

CONSTRUCTION & MAINTENANCE LOOKING FORWARD

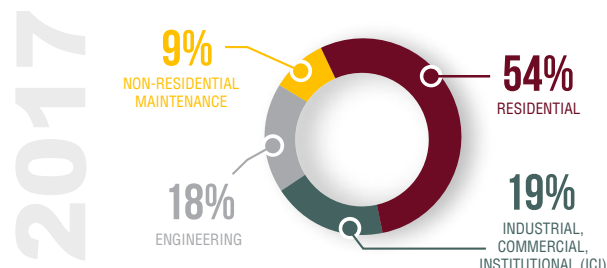
ONTARIO

Sustaining capacity at the plateau

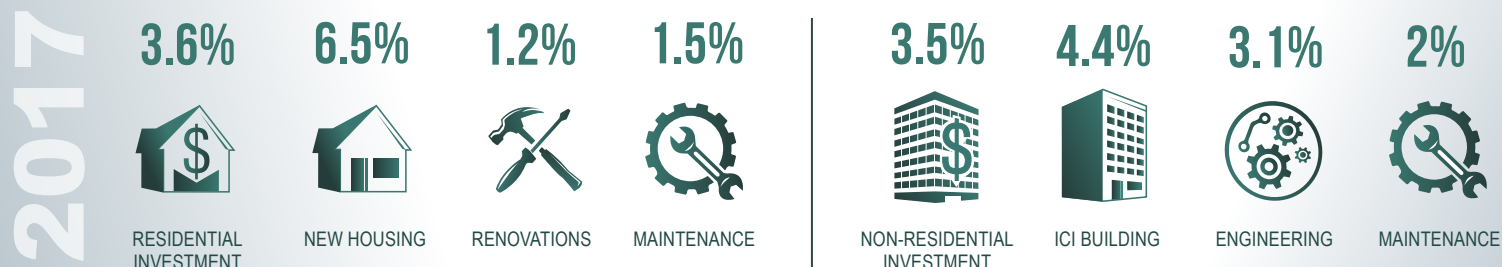
HIGHLIGHTS 2017–2026

Ontario is the largest and most diverse construction market in Canada. The recent expansion, propelled by surging multi-unit residential buildings in the Greater Toronto Area (GTA), a modest commercial cycle and regional engineering projects, has elevated demand and drawn down unemployment across most of the province's five regions. Looking forward, slowing population growth is expected to temper residential employment, while utility, transportation and other infrastructure projects across all regions are expected to sustain non-residential employment at a high plateau across the decade. Anticipated rising workforce retirements and relatively low rates of unemployment over the 2017–2026 scenario period present potential challenges to maintaining capacity.

DISTRIBUTION OF CONSTRUCTION EMPLOYMENT IN 2017, ONTARIO



2017 SECTOR INVESTMENT GROWTH OUTLOOK FOR ONTARIO (% change)



10-YEAR WORKFORCE OUTLOOK FOR ONTARIO



**AVERAGE
UNEMPLOYMENT
RATE** **6.6%**



-2,400 (-0.6%)
**EMPLOYMENT
CHANGE**

HIGHLIGHTS

- The 2017–2026 outlook scenario projects that total construction employment is mostly unchanged across the period, as a moderate rise in non-residential construction offsets declines in residential at the provincial level.
- Employment gains are strongest in the Southwest region and the Greater Toronto Area (GTA), while the Northern and Central regions lag. The varied strength and timing of major projects are the main factors separating regional performance.
- Slower growth is expected for Eastern and Northern Ontario.

BuildForce's LMI System

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

ONTARIO CONSTRUCTION OUTLOOK

The 2017–2026 Construction and Maintenance Looking Forward scenario for Ontario projects that the pace of construction expansion will slow over the coming decade, but continued migration to the province and rising infrastructure requirements are expected to sustain employment near record high levels. Workforce requirements related to major infrastructure projects are poised to become more prominent over the next 10 years, superseding residential as the primary source of construction growth in many regions of Ontario. The anticipated peak in 2020 will mark the end of a 25-year expansion that doubled construction employment in the province.

New housing construction has risen steadily over the last five years, adding more than 26,000 jobs since 2011. Over 2015 and 2016 new housing investment increased by 25 percent, propelled in large part by condo projects in and around the GTA. Though the pace is expected to slow, residential building still has momentum in many regions of the province and is expected to drive employment requirements higher in 2017. Activity is expected to stabilise after 2017, adding a projected 386,000 new housing units in the province over the next five years.

Steady growth in renovation activity contributes to overall residential workforce demands in 2017. A moderate upward trend leads renovation-related employment requirements to surpass new housing demands in 2018; a trend that continues over the remainder of the scenario period.

The non-residential construction outlook is characterised by rising near-term demands related to major infrastructure and transportation projects and modest long-term growth in non-residential building and regional engineering requirements. Major projects, including an international bridge in Windsor, transit projects in the GTA and Ottawa and major nuclear refurbishments projects in the GTA and Southwestern Ontario, present significant and enduring workforce requirements.

Population growth is expected to ease, but continues to sustain demands for institutional and commercial building over the next 10 years, while modest manufacturing growth is expected to add to industrial building requirements between 2019 and 2021. Overall non-residential employment is anticipated to add 9,800 jobs over the coming decade, with gains concentrated between 2017 and 2020.

While the pace of growth slows compared to the recent past, sustaining capacity over the latter half of the scenario period will be made more difficult by the expected retirement of 86,000 workers over the decade (20 percent of the current workforce). Recruitment may become progressively more difficult as retire-

ments increase and fewer young entrants are available. Recruitment challenges are likely to be more apparent for the trades and occupations that are needed for new housing, infrastructure and major engineering projects.

Changes across the scenario period are not evenly distributed across the province's five regions and the mobility of the workforce will continue to be a factor in balancing labour market conditions.

Table 1 summarizes the percent change in employment by region across two five-year periods: 2017 to 2021 and 2022 to 2026.

The available workforce

While the age profile of the Ontario population is growing older, natural population growth (births continue to exceed deaths) plus immigration and migration to the province help sustain overall population growth across the scenario period. Still, the pool of youth entering the workforce is declining, while retirements rise. These challenges are not new, even with only modest increases in employment requirements.

Adding to market challenges is that unemployment, an important cushion of labour availability, has been drawn down to historically low levels across most regions of the province in recent years. Workers returning from Alberta and other provinces as activity slowed in these regions added to the short-term supply in 2015 and 2016, but this source is limited, and drawing additional workers may become increasingly difficult. The aging workforce demographics are expected to maintain a downward pressure on unemployment, limiting the availability of workers to meet seasonal peaks in workforce requirements.

Table 1: Change in employment across Ontario's regions

REGION	% CHANGE 2017–2021	% CHANGE 2022–2026
Total employment – Ontario	2.3%	-2.8%
Central Ontario	1%	-3%
Eastern Ontario	3%	-9%
Greater Toronto Area	2%	-1%
Northern Ontario	-2%	-1%
Southwest Ontario	9%	-4%

Source: Statistics Canada, BuildForce Canada

Labour requirements are not distributed evenly across the regions or years of the scenario period. Peaks in demands are concentrated between 2017 and 2020, and the most intense recruiting may focus on specialized skills and experience. Demands ease in most regions after 2021 as some major projects wind down, but labour market conditions remain generally balanced.

The BuildForce LMI system tracks residential and non-residential supply and accounts for the change in the available labour force, including retirements, new entrants¹ and net in-mobility². In the residential sector, industry must contend with an estimated 44,800 retirements over the coming decade, despite modest workforce declines later in the scenario period. This exceeds the estimated number of first-time new entrants expected to be drawn from the local population aged 30 and younger available to the workforce.

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

Non-residential construction is expected to draw sufficient numbers of first-time new entrants into the workforce from the local population aged 30 and younger to meet replacement demands, but rising total labour requirements may require attracting workers from outside the provincial workforce. Slowing demands in the residential sector may present potential recruitment opportunities for trades where skills and experience are transferable.

Table 3 provides a summary of changes in the non-residential workforce in 2016, the five-year period between 2017 and 2021 and across the full scenario period.

Table 2: Change in the residential workforce, Ontario

RESIDENTIAL WORKFORCE ADJUSTMENT		2016	5 years 2017–2021	10 years 2017–2026
	Employment	6,100	-2,500	-12,200
Demand	Labour force change	4,200	400	-10,200
	Retirements	-4,200	-22,300	-44,800
Supply	New entrants	4,300	20,400	39,100
	Net mobility	4,100	2,200	-4,500

Source: BuildForce Canada

Table 3: Change in the non-residential workforce, Ontario

NON-RESIDENTIAL WORKFORCE ADJUSTMENT		2016	5 years 2017–2021	10 years 2017–2026
	Employment	1,400	11,500	9,800
Demand	Labour force change	-500	12,700	10,600
	Retirements	-4,000	-20,500	-41,300
Supply	New entrants	4,300	21,300	41,600
	Net mobility	-900	11,900	10,300

Source: BuildForce Canada

¹ **New entrants** are measured by applying the traditional proportion of the provincial workforce that enters the construction industry. The projected estimate across the scenario period assumes that the construction industry is able to recruit this group in competition with other industries.

² **In-mobility** refers to the arrival of workers from outside the local construction industry. In-mobility includes the interprovincial employee workforce described above. Many members of this group will move quickly out of the province as work declines and this out-mobility, even if it is a very short-term change, signals a weak market.

REGIONAL INSIGHTS

The following sections provide region-specific outlooks and market conditions for Ontario's five regions: Central, Eastern, Greater Toronto area (GTA), Northern and Southwestern. The 2017 BuildForce LMI system provides an overview of market drivers and detailed occupational demand- and supply-side analysis of labour market conditions in both the residential and non-residential sectors for 34 trades and occupations tracked by BuildForce.

CENTRAL ONTARIO

Overall construction employment in Central Ontario³ is mostly unchanged across the scenario period – expected to be sustained near current levels as non-residential building requirements rise, offsetting modest declines in new housing and engineering construction.

Non-residential workforce demands are projected to be sustained at current levels, carried by a steady rise in industrial, commercial and institutional (ICI) building and stable levels of engineering investment. Engineering demands peak in 2020 and, as projects wind down, are then expected to recede to below current levels.

Overall employment is estimated to decline by 2,300 workers, or less than 1 percent, by the end of the coming decade. Retirements are expected to exceed 20,000 over the period, while the industry is expected to draw more than 23,000 first-time new entrants from the local population.

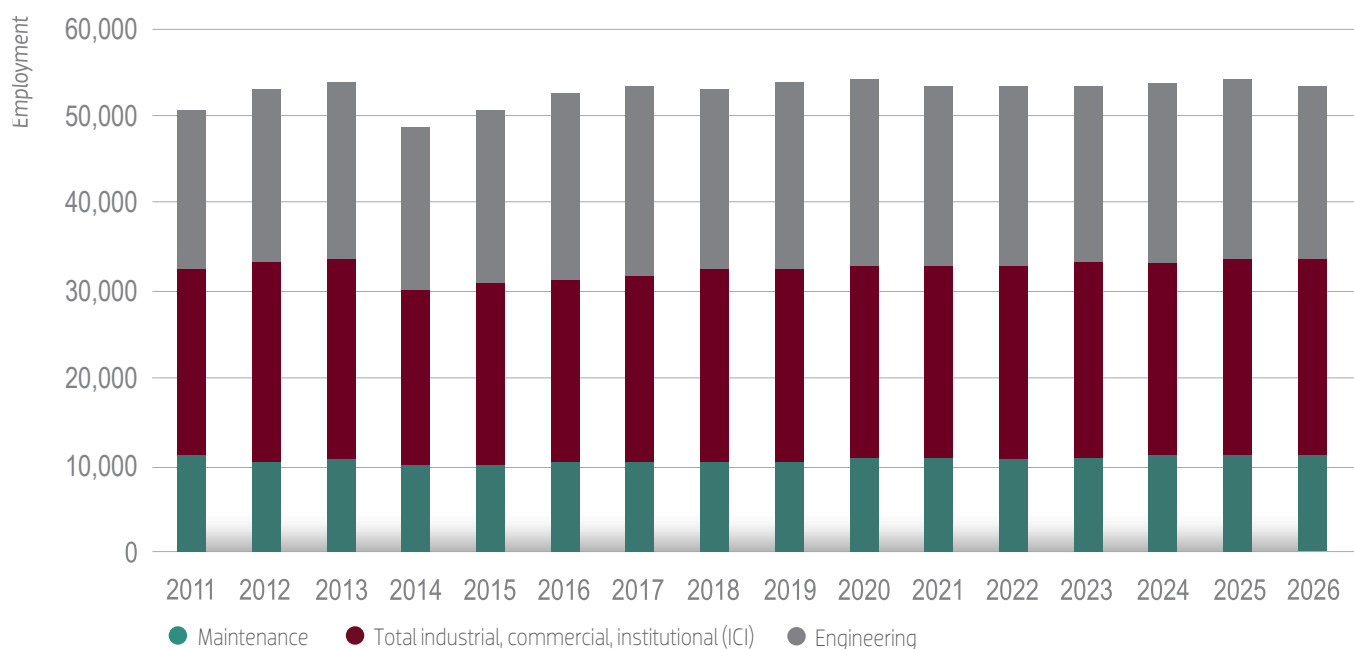
NON-RESIDENTIAL SECTOR

Non-residential workforce demands in Central Ontario are expected to be sustained at current levels over the scenario period through a steady rise in non-residential buildings and stable levels of engineering investment. ICI building employment is projected to increase modestly over the decade, led by increases in commercial and institutional activity. Engineering demands, driven by utility and transportation projects are expected to peak in 2020 before returning to current levels as projects wind down.

Overall, there is a moderate rise in non-residential employment at the end of the period in 2026 compared to 2016.

Figure 1 shows the employment trends by sector for non-residential construction.

Figure 1: Non-residential construction employment growth outlook, Central Ontario



Source: Statistics Canada, BuildForce Canada

³ The Central region includes the economic regions of Muskoka-Kawartha, 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.

NON-RESIDENTIAL HIGHLIGHTS, CENTRAL ONTARIO

- Overall non-residential employment is expected to rise by a modest 700 jobs, or 1 percent, across the scenario period.
- Engineering requirements rise in 2017 and peak in 2020 driven by utility, transportation and other infrastructure projects.
- Non-residential building requirements add 500 jobs by 2020. Employment is expected to be sustained thereafter by rising commercial and institutional investment.
- Non-residential maintenance requirements rise steadily across the scenario period, adding to employment opportunities.
- Retirements are estimated at 11,100 over the next decade.

Non-residential rankings, risks and mobility

Table 4 provides non-residential rankings for Central Ontario, showing generally balanced markets, signalled by a rank of 3, across the scenario period. Demands related to utilities and road, highway and bridge work elevates demand for selected trades in 2017. Labour market conditions for trades involved in building construction and various engineering and infrastructure projects ease temporarily after peak demands are met in 2020.

The rankings for some trades working in the non-residential sector are suppressed due to the small size of the workforce (<100 workers) and limited statistical reliability when assessing labour market conditions at the sector level. Trades may also be excluded because they typically do not work in the sector being assessed (e.g., home building and renovation managers in non-residential). For Central Ontario, non-residential rankings are reported for 30 trades and occupations.

MARKET RANKINGS

1

Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other current working conditions. Excess supply is apparent and there is a risk of losing workers to other markets.

2

Workers meeting employer qualifications are available in local markets to meet an increase in demand at the current offered rate of compensation and other working conditions.

3

The availability of workers meeting employer qualifications in the local market may be limited by large projects, plant shutdowns or other short-term increases in demand. Employers may need to compete to attract needed workers. Established patterns of recruiting and mobility are sufficient to meet job requirements.

4

Workers meeting employer qualifications are generally not available in local markets to meet any increase. Employers will need to compete to attract additional workers. Recruiting and mobility may extend beyond traditional sources and practices.

5

Needed workers meeting employer qualifications are not available in local markets to meet current demand so that projects or production may be delayed or deferred. There is excess demand, competition is intense and recruiting reaches to remote markets.

N/A

The labour market assessment for some trades is limited by the small size of the workforce (<100 employed). In consultation with the provincial LMI committee, the rank is suppressed because of limited statistical reliability.

Table 4: Non-residential market rankings, Central Ontario

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Boilermakers	3	3	3	3	3	3	3	3	3	3	3
Bricklayers	3	3	3	3	3	3	3	3	3	3	3
Carpenters	3	3	3	3	3	2	3	3	3	3	3
Concrete finishers	3	3	3	3	3	2	3	3	3	3	2
Construction estimators	3	3	3	3	3	3	3	3	3	3	3
Construction managers	4	4	3	3	3	3	3	3	3	3	2
Construction millwrights and industrial mechanics	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	3	4	3	2	3	3	3	3	3
Drillers and blasters	3	3	3	3	3	3	3	3	3	3	3
Electrical power line and cable workers	4	4	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	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
Glaziers	3	3	3	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	3	3	3	3	3	2	3	3	3	3	2
Heavy-duty equipment mechanics	3	3	3	4	3	3	3	3	3	3	2
Insulators	3	3	3	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	3	3	3	4	3	2	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
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	2
Truck drivers	3	3	3	3	3	3	3	3	3	3	2
Welders and related machine operators	3	3	3	3	3	3	3	3	3	3	3

Source: BuildForce Canada

RESIDENTIAL SECTOR

New housing construction and related employment requirements are anticipated to rise to peak levels in 2017, raising demands for trades involved in new housing construction. Requirements are expected to soften in 2018 and 2019 in line with declining household formation⁴.

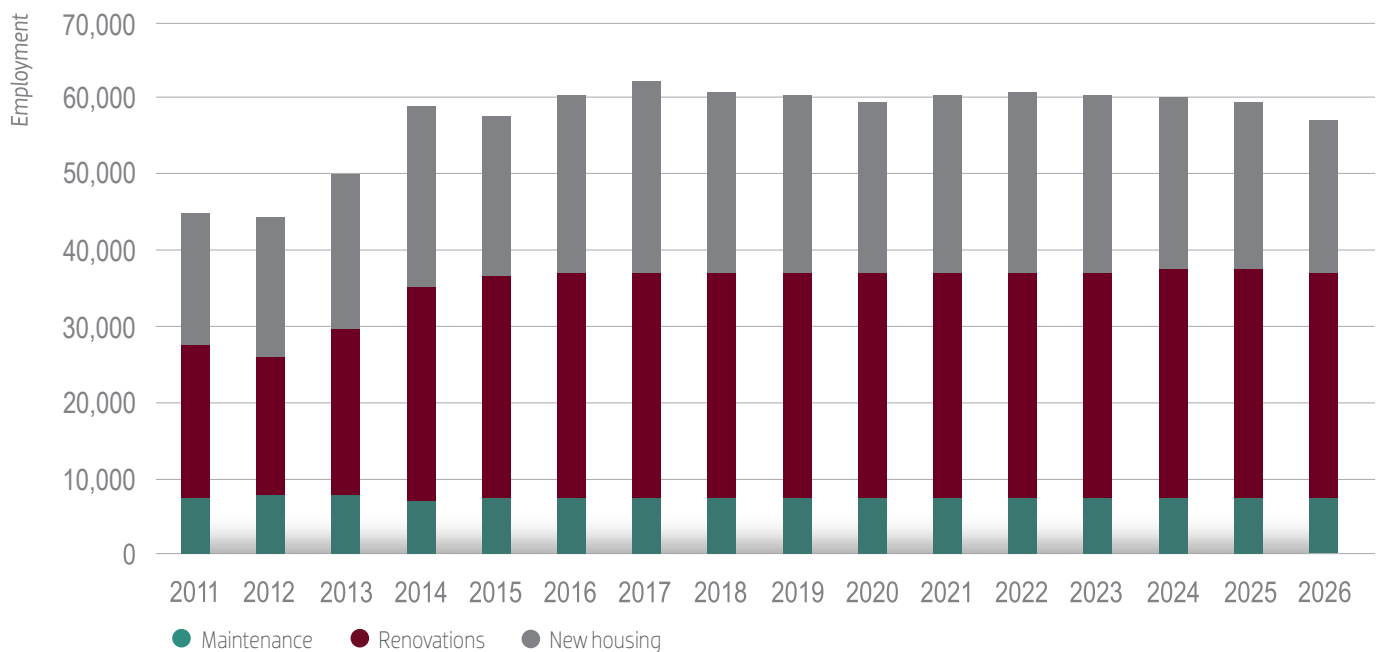
Figure 2 shows the employment trends by sector for residential construction.

The BuildForce ranking system isolates market conditions specific to residential construction. The results are summarized in Table 5.

Residential rankings, risks and mobility

BuildForce assesses market conditions for 34 construction trades and occupations using a ranking system that combines measures of the change in employment, unemployment, net in-mobility and adjustments based on industry input. The rankings reflect residential market conditions unique to Central Ontario 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 assessment.

Figure 2: Residential construction employment growth outlook, Central Ontario



Source: Statistics Canada, BuildForce Canada

RESIDENTIAL HIGHLIGHTS, CENTRAL ONTARIO

- New housing construction is anticipated to rise in 2017 before softening in 2018 and 2019.
- Declining household formations limit growth in housing starts, which are sustained near 14,000 units per year over the scenario period.
- Tepid growth in renovations and moderate declines in new housing requirements over the scenario period are expected to lower overall residential employment by 3,000 jobs, or by 5 percent, compared to 2016.

⁴ **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.

The rankings for some trades working in the residential sector are suppressed due to the small size of the workforce (<100 workers) and limited statistical reliability when assessing labour market conditions at the sector level. Trades may also be excluded because they typically do not work in the sector being assessed (e.g., boilermakers, millwrights, etc. in residential construction). For Central Ontario, residential rankings are reported for 26 trades and occupations.

Table 5 shows residential rankings for Central Ontario. Tighter rankings for selected trades in 2016 and 2017 reflect consecutive years of rising labour demands related to new housing construction. Labour markets return to balance after 2017 as the pace of new housing slows. Steady levels of renovation activity contribute to maintaining balanced labour markets, signalled by a rank of 3, over the scenario period.

Table 5: Residential market rankings, Central Ontario

TRADES AND OCCUPATIONS – RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Bricklayers	3	3	3	3	3	3	3	3	3	3	3
Carpenters	3	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	4	4	3	3	3	3	3	3	3	3	3
Construction managers	4	4	3	3	3	3	3	3	3	3	3
Contractors and supervisors	3	3	3	3	3	3	3	3	3	3	2
Electricians	3	3	3	3	3	3	3	3	3	3	2
Elevator constructors and mechanics	3	4	3	3	3	3	3	3	3	3	2
Floor covering installers	3	3	3	3	3	3	3	3	3	3	2
Gasfitters	3	3	3	3	3	3	3	3	3	3	3
Glaziers	4	4	3	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	3	3	3	3	3	3	3	3	3	3	3
Home building and renovation managers	4	4	3	3	3	3	3	3	3	3	3
Insulators	3	3	3	3	3	3	3	3	3	3	2
Ironworkers and structural metal fabricators	3	3	3	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	2
Refrigeration and air conditioning mechanics	3	3	3	3	3	3	3	3	3	3	2
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	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	2
Truck drivers	3	3	3	3	3	3	3	3	3	3	2
Welders and related machine operators	3	3	3	3	3	3	3	3	3	3	2

Source: BuildForce Canada

EASTERN ONTARIO

Construction activity in Eastern Ontario⁵ is expected to hold on to recent gains over the medium term, supported by a moderate increase in non-residential demands. Slowing population growth is expected to limit new housing construction, but declines in residential employment are expected to be moderate.

New housing demands, driven by a rising population and steady household formations, are expected to sustain housing starts near current levels through 2021. Demographic trends are expected to slow housing demand over the latter half of the scenario period, contributing to a steady erosion of residential employment. Renovation activity is expected to continue to rise, but at a moderate rate, averaging less than 1 percent per year. Total residential employment is projected to recede by 14 percent by 2026, with declines mainly concentrated over the latter half of the scenario period.

Non-residential labour demands offset near-term weakness in residential, adding an estimated 2,100 construction jobs between 2017 and 2019. Rising demands are driven by increased investment in both ICI building construction and major engineering project requirements. Total non-residential employment is anticipated to rise by 10 percent to a peak in 2021, and then recede with the completion of major projects and slower long-term growth. Total construction employment is expected to be 3 percent higher at the end of the scenario period in 2026 compared to 2016.

Retirement demands loom large in Eastern Ontario. The expected retirement of 11,200 workers exceeds the estimated 9,600 first-time new entrants aged 30 and younger expected to be drawn from the local population.

NON-RESIDENTIAL SECTOR

Non-residential-building-related employment is expected to increase in the short term, driven by spin-off activity related to a major light rail transit (LRT) and other infrastructure projects, and then remain relatively unchanged to 2023 before moderate growth resumes. Commercial and institutional building investment growth is expected to be modest across the scenario period, but contributes to growth in the near term.

Overall employment requirements are expected to add 2,300 new jobs through 2021 and then recede, but remain above 2016 levels at the end of the decade in 2026.

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

Non-residential rankings, risks and mobility

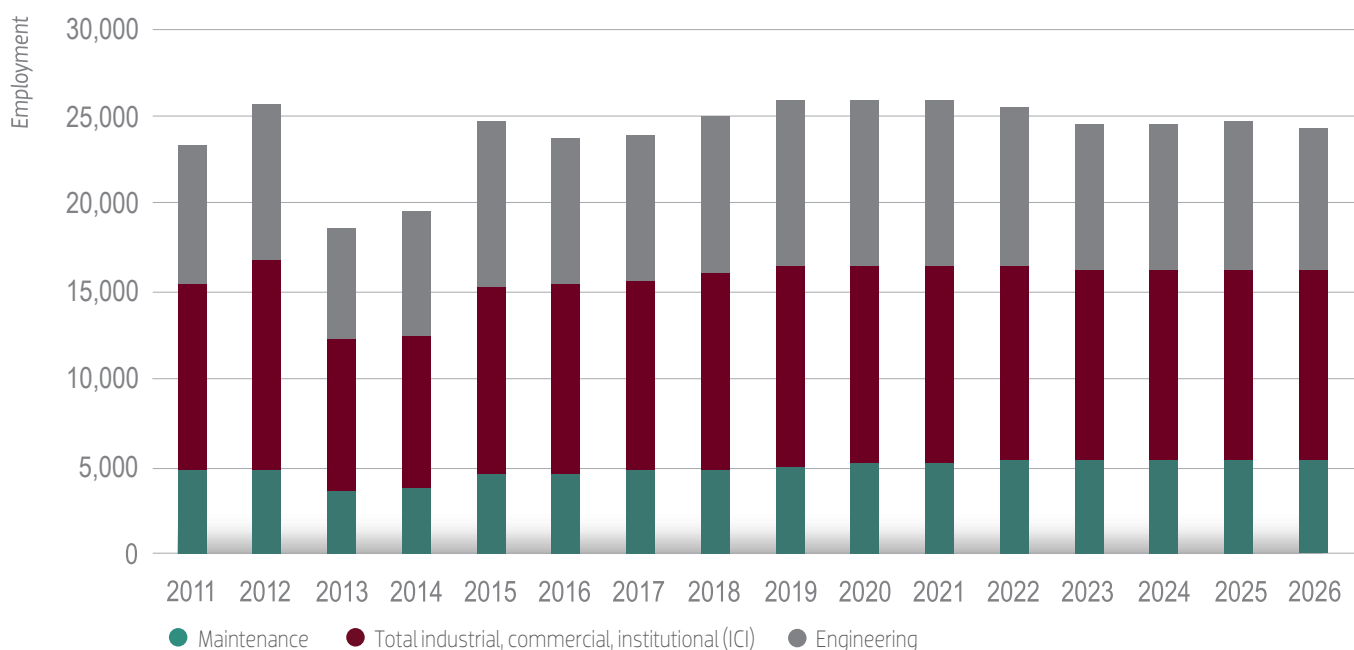
BuildForce assesses market conditions for 34 construction trades and occupations using a ranking system that combines measures of the change in employment, unemployment, net in-mobility and adjustments based on industry input. The rankings reflect non-residential market conditions unique to Eastern Ontario 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 assessment.

The rankings for some trades working in the non-residential sector are suppressed due to the small size of the workforce (<100 workers) and limited statistical reliability when assessing labour market conditions at the sector level. Trades may also be excluded because they typically do not work in the sector being assessed (e.g., home building and renovation managers in non-residential). For Eastern Ontario, non-residential rankings are reported for 25 trades and occupations.

NON-RESIDENTIAL HIGHLIGHTS, EASTERN ONTARIO

- Non-residential employment is projected to peak in 2019 with rising ICI building construction and increased engineering investment.
 - LRT project activity is expected to peak in 2019.
 - Investment in highway and bridge work is sustained until 2025.
- Heavy industrial activity declines in 2018, while non-residential maintenance requirements rise across the scenario period.
- Total non-residential employment rises by 10 percent to a peak in 2021, and then recedes with the completion of major projects. At the end of the decade, employment is mostly unchanged compared to 2016.

⁵ The Eastern Ontario region includes the economic regions of both Ottawa and Kingston-Pembroke, including the CMAs of Ottawa and Kingston. Cities include Cornwall, Brockville, Belleville and Petawawa.

Figure 3: Non-residential construction employment growth outlook, Eastern Ontario


Source: Statistics Canada, BuildForce Canada

Table 6 provides non-residential rankings for Eastern Ontario. 2016 marked a period of overall weak labour market conditions with several engineering projects winding down. A peak in LRT and other engineering demands is expected to tighten market conditions for selected trades and occupations in 2019 and 2020. The completion of major projects coupled with a decline in industrial building construction softens market conditions for several trades over the latter half of the scenario period.

RESIDENTIAL SECTOR

Total residential employment remains close to 2016 levels across most of the scenario period. Figure 4 shows the employment trends by sector for residential construction.

Table 6: Non-residential market rankings, Eastern Ontario

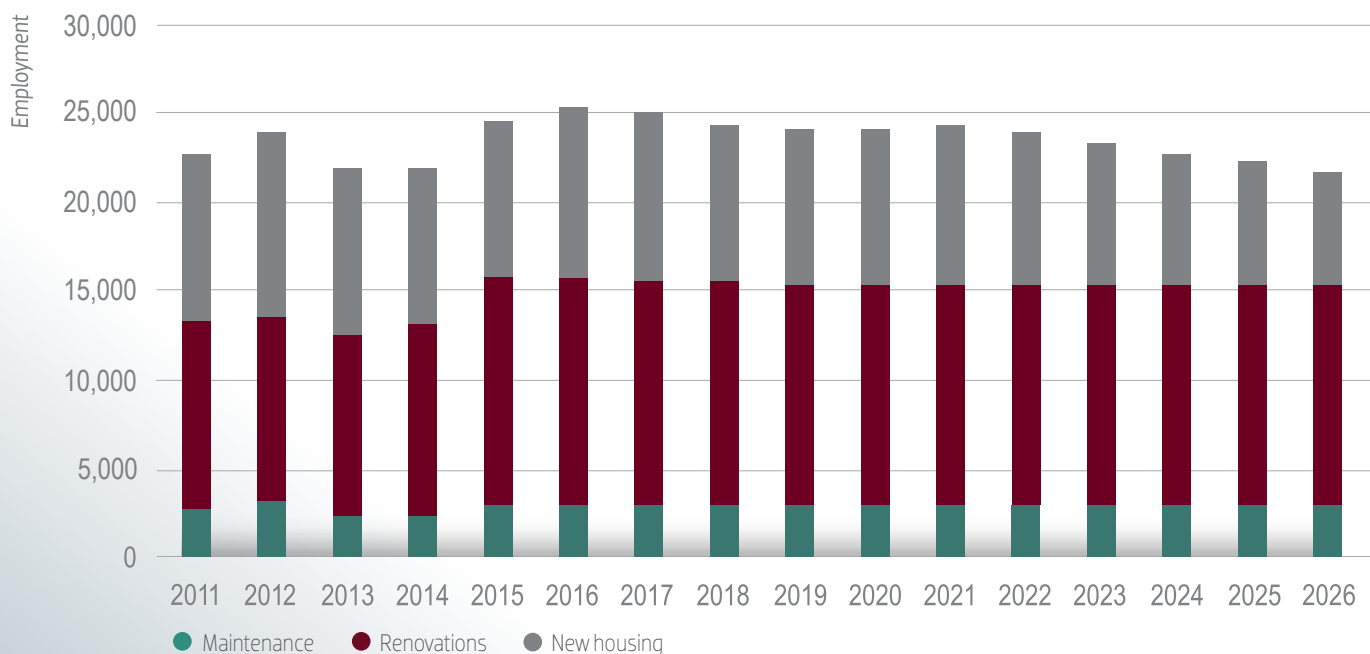
TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Bricklayers	2	3	3	3	3	3	3	3	3	3	3
Carpenters	2	3	3	3	3	3	3	3	3	3	3
Concrete finishers	3	3	3	3	3	3	3	2	3	2	2
Construction estimators	2	3	3	3	4	3	2	2	3	3	2
Construction managers	2	3	3	3	4	3	3	2	3	3	2
Contractors and supervisors	2	3	3	3	3	3	3	2	3	3	3
Crane operators	3	3	3	3	3	4	3	2	3	2	3
Electricians	2	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	3	3	3	3	3	3	3	3	3	3	3

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Table 6: Non-residential market rankings, Eastern Ontario (continued)

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Gasfitters	2	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)	2	3	4	3	3	3	2	2	3	3	2
Insulators	2	3	3	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	2	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	2	3	3	3	3	3	3	3	3	3	3
Sheet metal workers	2	3	3	3	3	3	3	3	3	3	3
Steamfitters, pipefitters and sprinkler system installers	2	3	4	3	2	3	3	3	3	3	3
Trades helpers and labourers	2	3	4	3	3	3	2	2	3	3	3
Truck drivers	2	3	3	3	3	3	3	2	3	3	2
Welders and related machine operators	2	3	4	4	2	3	2	2	3	3	3

Source: BuildForce Canada

Figure 4: Residential construction employment growth outlook, Eastern Ontario

Source: Statistics Canada, BuildForce Canada

Residential rankings, risks and mobility

In Table 7, generally balanced labour market conditions, signalled by a rank of 3, reflect stable demands for new housing construction and steady levels of renovation activity anticipated over the near term. Labour markets begin to weaken in 2018 as new housing construction slows. The slow pace of decline sustains mostly balanced markets over the latter half of the scenario period. Weaker conditions persist for trades and occupations more concentrated in new housing construction.

The rankings for some trades working in the residential sector are suppressed due to the small size of the workforce (<100 workers) and limited statistical reliability when assessing labour market conditions at the sector level. Trades may also be excluded because they typically do not work in the sector being assessed (e.g., boilermakers, millwrights, etc. in residential construction). For Eastern Ontario, residential rankings are reported for 20 trades and occupations.

Table 7: Residential market rankings, Eastern Ontario

TRADES AND OCCUPATIONS – RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Bricklayers	3	3	3	3	3	3	3	3	3	3	3
Carpenters	3	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	2	3	3	3	3	3	3	3	3
Construction managers	4	3	2	3	3	3	2	2	2	2	2
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
Heavy equipment operators (except crane)	3	3	3	3	3	3	3	3	3	3	3
Home building and renovation managers	3	3	3	3	3	3	3	3	3	3	3
Insulators	3	3	3	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	2	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	2	3	3	3	3	3	3	3	3
Tilesetters	3	3	2	3	3	3	3	3	3	3	3
Trades helpers and labourers	3	3	2	3	3	3	3	2	3	3	3
Truck drivers	3	3	3	3	3	3	3	3	3	3	3

Source: BuildForce Canada

RESIDENTIAL HIGHLIGHTS, EASTERN ONTARIO

- New housing demands are expected to sustain annual housing starts near 8,000 units through 2021. Starts recede to 6,000 units over the latter half of the scenario period as population growth slows.
- Following a peak in 2017, new housing remains relatively stable until 2021, but afterward begins a downward path following an anticipated decline in household formations.
- Renovation activity is expected to remain near current levels across the 10-year period, accounting for nearly 60 percent of residential employment by 2026.
- Total residential employment contracts by 3,600 jobs over the coming decade, a 14 percent decline compared to 2016.

GREATER TORONTO AREA (GTA)

The GTA⁶ is the largest construction market in the province and accounts for 40 percent of Ontario's construction jobs in 2017. Steady immigration and in-migration to the region have driven significant growth over the last decade. This trend is expected to continue over the next few years and then slow.

The 2017–2026 *Construction and Maintenance Looking Forward* scenario for the GTA projects that overall construction employment will remain relatively unchanged over the decade, with declines in the residential sector offset by ongoing major non-residential projects.

Major utility, transportation and other infrastructure projects are the primary drivers of near-term employment requirements over the scenario period, with requirements expected to peak in 2022. They are then sustained near that level across the remainder of the period. Continued growth in ICI building, driven by commercial and institutional construction, contributes to long term job opportunities while jobs related to the nuclear refurbishment project spans across the forecast period.

The expected retirement of 38,000 workers, or 22 percent of the current labour force, adds to labour market challenges.

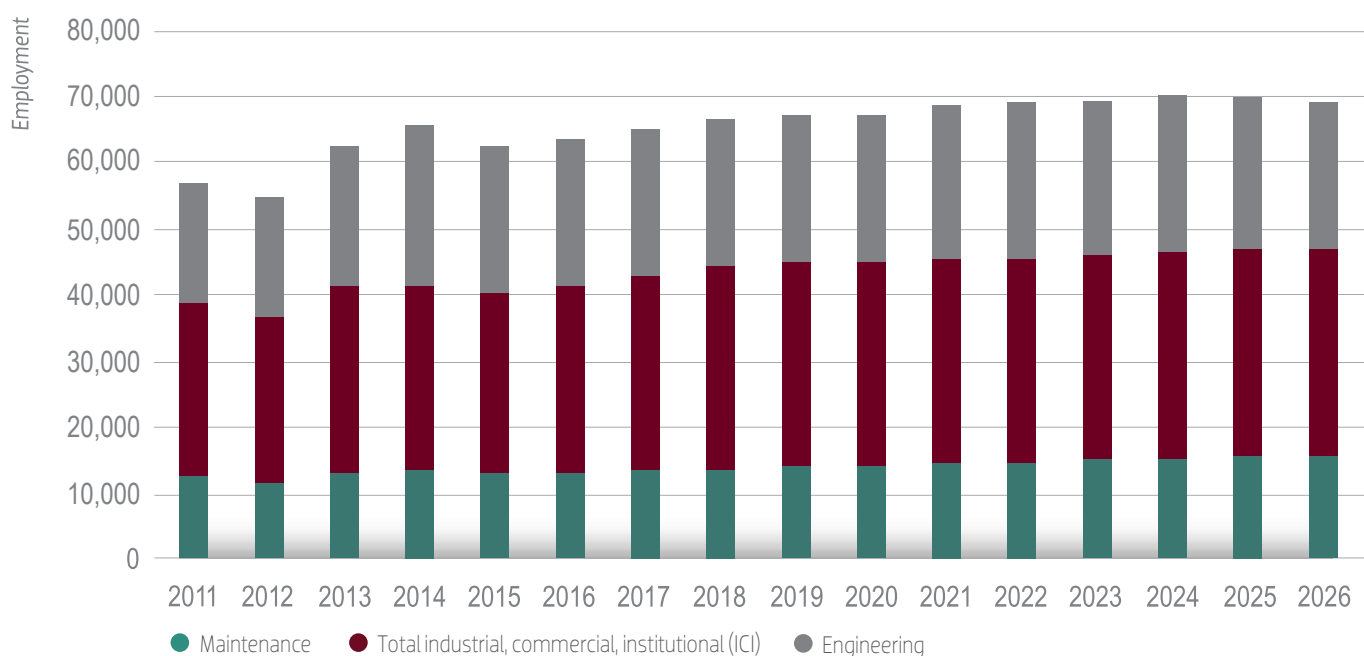
NON-RESIDENTIAL SECTOR

Rising non-residential building and engineering demands are expected to add to workforce requirements across the scenario period, with initial gains concentrated in 2017 and 2018. Steady growth in commercial and institutional building follow gains in the current residential cycle.

Engineering investment figures prominently in the outlook, driven by nuclear refurbishment, transportation and other infrastructure projects. Overall non-residential employment requirements are expected to add 2,300 new jobs through 2021 and then recede, but remain above 2016 levels at the end of the decade in 2026.

Figure 5 shows the employment trends by sector for non-residential construction.

⁶ The 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.

Figure 5: Non-residential construction employment growth outlook, Greater Toronto Area


Source: Statistics Canada, BuildForce Canada

Non-residential rankings, risks and mobility

Table 8 provides a summary of non-residential market rankings for the GTA. The modest pace of growth results in generally balanced labour markets across the scenario period, with overall activity and employment sustained at high levels. Non-concurrent peaks and completions of major projects create sporadic tight and loose conditions for a number of trades across the decade.

The rankings for some trades working in the non-residential sector are suppressed due to the small size of the workforce (<100 workers) and limited statistical reliability when assessing labour market conditions at the sector level. Trades may also be excluded because they typically do not work in the sector being assessed (e.g., home building and renovation managers in non-residential). For the GTA, non-residential rankings are reported for 31 trades and occupations.

RESIDENTIAL SECTOR

Residential employment demands grew by 11 percent between 2013 and 2016, propelled by strong new housing construction. Momentum is expected to carry employment to a peak in 2017, but residential demands are expected to remain at historically high levels over the scenario period, driven by multi-unit housing starts and stable renovation activity.

Figure 6 shows the employment trends by sector for residential construction.

Residential rankings, risks and mobility

Recent high levels of new housing and renovation activity sustain tighter labour market conditions for several trades in 2016 and 2017, reflected in Table 9. Conditions for trades and occupation more concentrated in new housing weaken between 2020 and

NON-RESIDENTIAL HIGHLIGHTS, GREATER TORONTO AREA

- A continued rise in commercial, government and institutional investment contributes to a steady rise in employment throughout the scenario period.
- Major transit projects add to employment opportunities across the decade.
- Heavy industrial activity, including a nuclear refurbishment project, sustains engineering employment across the 10-year period.
- Federal infrastructure investment is assumed to raise investment in highway and bridge construction through to 2025.

Table 8: Non-residential market rankings, Greater Toronto Area

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Boilermakers	3	4	4	2	3	4	3	2	2	3	3
Bricklayers	3	3	3	3	3	3	3	3	3	3	3
Carpenters	3	3	3	3	3	3	3	3	3	3	3
Concrete finishers	4	3	3	3	3	3	3	3	3	2	2
Construction estimators	3	4	3	3	3	3	3	3	3	3	2
Construction managers	3	4	3	3	3	3	3	2	3	3	3
Construction millwrights and industrial mechanics	2	4	3	3	4	4	3	3	2	3	3
Contractors and supervisors	3	3	3	3	3	3	3	3	3	3	3
Crane operators	3	3	3	3	3	3	3	3	3	3	3
Electrical power line and cable workers	3	2	2	3	4	3	4	2	4	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	3	4	3	3	3	3	3	3	3	3	3
Gasfitters	3	3	3	3	3	3	3	3	3	3	3
Glaziers	3	3	4	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	3	3	3	3	3	3	3	3	3	3	2
Heavy-duty equipment mechanics	3	3	3	3	3	3	3	3	3	3	2
Insulators	3	3	3	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	2	3	3	4	3	3	4	3	2	2	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	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	3	3	3	3	3	3	3	3	3	3
Steamfitters, pipefitters and sprinkler system installers	3	2	2	3	4	3	3	3	3	2	3
Tilesetters	3	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	3	3	3	3	3	3	3	3	3	2
Welders and related machine operators	3	3	3	3	3	3	3	3	3	3	3

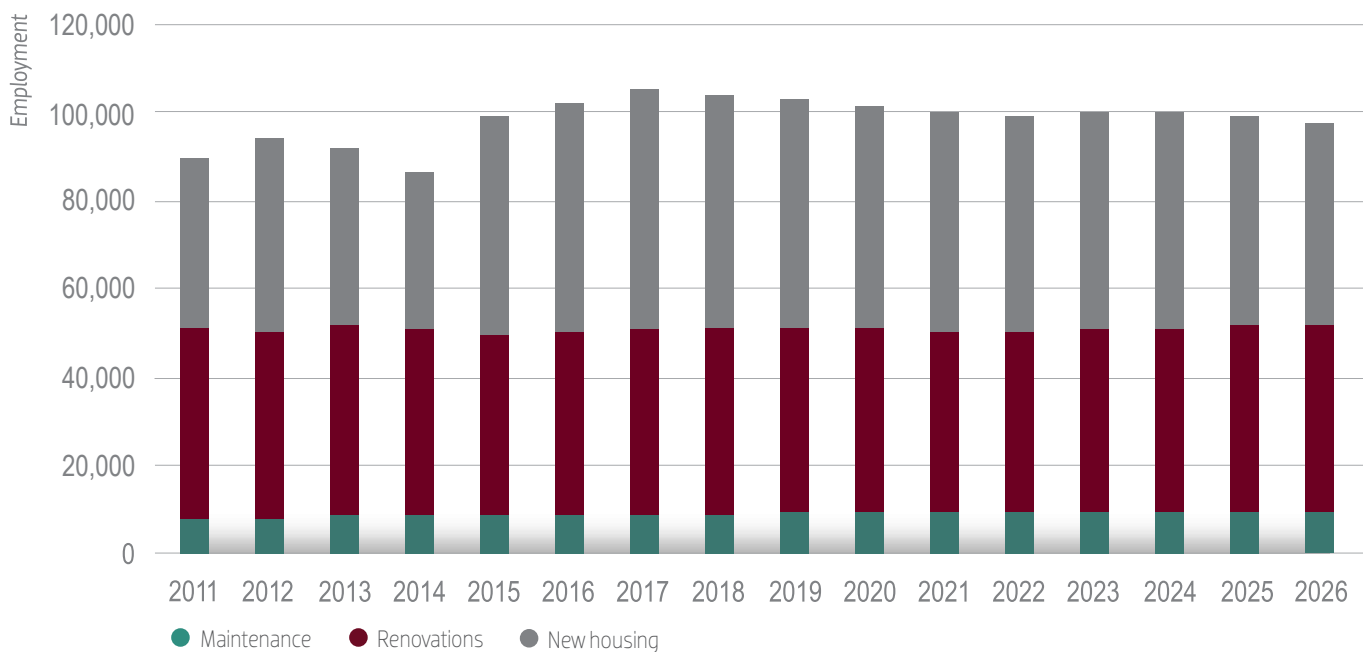
Source: BuildForce Canada

2022, as housing starts decline, but by 2023, steady levels of renovation activity help contribute to more balanced market conditions, signalled by a rank of 3.

The rankings for some trades working in the residential sector are suppressed due to the small size of the workforce (<100 workers) and limited statistical reliability when assessing labour market con-

ditions at the sector level. Trades may also be excluded because they typically do not work in the sector being assessed (e.g., boilermakers, millwrights, etc. in residential construction). For the GTA, residential rankings are reported for 27 trades and occupations.

Figure 6: Residential construction employment growth outlook, Greater Toronto Area



RESIDENTIAL HIGHLIGHTS, GREATER TORONTO AREA

- Housing starts declined from 50,000 units in 2012 to 30,000 in 2014. Housing activity surged in 2015 and 2016, driven by condo construction, and is expected to plateau close to the previous peak in 2017.
- Housing starts cycle back down after 2024, leaving residential employment slightly below current levels at the end of the scenario period in 2026.
- Renovation activity, which accounts for close to 50 percent of total residential investment in the GTA, is expected to remain steady through 2022 and then rises, offsetting some of the anticipated declines in new housing employment.

Table 9: Residential market rankings, Greater Toronto Area

TRADES AND OCCUPATIONS – RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Bricklayers	4	3	3	3	3	3	3	3	3	3	3
Carpenters	4	3	3	3	3	3	3	3	3	3	3
Concrete finishers	4	3	3	3	3	3	3	3	3	3	3
Construction estimators	4	4	3	3	3	2	3	3	3	3	3
Construction managers	4	4	3	3	2	2	2	3	3	3	2
Contractors and supervisors	4	4	3	3	3	2	3	3	3	3	3
Crane operators	4	4	3	3	2	2	3	3	3	2	2
Electricians	4	3	3	3	3	2	3	3	3	3	2
Elevator constructors and mechanics	4	4	3	3	3	2	3	3	3	3	2
Floor covering installers	4	4	3	3	3	2	3	3	3	3	3
Gasfitters	4	4	3	3	3	2	3	3	3	3	3
Glaziers	4	4	3	3	3	2	3	3	3	2	2
Heavy equipment operators (except crane)	4	3	3	3	2	3	3	3	3	3	3
Home building and renovation managers	4	4	3	3	2	2	2	3	3	3	3
Insulators	4	3	3	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	4	4	3	3	3	2	3	3	3	3	2
Painters and decorators (except interior 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	4	4	3	3	3	2	3	3	3	3	3
Refrigeration and air conditioning mechanics	4	4	3	3	3	2	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	4	3	3	3	3	3	3	3	3	3	3
Tilesetters	4	4	3	3	3	2	2	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	4	4	3	3	3	2	3	3	3	3	3

Source: BuildForce Canada

NORTHERN ONTARIO

Low commodity prices have delayed new resource development plans in Ontario's Northern region⁷. Slower population growth and declines in the number of new major projects are expected to limit growth in residential and non-residential construction employment over the scenario period.

Declines in engineering and industrial building construction contribute to falling employment over the near term, while proposed energy and resource projects provide a short-term lift in non-residential labour requirements between 2019 and 2021.

Recruitment challenges are anticipated during peak periods due to the relatively small size of the Northern Ontario workforce, the remote location of some major projects and age demographics where more than 25 percent of the current construction labour

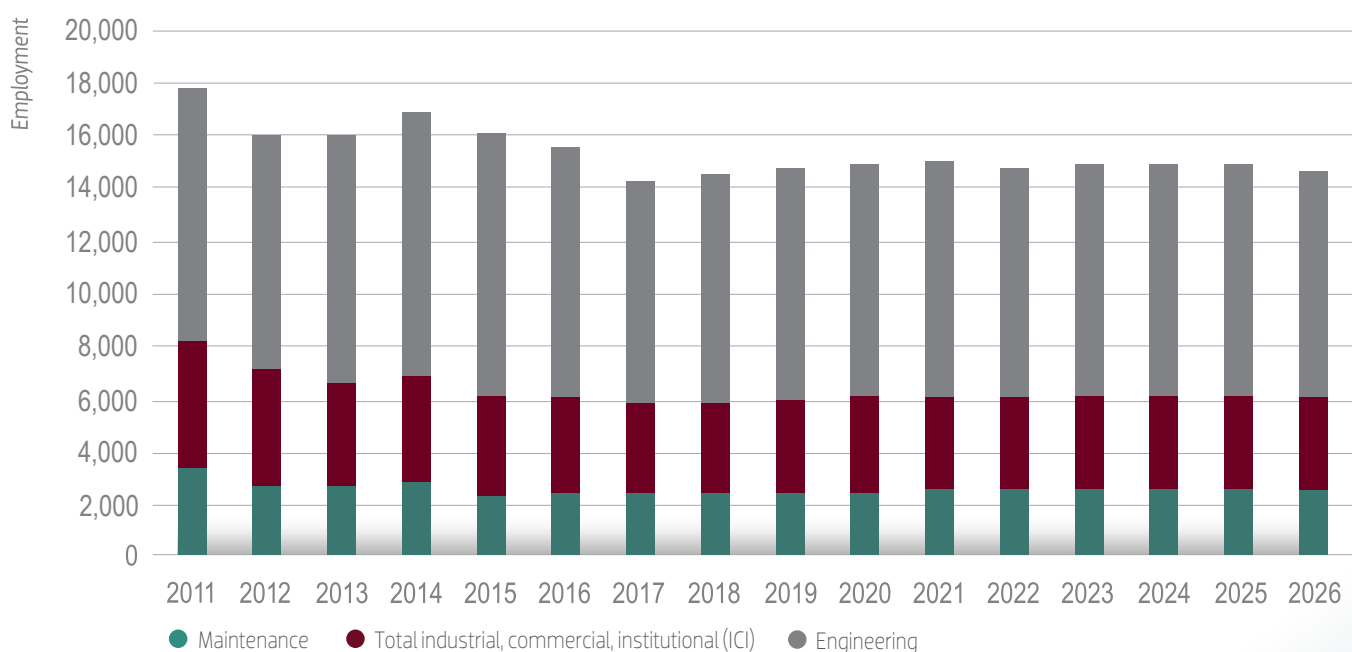
force is expected to retire over the next decade. Ongoing challenges to retain and attract young workers pose a potential risk to the region's capacity to meet labour requirements even during periods of slower growth.

NON-RESIDENTIAL SECTOR

Non-residential employment demands have receded in recent years, largely due to declines in institutional building. Declines in engineering and industrial building construction contribute to falling employment over the near term, while proposed energy and resource projects provide a short-term lift in non-residential requirements between 2019 and 2021. Overall non-residential employment requirements are expected to decline by 800 jobs by the end of the scenario period in 2026.

Figure 7 shows the employment trends by sector for non-residential construction.

Figure 7: Non-residential construction employment growth outlook, Northern Ontario



Source: Statistics Canada, BuildForce Canada

NON-RESIDENTIAL HIGHLIGHTS, NORTHERN ONTARIO

- A modest recovery in commercial and institutional employment only partly offsets continued declines in industrial building construction.

- Low commodity prices have delayed final investment decisions for new resource development projects.
- Engineering employment rises by small increments to 2020, and then recedes as current and proposed major projects wind down.
- Total employment rises to a peak level in 2021 and then declines, but the expected rise is contingent on the timing of a proposed major pipeline and other related projects.

⁷ The Northern region includes the economic regions of the Northeast and Northwest as defined by Statistics Canada, including the CMAs of Thunder Bay and Sudbury. Cities include Sault Ste. Marie, Timmins, Kirkland Lake, Dryden, Kenora and Fort Frances.

Non-residential rankings, risks and mobility

Table 10 shows non-residential rankings for Northern Ontario. Weaker conditions in the near term reflect the continued decline in non-residential activity. Potential recruitment challenges are anticipated between 2019 and 2021 as labour market conditions tighten due to the ramping up of proposed major projects and a limited pool of workers. Generally balanced labour markets, signalled by a rank of 3, are expected over the latter half of the scenario period under slower growth.

The rankings for some trades working in the non-residential sector are suppressed due to the small size of the workforce (<100 workers) and limited statistical reliability when assessing labour market conditions at the sector level. Trades may also be excluded because they typically do not work in the sector being assessed (e.g., home building and renovation managers in non-residential). For Northern Ontario, non-residential rankings are reported for 22 trades and occupations.

Table 10: Non-residential market rankings, Northern Ontario

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Boilermakers	2	2	3	3	3	3	3	3	3	3	3
Bricklayers	2	2	3	3	3	3	3	3	3	3	3
Carpenters	2	2	3	3	3	3	3	3	3	3	3
Construction estimators	2	2	3	3	3	3	3	3	3	3	3
Construction managers	3	2	3	3	3	4	3	3	3	3	3
Construction millwrights and industrial mechanics	2	2	3	3	3	3	3	3	3	3	3
Contractors and supervisors	2	2	3	3	3	3	3	3	3	3	3
Electricians	2	2	3	3	3	3	3	3	3	3	3
Gasfitters	2	2	3	3	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	3	2	3	3	3	3	2	3	3	3	2
Heavy-duty equipment mechanics	2	2	3	3	3	3	3	3	3	3	3
Insulators	2	2	3	3	3	3	3	3	3	3	3
Ironworkers and structural metal fabricators	3	2	3	3	3	4	2	3	3	2	3
Painters and decorators (except interior decorators)	3	3	3	4	3	3	2	3	3	3	3
Plumbers	2	2	3	3	3	3	3	3	3	3	3
Refrigeration and air conditioning mechanics	3	2	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
Sheet metal workers	2	2	3	3	3	3	3	3	3	3	3
Steamfitters, pipefitters and sprinkler system installers	3	2	3	3	3	3	2	3	3	3	3
Trades helpers and labourers	2	2	3	3	3	3	2	3	3	3	3
Truck drivers	2	2	3	3	3	3	3	3	3	3	3
Welders and related machine operators	2	2	3	4	3	3	2	3	3	3	3

Source: BuildForce Canada

RESIDENTIAL SECTOR

Residential construction has been on a downward trend since 2011 and employment requirements have fallen by nearly half since then. A modest cycle in new housing construction alongside modest growth in renovations are expected to raise and then lower labour requirements leaving residential employment near current levels at the end of the scenario period. Over the decade, residential employment rises by a modest 200 jobs.

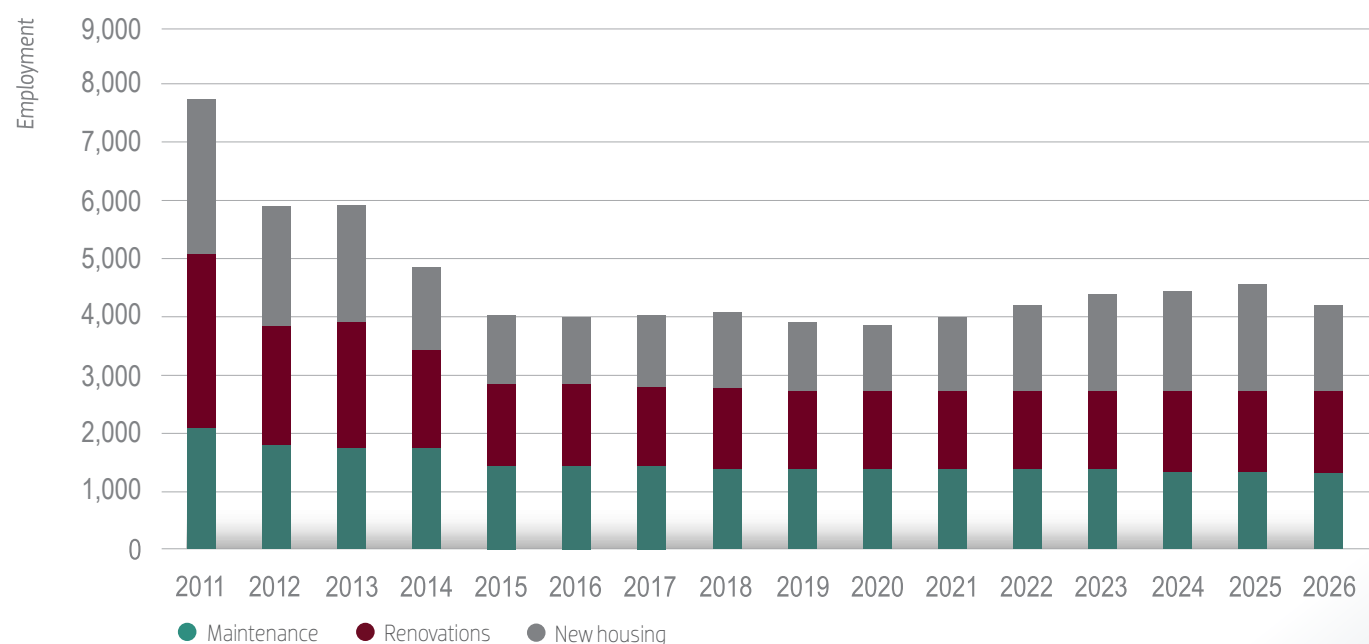
Figure 8 shows the employment trends by sector for residential construction.

Residential rankings, risks and mobility

Table 11 shows that residential labour market conditions for Northern Ontario are generally balanced, signalled by a rank of 3, over the near term. But conditions are expected to tighten for selected trades and occupations at the peak of the housing up-cycle between 2021 and 2023. Adverse population growth trends dictate falling residential activity in the latter half of the scenario period, driving weaker conditions in 2026.

The rankings for some trades working in the residential sector are suppressed due to the small size of the workforce (<100 workers) and limited statistical reliability when assessing labour market conditions at the sector level. Trades may also be excluded because they typically do not work in the sector being assessed (e.g., boilermakers, millwrights, etc. in residential construction). For Northern Ontario, residential rankings are reported for 11 trades and occupations.

Figure 8: Residential construction employment growth outlook, Northern Ontario



Source: Statistics Canada, BuildForce Canada

RESIDENTIAL HIGHLIGHTS, NORTHERN ONTARIO

- Following several years of decline, housing starts are projected to rise across the scenario period.
- Increased household formation and housing starts are driven by moderate, but positive, population growth projections and assumed in-migration.

Table 11: Residential market rankings, Northern Ontario

TRADES AND OCCUPATIONS – RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Bricklayers	3	3	3	2	3	3	4	3	3	3	2
Carpenters	3	3	3	2	3	4	4	4	3	3	2
Construction managers	3	4	4	2	2	4	4	4	3	3	2
Contractors and supervisors	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
Home building and renovation managers	3	3	3	3	3	4	4	4	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	2	3	3	4	3	3	3	2
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
Trades helpers and labourers	3	3	3	2	3	4	4	4	3	3	2

Source: BuildForce Canada

SOUTHWEST ONTARIO

Construction demands in Southwest Ontario⁸ are expected to rise in 2017 and 2018, driven by peaks in major project demands and strong gains in commercial and institutional building activity. Steady levels of residential activity add to total construction workforce requirements over the near term.

Meeting the year-to-year fluctuations in non-residential employment demands will likely be contingent on the mobility of workers from other sectors of construction, industries or regions for selected trades and occupations.

Diverging trends between residential and non-residential demands in the latter half of the scenario period may present opportunities for some residential workers, depending on skills and experience, to transition to non-residential construction.

NON-RESIDENTIAL SECTOR

The timing of major projects and rising near-term ICI building activity drive non-residential employment to an anticipated peak in 2020. Workforce requirements related to the construction of an international bridge, nuclear refurbishment and other infrastructure projects raise engineering requirements to peak levels in 2017 and 2020.

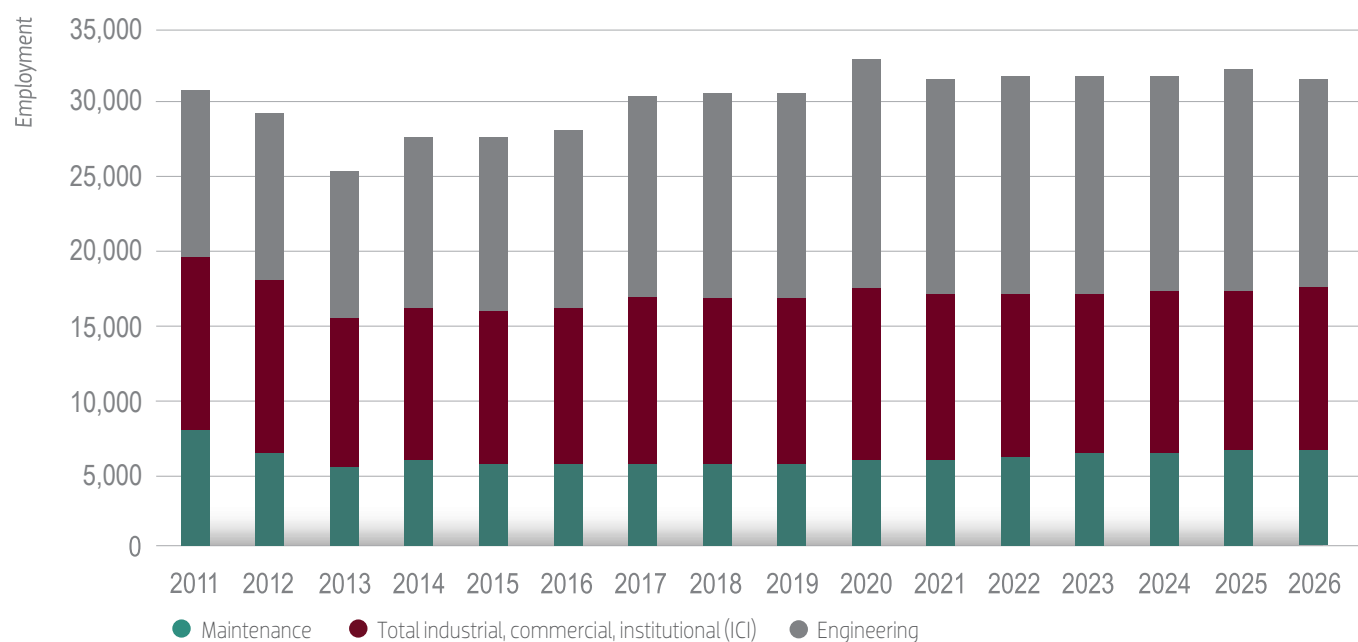
Stable growth in commercial building contributes to increases in non-residential employment demands, which are anticipated to rise by 3,500 jobs, or by 13 percent, over the scenario period.

Figure 9 shows the employment trends by sector for non-residential construction.

NON-RESIDENTIAL HIGHLIGHTS, SOUTHWEST ONTARIO

- Major project requirements are expected to add 3,500 jobs, increasing engineering employment by 30 percent to peak levels in 2020.
- Starting in 2020, planned nuclear refurbishment work and other utility projects raise long-term requirements for key trades.
- Total employment rises to a peak level in 2020, adding 4,900 jobs. Labour requirements recede as some major projects are completed, but employment remains 13 percent higher at the end of the scenario period in 2026.

⁸ **The Southwest region** includes the economic regions of London, Windsor-Sarnia and Stratford-Bruce Peninsula as defined by Statistics Canada, including the CMAs of London and Windsor. Cities include Chatham, Ingersoll, Sarnia, Stratford, Goderich and Owen Sound.

Figure 9: Non-residential construction employment growth outlook, Southwest Ontario


Source: Statistics Canada, BuildForce Canada

Table 12: Non-residential market rankings, Southwest Ontario

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Boilermakers	3	3	3	3	4	4	4	3	3	4	4
Bricklayers	3	3	3	3	3	3	3	3	3	3	3
Carpenters	3	3	3	3	3	3	3	3	3	3	3
Concrete finishers	3	4	3	3	3	3	3	3	3	3	3
Construction estimators	2	4	3	3	4	3	2	2	3	4	2
Construction managers	3	4	3	3	5	3	3	2	3	4	2
Construction millwrights and industrial mechanics	4	2	3	3	3	3	3	3	3	3	3
Contractors and supervisors	3	4	3	3	5	4	3	3	3	3	2
Crane operators	2	4	3	2	3	3	3	3	3	2	3
Electricians	3	3	3	3	3	3	3	3	3	3	3
Elevator constructors and mechanics	3	4	3	3	3	2	3	3	3	3	3
Floor covering installers	3	4	3	3	3	3	3	3	3	3	3
Gasfitters	3	3	3	3	3	3	3	3	3	3	3
Glaziers	3	4	3	3	4	3	3	3	3	3	3
Heavy equipment operators (except crane)	3	5	3	3	3	2	3	3	3	3	2

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Table 12: Non-residential market rankings, Southwest Ontario (continued)

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Heavy-duty equipment mechanics	3	4	3	3	4	3	3	3	3	3	2
Insulators	3	3	3	3	3	2	3	3	3	3	3
Ironworkers and structural metal fabricators	2	4	4	2	4	2	3	4	3	2	3
Painters and decorators (except interior decorators)	3	4	3	3	3	2	3	3	3	3	3
Plasterers, drywall installers and finishers and lathers	2	3	3	3	4	3	3	3	3	3	3
Plumbers	3	3	3	3	3	3	3	3	3	3	3
Refrigeration and air conditioning mechanics	3	4	3	3	4	3	3	3	3	3	3
Residential and commercial installers and servicers	3	4	3	3	3	2	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	2	3	3	4	3	2	4	3	3	2
Trades helpers and labourers	3	4	3	3	3	2	3	3	3	3	2
Truck drivers	3	4	3	3	3	2	3	3	3	3	2
Welders and related machine operators	2	4	3	3	5	4	3	3	3	3	2

Source: BuildForce Canada

Non-residential rankings, risks and mobility

The timing of major engineering projects tightens labour market conditions for key trades in excess of available supply in 2017 and 2022. Periodic recruitment challenges may occur for certain trades, followed by labour market weakness as building construction projects ease. Managing the non-residential workforce through anticipated peaks and troughs may require mobility from other regions.

The rankings for some trades working in the non-residential sector are suppressed due to the small size of the workforce (<100 workers) and limited statistical reliability when assessing labour market conditions at the sector level. Trades may also be excluded because they typically do not work in the sector being assessed (e.g., home building and renovation managers in non-residential). For Southwest Ontario, non-residential rankings are reported for 28 trades and occupations.

Table 12 shows non-residential rankings for Southwest Ontario. Labour markets are generally balanced across the scenario period, with overall activity and employment sustained at high levels. The start and completion of major projects creates sporadic tight and loose market conditions for a number of trades and occupation at various times across the decade.

RESIDENTIAL SECTOR

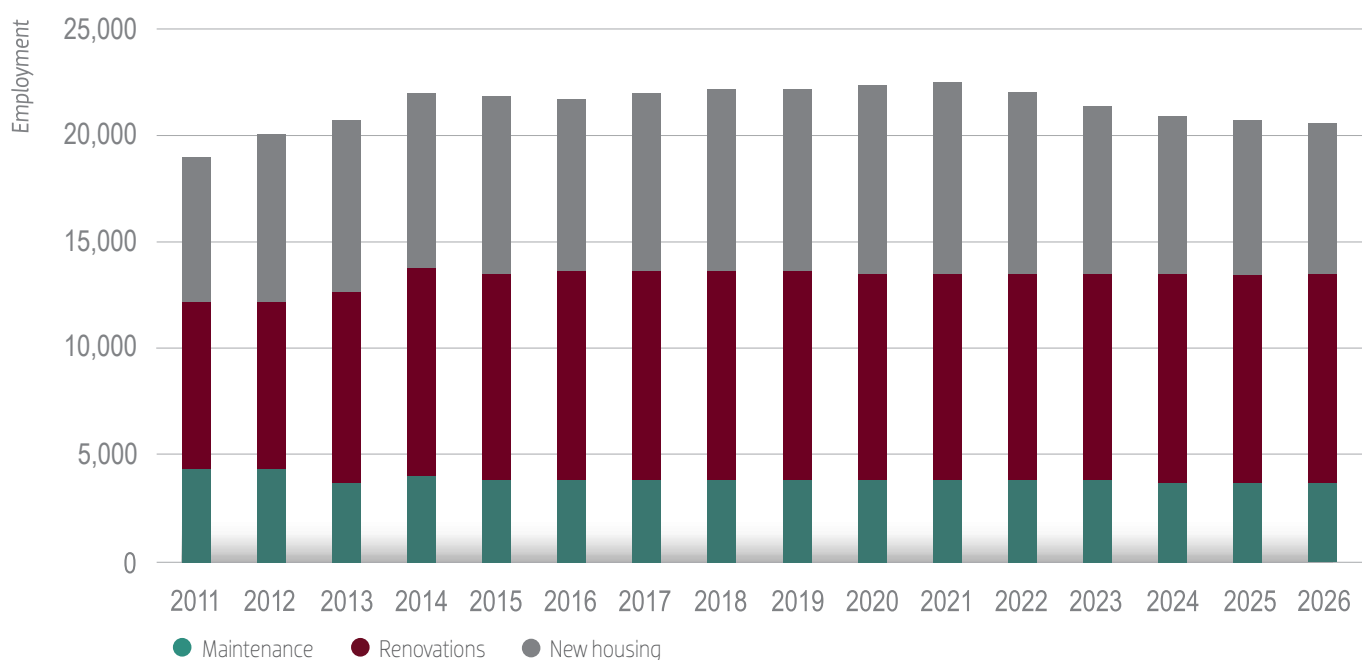
Residential activity in Southwest Ontario has been recovering since the 2009 recession. Modest gains in housing starts are expected to continue through 2021, driven by population growth and rising household formations. A down-cycle is expected to follow as population growth slows over the latter half of the scenario period, but losses are offset by steady growth in renovation activity.

Figure 10 shows the employment trends by sector for residential construction.

Residential rankings, risks and mobility

Table 13 shows that residential labour market conditions for Southwest Ontario are generally balanced over the scenario period. Conditions for some trades and occupations tighten between 2017 and 2020 with peak levels in new housing demands. Labour markets weaken as new housing cycles down in the latter half of the decade.

The rankings for some trades working in the residential sector are suppressed due to the small size of the workforce (<100 workers) and limited statistical reliability when assessing labour market conditions at the sector level. Trades may also be excluded because they typically do not work in the sector being assessed (e.g., boilermakers, millwrights, etc. in residential construction). For Southwest Ontario, residential rankings are reported for 18 trades and occupations.

Figure 10: Residential construction employment growth outlook, Southwest Ontario


Source: Statistics Canada, BuildForce Canada

Table 13: Residential market rankings, Southwest Ontario

TRADES AND OCCUPATIONS – RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Bricklayers	3	3	3	3	3	3	3	3	3	3	3
Carpenters	3	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	3	3	2	3	3	3
Construction managers	3	4	3	3	4	3	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	3	3	3	3	3	3
Floor covering installers	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

continued on next page

RESIDENTIAL HIGHLIGHTS, SOUTHWEST ONTARIO

- Housing starts follow a modest upward trend, reaching an anticipated peak of 5,500 units in 2021 and then cycle down following slower population growth.
- The pace of renovation activity slows, but contributes to employment opportunities.
- Overall residential employment rises by 700 jobs to a peak level in 2021 and then recedes. Employment is 1,200 jobs lower than current levels by the end of the scenario period in 2026.

Table 13: Residential market rankings, Southwest Ontario (continued)

TRADES AND OCCUPATIONS – RESIDENTIAL	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Home building and renovation managers	3	4	4	3	4	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
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
Tilesetters	3	3	3	3	3	3	3	2	2	3	3
Trades helpers and labourers	3	3	3	3	3	3	3	2	2	3	3
Truck drivers	3	3	3	3	3	3	3	3	3	3	3

Source: BuildForce Canada

REPLENISHING A RETIRING WORKFORCE

Ontario's construction industry is anticipated to go through modest growth cycles, while maintaining elevated levels of activity across construction sectors over the next decade. Although growth is modest, potential recruiting challenges may arise as labour markets adjust to changing demographics. Replenishing a retiring workforce should still be among top priorities for industry leaders. Retirements (including mortality) are expected to draw an estimated 86,100 workers from the province's construction industry over the next 10 years. Such a shift in the workforce creates the potential for a significant skill vacuum that requires proactive planning.

Ontario's natural rate of population growth (births less deaths) has been steadily declining, with estimated migration into the province expected to account for a larger share of population growth over the long term. Over the short term, workers that were working in Western provinces are anticipated to return to Ontario as employment declines persist in the West. Later in the scenario period, a new wave of immigration gives rise to increased migration and population growth. Figure 11 shows the factors contributing to population growth in Ontario.

An aging population continues to be a source of concern for all Canadian provinces. Table 14 shows Ontario's population age distribution. By 2026, the share of the population in prime working age (25 to 54 years old) is expected to decline and at the same time the share of the population in older age brackets (65 years and over) is expected to increase. This trend indicates that the share of the population that is potentially exiting the labour force is increasing while the share of the population that is potentially entering the labour force is declining.

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

As the construction industry workforce continues to age, industry stakeholders may need to find alternative sources of labour to fill the gap of retiring workers.

Based on historical hiring trends, the province's construction industry is expected to draw an estimated 80,600 first-time new entrants from the local population, aged 30 and younger, over the next 10 years. In the scenario period, the retiring workforce exceeds the youth coming into the industry. Such market pressure will require the industry to acquire workers from outside of the province or from other industries, or find new ways to improve its share of new entrants.

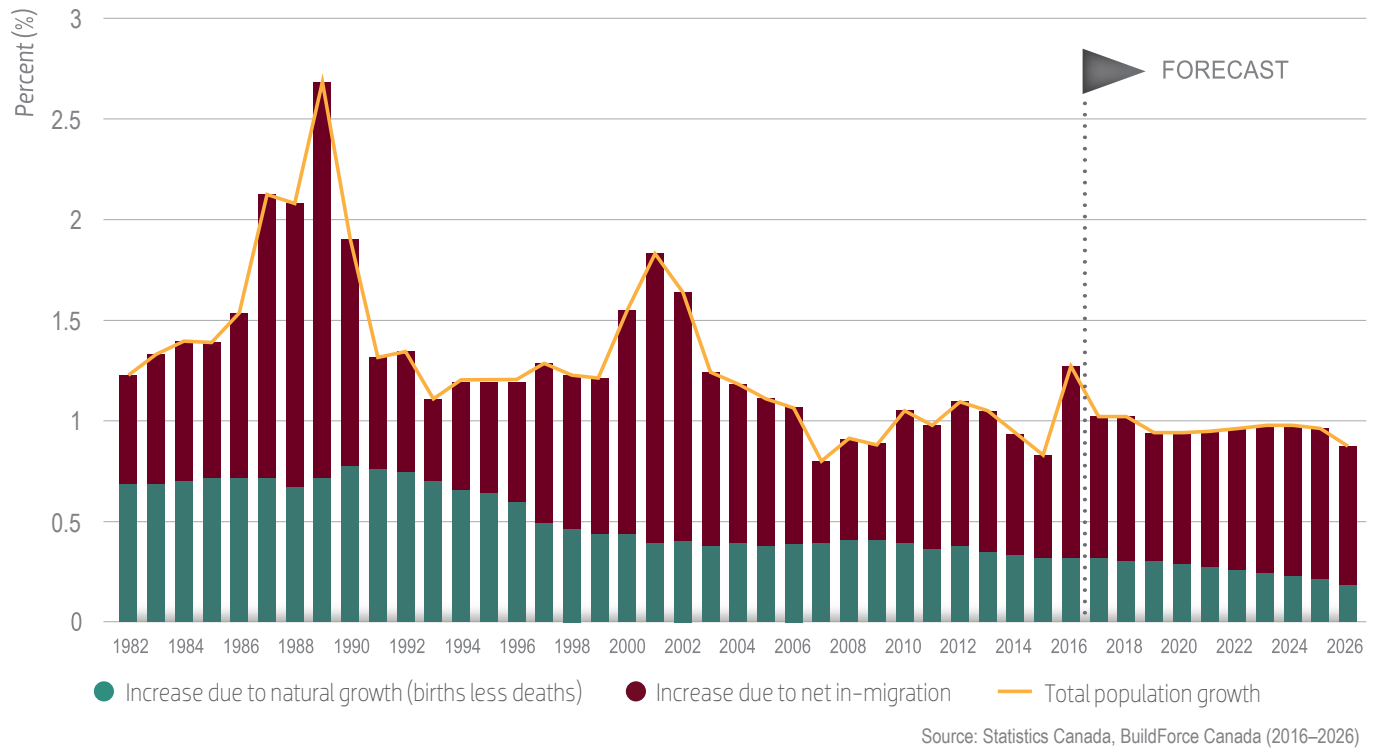
Increasing the number of new entrants will require industry leaders to increase initiatives to engage underrepresented sources of labour, including Indigenous people and women, when targeting new entrants, which presents significant opportunities.

Table 14: Population age distribution (%), Ontario

AGES	2016	2026
0–14	15.9	16.0
15–24	12.9	10.4
25–54	41.5	39.9
55–64	13.5	13.1
65+	16.4	20.5

Source: Statistics Canada, BuildForce Canada

Figure 11: Sources of population growth (%), Ontario



Canada's Indigenous population has the country's highest rate of population growth and a higher propensity to choose construction as their career choice. Ontario is home to most Indigenous people in Canada, with more than a quarter (26 percent) of all Indigenous people residing in the province. Currently, Indigenous people account for about 1.9 percent of the construction workforce in Ontario.

Across the scenario period, Ontario's female population is expected to grow faster than their male counterparts. The province's construction workforce is made up of approximately 11 percent women, of which about 24 percent work directly on construction projects, while the remaining 76 percent work in construction support or office-related occupations in the construction industry. This translates into women representing 3.2 percent of the province's direct construction workforce.

10-YEAR AVERAGE

1%



POPULATION GROWTH

156,300



BIRTHS

117,400



DEATHS

102,900



NET MIGRATION

BY 2026

41



AVERAGE AGE OF CONSTRUCTION WORKFORCE

20%



PERCENT OF CURRENT LABOUR FORCE LOST TO RETIREMENT

CONCLUSIONS AND IMPLICATIONS

Ontario is a large and diverse construction market. Although the pace of growth at the provincial level is expected to slow following almost two decades of uninterrupted expansion, construction is still amid modest up-cycles in both the residential and non-residential sectors. Employment is expected to plateau in 2017, supported by major regional infrastructure, transportation and energy projects, and then remain near that level across most of the scenario period. Mobility between regions is expected to play a role in moderating regional labour market challenges. Expected retirements are estimated at 86,000, or around 20 percent of the current workforce.

This represents a significant loss of skilled workers. Attracting first-time new entrants to the industry will be crucial in meeting long-term replacement requirements.

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 presents risks and potentially alters anticipated market conditions.

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Canada

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