

# WORKBC INDUSTRY OUTLOOK PROFILE

## ARCHITECTURAL, ENGINEERING AND RELATED SERVICES (NAICS<sup>1</sup> 5413)

### *About this report*

This is a summary of forecast information available about this industry in the B.C. Labour Market Outlook 2019 edition forecast. An overview of this forecast is provided in the main report which is available at: [www.workbc.ca/labourmarketoutlook](http://www.workbc.ca/labourmarketoutlook). The raw data is available at: [BC Data Catalogue](#).

### **1. Outlook Highlights**

The Architectural, Engineering and Related Services industry comprises establishments primarily engaged in providing architectural, engineering and related services, such as structure design, drafting, building inspection, landscape design, surveying and mapping, laboratory and on-site testing, and interior, industrial, graphic and other specialized design services.

As an important component of the Professional, Scientific and Technical Services sector, the Architectural, Engineering and Related Services industry has experienced healthy growth through its value-added activities in recent years. The industry is sensitive to construction activity, government expenditure, and investment. The industry also exports its services across the country and around the world.

The industry is expected to expand its workforce at a faster pace than all industries as a whole over the next ten years up to 2029. The industry is projected to have approximately 19,200 job openings over the 10-year period. Approximately 57 percent of those job openings are a result of the need to replace workers leaving the labour force.

# WORKBC INDUSTRY OUTLOOK PROFILE

## 1.1 B.C. industry employment and job openings

| Industry              | Employment        |               | Employment Growth     |           |           | Job Openings       |               | Replacement Share   |
|-----------------------|-------------------|---------------|-----------------------|-----------|-----------|--------------------|---------------|---------------------|
|                       | Number of Workers | Share of B.C. | (Average Annual Rate) |           |           | Number of Openings | Share of B.C. | (Share of Openings) |
|                       | 2019              | 2019          | 2019-2024             | 2024-2029 | 2019-2029 | 2019-2029          | 2019-2029     | 2019-2029           |
| <b>This Industry</b>  | 42,746            | 1.7%          | 1.8%                  | 1.7%      | 1.7%      | 19,189             | 2.2%          | 57.5%               |
| <b>All Industries</b> | 2,521,389         | 100.0%        | 1.0%                  | 1.0%      | 1.0%      | 861,143            | 100.0%        | 69.5%               |

## 1.2 B.C. industry job openings by type

| Job Openings              | 2019-2024 | 2024-2029 | 2019-2029 |
|---------------------------|-----------|-----------|-----------|
| <b>Total Job Openings</b> | 9,465     | 9,724     | 19,189    |
| <b>Expansion Demand</b>   | 4,021     | 4,128     | 8,149     |
| <b>Replacement Demand</b> | 5,443     | 5,596     | 11,040    |

*2019-2029 total job openings<sup>2</sup>: the total job openings in the 10 years between 2019 and 2029*

<sup>1</sup> NAICS: North American Industry Classification System Canada 2012

<sup>2</sup> Total job openings: the sum of expansion and replacement job openings over the period. A job opening is the addition of a new job through economic growth (expansion) or a job that needs to be filled due to someone exiting the labour force permanently as a result of retirement, death or other reasons (replacement).

# WORKBC INDUSTRY OUTLOOK PROFILE

## 1.3 B.C. industry employment growth and job openings by development region

| Region                  | Employment | Employment Growth (Average Annual Rate) |           |           | Job Openings |           |           |
|-------------------------|------------|---|-----------|-----------|--------------|-----------|-----------|
|                         | 2019       | 2019-2024                               | 2024-2029 | 2019-2029 | 2019-2024    | 2024-2029 | 2019-2029 |
| <b>British Columbia</b> | 42,746     | 1.8%                                    | 1.7%      | 1.7%      | 9,465        | 9,724     | 19,189    |
| Vancouver Island/Coast  | 5,564      | 0.2%                                    | 1.6%      | 0.9%      | 818          | 1,195     | 2,014     |
| Mainland/Southwest      | 30,589     | 2.2%                                    | 1.7%      | 1.9%      | 7,396        | 7,067     | 14,463    |
| Thompson-Okanagan       | 3,388      | 2.4%                                    | 1.9%      | 2.1%      | 930          | 896       | 1,826     |
| Kootenay                | 1,193      | -2.7%                                   | 1.6%      | -0.6%     | -20          | 216       | 196       |
| Cariboo                 | 851        | 0.3%                                    | 1.1%      | 0.7%      | 86           | 127       | 213       |
| North Coast & Nechako   | 565        | 1.0%                                    | 0.9%      | 0.9%      | 82           | 83        | 165       |
| Northeast               | 595        | 3.5%                                    | 1.9%      | 2.7%      | 173          | 139       | 312       |

## 2. Occupations in the Industry

### 2.1 B.C. top occupations by skill level in the industry

| Skill Level   | NOC          | Occupation  | Employment   | Job Openings | Replacement Rate (Annual) | Wage Rate Median | Wage Rate Low | Wage Rate High |
|---|--------------|---|--------------|--------------|---------------------------|------------------|---------------|----------------|
|   |              |   | 2019         | 2019-2029    | 2019-2029                 | 2018             | 2018          | 2018           |
| <b>LEVEL 0:</b><br><i>Usually requiring combination of education and experience</i>             | #0211        | Engineering managers  | 848          | 492          | 3.5%                      | 38.46            | 54.00         | 72.31          |
|   | #0013        | Senior managers - financial, communications and other business services | 601          | 318          | 3.0%                      | 20.00            | 52.45         | 96.15          |
|   | #0711        | Construction managers   | 396          | 231          | 3.6%                      | 20.00            | 36.25         | 57.69          |
|   | #0212        | Architecture and science managers                                       | 302          | 181          | 3.7%                      | 21.43            | 43.81         | 86.46          |
|   | #0213        | Computer and information systems managers                               | 201          | 121          | 3.4%                      | 26.44            | 43.27         | 67.69          |
|   |              | Other occupations   | 1,094        | 621          | -                         | -                | -             | -              |
|   | <b>Total</b> | <b>3,442</b>  | <b>1,963</b> | -            | -                         | -                | -             |                |
| <b>LEVEL A:</b><br><i>Usually requiring a Bachelor's, Graduate or First Professional Degree</i> | #2131        | Civil engineers   | 5,120        | 2,693        | 2.9%                      | 26.44            | 38.51         | 64.00          |
|   | #2151        | Architects  | 3,373        | 1,255        | 1.6%                      | 23.75            | 30.29         | 41.03          |
|   | #2132        | Mechanical engineers  | 2,333        | 895          | 1.7%                      | 20.51            | 42.31         | 57.69          |
|   | #2133        | Electrical and electronics engineers                                    | 2,046        | 861          | 1.9%                      | 27.50            | 36.92         | 50.00          |
|   | #2144        | Geological engineers  | 847          | 339          | 1.9%                      | 29.23            | 35.00         | 48.08          |
|   |              | Other occupations   | 7,537        | 3,116        | -                         | -                | -             | -              |
|   | <b>Total</b> | <b>21,256</b>   | <b>9,159</b> | -            | -                         | -                | -             |                |

# WORKBC INDUSTRY OUTLOOK PROFILE

| Skill Level  | NOC          | Occupation  | Employment | Job Openings  | Replacement Rate (Annual) | Wage Rate Median | Wage Rate Low | Wage Rate High |
|--|--------------|---|------------|---------------|---------------------------|------------------|---------------|----------------|
|  |              |   | 2019       | 2019-2029     | 2019-2029                 | 2018             | 2018          | 2018           |
| <b>LEVEL B:</b><br><br><i>Usually requiring diploma, certificate or apprenticeship training</i>      | #2253        | Drafting technologists and technicians            | 2,156      | 900           | 2.1%                      | 15.50            | 27.00         | 35.00          |
|  | #1221        | Administrative officers                           | 1,017      | 564           | 3.3%                      | 14.50            | 24.00         | 35.10          |
|  | #2251        | Architectural technologists and technicians       | 1,193      | 530           | 2.3%                      | 18.87            | 28.26         | 46.53          |
|  | #2231        | Civil engineering technologists and technicians   | 1,227      | 527           | 2.4%                      | 21.00            | 33.15         | 74.36          |
|  | #2264        | Construction inspectors                           | 695        | 399           | 3.8%                      | 19.00            | 28.00         | 43.00          |
|  |              | Other occupations                                 | 8,723      | 3,827         | -                         | -                | -             | -              |
|  | <b>Total</b> |   |            | <b>15,011</b> | <b>6,747</b>              | -                | -             | -              |
| <b>LEVEL C:</b><br><br><i>Usually requiring secondary school and/or occupation-specific training</i> | #1411        | General office support workers                    | 464        | 213           | 2.4%                      | 13.00            | 21.00         | 30.00          |
|  | #1431        | Accounting and related clerks                     | 364        | 178           | 2.5%                      | 15.00            | 21.00         | 30.93          |
|  | #1414        | Receptionists                                     | 207        | 85            | 1.8%                      | 12.65            | 18.00         | 25.00          |
|  | #1452        | Correspondence, publication and regulatory clerks | 114        | 56            | 2.5%                      | 15.00            | 23.80         | 31.50          |
|  | #1432        | Payroll administrators                            | 93         | 47            | 2.8%                      | 18.39            | 25.08         | 31.03          |
|  |              | Other occupations                                 | 1,137      | 488           | -                         | -                | -             | -              |
|  | <b>Total</b> |   |            | <b>2,378</b>  | <b>1,067</b>              | -                | -             | -              |
| <b>LEVEL D:</b><br><br><i>Usually requiring on-the-job training</i>                                  | #7611        | Construction trades helpers and labourers         | 139        | 52            | 1.6%                      | 13.00            | 19.00         | 30.00          |
|  | #6733        | Janitors, caretakers and building superintendents | 94         | 50            | 3.1%                      | 12.65            | 17.87         | 27.00          |
|  | #7612        | Other trades helpers and labourers                | 63         | 19            | 1.1%                      | 13.90            | 20.00         | 32.13          |
|  | #7621        | Public works and maintenance labourers            | 38         | 15            | 1.9%                      | 12.65            | 26.00         | 41.00          |
|  | #8616        | Logging and forestry labourers                    | 25         | 10            | 2.6%                      | 15.00            | 25.00         | 35.72          |
|  |              | Other occupations                                 | 210        | 83            | -                         | -                | -             | -              |
|  | <b>Total</b> |   |            | <b>568</b>    | <b>229</b>                | -                | -             | -              |