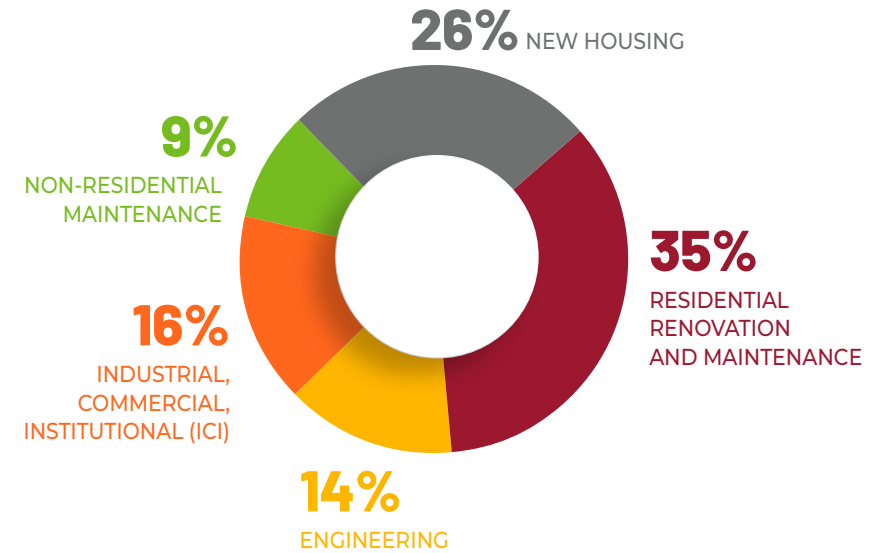# SUMMARY

After reporting growth in 2022, Nova Scotia's construction sector experienced a small contraction in 2023. A further gain in the non-residential sector was insufficient to offset a decline in residential-sector activity.

The province's housing market has stepped down from its investment high in 2022, as rising interest rates have cooled even strong levels of demand created by an influx of both permanent and non-permanent residents to the province. Investment is projected to step down again in 2024 with a further contraction in housing starts. Labour market conditions are projected to weaken for trades and occupations more concentrated in low-rise single-family construction, but recruiting challenges are expected to persist for trades and occupations more involved in the construction of high-rise apartment buildings. In 2025 and beyond, residential investment returns to growth on the strength of rebounding housing starts and strong growth in renovation activity.

The non-residential sector, meanwhile, is projected to continue to rise to an investment peak in 2025, as output is strong in both the engineering-construction and in the construction of industrial, commercial, and institutional buildings. In line with current major project schedules, however, investment levels recede into 2030 as projects wind down. If the industry struggles to keep pace with bringing in additional workers to build new capacity and replace retiring workers over the next few years, recruiting challenges could be extended beyond the anticipated 2025 peak.

Rising demands across the forecast period will require the provincial construction labour force to increase by 2,400 workers. By 2033, the industry will likely need to recruit and retain as many as 10,600 additional workers to keep pace with expansion and replacement demands, as an estimated 8,200 workers, or 22% of the 2023 construction labour force, are expected to retire.

## Distribution of construction employment in 2023, Nova Scotia

- **26%** NEW HOUSING
- **9%** NON-RESIDENTIAL MAINTENANCE
- **35%** RESIDENTIAL RENOVATION AND MAINTENANCE
- **16%** INDUSTRIAL, COMMERCIAL, INSTITUTIONAL (ICI)
- **14%** ENGINEERING

## 10-Year Workforce Outlook for Nova Scotia

- **8,200** RETIREMENTS
- **7,400** NEW ENTRANTS
- **900** (2.6%) EMPLOYMENT CHANGE

JOB — AVERAGE UNEMPLOYMENT RATE **8.3%**

# HIGHLIGHTS

- Non-residential employment is projected to grow by 15% above 2023 levels by 2025.

- Employment growth is forecast for both the residential (+2%) and non-residential (+8%) construction through 2033.

- Tight rental vacancy rates will help sustain demand for multi-unit starts through most of the forecast period.

- The market for most residential and non-residential trades and occupations remains strained through the near term, before moderating in later years.

- Combined, projected retirements and rising construction labour force demands leave the industry with a hiring gap of 10,600 workers by 2033.

# NOVA SCOTIA CONSTRUCTION OUTLOOK

Nova Scotia's construction sector recorded a peak in both its residential and non-residential segments in 2022. Construction volumes stepped down in 2023, as residential investment levels declined due to rising interest rates and consumer concerns over affordability. In contrast, the non-residential sector experienced strong growth that was supported by public-sector investment, as well as growth in mining, wastewater treatment facilities and wind farm projects.

Real GDP growth in Nova Scotia has moderated since 2021 when the economy rebounded sharply from the effects of the COVID-19 pandemic. The economy grew by 2.6% in 2022 and contracted slightly to 2.4% in 2023. These figures were driven by rapid consumer and residential spending, and by an influx of residents from other provinces who are seeking greater affordability. The short-term outlook calls for growth to remain above 2%. Even as households restrain spending, the provincial government is expected to maintain elevated levels of investment in infrastructure. In the later years of the forecast, growth is expected to subside to around 1.5%, driven principally by changes in the province's population age structure.

Residential construction investment is forecast to contract again in 2024. A large reduction in starts for single-family homes will be offset somewhat by elevated levels of construction of multi-family units. As interest rate pressures ease in later years, new-housing construction returns to growth, and remain at elevated levels through the end of the decade. Renovation activity is also projected to increase across the forecast period as interest rates stabilize and incomes adjust.

Non-residential construction activity has been on a strong upward trend since 2020. In the engineering-construction segment, this has been driven by growing public-sector investments in road, highways, and bridge infrastructure as well as strong growth in mining, wastewater treatment and wind farm projects. Meanwhile, construction of industrial, commercial, and institutional (ICI) buildings has been supported by strong institutional building growth, and work on hospitals and schools in particular. Investment levels are projected to peak in 2025 as many of these projects continue and are supplemented by the Boat Harbour Cleanup, the Everwind Green Hydrogen/Ammonia (Phase 1), and a gold mine expansion. Based on currently known demands, a downcycle is projected after 2026 and through to 2030 as these projects pass peak activity and reach conclusion.

**Figure 1: Construction employment growth outlook, Nova Scotia**



Source: Statistics Canada, BuildForce Canada (2024-2033)
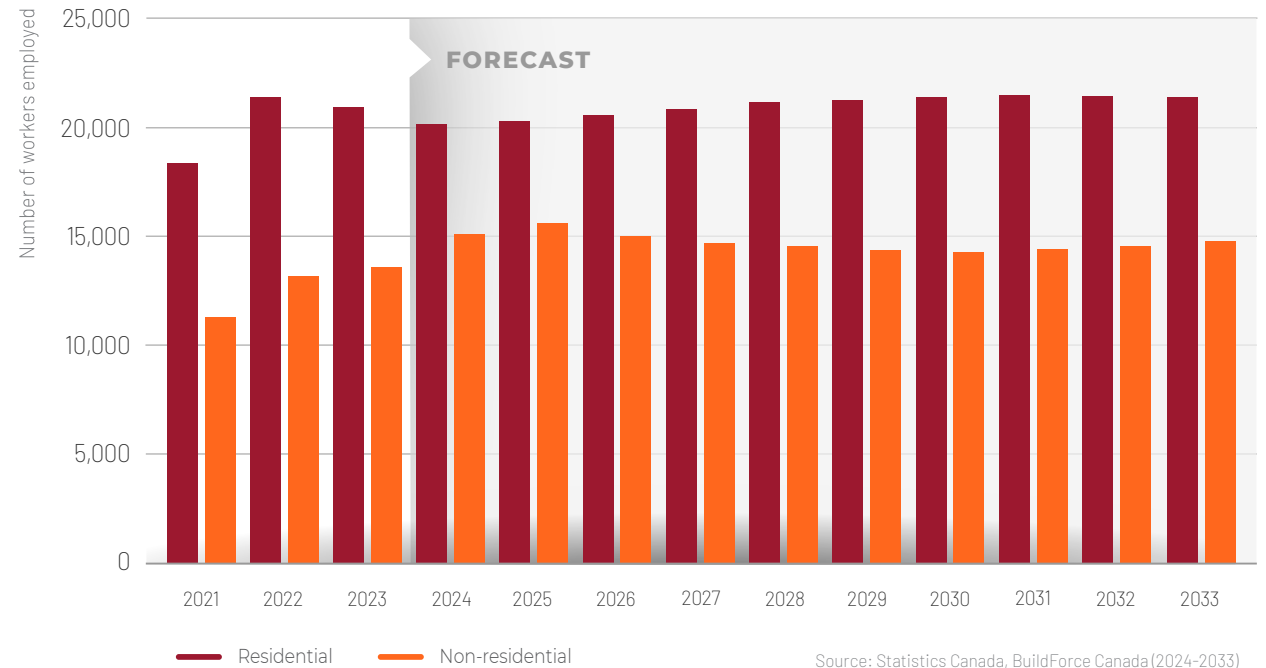
As Figure 1 shows, these trends combine to increase non-residential employment by 8% over 2023 levels. Meanwhile, in the residential sector, employment rises by 2% due to the combined growth in renovation and maintenance activity, which offsets significant declines in new-housing related employment.

The industry will need to recruit 10,600 workers over the forecast period, driven largely by the expected retirement of 8,200 workers. While the recruiting of first-time new entrants from the local population is expected to partially offset the impact of retirements on the labour force, these new workers do not possess the skills and experience of retiring workers, which may compound potential skilled labour shortages locally.

# AN AGING POPULATION SUSTAINED BY IMMIGRATION

Like most provinces, Nova Scotia is experiencing a shift in its population age structure.

Figure 2 shows that the share of people aged 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. That figure is expected to drop to 11% by 2033. Over the same period however, the share of the population over 65 years of age and mainly retired is projected to grow from 22% to 23%.

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.
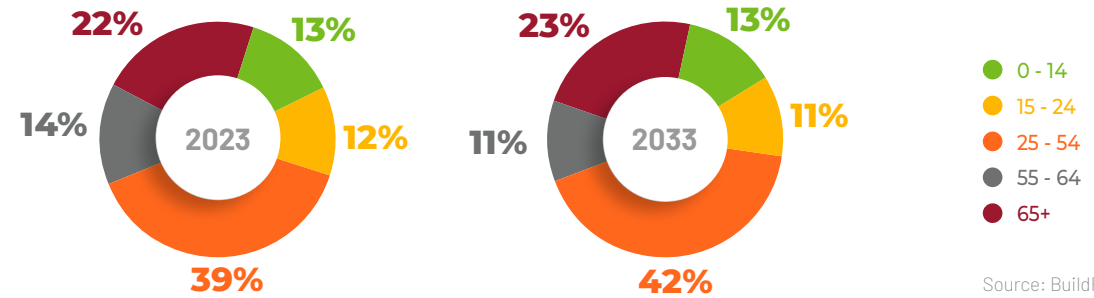
Meanwhile, Nova Scotia is faced with the additional challenge of an aging population. The province's natural rate of population growth* has been negative since 2013, and is trending downward.

As a result, in-migration has become a key source of population growth in the province. Levels spiked in 2023 when the province saw a major influx of both permanent and non-permanent residents. Many in the latter group are students who could choose to obtain permanent residency status after graduation.

Although these rates of growth are unlikely to be sustained, Nova Scotia will also benefit from the federal government's increased immigration targets for 2024 and 2025. Moreover, with many immigrants coming to the province in their prime working- and child-bearing ages, the natural rate of population growth should benefit from some upward pressure. Increasingly, immigrants will 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 Nova Scotia over the forecast period.

## Figure 2: Population age distribution, Nova Scotia



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

2023: 22% (65+), 13% (0-14), 12% (15-24), 39% (25-54), 14% (55-64)
2033: 23% (65+), 13% (0-14), 11% (15-24), 42% (25-54), 11% (55-64)

Source: BuildForce Canada

## Figure 3: Sources of population growth (%), Nova Scotia



FORECAST

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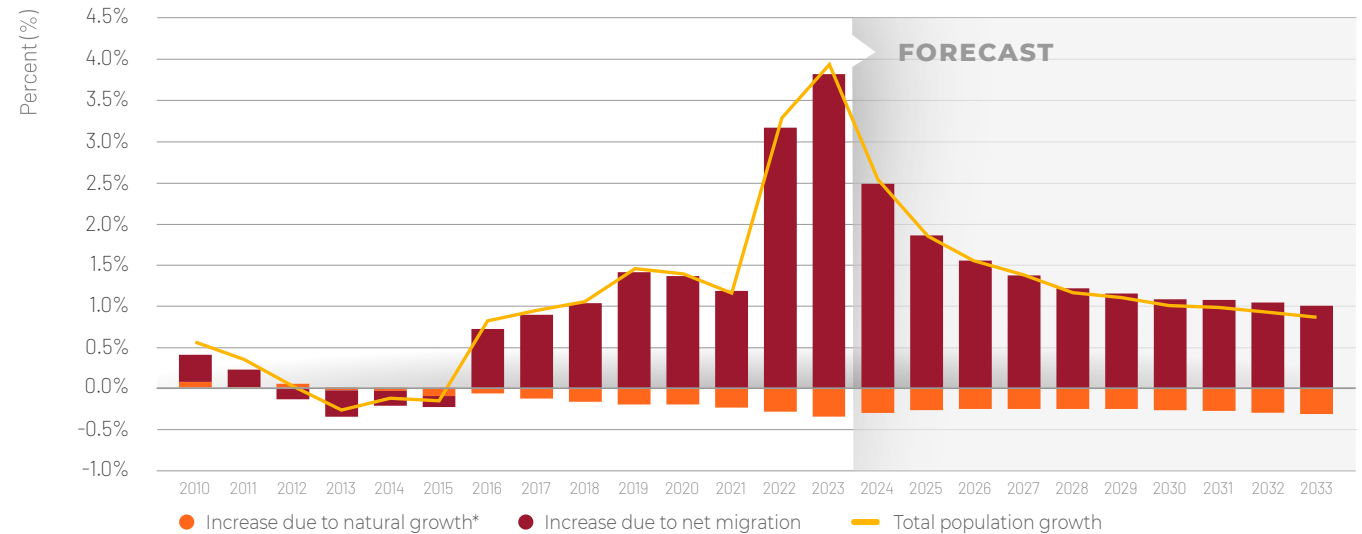
*Natural rate of population growth refers to the growth in the population due to the number of births relative to the number of deaths, which leads to a positive or negative natural rate.

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.**

**The BuildForce LMI system tracks supply and accounts for the change in the available labour force, including retirements, new entrants[1], and net mobility[2].  For Nova Scotia, rankings are reported for 18 residential and 26 non-residential trades and occupations.**

---

[1] **New entrants** are measured by applying the traditional proportion of the provincial labour force that enters the construction industry. The projected estimate across the forecast period assumes that the construction industry can recruit this group in competition with other industries.

[2] **Net mobility** refers to the movement of labour in and out of the local construction industry labour force. In-mobility captures the movement into the labour force of out-of-province industry workers and/or workers from outside the industry. Many members of this group will move quickly out of the provincial labour force as work declines, referred to as out-mobility.

# RESIDENTIAL SECTOR

# RESIDENTIAL SECTOR

Housing starts enter the forecast period on a downward trend. After reaching a high of just under 6,000 units in 2021, start levels have contracted as interest rates rose in late 2022 and through 2023. Contractions have been greatest among single-family homes, which tend to be more expensive than multi-unit builds. As a result, single-detached units have contracted as a share of total housing starts in the province.

The residential-investment outlook calls for a contraction into 2024 as housing starts again recede. Investment is projected to return to growth after 2025 and remain at an elevated level through 2031. Growth is strongest among single-detached units during this period, which reach a peak in 2031. Multi-unit starts, meanwhile, remain at an elevated level to 2028 before contracting through to the end of the decade. These are supported by historically low rental vacancy rates in some urban areas, as well as an influx of permanent and temporary residents, many of whom choose to rent properties before buying.

Finally, renovation activity is projected to experience growth through the forecast period as interest rates stabilize and incomes adjust.

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

Residential construction employment surged 16% in 2022 as the industry contended with significant growth in renovation and new-housing activity. Employment pulled back slightly in 2023 and is expected to do so again, given declines in new-housing construction and renovation activity. A period of growth follows as renewed demands for renovation and new housing projects push industry employment higher. Although employment in new housing rises strongly between 2024 and 2028, it fails to return to 2023 levels, and contracts by 11% over the forecast period.

**Figure 4: Residential construction investment, Nova Scotia**
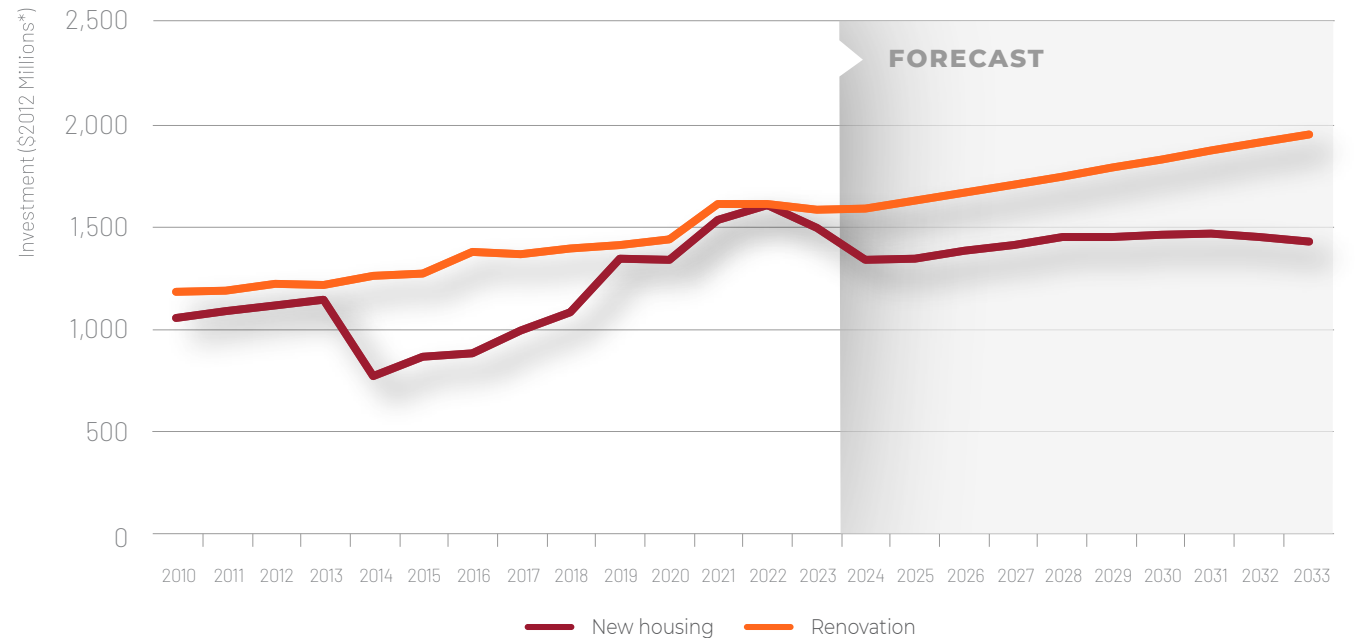


* $2012 millions indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

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

Despite this decline, overall employment increases on the strength of additional renovation and maintenance related employment, which rises +11% and +14% respectively over the forecast period. By 2033 and after reaching a forecast peak in 2031, overall employment is projected to be 2% higher than levels recorded in 2023.

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).

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, Nova Scotia**

| SECTOR | % CHANGE 2024-2026 | % CHANGE 2027-2029 | % CHANGE 2030-2033 |
|---|---|---|---|
| **Total residential employment** | **-2%** | **3%** | **1%** |
| New housing | -8% | 2% | -5% |
| Renovations | 2% | 4% | 5% |
| Residential maintenance | 5% | 4% | 5% |

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

As Table 2 shows, although housing starts contracted in 2022 and 2023, labour market conditions were tight across most trades and occupations in Nova Scotia.

Further housing start contractions are projected for 2024, with most losses projected among single-detached units. As a result, labour market conditions are projected to weaken for trades and occupations concentrated in low-rise single-family builds, but recruiting challenges are expected to persist for trades and occupations more involved in the construction of high-rise apartment buildings.

Growth resumes in 2025 and creates new recruiting challenges among several trades and occupations.

Labour markets are expected to return to balance after 2026, as demand for more labour-intensive single-detached homes cools to the end of the forecast period.

## 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, Nova Scotia**

| TRADES AND OCCUPATIONS — RESIDENTIAL | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bricklayers | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Carpenters | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Construction estimators | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Construction managers | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Contractors and supervisors | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Electricians | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Floor covering installers | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Heavy equipment operators (except crane) | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Heavy-duty equipment mechanics | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Home building and renovation managers | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 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 |
| 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 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Trades helpers and labourers | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Truck drivers | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

Source: BuildForce Canada

# NON-RESIDENTIAL SECTOR

# NON-RESIDENTIAL SECTOR

The province's non-residential sector enters the forecast period on a strongly positive trend.

Figure 5 shows that investment levels have been increasing steadily, and in some cases dramatically, since 2020. This trend has been driven by growth in both segments. Engineering construction has been supported by public-sector investments in roads, highways, and bridges, and mining, wastewater treatment and wind farm projects, while the industrial, commercial, and institutional (ICI) construction segment has been underpinned by strong institutional building growth, and work on hospitals and schools in particular.

Based on the known major-project schedules, the outlook calls for investment levels to reach a strong peak in 2025, after which they cycle down to 2030 before growing modestly again in the final years of the forecast. On the engineering-construction side, the provincial government's robust capital investment plan will keep investment elevated. This growth will be supported by the start of work on key wind-farm and gold-mind projects, as well as the Boat Harbour Cleanup, and phase one of the Everwind Green Hydrogen/Ammonia project. Completions of many of these projects will slow investment through to 2030.

On the ICI-buildings side, growth will be driven by several of the above projects, as well as work on the Halifax Airport, the Cooke Aquaculture project, the QEII Health Sciences Centre, and the Cape Breton Regional Municipality health care redevelopment project. As in the engineering sector, the conclusion of these projects creates a downcycle to 2030.

**Figure 5: Non-residential construction investment, Nova Scotia**
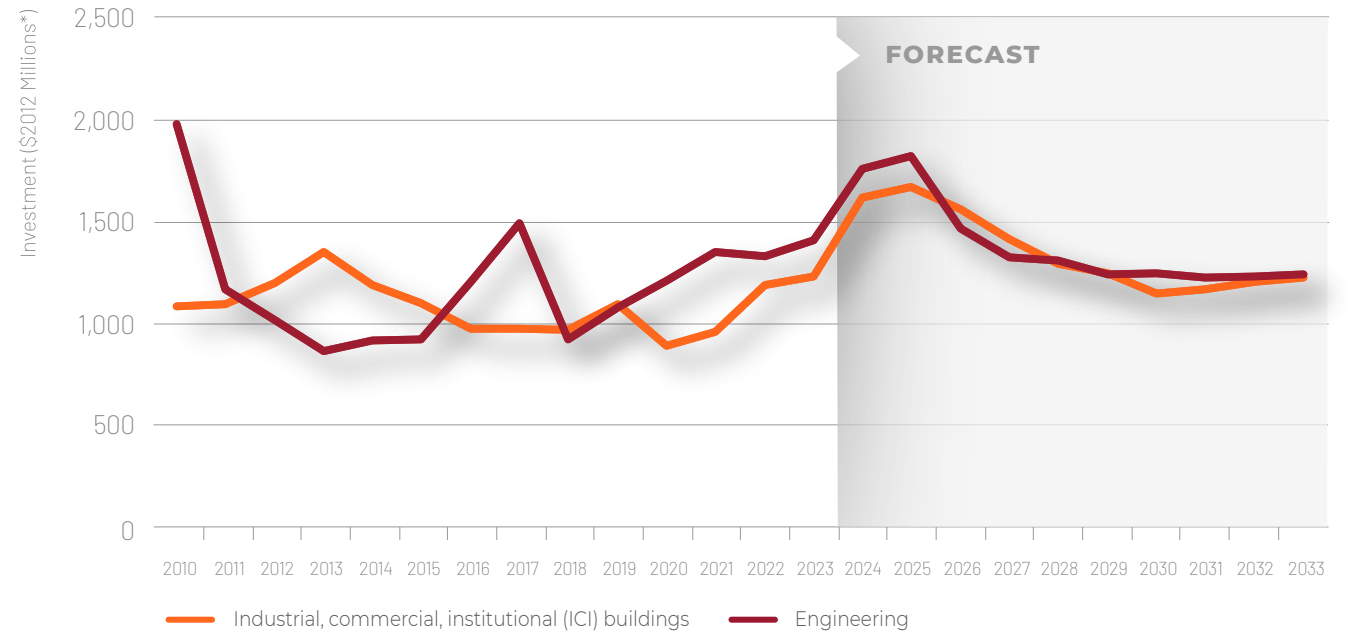


* $2012 millions indicates that the investment values are in year 2012 dollars (base year), that is, adjusted for inflation. This is used to calculate the real physical year-to-year change of the value of construction, factoring out growth (increase in value) due to increases in prices.

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

Notably, several major projects have yet to reach final investment decisions, including a second phase of the Everwind project and the additional of a second green hydrogen/ammonia project. These have not been factored into this analysis.

As a result of these trends, non-residential construction employment is projected to be 8% lower in 2033 than the levels achieved in 2023. Employment is projected to peak in 2025, rising by 15% over 2023 levels, as key projects in healthcare, education, engineering, and infrastructure reach peaks.

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).

Engineering-related employment rises 15% to 2025 and moderates thereafter as currently known major projects are completed. Over the forecast period, employment declines by 12% from 2023 levels.

ICI building employment is projected to increase by 18% by 2025 before moderating as current major projects wind down. Unlike the engineering sector, however, ICI employment continues to grow, increasing 10% above 2023 levels by 2033.

Maintenance-related employment is also projected to increase over the forecast period by 36%.

**Table 3: Changes in non-residential employment by sector, Nova Scotia**

| SECTOR | % CHANGE 2024-2026 | % CHANGE 2027-2029 | % CHANGE 2030-2033 |
|---|---|---|---|
| **Total non-residential employment** | **10%** | **-4%** | **3%** |
| Industrial buildings | 18% | -22% | 8% |
| Commercial and institutional buildings | 17% | -6% | 2% |
| Heavy industrial | -1% | -13% | -9% |
| Other engineering | 16% | 6% | 6% |
| Roads, highways and bridges | -6% | -17% | -1% |
| Non-residential maintenance | 14% | 11% | 7% |

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

# Non-residential rankings, risks, and mobility

As Table 4 shows, labour markets among most trades and occupations were tight in 2023 as the number of projects under construction and planned continued to grow.

Demands are projected to tighten even further in 2024 driven by new and ongoing healthcare projects and the start of Everwind's hydrogen (Phase 1) project. With increased demand in 2025, acute recruiting challenges are expected across most trades and occupations.

Markets are expected to return to more balanced conditions in 2026 as some projects wind down.

If the industry struggles to keep pace with bringing in additional workers to build new capacity and replace retiring workers over the next two years, it could see tighter conditions beyond 2025.

## Table 4: Non-residential market rankings, Nova Scotia

| TRADES AND OCCUPATIONS — NON-RESIDENTIAL | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Boilermakers | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Bricklayers | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Carpenters | 4 | 5 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Construction estimators | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Construction managers | 4 | 5 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Construction millwrights and industrial mechanics | 4 | 5 | 5 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| Contractors and supervisors | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Crane operators | 4 | 5 | 4 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| Electrical power line and cable workers | 4 | 5 | 4 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| Electricians | 4 | 5 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Elevator constructors and mechanics | 4 | 5 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Glaziers | 4 | 5 | 4 | 4 | 3 | 3 | 2 | 2 | 3 | 3 | 3 |
| Heavy equipment operators (except crane) | 4 | 4 | 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 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Insulators | 3 | 5 | 4 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 |
| Ironworkers and structural metal fabricators | 4 | 5 | 4 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| Painters and decorators (except interior decorators) | 4 | 5 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Plasterers, drywall installers and finishers, and lathers | 4 | 5 | 4 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 |
| Plumbers | 4 | 4 | 4 | 4 | 3 | 2 | 3 | 3 | 3 | 3 | 3 |
| Refrigeration and air conditioning mechanics | 4 | 4 | 5 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Residential and commercial installers and servicers | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Sheet metal workers | 4 | 5 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Steamfitters, pipefitters and sprinkler system installers | 4 | 5 | 5 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| Trades helpers and labourers | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| Truck drivers | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Welders and related machine operators | 3 | 5 | 4 | 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

Nova Scotia's construction industry will need to recruit 10,600 additional workers over the forecast period to keep pace with labour force growth and replace approximately 8,200 retiring workers, or 22% of the current labour force.

Many of these hiring requirements may be met by an estimated 7,400 first-time new entrants under the age of 30 from the local population, leaving a gap of about 3,200 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 6 provides a summary of the estimated changes in the construction labour force across the forecast period.

**Figure 6: Changes in the construction labour force, Nova Scotia**



**2023**
**37,100** LABOUR FORCE

**+2,400** WORKERS

**2033**
**39,500** LABOUR FORCE

HIRING NEEDS
WORKERS **+2,400**

HIRING NEEDS
RETIREMENTS **+8,200**

OFFSET BY
NEW ENTRANTS **-7,400**

NET MOBILITY*
**3,200**

* **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. Prior to the pandemic, new registrations in Nova Scotia's 20 largest trade programs had begun to recover, following several years of decline. Despite this, new registrations in 2019 were approximately 4% lower than in 2010. Completions have been on an upward trend over the past decade, which may be attributed to increased construction activity and hours available for apprentices to complete their trade program. New registrations have been declining at a faster rate than trade employment, however, which poses the risk for an insufficient number of newly certified journeypersons to sustain workforce requirements over the long-term. (See Figure 7.)

The pandemic brought significant challenges to Nova Scotia's apprenticeship system, contributing to 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 2012. Select trades, namely carpenter, metal fabricator (fitter), and refrigeration and air conditioning mechanic, reported a record number of new registrations in 2022. Program completions also recovered to pre-pandemic levels in 2022.

**Figure 7: New apprentice registrations, completions, and trade employment, Nova Scotia**
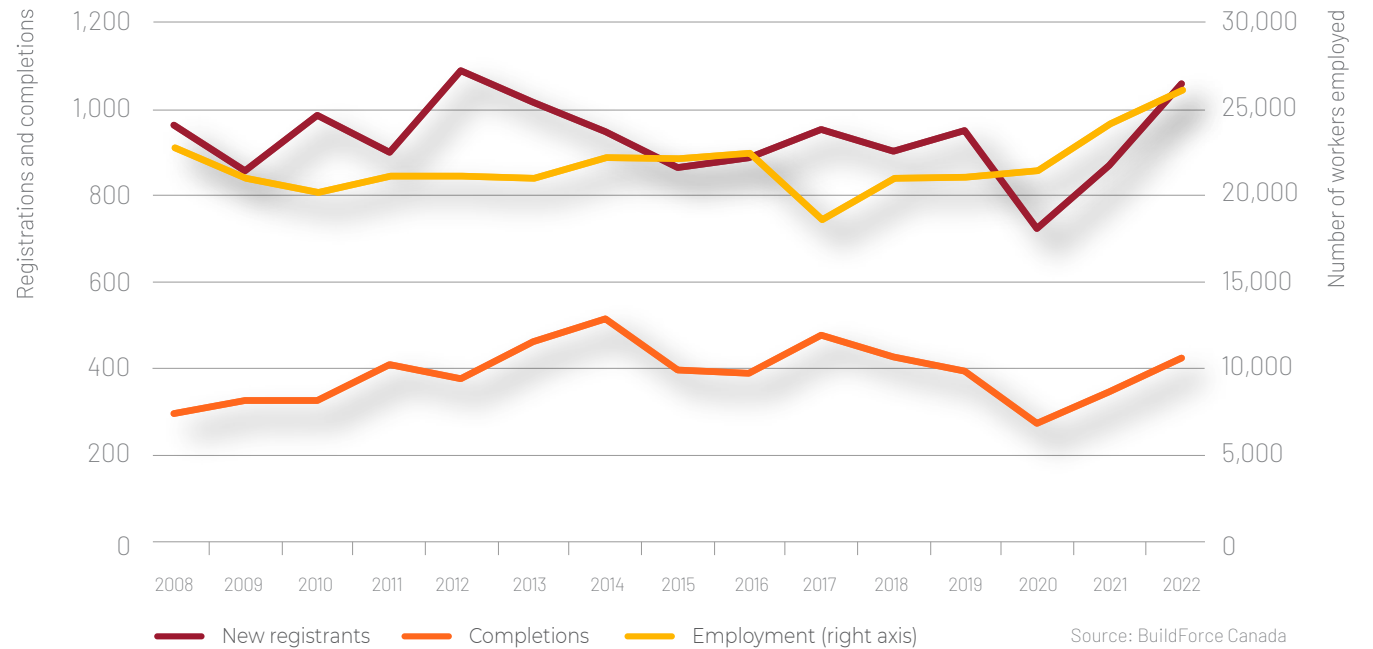


Source: BuildForce Canada

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 mobile crane operator, roofer, carpenter, welder, construction electrician, boilermaker, heavy equipment technician, and industrial mechanic.

*"The pandemic brought significant challenges to Nova Scotia's apprenticeship system, contributing to 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 2012."*

**Table 5: Estimated construction certification demand and projected completions by trade, 2024 to 2033[3]**

| TRADE | Target certification demand — construction | Target new registrants — construction | Apprentice certification supply risk — all industries |
|---|---|---|---|
| Mobile Crane Operator | 159 | 5 | 🔴 |
| Roofer | 127 | 16 | 🔴 |
| Carpenter | 1,258 | 390 | 🔴 |
| Welder | 110 | 61 | 🔴 |
| Construction Electrician | 1,078 | 683 | 🔴 |
| Boilermaker | 68 | 46 | 🔴 |
| Heavy-Duty Equipment Technician | 69 | 47 | 🔴 |
| Industrial Mechanic (Millwright) | 30 | 21 | 🔴 |
| Steamfitter/Pipefitter | 51 | 45 | 🟡 |
| Bricklayer | 95 | 84 | 🟡 |
| Plumber | 507 | 514 | 🟡 |
| Powerline Technician | 43 | 53 | 🟡 |

| TRADE | Target certification demand — construction | Target new registrants — construction | Apprentice certification supply risk — all industries |
|---|---|---|---|
| Sheet Metal Worker | 80 | 114 | 🟢 |
| Industrial Electrician | 107 | 207 | 🟢 |
| Refrigeration and Air Conditioning Mechanic | 197 | 400 | 🟢 |
| Insulator (Heat and Frost) | 41 | 89 | 🟢 |
| Sprinkler Fitter | 9 | 33 | 🟢 |
| Metal Fabricator (Fitter) | 27 | 124 | 🟢 |
| Gasfitter | 2 | 21 | 🟢 |
| Ironworker (Reinforcing) | 3 | 32 | 🟢 |

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

Source: BuildForce Canada

[3] This analysis does not account for an existing skills mismatch at the 2023 starting point.
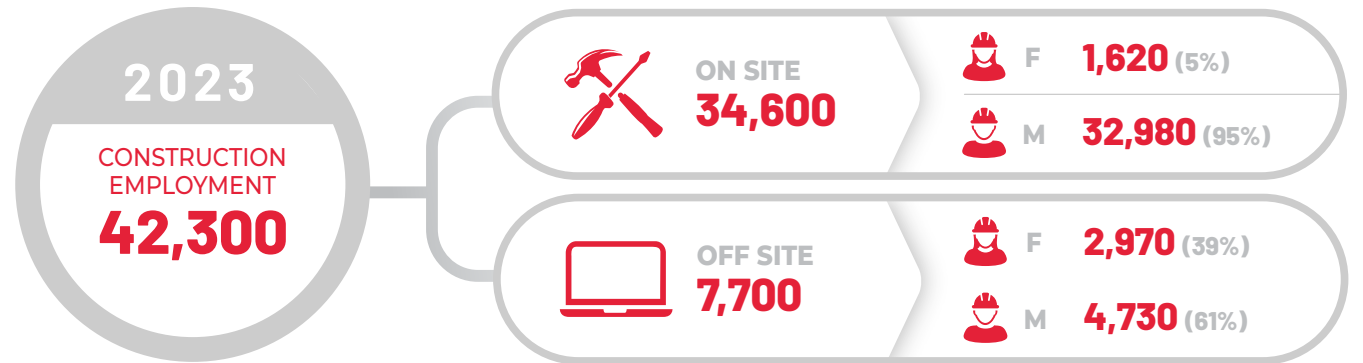
# Under-represented groups of workers

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 4,600 women employed in Nova Scotia's construction industry, of which 35% worked on site, directly on construction projects, while the remaining 65% worked off site, primarily in administrative and management-related occupations. Of the 34,600 tradespeople employed in the industry, women made up only 5% (see Figure 8).
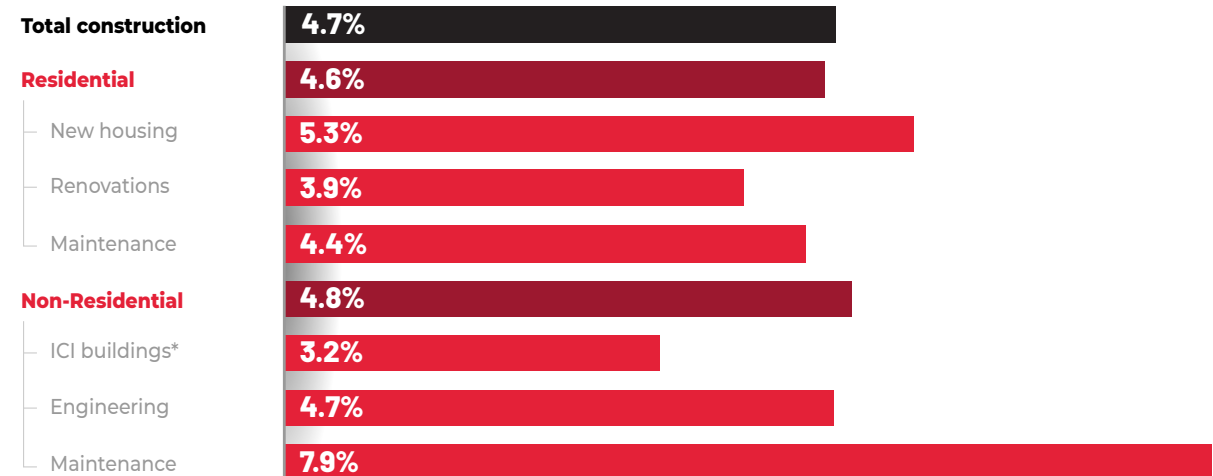
The estimated 1,620 tradeswomen in Nova Scotia are represented across all sectors of construction, but given the nature of construction work in the province, women account for a higher share of total tradespeople (4.8%) in non-residential construction. Across sectors, non-residential maintenance construction has the highest representation of women, accounting for 7.9% of the workforce (see Figure 9). The top five trades and occupations in which women tend to be employed are trade helpers and labourers (22% of all tradeswomen), heavy equipment operators (14%), construction managers (13%), contractors and supervisors (12%), and carpenters (9%).

## Figure 8: Detailed construction employment by gender, Nova Scotia, 2023



**2023**

CONSTRUCTION EMPLOYMENT
**42,300**

ON SITE
**34,600**

F **1,620** (5%)
M **32,980** (95%)

OFF SITE
**7,700**

F **2,970** (39%)
M **4,730** (61%)

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

## Figure 9: Women's share of total direct trades and occupations (on site), Nova Scotia



| | |
|---|---|
| **Total construction** | 4.7% |
| **Residential** | 4.6% |
| New housing | 5.3% |
| Renovations | 3.9% |
| Maintenance | 4.4% |
| **Non-Residential** | 4.8% |
| ICI buildings* | 3.2% |
| Engineering | 4.7% |
| Maintenance | 7.9% |

*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 Nova Scotia's construction industry. In 2021, Indigenous People accounted for approximately 5% of the province's construction labour force, which is a slight decline from the levels observed in 2016.[4] This share is consistent with 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.

Nova Scotia's construction industry may also leverage newcomers (immigrants) to Canada over the forecast period to meet labour requirements. Due to the declining natural rates of population growth, immigrants are the primary 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 nearly doubling over the past decade, increasing from 5% in 2012 to 9% in 2022. While the province has been successful in attracting and integrating immigrants into the labour force, the province's share of immigrants is notably below the share in Canada overall (see Figure 10).[5]

Based on historical settlement trends, the province is expected to welcome 154,400 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 continues to recruit its share of newcomers into the labour force.

[4] Statistics Canada, 2021 Census. Custom Data Request.
[5] Statistics Canada, Labour Force Survey, Custom Data Request 2022.

**Table 6: Representation of Indigenous population in Nova Scotia's construction workforce**

| SECTOR | YEAR | INDIGENOUS | NON-INDIGENOUS | TOTAL | INDIGENOUS SHARE OF TOTAL WORKFORCE, % |
|---|---|---|---|---|---|
| Construction | 2016 | 1,785 | 31,770 | 33,560 | 5.3% |
|  | 2021 | 1,780 | 33,935 | 35,725 | 5.0% |
| All Industries | 2016 | 24,075 | 441,255 | 465,330 | 5.2% |
|  | 2021 | 23,785 | 452,515 | 476,290 | 5.0% |

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

**Figure 10: Share (%) of immigrants in the construction labour force, 2022, Nova Scotia**



- All industries
- Construction

CANADA: 26.8% / 19.4%
NOVA SCOTIA: 9.3% / 4.0%
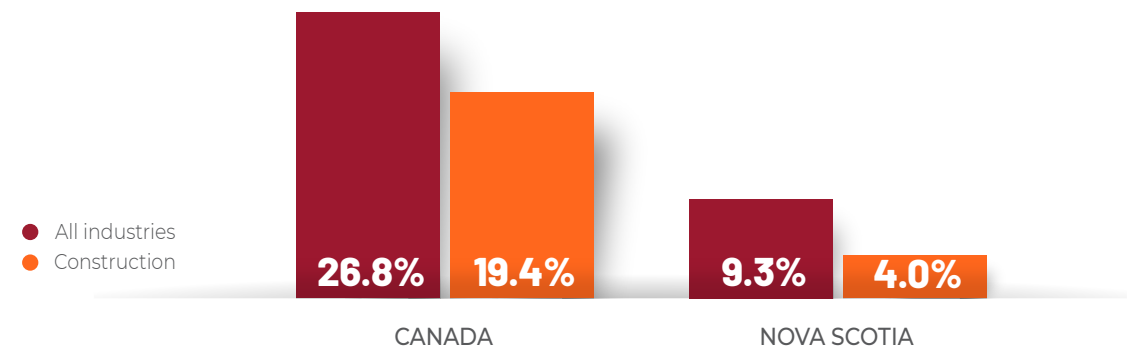
Source: Statistics Canada. Table 14-10-0083-01 Labour force characteristics by immigrant status, annual

# CONCLUSIONS AND IMPLICATIONS

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The *2024–2033 Construction and Maintenance Looking Forward* scenario for Nova Scotia calls for mixed fortunes for the residential and non-residential segments. In the short term, activity in the residential sector will be constrained by high interest rates and consumer concerns over housing affordability. This trend depressed housing starts in 2023 and will do so again in 2024, with losses greatest in single-family housing. After 2025, however, the segment returns to growth as these pressures ease. Demand for single-family homes will rise and remain elevated to the end of the forecast period, while tight rental vacancy rates will propel demand for multi-unit starts. Renovation activity is also projected to grow strongly.

The non-residential outlook calls for an already-strong market to reach a peak in 2025. Activity in the engineering-construction segment is being driven by a strong provincial capital investment program and several major projects such as the Boat Harbour Cleanup and the Everwind Hydrogen/Ammonia Project (Phase 1). Meanwhile, the construction of industrial, commercial, and institutional buildings is projected to follow a similar trend, with investment supported in part by work on the QEII Health Sciences Centre and Cape Breton Regional Municipality healthcare redevelopment, among other major projects. As these key non-residential projects conclude, investment levels cycle down to 2030.

Meanwhile, a recruiting challenge looms large. To build new capacity and replace retiring workers, Nova Scotia's construction industry must attract, train and retain 10,600 workers between 2024 and 2033. Addressing this gap will require a combination of strategies that include enhanced local recruitment and training, including the recruitment of permanent residents and newly arrived immigrants, and promoting career opportunities to workers with comparable skill sets who have been displaced from other industries.

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 current industry expectations of population growth and the timing of major projects. 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.