

CONSTRUCTION & MAINTENANCE LOOKING FORWARD

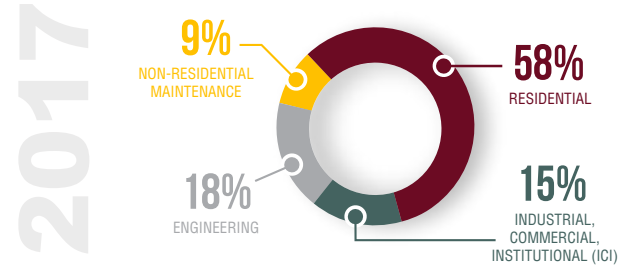
BRITISH COLUMBIA

Proposed major projects drive construction activity

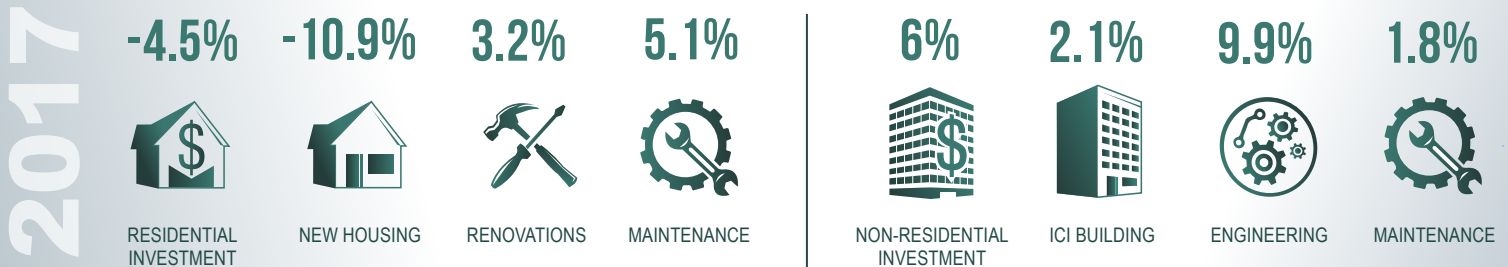
HIGHLIGHTS 2017-2026

British Columbia is attracting workers to meet rising demands in anticipation of increased non-residential construction activity, as current and proposed projects rise to peak levels by 2021; however, residential construction declines from 2016 peak levels, as population growth is expected to slow. Increased commercial building and rising demands related to utilities, transportation, liquefied natural gas (LNG) and pipeline projects present potential recruiting challenges for non-residential construction. Expected workforce retirements and historically low rates of unemployment add to the complexity of local labour market dynamics over the medium term. After 2021, as projects peak and wind down, accelerating declines in residential activity draw total employment back toward current levels by the end of the scenario in 2026.

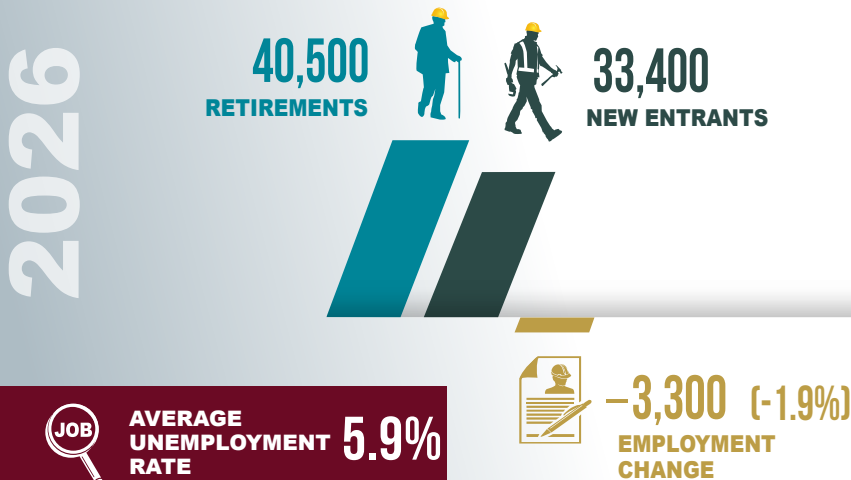
DISTRIBUTION OF CONSTRUCTION EMPLOYMENT IN 2017, BRITISH COLUMBIA



2017 SECTOR INVESTMENT GROWTH OUTLOOK FOR BRITISH COLUMBIA (% change)



10-YEAR WORKFORCE OUTLOOK FOR BRITISH COLUMBIA



HIGHLIGHTS

- New housing construction is expected to cycle down in 2017, following a period of extended expansion between 2011 and 2016 during which housing starts increased by 50 per cent.
- Industrial, commercial and institutional (ICI) building continues along an upward trend led by commercial gains in the short term and institutional building in the long term.
- Engineering-construction-related demands related to proposed mining, pipeline, transportation and LNG investments become the primary source of employment growth over the first five years of the scenario period.
- Non-residential employment is expected to increase by 16,800 workers to the 2021 peak, a 24 percent increase above 2016 levels.
- The pace, magnitude and specificity of the anticipated non-residential demands over the next five years are expected to create recruiting challenges.

BuildForce's LMI System

BuildForce Canada uses a scenario-based forecasting system to assess future labour market conditions in both residential and non-residential construction. This labour market information (LMI) system tracks measures for 34 trades and occupations. BuildForce consults with industry, including owners, contractors and labour groups, to validate the scenario assumptions and construction project lists, and seeks input from government on related analysis. The system distills labour market conditions into ranks to provide signals to industry employers.

BRITISH COLUMBIA CONSTRUCTION OUTLOOK

Strong residential activity in 2016, alongside escalating non-residential requirements, drove construction employment to the largest single-year gain since the late 2000s. Residential construction declines over the near term as population growth slows and new housing demands recede from peak levels, while non-residential construction rises as new major projects come on stream. The shift in emphasis from residential to non-residential employment requirements is expected to add a net gain of 11,500 total construction jobs, propelling employment to a new record peak in 2021.

The strongest non-residential gains are anticipated between 2019 and 2021, coinciding with the planned start of a diverse group of proposed mining, LNG and pipeline projects. Over the near term, more moderate growth is expected, driven by a rise in utility, transportation, highway and bridge projects.

New housing activity, especially in high-rise construction, is expected to cycle down in 2017 following years of exceptional growth. As activity declines, residential employment is expected to decline to 2012 levels by 2022 and fall further with declining household formations¹ over the latter half of the scenario period. Steady growth in renovation employment partly offsets losses in new housing, resulting in an overall loss of 15,400 residential construction jobs, or 15 percent of the residential workforce, over the coming decade.

Divergence between residential and non-residential labour markets culminates around 2019 when residential job losses are rising while non-residential requirements are expected to exceed the local available supply for many trades and occupations. The remote locations of several major projects and the specific skill requirements may heighten recruitment challenges. Meeting major project demands, including the construction of a major LNG facility, will require planning to ensure workers with the right skills and experience are available as projects reach peak requirements.

Rising near-term employment demands add to recruitment requirements to replace retiring workers, which remains a dominant and growing driver of industry hiring over the long term. BuildForce estimates that the B.C. construction industry will see the exit of just over 40,000 skilled workers over the next decade due to retirements, compared to an estimated 33,400 new entrants expected to be drawn from the local population aged 30 and younger to replace them.

In 2016, strong growth in British Columbia was set against slower activity in other provinces, drawing workers back to the province. This labour pool is limited, however. Attracting-out-of-province workers may become increasingly difficult as weaker markets outside the province return to balance. Meeting ongoing demands will be contingent on the industry's ability to continue attracting workers from outside construction or from outside the province as major

projects reach peak levels of activity. The potential for mobility from the residential sector to non-residential also may present opportunities depending on skills and experience.

SECTOR INSIGHTS

The following sections provide sector-specific insights into the non-residential and residential labour markets. The 2017 BuildForce LMI system provides an overview of market drivers and detailed occupational demand and supply-side analysis of labour market conditions in each sector for 34 trades and occupations tracked by BuildForce.

NON-RESIDENTIAL SECTOR

Over the near term, activity is anticipated to increase due to a broad base of proposed non-residential construction projects. Rising infrastructure, highway and bridge work and proposed mining project requirements add to ongoing hydroelectric and other engineering labour demands in 2017 and 2018. Demands accelerate between 2019 and 2021 with the ramp-up of proposed major mining, LNG and pipeline projects.

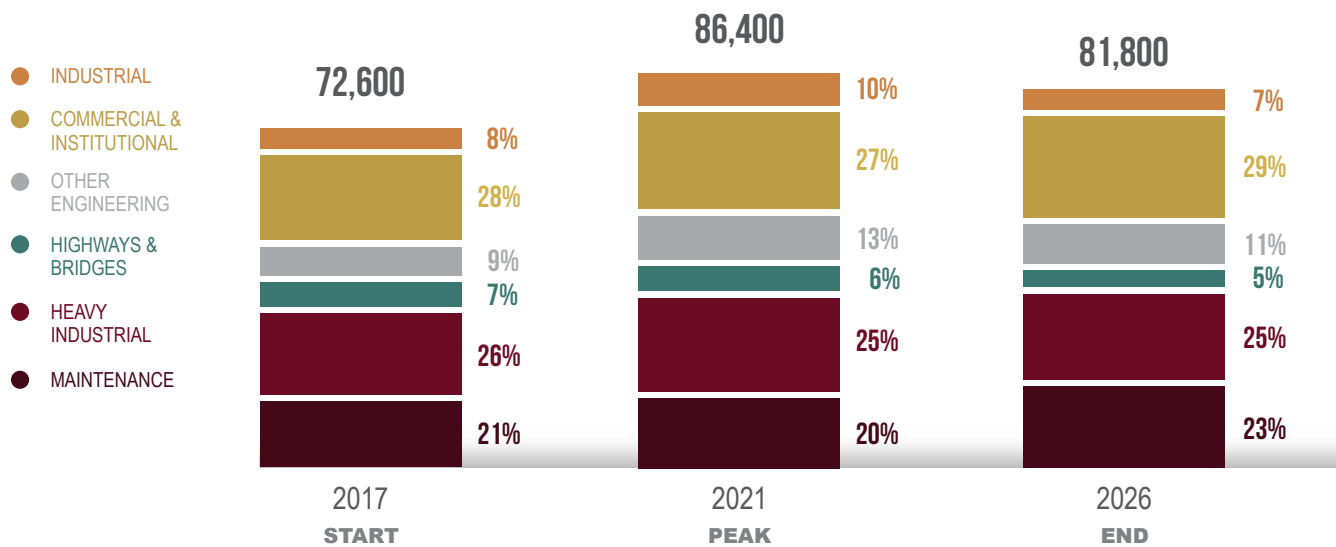
Figure 1 tracks the change in non-residential employment by sector for key reference points across the scenario period, including the start of the outlook period in 2017, the peak in 2021, and then at the end of the period in 2026.

ICI building construction demands, which were more pronounced in 2016, continue to build in 2017 and 2018 as commercial and industrial building expansion offsets a pause in institutional building. Investment in industrial building construction is expected to remain stable over the short term, but then rise from 2019 to 2021 following the ebb and flow of major resource development projects. Rising demands across ICI buildings are expected to compound rising engineering construction requirements over the same period.

Non-residential employment is expected to increase by 16,800 workers to the 2021 peak, a 24 percent increase above 2016 levels. The rapid growth and timing of proposed major projects increases potential market challenges for many trades in 2019 and 2020 as demands peak. Meeting these requirements, while contending with rising retirements, will require a coordinated effort by industry and its stakeholders. After the peak, the steady release of workers as known projects wind down presents a different set of labour market challenges.

Table 1 summarizes the percent change in employment by sector across two periods: the first captures the expected increased demand to 2021 and the second shows the remainder of the scenario period as markets decline from peak activity.

¹ **Household formation** refers to the change in the number of households (persons living under one roof or occupying a separate housing unit) from one year to the next. It is the means by which population growth is transformed into demand for new housing.

Figure 1: Non-residential employment distribution by sector, British Columbia, 2017, 2021 and 2026

Source: Statistics Canada, BuildForce Canada

Figure 2 shows the employment trends by sector for non-residential construction.

THE AVAILABLE WORKFORCE

The expected growth in non-residential employment depends on the timing of proposed major projects, with anticipated market challenges as projects approach peak activity. Unemployment rates at the start of the scenario period are at historically low levels and this leaves little slack in the labour market to meet rising demands. Workers returning from Alberta and other provinces added to the short-term supply in 2016, but this source is limited, and drawing additional workers may become increasingly difficult.

The BuildForce LMI system tracks labour supply and accounts for the change in the available labour force, including retirements, new entrants² and net in-mobility³. First-time new entrants to the construction workforce from the local population aged 30 and younger only partly offset retirements. Meeting rising near-term employment demand requirements of 16,800 workers while replacing an additional 8,500 workers expected to retire over the same period will require significant levels of both intra- and interprovincial mobility.

Table 2 provides a summary of changes in the non-residential workforce in 2016, the five-year period between 2017 and 2021, and across the coming decade.

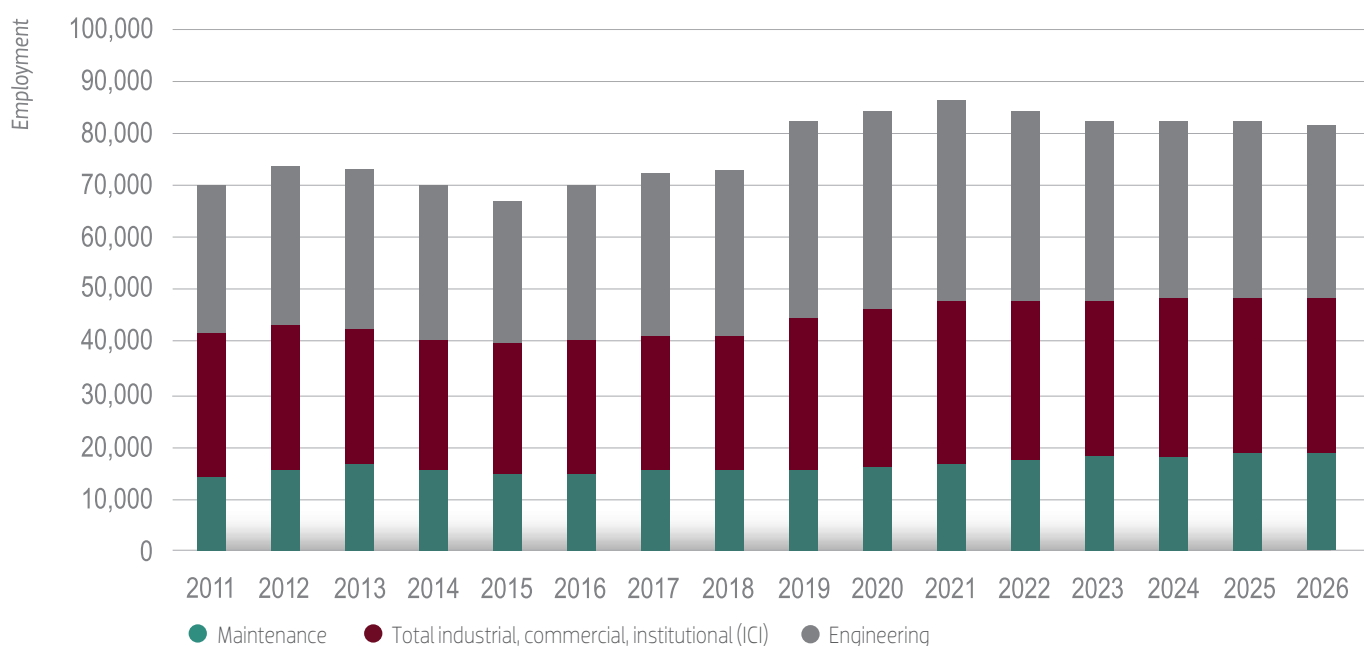
Table 1: Change in non-residential employment by sector, British Columbia

| SECTOR | | % CHANGE 2017–2021 | % CHANGE 2022–2026 |
|----------------------------------|--|-----------------------|-----------------------|
| Total non-residential employment | | 24% | -5% |
| ICI | Industrial | 49% | -26% |
| | Commercial, institutional and government | 13% | 3% |
| Engineering | Highways and bridges | 39% | -20% |
| | Heavy industrial | 23% | -8% |
| | Other engineering | 57% | -20% |
| Maintenance | | 12% | 11% |

Source: Statistics Canada, BuildForce Canada

² **New entrants** are measured by applying the traditional proportion of the provincial workforce that enters the construction industry. The projected estimate across the scenario period assumes that the construction industry is able to recruit this group in competition with other industries.

³ **In-mobility** refers to the arrival of workers from outside the local construction industry. In-mobility includes the interprovincial employee workforce described above. Many members of this group will move quickly out of the province as work declines and this out-mobility, even if it is a very short-term change, signals a weak market.

Figure 2: Non-residential construction employment growth outlook, British Columbia**Table 2: Change in the non-residential workforce, British Columbia**

| NON-RESIDENTIAL WORKFORCE ADJUSTMENT | | 2016 | 5 years 2017–2021 | 10 years 2017–2026 |
|--------------------------------------|---------------------|--------|----------------------|-----------------------|
| Demand | Employment | 2,300 | 16,800 | 12,200 |
| | Labour force change | 3,000 | 16,500 | 12,300 |
| | Retirements | -1,500 | -8,500 | -17,700 |
| Supply | New entrants | 1,500 | 7,900 | 15,800 |
| | Net mobility | 3,100 | 17,100 | 14,200 |

Source: BuildForce Canada

NON-RESIDENTIAL HIGHLIGHTS

- The timing of a diverse group of pipeline, LNG, mining, electrical generation and transmission projects converge in 2019, resulting in anticipated market pressures for many trades and occupations.
- Non-residential employment is anticipated to rise by 16,800 jobs through 2021; the strongest period of growth in the last decade.
- Rising retirements estimated at almost 18,000 workers amplify hiring requirements, which may be further complicated by the demand for specialized skills and experience – often in remote locations.
- Project completions after 2021 release more than 4,000 workers, but many are expected to be absorbed by rising maintenance and other non-residential construction markets.

The anticipated growth in non-residential workforce requirements over the next five years is expected to tighten market conditions for many trades and occupations and create recruiting challenges as major projects reach peak activity. These challenges may be amplified by rising retirements, demands for specialized skills and experience, and the remote locations of many major projects.

The BuildForce ranking system isolates market conditions specific to non-residential construction. The results are summarized in Table 3.

NON-RESIDENTIAL RANKINGS, RISKS AND MOBILITY

BuildForce assesses market conditions for 34 construction trades and occupations using a ranking system that combines measures of the change in employment, unemployment, net in-mobility and adjustments based on industry input. The rankings reflect non-residential market conditions unique to British Columbia based on current and proposed construction activity. In addition, assumptions on provincial economic and population growth, new entrants to

the labour force and migration patterns (interprovincial and international) are built into the forecast scenario and included in the ranking assessment.

The rankings for some trades working in the non-residential sector are suppressed due to the small size of the workforce (<100 workers) and limited statistical reliability when assessing labour market conditions at the sector level. Trades may also be excluded because they typically do not work in the sector being assessed (e.g., home building and renovation managers in non-residential). For British Columbia, non-residential rankings are reported for 33 trades and occupations.

Table 3 provides non-residential rankings for British Columbia, showing generally balanced labour markets at the start of the scenario period. Market conditions for some trades involved in building construction tighten briefly in 2017. Demand requirements for many trades rise and potentially exceed local available supply by 2019 and may require workers from outside the local construction industry. Once projects are completed, markets begin a return to balance, as shown by ranks of 3 after 2021.

MARKET RANKINGS

| | |
|-----|--|
| 1 | Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other current working conditions. Excess supply is apparent and there is a risk of losing workers to other markets. |
| 2 | Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other working conditions. |
| 3 | The availability of workers meeting employer qualifications in the local market may be limited by large projects, plant shutdowns or other short-term increases in demand. Employers may need to compete to attract needed workers. Established patterns of recruiting and mobility are sufficient to meet job requirements. |
| 4 | Workers meeting employer qualifications are generally not available in local markets to meet any increase. Employers will need to compete to attract additional workers. Recruiting and mobility may extend beyond traditional sources and practices. |
| 5 | Needed workers meeting employer qualifications are not available in local markets to meet current demand so that projects or production may be delayed or deferred. There is excess demand, competition is intense and recruiting reaches to remote markets. |
| N/A | The labour market assessment for some trades is limited by the small size of the workforce (<100 employed). In consultation with the provincial LMI committee, the rank is suppressed because of limited statistical reliability. |

Table 3: Non-residential market rankings, British Columbia

| TRADES AND OCCUPATIONS – NON-RESIDENTIAL | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|---|------|------|------|------|------|------|------|------|------|------|------|
| Boilermakers | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 3 |
| Bricklayers | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| Carpenters | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| Concrete finishers | 3 | 3 | 3 | 5 | 4 | 4 | 2 | 3 | 3 | 3 | 3 |
| Construction estimators | 3 | 4 | 3 | 5 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| Construction managers | 4 | 3 | 3 | 5 | 4 | 4 | 3 | 3 | 3 | 3 | 3 |
| Construction millwrights and industrial mechanics | 3 | 3 | 3 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 3 |
| Contractors and supervisors | 3 | 3 | 3 | 5 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| Crane operators | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| Drillers and blasters | 4 | 4 | 3 | 4 | 3 | 4 | 4 | 2 | 3 | 2 | 3 |
| Electrical power line and cable workers | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| Electricians | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| Elevator constructors and mechanics | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| Floor covering installers | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 |
| Gasfitters | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Glaziers | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 |
| Heavy equipment operators (except crane) | 3 | 3 | 3 | 5 | 3 | 3 | 2 | 2 | 3 | 3 | 3 |
| Heavy-duty equipment mechanics | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 2 | 3 | 3 | 3 |
| Industrial instrument technicians and mechanics | N/A | N/A | N/A | N/A | 5 | 5 | 2 | N/A | N/A | N/A | N/A |
| Insulators | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 |
| Ironworkers and structural metal fabricators | 3 | 3 | 3 | 5 | 4 | 3 | 2 | 2 | 3 | 2 | 3 |
| Painters and decorators (except interior decorators) | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| Plasterers, drywall installers and finishers and lathers | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| Plumbers | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Refrigeration and air conditioning mechanics | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 |
| Residential and commercial installers and servicers | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| Roofers and shinglers | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| Sheet metal workers | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| Steamfitters, pipefitters and sprinkler system installers | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 |
| Tilesetters | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 |
| Trade helpers and labourers | 3 | 4 | 3 | 4 | 3 | 3 | 2 | 2 | 3 | 3 | 3 |
| Truck drivers | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 2 | 3 | 2 | 3 |
| Welders and related machine operators | 3 | 3 | 3 | 4 | 4 | 3 | 2 | 2 | 3 | 3 | 3 |

Source: BuildForce Canada

RESIDENTIAL SECTOR

Rising levels of migration to the province have contributed to a 50 percent increase in new housing starts since 2011, adding an estimated 6,000 residential jobs. Housing starts surpassed 40,000 units in 2016 and raised demand requirements above available supply, tightening labour market conditions.

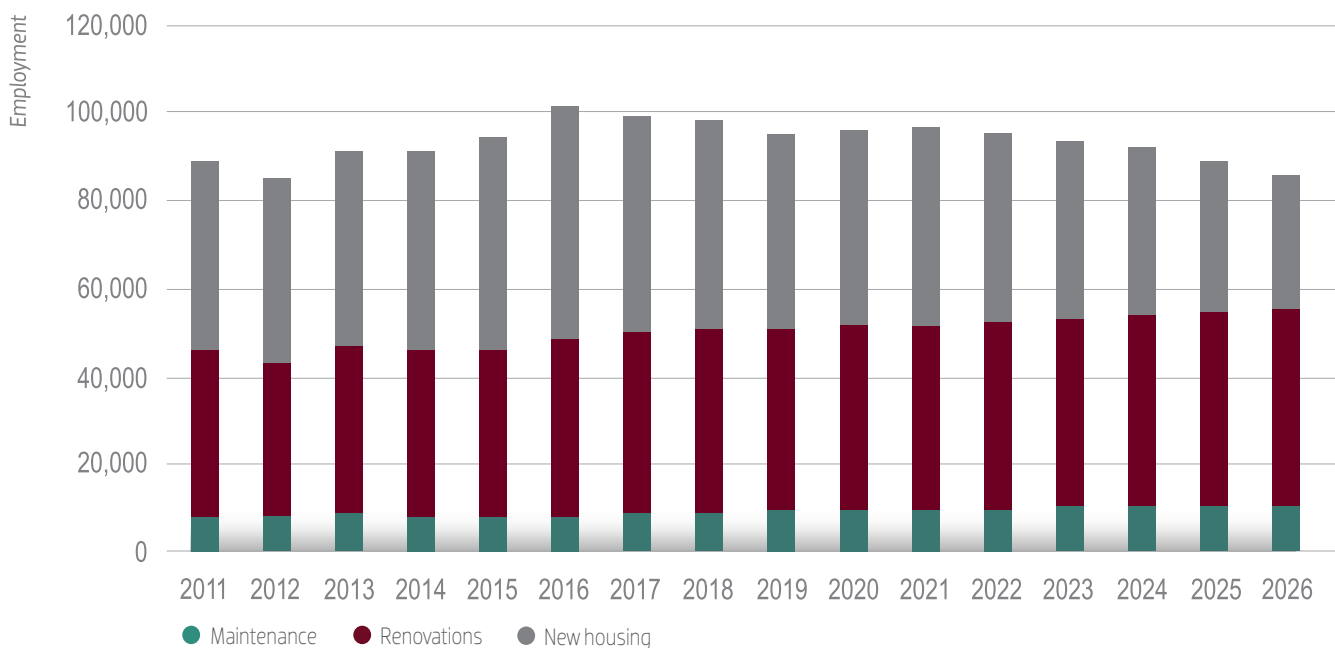
This upward trend is expected to reverse after 2017 as population growth slows and household formations decline. By 2019, new housing investment is expected to settle back, close to 2014 levels, a decline of 25 percent from the 2016 peak. Slower population

growth across the remainder of the scenario period limits new household formations, with new housing investment and employment declining further after 2021.

Across the scenario period, new housing contracts and is only partially offset by steady, but moderate, increases in renovation investment. Overall residential employment is estimated to be 15 percent lower by the end of the period in 2026, with a much larger share of employment concentrated in renovation work as new housing slows. This shift across market segments will affect the occupational and skill mix of the residential construction workforce.

Figure 3 shows the employment trends by sector for residential construction.

Figure 3: Residential construction employment growth outlook, British Columbia



Source: Statistics Canada, BuildForce Canada

RESIDENTIAL HIGHLIGHTS

- Housing starts surpassed 40,000 units in 2016, following four consecutive years of strong growth.
- Weakening housing market conditions following a period of strong growth will see residential demands recede in 2017 and 2018. Slower population growth and declining household formations result in steady employment decline across the scenario period, with losses estimated at 15,000 jobs, or 15 percent of the residential workforce compared to the 2016 peak.
- Employment requirements in the renovation market begin to exceed new housing by 2022. At the end of the scenario period, renovation and maintenance work accounts for almost two thirds of residential employment in the province.

Table 4: Changes in the residential workforce, British Columbia

| RESIDENTIAL WORKFORCE ADJUSTMENT | | 2016 | 5 years 2017–2021 | 10 years 2017–2026 |
|----------------------------------|---------------------|--------|----------------------|-----------------------|
| | Employment | 6,900 | -5,200 | -15,400 |
| Demand | Labour force change | 8,100 | -6,400 | -16,400 |
| | Retirements | -2,100 | -11,400 | -22,700 |
| Supply | New entrants | 2,100 | 9,200 | 17,600 |
| | Net mobility | 8,200 | -4,200 | -11,300 |

Source: BuildForce Canada

THE AVAILABLE WORKFORCE

Recent increased activity and strong employment growth has driven down excess supply for most trades and occupations. Projected declines in activity are expected to raise unemployment in 2017, but long-term unemployment rates are expected to remain low due to age demographics and expected retirements across the scenario period.

A projected downward trend in residential employment may lead some workers to leave the residential workforce to seek opportunities in other markets. Even as employment declines, industry must still contend with an aging workforce and the anticipated exit of an estimated 22,700 workers over the coming decade. Attracting new entrants during periods of decline may pose recruiting challenges.

Table 4 provides a summary of the estimated changes in the residential workforce in 2016, the five-year period between 2017 and 2021, and across the full 2017–2026 scenario period.

RESIDENTIAL RANKINGS, RISKS AND MOBILITY

Looking at Table 5, the tight markets in 2016 reflect the prolonged build-up in residential employment requirements and falling levels of unemployment. Projected declines in 2017 ease labour market pressures, with overall market conditions returning to balance for most trades, as signalled by a rank of 3.

Increasing renovation demands partially offset the expected declines in new housing construction, maintaining generally balanced markets across the scenario period for many trades. Conditions for trades and occupations more concentrated in new housing weaken in 2017 and 2019.

The rankings for some trades working in the residential sector are suppressed due to the small size of the workforce (<100 workers) and limited statistical reliability when assessing labour market conditions at the sector level. Trades may also be excluded because they typically do not work in the sector being assessed (e.g., boilermakers, millwrights in residential construction). For British Columbia, residential rankings are reported for 27 trades and occupations.

MEETING MARKET DEMANDS

British Columbia's labour market will be put to the test over the next decade, as the ramping up of major projects puts a strain on the available local workforce. Changing demographics create further recruiting challenges as the province's population rapidly ages. Retirements (including mortality) are expected to draw an estimated 40,000 workers from the province's construction industry over the next 10 years – 22 percent of the current labour force. Such a shift in the workforce creates a significant skill vacuum that requires proactive planning.

As the province's population continues to age, population growth becomes heavily migration-driven. The natural rate of population growth (births less deaths) will contribute minimally to population growth over the next 10 years as the number of deaths inch closer to the number of births. Anticipated economic growth and positive job prospects in the province will play a role in the attraction of out-of-province workers. Figure 4 shows the factors contributing to British Columbia's population growth.

Over the past decade, British Columbia has seen a shrinking portion of the working-age population and an increasing share of the population 65 years and older. Across the scenario period this trend is expected to persist. Table 6 shows British Columbia's population age distribution. The share of the population that is potentially retiring from the labour force (65 years and older) is increasing, while the share of the population that is potentially entering the labour force (15 to 24 years old) is decreasing.

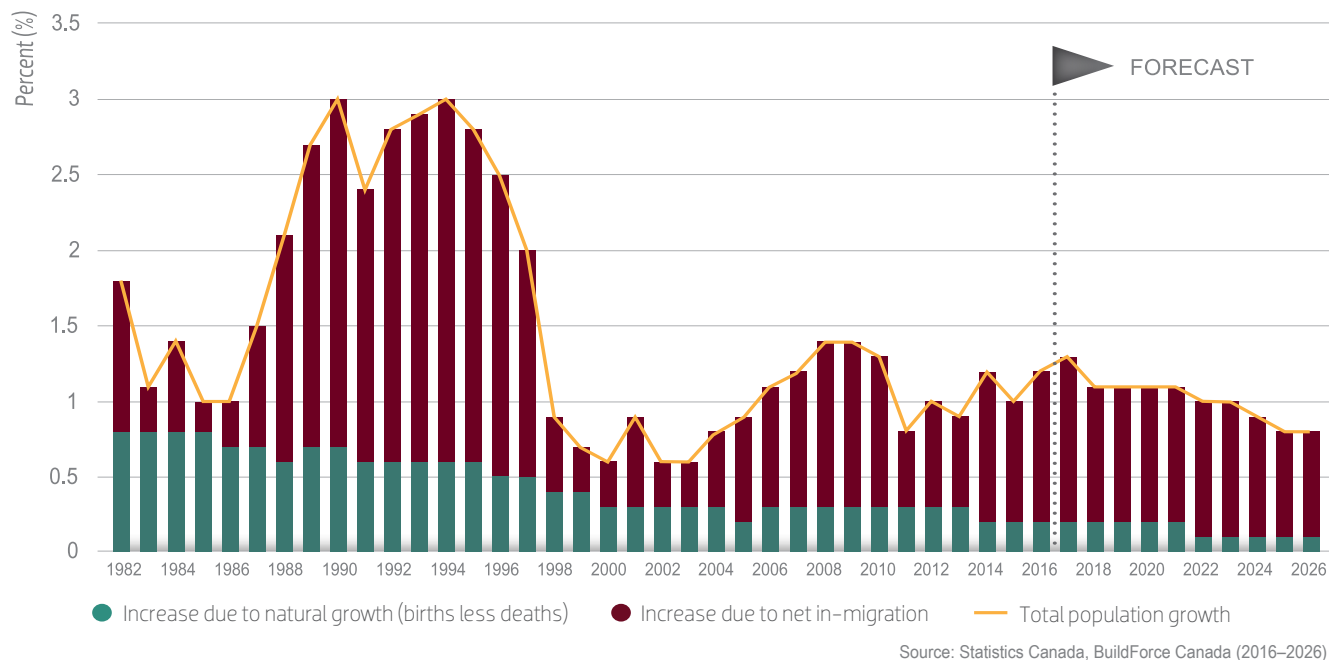
Labour force participation by older individuals is much lower than for those in their prime working years. As a considerable share of the population moves into the older age brackets, the labour force participation rate (percent of the population 15 years and older working or looking for work) is expected to fall steadily.

Industry stakeholders may need to find alternative sources of labour to fill the gap of retiring workers.

Table 5: Residential market rankings, British Columbia

| TRADES AND OCCUPATIONS – RESIDENTIAL | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|--|------|------|------|------|------|------|------|------|------|------|------|
| Bricklayers | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Carpenters | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 |
| Concrete finishers | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Construction estimators | 4 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Construction managers | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| Contractors and supervisors | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Crane operators | 5 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 2 |
| Electricians | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Elevator constructors and mechanics | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Floor covering installers | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Gasfitters | 4 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Glaziers | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Heavy equipment operators (except crane) | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Home building and renovation managers | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 |
| Insulators | 4 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 |
| Ironworkers and structural metal fabricators | 4 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 2 |
| Painters and decorators (except interior decorators) | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Plasterers, drywall installers and finishers and lathers | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Plumbers | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Refrigeration and air conditioning mechanics | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Residential and commercial installers and servicers | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Roofers and shinglers | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Sheet metal workers | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Tilesetters | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Trade helpers and labourers | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Truck drivers | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Welders and related machine operators | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

Source: BuildForce Canada

Figure 4: Sources of population growth (%), British Columbia**Table 6: Population age distribution (%), British Columbia**

| AGES | 2016 | 2026 |
|-------|------|------|
| 0–14 | 14.5 | 14.3 |
| 15–24 | 12.5 | 9.7 |
| 25–54 | 41.0 | 40.3 |
| 55–64 | 14.1 | 13.4 |
| 65+ | 17.9 | 22.3 |

Source: Statistics Canada, BuildForce Canada

Based on historical trends, the B.C. construction industry is expected to draw an estimated 33,000 first-time new entrants from the local population, aged 30 and younger, over the next decade to 2026. In the scenario period, the retiring workforce exceeds the youth coming into the industry.

With retirements expected to exceed estimated new entrants, industry may need to find new ways to improve its share of new entrants in competition against other industries facing similar age demographics, increase initiatives to engage underrepresented supply sources, including Indigenous people and women, or acquire workers from other industries or from outside of the province.

10-YEAR AVERAGE**1%**

POPULATION GROWTH

47,400

BIRTHS

40,400

DEATHS

42,600

NET MIGRATION

BY 2026**42**

AVERAGE AGE OF CONSTRUCTION WORKFORCE

22.1%

PERCENT OF CURRENT LABOUR FORCE LOST TO RETIREMENT

Canada's Indigenous population has the country's highest rate of population growth and a higher propensity to choose construction as their career choice. An estimated 18 percent of all Indigenous people in Canada currently reside in British Columbia and account for about 3.8 percent of the local construction workforce.

Across the scenario period, British Columbia's female population is expected to grow faster than their male counterparts. The province's construction workforce is made up of approximately 12 percent women, of which about 28 percent work directly on construction projects, while the remaining 72 percent work primarily in support or office-related occupations in the construction industry. This translates into women representing 4 percent of the province's direct construction workforce.

CONCLUSIONS AND IMPLICATIONS

The 2017–2026 *Construction and Maintenance Looking Forward* scenario for British Columbia anticipates a rapid increase in non-residential construction employment requirements over the medium term to 2021 alongside a long-term decline in residential demands. The timing and scale of anticipated non-residential demands pose

a potential for recruitment challenges to emerge. These challenges may be amplified by rising retirements, demands for specialized skills and experience, and the remote locations of many major projects.

Meeting the expected requirements while contending with rising retirements will require a coordinated effort by industry and its stakeholders. Industry facilitation of mobility across sectors and regions will be needed to meet peak demands.

The industry scenario-based approach developed by BuildForce Canada to assess future labour market conditions provides a powerful planning tool for industry, government and other stakeholders to better track labour market conditions and identify potential pressure points. The assumed timing of proposed major projects in the 2017–2026 outlook underpins the market conditions anticipated. Any changes in the anticipated timing of major projects such as the proposed LNG, pipeline and other planned engineering projects present risks to anticipated market conditions.

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