SUMMARY

Alberta's construction sector saw mixed fortunes in 2023. Investment and activity in the residential sector contracted as demand for both housing starts and renovation work was curtailed by rising interest rates. Conversely, the non-residential sector saw modest growth as higher levels of activity in the oil and gas sector were supplemented by growth in commercial and institutional building construction.
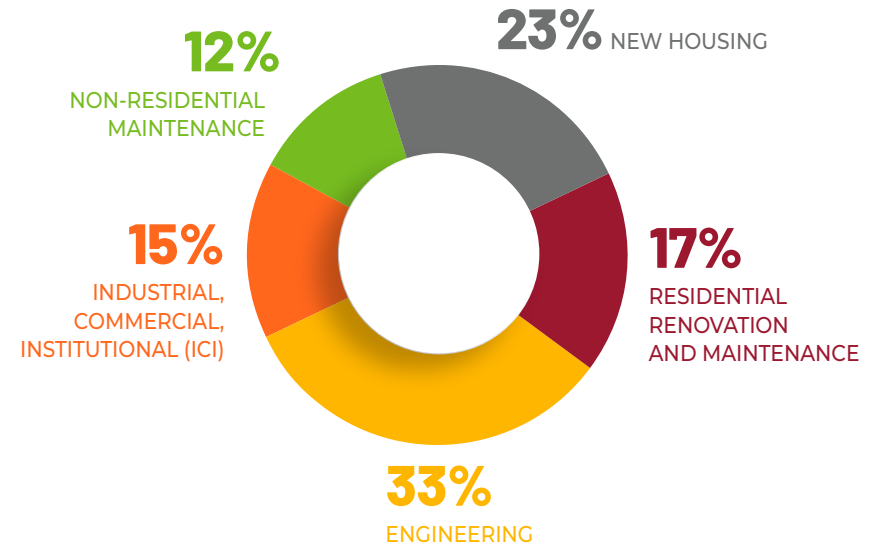
The 2024–2033 BuildForce Canada outlook for Alberta shows a slight contraction in construction and maintenance employment in 2023, with losses in the residential sector offsetting a slight gain in non-residential employment. The sectors diverge across the forecast period. Non-residential employment is poised to chart a steady trend up to the end of the decade, adding 14% above 2023 levels on the strength of growth in both the engineering-construction and industrial, commercial, and institutional buildings.

Residential employment, meanwhile, is poised to cycle up in the short term, driven by renewed growth in both the new-housing and renovation markets. After 2027, however, the long-run projection calls for reductions in new-housing investment. Employment contracts marginally (-1%) by the end of the decade.
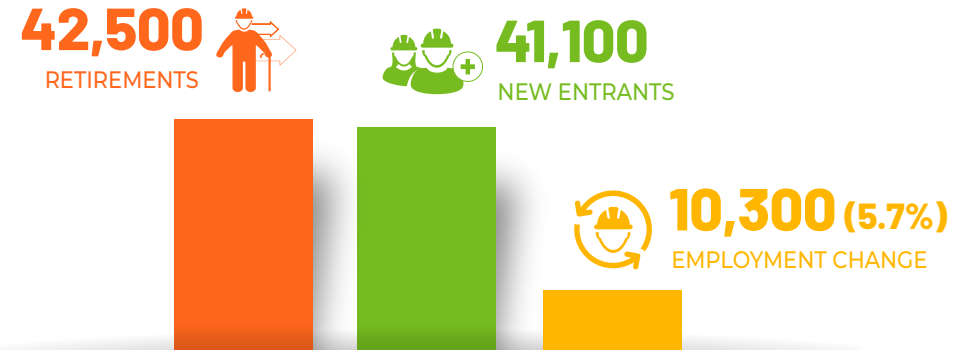
Alberta's construction labour force is expected to increase by 20,600 workers over the forecast period. Combined with the projected retirement of 42,500 workers, the industry will need to recruit and train 63,100 additional workers.

The opinions and interpretations in this publication are those of the author and do not necessarily reflect those of the Government of Canada.

Distribution of construction employment in 2023, Alberta

23% NEW HOUSING

12% NON-RESIDENTIAL MAINTENANCE

17% RESIDENTIAL RENOVATION AND MAINTENANCE

15% INDUSTRIAL, COMMERCIAL, INSTITUTIONAL (ICI)

33% ENGINEERING

10-Year Workforce Outlook for Alberta

42,500 RETIREMENTS

41,100 NEW ENTRANTS

10,300 (5.7%) EMPLOYMENT CHANGE

JOB — AVERAGE UNEMPLOYMENT RATE **7.8%**

HIGHLIGHTS

- Total construction employment is expected to increase by 14,000 workers across the forecast period. A strong gain in non-residential employment offsets a small loss in the residential sector.

- Housing starts are projected to grow after 2023 as interest rate pressures ease. They remain elevated into 2028 before contracting to the end of the decade.

- Industrial maintenance (turnaround and shutdowns) adds to labour demands, with spring and fall seasonal requirements. Recruiting challenges are expected among selected trades.

- The oil sands industry is expected to add to its productive stock through 2027, and increase its sustaining investment accordingly.

- Industrial, commercial, and institutional building investment is projected to rise by more than 40% over the decade, with key projects planned and proposed in the construction of commercial and institutional and government buildings.

ALBERTA CONSTRUCTION OUTLOOK

Activity in Alberta's construction sector slowed in 2023 after reporting strong growth in 2022. Investment levels in both the residential and non-residential sectors stepped back, with the former affected by rising interest rates and the latter curbed by major-project completions.

After posting rates of around 5% in each of the two post-pandemic years, real GDP growth moderated in 2023. A more muted outlook is projected for 2024 and 2025 before the economy returns to growth as interest rates ease and as the global economy rebounds. Real GDP is expected to grow in the range of 2% annually through the medium term.

Construction-industry investment levels, meanwhile, are projected to rise through 2033. Growth will be greatest in the non-residential sector, where a combination of projects across the industrial, commercial, and institutional (ICI) buildings sector will supplement relatively modest gains in engineering construction. Residential construction investment will also grow, but at a more modest level, and largely in response to strong levels of renovation activity.

The *2024–2033 Construction and Maintenance Looking Forward* outlook for Alberta anticipates overall construction employment to increase by 8% over 2023 levels.

- Residential employment is projected to contract by 1%, as gains in maintenance and renovation employment are not enough to offset a loss of 10% in new home construction.
- Non-residential employment is projected to add 14% across the forecast period, with gains strongest in ICI building construction.

Figure 1 shows the anticipated change in residential and non-residential employment across the forecast period.

Figure 1: Construction employment growth outlook, Alberta
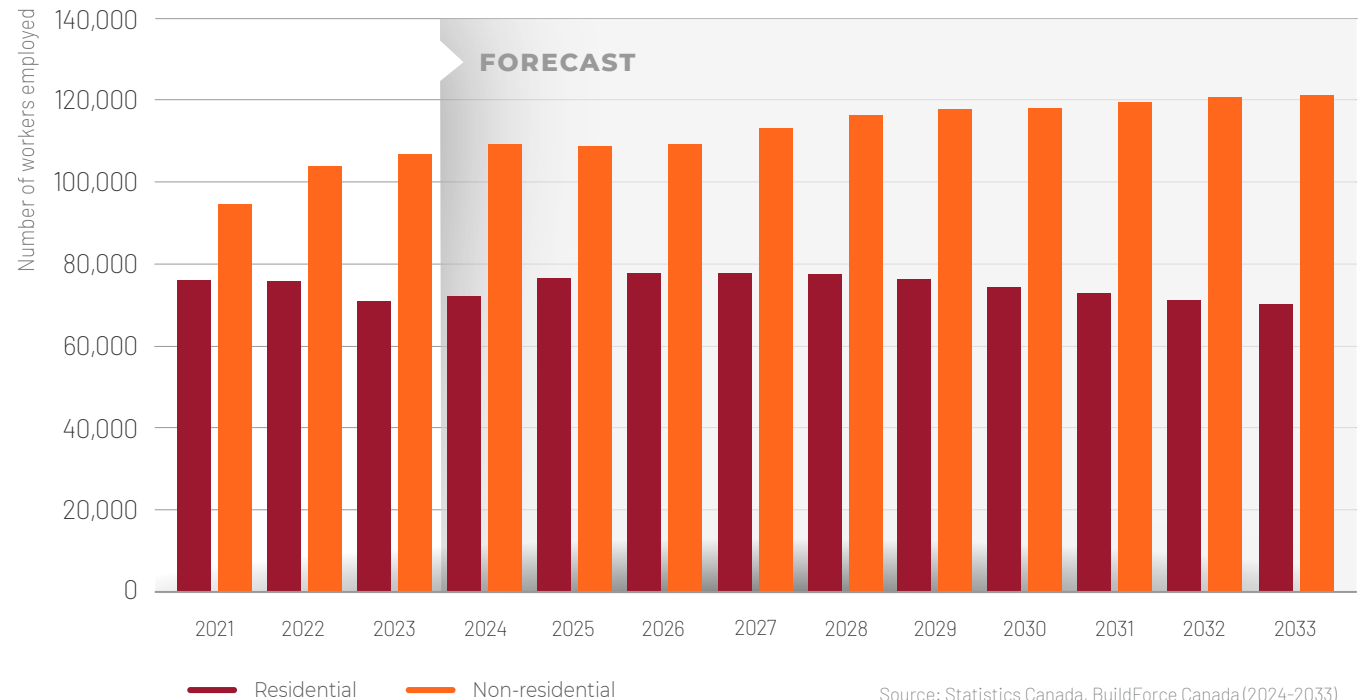
Source: Statistics Canada, BuildForce Canada (2024-2033)

AN AGING POPULATION CREATES WORKFORCE CHALLENGES

Figure 2 shows that the share of people between 15 and 24 years of age and who are about to enter the province's labour force comprised 12% of the population in 2023. By 2033, it is expected to grow slightly – to 13%. Over the same period, the share of the population over 65 years of age and mainly retired is projected to grow from 15% to 17%.

This trend will create challenges regarding future labour force recruitment. All industries will be competing for a relatively smaller pool of youth over the next 10 years.

Alberta is among only a handful of provinces that are showing positive natural rates of population growth*. Its population is younger than most, and births are exceeding deaths.
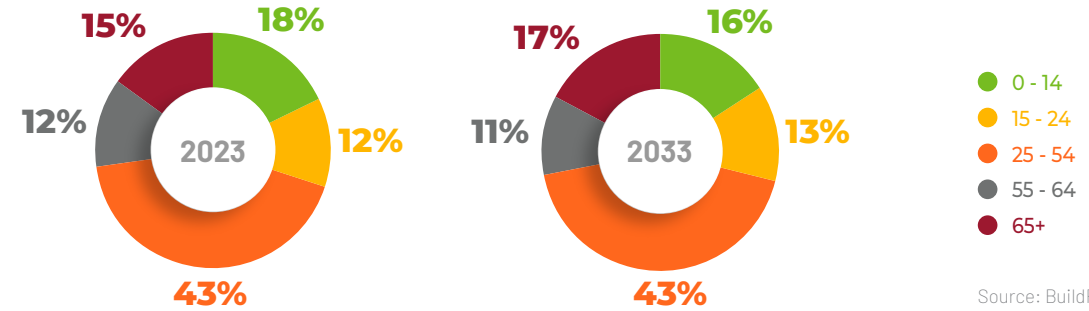
The population increased significantly in 2023 with a surge in the number of permanent and non-permanent residents. Many of the non-permanent residents are international students that may seek to obtain permanent residence status after graduation.

While this level of immigration is unlikely to be sustained in the future, Alberta will certainly benefit from its share of the newly expanded federal immigration targets. Immigration levels should therefore remain at or above 50,000 people annually through the medium term.

These high levels of immigration will help to sustain Alberta's natural rate of population growth above zero across the forecast period. They will also be essential to supporting growth in the province's core working-age group of 25 to 54 years of age, and may help to ease labour-market pressures over the decade.

Figure 3 shows the various factors affecting population growth in Alberta over the forecast period.

Figure 2: Population age distribution, Alberta

Legend:
- 0 - 14
- 15 - 24
- 25 - 54
- 55 - 64
- 65+

Source: BuildForce Canada

Figure 3: Sources of population growth (%), Alberta

Legend: Increase due to natural growth* • Increase due to net migration — Total population growth
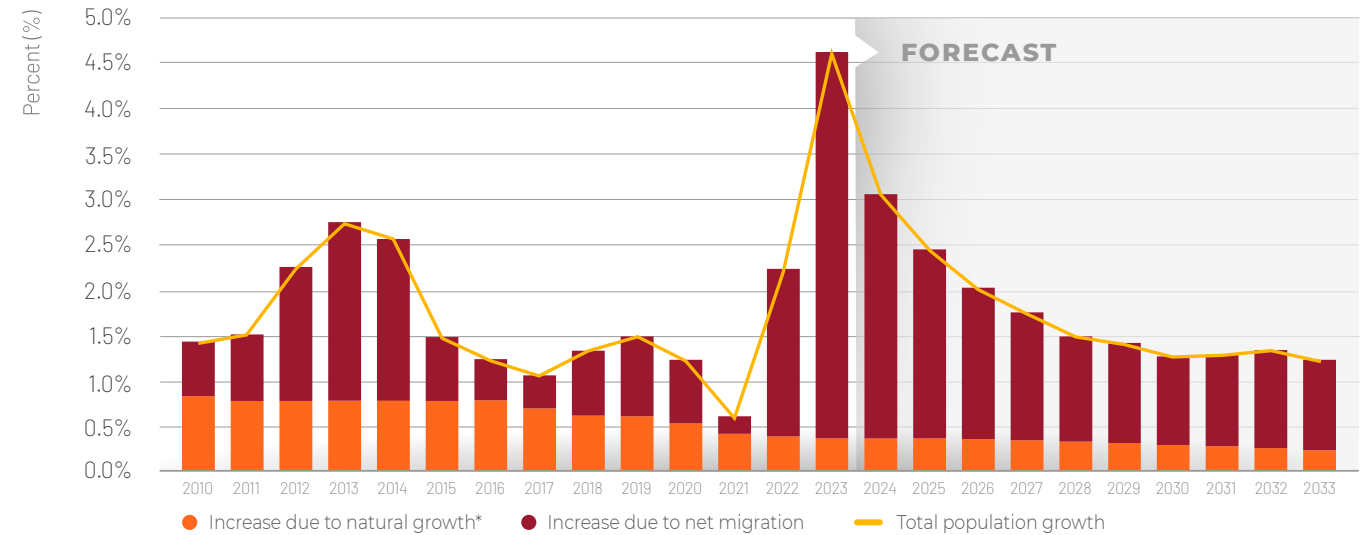
* Natural rate of population growth refers to the growth in the population due to the number of births relative to the number of deaths, which leads to a positive or negative natural rate.

Source: Statistics Canada, BuildForce Canada (2024-2033)

SECTOR INSIGHTS

The following sections provide sector-specific insights into the provincial residential and non-residential labour markets.
For Alberta, rankings are reported for 25 residential and 32 non-residential trades and occupations.

RESIDENTIAL SECTOR

RESIDENTIAL SECTOR

Residential construction took a step back in 2023, albeit from the elevated levels of employment and investment reported in 2021 and 2022. Rising interest rates led to contractions in the provincial new-housing market, and among single-family homes in particular. Renovation activity also stepped back due to rising construction costs.

Figure 4 shows the renovation and new-housing investment trends for residential construction.

The outlook calls for residential investment to grow to elevated levels through 2028, driven by strong demand for both new construction and renovation work. Later years see new-housing investment contract as population growth slows, while renovation activity remains on an upward trend. By the end of the decade, residential investment is projected to increase by 9%, with gains exclusive to renovation activity.

Residential employment is projected to follow a similar trend across the decade. Employment grows to a peak in 2026 before plateauing through 2028 and then declining to 2033. Initially, the strongest growth is within the new housing segment, which rises by 12% to 2026, but then declines in the latter years of the outlook, finishing 10% below 2023 levels by 2033. These declines are mostly offset by employment gains in the renovation and maintenance segments which chart continued growth throughout the forecast, increasing by 13% and 6% respectively. By 2033, these two segments will account for 49% of total residential employment, up from 43% in 2023. Due to these competing trends, total residential employment contracts only marginally by 2033, down just 1% from 2023 levels.

Figure 4: Residential construction investment, Alberta
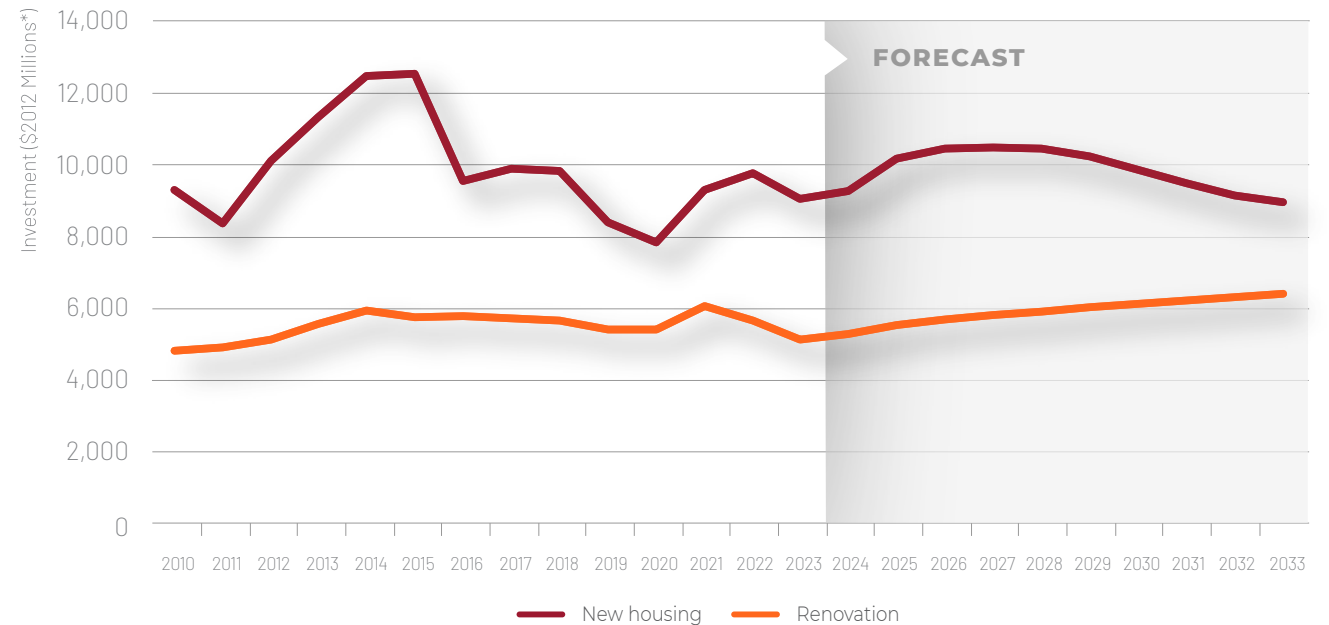
* $2012 millions indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Source: Statistics Canada, BuildForce Canada (2024-2033)

Table 1 summarizes the estimated percent change in residential employment by sector across three periods: the short term (2024–2026), the medium term (2027–2029), and the long term (2030–2033).

Note that this analysis presents a business-as-usual scenario. It does not take into account public-sector initiatives to address housing affordability challenges.

Table 1: Changes in residential employment by sector, Alberta

SECTOR	% CHANGE 2024-2026	% CHANGE 2027-2029	% CHANGE 2030-2033
Total residential employment	**9%**	**-2%**	**-8%**
New housing	12%	-5%	-16%
Renovations	8%	3%	2%
Residential maintenance	2%	2%	2%

Source: Statistics Canada, BuildForce Canada (2024-2033)

Residential rankings, risks, and mobility

Although Table 2 shows tight market conditions among several trades relating to apartment building construction in 2023, conditions have generally eased from the shortages reported in 2021 and 2022.

Market conditions are expected to tighten across almost all key trades in 2024 and 2025 as inflation pressures ease and housing demand is restored. They return to balance in 2026 and beyond, however, as demand for new housing contracts.

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 availablility 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 complete to attact needed workers. Establish patterns of recruiting and mobility are sufficient to meet job requirements.

4 Workers meeting qualifications are generally not available in local markets to meet any increase. Employers will need to compete to attact additional workers. Recruting 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.

Table 2: Residential market rankings, Alberta

TRADES AND OCCUPATIONS — RESIDENTIAL	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Bricklayers	4	3	4	3	3	3	3	3	3	3	3
Carpenters	3	3	4	3	3	3	3	3	3	3	3
Concrete finishers	3	3	4	3	3	3	3	3	3	3	3
Construction estimators	3	4	4	3	3	3	3	3	3	3	3
Construction managers	3	4	4	3	3	3	3	3	3	3	3
Contractors and supervisors	3	4	4	3	3	3	3	3	3	3	3
Electricians	3	3	4	3	3	3	3	3	3	3	3
Elevator constructors and mechanics	4	4	4	3	3	3	3	3	3	3	3
Floor covering installers	3	4	4	3	3	3	3	3	3	3	3
Gas fitters	3	4	4	3	3	3	3	3	3	3	3
Glaziers	4	4	4	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	3	3	4	3	3	3	3	3	3	3	3
Heavy-duty equipment mechanics	3	4	4	3	3	3	3	3	3	3	3
Home building and renovation managers	3	4	4	4	3	3	3	3	3	3	3
Insulators	3	3	4	2	3	3	3	3	3	3	3
Painters and decorators (except interior decorators)	3	3	4	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	3	3	4	3	3	3	3	3	3	3	3
Plumbers	3	4	4	3	3	3	3	3	3	3	3
Refrigeration and air conditioning mechanics	3	4	4	3	3	3	3	3	3	3	3
Residential and commercial installers and servicers	3	3	4	3	3	3	3	3	3	3	3
Roofers and shinglers	3	3	3	3	3	3	3	3	3	3	3
Sheet metal workers	3	4	4	3	3	3	3	3	3	3	3
Tilesetters	3	4	4	3	3	3	3	3	3	3	3
Trades helpers and labourers	3	3	4	3	3	3	3	2	2	2	3
Truck drivers	3	3	4	3	3	3	3	3	3	3	3

Source: BuildForce Canada

NON-RESIDENTIAL SECTOR

NON-RESIDENTIAL SECTOR

Non-residential construction activity enters the forecast period on an upward trend, driven by growth in the construction of industrial, commercial, and institutional (ICI) buildings. Higher levels of activity in the oil and gas industry contributed to engineering-construction growth, while ICI investment was supported by growth in commercial and institutional building construction.

Figure 5 shows the projected outlook for ICI buildings and engineering-construction investment.

The outlook calls for investment levels to rise steadily across the forecast period. Engineering-construction investment levels are expected to contract into the short term with the conclusion of two large gas-plant conversions that end in 2024, and the conclusion of the Strathcona refinery and Air Products projects, and network investments by Telus in 2025 and 2026. Growth returns in later years.

These losses, however, are offset by a steady rise in ICI investment through the medium term. Growth is driven by key projects such as Dow Chemicals' Path2Zero expansion, the Calgary Arts Commons transformation, and work on a number of health services projects, including the Red Deer Regional Hospital Expansion. The Calgary Arena and Event Centre could add further upside if it reaches a final investment decision.

Figure 5: Non-residential construction investment, Alberta
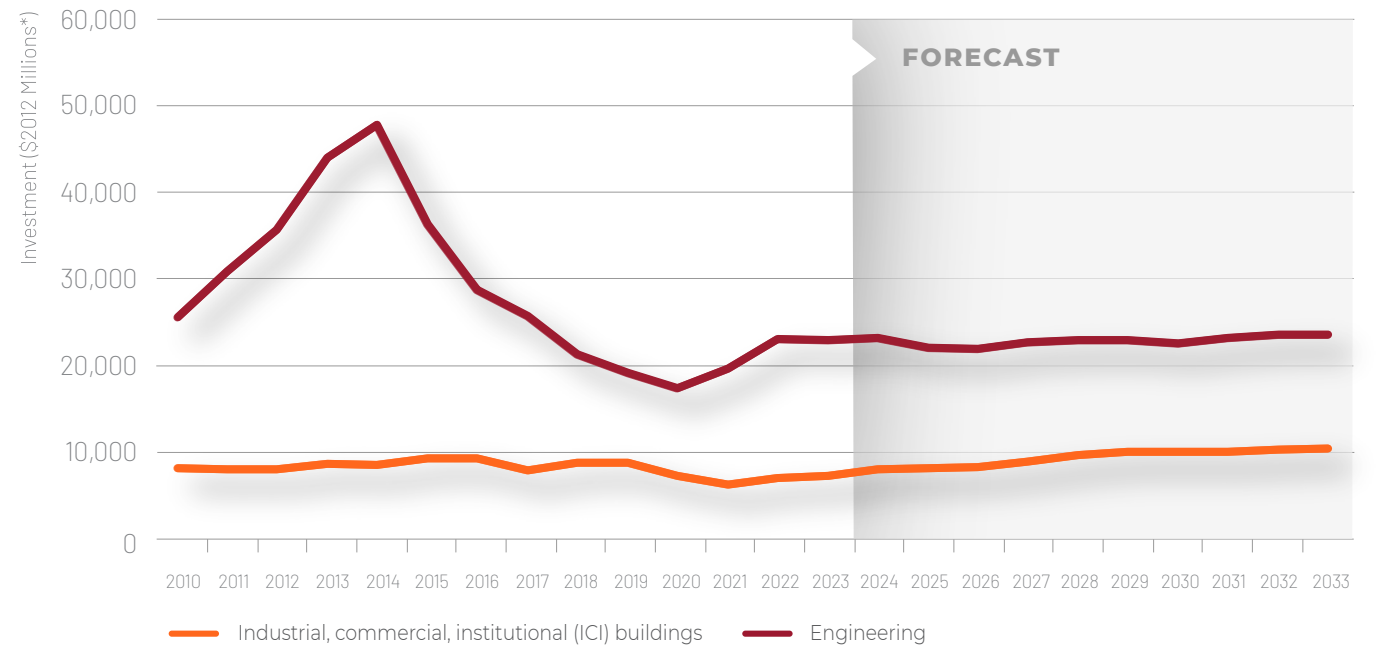
* $2012 millions indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Source: Statistics Canada, BuildForce Canada (2024-2033)

Non-residential employment figures are expected to follow a similar trend across the decade. By 2033, employment is expected to be 14% higher than 2023 levels. Growth is continuous across all segments, with the ICI buildings component increasing 41% over the decade. Growth is more muted in engineering employment (+4%) and maintenance employment (+7%).

Table 3 summarizes the estimated percent change in non-residential employment by sector across three periods: the short term (2024–2026), the medium term (2027–2029), and the long term (2030–2033).

"Growth is continuous across all segments, with the ICI buildings component increasing 41% over the decade."

Table 3: Changes in non-residential employment by sector, Alberta

SECTOR	% CHANGE 2024-2026	% CHANGE 2027-2029	% CHANGE 2030-2033
Total non-residential employment	**2%**	**8%**	**3%**
Industrial buildings	7%	11%	5%
Commercial and institutional buildings	11%	22%	8%
Heavy industrial	2%	3%	1%
Other engineering	-2%	6%	-1%
Roads, highways and bridges	-8%	6%	3%
Non-residential maintenance	2%	2%	3%

Source: Statistics Canada, BuildForce Canada (2024-2033)

OIL SANDS CONSTRUCTION

OIL SANDS CONSTRUCTION

In 2020, capital-budget reductions created conditions where sustaining capital investment levels were insufficient to fully maintain the existing productive stock of capital. This resulted in net capital deformation in the non-conventional oil production sector. Sustaining capital investment increased in 2021 and 2022, and accounted for most of the investment in the sector. As productive capacity is reabsorbed with rising demand in the short term, sustaining capital levels are anticipated to recover and grow in line with an increasing stock of new capital investments throughout the forecast period.

Figure 6 shows an expected recovery between 2024 and 2027 that will add new capacity and add to sustaining investment levels. Stronger demand for Canadian oil, related to the ongoing conflict in Ukraine, should erode any excess capacity that currently exists, which could lead to higher levels of new investment. Concerns, however, over the transition away from fossil fuels should moderate investment flows.

Unique to the oil sands sector is the volatility of shutdown/turnaround maintenance work, which, depending on the number and types of projects scheduled, can generate significant market challenges, driven by distinct seasonal peak demands within a year for periods of weeks or months. Major shutdown/turnaround maintenance requirements in 2024 and beyond will be a key driver of industry labour demands, with the largest requirements concentrated during spring and fall peak periods.

Figure 6: Alberta oil sands investment - construction, machinery, and equipment (millions of 2012 dollars*)
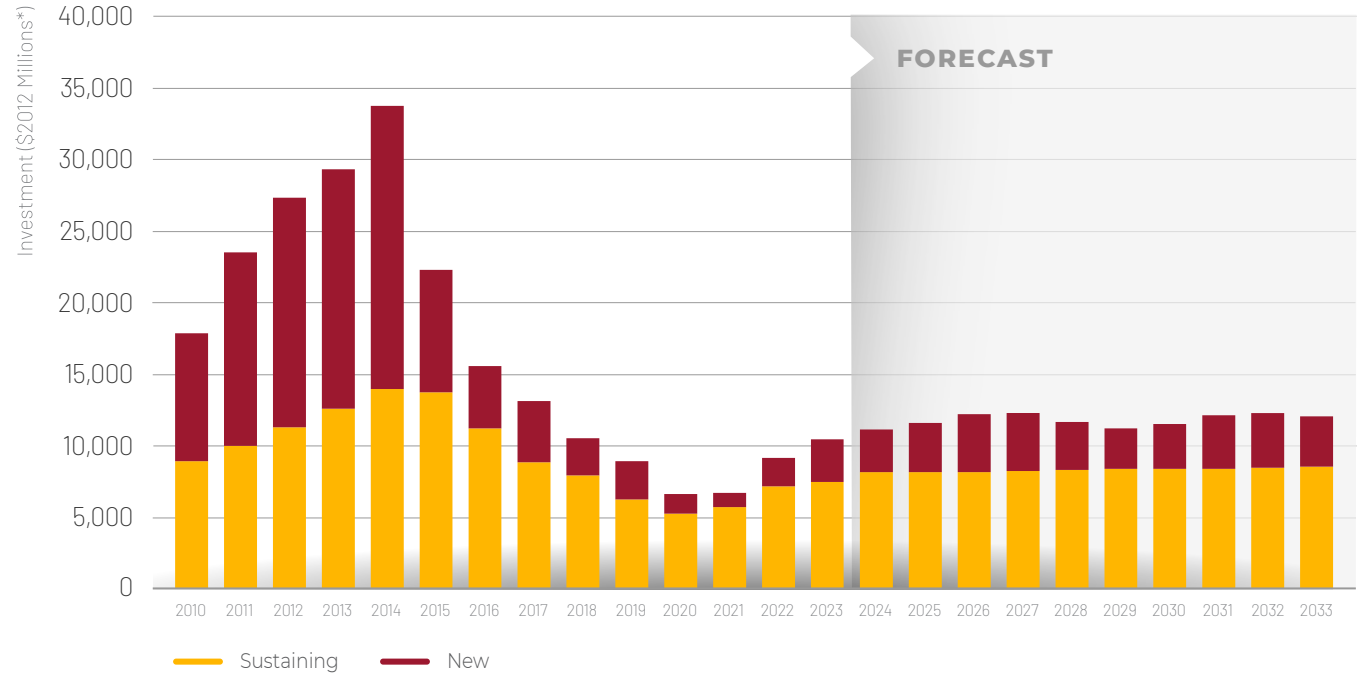
Legend: Sustaining, New

* $2012 millions indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

Note: investment displayed in this chart includes the value of machinery and equipment

Source: Statistics Canada, BuildForce Canada (2024-2033)

Demand requires workers with industrial experience and specialized skills within a trade or occupation, including:

- boilermakers
- bricklayers (refractory)
- carpenters (industrial scaffolders)
- crane operators (all terrain)
- insulators
- ironworkers
- millwrights (industrial)
- pipefitters
- supervisors
- welders (alloy)

Out-of-province workers will be required to meet anticipated peak maintenance demands, but recruiting challenges are expected to emerge. Alberta will compete for highly specialized workers with other provinces, particularly Ontario and British Columbia, in which scheduled major capital projects peak over the near term, as well as major industrial maintenance work in other regions.

"Major shutdown/turnaround maintenance requirements in 2024 and beyond will be a key driver of industry labour demands, with the largest requirements concentrated during spring and fall peak periods. "

Non-residential rankings, risks, and mobility

Table 4 shows that province's non-residential construction labour market enters the forecast period under strained conditions. After employment growth in 2022 tightened the markets for many trades, a more modest pace of growth in 2023 – and similar levels of activity – allowed market conditions to soften from peak levels across several key trades.

Market conditions are expected to moderate across the medium term, with most trades and occupations returning to balanced conditions. The start of work on the second phase of the Dow Chemicals project in 2027, however, may create demand pressures among more senior, management roles.

Near-term market conditions may vary, with increased recruiting challenges for specialized trades and occupations driven by increased seasonal industrial shutdown maintenance work.

The widespread conversion of ICI buildings to the greater use of electricity for heating and cooling is excluded from this report, as these efforts are still in their early phases and have had only minor impacts on overall construction labour markets. As these efforts accelerate, they will be added to future BuildForce Canada outlook reports.

Table 4: Non-residential market rankings, Alberta

TRADES AND OCCUPATIONS — NON-RESIDENTIAL	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Boilermakers	4	4	3	3	3	3	3	3	3	3	3
Bricklayers	4	4	3	3	3	3	3	3	3	3	3
Carpenters	4	4	3	3	3	3	3	2	3	3	3
Concrete finishers	4	4	3	3	3	3	3	2	3	3	3
Construction estimators	4	4	3	3	3	3	3	3	3	3	3
Construction managers	4	4	3	3	4	3	3	3	3	3	3
Construction millwrights and industrial mechanics	4	3	3	3	3	3	3	3	3	3	3
Contractors and supervisors	4	4	3	3	3	3	3	3	3	3	3
Crane operators	4	4	3	3	3	3	3	2	3	3	3
Drillers and blasters	3	3	3	3	3	3	3	3	3	3	3
Electrical power line and cable workers	4	3	3	2	3	3	3	3	3	3	3
Electricians	4	4	3	3	3	3	3	3	3	3	3
Elevator constructors and mechanics	5	4	4	3	3	3	3	3	3	3	3
Floor covering installers	4	4	3	3	3	3	3	3	3	3	3
Glaziers	4	4	3	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	4	3	3	3	3	3	3	3	3	3	3

TRADES AND OCCUPATIONS — NON-RESIDENTIAL	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Heavy-duty equipment mechanics	4	3	3	3	3	3	3	3	3	3	3
Industrial instrument technicians and mechanics	4	4	3	3	3	3	3	3	3	3	3
Insulators	4	4	3	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	3	3	3	3	3	3	3	2	3	3	3
Painters and decorators (except interior decorators)	4	4	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	4	3	3	3	3	3	3	3	3	3
Refrigeration and air conditioning mechanics	4	4	3	3	3	3	3	3	3	3	3
Residential and commercial installers and servicers	4	4	3	3	3	3	3	3	3	3	3
Roofers and shinglers	4	4	3	3	3	3	3	3	3	3	3
Sheet metal workers	5	4	3	3	3	3	3	3	3	3	3
Steamfitters, pipefitters and sprinkler system installers	4	4	3	3	3	3	3	3	3	3	3
Tilesetters	4	4	3	3	3	3	3	3	3	3	3
Trades helpers and labourers	4	4	3	3	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

BUILDING A SUSTAINABLE LABOUR FORCE

BUILDING A SUSTAINABLE LABOUR FORCE

The available labour force

Despite a younger population, Alberta's construction industry will need to recruit about 63,100 additional workers over the forecast period to keep pace with labour force growth and replace approximately 42,500 retiring workers, or 23% of the current labour force.

Many of these hiring requirements may be met by an estimated 41,100 first-time new entrants under the age of 30 from the local population, leaving a gap of about 22,000 workers that will need to be recruited from outside the local construction labour force.

Keeping pace with recruitment and training will require a combination of strategies, including maintaining local recruitment and training efforts, particularly from groups traditionally under-represented in the construction labour force, the hiring of workers from other industries with the required skills sets, and the recruitment of immigrants to Canada with skilled trades training and/or construction experience.

Figure 7 provides a summary of the estimated changes in the construction labour force across the forecast period.

Figure 7: Changes in the construction labour force, Alberta

2023	+20,600	2033
188,700 LABOUR FORCE	WORKERS	209,300 LABOUR FORCE

HIRING NEEDS WORKERS +20,600 • HIRING NEEDS RETIREMENTS +42,500 • OFFSET BY NEW ENTRANTS −41,100 = NET MOBILITY* 22,000

* **Net mobility** refers to the number of workers needed to be brought into the industry from other industries or other provinces to meet rising demands or the number of workers that exit the industry in downturns. Positive net mobility means that industry must attract workers, while negative net mobility arises from an excess supply of workers in the local construction labour force.

Note: Due to rounding, numbers may not add up to the totals indicated.

Source: BuildForce Canada

Labour Force Diversification

Apprenticeship

Apprenticeship is a key source of labour for the construction industry. New registrations in the 25 largest trade programs decreased by 57% from 2014 to 2019; a significant decline compared to construction employment, which declined by 18% over the same period. Following the trend in new registrations, completions were also trending down leading into 2020, albeit at a slower pace (see Figure 8). New registrations have been declining at a faster rate than trade employment, which poses a risk of an insufficient number of newly certified journeypersons to sustain workforce requirements over the long-term.

The pandemic brought significant challenges to Alberta's apprenticeship system, contributing to significant declines in provincial new registrations and completions in 2020. In 2022, the province saw a substantial recovery in new registrations, rebounding to levels not seen since 2015. Select trades, namely heavy-duty equipment mechanic (off-road), plumber and refrigeration and air conditioning mechanic, reported a record number of new registrations in 2022. Program completions have been slower to recover, remaining below pre-pandemic levels in 2022.

Figure 8: New apprentice registrations, completions, and trade employment, Alberta
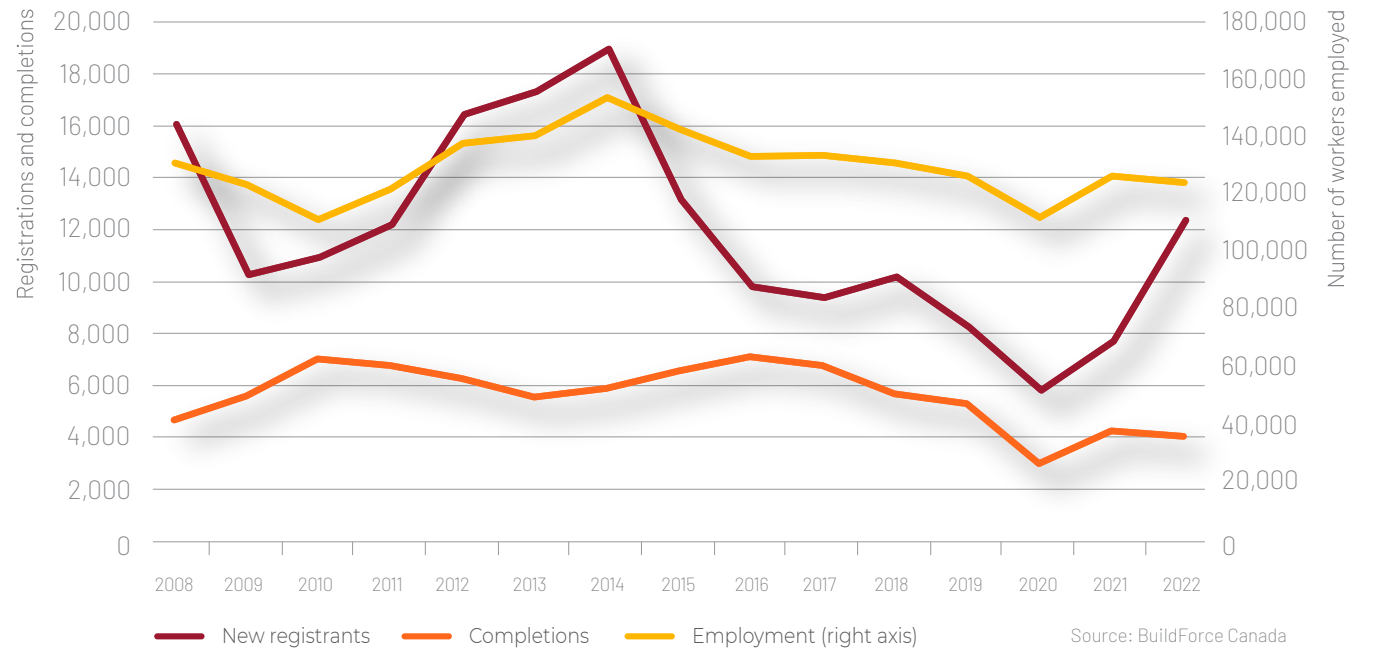

Source: BuildForce Canada

Table 5 provides a trade-by-trade breakdown of the anticipated certification requirements to meet the construction industry's share of employment and replacement demand over the scenario period. Based on projected new registrations, several trades are at risk of undersupplying the number of new journeypersons required by 2033. Trades within this group include insulator (heat and frost), boilermaker, roofer, glazier, bricklayer, carpenter, tower crane operator, construction electrician, welder, and hoist operator (boom truck).

"The pandemic brought significant challenges to Alberta's apprenticeship system, contributing to significant declines in provincial new registrations and completions in 2020. In 2022, the province saw a substantial recovery in new registrations, rebounding to levels not seen since 2015."

Table 5: Estimated construction certification demand and projected target of new entrants by trade, Alberta, 2024 to 2033[1]

TRADE	Target certification demand — construction	Target new registrants — construction	Apprentice certification supply risk — all industries
Insulator (Heat and Frost)	477	172	🔴
Boilermaker	1,000	409	🔴
Roofer	285	120	🔴
Glazier	199	88	🔴
Bricklayer	172	83	🔴
Carpenter	3,834	2,150	🔴
Tower Crane Operator	60	38	🔴
Construction Electrician	9,628	7,223	🔴
Welder	1,044	856	🔴
Hoist Operator (Boom Truck)	398	330	🔴
Ironworker (Reinforcing)	155	140	🟡
Steamfitter/Pipefitter	993	987	🟡
Instrumentation and Control Technician	191	210	🟡
Hoist Operator (Wellhead)	511	565	🟡

TRADE	Target certification demand — construction	Target new registrants — construction	Apprentice certification supply risk — all industries
Industrial Mechanic (Millwright)	320	365	🟡
Powerline Technician	213	265	🟡
Sheet Metal Worker	524	741	🟢
Ironworker (Structural/Ornamental)	96	142	🟢
Heavy-Duty Equipment Technician	472	744	🟢
Refrigeration and Air Conditioning Mechanic	917	1,454	🟢
Sprinkler Fitter	75	139	🟢
Plumber	670	2,550	🟢
Heavy Duty Equipment Technician (Off Road)	66	279	🟢
Gasfitter	32	169	🟢
Mobile Crane Operator	109	784	🟢

🔴 Certifications required exceed projected completions
🟡 Certifications required in line with projected completions
🟢 Projected completions exceed certifications required

Source: BuildForce Canada

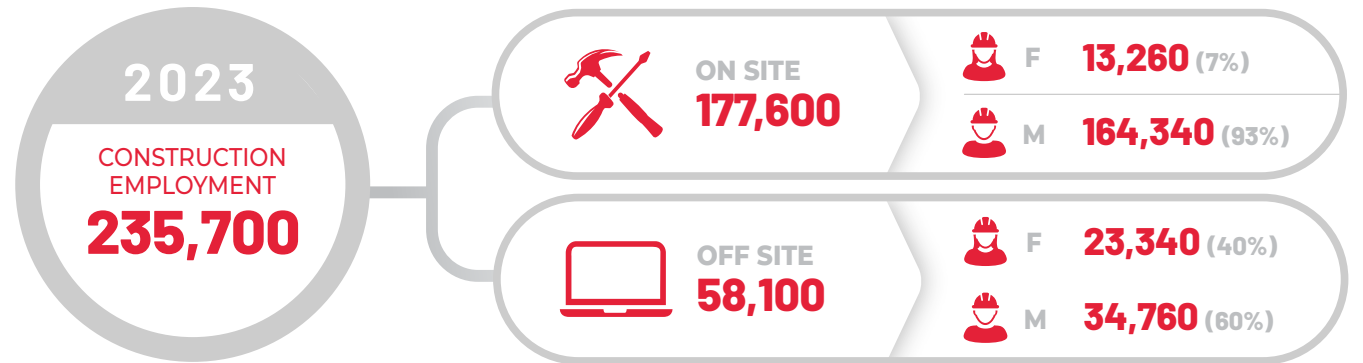[1] This analysis does not account for an existing skills mismatch at the 2023 starting point

Under-represented groups of workers

Due in part to lower fertility rates and smaller family sizes in Canada for more than three decades, the share of younger Canadians available to enter the labour force has been in decline for several years. As the baby boomer generation of workers commences retirement over the next decade, the competition for younger workers will be intense. To help mitigate the impact of this shift in demographics, the construction industry must diversify its recruitment. In order to succeed, the industry must increase recruitment of individuals from groups traditionally underrepresented in the current construction labour force, including women, Indigenous People, and newcomers.

In 2023, there were approximately 36,600 women employed in Alberta's construction industry, of which 36% worked on site, directly on construction projects, while the remaining 64% worked off site, primarily in administrative and management-related occupations. Of the 177,600 tradespeople employed in the industry, women made up 7% (see Figure 9).

The estimated 13,260 tradeswomen in Alberta are represented across all sectors of construction, but given the nature of construction work in the province, women account for a higher share of total tradespeople (8.7%) in residential construction. Across sectors, new housing construction has the highest representation of women, accounting for 9.0% of the workforce (see Figure 10). The top five trades and occupations in which women tend to be employed are trade helpers and labourers (19% of all tradeswomen), construction managers (12%), contractors and supervisors (8%), electricians (8%), and painters and decorators (8%).

Figure 9: Detailed construction employment by gender, Alberta, 2023

2023
CONSTRUCTION EMPLOYMENT
235,700

ON SITE
177,600

F **13,260** (7%)
M **164,340** (93%)

OFF SITE
58,100

F **23,340** (40%)
M **34,760** (60%)

Source: BuildForce Canada calculations based on Statistics Canada's Labour Force Survey (LFS) and 2016 Census of the Population.

Figure 10: Women's share of total direct trades and occupations (on site), Alberta

Total construction	7.5%
Residential	8.7%
New housing	9.0%
Renovations	8.5%
Maintenance	7.7%
Non-Residential	6.7%
ICI buildings*	6.9%
Engineering	6.6%
Maintenance	6.6%

*industrial, commercial, institutional

Source: BuildForce Canada calculations based on Statistics Canada's Labour Force Survey (LFS) and 2016 Census of the Population.

The Indigenous population is the fastest growing population in Canada and therefore presents recruitment opportunities for Alberta's construction industry. The province has been successful in increasing the share of Indigenous People in the construction workforce. In 2021, Indigenous People accounted for 6.7% of the province's construction labour force, which is a slight increase from the share of 6.5% observed in 2016.[2] This share is notably higher than the share of Indigenous People represented in the overall labour force (see Table 6). As the Indigenous population continues to expand, recruitment efforts will need to be dedicated to increasing the industry's share of the population into the labour force.

Alberta's construction industry may also leverage newcomers (immigrants) to Canada over the forecast period to meet labour requirements. Due to the declining natural rate of population growth, immigrants are the sole source of labour force growth in the province. Immigrants have been playing an increasingly important role in replenishing the workforce, with the share of immigrants in the workforce increasing from 18% in 2012 to 26% in 2022. The province has been successful in attracting and integrating immigrants into the labour force; however, immigrants remain under-represented in the construction industry. The construction labour force share of immigrants was 18% in 2022, which is notably lower than the share in the overall provincial labour force (see Figure 11).[3]

Based on historical settlement trends, the province is expected to welcome nearly 724,000 permanent and non-permanent residents between 2024 and 2033. As these individuals will make up an increasing share of the province's core working-age population, additional recruitment efforts will be required to ensure the construction industry recruits its share of newcomers into the labour force.

Table 6: Representation of Indigenous population in Alberta's construction workforce

SECTOR	YEAR	INDIGENOUS	NON-INDIGENOUS	TOTAL	INDIGENOUS SHARE OF TOTAL WORKFORCE, %
Construction	2016	15,480	220,890	236,370	6.5%
	2021	14,065	196,295	210,355	6.7%
All Industries	2016	114,535	2,148,400	2,262,935	5.1%
	2021	120,475	2,104,450	2,224,920	5.4%

Source: BuildForce Canada calculations based on Statistics Canada's 2021 and 2016 Census of the Population

Figure 11: Share (%) of immigrants in the construction labour force, 2022, Alberta

● All industries
● Construction

CANADA: 26.8% / 19.4%
ALBERTA: 26.3% / 18.1%
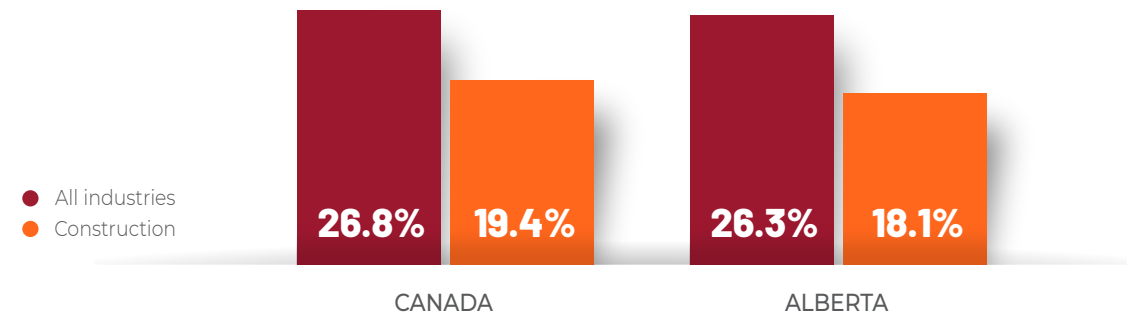
Source: Statistics Canada. Table 14-10-0083-01 Labour force characteristics by immigrant status, annual

CONCLUSIONS AND IMPLICATIONS

CONCLUSIONS AND IMPLICATIONS

Alberta's construction industry enjoyed another year of growth in 2023, albeit by levels lower than those reported in 2022. The residential and non-residential sectors reported mixed outcomes for the year, as rising interest rates curtailed investment across the residential sector, while the non-residential sector saw modest growth as higher levels of activity in the oil and gas sector were supplemented by growth in commercial and institutional building construction.

Construction employment is poised to grow across the forecast period, with growth exclusive to the non-residential sector. Employment in the residential sector will cycle to a peak in 2026, driven by renewed growth in both the new housing and renovation markets. After 2027, however, the long-run projection calls for reductions in new-housing investment. Employment contracts marginally (-1%) by the end of the decade.

Non-residential employment, meanwhile, is projected to see a steady series of increases through the decade, adding as much as 14% above 2023 levels, based on strong levels of activity in both the engineering-construction and industrial, commercial, and institutional buildings.

Scheduled heavy-industrial maintenance (turnaround and shutdowns) work will again be a key driver of market challenges across the forecast period, with significant seasonal demands concentrated in the spring and fall of most years, with high demands for selected trades and occupations, including boilermakers, pipefitters, all-terrain crane operators, scaffolders, and specialized welders.

While modest growth is projected over the forecast period, the industry must remain focused on an aging workforce and the expected retirement of an estimated 42,500 workers, or 23% of the current labour force, which represents a significant loss of skilled experienced workers.

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 anticipated labour market conditions reflect the current long-term oil price outlook and industry capital investment assumptions. Any changes to these assumptions present risks and potentially alter anticipated labour market conditions.

ABOUT THE BUILDFORCE CANADA LABOUR MARKET INFORMATION SYSTEM

BuildForce Canada's labour market information (LMI) system uses the most advanced and detailed industry model available in Canada to produce a forecast scenario that reflects current and future labour demand and supply information for the residential and non-residential construction sectors, by province.

Updated annually, the system is calibrated to the latest information on global, national, and provincial economic conditions derived from various data sources including Statistics Canada, Canadian financial institutions, the World Bank, the International Monetary Fund, the U.S. Energy Information Administration, the Organisation for Economic Co-operation and Development, and federal and provincial budget plans. Key factors driving the outlook scenario include: economic environment measures such as real GDP growth, inflation, interest rates, exchange rates, commodity prices, and international trading partner trends, and population growth and demographic trends.

Unique to the BuildForce system is the integration of a major projects inventory. This is developed in partnership with provincial LMI committees – networks of industry stakeholders that include labour groups, construction associations, owners, and federal/provincial government departments – and identifies key projects that may distort construction investment trends and market conditions.

Information on economics, demographics, and major projects are combined into a dynamic, multi-sector and multi-factor macroeconomic model to generate a 10-year labour market outlook scenario for the residential and non-residential construction sectors in each Canadian province.

The system incorporates coefficients derived from Statistics Canada's input-output tables to determine industry demands and proprietary coefficients developed by BuildForce Canada to translate residential and non-residential investment data into labour demands for the 34 most common on-site trades and occupations in the construction sector. These account for 75% of the total construction labour force.

For labour supply, the system utilizes Statistics Canada's 2021 Census of Population as a starting point. That data is adjusted to reflect current public-policy and demand factors, and is further refined through consultation with the provincial LMI committees to produce measures of provincial economic and population growth, employment growth, retirements, new entrants to the labour force, and interprovincial and international migration patterns.

Provincial residential and non-residential labour market conditions, by trade and occupation, are assessed based on changes in supply and demand and summarized in the form of tables. For each year, conditions are ranked from a low of 1 (in which excess labour supply is apparent, and there is a risk of losing workers to other markets) to a high of 5 (in which there is excess demand, competition is intense, and recruiting extends beyond local labour markets). Ranks are calculated based on annual employment growth, natural or normal unemployment rates, and changes in supply (i.e., retirements, new entrants, and mobility requirements to meet demands).

Rankings for some trades or occupations may be suppressed in some provinces and regions due to the small size of the workforce (i.e., fewer than 100 workers) and limited statistical reliability when assessing labour market conditions at the sector level. Some trades are also excluded because they typically do not work in the sector being assessed (e.g., boilermakers and millwrights typically do not work in residential construction, nor do homebuilding and renovation managers work in non-residential construction).

Finally, to further improve the robustness of the system, BuildForce Canada's outlook scenario is validated by provincial LMI committees.

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