

#### **CONSTRUCTION & MAINTENANCE LOOKING FORWARD**



## **ONTARIO**

Labour market challenges expected as growth resumes in 2021

HIGHLIGHTS 2021-2030

Ontario's construction market is poised to resume growth in 2021, as a growing pipeline of major infrastructure projects across all regions is joined by an expected recovery in commercial and industrial investment over the next few years.

After high demand lowered unemployment rates to near record lows in 2019, COVID-induced slowdowns in some market segments helped to increase the overall labour supply in 2020, but the excess capacity was quickly absorbed to meet rising requirements related to new housing and ongoing major projects, returning employment to near pre-pandemic levels by the end of the year.

Infrastructure investments remain a focal point of the 2021–2030 outlook. Significant investments in public transportation, the health sector, and the refurbishment of Ontario's nuclear reactors lead to a distinct peak in 2026.

During the scenario period, industry will need to hire, train, and retain more than 116,200 additional workers to keep pace with expected demand growth and to replace the 92,500 workers – 21% of the current labour force – expected to retire. While the industry is estimated to recruit 84,800 new entrants aged 30 and younger from the local population, a projected gap of some 31,400 workers will need to be filled from outside the province's existing construction labour force to meet increased demands.

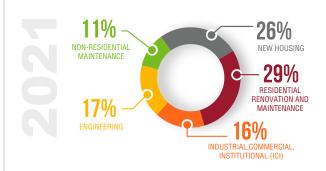
#### 10-YEAR WORKFORCE OUTLOOK FOR ONTARIO

2030



# AVERAGE UNEMPLOYMENT 6.4% RATE

## DISTRIBUTION OF CONSTRUCTION EMPLOYMENT IN 2021, ONTARIO



#### **HIGHLIGHTS**

- Construction activity is expected to recover in 2021 and continues rising to a peak in 2026, driven by major infrastructure, public transit, utility, mining, and industrial, commercial, and institutional (ICI) building construction.
- The construction industry adds more than 35,000 new workers by 2026 and retreats modestly afterward as non-residential projects complete and a projected down-cycle in residential construction takes hold. Over the scenario period, employment is expected to rise by 23,539 workers (+6%) over 2020 levels.
- In addition to industry growth, an aging labour force results in the expected retirement of more than 92,500 workers over the next decade – 21% of the current labour force.

#### **BuildForce's LMI System**

BuildForce Canada uses a scenario-based forecasting system to assess future construction labour requirements in the heavy industrial, residential, and non-residential construction markets. This labour market information (LMI) system tracks 34 trades and occupations. To further improve the robustness of the system, BuildForce consults with industry stakeholders, including owners, contractors, and labour groups, to validate the scenario assumptions and construction project lists, and seeks input from government on related analysis. The information is then distilled into labour market condition rankings to help industry employers with the management of their respective human resources.

#### ONTARIO CONSTRUCTION OUTLOOK

The disruptions brought on by the COVID-19 pandemic have moderated the anticipated rapid rise in demand over the near term, but it did not alleviate expected labour market challenges, which remain a material risk for Ontario's construction market.

Following a modest decline in 2020, construction employment is expected to recover in 2021 and continue rising to 2026, driven by growth in residential construction and non-residential health care, education, transit, utility, mining, and other infrastructure projects. The delay and suspension of projects due to COVID had a greater impact on commercial building construction in 2020. As these projects get back on schedule, they will add to already growing major-project requirements and lead to a re-emergence of broad recruiting challenges between 2021 and 2023.

The 2021–2030 Construction and Maintenance Looking Forward scenario for Ontario shows that several major transportation, utility, and other infrastructure projects started in 2020 are expected to ramp up in 2021 and 2022, particularly in the Greater Toronto Area (GTA), and Eastern and Southwestern regions. Construction requirements over the medium term are buoyed by the anticipated start of several large hospital projects in 2023, while subway expansion plans and regional rail electrification projects in the GTA increase demands and tighten market conditions for some trades through to 2026.

The large pipeline of major projects, alongside steady levels of new-housing construction and renovation activity, is projected to increase construction employment by 35,180 workers (+9%) by 2026. Employment is then expected to fall by 11,640 workers to 2030 as current major projects wind down and the pace of new-housing construction slows. Total construction employment is expected to remain well above the 2020 starting point, up 23,540 workers (+6%) compared to 2020.

Following a decline in 2019, demand for single-family low-rise homes in and surrounding the GTA combined with low interest rates to spur a recovery in housing starts in 2020. Although a dip in starts is expected in 2021, pent-up demand and a recovery in immigration-driven population growth is expected to sustain new-housing construction at high levels. Renovation activity is expected to bounce back in 2021, after falling in 2020, and grow at a moderate pace across the decade. Total residential employment is projected to rise by 16,000 workers (+7%) through to 2024 before moderating over the last six years of the scenario period.

Looking across the regions, **Southwestern Ontario** is facing mounting recruitment challenges in 2021, following a strong market

in 2020, due in part to the start of refurbishment work at the Bruce Power nuclear plant, an acceleration in demands related to the Gordie Howe International Bridge in Windsor, and the Nova Chemicals plant in Sarnia. Anticipated increases in retirements, major-project requirements, and scheduled industrial maintenance work will only add to existing market challenges in 2021.

The **GTA** is estimated to add 5,700 workers to meet residential and non-residential demands in 2021. The increase is attributed to an anticipated recovery in smaller industrial and commercial projects that were sidelined in 2020, adding to existing major-project requirements related to the Eglinton, Hurontario, and Finch transit projects, as well as ongoing work at the Ontario Power Generation Darlington nuclear refurbishment project. Planned health care projects, alongside moderate growth in residential construction, will contribute to the need for an additional 21,600 workers by 2026 – a 13% increase from the 2020 starting point.

Eastern Ontario's large institutional base and ongoing major projects supported a strong construction market in 2020. Activity is expected to accelerate in 2021 due to the second phase of the Ottawa light rail transit (LRT) project, the redevelopment of Parliament Hill's Centre Block, and the refurbishment and construction of several other federal buildings. New hospital projects in Ottawa and Kingston will also boost the requirement for an additional 3,400 non-residential workers by 2024 – a 14% rise over 2020 levels.

In **Northern Ontario**, major mining and utility project demands and a moderate up-cycle in the residential sector drive construction employment to a peak in 2023. Demands subside for the remainder of the decade as projects reach completion and weaker renovation demands drive residential activity lower.

**Central Ontario** is home to some of the fastest-growing communities in the province. Following a modest decline in 2020, renewed growth in residential investment is expected to resume through to 2024, driven by increased new-home construction and renovation work. Non-residential construction is expected to rise on a steady but moderate pace across the scenario period.

Taken together, competing demands across regions are likely to limit the potential for intraprovincial labour mobility to meet peak requirements over the near term.

Table 1 summarizes the percent change in total (residential and non-residential) employment by region over two periods: 2021 to 2025 and 2026 to 2030.

Table 1: Changes in total employment across Ontario's regions

REGION		2021–2025 (% CHANG	E)	/ 2	2026-2030 (% CHANG	E)
,	Residential	/ Non-residential	/ Total /	/ Residential	/ Non-residential /	/ Total
Total employment – Ontario	6.6%	10.4%	8.3%	-2.6%	-2.1%	-2.4%
Central	9.0%	8.0%	8.6%	-5.2%	1.0%	-2.7%
Eastern	1.7%	13.2%	7.4%	-2.4%	-10.7%	-6.7%
Greater Toronto Area	9.1%	14.6%	11.6%	1.1%	-4.5%	-1.4%
Northern	-2.2%	1.9%	0.4%	-7.9%	-3.2%	-4.8%
Southwestern	0.2%	3.6%	1.7%	-7.9%	10.7%	0.2%

#### THE AVAILABLE LABOUR FORCE

The COVID-19 pandemic adds to Ontario's potential market challenges over the near term. Statistics Canada's Labour Force Survey data suggest that COVID may have resulted in a contraction of the available labour force due to workers (temporarily) exiting the workforce, driven by changing household responsibilities, limitations on travel, or health and safety concerns. It is anticipated that most workers will re-enter the labour force as the economy fully reopens. COVID also resulted in changes to the on-site work environment and a reduction in the average number of hours worked, resulting in lower average earnings for workers and increasing costs for employers. Longer-term impacts may emerge due to the sharp decline in new apprenticeship registrations and interruptions and delays in training, which may reduce the future available pool of new skilled workers.

Over the decade, industry will need to replace an estimated 92,500 workers that are expected to retire, or 21% of the current labour force. Replacing workers exiting the industry will be a key driver of hiring and training needs over the coming decade. Considering projected growth, industry will likely need to hire, train, and retain 116,200 additional workers across the scenario period to 2030.

Based on historical trends, the industry is projected to add 84,775 new entrants under the age of 30 from the local population during the scenario period, leaving a projected gap of 31,430 workers that will need to be filled by enhanced local recruitment and training, including the recruitment of new immigrants and those already in Canada, as well as promoting career opportunities to workers with comparable skill sets who have been displaced from other industries, and, as required when necessary to meet peak demands, pulling in construction workers from neighbouring provinces.

The BuildForce LMI system tracks residential and non-residential supply, and accounts for the change in the available labour force, including retirements, new entrants<sup>1</sup>, and net mobility<sup>2</sup>.

#### RESIDENTIAL SECTOR

In the residential sector, industry must contend with replacing an estimated 52,364 retiring workers over the coming decade, in addition to the 8,026 workers needed to keep pace with industry growth over the same period. This exceeds the estimated 42,732 first-time new entrants under the age of 30 expected to be drawn into the residential labour force from the local population.

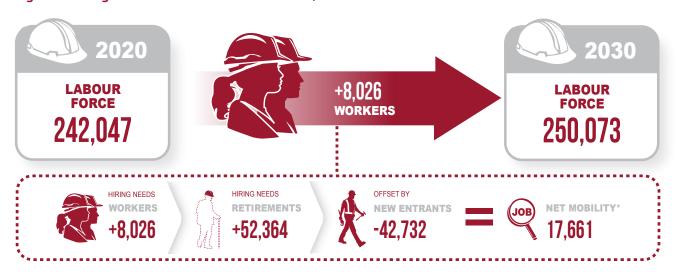
Figure 1 provides a summary of the estimated changes in the residential labour force across the full 2021–2030 scenario period.

#### NON-RESIDENTIAL SECTOR

Non-residential construction is expected to draw just over 42,000 first-time new entrants under the age of 30 from the local population into the workforce to meet the expected replacement demand of just over 40,100 workers over the decade. Rising expansion requirements, however, will require the industry to add an additional 13,766 workers from outside the province's construction workforce to meet total demand requirements.

Figure 2 provides a summary of changes in the non-residential workforce across the full 2021–2030 scenario period.

Figure 1: Changes in the residential labour force, Ontario



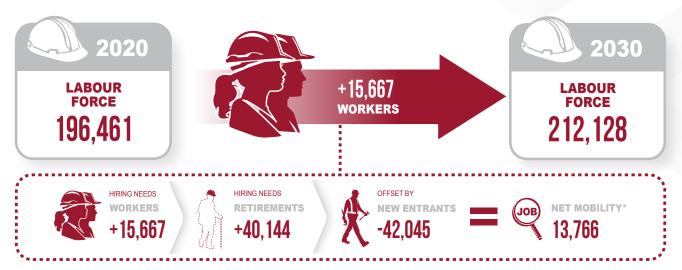
<sup>\*</sup> Net mobility refers to the number of workers needed to be brought into the industry from other industries or other provinces to meet rising demands or the number of workers that exit the industry in downturns. Positive net mobility means that industry must attract workers, while negative 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.

<sup>1</sup> 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 can recruit this group in competition with other industries.

<sup>&</sup>lt;sup>2</sup> In-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.

Figure 2: Changes in the non-residential labour force, Ontario



<sup>\*</sup> **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

#### REGIONAL INSIGHTS

The following sections provide region-specific outlook highlights and labour market conditions for Ontario's five regions: Central, Eastern, Greater Toronto Area (GTA), Northern, and Southwestern.

BuildForce assesses market conditions for 34 construction trades and occupations using a ranking system that combines measures of the change in employment, unemployment, net mobility, and adjustments based on industry input. The rankings reflect residential and non-residential market conditions unique to each region based on current and proposed construction activity. In addition, assumptions on regional 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 assessments.

The rankings for some trades are suppressed due to the small size of the labour force (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 in the residential sector, and homebuilding and renovation managers in non-residential construction).

#### **CENTRAL ONTARIO**

Despite the challenges of COVID-19, the Central region<sup>3</sup> experienced a modest rise in construction employment in 2020. The 2019 rise in new-housing demand carried over into 2020, helping to offset declines in annualized renovation investment. Industrial and engineering construction were also up, which helped to offset the sharp contraction in commercial building investment. As the COVID vaccine is rolled out in 2021 and the regional economy is fully reopened, residential investment is expected to resume growth, while a recovery in commercial building construction will coincide with major engineering and institutional projects, leading to stronger overall non-residential construction growth.

Pandemic restrictions and the resulting shift to working from home may have accelerated an exodus from the GTA. Housing starts in the Central region, which grew from 12,800 units in 2015 to 17,100 units in 2020, are expected to rise to 19,200 by 2024 – a 12% increase.

Non-residential requirements are expected to remain relatively stable, sustained by infrastructure projects and an anticipated recovery in commercial building construction. Over the long term, hospital projects, and general economic and population growth help to sustain steady but moderate increases in non-residential investment.

<sup>3</sup> Central Ontario includes the economic regions of Muskoka-Kawarthas, Kitchener-Waterloo-Barrie, and Hamilton-Niagara Peninsula as defined by Statistics Canada, which includes the Census Metropolitan Areas (CMAs) of St. Catharines-Niagara, Hamilton, and Kitchener-Waterloo. The region includes such cities as Peterborough, Orangeville, Guelph, Barrie, and Brantford.

Modest growth increases total employment by 6,400 workers over the decade, though labour markets are expected to be generally balanced in the region. Rising demands in the GTA and Southwestern Ontario are likely to compete for workers in Central Ontario, which should keep downward pressure on the region's unemployment rate.

#### RESIDENTIAL SECTOR

Central Ontario saw a moderate reduction in housing starts in 2020, as sharp declines in demand for row-housing units were only partially offset by gains in the other structural types. Housing starts, excluding apartments, are projected to rise in 2021 and then lead to an increase in all structure types over the near term as the economy recovers. Total starts are expected to peak in 2024, before anticipated higher interest rates and an aging population reduce demand for new-home construction in the second half of the decade.

Near-term residential employment requirements are projected to rise by 6,860 workers (+10%) to 2024 and then decline by 4,650 workers (-6%) over the remainder of the scenario period. The

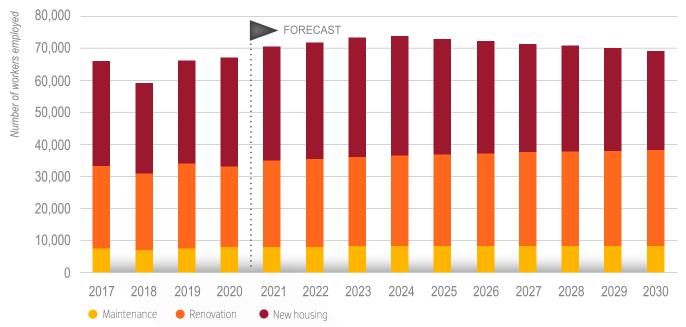
projected retirement of 12,720 workers contributes to a hiring requirement of close to 15,600 new workers over the decade. Figure 3 shows the region's employment trends by sector for residential construction.

The BuildForce ranking system isolates market conditions specific to residential construction. The results are summarized in Table 2.

#### RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

For Central Ontario, residential rankings are reported for 26 of the 34 trades and occupations covered by the BuildForce LMI system, as shown in Table 2. The rankings for 2020 reflect a carry-over of apartment construction activity started in 2019 and an increase in single-detached home construction. Labour markets are anticipated to tighten in 2021 with a rebound in renovations and continued growth in the construction of new homes. Over the scenario period, steady levels of renovation activity contribute to maintaining generally balanced labour markets, signalled by a rank of 3.

Figure 3: Residential construction employment growth outlook, Central Ontario



#### 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.

Table 2: Residential market rankings, Central Ontario

TRADES AND OCCUPATIONS — RESIDENTIAL	/2020	/2021	/2022	/2023	/2024	/2025	/2026	/2027	/2028	2029	2030
Bricklayers	4	4	3	3	3	3	3	3	3	3	3
Carpenters	4	4	3	3	3	3	3	3	3	3	3
Concrete finishers	3	4	3	3	3	3	3	3	3	3	3
Construction estimators	4	4	3	3	3	2	2	3	3	3	3
Construction managers	4	4	4	3	3	2	2	3	3	3	2
Contractors and supervisors	4	4	3	3	3	3	3	3	3	3	3
Electricians	3	4	3	3	3	3	3	3	3	3	3
Elevator constructors and mechanics	4	4	3	2	3	3	3	3	3	3	3
Floor covering installers	4	4	3	3	3	3	3	3	3	3	3
Gasfitters	3	4	3	3	3	2	2	3	3	3	3
Glaziers	4	4	3	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	3	4	3	3	3	3	3	3	3	3	3
Homebuilding and renovation managers	3	4	3	3	3	3	3	3	3	3	3
Insulators	3	4	3	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	4	3	3	3	3	3	3	3	3	3	3
Painters and decorators	3	4	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	3	4	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	3	3	3	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	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	3	3	3	3	3	3	3	3	3	3	3
Truck drivers	3	4	3	3	3	3	3	3	3	3	3
Welders and related machine operators	3	3	3	3	3	3	3	3	3	3	3

#### NON-RESIDENTIAL SECTOR

In Central Ontario, economic diversification, strengthening manufacturing, and improved transportation infrastructure are expected to contribute to modest growth across all segments of non-residential building construction over the scenario period.

Engineering investment increased moderately in 2020 and is anticipated to maintain a relatively high level of activity out to 2023, sustained by the development of the Barrie GO rail corridor. Investment cycles lower in 2025 following the completion of the corridor expansion, but should continue to trend upward thereafter in line with general economic growth. As the economy recovers through 2021, commercial and industrial building construction help to lift ICI activity over the near term. By 2022, the start of hospital projects in Hamilton and the Niagara region lifts institutional building construction demand over the medium term.

Non-residential employment requirements are projected to rise across the decade, increasing by 4,195 workers by 2030 – a 9%

increase from the 2020 starting point. Growth is more concentrated over the medium term, as employment is projected to grow by 3,688 workers by 2025. Figure 4 shows the employment trends by sector for non-residential construction in Central Ontario.

#### NON-RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

For Central Ontario, non-residential rankings are reported for 31 of the 34 trades and occupations covered by the BuildForce LMI system, as shown in Table 3. Labour markets were tighter for several trades in 2020. As the pace of growth slows over the medium term, labour markets are given a chance to catch up and return to mostly balanced conditions by 2023. Rising demand in the GTA and other regions may affect the availability of workers in Central Ontario if local workers are drawn to major project work outside the region.

Figure 4: Non-residential construction employment growth outlook, Central Ontario

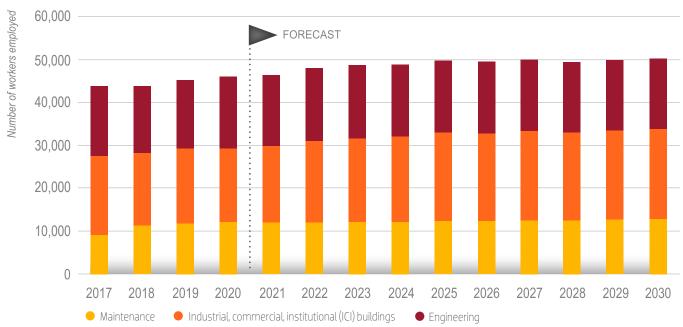


Table 3: Non-residential market rankings, Central Ontario

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	202	2021	2022	202	5/2024	2025	2026	2027	2028	2029	20
Boilermakers	4	4	4	3	3	3	3	3	3	3	3
Bricklayers	4	3	4	3	3	3	3	3	3	3	3
Carpenters	4	3	4	3	3	3	3	3	3	3	3
Concrete finishers	4	3	4	3	3	3	3	3	3	3	3
Construction estimators	4	3	3	3	3	3	3	3	3	3	3
Construction managers	4	3	4	3	3	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	3	3	3	3	3	3	3	3	3	3
Crane operators	3	3	3	3	3	3	3	3	3	3	3
Drillers and blasters	4	3	3	3	3	3	3	3	2	3	3
Electrical power line and cable workers	4	3	3	3	3	2	3	3	3	3	3
Electricians	3	3	3	3	3	3	3	3	3	3	3
Elevator constructors and mechanics	3	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	3	3	3	3	3	3	3	3	3	3
Glaziers	3	3	3	3	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	3	3	3	3	3	3	3	3	3
Insulators	3	3	3	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	3	3	3	3	3	3	3	3	3	3	3
Painters and decorators	3	3	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	3	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	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	3	3	3	3	3	3	3	3	3	3
Steamfitters, pipefitters, and sprinkler system installers	3	3	3	3	3	3	3	3	3	3	3
Trades helpers and labourers	3	3	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	3	3	3	3	3	3	3	3	3	3	3

#### **EASTERN ONTARIO**

Eastern Ontario's<sup>4</sup> construction market was sustained in 2020 by record high levels of apartment building construction and increased major transportation infrastructure activity. The pace of growth is expected to accelerate in 2021 as the grip of COVID-19 loosens and the broader economy reopens, supporting a recovery in commercial and residential renovation activity. Overall, ICI building construction is bolstered by a significant increase in institutional investment driven by major projects, including ongoing work at Parliament Hill's Centre Block and the scheduled start of new hospitals in Ottawa and Kingston.

ICI construction investment and employment increases to 2024 and is then sustained to 2028 before declining as major projects end or wind down. Major transportation and other infrastructure projects add to investment and labour demands.

Construction employment is anticipated to fluctuate this coming decade, supported by the ebbs and flows of major non-residential projects and a gradual decline in residential employment. Employment is anticipated to rise by 4,113 workers to 2024 and then recede by just over 4,000 workers, with most of the decline concentrated in 2029 and 2030 as current major projects end or wind down.

Over the coming decade, 11,330 new workers will be needed to replace retiring workers. An estimated 9,745 first-time new entrants

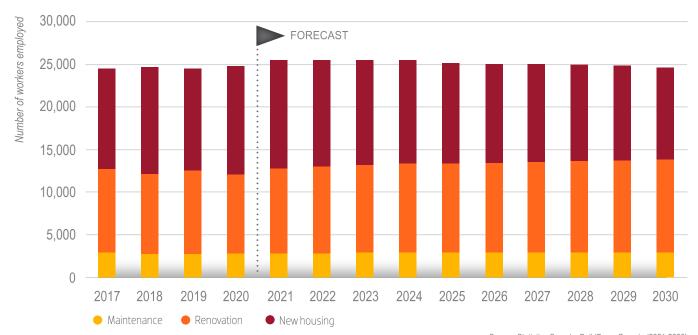
under the age of 30 from the local population are expected to join the industry, which leaves a gap of an additional 1,445 workers that must be recruited from outside the local construction labour market or from other industries.

#### RESIDENTIAL SECTOR

Residential investment in Eastern Ontario edged up in 2020, as efforts to reduce the spread of COVID-19 led to a reduction in renovation work, which offset gains in new-home construction. A recovery in activity is expected in 2021; however, weaker population trends translate to more gradual growth. Going forward, housing starts are expected to recede from 11,900 units in 2020 to 10,200 units by the end of the scenario period. Projected lower migration and reduced rental-market demands are expected to dampen apartment starts, declining from 4,300 units in 2020 to an average of around 3,100 units annually after 2021.

Residential employment, which has been operating at elevated levels, is anticipated to peak in 2021, as levels rise by 689 workers from 2020 levels. After 2021, new-housing employment recedes gradually, which is only partly offset by anticipated gains in renovation and maintenance work. Residential employment is mostly unchanged over the scenario period, receding by 181 workers throughout the decade, or down just a little over 1% from 2020 levels. Figure 5 shows the employment trends by sector for residential construction in Eastern Ontario.

Figure 5: Residential construction employment growth outlook, Eastern Ontario



<sup>4</sup> Eastern Ontario includes the economic regions of both Ottawa and Kingston-Pembroke, including the Census Metropolitan Areas (CMAs) of Ottawa and Kingston. Cities include Cornwall, Brockville, Belleville, and Petawawa.

Table 4: Residential market rankings, Eastern Ontario

TRADES AND OCCUPATIONS – RESIDENTIAL	/202	0/202	1/2022	2 / 202	3/2024	2025	2026	5/2027	2028	3 /2029	203
Bricklayers	4	3	3	3	3	3	3	3	3	3	3
Carpenters	4	4	3	3	3	3	3	3	3	3	3
Concrete finishers	3	3	3	3	3	3	3	3	3	3	3
Construction estimators	3	3	3	3	3	3	3	3	3	3	3
Construction managers	4	3	3	3	3	2	3	3	3	3	3
Contractors and supervisors	3	3	3	3	3	3	3	3	3	3	3
Electricians	3	3	3	3	3	3	3	3	3	3	3
Floor covering installers	3	3	3	3	3	3	3	3	3	3	3
Gasfitters	3	3	3	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	3	3	3	3	3	3	3	3	3	3	3
Homebuilding and renovation managers	3	4	3	3	3	3	3	3	4	4	4
Insulators	3	3	3	3	3	3	3	3	3	3	3
Painters and decorators	3	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	3	3	3	3	3	3	3	3	3	3	3
Refrigeration and air conditioning mechanics	3	3	3	3	3	3	3	3	3	3	3
Residential and commercial installers and servicers	3	3	3	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	3	3	3	3	3	3	3	3	3	3
Tilesetters	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	3	4	3	3	3	3	3	3	3	3	3

#### RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

For Eastern Ontario, residential rankings are reported for 22 of the 34 trades and occupations covered by the BuildForce LMI system, as shown in Table 4. Eastern Ontario's residential labour markets experienced some tightness in 2020 related to the construction of apartment buildings in the Ottawa area. Tighter labour markets persist into 2021, reflecting a carry-over of work from the previous year and a recovery in renovation work. Assuming displaced workers from new-home construction can secure employment in renovation or maintenance work, the remainder of the outlook can be characterized by mostly balanced labour markets.

#### NON-RESIDENTIAL SECTOR

Non-residential investment in Eastern Ontario receded in 2020 due primarily to reductions in commercial building construction, with restaurants and hotels seeing some of the sharpest declines. These declines were largely offset by major projects, including the Ottawa LRT and Hard Rock casino, and Chalk River nuclear laboratories projects.

As the economy recovers in 2021, commercial building investment, alongside continued construction of the Ottawa LRT and increased public-infrastructure spending on roads, highways, and bridges,

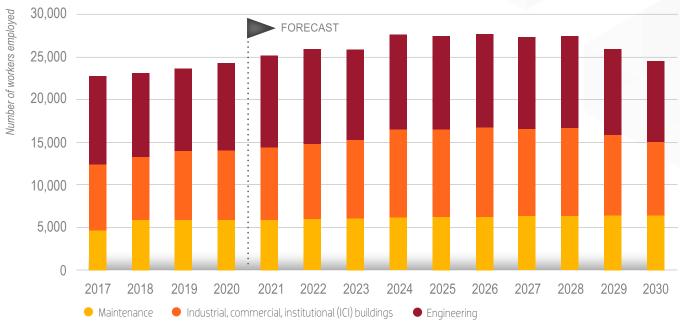


Figure 6: Non-residential construction employment growth outlook, Eastern Ontario

Source: Statistics Canada, BuildForce Canada (2021-2030)

helps to drive investment levels higher before cycling down in 2023 as some projects wind down. Institutional building investment is expected to lead growth between 2023 and 2026 due to ongoing work on Parliament Hill's Centre Block and the start of several hospital projects. Multiple federal government building modernizations will further contribute to increases in institutional construction activity.

Non-residential employment is expected to make gains of 3,378 workers (+14%) by 2024 and then remain at these levels through to 2028 before cycling lower as major-project activity winds down. The largest gains are in ICI building construction, which adds 2,357 workers between 2021 and 2026 before declining by 1,871 workers between 2027 and 2030 as projects are completed. Engineering construction employment rises by 950 workers by 2024 before receding by 1,726 workers by 2030, leading to a net loss of 776 workers (-8%) from elevated 2020 levels. Figure 6 shows the employment trends by sector for non-residential construction in Eastern Ontario.

#### NON-RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

For Eastern Ontario, non-residential rankings are reported for 27 of the 34 trades and occupations covered by the BuildForce LMI system, as shown in Table 5.

Labour market rankings in 2020 reflect a carry-over of work from 2019, as increased institutional and major transportation project demands offset the decline in commercial building construction. Between 2021 and 2022, labour market challenges are likely to intensify, as several projects ramp up simultaneously. Market challenges are expected to be sustained in 2021 and 2022, before the completion of several of these projects return markets to mostly balanced conditions in 2023. As institutional demands grow in the latter half of the decade, markets tighten again between 2024 and 2026 with the start of hospital projects in Ottawa and Kingston, and multiple federal government building modernizations.

Table 5: Non-residential market rankings, Eastern Ontario

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2020	2021	/2022	2023	2024	2025	2026	/2027	/2028	2029	2030
Bricklayers	4	4	4	4	4	3	3	3	3	2	3
Carpenters	5	4	3	3	4	3	3	3	3	3	3
Concrete finishers	4	5	4	3	3	3	3	3	3	3	3
Construction estimators	4	4	3	3	4	3	3	3	3	2	2
Construction managers	4	5	4	3	4	3	3	3	3	3	3
Contractors and supervisors	4	4	4	3	4	3	3	3	3	3	3
Crane operators	4	5	3	3	3	3	3	3	3	2	3
Electricians	3	4	4	3	3	4	3	3	3	2	3
Elevator constructors and mechanics	4	4	4	3	3	3	4	3	3	3	3
Floor covering installers	4	4	4	3	3	3	4	3	3	3	3
Gasfitters	3	3	4	3	3	4	3	3	3	3	3
Glaziers	4	4	4	3	3	4	3	3	3	3	3
Heavy equipment operators (except crane)	3	4	3	3	4	3	3	3	3	2	3
Heavy-duty equipment mechanics	3	4	3	3	3	3	3	3	3	3	3
Insulators	3	3	3	3	4	3	3	3	3	3	3
Ironworkers and structural metal fabricators	5	5	3	2	3	3	3	3	3	3	3
Painters and decorators	3	4	4	3	3	4	4	3	3	2	2
Plasterers, drywall installers and finishers, and lathers	4	3	3	3	3	4	4	3	3	2	3
Plumbers	4	3	4	3	3	4	3	3	3	3	3
Refrigeration and air conditioning mechanics	4	4	4	3	3	4	3	3	3	3	3
Residential and commercial installers and servicers	3	4	3	3	3	4	4	3	3	2	2
Roofers and shinglers	3	3	3	3	3	4	3	3	3	3	3
Sheet metal workers	4	4	3	3	3	4	4	3	3	2	2
Steamfitters, pipefitters, and sprinkler system installers	3	4	4	3	3	4	3	3	3	3	4
Trades helpers and labourers	4	4	4	3	3	3	3	3	3	2	3
Truck drivers	4	4	3	3	3	3	3	3	3	3	3
Welders and related machine operators	3	4	3	3	4	3	3	3	3	2	3

#### **GREATER TORONTO AREA (GTA)**

Construction activity in the GTA<sup>5</sup> slowed in 2020, with moderate declines in both residential and non-residential construction. Non-residential employment experienced the larger drop, with declines more concentrated in commercial building construction that overshadowed a modest rise in major infrastructure project requirements. Residential construction declines were limited, as higher levels of new-housing construction offset a decline in renovation work.

The GTA's construction employment requirements are expected to recover strongly in 2021 and continue to accelerate through 2023, before rising to a projected peak in 2026, driven by steady residential construction activity alongside several major public transit, health care, infrastructure, and utility projects. There is risk of the re-emergence of broad-based labour market challenges as the economy recovers from the impacts of COVID-19 and major-project requirements reach peak levels. Migration and population growth feature prominently in sustaining residential investment over the near term. The GTA retains the highest levels of population growth in the province, though the outflow of individuals from the GTA constrains the pace of population growth after 2023.

Overall, construction employment is projected to rise by 17,024 workers, or a 10% increase across the scenario period to 2030. Maintaining workforce capacity to meet increases from record low levels of unemployment, while grappling with the anticipated retirement of more than 42,840 workers, or nearly one-quarter (23%) of the current labour force, will require the industry to actively promote and recruit throughout the scenario period in order to keep pace with construction demands.

#### RESIDENTIAL SECTOR

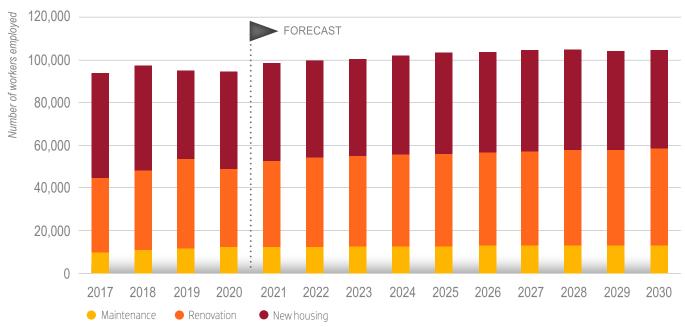
Lower lending rates and greater demand for increased living space, both brought about by the pandemic, contributed to a strong rise in housing starts in the GTA, particularly for single-detached units. However, overall residential employment gains were lower in 2020, reduced by declines in renovation investment due to COVID lockdown measures, economic uncertainty, and some supply chain and material shortages in the latter half of the year.

Slower population growth and economic uncertainty are expected to dampen the pace of new-home construction in 2021, though housing starts are expected to grow from 2022 to 2024, driven by improved economic conditions, job growth, low lending rates, and strengthening population growth. Housing starts are expected to remain relatively stable near 42,000 units after 2024.

Renovation work is expected to lead residential employment gains in 2021 and rise steadily across the scenario period. Renovation expenditures are driven by the aging stock of single-detached homes, high property values, and limited land to support new greenfield developments. By 2030, renovation investment is expected to nearly equal the value of new-housing investment in the region.

While employment related to new housing is anticipated to fluctuate across the decade, steady gains in renovation and maintenance work will contribute to an increase of just slightly over 9,800 workers (+10%) in total residential employment. New-housing employment is expected to rise only modestly over the decade, increasing by only 1%. Renovation-related employment requirements are expected to increase by nearly 8,550 workers (+23%) over the decade. Figure 7 shows the employment trends by sector for residential construction in the GTA.

Figure 7: Residential construction employment growth outlook, Greater Toronto Area



The **Greater Toronto Area (GTA)** includes the municipalities of Ajax, Aurora, Bradford West Gwillimbury, Brampton, Brock, Caledon, Clarington, East Gwillimbury, Georgina, Georgina Island, Halton Hills, King, Markham, Milton, Mississauga, Newmarket, Oakville, Oshawa, Pickering, Richmond Hill, Scugog, Toronto, Uxbridge, Vaughan, Whitby, and Whitchurch-Stouffville.

#### RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

For the GTA, residential rankings are reported for 27 of the 34 trades and occupations covered by the BuildForce LMI system, as shown in Table 6. In 2020, new-housing demands were up, but declines in renovation activity offset market pressures for workers with similar skills. The increase in high-rise condominium construction sustained tighter markets for crane operators, elevator

constructors and mechanics, and glaziers. The rise in renovation work in 2021 is met with more modest growth in new-home construction, leading to mostly balanced labour markets. Reduced apartment starts will likely lead to looser labour markets in 2022 for key trades in this sector. More gradual growth over the remainder of the scenario period will likely maintain balanced labour markets after 2022.

Table 6: Residential market rankings, Greater Toronto Area

TRADES AND OCCUPATIONS — RESIDENTIAL	/2020	2021	/2022	2023	2024	2025	2026	2027	2028	3/2029	2030
Bricklayers	3	3	3	3	3	3	3	3	3	3	3
Carpenters	2	3	3	3	3	3	3	3	3	3	3
Concrete finishers	2	3	3	3	3	3	3	3	3	3	3
Construction estimators	3	4	3	3	3	3	3	3	3	3	3
Construction managers	4	3	3	3	3	3	3	3	3	3	3
Contractors and supervisors	3	3	3	3	3	3	3	3	3	3	3
Crane operators	4	3	2	3	3	3	3	3	3	3	3
Electricians	3	3	3	3	3	3	3	3	3	3	3
Elevator constructors and mechanics	4	3	2	3	3	3	3	3	3	3	3
Floor covering installers	3	3	3	3	3	3	3	3	3	3	3
Gasfitters	2	4	3	3	3	3	3	3	3	3	3
Glaziers	4	3	2	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	3	3	3	3	3	3	3	3	3	3	3
Homebuilding and renovation managers	3	4	3	3	3	3	3	3	3	3	3
Insulators	3	3	3	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	4	3	2	3	3	3	3	3	3	3	3
Painters and decorators (except interior decorators)	3	3	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	3	3	3	3	3	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	3	3	3	3	3	3	3
Residential and commercial installers and servicers	3	3	3	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	3	3	3	3	3	3	3	3	3	3
Tilesetters	3	3	3	3	3	3	3	3	3	3	3
Trades helpers and labourers	3	3	3	3	3	3	3	3	3	3	3
Truck drivers	3	3	3	3	3	3	3	3	3	3	3
Welders and related machine operators	3	3	3	3	3	3	3	3	3	3	3
	_									_	

#### NON-RESIDENTIAL SECTOR

Some segments of the GTA non-residential sector experienced a reprieve from the labour challenges in 2020, as investment in commercial and industrial sectors fell due to the economic impacts of the pandemic. Non-residential activity is expected to make a strong recovery in 2021 and rise to a peak in 2026, led by large-scale transportation, utility, health care, and commercial projects.

An anticipated recovery in commercial and industrial building construction is projected to lead a recovery in non-residential employment in 2021, building on already high levels of employment driven by the nuclear refurbishment work at Ontario Power Generation's Darlington facility and numerous public-transit infrastructure projects under construction, including the Eglinton, Hurontario, and Finch LRTs, as well as the GO rail electrification and expansion project. Industry requirements accelerate between 2022 and 2025 with the expected start of several major health care projects, including the Mississauga Hospital and Queensway Health Centre expansions, West Park Healthcare Centre, and the Queensway Health Centre. The planned timing of major subway and other public-transit investments, including the Ontario Line, Yonge Subway Extension, and Scarborough Subway Extension add to employment opportunities between 2024 and 2027.

Overall, non-residential employment is expected to rise by 12,472 workers (+16%) between 2021 and 2026 before winding down, leaving employment up by 7,200 workers – a 10% rise over 2020 levels. Figure 8 shows the employment trends by sector for non-residential construction in the GTA.

#### NON-RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

For the GTA, non-residential rankings are reported for 31 of the 34 trades and occupations covered by the BuildForce LMI system, as shown in Table 7. Non-residential labour markets eased in 2020, especially for trades more concentrated in commercial building construction. Between 2021 and 2024, market challenges emerge for several trades and occupations, as demand related to health care, transportation, commercial, and nuclear refurbishment work starts or ramps up during this period. Currently, many major projects are expected to be complete or winding down by 2026, leading to lower employment market demands between 2027 and 2030.

Figure 8: Non-residential construction employment growth outlook, Greater Toronto Region

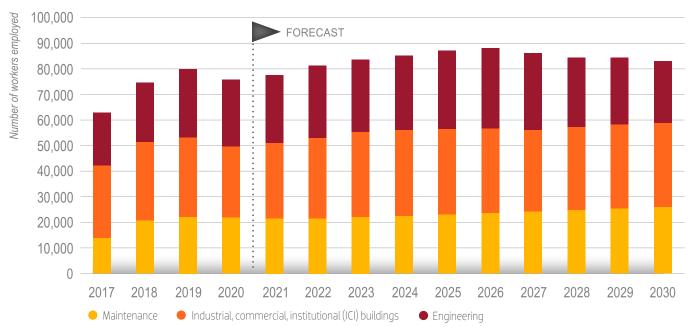


Table 7: Non-residential market rankings, Greater Toronto Area

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2020	/2021	/2022	/2023	/2024	/2025	2026	2027	2028	2029	2030
Boilermakers	4	4	4	3	3	2	3	3	3	3	3
Bricklayers	3	3	3	4	3	3	3	3	3	3	3
Carpenters	3	4	3	4	4	3	3	2	2	3	3
Concrete finishers	3	4	3	4	4	3	3	2	2	2	3
Construction estimators	2	3	3	3	3	3	3	3	3	3	3
Construction managers	2	4	4	3	3	2	3	3	3	3	2
Construction millwrights and industrial mechanics	3	3	3	3	3	4	3	3	3	3	3
Contractors and supervisors	3	3	3	3	3	3	3	3	3	3	3
Crane operators	4	4	4	4	4	3	3	3	2	3	3
Electrical power line and cable workers	3	3	3	4	4	4	4	3	3	3	3
Electricians	3	3	4	3	3	3	3	3	3	3	3
Elevator constructors and mechanics	3	3	3	4	3	3	3	3	3	3	3
Floor covering installers	2	3	3	4	3	3	3	3	3	3	3
Gasfitters	2	4	3	4	3	3	3	3	3	3	3
Glaziers	2	3	3	4	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	2	3	3	3	3	3	2	3	3	3	3
Heavy-duty equipment mechanics	2	3	3	3	3	3	2	3	3	3	3
Insulators	2	3	3	4	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	3	4	3	4	4	4	4	2	2	2	3
Painters and decorators	2	3	3	4	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	2	3	3	4	3	3	3	3	3	3	3
Plumbers	2	3	3	4	3	3	3	3	3	3	3
Refrigeration and air conditioning mechanics	2	3	3	3	3	3	3	3	3	3	3
Residential and commercial installers and servicers	2	3	3	4	3	3	3	3	3	3	3
Roofers and shinglers	2	3	3	4	3	3	3	3	3	3	3
Sheet metal workers	2	3	3	4	3	3	3	3	3	3	3
Steamfitters, pipefitters, and sprinkler system installers	3	3	3	3	3	4	4	3	2	2	3
Tilesetters	2	3	3	4	3	3	3	3	3	3	3
Trades helpers and labourers	2	3	3	3	3	3	3	3	2	3	2
Truck drivers	3	3	3	3	3	3	3	3	3	3	3
Welders and related machine operators	3	3	3	3	3	3	3	3	3	3	3

#### **NORTHERN ONTARIO**

Northern Ontario's<sup>6</sup> construction markets were sustained by the ramp-up of various mining and utility projects in 2020. Construction employment is expected to rise in 2021 as economic activity recovers, while major-project demands and a moderate up-cycle in the residential sector are expected to drive construction employment to peak levels by 2023. Requirements are likely to subside over the remainder of the scenario period once projects are completed.

Residential markets are likely to remain balanced despite modest declines in renovation and new-housing investment over the latter half of the scenario period, which are due to lower overall demand linked to the aging of the region's population.

Non-residential employment is projected to make gains to 2023 before tapering off and receding to 2030, driven by the timing of major mining, utility, and institutional projects. Positive final investment decisions to a long list of proposed resource development projects currently not included in the outlook could sustain growth well beyond the projected 2023 peak.

Overall, construction employment is expected to rise by just over 1,600 workers by 2023, but as the current inventory of projects are completed, employment falls by nearly 2,600 workers. Over the scenario period, industry employment is expected to decline by just under 1,000 workers.

#### RESIDENTIAL SECTOR

Employment in Northern Ontario's residential sector is driven primarily by renovation activity, which is expected to soften due to slowing of both population growth and housing-market demand. Housing starts fell below 670 units in 2020, down from just over 900 units reported in 2017. Household formations<sup>7</sup> declined in 2020 and are expected to remain subdued in 2021 due to lower levels of international students attending regional colleges and universities. An up-cycle is then expected to follow, carrying housing starts higher to 2023, in line with migration trends into the region and population growth, before receding to around 800 units toward the end of the decade.

Increased activity in 2021 is driven by higher demands for single-detached homes and a recovery in renovation work, but overall activity and employment is expected to decline across the scenario period. Despite employment declines, the retirement of 2,440 workers over the decade will require the recruitment of an estimated 1,340 workers. Figure 9 shows the employment trends by sector for residential construction in Northern Ontario.

#### RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

For Northern Ontario, residential rankings are reported for 15 of the 34 trades and occupations covered by the BuildForce LMI system, as shown in Table 8. The region's residential labour market

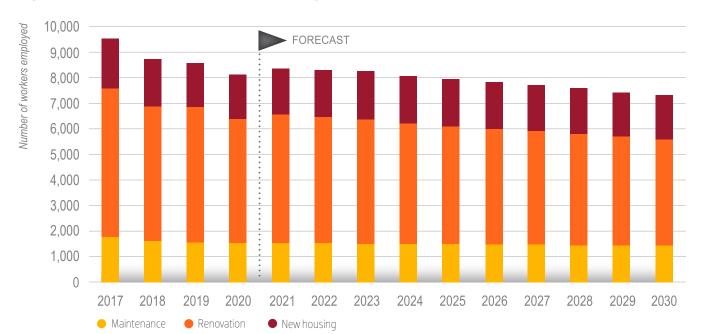


Figure 9: Residential construction employment growth outlook, Northern Ontario

<sup>6</sup> Northern Ontario includes the economic regions of the Northeast and Northwest as defined by Statistics Canada, including the Census Metropolitan Areas (CMAs) of Thunder Bay and Sudbury. Cities include Sault Ste. Marie, Timmins, Kirkland Lake, Dryden, Kenora, and Fort Frances.

<sup>7</sup> 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.

Table 8: Residential market rankings, Northern Ontario

TRADES AND OCCUPATIONS — RESIDENTIAL	/2020	2021	/2022	2023	2024	2025	2026	2027	2028	2029	2030
Bricklayers	3	4	3	3	3	3	3	3	3	3	3
Carpenters	3	4	3	3	3	3	3	3	3	3	3
Construction estimators	2	3	3	3	3	3	3	3	3	3	3
Construction managers	3	4	4	4	3	3	3	3	3	3	3
Contractors and supervisors	2	3	3	3	3	3	3	3	3	3	3
Electricians	2	3	3	3	3	3	3	3	3	3	3
Floor covering installers	2	3	3	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	3	4	3	3	3	3	3	3	3	3	3
Homebuilding and renovation managers	3	4	4	3	3	3	3	3	3	3	3
Painters and decorators	3	3	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	2	3	3	3	3	3	3	3	3	3	3
Plumbers	2	3	3	3	3	3	3	3	3	3	3
Residential and commercial installers and servicers	2	3	3	3	3	3	3	3	3	3	3
Roofers and shinglers	3	3	3	3	3	3	3	3	3	3	3
Trades helpers and labourers	3	3	3	3	3	3	3	3	3	3	3

rankings are dominated by the replacement demands generated from workers exiting the industry due to retirement. Weaker labour markets in 2020 reflect the pullback on renovation activity, which dominates residential employment. The recovery in renovations and moderately higher activity in new-home construction tightens conditions for some trades in 2021. Generally balanced labour markets are anticipated between 2024 and 2030, as replacement demands counter receding levels of employment.

#### NON-RESIDENTIAL SECTOR

In Northern Ontario, non-residential investment continued to rise in 2020, propelled by ongoing and new mining, utility, manufacturing, and institutional projects. The stacking of major mining and utility projects, including the Côté Gold mine, Red Lake Springpole gold mine and mill, and the Watay Power transmission projects, propel engineering construction demands to a near-term peak in 2021, followed by another mini peak projected for 2023. Manufacturing-sector projects also contribute to demand over the short term, mostly in steel and sawmill expansions. Institutional-sector requirements are bolstered by the anticipated start of the Thunder Bay correctional facility in 2021. Non-residential activity and related employment recede modestly in 2024 but remain at elevated levels through to 2027, driven by the Weeneebayko Hospital replacement project.

Overall, non-residential employment is expected to increase by 10% to a peak in 2023 before declining over the remainder of the scenario period. Engineering construction will rise by 722 workers (+9%) to 2023, before receding by 1,099 workers (-13%) to 2030.

ICI building construction follows a similar trajectory to engineering over the decade, as much of the employment is tied to the same major projects. Overall, ICI employment is expected to rise by just over 600 workers to 2023 and then decline by about 650 workers over the remainder of the decade. Figure 10 shows the employment trends by sector for non-residential construction in Northern Ontario.

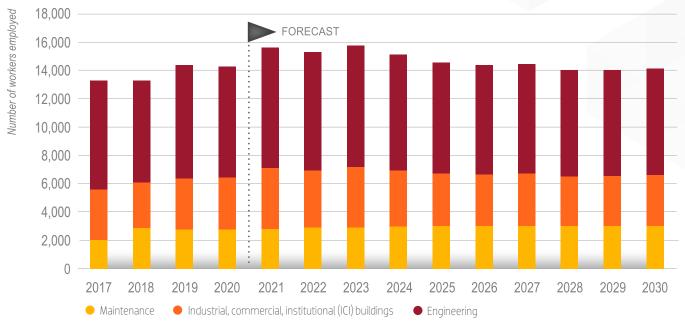
#### NON-RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

For Northern Ontario, non-residential rankings are reported for 22 of the 34 trades and occupations covered by the BuildForce LMI system, as shown in Table 9.

Non-residential labour markets were generally balanced in 2020, but with isolated tighter conditions for some trades. In 2021, markets tighten for all trades and occupations due to rising demands on mining and transmission projects, the start of the correctional facility in Thunder Bay, and an expected recovery in commercial building construction. As projects move past peak, more balanced conditions are expected between 2022 and 2023, followed by weaker markets in 2024 and 2025 as current projects end and workers are released. Positive final investment decisions to a long list of proposed resource development projects currently not included in the outlook could sustain growth and tighter market conditions well beyond the projected 2023 peak.

Weakness is expected for some trades in 2028 following the completion of the Weeneebayko Hospital project. Market conditions remain generally balanced between 2026 and 2030, despite falling employment due to aging demographics and rising retirements.

Figure 10: Non-residential construction employment growth outlook, Northern Ontario



Source: Statistics Canada, BuildForce Canada (2021-2030)

Table 9: Non-residential market rankings, Northern Ontario

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2020	2021	/2022	2023	2024	2025	2026	/2027	2028	2029	2030
Boilermakers	3	4	3	4	3	3	3	3	3	3	3
Carpenters	3	4	4	3	3	2	3	3	3	3	3
Construction estimators	3	4	3	3	3	2	3	3	2	3	3
Construction managers	4	4	3	3	2	3	3	3	3	3	3
Construction millwrights and industrial mechanics	3	4	3	3	3	2	3	3	3	3	3
Contractors and supervisors	4	5	3	3	2	2	3	3	3	3	3
Crane operators	5	4	3	3	2	3	3	3	3	3	3
Electrical power line and cable workers	4	4	3	3	2	3	3	3	3	3	3
Electricians	3	4	3	3	3	3	3	3	3	3	3
Gasfitters	3	4	4	3	3	2	3	3	3	3	3
Heavy equipment operators (except crane)	4	4	3	3	2	2	3	3	2	3	3
Heavy-duty equipment mechanics	4	4	4	3	3	2	3	3	3	3	3
Insulators	3	4	3	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	3	4	4	3	3	2	3	3	3	3	
Plumbers	3	4	4	4	3	3	3	3	3	3	
Refrigeration and air conditioning mechanics	3	4	3	3	2	2	3	3	2	3	

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Table 9: Non-residential market rankings, Northern Ontario (continued)

TRADES AND OCCUPATIONS — NON-RESIDENTIAL	2020	<b>/</b> 2021	2022	2023	/2024	/2025	/2026	/2027	/2028	/2029	2030
Residential and commercial installers and servicers	2	4	3	3	3	3	3	3	2	3	3
Sheet metal workers	3	4	4	4	3	2	3	3	3	3	3
Steamfitters, pipefitters, and sprinkler system installers	3	4	3	3	2	2	3	3	3	3	3
Trades helpers and labourers	3	4	3	3	3	3	3	3	2	3	3
Truck drivers	3	4	3	3	3	2	3	3	3	3	3
Welders and related machine operators	2	4	3	3	3	3	3	3	3	3	3

#### SOUTHWESTERN ONTARIO

Southwestern Ontario<sup>8</sup> continued to grapple with labour market challenges throughout 2020, as increases in new-housing construction and major industrial projects such as the Nova Chemicals and Bruce Power projects drove employment to new highs. The region is bracing for further growth in 2021 as major-project requirements increase and commercial building construction recovers. Construction employment in Southwestern Ontario is expected to rise by 1,400 workers (+2.6%) in 2021, with approximately 800 of these workers required to support ongoing non-residential construction activity.

Construction employment demands are expected to recede temporarily in 2022 as work at Nova Chemicals winds down, but long-term demands at Bruce Power and the resumption of an upward trend in the manufacturing sector boost industrial building construction after 2023. Longer-term employment is expected to be sustained by the 2026 start of a major hospital project in Windsor, offsetting declines in residential investment due to slowing population growth.

While overall construction employment is expected to rise by just over 1,000 workers (+2%) by the end of the decade, recruitment pressures will increase as the industry also contends with the replacement of slightly more than 10,800 workers over the coming decade.

#### RESIDENTIAL SECTOR

Residential investment in Southwestern Ontario levelled off in 2020, as new-housing construction increased by 9%, while renovation-related construction declined by a similar amount. Residential

investment is expected to rise to 2023, as renovation work recovers and new-housing investment experiences modest gains. The region saw a boost in single-detached construction in 2020, compared to 2019. Between 2021 and 2023, single-detached housing starts are anticipated to continue rising as buyers take advantage of record low lending rates. A down-cycle related to weaker population growth follows thereafter, bringing investment levels back near 2019 levels by the end of the scenario period.

Total residential employment is expected to grow by 1,070 workers to 2023, but then recede by 3,470 workers between 2024 and 2030, with declines more concentrated in new-home construction. Renovation-related employment is expected to increase by 1,370 workers (+12%) by the end of the decade, compared to the 2020 starting point. Figure 11 shows the employment trends by sector for residential construction in Southwestern Ontario.

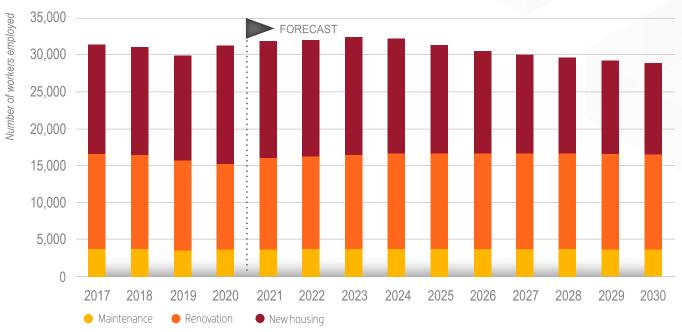
#### RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

For Southwestern Ontario, residential rankings are reported for 21 of the 34 trades and occupations covered by the BuildForce LMI system, as shown in Table 10. The region's residential labour market was mostly balanced in 2020, though pockets of tightness persisted for some trades due to the rise in single-detached housing construction. Labour markets are expected to tighten for several trades in 2021, as further growth in single-detached home construction is met with a recovery in renovation work.

Generally, the pace of growth over the medium term to 2024 is modest with mostly balanced labour market conditions. Over the latter half of the decade, weaker markets emerge due to the projected down-cycle in new-housing construction in line with weaker population trends.

Southwestern Ontario includes the economic regions of London, Windsor-Sarnia and Stratford-Bruce Peninsula as defined by Statistics Canada, including the Census Metropolitan Areas (CMAs) of London and Windsor. Cities include Chatham, Ingersoll, Sarnia, Stratford, Goderich, and Owen Sound.

Figure 11: Residential construction employment growth outlook, Southwestern Ontario



Source: Statistics Canada, BuildForce Canada (2021-2030)

Table 10: Residential market rankings, Southwestern Ontario

TRADES AND OCCUPATIONS – RESIDENTIAL	2020	2021	2022	2023	2024	2025	2026	/2027	2028	2029	2030
Bricklayers	4	4	3	3	3	3	3	3	3	3	3
Carpenters	4	3	3	3	3	3	3	3	3	3	3
Concrete finishers	3	3	3	3	3	3	3	3	3	3	3
Construction estimators	3	3	3	3	3	2	2	2	2	2	3
Construction managers	4	4	3	3	3	2	2	2	2	3	3
Contractors and supervisors	3	3	3	3	3	3	3	3	3	3	3
Electricians	3	3	3	3	3	2	2	3	3	3	3
Floor covering installers	3	3	3	3	3	3	2	3	3	3	3
Gasfitters	3	4	3	3	3	2	2	2	3	3	3
Heavy equipment operators (except crane)	3	4	3	3	3	3	3	3	3	3	3
Homebuilding and renovation managers	3	4	3	3	3	3	3	3	3	3	3
Painters and decorators	3	3	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	3	3	3	3	3	3	3	3	3	3	3
Plumbers	3	3	3	3	3	2	2	2	2	2	2
Refrigeration and air conditioning mechanics	3	3	3	3	3	2	2	2	2	2	3
Residential and commercial installers and servicers	3	3	3	3	3	3	3	3	3	3	3
Roofers and shinglers	3	3	3	3	3	3	3	3	3	3	3

continued on next page

Table 10: Residential market rankings, Southwestern Ontario (continued)

TRADES AND OCCUPATIONS — RESIDENTIAL	2020	2021	2022	2023	2024	/2025	2026	/2027	2028	2029	2030
Sheet metal workers	3	3	3	3	3	2	2	2	3	3	3
Tilesetters	4	3	3	3	3	3	2	2	2	2	2
Trades helpers and labourers	4	3	3	3	3	2	2	3	3	3	3
Truck drivers	3	4	3	3	3	3	3	3	3	3	3

#### NON-RESIDENTIAL SECTOR

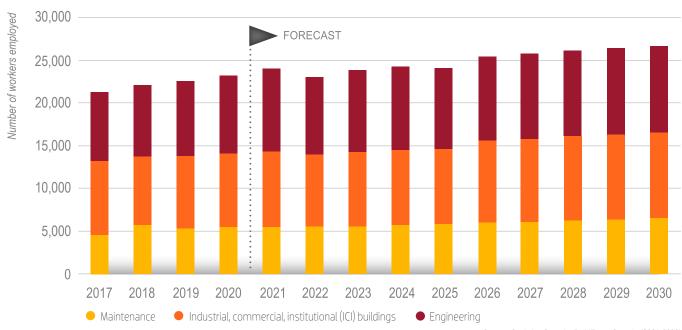
Non-residential investment in Southwestern Ontario increased only modestly in 2020, as rising demands in major industrial projects were met with steep reductions in commercial building activity across the region. Employment requirements, however, rose sharply for key trades involved in major projects at the Nova Chemicals plant in Sarnia, the Gordie Howe International Bridge in Windsor, the Maple Leaf Foods plant in London, and the start of Bruce Power's nuclear refurbishment.

Employment requirements are expected to rise further in 2021 as major-project activity increases, and then ebbs in 2022 as work at Nova Chemicals, Maple Leaf Foods, and several other projects approaches completion. Long-term demand is supported by growth in manufacturing, ongoing work at Bruce Power, and new health care projects.

Investment in roads, highways, and bridges is expected to see gains for several years to come as municipalities invest in further infrastructure modernization and expansion. The Gordie Howe bridge project, by far the largest in the region, is supplemented by numerous smaller projects across Southwestern Ontario.

Construction employment is projected to fluctuate moderately over the first half of the scenario period, with peaks and troughs related to the timing of major projects. By 2030, the region's non-residential construction employment is expected to be some 3,400 workers (+15%) greater than 2020 levels. Figure 12 shows the employment trends by sector for non-residential construction in Southwestern Ontario.

Figure 12: Non-residential construction employment growth outlook, Southwestern Ontario



#### NON-RESIDENTIAL RANKINGS, RISKS, AND MOBILITY

For Southwestern Ontario, non-residential rankings are reported for 27 of the 34 trades and occupations covered by the BuildForce LMI system, as shown in Table 11. Although COVID-19 led to some pauses in activity in the spring, there were rising demands at Nova Chemicals in Sarnia, Bruce Power in Tiverton, the Gordie Howe bridge in Windsor, and a variety of other industrial maintenance projects in Sarnia. As these projects continue into 2021, labour markets are expected to tighten further.

Significant levels of industrial maintenance work are expected in the Sarnia region over the next few years, increasing potential labour force tightness during seasonal peak periods. As industrial projects begin to wind down between 2022 and 2023, more balanced labour markets are expected to emerge. Weaker markets are expected immediately following the completion of the Gordie Howe bridge in 2025, but markets then tighten again in 2026 as work on the Windsor acute care hospital commences.

Table 11: Non-residential market rankings, Southwestern Ontario

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Boilermakers	5	5	3	4	4	3	3	3	3	3	3
Carpenters	4	4	2	3	3	3	4	3	3	3	3
Concrete finishers	3	4	3	3	3	3	3	3	3	3	3
Construction estimators	3	4	3	3	3	2	4	3	3	3	3
Construction managers	3	4	3	3	3	2	3	3	3	3	3
Construction millwrights and industrial mechanics	5	4	2	3	4	2	4	3	3	3	3
Contractors and supervisors	3	4	3	3	3	3	3	3	3	3	3
Crane operators	4	4	4	3	3	3	3	3	3	3	3
Electricians	3	3	3	3	3	3	4	3	3	3	3
Elevator constructors and mechanics	3	3	3	3	3	3	4	3	3	3	3
Floor covering installers	3	3	3	3	3	3	4	3	3	3	3
Gasfitters	3	3	3	3	3	3	4	3	3	3	3
Glaziers	3	3	3	3	3	3	4	3	3	3	3
Heavy equipment operators (except crane)	4	4	3	3	3	2	3	3	3	3	3
Heavy-duty equipment mechanics	4	4	3	3	3	2	3	3	3	3	3
Insulators	4	5	3	2	3	3	4	3	3	3	3
Ironworkers and structural metal fabricators	5	3	3	4	3	3	3	3	3	3	3
Painters and decorators	3	4	3	3	3	3	4	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	3	3	3	3	3	3	4	3	3	3	3
Plumbers	3	3	3	3	3	3	4	3	3	3	3
Refrigeration and air conditioning mechanics	3	3	3	3	3	3	4	3	3	3	3
Residential and commercial installers and servicers	3	3	3	3	3	3	4	3	3	3	3
Sheet metal workers	3	3	2	3	3	3	3	3	3	3	3
Steamfitters, pipefitters, and sprinkler system installers	5	3	2	3	4	2	4	3	3	3	3
Trades helpers and labourers	3	3	3	3	3	2	3	3	3	3	3
Truck drivers	4	4	3	3	3	2	3	3	3	3	3
Welders and related machine operators	3	4	3	3	3	3	3	3	3	3	3

### BUILDING A SUSTAINABLE LABOUR FORCE

Rising project demands only form part of the recruitment challenge for Ontario over the coming decade. Over the 2021–2030 scenario period, the province's construction industry will need to replace 92,500 workers expected to retire from the labour force. This represents a significant draw from the provincial labour force and will require industry to remain focused on building a sustainable workforce to mitigate the potential for recruitment challenges and increased shortages of skilled craft workers to emerge in the labour force.

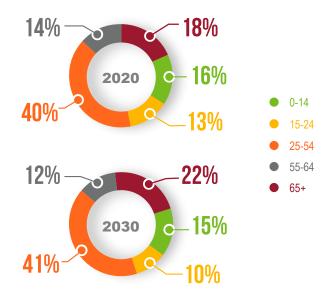
Increased retirements across all industries in the province are the result of a rapidly aging population, despite a relatively young population in the GTA. Over the next 10 years, the share of the population in the older age bracket (65 years and over) is expected to increase, and at the same time, the share of the population at prime working age (25–54 years old) is expected to decline (see Figure 13). Should these trends persist, increased labour market tightness is expected to emerge due to the lower overall labour force participation of older workers.

Population aging in Ontario is anticipated to contribute to lower levels of population growth over the coming decade, especially over the latter half of the scenario period. The elevated levels of migration to the province are expected to recede slightly over the next few years, as the recent surge in non-permanent residents (primarily international students) may not be sustainable as educational institutions approach capacity. Ontario's components of population growth are shown in Figure 14.

Based on historical trends, Ontario's construction industry is expected to draw an estimated 84,770 first-time new entrants under the age of 30 from the local population into the industry over

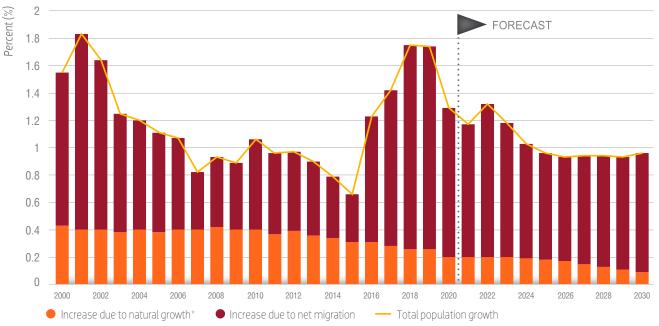
the next decade. However, across the same period, the pace of retirements exceeds the number of new entrants to construction, resulting in a gap that will need to be filled by enhanced local recruitment and training, including the recruitment of new immigrants and those already in Canada, as well as promoting career opportunities to workers with comparable skill sets who have been displaced from other industries, and, as required when necessary to meet peak demands, pulling in construction workers from neighbouring provinces.

Figure 13: Population age distribution, Ontario



Source: BuildForce Canada

Figure 14: Sources of population growth (%), Ontario



<sup>\*</sup> 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.

#### **APPRENTICESHIP**

New registrations have been on the rise since 2016, increasing by 27% to more than 11,100 registrations in 2019. Limited available data suggest COVID-19 has imposed significant obstacles to the delivery of in-school training, testing, and certification. These impacts are likely to reduce the near-term numbers of new certified workers.

Ontario's construction industry is projected to require more than 26,800 new certified journeypersons to sustain the current workforce share of certifications and keep pace with employment and replacement demands across all industries over the scenario period.

Table 12 provides a provincial overview of the anticipated certification requirements for the 21 largest construction trade programs in all industries and in construction. The table also provides the target number of new entrants required to fulfill demand requirements over the scenario period, taking into account trends in program completion rates.

Table 13 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 and the likely targeted number of new registrants required. Based on projected new registrations, several trades are at risk of undersupplying the number of new certified journeypersons required by 2030. Trades within this group include bricklayers, glaziers, industrial electricians, tractor trailer commercial drivers, and welders. Supply risk may be increased over the near term depending on the severity of decline in new registrants caused by the impact of COVID. It is important to note that since it is difficult to determine in what sectors apprentices may work after completing their program, the analysis compares the projected supply of new journeypersons and certification requirements across all industries. It does not account for existing imbalances at the 2020 starting point.

Table 12: Estimated construction certification demand and projected target of new entrants at 65% assumed rate of program completion, Ontario, 2021 to 2030

	2021	2022	2023	2024	2025	Total <b>2021–2025</b>	Total 2026–2030
Total certification demand – all industries	9,465	6,625	6,987	6,471	5,404	34,952	20,621
Total certification demand – construction	4,943	3,481	3,805	3,564	2,742	18,535	10,078
Construction certification share (%)	59%	58%	59%	59%	59%	59%	58%
Target new registrants – construction	5,028	4,344	3,592	2,947	3,119	19,030	16,515

Source: BuildForce Canada

Table 13: Estimated construction certification demand and projected target of new entrants by trade, Ontario, 2021–2030

Trade	Total certification demand – construction	Target new registrants – construction	Apprentice certification supply risk — all industries
Boilermaker	675	562	Balanced supply
Bricklayer	1,249	2,764	At-risk supply
Carpenter	5,971	8,988	Balanced supply
Construction Electrician	5,673	3,979	Ample supply
Construction Millwright	121	96	Ample supply
Glazier	537	1,200	At-risk supply
Heavy-Duty Equipment Technician	278	447	Balanced supply
Industrial Electrician	2,272	3,499	At-risk supply
Industrial Mechanic (Millwright)	810	802	Balanced supply
Ironworker (Structural/Ornamental)	168	252	Ample supply
Lather (Interior Systems Mechanic)	1,036	1,584	Balanced supply
Mobile Crane Operator	262	285	Ample supply
Plumber	3,376	2,839	Ample supply
Powerline Technician	177	177	Ample supply

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Table 13: Estimated construction certification demand and projected target of new entrants by trade, Ontario, 2020 to 2029 (continued)

Trade	Total certification demand – construction	Target new registrants – construction	Apprentice certification supply risk — all industries		
Refrigeration and Air Conditioning Mechanic	1,537	1,626	Ample supply		
Residential Air Conditioning Systems Mechanic	1,316	1,618	Balanced supply		
Sheet Metal Worker	864	912	Ample supply		
Sprinkler System Installer	720	1,010	Ample supply		
Steamfitter/Pipefitter	402	478	Ample supply		
Tractor Trailer Commercial Driver	735	1,068	At-risk supply		
Welder	435	1,359	At-risk supply		
Total	28,612	35,545			

#### UNDERREPRESENTED GROUPS OF WORKERS

Building a sustainable and diverse labour force will require the construction and maintenance industry to increase recruitment from groups traditionally underrepresented in the current construction labour force, including women, Indigenous people, and new Canadians.

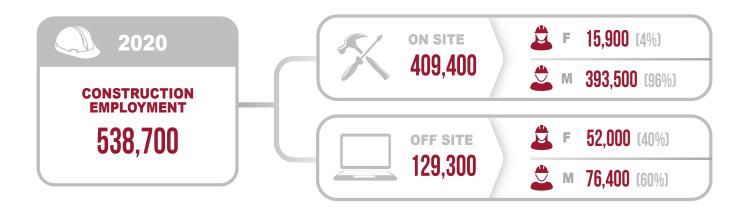
In 2020, there were approximately 67,900 women employed in Ontario's construction industry, of which 23% worked on site, directly on construction projects, while the remaining 77% worked off site, primarily in administrative and management-related occupations. Of the 409,400 tradespeople employed in the industry, women made up only 4% (see Figure 15).

The estimated 15,900 tradeswomen in Ontario are employed across all sectors of construction, with a heavier concentration in residential construction, as approximately one-third of tradeswomen were

employed in new homebuilding, renovations, and maintenance work. Industry wide, the representation of women was highest in residential construction, with women accounting for 5.3% of total tradespeople involved in new homebuilding (see Figure 16). The top five trades and occupations in which women tend to be employed included trades helpers and labourers (19% of all tradeswomen), construction managers (19%), homebuilding and renovation managers (10%), contractors and supervisors (10%), and painters (9%).

The Indigenous population is another underrepresented group that presents recruitment opportunities for Ontario's construction industry. In 2020, Indigenous people accounted for approximately 2.4% of Ontario's total working-age population.9 The Indigenous population is the fastest growing in Canada and has a higher propensity to choose the construction industry as a career choice. Based on the 2016 Census, an estimated 7.6% of non-Indigenous Canadians were employed in the construction industry, compared to 9.6% for the Indigenous population.

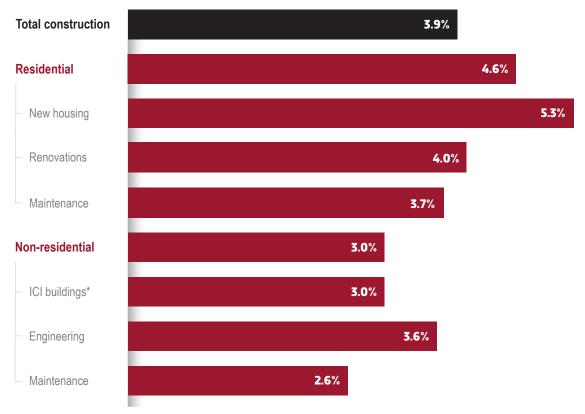
Figure 15: Detailed construction employment by gender, Ontario, 2020



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

<sup>9</sup> Statistics Canada. Table 14-10-0364-01 Labour force characteristics by province, region and Aboriginal group (x 1,000)

Figure 16: Women's share of total direct trades and occupations (on site), Ontario



\* industrial, commercial, institutional

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

Approximately 2.7% of Ontario's construction workforce is made up of Indigenous people, of which about 80% work directly on construction projects, while the remaining 20% work primarily in administrative and management-related occupations. The Indigenous peoplation is also more likely to work in heavy-industrial construction, as nearly half of all Indigenous people working in construction work in that sector. While the share of Indigenous people working in the construction labour force is mostly in line with their overall share of the broader labour force, given the predisposition of Indigenous workers to

consider careers in construction, there may be scope to further increase the recruitment of Indigenous people into the industry.

Ontario's construction industry may also leverage new Canadians (immigrants) over the coming decade to meet labour requirements. The province is expected to welcome a net of 1.35 million new international migrants between 2021 and 2030, making the immigrant population a key source of labour force growth.

#### 10-YEAR AVERAGE **BY 2030** 160,900 135,600 1.0% **21**% 135,200 **POPULATION** NFT **AVERAGE AGE** PERCENT OF CURRENT **DEATHS BIRTHS MIGRATION** LABOUR FORCE LOST TO **GROWTH** RETIREMENT

Approximately 26% of Ontario's construction labour force is made up of new Canadians. Historically, a significant share of the landed immigrant population have been of European ancestry, who have a higher propensity to choose the construction industry. The new wave of immigration primarily includes workers from Asia (China and India), whose citizens may have a lower tendency to consider employment in the construction sector. Due to Canadian immigration policies and selection criteria, persuading individuals upon arrival to consider careers in the trades may be challenging, particularly for those with professional training outside the skilled trades that are seeking employment in other sectors of the economy. As immigrants will make up an increasing share of the overall Canadian population over the next few decades, additional recruitment efforts will be required to ensure the construction industry continues to recruit its share of new Canadians into the labour force.

#### CONCLUSIONS AND IMPLICATIONS

Following a modest decline in 2020, Ontario's construction industry is poised to resume growth in 2021 and continue to rise to 2026, driven by higher demands for residential construction and a strong pipeline of major non-residential projects across all regions that is projected to maintain construction activity at high levels well into the mid-2020s.

For residential construction, new-housing investment is expected to increase over the near term to 2024, but then slow due to projected declines in population growth across the remainder of the scenario period. However, total residential construction employment should be sustained over the long term by steady growth in renovation and maintenance work.

Non-residential construction labour markets are expected to tighten over the next few years, driven by the long list of current and proposed projects, including industrial work in the Southwest, mining projects in the North, and utility, transportation, health care, and other infrastructure projects across the province. Meeting peak demands may be challenged by limited interregional mobility, as high levels of demand are projected to exist in regional markets across the province.

Through two decades of growth, Ontario has built up an immense skilled construction labour force. Looking ahead, sustaining capacity over the scenario period will be made more difficult by the expected retirement of 92,500 workers over the decade. The 27% rise in construction-related apprenticeship registrations from 2016 to 2019 is a positive signal that industry is responding to increasing requirements. Meeting near- and long-term labour demands will require a combination of industry strategies that include increased local recruitment and training, and attracting immigrants and workers from other industries, and potentially out-of-province workers during anticipated peak periods.

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 industry expectations of population growth and schedules for proposed major projects. Any changes to these assumptions present risks and potentially alter anticipated market conditions.

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<sup>9</sup> Statistics Canada, BuildForce Canada (2021-2030)