

TEN-YEAR EMPLOYMENT OUTLOOK FOR BRITISH COLUMBIA

COPS B.C. Unique Scenario, 2007 - 2017



Ministry of Advanced Education and Labour Market Development



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INTRODUCTION

This report presents an overview and summary findings from the current Canadian Occupational Projection System (COPS) B.C. Unique Scenario. The report provides an analysis of employment demand in British Columbia by major industry and occupational group for 2007-2017.

Produced every two years (or when significant economic developments and changes in the province warrant a new projection), the COPS B.C. Unique Scenario is developed by the Ministry of Advanced Education and Labour Market Development in partnership with Service Canada B.C./Yukon/Alberta/Territories Region.

There are two main purposes:

- To assist policy-makers, program designers and human resource planners to identify the most likely long-term trends in labour and skills demand;
- To help inform students, job seekers, career changers, newcomers and other users of future employment demand in their education and career decision-making.

In addition, COPS employment demand trends are key components of provincial career and labour market information products such as *B.C. Work Futures*, *A Guide to the B.C. Economy and Labour Market*, and *High Opportunity Occupations in B.C.*

OVERVIEW OF METHODOLOGY

The COPS B.C. Unique Scenario is based on the COPS model developed by Human Resources and Skills Development Canada (HRSDC)¹. The projected employment demand includes both new job demand driven by economic and industrial growth, and replacement demand due to permanent attrition.

A number of factors are taken into account when the COPS B.C. Unique Scenario is produced, including:

- historical employment levels and trends;
- labour participation trends;
- economic and employment forecasts (produced by the B.C. Ministry of Finance);
- population projections (supplied by BC Stats); and
- market intelligence from industry experts.

It is important to recognize that the COPS B.C. Unique Scenario focuses exclusively on labour demand; future labour supply is not incorporated into the scenario. As a result, any analysis of potential labour market pressures should not be based exclusively on the COPS B.C. Unique Scenario.

It should also be noted that the COPS B.C. Unique Scenario is only one scenario of future B.C. employment demand, based on a variety of reasonable assumptions. Scenarios based on different assumptions may present different employment demand needs.

Additional information sources to consider when assessing future labour market demand include:

- historical employment trends;
- information from industry and occupational groups (such as employer surveys);
- local economic conditions;
- wage and salary information; and
- employment outcomes of recent graduates from post-secondary student outcomes surveys.

*British Columbia is currently developing a labour market supply and demand system that is anticipated to improve our labour market analysis capabilities in the near future.

¹The methodology for the COPS B.C. Unique Scenario is outlined in Appendix 1.

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COPS B.C. Unique Scenario, 2007-2017

HIGHLIGHTS²

WHAT LEVEL OF EMPLOYMENT GROWTH IS PROJECTED?

- **876,400 job openings** are expected to be created in the B.C. labour market over the ten year period from 2007 to 2017.
- **Less than 40 percent (or 329,900)** of these projected job openings are expected to be new jobs generated by economic and industry growth.
- **Over 60 percent (or 546,500)** of projected growth will be accounted for by replacement demand due to permanent attrition (a reduction in the workforce as a result of retirements and deaths).
- The projected average annual growth rate for all occupational groups is **1.4 percent**.

WHERE WILL THE GROWTH OCCUR?

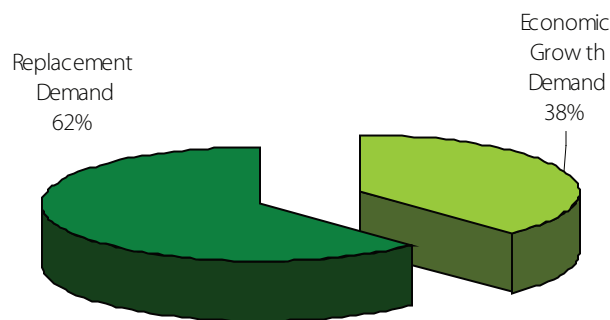
- Employment demand is expected to grow in most major industry groups.
- The service sector is expected to generate the majority of new jobs in B.C. over the outlook period, growing at an average annual rate of 1.6 percent. From 2007 to 2017, employment demand in the service sector is projected to increase by 300,400 jobs.
- The goods-producing sector is projected to add 29,500 new jobs to the B.C. labour market, growing at a slower average annual growth rate of 0.6 percent.
- The major industry groups that are projected to experience the fastest growth rate are:
 - » *Health Care and Social Assistance;*
 - » *Professional, Scientific and Technical Services; and*
 - » *Forestry, Mining, Oil and Gas.*
- Employment demand is expected to shrink slightly for some industry groups, including:
 - » *Agriculture; and*
 - » *Fishing, Hunting and Trapping.*

Note: Due to replacement demand, job openings are still expected in those industry groups with a projected lower employment level.

WHICH OCCUPATIONS WILL HAVE THE HIGHEST GROWTH RATES?

- The three occupational groups that are projected to experience the highest growth rates are:
 - » *Health;*
 - » *Natural and Applied Sciences; and*
 - » *Art, Culture, Recreation and Sport.*
- Together, the above occupational groups are expected to account for almost one third of all new job growth in B.C.

Chart 1: Replacement Demand Is Expected to Account for Most Projected Job Openings, British Columbia, 2007-2017

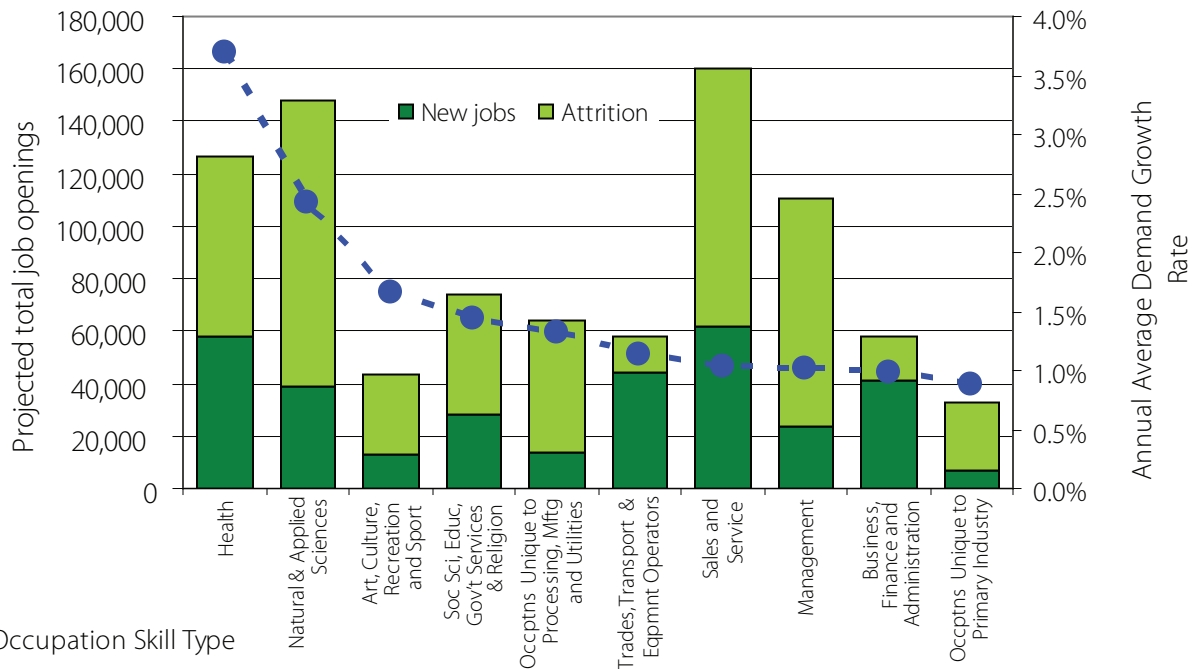


Data source: COPS B.C. Unique Scenario

²In this section of the report, all numbers are rounded to nearest 100.

TEN-YEAR EMPLOYMENT OUTLOOK FOR BRITISH COLUMBIA COPS B.C. Unique Scenario, 2007-2017

Chart 2: Health Occupations Are Projected to Experience the Fastest Demand Growth, While Sales and Services Occupations Are Expected to See the Largest Number of Job Openings, British Columbia, 2007-2017



Data Source: COPS B.C. Unique Scenario

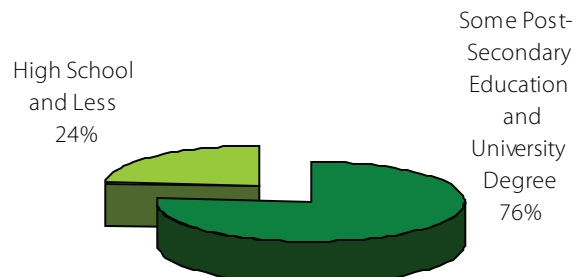
WHAT EFFECT WILL THE AGING WORKFORCE HAVE ON EMPLOYMENT?

- Over the outlook period, a total of 546,500 jobs are expected due to replacement demand. These replacement needs account for over 60 percent of the total projected job opportunities from 2007 to 2017. Current projections estimate a higher share of total projected job openings due to permanent attrition, compared to the previous B.C. Unique Scenario for 2005 to 2015 projection (less than 60%). In other words, demographics are playing an increasingly important role in employment needs.

WHICH OCCUPATIONS WILL BE MOST AFFECTED BY THE AGING WORKFORCE?

- Labour market pressures driven by an aging workforce will not be felt evenly across all occupational groups.
- The retirement rate is expected to be higher among occupations in:
 - » *Management;*
 - » *Occupations Unique to Primary Industry; and*
 - » *Occupations Unique to Processing, Manufacturing and Utilities.*

Chart 3: Over Three-Quarters of Projected Job Openings Will Require Some Post-Secondary Education and University Degree, British Columbia, 2007-2017



WHAT SKILLS/TRAINING WILL BE IN DEMAND?

- More than three quarters of the projected total job openings (due to a combination of growth and permanent attrition) are expected to require some post-secondary education or university education.
- Demand will be strongest in occupations that normally require a university degree.

Data source: COPS B.C. Unique Scenario

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SUMMARY FINDINGS

EMPLOYMENT DEMAND BY INDUSTRY

Future employment is influenced by a number of factors including overall global and domestic economic growth, industry outlook, economic structure changes, demographic changes, technology development, government policy and special events (such as the upcoming 2010 Winter Olympics).

Over the outlook period from 2007 to 2017, a total of 329,890 new jobs are expected to be added to the B.C. labour market³. According to the current projection, the service sector will continue to grow at a healthy pace with 91.0% of new jobs concentrated in this sector. Industries in the service sector are expected to generate an additional 300,350 jobs at an average annual growth rate of 1.6%. The goods-producing sector, for the same time period, is expected to add 29,540 new jobs at a relatively slower average growth rate of 0.6%.

Table 1: Projected Employment Demand Growth by Sector and Major Industry Group, British Columbia, 2007-2017

Major Industry Group	New Jobs	Average Annual Growth Rate
Agriculture	-280	-0.1 %
Forestry, Mining, Oil and Gas	8,480	1.8 %
Fishing, Hunting and Trapping	-680	-2.6 %
Utilities and Manufacturing	18,590	0.8 %
Construction	3,440	0.2 %
Total Goods-Producing Sector	29,540	0.6 %
Wholesale and Retail Trade	39,690	1.0 %
Transportation and Warehousing	23,010	1.7 %
Finance, Insurance, Real Estate and Leasing	19,890	1.3 %
Professional, Scientific and Technical Services	48,020	2.6 %
Management, Administrative and Other Support	13,170	1.3 %
Educational Services	17,290	1.1 %
Health Care and Social Assistance	69,010	2.6 %
Information, Culture and Recreation	14,320	1.2 %
Accommodation, Food Services and Other Services	46,340	1.6 %
Public Administration	9,610	1.0 %
Total Service Sector	300,350	1.6 %
All Industry Groups	329,890	1.4 %

Note: Numbers have been rounded and will not add to totals

Data source: COPS B.C. Unique Scenario

As illustrated in Table 1 above, major industry groups that are expected to experience the fastest growth rate over the ten-year outlook period are *Health Care and Social Assistance*, *Professional, Scientific and Technical Services* and *Forestry, Mining, Oil and Gas*. Employment demand in *Agriculture*, and *Fishing, Hunting and Trapping* is expected to drop slightly over the outlook period. Nevertheless, it is important to note that new workers are still needed in these two industries to replace permanent attrition.

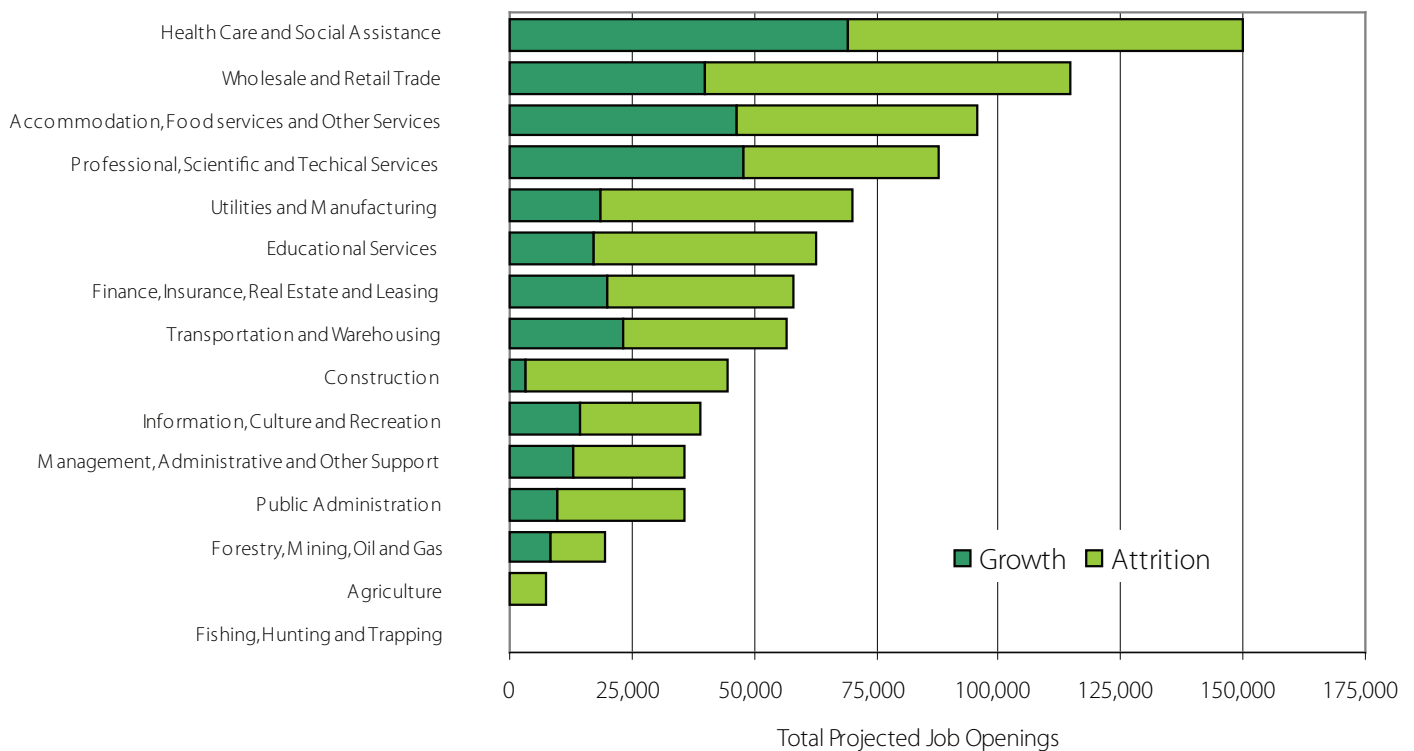
³A detailed employment outlook by industry group is provided in Appendix 2.

TEN-YEAR EMPLOYMENT OUTLOOK FOR BRITISH COLUMBIA COPS B.C. Unique Scenario, 2007-2017

Table 1 also demonstrates that the projected growth rates are only one aspect of the whole employment demand growth picture. The size of an industry (in terms of employment) also plays a major role. Larger industries with below-average growth rates can generate more jobs than smaller industries with above-average growth rates. For example, *Wholesale and Retail Trade* has been one of the largest industrial groups in B.C., but it is projected to experience a below-average growth rate. Over the outlook period, the *Wholesale and Retail Trade* industry is expected to create 39,690 new jobs with an average annual growth rate of 1.0%.

The other important component of future employment demand, in addition to economic growth, is the need to replace workers who are leaving the workforce permanently. Over the outlook period, a total of 546,470 jobs are expected due to replacement demand. Job opportunities due to replacement demand are expected to account for 62.4% of total projected job openings over the outlook period. As presented by Chart 4 below, replacement demand pressure will not be felt evenly across all industry groups. Some industry groups are expected to face significant pressure to replace older workers who are going to retire during the outlook period. For example, based on the projection, total job openings in the *Agriculture* industry will be completely attributed to replacement demand. Other industries with projected lower employment growth, such as *Public Administration*, are also expected to require a large number of new workers to replace permanent attrition.

Chart 4: Attrition Pressure Will Not be Felt Evenly by Industry Groups, British Columbia, 2007-2017



Data source: COPS B.C. Unique Scenario

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EMPLOYMENT DEMAND BY OCCUPATION

The COPS B.C. Unique Scenario uses the National Occupational Classification (NOC)⁴ developed by HRSDC to categorize occupations into different groups based on the type of work an occupation is expected to perform and other factors related to skill type.

New jobs are expected to be created, and employment demand increase, in every major occupational group over the ten-year outlook period⁵. A total of 329,890 additional jobs are expected to be created in the province from 2007 to 2017, at an average growth rate of 1.4% each year.

Table 2: Projected Employment Demand Growth by Occupation Skill Type, British Columbia, 2007-2017

Major Occupation Skill Type	Annual Average Growth	New Jobs	Share of Total New Jobs
Health	3.7%	58,330	17.7%
Natural and Applied Sciences	2.4%	38,980	11.8%
Art, Culture, Recreation and Sport	1.7%	13,060	4.0%
Social Science, Education, Government Service and Religion	1.4%	28,130	8.5%
Occupations Unique to Processing, Manufacturing and Utilities	1.3%	13,910	4.2%
Trades, Transport and Equipment Operators	1.1%	44,110	13.4%
Sales and Service	1.0%	61,540	18.7%
Management	1.0%	23,490	7.1%
Business, Finance and Administration	1.0%	41,300	12.5%
Occupations Unique to Primary Industry	0.9%	7,050	2.1%
All Occupations	1.4%	329,890	100%

Note: Numbers have been rounded and will not add to totals

Data source: COPS B.C. Unique Scenario

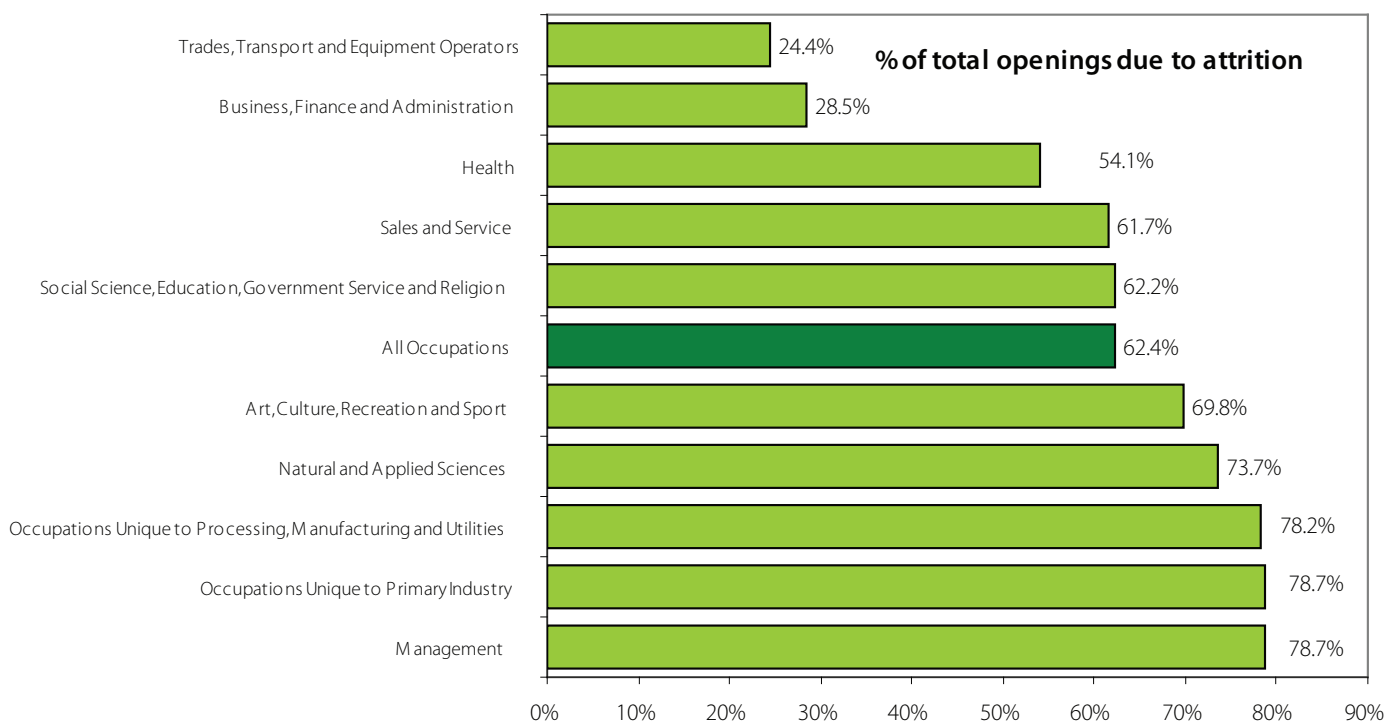
The three occupational groups that are projected to experience the highest growth rates are *Health*, *Natural and Applied Sciences*, and *Art, Culture, Recreation and Sport*. Together these three groups are expected to add 110,370 new jobs to the labour market over the outlook period, which account for approximately one-third of all new projected jobs in B.C. Some larger occupational groups with lower-than average projected growth rates are also expected to see a large number of job increases in demand due to their size. For example, with an average growth rate of 1.0%, the occupation group of *Sales and Service* is estimated to generate 61,540 new jobs from 2007 to 2017, more than the number of new jobs projected for *Health* occupations with the highest projected growth rate.

⁴For more detailed information about the NOC, refer to the website: <http://www5.hrsdc.gc.ca/NOC/english/NOC/2006/Welcome.aspx>

⁵The detailed employment outlook by major occupation group is provided in Appendix 3.

With older workers reaching retirement age and withdrawing from the labour market, new workers are needed to replace them to maintain and support economic growth. According to BC Stats' population projections, by 2017, almost one-quarter (24.5%) of B.C.'s population will be 60 years or older⁶. As shown in Chart 5 below, occupational groups will experience different levels of retirement pressure. The share of job openings due to attrition in different occupational groups ranges from a high of 78.7% for *Management and Occupations Unique to Primary Industry* to a low of 24.4% for *Trades, Transport and Equipment Operators*.

Chart 5: Replacement Demand Pressure Varies Across Occupational Groups, British Columbia, 2007-2017



Data source: COPS B.C. Unique Scenario

EDUCATION, TRAINING AND SKILLS DEMAND

The COPS B.C. Unique Scenario classifies occupations based on skill level to provide an estimate of expected education and training normally required for the projected job opportunities. Each occupation is classified in at least one of the four skill level categories based on historical provincial employment patterns for education and skill demand, and the NOC⁷. In some cases, occupations are shared between two skill level groups to reflect the fact that some occupations can be reached via different levels of education and training.

As presented in Table 3 below, employment demand is expected to increase in every skill level group⁸. Occupations that normally require some post-secondary education and university education are projected to make up over 80 per cent of all

⁶Population projection produced by BC Stats is available at <http://www.bcstats.gov.bc.ca/data/pop/pop/popproj.asp>

⁷In this report, all management occupations are grouped under the skill level A although it is recognized that requirements for management positions can be varied in education and experience.

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projected new jobs in B.C. over the outlook period. Growth in employment demand for occupations that normally require a university degree is estimated to increase at an average annual growth rate of 1.7%, the highest rate among all projected job growth.

According to the Labour Force Survey conducted by Statistics Canada, in 2007, 20.3% of the B.C. population (aged 15 and over) had a university degree; 38.3% had some post-secondary education (including those with college and/or trade

Table 3: Projected Employment Demand Growth by Skill Level and Education Requirement, British Columbia 2007-2017

Skill Level	Education and Training Normally Required	New Jobs	Average Annual Growth	Share of Total New Jobs
A - Professional and Managerial Occupations	University Degree	101,310	1.7 %	30.7 %
B - Technical, Paraprofessional and Skilled Occupations	Some Post-Secondary Education, College or Trade Certificate	163,370	1.6 %	49.5 %
C - Intermediate and Clerical Occupations	High School Diploma	34,540	0.8 %	10.5 %
D - Elemental and Labouring Occupations	Less Than High School	30,690	0.9 %	9.3 %
All Occupations		329,890	1.4 %	100 %

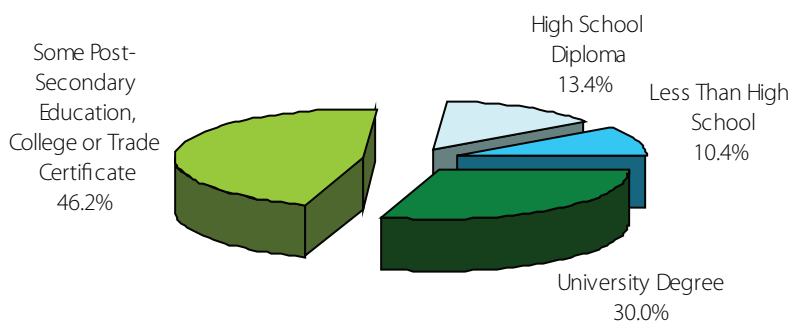
Note: Numbers have been rounded and will not add to totals

Data source: COPS B.C. Unique Scenario

certificates); 22.6% had a high school diploma; and the remaining 18.8% had less than high school education.

Looking ahead, from 2007 to 2017, a total of 876,360 job openings are expected in the province when job growth demand is combined with replacement demand. It is anticipated that an increasing number of job opportunities are going to require higher levels of education and skills. As Chart 6 below shows, most projected job openings (76.2%) over the ten-year outlook period will require some post-secondary or higher education, which includes college or vocational education, apprenticeship training, and university education. Occupations that require a high school diploma or lower education will account for less than a quarter (23.8%) of total projected job opportunities.

Chart 6: Higher Skills and Education Are Required for Most Projected Job Openings, British Columbia, 2007-2017



Data source: COPS B.C. Unique Scenario

For information regarding the COPS B.C. Unique Scenario, please contact Yu Li (yu.li@gov.bc.ca), Rodney Smelser (rodney.smelser@servicecanada.gc.ca), or Robert Mattioli (robert.mattioli@servicecanada.gc.ca).

⁸Detailed Employment Demand Projections by Skill Level and Education Requirement is provided in Appendix 4.

APPENDIX 1: METHODOLOGY FOR THE COPS B.C. UNIQUE SCENARIO

The Canadian Occupational Projection System (COPS) B.C. Unique Scenario provides employment demand projections for British Columbia (B.C.) based on the COPS employment demand model produced by Human Resources and Skills Development Canada (HRSDC). The COPS B.C. Unique Scenario provides long-term employment demand projections for 33 industries and 520 occupational groups in the B.C. labour market.

It should be noted that although the terms “forecast” and “projection” are usually used interchangeably in labour market information reporting, there are important differences. The COPS model is a simulation based primarily on historical data. Projecting employment in industry and occupational detail requires an integrated projection of the total economy’s performance and its various sectors. To contrast, an employment forecast represents adjustments to a trend based on the expert knowledge of a professional forecaster regarding the way in which future growth will be affected by current and future developments.

The employment demand projections in the COPS B.C. Unique Scenario are developed in 3 steps as follows:

1. Macroeconomic and Industry Employment Scenario

Every year, the national headquarters of HRSDC provides a ten-year macroeconomic and industry employment scenario for Canada and each of the provinces, utilizing work by the Conference Board of Canada.

The industry employment scenario is based on a forecast of employment output and productivity. The main purpose of the industry employment scenario is to provide a basis for development of the more detailed industry and occupational employment demand projections. The industry groupings are classified by the North American Industrial Classification System (NAICS).

2. COPS Employment Demand Model and the B.C. Reference Scenario

The industry employment scenario then becomes a direct input into the COPS employment demand model. The COPS model is used to generate occupational employment demand and growth projections, and also to project employment demand due to replace permanent attrition. The result is a Reference Scenario of industry and occupational employment demand projections for each province.

The COPS employment demand model uses the National Occupational Classification (NOC) system to provide details on 520 occupational groups and uses the NAICS to provide details on 33 industries. The employment demand projection for an individual occupation is influenced by both the expected growth in industries where the occupation is normally found and the expected changes over time in its employment share within industries.

Finally, an employment attrition component in the COPS employment demand model provides expected job openings due to retirements and deaths within particular occupations. The projection of expected job openings due to replacement demand is based on the age distribution and typical age ranges of retirements within particular occupations.

3. COPS B.C. Unique Scenario

The macroeconomic and industry employment scenario is reviewed and adjusted to take into account a number of factors, including the BC Stats population projection and the B.C. Ministry of Finance medium term economic and employment outlook.

The ten-year industry and occupational employment projections from the B.C. Reference Scenario are then evaluated and refined by the Ministry of Advanced Education and Labour Market Development, and the Service Canada B.C./Yukon/Alberta/Territories Region. The process involves a targeted consultation with individuals who hold expert knowledge in the key industries and occupations in B.C. The results of the consultation process are then incorporated into the COPS employment demand model for B.C., resulting in the “COPS B.C. Unique Scenario”.

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COPS B.C. Unique Scenario, 2007-2017

Notes:

1. It should be noted that the COPS B.C. Unique Scenario is considered as a most-likely future employment demand scenario by authors based on historical trends, economic outlook, market intelligence and in-house research. Other employment scenarios may present different employment demand needs.
2. Due to data limitation and reliability of data for very small occupations (those with fewer than 1,000 employed), it is advised that these projections are interpreted in a relative sense rather an absolute numerical sense.

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APPENDIX 2: EMPLOYMENT OUTLOOK FOR INDUSTRY GROUPS, BRITISH COLUMBIA, 2007 - 2017

Major Industry Group	2007 employment	New jobs to 2017	Attrition to 2017	Total Openings	Average Annual Growth
1 Agriculture	36,240	-280	7,530	7,250	-0.1 %
2 Forestry and Logging with Support Activities	24,340	280	5,440	5,720	0.1 %
3 Fishing, Hunting and Trapping	2,910	-680	470	-210	-2.6 %
4 Oil and Gas Extraction	1,880	730	520	1,250	3.3 %
5 Mining (except Oil and Gas)	10,030	4,190	3,000	7,190	3.5 %
6 Support Activities for Mining and Oil and Gas Extraction	8,100	3,280	2,140	5,420	3.5 %
7 Utilities	10,310	4,000	3,330	7,330	3.3 %
8 Construction	196,860	3,440	41,040	44,480	0.2 %
9 Food and Beverage Products	28,320	5,660	7,030	12,690	1.8 %
10 Wood Product Manufacturing	44,700	-110	9,560	9,450	0.0 %
11 Paper Manufacturing	15,230	-1,180	3,260	2,080	-0.8 %
12 Printing and Related Support Activities	6,140	540	1,660	2,200	0.8 %
13 Rubber, Plastics and Chemicals	14,800	250	3,290	3,540	0.2 %
14 Manufactured Mineral Products	15,060	1,080	3,600	4,680	0.7 %
15 Metal Fabrication and Machinery (Excluding Electrical)	24,840	3,980	5,640	9,620	1.5 %
16 Computer, Electronic and Electrical Products	9,950	2,670	2,810	5,480	2.4 %
17 Motor Vehicle, Body, Trailer & Parts Manufacturing	4,760	390	1,220	1,610	0.8 %
18 Other Transportation Equipment Manufacturing	7,830	-340	1,440	1,100	-0.4 %
19 Other Manufacturing	33,440	1,650	8,540	10,190	0.5 %
20 Wholesale Trade	81,970	25,770	22,420	48,190	2.8 %
21 Retail Trade	283,060	13,920	52,670	66,590	0.5 %
22 Transportation and Warehousing	125,650	23,010	33,420	56,430	1.7 %
23 Finance, Insurance, Real Estate and Leasing	144,950	19,890	37,980	57,870	1.3 %
24 Professional Business Services	81,510	35,280	23,860	59,140	3.7 %
25 Computer System Design Services	33,000	12,430	4,880	17,310	3.2 %
26 Other Professional Services	51,780	320	11,070	11,390	0.1 %
27 Management, Administrative and Other Support	98,500	13,170	22,640	35,810	1.3 %
28 Educational Services	156,150	17,290	45,370	62,660	1.1 %
29 Health Care and Social Assistance	239,670	69,010	80,750	149,760	2.6 %
30 Information, Culture and Recreation	117,820	14,320	24,450	38,770	1.2 %
31 Accommodation and Food Services	172,660	26,370	25,620	51,990	1.4 %
32 Other Services	87,990	19,980	23,680	43,660	2.1 %
33 Public Administration	95,890	9,610	26,120	35,730	1.0 %
All Industries	2,266,340	329,890	546,470	876,360	1.4 %

Note: Numbers have been rounded and will not add to totals

Data source: COPS B.C. Unique Scenario

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APPENDIX 3 : EMPLOYMENT OUTLOOK FOR OCCUPATIONAL GROUPS, BRITISH COLUMBIA, 2007-2017

Major Occupational Group	2007 Employment	New Jobs to 2017	Attrition to 2017	Total Openings	Average Growth Rate
Management	221,250	23,490	68,650	92,140	1.0%
Legislators and Senior Management	21,940	2,970	11,150	14,120	1.3%
Middle and Other Management	199,310	20,520	57,500	78,020	1.0%
Business, Finance and Administration	398,910	41,300	108,980	150,280	1.0%
Professional Occupations in Business and Finance	63,500	9,500	15,990	25,490	1.4%
Skilled Administrative and Business Occupations	125,880	13,040	41,740	54,780	1.0%
Clerical Occupations	209,530	18,760	51,250	70,010	0.9%
Natural and Applied Sciences	143,660	38,970	30,220	69,190	2.4%
Professional Occupations in Natural and Applied Sciences	76,200	27,140	15,010	42,150	3.1%
Technical Occupations Related to Natural and Applied Sciences	67,460	11,830	15,210	27,040	1.6%
Health	133,150	58,330	46,210	104,540	3.7%
Professional Occupations in Health	62,540	26,850	23,040	49,890	3.6%
Technical and Skilled Occupations in Health	35,890	14,790	9,780	24,570	3.5%
Assisting Occupations in Support of Health Services	34,720	16,690	13,390	30,080	4.0%
Social Science, Education, Government Service and Religion	181,840	28,130	49,970	78,100	1.4%
Professional Occupations in Social Sciences, Education, Government Services and Religion	133,210	19,800	41,680	61,480	1.4%
Paraprofessional Occupations in Law, Social Services, Education and Religion	48,630	8,330	8,290	16,620	1.6%
Art, Culture, Recreation and Sport	72,870	13,060	14,230	27,290	1.7%
Professional Occupations in Art and Culture	32,640	4,220	8,200	12,420	1.2%
Technical and Skilled Occupations in Art, Culture, Recreation and Sport	40,230	8,840	6,030	14,870	2.0%
Sales and Service	566,380	61,540	98,990	160,530	1.0%
Skilled Sales and Service Occupations	145,230	24,390	28,680	53,070	1.6%
Intermediate Sales and Service Occupations	230,950	25,570	37,260	62,830	1.1%
Elemental Sales and Service Occupations	190,200	11,580	33,050	44,630	0.6%
Trades, Transport and Equipment Operators	371,640	44,110	86,760	130,870	1.1%
Trades and Skilled Transport and Equipment Operators	222,060	21,740	52,700	74,440	0.9%
Intermediate Occupations in Transport, Equipment Operation Installation and Maintenance	124,200	19,430	31,040	50,470	1.5%
Trades Helpers, Construction Labourers	25,380	2,940	3,020	5,960	1.1%
Occupations Unique to Primary Industry	77,280	7,050	16,460	23,510	0.9%
Skilled Occupations in Primary Industry	34,800	3,710	10,850	14,560	1.0%
Intermediate Occupations in Primary Industry	16,720	290	2,280	2,570	0.2%
Labourers in Primary Industry	25,760	3,050	3,330	6,380	1.1%
Occupations Unique to Processing, Manufacturing and Utilities	99,380	13,911	26,030	39,940	1.3%
Processing, Manufacturing and Utilities Supervisors and Skilled Operators	17,350	2,450	6,370	8,820	1.3%
Processing and Manufacturing Machine Operators and Assemblers	57,290	8,360	14,740	23,100	1.4%
Labourers in Processing, Manufacturing and Utilities	24,740	3,100	4,920	8,020	1.2%
All Occupations	2,266,340	329,890	546,470	876,360	1.4%

Note: Numbers have been rounded and will not add to totals

Data source: COPS B.C. Unique Scenario

TEN-YEAR EMPLOYMENT OUTLOOK FOR BRITISH COLUMBIA

COPS B.C. Unique Scenario, 2007-2017

APPENDIX 4 : EMPLOYMENT OUTLOOK BY SKILL LEVEL AND EDUCATION REQUIREMENTS, BRITISH COLUMBIA, 2007-2017

Skill Level	Education and Training Normally Required	2007 Employment	New Jobs to 2017	Attrition to 2017	Total Openings	Average Annual Growth
A - Professional and Managerial Occupations	University Degree	555,060	101,310	161,630	262,940	1.7 %
B - Technical, Paraprofessional and Skilled Occupations	Some Post - Secondary Education, College or Trade Certificate	968,460	163,370	241,180	404,550	1.6 %
C - Intermediate and Clerical Occupations	High School Diploma	404,330	34,540	83,300	117,840	0.8 %
D - Elemental and Labouring Occupations	Less Than High School	338,490	30,690	60,370	91,060	0.9 %
All Occupations		2,266,340	329,890	546,470	876,360	1.4 %

Note: Numbers have been rounded and will not add to totals

Data source: COPS B.C. Unique Scenario

Note for Appendix 4: In this report, all management occupations are grouped under the skill level A although it is recognized that requirements for management positions can vary between education and experience.