primarily engaged in financial transactions (that is, transactions involving the creation, liquidation, or change in ownership of financial assets) or in facilitating financial transactions. Included are:

- establishments that are primarily engaged in financial intermediation. They raise funds by taking deposits and/or issuing securities, and, in the process, incur liabilities, which they use to acquire financial assets by making loans and/or purchasing securities. Putting themselves at risk, they channel funds from lenders to borrowers and transform or repackage the funds with respect to maturity, scale and risk.
- establishments that are primarily engaged in the pooling of risk by underwriting annuities and insurance. They collect fees (insurance premiums or annuity considerations), build up reserves, invest those reserves and make contractual payments. Fees are based on the expected incidence of the insured risk and the expected return on investment.

## Finance, Insurance, Real Estate Sector Outlook 2015-2024

*Based on the Canadian Occupational Projection System*

This industry comprises establishments primarily engaged in financial transactions or in facilitating financial transactions (such as banks, insurance carriers and brokerage agencies) and establishments primarily engaged in selling and buying real estate for others or renting and leasing various tangible or intangible assets. Finance and insurance is the most important segment in terms of employment, accounting for 72% of all workers in the industry. While banks and insurance firms participate in international markets, the industry as a whole is heavily reliant on the performance of the domestic economy, particularly on household expenditures and investment in residential and non-residential structures: the domestic-oriented real estate and leasing segment contributes to two-thirds of the industry GDP. Overall, the industry employed 1.1 million workers in 2014, with 49% in finance and banking, 23% in insurance, 23% in real estate and 5% in leasing. Employment is largely concentrated in Ontario (47%), Quebec (20%) and British Columbia (13%). Major occupations include: auditors, accountants and investment professionals (NOC 111); finance and insurance clerks (NOC 143); insurance and real estate sales occupations and buyers (NOC 623); and finance and insurance administrative occupations (NOC 123).

The industry has faced numerous challenges since the early 2000s, including growing regulatory requirements, the development of new and more complex credit products, various outsourcing practices to remain competitive, and the emergence of untapped market for global banking such as China. In the finance and insurance industry, the changing nature of fraud has forced financial institutions to continuously evolve and adapt to the ever changing dangers posed by technological developments to protect customer databases. Moreover, the industry has been largely resilient to the sharp fluctuations in various economic factors, such as the substantial appreciation of the Canadian dollar and cyclical changes in foreign and domestic demand, which have significantly impacted many other export- and domestic-oriented industries. For example, during the recession of 2008-2009, the industry GDP and employment continued to expand, albeit less rapidly, supporting the Canadian economy in that period of economic difficulties. On average, real GDP grew at an annual rate of 2.9% from 2005 to 2014, partly fuelled by robust growth in non-residential investment and solid activity in the real estate market and mortgage lending, while employment increased by 1.3% annually.

Over the projection period, the industry is expected to benefit from the faster pace of growth anticipated in corporate profits and the positive impact of low interest rates on real estate activity and consumer spending, particularly in the short- to medium-term, with low borrowing rates maintaining affordability for consumers to purchase big ticket items, such as houses and cars. The industry is also expected to benefit from the increasing number of retired baby-boomers who will be looking to move into smaller homes and will need help in retirement or investment planning. Similarly, much faster growth anticipated in business investment in machinery and equipment should help to support demand for commercial lending services. Output growth is projected, however, to weaken gradually over the longer term as the slower pace of growth anticipated in final domestic demand is expected to restrain demand for real estate, lending and insurance services. Indeed, demographic changes, the high levels of household debt and the eventual increases in interest and mortgage rates are expected to weigh progressively on consumer spending and residential investment. The outlook for non-residential investment also deteriorated significantly, largely due to the negative impact of lower commodity prices on the development of natural resources projects, but also due to limited demand for the construction of new commercial buildings, partly as a result of higher vacancy rates for office and retail space. While low interest rates will continue to encourage Canadians to invest in equity markets for some time, the current volatility of the global financial market, combined with bad memories from the 2008-2009 collapse of the stock markets, could make investors less amenable to invest in these markets. On average, real GDP growth in the industry is projected to weaken somewhat from the pace of growth recorded during the period 2005-2014, while job creation is expected to be restrained by technological changes, including the increasing use of e-banking and online housing services. Indeed, new technologies will generate additional productivity gains and, thus, lead to slower growth in labour demand. As a result, real GDP is projected to grow at an average annual rate of 2.5% over the period 2015-2024, while employment is projected to advance at a much slower pace of 0.6% annually.

## Finance, Insurance, Real Estate Sector Research

**BC Association of the Appraisal Institute of Canada**  
<http://appraisal.bc.ca>

**BC Real Estate Association**  
[www.bcrea.bc.ca](http://www.bcrea.bc.ca)

**Canadian Bankers Association**  
[www.cba.ca](http://www.cba.ca)

**Canadian Bookkeepers Association**  
[www.c-b-a.ca/](http://www.c-b-a.ca/)

**Canadian Venture Capital Association**  
[www.cvca.ca](http://www.cvca.ca)

**Certified General Accountants**  
[www.thinkcga.org](http://www.thinkcga.org)

**Certified General Accountants of Canada**  
[www.cga-canada.org](http://www.cga-canada.org)

**Certified General Accountants of British Columbia**  
[www.cga-bc.org](http://www.cga-bc.org)

**Certified Management Accountants of British Columbia**  
[www.cmabc.com](http://www.cmabc.com)

**Chartered Accountants of Canada**  
[www.cica.ca](http://www.cica.ca)

**Institute of Chartered Accountants of BC**  
[www.ica.bc.ca](http://www.ica.bc.ca)

**Insurance Brokers Association of BC**  
[www.ibabc.org](http://www.ibabc.org)

**Insurance Bureau of Canada**  
[www.ibc.ca/](http://www.ibc.ca/)

**Insurance Council of BC**  
[www.insurancecouncilofbc.com](http://www.insurancecouncilofbc.com)

**Investment Industry Regulatory Organization of Canada**  
[www.iiroc.ca](http://www.iiroc.ca)

**Supply Chain Management Association of British Columbia**  
[www.scmabc.ca](http://www.scmabc.ca)

# Government and Public Sector



## Key Points

*The Public Administration industry is made up of agencies that are engaged primarily in activities of a governmental nature. Such activities include keeping public order and safety, drafting and enacting legislation, administering and collecting taxes, working in national defence, providing immigration services, and administering government programs.*

- In 2015, 52 percent of workers in this industry were women.
- This industry is highly unionized, with almost two-thirds of workers being members of a union.

Government and Public Sector — British Columbia	
Total Employment	100,400
Employment Growth 2005-2014	0.9%
Employment Growth 2015-2024	0.1%
Increase / Decrease January 2017-January 2018	-3.3%
Employers Across British Columbia	858
Average Weekly Earnings (December 2017)	\$1,288.22
Wage Increases in Past Year	1.1%

## Public Sector Outcomes in British Columbia

**Employment Growth (2014-2015):** -1.8%

**Job Growth (2014-2015):** -1,800

**Total Employment (2015):** 96,100

**Local Employment (distribution of local workforce):**

- Vancouver Island — 25.0%
- Mainland / Southwest — 57.8%
- Thompson / Okanagan — 8.8%
- Kootenay — 2.1%
- Cariboo — 3.7%
- North Coast & Nechako — 1.8%
- Northeast BC — n/a

## Overview

*Based on the North American Industry Classification System (NAICS) Canada*

This sector comprises establishments primarily engaged in activities of a governmental nature, that is, the enactment and judicial interpretation of laws and their pursuant regulations, and the administration of programs based on them. Legislative activities, taxation, national defence, public order and safety, immigration services, foreign affairs and international assistance, and the administration of government programs are activities that are purely governmental in nature.

Ownership is not a criterion for classification. Government owned establishments engaged in activities that are not governmental in nature are classified to the same industry as privately owned establishments engaged in similar activities.

Government establishments may engage in a combination of governmental and non-governmental activities. When separate records are not available to separate the activities that are not governmental in nature from those that are, the establishment is

## Public Administration Sector Outlook 2015-2024

*Based on the Canadian Occupational Projection System*

Public administration comprises establishments primarily engaged in activities of a governmental nature at the federal, provincial, territorial, regional, municipal and local levels. It covers legislative activities, taxation, national defence, public order and safety, immigration services, foreign affairs and international assistance, and the administration of government programs. The industry includes not only public servants, but also members of the Canadian armed forces, policemen and firefighters. The federal administration accounts for the largest share of employment within the industry (36%), followed by local, municipal and regional administrations (35%), and provincial and territorial administrations (30%). Overall, public administration employed 910,700 workers in 2014, distributed proportionately to population: 40% in Ontario, 24% in Quebec, 11% in British Columbia, 10% in Alberta, and 15% in the remaining provinces and territories. The workforce benefits from much higher wages than the national average, partly attributable to high unionization rates (71%). Major occupations include: police officers and firefighters (NOC 626); administrative and regulatory occupations (NOC 122); policy and program officers, researchers and consultants (NOC 416); and administrative support clerks (NOC 144).

After experiencing a difficult period during the 1990s because of large budget deficits, public administration posted above average growth in output and employment in the following decade, as the federal and provincial fiscal situation improved markedly. From 2005 to 2011, real GDP and employment grew continuously, averaging annual rates of 2.9% and 1.5% respectively, faster than the growth rates of the overall economy but similar to those of the whole services sector. Over that period, 90,000 jobs were created in public administration, with the fastest pace of growth at the provincial level (+13%), followed by the federal (+11%) and municipal (+9%) levels. During the recession of 2008-2009, the various programs put in place by the federal and provincial governments in order to stimulate the economy helped to maintain growth in real GDP and employment in public administration. However, lower tax revenues and increased public spending resulted in large fiscal deficits across all levels of governments. Starting in 2012, the federal and provincial governments announced plans to limit growth in spending programs in order to balance their budgets. Consequently, output growth in public administration weakened drastically from 2012 to 2014, averaging 0.3% annually. Fiscal constraints led to significant job cuts, particularly in the federal administration where employment fell by 37,000. The resulting growth in real GDP averaged 2.1% annually over the period 2005-2014, compared to 0.9% for employment.

The return to deficit reduction programs has significantly changed the long-term outlook for public administration, lowering output growth, and more particularly, employment growth in a substantial way. While the former federal government committed to balance the budget by 2015, provincial governments have announced plans to curtail growth in program spending, holding it below inflation for several years in an attempt to get back to fiscal balance. If the provincial governments can stick to their ambitious plans for expenditure restraint, they should be able to balance their collective books on a public accounts basis by 2017-2018. Once the books are balanced, the provinces will have the ability to increase growth in program expenditures slightly. But over the longer term, demographic changes are projected to constrain Canadian GDP growth, which in turn will reduce growth in revenues for all levels of governments, thus limiting ability to expand expenditures in government programs and public administration. On top of that, slower growth expected in federal spending on defence, as Canada gradually reduces its involvement in overseas conflicts such as Afghanistan, is expected to restrain activity in public administration. As a result, real GDP growth is projected to slow to an average annual rate of 1.0% from 2015 to 2024, half the pace recorded in the previous ten years. The slowdown in employment growth is projected to be even more pronounced, with job creation averaging only 0.1% annually. By the end of the projection period, government hiring will be negligible. However, because COPS projections were produced during the spring and summer of 2015, the outlook for public administration is subject to change with the election of a new federal government in October 2015, particularly over the short- to medium-term horizon.

## Government and Public Service Sector Research

**Association of British Columbia Public Library Directors**  
<http://abcpld.org/>

**BC Excluded Employees' Association (BCEEA)**  
[www.bceea.bc.ca](http://www.bceea.bc.ca)

**BC Government Retired Employees Association**  
<http://pdcrs.com/directory/bc-government-retired-employees-association/>

**BC Public Service Agency**

[www2.gov.bc.ca/gov/content/governments/organizational-structure/ministries-organizations/central-government-agencies/bc-public-service-agency](http://www2.gov.bc.ca/gov/content/governments/organizational-structure/ministries-organizations/central-government-agencies/bc-public-service-agency)

**British Columbia Government and Service Employees' Union (BCGEU)**

[www.bcgeu.com](http://www.bcgeu.com)

**BC Nurses' Union (BCNU)**

[www.bcnu.org](http://www.bcnu.org)

**CivicInfo BC**

[www.civicinfo.bc.ca](http://www.civicinfo.bc.ca)

**Crown Corporation Employers Association**

<http://cceabc.ca/>

**Federation of Canadian Municipalities**

<https://fcm.ca/home.htm>

**Institute of Public Administration of Canada**

<https://www.ipac.ca/>

**Local Government Management Association of British Columbia**

[www.lgma.ca](http://www.lgma.ca)

**Make a Future BC**

[www.makeafuture.ca](http://www.makeafuture.ca)

**Professional Employees Association (PEA)**

[www.pea.org](http://www.pea.org)

**Public Affairs Association of Canada**

<http://www.publicaffairs.ca/>

**Public Service Alliance of Canada**

<http://psacunion.ca/>

**Union of BC Municipalities**

[www.ubcm.ca](http://www.ubcm.ca)

# Health Care and Social Assistance Sector



## Key Points

*The Health Care and Social Assistance industry includes services that provide health care, residential care for medical or social reasons, and social assistance.*

*Health care establishments provide care for individuals who seek services for prevention, diagnosis or treatment from health care professionals, including doctors, lab technicians, dentists, optometrists and chiropractors.*

*Social assistance includes services such as child protection, home care, welfare, counselling, social housing and food services, and child care.*

*It is difficult to separate the social assistance occupations from health care occupations because many of the services provided by each are interconnected.*

Health Care / Social Assistance Sector — British Columbia	
Total Employment	318,900
Employment Growth 2005-2014	2.6%
Employment Growth 2015-2024	1.8%
Increase / Decrease January 2017-January 2018	10.3%
Employers Across British Columbia	17,642
Average Weekly Earnings (December 2017)	\$890.50
Wage Increases in Past Year	10.3%

## Health Care and Social Assistance Outcomes in British Columbia

**Employment Growth (2014-2015):** 6.5%

**Job Growth (2014-2015):** +17,600

**Total Employment (2015):** 287,400

**Local Employment (distribution of local workforce):**

- Vancouver Island — 20.2%
- Mainland / Southwest — 59.7%
- Thompson / Okanagan — 11.2%
- Kootenay — 3.2%
- Cariboo — 3.0%
- North Coast & Nechako — 1.6%
- Northeast BC — 1.1%

## Overview

*Based on the North American Industry Classification System (NAICS) Canada*

This sector comprises establishments primarily engaged in providing health care by diagnosis and treatment, providing residential care for medical and social reasons, and providing social assistance, such as counselling, welfare, child protection, community housing and food services, vocational rehabilitation and child care, to those requiring such assistance.



## Health Care and Social Assistance Sector Outlook 2015-2024

*Based on the Canadian Occupational Projection System*

Health care and social assistance comprise establishments primarily engaged in providing health care by diagnosis and treatment, providing residential care for medical and social reasons, and providing social assistance such as counselling, welfare, child protection, community housing and vocational rehabilitation. It is composed of four segments: ambulatory health care services (24% of the industry employment in 2014); hospitals (35%); nursing and residential care facilities (17%); and social assistance (24%). The industry is mainly driven by demographic changes in Canada and very sensitive to government expenditures in health and social programs. It is essentially immune from business cycles as the demand for health care continues to increase in both good and bad economic times. With a total of 2.2 million workers in 2014, the industry was the largest employer across the economy. The workforce is characterized by a high level of education and a significant concentration of part-time workers (24%). Employment is distributed proportionately to population: 36% in Ontario, 26% in Quebec, 12% in British Columbia, 11% in Alberta, and 15% in the remaining provinces. Major occupations include: assisting occupations in support of health services (NOC 341); nurse supervisors and registered nurses (NOC 315); other technical occupations in health care (NOC 323); psychologists, social workers and counsellors (NOC 415); and physicians, dentists and veterinarians (NOC 311).

Health care and social assistance posted solid growth in output and employment over the period 2005-2014, mainly driven by stronger increases in public health care funding in response to the growing demand from an aging population. In addition to demographic changes, more expensive technologies and increased reliance on high-priced drugs have also contributed to boost health care costs. This led many provincial governments to reform their public health care system, notably by relying further on primary care prevention. Consequently, in-hospital stays and residential care beds have been substituted for home care services. Furthermore, limited training seats for health professionals, along with difficult working conditions and an aging workforce, constrained labour supply and led to labour shortages in the industry. This resulted in increased funding and the creation of additional training seats, particularly in nursing. On average, real GDP and employment grew at annual rates of 2.1% and 2.6% respectively from 2005 to 2014, largely exceeding the performance of the overall economy, particularly in terms of job creation.

Over the projection period, population aging will keep driving health care costs up, compelling provincial governments to increase health care funding. Weaker growth in government spending during the post-recession years due to high deficits, combined with additional increases in health care demand, resulted in long wait times for certain non-life threatening conditions, such as hip and knee replacements and lengthy waits to see some specialists. However, the commitment of many provinces to reduce wait times at emergency rooms and for surgical procedures and specialized treatments is expected to boost government spending and output growth in health care and social assistance over the forecast horizon. Meeting growing demand for health care will remain challenging as Canada's supply of doctors, nurses and hospital beds is low relative to the size of its population compared with other OECD economies. Those factors, combined with significant fiscal constraints, require new models of services delivery, including the expansion of the private sector involvement in the provision of healthcare services, the growing use of home care for terminally ill patients, and the consideration of permitting nurses and pharmacists to perform services that used to be provided by doctors. Real GDP growth is projected to average 2.6% annually from 2015 to 2024, a notable acceleration from the previous ten years. Employment growth, however, is projected to slow significantly, averaging 1.8% per year, but still exceeding the pace of job creation projected for the overall 222228economy. Slower job creation mainly reflects fiscal constraints in provinces and labour shortages in high demand occupations. In such a context, healthcare providers are expected to keep developing innovative approaches and implement new labour-saving ways of delivering services.

## Health Care and Social Services Sector Research

**Association of Neighbourhood Houses of British Columbia**  
<http://anhbc.org/>

**Aboriginal Nurses Association of Canada**  
[www.anac.on.ca](http://www.anac.on.ca)

**BC Association of Optometrists**  
[www.optometrists.bc.ca](http://www.optometrists.bc.ca)

**BC Association of Social Workers**  
[www.bcasw.org](http://www.bcasw.org)

**BC Care Providers Association**  
[www.bccare.ca](http://www.bccare.ca)

**BC Cares**  
[www.bccares.ca](http://www.bccares.ca)

**BC College of Chiropractors**  
[www.bcchiro.com](http://www.bcchiro.com)

**BC College of Family Physicians**  
[www.bccfp.bc.ca](http://www.bccfp.bc.ca)

**British Columbia College of Social Workers**  
[www.bccollegeofsocialworkers.ca](http://www.bccollegeofsocialworkers.ca)

**BC Medical Association**  
[www.bcma.org](http://www.bcma.org)

**BC Naturopathic Association**  
[www.bcna.ca](http://www.bcna.ca)

**BC Pharmacy Association**  
[www.bcpharmacy.ca](http://www.bcpharmacy.ca)

**British Columbia Acupressure Therapists' Association**  
[www.islandnet.com/~bcata/](http://www.islandnet.com/~bcata/)

**British Columbia Nurses' Union**  
[www.bcnu.org/](http://www.bcnu.org/)

**Canadian Nurses Association**  
[www.cna-aic.ca](http://www.cna-aic.ca)

**Canadian Nursing Students' Association**  
[www.cnsa.ca](http://www.cnsa.ca)

**Chinese Medicine and Acupuncture Association of Canada**  
[www.cmaac.ca](http://www.cmaac.ca)

**College of Dental Surgeons of BC**  
[www.cdsbc.org](http://www.cdsbc.org)

**College of Dental Technicians of BC**  
[www.cdt.bc.ca](http://www.cdt.bc.ca)

**College of Licensed Practical Nurses of BC**  
[www.clpn.bc.ca](http://www.clpn.bc.ca)

**College of Registered Nurses of British Columbia**  
<https://www.crnbc.ca/>

**College of Naturopathic Physicians of BC**  
[www.cnpbc.bc.ca](http://www.cnpbc.bc.ca)

**College of Pharmacists of BC**  
[www.bcpharmacists.org/](http://www.bcpharmacists.org/)

**College of Physicians & Surgeons of BC**  
[www.cpsbc.ca](http://www.cpsbc.ca)

**Federation of Community Social Services of BC**  
<https://fcssbc.ca/>

**Health Action Network Society**  
[www.hans.org](http://www.hans.org)

**Health Employers Association of BC**  
[www.heabc.bc.ca](http://www.heabc.bc.ca)

**Licensed Practical Nurses Association of BC**  
[www.lpnabc.ca](http://www.lpnabc.ca)

**National Emergency Nurses Affiliation**  
[www.nena.ca/](http://www.nena.ca/)

**Physiotherapy Association of BC**  
[www.bcphysio.org](http://www.bcphysio.org)

**Public Health Association of BC**  
[www.phabc.org](http://www.phabc.org)

**Reflexology Association of Canada -- BC Chapter**  
[www.racbcreflexology.com/](http://www.racbcreflexology.com/)

# Information and Cultural Sector



## Key Points

- There are two sectors contained under the Information, Culture and Recreation industry: Information and Cultural Services; and Arts, Entertainment and Recreation.
- Businesses and individuals working in Information and Cultural Services are involved in areas such as telephone, radio, television, film, theatre, books, magazines, newspapers and video games. Also included in this category are providers of Internet access and other services aimed at entertaining or informing people.
- The Arts, Entertainment and Recreation sector includes: performing arts companies, such as theatre, dance and music groups; independent artists; museums; zoos and nature parks; casinos and lotteries; and sports-related businesses and activities, from spectator sports events and fitness centres to ski resorts, golf courses and marinas.

Information and Culture Sector — British Columbia	
Total Employment	130,000
Employment Growth 2005-2014	0.3%
Employment Growth 2015-2024	0.3%
Increase / Decrease January 2017-January 2018	0.0%
Employers Across British Columbia	2,548
Average Weekly Earnings (December 2017)	\$1,335.69
Wage Increases in Past Year	-2.1%

## Information and Culture Outcomes in British Columbia

**Employment Growth (2014-2015):** 6.3%

**Job Growth (2014-2015):** +6,800

**Total Employment (2015):** 114,500

**Local Employment (distribution of local workforce):**

- Vancouver Island — 13.0%
- Mainland / Southwest — 69.1%
- Thompson / Okanagan — 11.1%
- Kootenay — 2.0%
- Cariboo — 2.5%
- North Coast & Nechako — n/a
- Northeast BC — n/a

# Information and Culture Sector

## Overview

*Based on the North American Industry Classification System (NAICS) Canada*

This sector comprises establishments primarily engaged in producing and distributing (except by wholesale and retail methods) information and cultural products. Establishments providing the means to transmit or distribute these products or providing access to equipment and expertise for processing data are also included.

The unique characteristics of information and cultural products, and of the processes involved in their production and distribution, distinguish this sector from the goods-producing and services-producing sectors.

The value of these products lies in their information, educational, cultural or entertainment content, not in the format in which they are distributed. Most of these products are protected from unlawful reproduction by copyright laws. Only those possessing the rights to these works are authorized to reproduce, alter, improve and distribute them. Acquiring and using these rights often involves significant costs.

The intangible nature of the content of information and cultural products allows for their distribution in various forms. For example, a movie can be shown at a movie theatre, on a television broadcast, through video on demand, or rented at a local video store; a sound recording can be aired on radio, embedded in multi-media products or sold at a record store; software can be bought at retail outlets or downloaded from an electronic bulletin board; a newspaper can be purchased at a newsstand or received on-line. In addition, improvements in information technology are revolutionizing the distribution of these products. The inclusion in this sector of telecommunications services providers reflects the increasingly important role these establishments play in making these products accessible to the public.

The main components of this sector are the publishing industries, the motion picture and sound recording industries, the broadcasting industries, the telecommunications industries, and the data processing and hosting services industries.

There are establishments engaged in culture-related activities that are classified in other sectors of NAICS. The most important are listed as exclusions below.

## Information and Culture Sector Outlook 2015-2024

*Based on the Canadian Occupational Projection System*

This industry is composed of two segments: information and cultural activities (such as book, newspaper and software publishing, motion picture and record production, telecommunications and broadcasting, data processing and hosting, Internet publishing and web search portals) and arts, entertainment and recreation activities (such as cinemas, performing arts and spectator sports establishments, museums and historic sites, amusement parks and casinos). While employment is evenly split between the two segments, the information and cultural segment accounts for a much larger share of production (82% in 2014) as it is less labour intensive (telecommunications services alone account for half of the industry GDP but only one fifth of employment). The industry is heavily reliant on the performance of the domestic economy and is particularly sensitive to changes in discretionary expenditures. It employed 757,200 workers in 2014, largely concentrated in Ontario (42%), Quebec (24%) and British Columbia (14%). Given the wide variety of activities, major occupations in the industry include a mix of: creative and performing artists (NOC 513); athletes, coaches, referees and related occupations (NOC 525); writing, translating and public relations professionals (NOC 512); library, correspondence and related information clerks (NOC 145); computer and information systems professionals (NOC 217); and electrical trades and telecommunications occupations (NOC 724).

After growing quickly in the 1990s due to the emergence of the Internet, satellite and new cable services, the industry experienced some difficulties following the IT bust of the early 2000s. From 2004 to 2007, solid increases in household disposable income and corporate profits, combined with rapid developments in wireless technologies, stimulated demand for new services and

contributed to accelerate growth in the industry. However, after being significantly affected by the recession of 2008-2009, output growth in the industry remained weak from 2010 to 2014, partly reflecting the negative impact of high uncertainty about short-term economic prospects on discretionary spending. Employment was rather volatile during the post-recession period. After recovering most of the losses recorded during the recession, employment fell again in 2012-2013 and remained essentially unchanged in 2014. On average, real GDP and employment grew at annual rates of 1.2% and 0.3% respectively over the period 2005-2014. Modest job creation reflects the fact that employment gains recorded in the arts, entertainment and recreation segment during the past decade was largely offset by job losses in the information and cultural segment.

Over the projection period, output growth in the industry is expected to accelerate as a result of the faster pace of growth anticipated in consumer spending on communication, culture and recreation services. A large part of the acceleration in output growth is expected to come from the arts, entertainment and recreation segment, particularly in the short-term, as a result of major sports events in Canada in 2015, including the Pan American Games in Toronto, the Women's World Cup of soccer across major Canadian cities, and the new Canadian Football League team in Ottawa. That segment of the industry is also expected to benefit from the eventual addition of new professional hockey teams in Canada and the ongoing increase in the number of casinos across the country. But the strongest contribution to output growth is expected to come from the information and cultural segment, particularly from telecommunications services where the rapidly rising demand for wireless data, stimulated by the growing amount of TV content accessible on mobile devices, will more than compensate for the weakness in the paid-TV and wireline segments. With the quality of wireless coverage constantly improving, the proportion of cellphone-only households is expected to keep rising, reducing the need for wireline services, especially when video-on-demand options like Netflix and Shomi (by Rogers and Shaw) are available to everyone with an Internet connection. New market opportunities in machine-to-machine technology and unified communications are also expected to support output growth in telecommunications services. While the lower value of the Canadian dollar will increase Canada's competitiveness as a location for the production of American movies and TV series, supporting growth in the motion picture industry, it will also encourage foreign tourists to visit Canada, stimulating demand for cultural and recreation services. Over the longer term, the gradual slowdown projected in Canadian GDP and employment growth is expected to weigh on personal disposable income and discretionary spending on information, culture and recreation services. However, the faster pace of growth anticipated in corporate profits and investment in machinery and equipment (including ICT) relative to the period 2005-2014 is expected to boost business spending on such services, more particularly information services. This will have direct implications for the software and telecommunications industries since businesses account for a large part of their output. Over the period 2015-2024, real GDP growth is projected to accelerate to an average annual rate of 1.8%, while employment growth is projected to remain unchanged from the previous ten years, averaging 0.3% annually. The significant gap between output and employment growth reflects stronger gains anticipated in productivity and the fact that the largest and fastest growing component of the industry in terms of production, namely telecommunication services, is low labour intensive.

## Information and Culture Sector Research

### Academy of Canadian Cinema and Television

[www.academy.ca](http://www.academy.ca)

### Advertising Standards Council

[www.adstandards.com](http://www.adstandards.com)

### Alliance for Arts and Culture

[www.allianceforarts.com](http://www.allianceforarts.com)

### BC Printing and Imaging Association

[www.bcpia.org](http://www.bcpia.org)

### BC & Yukon Community Newspapers Association

[www.bccommunitynews.com](http://www.bccommunitynews.com)

### David Lam Centre for International Communication

[www.cic.sfu.ca](http://www.cic.sfu.ca)

### Greater Vancouver International Film Festival Society

[www.viff.org](http://www.viff.org)

### Professional Photographers Association of BC

[www.ppabc.com/](http://www.ppabc.com/)

### Society of Composers, Authors and Music Publishers of Canada

[www.socan.ca](http://www.socan.ca)

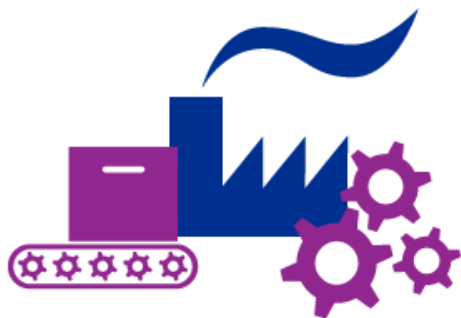
### Vancouver Musicians' Association, Local 145

[www.vma145.ca](http://www.vma145.ca)

### Writers Guild of Canada

[www.writersguildofcanada.com](http://www.writersguildofcanada.com)

# Manufacturing Sector



## Key Points

*The Manufacturing industry is made up of businesses that are typically engaged in the physical or chemical transformation of materials or substances into new products. These products can be ready for use or put into the creation of another product.*

- Related activities, such as the assembly of the component parts of manufactured goods; the blending of materials; and the finishing of manufactured products by dyeing, heat-treating, plating and similar operations are also treated as manufacturing activities.
- Manufacturing establishments are known by a variety of trade designations, such as plants, factories or mills.
- Manufacturing establishments may own the materials which they transform or they may transform materials owned by other establishments.
- Manufacturing may take place in factories or in workers' homes, using either machinery or hand tools..

## Manufacturing Sector — British Columbia

Total Employment	178,300
Employment Growth 2005-2014	-1.2%
Employment Growth 2015-2024	1.0%
Increase / Decrease January 2017-January 2018	4.6%
Employers Across British Columbia	7,238
Average Weekly Earnings (December 2017)	\$1,161.76
Wage Increases in Past Year	7.5%

## Manufacturing Outcomes in British Columbia

**Employment Growth (2014-2015):** 6.9%

**Job Growth (2014-2015):** +11,100

**Total Employment (2015):** 172,500

**Local Employment (distribution of local workforce):**

- Vancouver Island — 9.5%
- Mainland / Southwest — 65.1%
- Thompson / Okanagan — 13.0%
- Kootenay — 3.1%
- Cariboo — 5.3%
- North Coast & Nechako — 3.1%
- Northeast BC — 0.9%

## Overview

*Based on the North American Industry Classification System (NAICS) Canada*

This sector comprises establishments primarily engaged in the chemical, mechanical or physical transformation of materials or substances into new products. These products may be finished, in the sense that they are ready to be used or consumed, or semi-finished, in the sense of becoming a raw material for an establishment to use in further manufacturing. Related activities, such as the assembly of the component parts of manufactured goods; the blending of materials; and the finishing of manufactured products by dyeing, heat-treating, plating and similar operations are also treated as manufacturing activities. Manufacturing establishments are known by a variety of trade designations, such as plants, factories or mills.

Manufacturing establishments may own the materials which they transform or they may transform materials owned by other establishments. Manufacturing may take place in factories or in workers' homes, using either machinery or hand tools.

Factoryless goods producers (FGPs) that completely outsource the transformation process but own the input materials are classified to the manufacturing sector. FGPs that completely outsource the transformation process but do not own the materials are classified to merchant wholesalers in Sector 41 Wholesale trade. These units are in fact buying the completed goods from the producer with the intention to resell it. These units may design the goods being manufactured, and may have some say in the manufacturing process.

Certain activities involving the transformation of goods are classified in other sectors. Some examples are post-harvest activities of agricultural establishments, such as crop drying; logging; the beneficiating of mineral ores; the production of structures by construction establishments; and various activities conducted by retailers, such as meat cutting and the assembly of products such as bicycles and computers.

Sales branches or offices (but not retail stores) maintained by manufacturing, refining, or mining enterprises apart from their plants or mines for the purpose of marketing their products are included in Sector 41 Wholesale trade as merchant wholesalers.

## Manufacturing Sector Outlook 2015-2024

*Based on the Canadian Occupational Projection System*

This industry comprises establishments engaged in manufacturing ferrous and non-ferrous metal products (such as hand tools, architectural and structural products, boilers, tanks and shipping containers, springs, wires, bolts and screws) and establishments producing industrial and commercial machinery (used in the production process of various primary, construction, manufacturing and services industries). Production in the industry is evenly split between its two segments: metal fabrication (49% in 2014) and machinery (51%). Overall, the industry is export intensive as around 45% of its production is shipped to foreign markets. The two segments, however, do not face the same degree of exposure to changes in domestic and foreign economic conditions. Metal fabrication is highly dependent on the performance of the domestic economy, with about 80% of its production sold within the country. In contrast, machinery is far more sensitive to foreign economic conditions, with exports accounting for about 65% of its production, largely shipped to the United States. Overall, the industry employed 279,400 workers in 2014 (16.3% of total manufacturing employment), with 53% in metal fabrication and 47% in machinery. Employment is mostly concentrated in Ontario (43%), Quebec (22%) and Alberta (17%). Major occupations include: metal forming, shaping and erecting trades (NOC 726); machinists and related occupations (NOC 723); and machining, metalworking, woodworking and related machine operators (NOC 951).

Prior to the recession, the industry was supported by the strength of business investment in machinery and equipment and non-residential structures in the United States and by the substantial development of the oil sands in Alberta. The strong appreciation of the Canadian dollar, however, restrained growth in the industry as it affected price-competitiveness of Canadian exports south of the border. During the global recession of 2008-2009, production in the industry declined by a total of 20%, while employment fell by 37,000 on the heels of the 24,000 jobs that were lost in 2006 and 2007. Stimulated by the economic recovery in North America, and more particularly by business investment in oil and gas engineering structures in Canada, real GDP increased back from 2010 to 2014, returning to its pre-recession level. After falling for a fifth consecutive year in 2010, employment increased by 27,000 from 2011 to 2014. The opposite fluctuations recorded in production before and after the recession resulted in anaemic growth in real GDP (0.0% growth) over the period 2005-2014. In comparison, employment in the industry decreased at an annual pace of 1.2%.

Over the projection period, the industry will benefit from faster investment growth in machinery and equipment in North America and solid growth in non-residential investment in the United States. After holding back on investment for years, many manufacturers are expected to replace or upgrade their existing capital stock (machinery and equipment) in order to increase production capacity and meet rising demand from a strengthening U.S. economy. The lower value of the Canadian dollar is also expected to boost foreign demand for fabricated metals and machinery. The industry has taken back some market share in the United States in recent years, showing that it can compete with low-cost countries as capital spending in industrial machinery is expected to continue to expand in emerging markets. For example, increasing mechanization of the agriculture industry in countries such as China and India is expected to boost foreign demand for agricultural machinery. The new Canada-Korea Free Trade Agreement (CKFTA) will also allow manufacturers to seize new export market opportunities in South Korea. On a less positive note, much weaker investment growth in engineering structures in Canada, particularly from the oil, gas and mining industries, is expected to restrain demand for machinery parts and metal products used as input for machinery production. Slower investment growth anticipated in residential and non-residential building construction in Canada is also expected to restrain domestic demand for such products, as the construction industry is an important buyer of machinery. On average, real GDP is projected to increase at an annual pace of 2.1% over the period 2015-2024. Renewed growth in production is expected to result in a significant recovery in employment, with job creation averaging 1.0% per year. As a result, the industry is expected to regain 82% of the 36,000 jobs lost from 2005 to 2014.

## Manufacturing Sector Research

**Architectural Woodwork Manufacturers Association of BC**  
[www.awmac.com](http://www.awmac.com)

**Association of Book Publishers of BC**  
[www.books.bc.ca](http://www.books.bc.ca)

**Association of International Automobile Manufacturers**  
[www.aiamc.com](http://www.aiamc.com)

**Automotive Parts Manufacturers Association (APMA)**  
[www.apma.ca](http://www.apma.ca)

**Baking Association of Canada**  
[www.bakingassoccanada.com](http://www.bakingassoccanada.com)

**BC Medical Device Industry Association**  
[www.bcmediabc.com](http://www.bcmediabc.com)

**BC Pellet Fuel Manufacturers Association**  
[www.pellet.org](http://www.pellet.org)

**Brewers Association of Canada**  
[www.brewers.ca](http://www.brewers.ca)

**Canadian Hardware and Housewares Manufacturers Association**  
[www.chhma.ca](http://www.chhma.ca)

**Canadian Hardwood Plywood and Veneer Association**  
[www.chpva.ca](http://www.chpva.ca)

**Canadian Manufacturers & Exporters Canada**  
[www.cme-mec.ca](http://www.cme-mec.ca)

**Canadian Pallet Council**  
[www.cpcpallet.com/](http://www.cpcpallet.com/)

**Canadian Plastics Industry Association**  
[www.plastics.ca](http://www.plastics.ca)

**Canadian Window and Door Manufacturers Association**  
[www.cwdma.ca](http://www.cwdma.ca)

**Composite Panel Association**  
[www.pbmdf.com](http://www.pbmdf.com)

**Food and Consumer Products Manufacturers of Canada**  
[www.fcPMC.com](http://www.fcPMC.com)

**Insulating Glass Manufacturers Alliance**  
[www.igmaonline.org](http://www.igmaonline.org)

**Interior Lumber Manufacturers' Association**  
[www.ilma.com](http://www.ilma.com)

**Manufactures' Agents National Association (MANA)**  
[www.manaonline.org](http://www.manaonline.org)



# Natural Resources Sector



## Key Points

- The Agriculture industry includes businesses that are involved mainly in crop production, animal production and the provision of support services to the Forestry and Agriculture industry.
- The Forestry and Logging industry consists of companies engaged in growing and harvesting timber on a long cycle, 10 or more years. (Companies involved in growing and harvesting timber on a cycle of less than 10 years are considered to be in crop production.)
- Mining establishments are primarily involved in exploring, extracting and developing properties of naturally occurring solid minerals, such as coal and ores.
- The Fishing, Hunting and Trapping industry is made up mainly of businesses that are involved in harvesting fish and other wildlife and providing related support activities.

## Natural Resources Sector — British Columbia

Total Employment	75,600
Employment Growth 2005-2014	-0.3%
Employment Growth 2015-2024	1.48%
Increase / Decrease January 2017-January 2018	-1.6%
Employers Across British Columbia	6,385
Average Weekly Earnings (December 2017)	\$1,602.42
Wage Increases in Past Year	2.9%

## Natural Resources Outcomes in British Columbia

**Employment Growth (2014-2015):** -18.4%

**Job Growth (2014-2015):** -3,600

**Total Employment (2015):** 70,600

**Local Employment (distribution of local workforce):**

- Vancouver Island — 9.9%
- Mainland / Southwest — 51.4%
- Thompson / Okanagan — 23.9%
- Kootenay — 4.2%
- Cariboo — 3.1%
- North Coast & Nechako — 2.0%
- Northeast BC — 3.0%

## Overview

*Based on the North American Industry Classification System (NAICS) Canada*

### **Agriculture, forestry, fishing and hunting**

This sector comprises establishments primarily engaged in growing crops, raising animals, harvesting timber, harvesting fish and other animals from their natural habitats and providing related support activities.

Establishments primarily engaged in agricultural research or that supply veterinary services are not included in this sector.

### **Mining, quarrying, and oil and gas extraction**

This sector comprises establishments primarily engaged in extracting naturally occurring minerals. These can be solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term mining is used in the broad sense to include quarrying, well operations, milling (for example, crushing, screening, washing, or flotation) and other preparation customarily done at the mine site, or as a part of mining activity.

Establishments engaged in exploration for minerals, development of mineral properties and mining operations are included in this sector. Establishments performing similar activities, on a contract or fee basis, are also included.

## Natural Resources Sector Outlook 2015-2024

*Based on the Canadian Occupational Projection System*

**Agriculture:** Over the projection period, output growth in agriculture is projected to remain healthy, averaging 2.1% annually, a marginal slowdown relative to the period 2005-2014. Production is expected to benefit from emerging markets with high growth in population and wealth such as the BRICS countries (Brazil, Russia, India, China and South Africa), increased global demand for bio-fuels, and better access to lucrative markets through the Canada-European Union Comprehensive Economic and Trade Agreement (CETA). However, climate change, high volatility in commodity prices, increased global competition, and stricter labelling and environmental regulations are expected to remain among the most important challenges for farmers and livestock producers. Employment in the industry is projected to keep declining at the same pace as in the previous ten years, down by 0.5% annually. This means that the increase in production is expected to be achieved through additional gains in productivity as the global trend toward freer trade and less protectionism will continue to force farmers to become more efficient, resulting in further downsizing and greater concentration of ownership. CETA will eliminate duties on a wide range of agricultural products and the number of countries in free-trade agreements with Canada will increase from 14 to 42. The federal government's decision of eliminating the Canadian Wheat Board's monopoly on wheat and barley sales in the Western provinces in 2012 is also expected to result in a more competitive market over the long-term.

**Forestry and Logging:** Over the projection period, production growth in forestry and logging is expected to return to positive territory, averaging 1.6% annually. This rebound will mostly occur in the short-term, primarily driven by the ongoing recovery in residential investment in the United States and the resulting increase in demand for wood products. After the U.S. housing market recovers, growth in output is projected to weaken, as the declining trend in household formation due to slower demographic growth and population aging will dampen the outlook for housing starts in North America. At the same time, reduced harvesting land base in British Columbia and Quebec, stricter environmental regulations, and the fact that transportation costs are rising in line with more distant available trees will keep adding pressures on timber supply. Anaemic growth projected in the pulp and paper industry will also inhibit output growth in the forestry industry. Nevertheless, new markets in Asia and the emerging biomass fuel industry are expected to continue to support demand for forestry products over the longer term. Employment in the industry is projected to increase marginally, up by 0.3% annually. The anticipated recovery in production will be largely achieved through productivity gains, as job creation is expected to be restrained by the need to improve cost competitiveness in response to increased global competition, notably from the United States, Russia, Europe and New Zealand, but also from China and Brazil where a large share of production growth is coming from planted forests. In addition to stronger productivity, lower energy prices

and a weaker Canadian dollar are also expected to help improving the industry's competitiveness.

**Fishing, Hunting and Trapping: Supply** constraints are expected to continue to limit output growth in fishing over the projection period. The industry will keep facing many challenges, including tight profit margins, market uncertainty, increasing international competition and further potential fishing restrictions on various species, such as the Atlantic bluefin tuna, a key ingredient in sushi, which is highly popular with Japanese and U.S. buyers. More volatile weather patterns are also expected to impact water temperatures in the Atlantic and Pacific oceans, reducing the ability of some species to replenish. Supply constraints are expected to be more severe on the West coast than on the East coast due to the increasingly threatened state of British Columbia's salmon stocks. On a positive note, the ratification of the new trade agreement between Canada and the European Union has the potential to stimulate sales in the industry by eliminating duties on a wide range of fish and seafood products, making Canadian products more competitive on the European market (fish and seafood exports to the EU were worth an average of 400\$ million per year between 2010 and 2012). The lower value of the Canadian dollar will also help to improve the price-competitiveness of Canadian exports of seafood products, particularly on the key U.S. market. Nevertheless, as a result of significant supply constraints, real GDP growth in the industry is projected to remain essentially flat over the period 2015-2024, averaging 0.2% annually, while employment is expected to keep declining, albeit at a slower pace of 2.4% per year. Further declines in employment reflect additional gains in productivity brought by the increasing use of larger vessels and new technologies in order to reduce operating costs. Youth out-migration from coastal communities is also expected to reduce labour supply in the industry over the longer term.

**Oil and Gas Extraction:** Crude oil prices fell drastically in the second half of 2014, down by more than 50%, and they are expected to remain relatively low over the short- to medium-term as the pace of growth in global supply (primarily boosted by much stronger production in the United States and the decision from Saudi Arabia to maintain its current level of production despite the excess supply in the market) should continue to exceed the pace of growth in global demand (primarily due to weak economic growth in Western Europe and a slowing Chinese economy). Despite the gloomy outlook for prices, Canadian oil production is projected to grow at a healthy pace over the period 2015-2024, largely driven by increased production capacity in the oil sands after many years of massive investments. On the other hand, Canadian gas production is expected to be dampened by quickly rising production and competition from U.S. producers. A weaker outlook for the production of natural gas liquids (NGL such as ethane, propane, butane, pentane) and liquefied natural gas (LNG) is also expected to restrain growth in the gas industry, as NGLs and LNGs have typically been priced in close relation to oil rather than pure natural gas (partly due to longer carbon chains for heavier NGLs, such as butane and pentane plus, and specific market characteristics for LNGs). The resulting pace of real GDP growth in the oil and gas extraction industry is projected to average 1.6% annually, little changed from the period 2005-2014. In comparison, employment growth is projected to slow substantially, averaging 0.5% per year, primarily reflecting a significant strengthening in productivity. Productivity gains will be largely driven by ongoing technological improvements, particularly for the extraction of non-conventional oil and gas (such as the use of hydraulic fracturing and horizontal directional drilling techniques for shale and tight oil and gas extraction) and the fact that the production capacity in oil sands and offshore fields is increasing while becoming less labour intensive (the outlook assumes that sufficient pipeline capacity will be built to accommodate the large increase anticipated in production capacity). Major investment cutbacks from oil producers due to the weaker outlook for oil prices are also projected to restrain job creation in oil and gas extraction, particularly in the short-term, although the negative impact on employment is expected to be less severe than in support activities.

## Natural Resources Sector Research

**Aggregate Producers Association of BC**  
[www.gravelbc.ca](http://www.gravelbc.ca)

**Association of BC Professional Foresters**  
[www.abcfp.ca/](http://www.abcfp.ca/)

**Association for Mineral Exploration British Columbia**  
[www.amebc.ca](http://www.amebc.ca)

**Association of Professional Engineers and Geoscientists of British Columbia**  
[www.apeg.bc.ca](http://www.apeg.bc.ca)

**BC Agriculture Council**  
[www.bcac.bc.ca](http://www.bcac.bc.ca)

**BC Blueberry Council**  
[www.bcblueberry.com](http://www.bcblueberry.com)

**BC Cattlemen's Association**  
[www.cattlemen.bc.ca](http://www.cattlemen.bc.ca)

**BC Chicken Marketing Board**  
[www.bcchicken.ca](http://www.bcchicken.ca)

**BC Dairy Foundation**  
[www.bcdf.org](http://www.bcdf.org)

**BC Fruit Growers Association**  
[www.bcfga.com](http://www.bcfga.com)

**BC Hog Marketing Commission / BC**  
[www.bcpork.ca](http://www.bcpork.ca)

**BC Independent Grape Growers' Association**  
[www.grapegrowers.bc.ca](http://www.grapegrowers.bc.ca)

**BC Institute of Agrologists**  
[www.bcia.com](http://www.bcia.com)

**BC Landscape & Nursery Association**  
[www.canadanursery.com](http://www.canadanursery.com)

**BC Milk Marketing Board**  
[www.milk-bc.com](http://www.milk-bc.com)

**BC Salmon Farmers Association**  
[www.salmonfarmers.org](http://www.salmonfarmers.org)

**BC Shellfish Growers Association**  
[www.bcsqa.ca](http://www.bcsqa.ca)

**BC Vegetable Marketing Commission**  
[www.bcveg.com](http://www.bcveg.com)

**Canadian Gas Association**  
[www.cga.ca/](http://www.cga.ca/)

**Canadian Health Food Association**  
[www.chfa.ca](http://www.chfa.ca)

**Canadian Organic Growers Association**  
[www.cog.ca](http://www.cog.ca)

**Canadian Produce Marketing Association**  
[www.cpm.ca](http://www.cpm.ca)

**Certified Organic Associations of British Columbia**  
[www.certifiedorganic.bc.ca](http://www.certifiedorganic.bc.ca)

**Council of Forest Industries (COFI)**  
[www.cofi.org](http://www.cofi.org)

**Dairy Farmers of Canada**  
[www.dairyfarmers.org](http://www.dairyfarmers.org)

**Environmental Youth Alliance**  
[www.eya.ca/](http://www.eya.ca/)

**For Education BC (FORED BC)**  
[www.landscapesmag.com](http://www.landscapesmag.com)

**Forest Products Association of Canada**  
[www.fpac.ca](http://www.fpac.ca)

**Fraser Valley Farm Direct Marketing Association**  
[www.bcfarmfresh.com](http://www.bcfarmfresh.com)

**Further Poultry Processors Association of Canada (FPPAC)**  
<http://www3.sympatico.ca/fppac>

**Horse Council of BC**  
[www.hcbc.ca/](http://www.hcbc.ca/)

**Interior Vegetable Marketing Agency Co-operative**  
[www.ivma.info](http://www.ivma.info)

**Mining Association of BC**  
[www.mining.bc.ca](http://www.mining.bc.ca)

**Raspberry Industry Development Council**  
[www.bcraspberries.com](http://www.bcraspberries.com)

**Western Silvicultural Contractors' Association**  
[www.wsca.ca](http://www.wsca.ca)

# Professional, Scientific Technical Services Sector



## Key Points

- The Professional, Scientific and Technical Services industry is made up of businesses whose employees offer particular specialized skill sets and knowledge to clients.
- Most of the industries grouped in this sector have production processes that are almost completely dependent on worker skills.

Prof., Scientific, Technical Services Sector — British Columbia	
Total Employment	198,900
Employment Growth 2005-2014	2.5%
Employment Growth 2015-2024	1.2%
Increase / Decrease January 2017-January 2018	2.5%
Employers Across British Columbia	21,917
Average Weekly Earnings (December 2017)	\$1,374,28
Wage Increases in Past Year	0.2%

## Professional, Scientific, Technical Outcomes in British Columbia

**Employment Growth (2014-2015):** 3.2%

**Job Growth (2014-2015):** 5,800

**Total Employment (2015):** 188,100

**Local Employment (distribution of local workforce):**

- Vancouver Island — 14.2%
- Mainland / Southwest — 73.5%
- Thompson / Okanagan — 8.0%
- Kootenay — 1.3%
- Cariboo — 1.4%
- North Coast & Nechako — n/a
- Northeast BC — 1.0%

## Overview

*Based on the North American Industry Classification System (NAICS) Canada*

This sector comprises establishments primarily engaged in activities in which human capital is the major input. These establishments make available the knowledge and skills of their employees, often on an assignment basis. The individual industries of this sector are defined on the basis of the particular expertise and training of the service provider.

The main components of this sector are legal services; accounting, tax preparation, bookkeeping and payroll services; architectural, engineering and related services; specialized design services; computer systems design and related services; management, scientific and technical consulting services; scientific research and development services; and advertising, public relations, and related services.

The distinguishing feature of this sector is the fact that most of the industries grouped in it have production processes that are

almost wholly dependent on worker skills. In most of these industries, equipment and materials are not of major importance. Thus, the establishments classified in this sector sell expertise. Much of the expertise requires a university or college education, though not in every case.

Establishments primarily engaged in providing instruction and training in a wide variety of subjects and those primarily engaged in providing health care by diagnosis and treatment are not included in this sector.

## Professional, Scientific, Technical Sector Outlook 2015-2024

*Based on the Canadian Occupational Projection System*

This industry comprises establishments that provide highly specialized business services. It is composed of four segments: legal services; accounting, tax preparation, bookkeeping and payroll services; architectural, engineering and related services; and specialized design services. Architectural, engineering and related services represent the largest segment, accounting for about half of production. The industry strongly relies on the performance of the domestic economy and is largely driven by business activities and corporate profits. Although it is mostly oriented on the domestic market, the industry is also sensitive to foreign economic conditions since the clientele comes from various businesses, some of which are heavily reliant on foreign demand. It employed 642,800 workers in 2014, with 44% in architectural, engineering and related services, 24% in accounting, tax preparation, bookkeeping, and payroll services, 22% in legal services, and 10% in specialized design services. Employment is largely concentrated in Ontario (38%) and Quebec (21%). The workforce is characterized by a high level of education and a significant proportion of self-employed (32%). Major occupations include: auditors, accountants and investment professionals (NOC 111); judges, lawyers and Quebec notaries (NOC 411); and civil, mechanical, electrical and chemical engineers (NOC 213).

Professional business services posted solid gains in production and employment between 2000 and 2008, driven by solid growth in corporate profits and government expenditures. The industry largely benefited from the growing number of firms across the economy that chose to outsource non-essential processes in order to remain focused on their core activities. Solid increases in residential and non-residential investment also contributed to foster output and employment growth in the industry, particularly in architectural and engineering services. After stagnating during the recession of 2009, output continued to grow at a solid pace from 2010 to 2014, supported by the gradual strengthening of the Canadian economy and renewed growth in business activities. Employment increased markedly in 2010 and 2011 but started to fluctuate significantly in the following three years, resulting in much slower net job creation from 2012 to 2014. On average, real GDP and employment increased at annual rates of 2.9% and 2.5% respectively over the period 2005-2014, largely exceeding the performance of the overall economy in terms of production and employment growth.

Over the projection period, the industry should continue to benefit from the growing trend among businesses towards outsourcing corporate functions in order to increase operation efficiency, particularly in the good-producing industries. Various merger and acquisition deals across a broad range of industries are expected to support demand for legal and accounting services, while faster growth anticipated in capital spending should lead to increased demand for engineering services. Indeed, renewed growth projected in manufacturing activities is expected to stimulate business investment in machinery and equipment and, eventually, the construction of new plants and facilities to increase production capacity. There is also some potential to increase exports of professional services as demand for Canadian expertise is growing rapidly, particularly for engineering and architectural services. While the lower value of the Canadian dollar is expected to improve price-competitiveness, particularly with the United States, the mutual recognition of professional qualifications under the Comprehensive Economic and Trade Agreement (CETA) is expected to enable professional service providers to bid on service contracts within the European market. On the negative side, many firms are exposed to risks involving revenue volatility and client retention, as the loyalty of clients is often tied to particular employees. Furthermore, the slower pace of growth anticipated in overall construction activity is expected to restrain demand for architectural and engineering services in the longer term. While demographic changes are expected to weigh progressively on residential investment, particularly new housing construction, the outlook for non-residential investment also deteriorated significantly. This largely reflects the negative impact of lower commodity prices on the development of new engineering structures for mining, oil and gas extraction, but also limited demand for the construction of new commercial buildings, partly as a result of higher vacancy rates for office and retail space. The resulting growth in real GDP is projected to average 2.8% annually from 2015 to 2024, essentially unchanged from the previous ten years. In contrast, employment growth is projected to slow markedly, averaging 1.2% annually. An anticipated recovery from previously dismal productivity growth and increasing difficulties in finding and retaining qualified personnel are likely to constrain growth in employment. Rising competition brought by new technologies, which facilitate communication with clients, is also expected to undermine previous locally-focused business models and increase offshoring of some services, notably accounting services.

## Professional, Scientific, Technical Services Sector Research

**Applied Science Technologists & Technicians of BC (ASTTBC)**  
[www.asttbc.org/](http://www.asttbc.org/)

**Architectural Institute of BC**  
[www.aibc.ca/](http://www.aibc.ca/)

**ASPECT - BC's Community Based Trainers**  
[www.aspect.bc.ca](http://www.aspect.bc.ca)

**BC Career Development Association**  
[www.bccda.org/](http://www.bccda.org/)

**BC Biotech**  
[www.lifesciencesbc.ca/](http://www.lifesciencesbc.ca/)

**BC Human Resources Management Association**  
[www.bchrma.org](http://www.bchrma.org)

**BC International Commercial Arbitration Centre**  
[www.bcciac.com](http://www.bcciac.com)

**BC Inventors Society**  
[www.bccinventor.com](http://www.bccinventor.com)

**BC Society of Laboratory Science**  
[www.bccsls.net](http://www.bccsls.net)

**BC Society of Landscape Architects**  
[www.bccsla.org](http://www.bccsla.org)

**BC Technology Industries Association**  
[www.bccbia.org](http://www.bccbia.org)

**BC Veterinary Medical Association**  
[www.bccvma.org](http://www.bccvma.org)

**Building Owners & Managers Association**  
[www.bccboma.bc.ca](http://www.bccboma.bc.ca)

**Canadian Advanced Technology Alliance**  
[www.cata.ca/](http://www.cata.ca/)

**Canadian Association of Skilled Trades**  
[www.castbc.ca](http://www.castbc.ca)

**Canadian Bar Association (BC Branch)**  
[www.cba.org/bc/home/main/](http://www.cba.org/bc/home/main/)

**Canadian Professional Sales Association**  
[www.cpsa.com](http://www.cpsa.com)

**Career Professionals of Canada**  
[www.careerprocanada.ca/](http://www.careerprocanada.ca/)

**Consulting Engineers of British Columbia (CEBC)**  
[www.cebc.org/](http://www.cebc.org/)

**First Nations Employment Society**  
[www.fnes.ca](http://www.fnes.ca)

**Information Technology Association of Canada**  
[www.itac.ca](http://www.itac.ca)

**Institute of Real Estate Management**  
[www.reic.ca](http://www.reic.ca)

**Interior Designers' Institute of BC**  
[www.idibc.org/](http://www.idibc.org/)

**Law Society of BC**  
[www.lawsociety.bc.ca](http://www.lawsociety.bc.ca)

**Meeting Professionals International (BC Chapter)**  
[www.mpibccchapter.com](http://www.mpibccchapter.com)

**Real Estate Board of Greater Vancouver**  
[www.realtylink.org](http://www.realtylink.org)

**Real Estate Institute of BC**  
[www.reibc.org](http://www.reibc.org)

**Society of Translators and Interpreters of British Columbia**  
[www.stibc.org/](http://www.stibc.org/)

**Structural Engineers Association of British Columbia (SEABC)**  
[www.seabc.ca/](http://www.seabc.ca/)

**The Corporation of Land Surveyors of the Province of British Columbia**  
[www.abcls.ca](http://www.abcls.ca)

**The Society of Notaries Public of BC**  
[www.notaries.bc.ca](http://www.notaries.bc.ca)

**Trial Lawyers Association of British Columbia**  
[www.tlabc.org/BC/](http://www.tlabc.org/BC/)

**Vancouver Executives Association**  
[www.vanex.com](http://www.vanex.com)

**West Coast Environmental Law Association / Research Foundation**  
[www.wcel.org](http://www.wcel.org)

**Western Employers Labour Relations Association**  
[www.welra.com](http://www.welra.com)

# Retail / Wholesale Sector



## Key Points

- *Wholesalers and retailers sell consumers goods that have been purchased from suppliers. The goods sold are produced locally or imported from other regions and other countries.*
- *Wholesalers can be thought of as “middle men,” usually supplying goods for resale or industrial use.*
- *Retailers generally deal directly with final consumers of goods, primarily individuals and households.*
- *The Wholesale and Retail Trade industry includes everything from small corner stores to big-box chains and wholesale distribution centres.*

Retail / Wholesale Sector — British Columbia	
Total Employment	389,000
Employment Growth 2005-2014	0.9%
Employment Growth 2015-2024	0.6%
Increase / Decrease January 2017-January 2018	3.8%
Employers Across British Columbia	19,226
Average Weekly Earnings (December 2017)	\$761,60
Wage Increases in Past Year	7.6%

## Retail / Wholesale Outcomes in British Columbia

**Employment Growth (2014-2015):** -1.4%

**Job Growth (2014-2015):** -5,100

**Total Employment (2015):** 352,900

**Local Employment (distribution of local workforce):**

- Vancouver Island — 15.0%
- Mainland / Southwest — 63.2%
- Thompson / Okanagan — 11.2%
- Kootenay — 3.2%
- Cariboo — 3.9%
- North Coast & Nechako — 2.0%
- Northeast BC — 1.6%



## Overview

*Based on the North American Industry Classification System (NAICS) Canada*

This sector comprises establishments primarily engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.

The retailing process is the final step in the distribution of merchandise; retailers are therefore organized to sell merchandise in small quantities to the general public. This sector comprises two main types of retailers, store and non-store retailers. Their main characteristics are described below.

### Store retailers

Store retailers operate fixed point-of-sale locations, located and designed to attract a high volume of walk-in customers. In general, retail stores have extensive displays of merchandise and use mass-media advertising to attract customers. They typically sell merchandise to the general public for personal or household consumption, but some also serve businesses and institutions. These include establishments such as office supplies stores, computer and software stores, gasoline stations, building material dealers, plumbing supplies stores and electrical supplies stores.

In addition to selling merchandise, some types of store retailers are also engaged in the provision of after-sales services, such as repair and installation. For example, new automobile dealers, electronic and appliance stores and musical instrument and supplies stores often provide repair services, while floor covering stores and window treatment stores often provide installation services. As a general rule, establishments engaged in retailing merchandise and providing after sales services are classified in this sector.

Catalogue sales showrooms, gasoline service stations, and mobile home dealers are treated as store retailers.

### Non-store retailers

Non-store retailers, like store retailers, are organized to serve the general public, but their retailing methods differ. They reach customers and market merchandise with methods such as, the broadcasting of infomercials, the broadcasting and publishing of direct-response advertising, the publishing of traditional and electronic catalogues, door-to-door solicitation, in-home demonstration, temporary displaying of merchandise (stalls) and distribution by vending machines.

The methods of transaction and delivery of merchandise vary by type of non-store retailers. For example, non-store retailers that reach their customers using information technologies can receive payment at the time of purchase or at the time of delivery, and the delivery of the merchandise may be done by the retailer or by a third party, such as the post office or a courier. In contrast, non-store retailers that reach their customers by door-to-door solicitation, in-home demonstration, temporary displaying of merchandise (stalls) and vending machines typically receive payment and deliver the merchandise to the customer at the time of the purchase.

Non-store retailers also include establishments engaged in the home delivery of products such as home heating oil dealers and newspaper delivery companies.

## Retail Sector Outlook 2015-2024

*Based on the Canadian Occupational Projection System*

This industry comprises establishments primarily engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. The retailing process is the final step in the distribution of merchandise in small quantities to the general public. Food and beverage stores are the most important segment within the industry, accounting for 25% of employment in 2014. Other key segments include general merchandise stores (13% of employment), clothing stores (11%), and motor vehicle and parts dealers (10%). The industry is closely linked to the wholesale trade industry and is essentially supported by consumer spending in Canada. With a total of 2.1 million workers in 2014, it was the second largest employer across the economy, behind health care and social assistance. The workforce is characterized by a strong concentration of young workers

(31% of workers are aged between 15 and 24) and by the second largest share of part-time employees (35%), after accommodation and food services. Employment is distributed proportionately to population: 38% in Ontario, 24% in Quebec, 13% in British Columbia, 11% in Alberta, and 14% in the remaining provinces. Major occupations include: retail salespersons and sales clerks (NOC 642); managers in retail trade (NOC 062); and cashiers (NOC 661).

Between 2000 and 2008, real GDP in retail trade grew at a much faster pace than the all industry average, leading to the creation of 299,000 jobs. Rising personal disposable income, low interest rates, and the substantial improvement in labour market conditions are the main factors that fuelled growth in the industry during that period. However, in 2009, production and employment in the industry fell markedly as a result of the substantial deterioration in domestic economic conditions. The negative impact of the recession was more severe than in most other services industries, as the wholesale and retail industries are more sensitive to business cycles. Production and employment quickly recovered in 2010 and output continued to grow at a healthy pace in subsequent years, driven by stronger consumer confidence, improving labour market conditions and solid growth in real disposable income. Growth in output was particularly strong in 2013 and 2014, as a result of much faster growth in consumer spending. After being quite stable in 2011-2012, employment increased significantly in 2013 and remained unchanged in 2014. The resulting growth in real GDP averaged 2.7% annually over the period 2005-2014, compared to 0.9% for employment.

Over the projection period, retail activity will benefit from additional growth in consumer spending, mainly supported by higher personal disposable income and low interest rates. Growth in output is, however, projected to weaken somewhat relative to the period 2005-2014, primarily reflecting the adverse impact of demographic changes on consumer spending. Slower growth in the working-age population is expected to constrain employment growth, while the aging of the population will result in massive retirements of baby-boomers from the labour market. These two factors are expected to restrain growth in disposable income and consumer spending, including spending on durable, semi-durable and non-durable goods sold by retailers. Older households are also expected to consume more services and slightly fewer goods, reducing the share of goods in total consumer spending. The anticipated reduction in household debt to more sustainable levels is an additional factor expected to lower the pace of growth in consumer spending. That said, retailers should benefit from the fact that interest rates are expected to remain low for some time, maintaining affordability for consumers to purchase big-ticket items, such as cars and household appliances. Higher import prices resulting from a lower currency will also encourage Canadians, especially those close to the U.S. border, to shop at home, supporting revenues in domestic retail stores. On average, real GDP in the industry is expected to increase by 2.3% annually over the period 2015-2024, compared to 0.6% for employment. The much weaker pace of growth in employment relative to GDP reflects the fact that increased competition from e-commerce and other direct-to-customer operations by manufacturers that bypass intermediaries will force Canadian retailers and wholesalers to continue to seek ways to restructure their operations and lower labour costs.

## Retail Sector Research

### **Automotive Retailers Association**

[www.ara.bc.ca](http://www.ara.bc.ca)

### **Building Supply Dealers Association of BC**

[www.bsdabc.com](http://www.bsdabc.com)

### **Canadian Council of Grocery Distributors**

[www.ccgd.ca](http://www.ccgd.ca)

### **Canadian Jewellers Association**

[www.canadianjewellers.com](http://www.canadianjewellers.com)

### **Recreation Vehicle Dealers Association of BC**

[www.rvda.bc.ca](http://www.rvda.bc.ca)

### **Retail Council of Canada - BC Office**

[www.retailcouncil.org](http://www.retailcouncil.org)

### **Shelfspace (formerly Retail BC)**

[www.shelfspace.ca](http://www.shelfspace.ca)

# Tourism, Food Service and Accommodation Sector



## Key Points

- *Accommodation businesses provide lodging or short-term housing to travellers and other people who are temporarily away from their usual residence. Examples of accommodation are hotels, motels, resorts, bed and breakfasts, hostels, industry work camps and recreational "lodgings" such as campgrounds and RV sites.*
- *Food service and beverage businesses provide prepared food and beverages that are ordered by customers. Establishments range from full-service restaurants to cafés, fast food outlets, delis, food trucks, caterers and contractors who provide meals to hospitals or airlines. Night clubs, lounges, bars and pubs are also included in this industry.*

Tourism, Food Service and Accom. Sector — British Columbia	
Total Employment	176,300
Employment Growth 2005-2014	1.8%
Employment Growth 2015-2024	0.7%
Increase / Decrease January 2017-January 2018	-4.7%
Employers Across British Columbia	12,675
Average Weekly Earnings (December 2017)	\$402.94
Wage Increases in Past Year	7.0%

## Tourism, Food Service and Accommodation Outcomes in British Columbia

**Employment Growth (2014-2015):** -4.2%

**Job Growth (2014-2015):** -7,800

**Total Employment (2015):** 177,500

**Local Employment (distribution of local workforce):**

- Vancouver Island — 15.8%
- Mainland / Southwest — 61.6%
- Thompson / Okanagan — 12.2%
- Kootenay — 3.0%
- Cariboo — 3.6%
- North Coast & Nechako — 1.8%
- Northeast BC — 2.0%

## Overview

*Based on the North American Industry Classification System (NAICS) Canada*

This sector comprises establishments primarily engaged in: providing short-term lodging and complementary services to travelers, vacationers and others, in facilities such as hotels, motor hotels, resorts, motels, casino hotels, bed and breakfast accommodations, housekeeping cottages and cabins, recreational vehicle parks and campgrounds, hunting and fishing camps, and various types of recreational and adventure camps.

## Tourism, Food Service and Accommodation Sector Outlook 2015-2024

*Based on the Canadian Occupational Projection System*

This industry comprises establishments primarily engaged in providing short-term lodging and complementary services to travellers and vacationers in facilities such as hotels, resorts, motels, and bed and breakfast accommodations. It also comprises establishments engaged in preparing meals, snacks and beverages for immediate consumption on and off the premises. Food is the most important segment, accounting for two-thirds of the production in 2014. Accommodation and food services are closely linked to tourism activities, both from the domestic and foreign sides. Consequently, the industry is particularly sensitive to fluctuations in the value of the Canadian dollar against other currencies and to changes in domestic and foreign income, labour market conditions and travelling costs. The industry employed 1.2 million workers in 2014, largely concentrated in food services (83%) and distributed proportionally to provincial population. The industry is characterized by much lower wages than the national average and by the largest concentration of part-time workers in the economy, accounting for 41% of its workforce. Food services also provide many young people with their first jobs as 40% of workers are aged between 15 and 24. Major occupations include: occupations in food and beverage service (NOC 645); food counter attendants, kitchen helpers and related occupations (NOC 664); chefs and cooks (NOC 624); and managers in food service and accommodation (NOC 063).

After posting substantial growth in the late 1990s, the industry faced various difficulties during the early 2000s, including the U.S. recession, the events of September 11, and the unexpected outbreak of the Severe Acute Respiratory Syndrome that affected Toronto during the spring of 2003. These events had a depressing effect not only on foreign travel to Canada, but also on domestic travel within the country. The pace of growth in output and employment remain weak for several years, partly reflecting the weakness in foreign tourism, notably from the United States because of the strong appreciation of the Canadian dollar and the severe recession of 2008-2009. However, output and employment growth in the industry strengthened significantly from 2010 to 2014, driven by the Winter Olympic Games in Vancouver, much higher business profitability and additional increases in personal disposable income due to the gradual improvement in labour market conditions. On average, real GDP and employment grew at annual rates of 1.6% and 1.8% respectively from 2005 to 2014, with two-thirds of the growth in output and employment occurring after 2009.

Over the projection period, the industry is expected to benefit from the anticipated increase in tourism activities as a result of lower gasoline and air-fare costs, a favourable exchange rate and the notable improvement in U.S. economic and labour market conditions. Indeed, the significant depreciation of the Canadian dollar relative to most major currencies makes travel to Canada cheaper for international visitors and encourages more Canadians to choose travel destinations within Canada, increasing demand for accommodation and food services in the country. The notable improvement in U.S. labour market conditions and the resulting increase in personal disposable income, combined with the fact that more people in emerging economies is becoming As the Canadian economy gradually emerges from the negative impact of weak oil prices, households should have more discretionary income to spend. However, this boost to domestic spending is expected to be tempered by the fact that Canadians continue to carry high debt burdens and may choose to increase savings, particularly with the eventual rise anticipated in interest rates. Over the longer-term, the gradual slowdown projected in Canadian GDP and employment growth is also expected to weigh on personal disposable income and discretionary spending on accommodation and food services. That said, the faster pace of growth anticipated in corporate profits relative to the period 2005-2014 is expected to stimulate discretionary spending on business travel and contribute to foster growth in the industry. Population aging is expected to have a mixed impact. While the rising number of retired baby-boomers should have more time to spend on travel and tourism activities, older people tend to stay home more often and travel less, partly because of health issues. Over the period 2015-2024, real GDP growth in the industry is projected to average 1.5% annually, essentially unchanged from the previous ten years, while employment growth is expected to slow significantly, averaging 0.7% annually. Given the weaker pace of growth anticipated in Canada's labour supply and the gradual tightening of the labour market, low wages that characterized this industry will make it increasingly challenging for employers to compete with other industries to attract workers, forcing businesses to increase their level of productivity.

## Tourism, Food Service and Accommodation Sector Research

**Association of Canadian Mountain Guides**

[www.acmg.ca](http://www.acmg.ca)

**Association of Canadian Travel Agents**

[www.acta.ca](http://www.acta.ca)

**BC & Yukon Hotels' Association**

[www.bcyha.com](http://www.bcyha.com)

**BC Association of Agricultural Fairs and Exhibitions**

[www.bcfairs.ca](http://www.bcfairs.ca)

**BC Automobile Association (BCAA)**

[www.bcaa.com](http://www.bcaa.com)

**BC Fishing Resorts and Outfitters Association**

[www.bcfroa.ca/](http://www.bcfroa.ca/)

**BC Golf Association**

[www.bcgga.org](http://www.bcgga.org)

**BC Lodging and Campgrounds Association**

[www.camping.bc.ca](http://www.camping.bc.ca)

**BC Wilderness Tourism Association**

[www.wilderness-tourism.bc.ca](http://www.wilderness-tourism.bc.ca)

**Bocuse d' Or Canada**

[www.bocusedorcanada.ca](http://www.bocusedorcanada.ca)

**British Columbia Bed and Breakfast Association**

[www.bcsbestbnbs.com/](http://www.bcsbestbnbs.com/)

**British Columbia Chef's Association**

[www.bcchefs.com](http://www.bcchefs.com)

**British Columbia Hotel Association**

[www.bcyha.com](http://www.bcyha.com)

**British Columbia Restaurant and Food Services Association**

[www.bcrfa.com](http://www.bcrfa.com)

**Canada West Ski Areas Association**

[www.cwsaa.org](http://www.cwsaa.org)

**Canadian Craft and Hobby Association**

[www.cdncraft.org](http://www.cdncraft.org)

**Canadian Culinary Federation**

[www.ccfcc.ca/](http://www.ccfcc.ca/)

**Canadian Restaurant and Foodservices Association**

[www.crfa.ca](http://www.crfa.ca)

**Cosmetology Industry Association of British Columbia - CIABC**

[www.ciabc.net/](http://www.ciabc.net/)

**Council of Tourism Associations of BC (COTA)**

[www.cotabc.com](http://www.cotabc.com)

**Crafts Association of BC**

[www.cabc.net](http://www.cabc.net)

**Hotel Association of Canada**

[www.hotelassociation.ca](http://www.hotelassociation.ca)

**Northern British Columbia Tourism Association**

[www.northernbctravel.com](http://www.northernbctravel.com)

**Outdoor Recreation Council of BC**

[www.orcbc.ca](http://www.orcbc.ca)

**Research Chefs Association**

[www.culinology.com](http://www.culinology.com)

**The Greater Vancouver Convention & Visitors Bureau**

[www.tourismvancouver.com](http://www.tourismvancouver.com)

**Tourism Industry Association of Canada**

[www.tiac-aitc.ca](http://www.tiac-aitc.ca)

**Tourism Vancouver Island**

[www.tourismvi.ca/](http://www.tourismvi.ca/)

**Tourism Whistler**

[www.tourismwhistler.com](http://www.tourismwhistler.com)

**Vancouver Coast and Mountains Tourism Region**

[www.coastandmountains.bc.ca](http://www.coastandmountains.bc.ca)

**Vancouver Hotel Association**

[www.vhahotels.com](http://www.vhahotels.com)

**Yoga Association of British Columbia (YABC)**

[www.yabc.ca](http://www.yabc.ca)

# Transportation and Warehousing Sector



## Key Points

- *Businesses in the Transportation and Warehousing industry are involved mainly in transporting passengers and goods and in warehousing and storing goods.*
- *Almost half of all employees in the industry are unionized.*
- *Wages in this industry are comparable to the provincial average.*

Transportation and Warehousing Sector — British Columbia	
Total Employment	131,500
Employment Growth 2005-2014	1.1%
Employment Growth 2015-2024	0.8%
Increase / Decrease January 2017-January 2018	-8.6%
Employers Across British Columbia	7,776
Average Weekly Earnings (December 2017)	\$1,092.36
Wage Increases in Past Year	1.6%

## Transportation and Warehousing Outcomes in British Columbia

**Employment Growth (2014-2015):** 4.6%

**Job Growth (2014-2015):** +6,200

**Total Employment (2015):** 140,000

**Local Employment (distribution of local workforce):**

- Vancouver Island — 12.1%
- Mainland / Southwest — 68.6%
- Thompson / Okanagan — 10.2%
- Kootenay — 1.8%
- Cariboo — 2.9%
- North Coast & Nechako — 1.9%
- Northeast BC — 2.6%

## Overview

*Based on the North American Industry Classification System (NAICS) Canada*

This sector comprises establishments primarily engaged in transporting passengers and goods, warehousing and storing goods, and providing services to these establishments. The modes of transportation are road (trucking, transit and ground passenger), rail, water, air and pipeline. These are further subdivided according to the way in which businesses in each mode organize their establishments. National post office and courier establishments, which also transport goods, are included in this sector. Warehousing and storage establishments are subdivided according to the type of service and facility that is operated.

## Transportation and Warehousing Sector Outlook 2015-2024

*Based on the Canadian Occupational Projection System*

This industry comprises establishments primarily engaged in transporting passengers and goods, warehousing and storing goods, and providing services to those establishments. The modes of transportation are road (trucking, transit and ground passenger), rail, water, air, and pipeline. National post office and courier establishments are also included in this industry. Truck transportation is the most important segment, accounting for 28% of the industry production in 2014. Other key segments include support activities for transportation (19% of production), transit and ground passenger transportation (12%), postal and courier services (10%), air transportation (10%), and rail transportation (9%). The industry is closely linked to the primary, manufacturing and trade industries and is essentially driven by the state of both the Canadian and U.S. economies, more particularly domestic and international trade of goods and tourism activities. It employed 896,800 workers in 2014, with 33% in truck transportation, 19% in transit and ground passenger transportation, 15% in postal and courier services, 13% in support activities, and 7% in air transportation. Employment is concentrated in Ontario (37%), Quebec (21%), British Columbia (15%) and Alberta (14%). Major occupations include: motor vehicle and transit drivers (NOC 741); mail and message distribution occupations (NOC 146); and longshore workers and material handlers (NOC 745).

The industry posted solid growth during the 1990s, largely driven by increasing exports of merchandises, spurred by higher U.S. demand, free trade agreements and improved international competitiveness brought by the lower Canadian dollar. However, output stalled between 2001 and 2003 due to the sharp slowdown in economic growth in North America and the adverse impact of the terrorist attacks of September 11th on passenger transportation, particularly airlines. Real GDP in the industry strengthened markedly from 2004 to 2007 due to stronger economic growth in both Canada and the United States and renewed confidence in air travel. With the severe deterioration in global economic conditions, the industrial activity stalled again in 2008 before declining sharply in 2009. As the North American economic recovery began to unfold in mid-2009, output quickly recovered in 2010 and continued to grow at a healthy pace in the four subsequent years. Historically, employment in the industry evolved essentially in line with the fluctuations in production, although employment growth was not as strong as output growth due to significant increases in productivity. On average, real GDP grew by 1.9% per year from 2005 to 2014, while employment advanced by 1.1% annually.

Over the projection period, output growth in the industry is expected to accelerate slightly, primarily driven by much stronger increases anticipated in manufacturing exports and solid growth in wholesale and retail trade activities, stimulating demand for the transportation of merchandises. Canadian air transportation services are also expected to remain strong with traffic growth being supported by a lower currency and the addition by domestic airlines of new routes and increased frequencies of existing connections. Indeed, a weaker dollar is encouraging foreign tourists to visit Canada and is reducing the incentive for Canadians to drive across the border and fly out of U.S. airports, a practice that has cost the domestic industry millions of lost trips over the past decade. Canadian shipping companies are also expected to upgrade their carrying capacities in order to help facilitate and meet the growing global demand for cross-border e-commerce which is expected to exceed \$300 billion by 2018. At the same time, the demand for oil transportation by train is projected to keep growing at a rapid pace in North America due to the lack of pipeline capacity, while demographic changes, increased road congestion and environmental concerns are expected to stimulate demand for public transportation. Lower fuel costs are also expected to result in lower prices and/or higher profits in various segments of the industry, including air transportation. On the negative side, concerns about pipelines spills, tanker traffic and the distribution of royalties and profits are creating political and public opposition to the construction of new pipelines, while major restructuring at Canada Post is expected to cause job cuts and a reduction in services offered. The industry is also expected to face a significant shortage of truck drivers over the longer term due to the aging of the workforce and a growing demand for trucking services. On average, real GDP is projected to grow at an accelerating pace of 2.2% annually over the period 2015-2024, while employment is expected to increase at a decelerating pace of 0.8% per year. The slowdown in employment growth reflects the fact that job creation in the industry will be restrained by the weaker pace of growth anticipated in Canada's labour supply and the gradual tightening of the labour market. As a result, a large part of the increase in production is expected to come from faster gains in productivity.