2021

BUILDING A FOUNDATION FOR WORKFORCE PLANNING IN ONTARIO'S UNIONIZED CONSTRUCTION INDUSTRY

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Executive Summary

This report aims to dispel the notion of widespread labour shortages by providing a clearer picture of the source, scale and nature of specific challenges, as well as the measures of workforce size, age demographics, skill profile and the trade specific hiring and training requirements needed to develop effective workforce planning for Ontario's unionized construction workforce.

In contrast to the 2002 OCS report[1], the findings of this research based on the 2016 Census show Ontario's unionized construction industry has a slight average age demographic advantage – 41 years old versus 42 years old - relative to the non-union sector, as well as all industry average where the average age was also 42. Findings from the OCS Demographic and Diversity Survey conducted in 2020 also shows an increase in the share of workers aged 35 to 44 compared to the Census conducted in 2016 which demonstrate the industry has been successful in recruiting and retaining young workers. This finding is important as it suggests that the unionized sector's ongoing investments in training and apprenticeship are bearing fruit, but there is also clear evidence of greater age demographic challenges for specific trades and regions.

It has been established that Canada's labour force is aging and the construction industry has not been immune to this demographic shift. The notion of large-scale looming retirements in the construction industry has persisted and been a pressing concern - and the focus of much study - over the past two decades. It has prompted significant investments in training and apprenticeship and a variety of initiatives to promote the industry and increase recruitment. Efforts to keep pace have been made more difficult by a persistent economic expansion and the cyclical and seasonal nature of construction activity. These labour market dynamics have led to periodic, often acute, recruitment challenges in recent years and characterizations of widespread industry labour shortages.

Ontario's unionized construction workforce is estimated at 127,950 in 2019 and is projected to rise to 135,700 over the next decade in line with anticipated expansion. In order to keep pace with both expansion and replacement demands, the sector is expected to need to recruit, train, and retain more than 33,380 additional skilled workers over the next decade – accounting for 26% of the current workforce. It is important to note that the retirement estimates for the unionized sector in this report are estimates based on age profiles and retirement rates of the overall construction industry. A key recommendation of this report is to conduct a more detailed demographic analysis for individual trades at the local level.

As the peak of baby boomers near the age of retirement, recruitment challenges are likely to be exacerbated by shrinking traditional labour pools and increased competition from other industries, which will continue to require an active outreach and recruitment of women, immigrants, and other underrepresented groups.

[1] Ontario Construction Secretariat. 'Aging Construction Workforce and Skills Shortages', 2002.

Although recruitment challenges are expected to persist, findings from the OCS Demographic and Diversity Survey show the unionized sector enjoys a number of key advantages in meeting recruitment and retention requirements:

> **First**, the sector's significant investments in training and apprenticeship provide the necessary training infrastructure and capacity to deliver needed skills, health and safety and formal apprenticeship training.
>
> **Second**, the industry's training culture provides a human capital advantage. Unionized workers in Ontario's construction industry are significantly more likely to have a trade certification than in the non-unionized sector. It is estimated the unionized sector employed 27,000 apprentices in 2019 and over 53,000 certified journeypersons. This provides the critical mass of certified workers necessary to continue to train thousands of new apprentices.
>
> **Third**, unionized workers on average earn higher wages and benefits which provides a significant competitive advantage for attracting youth and retaining skilled workers.
>
> **Fourth**, while current estimates of diversity among the unionized workforce are small (<5%), survey results suggest that nearly half (47%) have programs and policies in place for increasing diversity and most have undertaken organized efforts to recruit from underrepresented groups including women, at risk youth, or the Aboriginal population.

Another important finding of this research was the divergence in demographic profiles and hiring requirements between individual trades, regions and locals. The differences in age profiles and demand outlooks suggest effective long-term workforce planning must be done at the local level. Anticipating retirements and fluctuations in regional construction project demand is critical for staying ahead of hiring and training demands, to absorb market pressures, and to maintain or grow market share among employers. The estimates of annual hiring requirements in this report serve as a starting point. An enhanced, regional and trade specific analysis of hiring requirements would provide a clearer picture of workforce demographics and hiring requirements to support effective human resource planning. This requires detailed demographic modelling at a local level.

This research also makes clear that the industry must continue to diversify its workforce and develop new recruitment strategies to meet future demands as traditional supply pools continue to shrink. The industry's heavy reliance on member referrals from social networks and family connections tend to only replicate the status quo. Effective workforce renewal efforts must be hyper-focused on diversification and inclusion to 'break the mold'. These efforts could be facilitated by establishing baseline measures, metrics and goals around recruitment, inclusion, diversity and retention of underrepresented groups.

The sector's investment in training and higher qualifications resulting in higher earnings and benefits provides a competitive advantage, increasing the appeal for young workers and improving retention of skilled workers. It is important for the industry to monitor demographic and labour market requirements and respond with the appropriate training and recruitment needed to meet growing demands. It is especially important to recognize that training and recruitment requirements will differ on a trade and regional basis, illustrating the importance of a local level analysis to adequately address changing conditions.

1. Introduction

It is well understood that Canada's labour force is aging and the construction industry has not been immune to this demographic shift. The notion of large-scale looming retirements across the construction industry has been a pressing concern - and the focus of much study - over the past two decades. It has prompted significant investments in training and apprenticeship and a variety of initiatives to promote the industry and increase recruitment. The construction industry's workforce renewal efforts have also endured the headwind of a strong expansion over the past decade and further growth is expected in the decade ahead. As the demographic peak approaches, the industry faces the challenge of shrinking traditional labour pools, requiring active outreach and recruitment of women, immigrants, and other underrepresented groups.

These labour market dynamics have led to periodic, often acute, recruitment challenges in recent years and characterizations of widespread industry labour shortages. This report aims to dispel the notion of widespread shortages by providing a clearer picture of the size, age demographics and skill profile of Ontario's unionized construction workforce and assessing trade specific hiring and training requirements needed for effective long-term workforce planning.

This report builds on previous research conducted by the Ontario Construction Secretariat (OCS) on the aging construction workforce and availability of skilled trades (2002)[2] to support workforce planning by conducting an in-depth trade-specific, regional analysis with particular focus on Ontario's unionized construction sector. The report explores trade-specific demographic trends and employment demands within the construction industry, including distinctive age profiles, retirement trends, hiring requirements, and current recruitment and diversity practices within the industry.

As with the previous research, this report is based on the analysis of the most recent Census data (2016). Unique from the 2002 report, this report also draws upon primary data from the OCS Demographic and Diversity Survey (2020), which examines the current demographic climate and recruitment and diveristy practices from a sample of the unionized construction industry in Ontario. The analysis is also informed by the 2021 BuildForce Canada *Construction and Maintenance Looking Forward Outlook.*

Section 2 of this report describes the data sources used to carry out the analysis.

Section 3 presents a profile of the construction industry with an emphasis on the unionized sector, including the skill profile, earning trends, and trade-specific age profiles.

Section 4 details trends in retirements, projected hiring requirements, and recruitment practices.

Section 5 outlines current industry efforts surrounding diversity and training initiatives and potential growth to be found in the area of diversity, equity and inclusion (DEI).

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[2] Ontario Construction Secretariat. 'Aging Construction Workforce and Skills Shortages', 2002.

2. Data Sources

This report is informed by both primary and secondary data. Demographic data was available from two main secondary data sources – the Census and BuildForce Canada's 2021-2030 Construction and Maintenance Outlook. Primary demographic data was collected by the Ontario Construction Secretariat through their Demographic and Diversity Survey (2020). A detailed description of these data sources is provided below.

2016 Census

This analysis includes a special tabulation of the 2016 Census, encompassing all sectors within the construction industry (residential and non-residential). The 2016 Canadian Census was the first Census year that enabled the distinction between union and non-union workers through linkage to CRA 2015 tax files. Individuals working in the unionized sector were identified based on union dues reported by tax filers working in the construction industry.

Demographics and Diversity Survey

The OCS surveyed 101 construction union locals to gauge membership demographics and current recruitment and diversity practices and policies. Demographic data collected was based on the locals 2019 membership. The survey includes locals from every region in the province and every trade group, except for painters.

The survey, conducted between November 2020 to January 2021, received a 50 percent response rate. There were 13 locals that provided partial responses. Refer to **Appendix A** for the trade and region distribution of respondents.

BuildForce Canada

The analysis for hiring requirements is based on the latest BuildForce Canada outlook for 2021 to 2030 for five regions in Ontario: Southwest, Northern, Eastern, Central Ontario and the GTA. BuildForce data was used as a key driver to assess economic growth and estimate changes in employment demand for trades within each region. BuildForce tracks economic drivers within the model for 34 related trades and occupations.

3. Industry Profile

This section of the report reviews the demographic trends and key characteristics of Ontario's construction industry, with an emphasis on the unionized sector.

The construction sector is a significant contributor to Ontario's economy, employing approximately 541,293 men and women in 2019, accounting for approximately 7% of Ontario's employed workforce. The construction industry has been growing rapidly, with the labour force increasing by 16% over the past decade – nearly double the rate of growth for all industries.[3] The Ontario unionized skilled trades construction workforce is estimated to be 127,950[4] in 2019, assuming the unionized share of the workforce has remained at 2016 levels.[5]

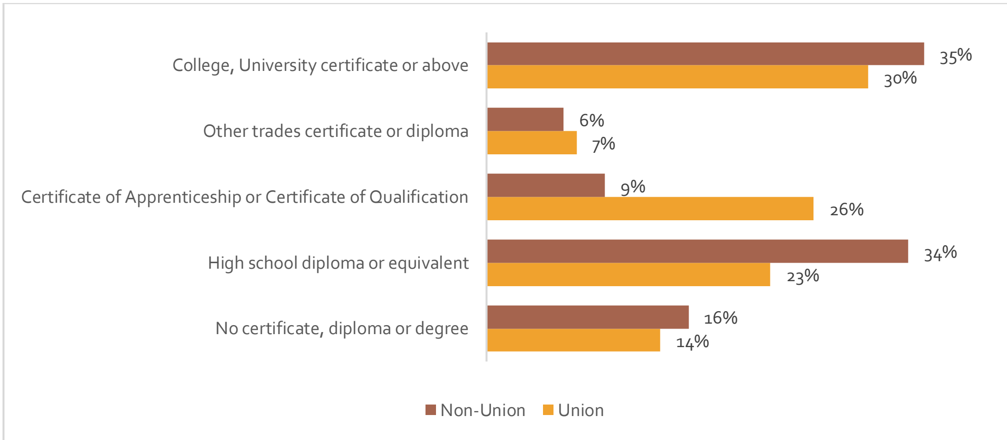
Skills Profile

Unionized workers in Ontario's construction industry are significantly more likely to have a trade certification than in the non-unionized sector. According to the 2016 Census, at least 17% of the construction workforce held a certificate of apprenticeship or a certificate of qualification in 2016. The unionized workforce has a significantly higher share of the workforce with a certificate of qualification than the non-unionized sector – 26% versus 9% (see **Figure 1**). This figure represents the 'floor level' of certification as it does not account for individuals with a college diploma or university degree who may also hold a certificate of qualification. The proportion of workers in the construction industry with either a college diploma, university degree and/or trade qualification as their highest level of education was estimated to account for 56% of the unionized workforce compared to 44% of the non-unionized workforce.

Higher rates of certification are a function of higher rates of unionization among compulsory trades and the demonstrated strong commitment to apprenticeship and training by construction unions and their industry partners. An OCS apprenticeship study (2013) found that from 2008 to 2012 Ontario's unionized construction sector had invested an estimated $114.6 million to dedicated training centers across the province.[6] The unionized construction industry plays an integral role in training union and non-unionized workers, and is a key driver of Ontario's apprenticeship system.

[3] Statistics Canada. Table 14-10-0023-01 Labour force characteristics by industry, annual (x 1,000).
[4] Excludes non-trades and administrative occupations
[5] Estimates based on a special tabulation of 2016 Census suggests 26% the total construction workforce were members of a union in 2015. Statistics Canada, 2016 Census.
[6] Ontario Construction Secretariat. 'Completion Counts: Raising Apprenticeship Completion Rates in Ontario's Construction Industry', 2013.

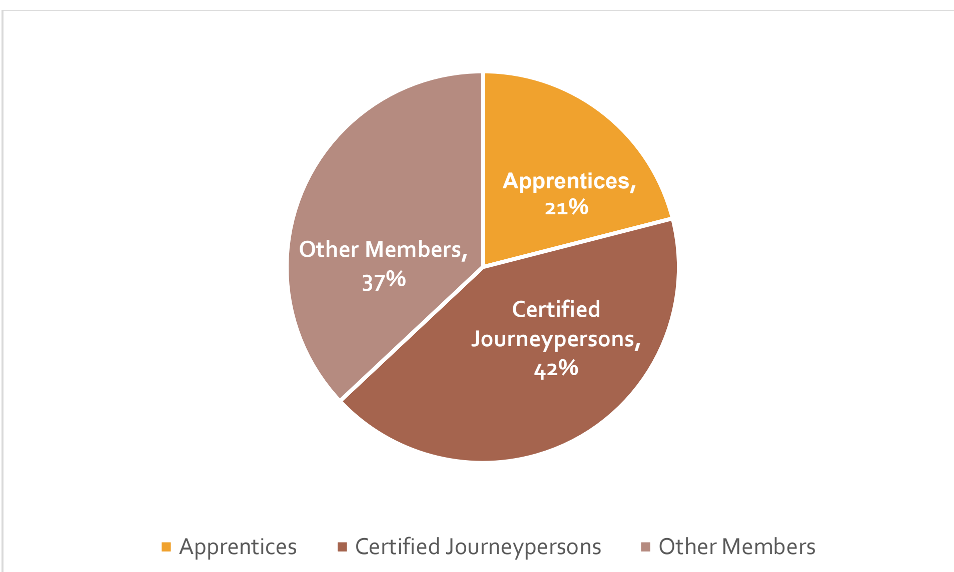
Figure 1 – Educational Attainment of Ontario's Construction Workforce, Union & Non-Union



Source: Statistics Canada, 2016 Census

Based on primary data collected from the Demographic and Diversity Survey, it's estimated that the unionized sector employs 53,400 certified journeypersons and 27,100 apprentices, which suggests approximately 6-in-10 local members had either a certification of qualification or were working towards their certification as an apprentice.

Figure 2 – Qualification Profile of Union Locals



Source: OCS Demographic and Diversity Survey

Industry Earnings

Excluding managerial and contractor and/or supervisory occupations, unionized workers in Ontario's construction industry earned on average $67,137 per year in 2015, which was $22,000, or 40% higher compared to those employed in the non-union sector. The distinct skill profile of the unionized sector is reflected in the compensation of the workforce. According to Statistics Canada, between 2000 and 2011, the average weekly wages of full-time male workers aged 25 to 34 with a trade certificate grew by 14%, while bachelor's degree holders reported a wage growth of only 1%.[7]

As with rates of trade certification, some of this difference can be attributed to higher union representation among compulsory certified trades. According to the 2016 Census, elevator mechanic was the highest paid trade occupation in the unionized sector, followed closely by contractor and supervisory occupations in pipefitting and electrical trades.

Age Profile

Construction and Other Industries

There is no evidence that the age distribution of the construction workforce is older than other industries. As of 2016, the average age of the construction workforce was 42 years old, consistent with the average age across all industries.[8] This contrasts with findings from past studies and suggests the aggressive recruitment in many trades by the unionized industry is regenerating the workforce. Figures 3 and 4 highlight the age distribution of the workforce across different industries – all industries, construction, manufacturing, and utilities. Except for some variation in the younger age cohorts, the age distribution of the construction workforce is indistinguishable from the age distribution across all industries. As illustrated with the following figures, the aging workforce is not a concern unique to the construction industry. In fact, when compared with individual industries, the construction industry is well situated, with a smaller share of the workforce nearing the age of retirement than both the manufacturing and utilities industries.

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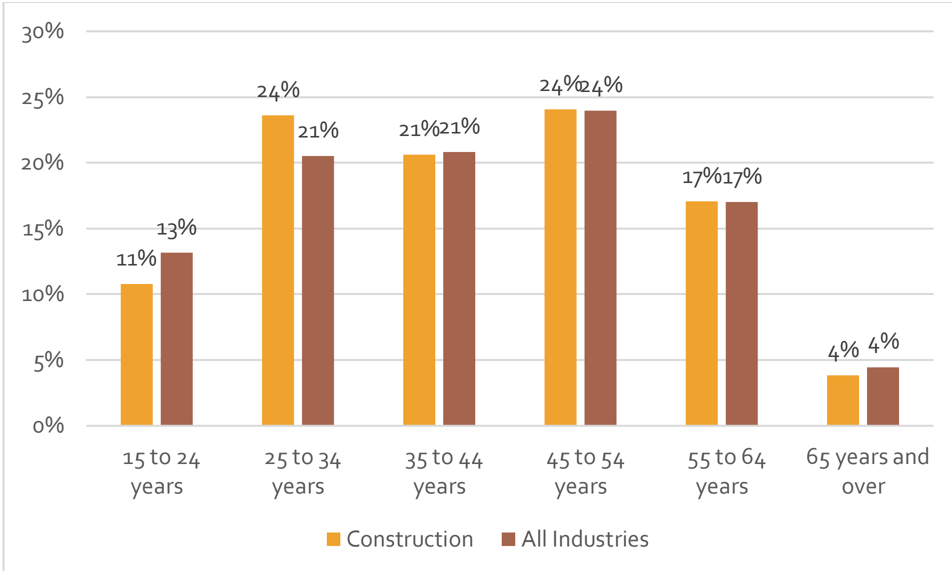
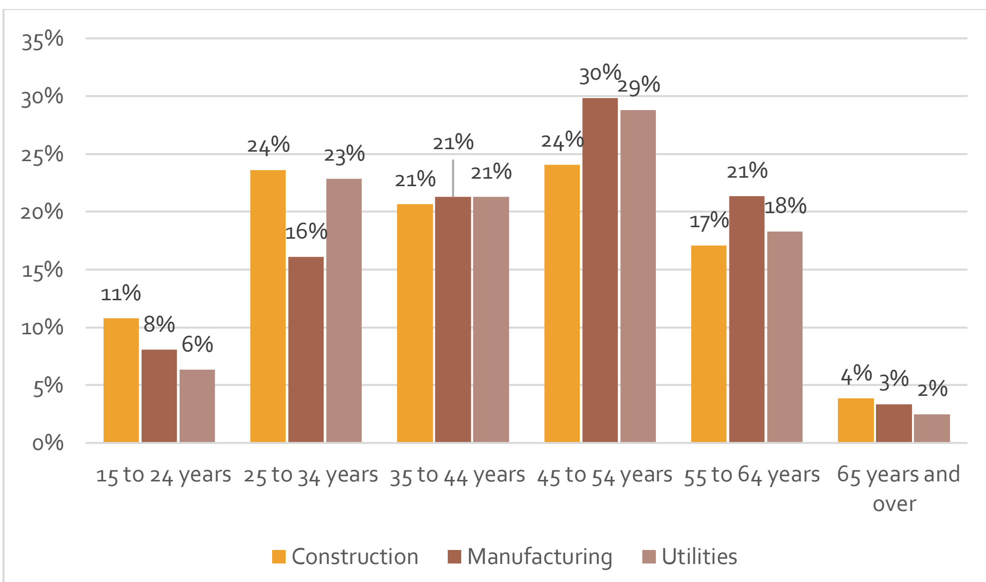
[7] Morissette, R., et al. 'Wage Growth over the Past 30 Years: Changing Wages by Age and Education', 2012.
[8] Statistics Canada, 2016 Census.

Figure 3 – Age Distribution of Construction Versus All Industries Workforce



Source: 2016 Census

Figure 4 – Age Distribution of Construction, Manufacturing & Utilities Workforce



Source: 2016 Census

Unionized Construction Workforce

In contrast with findings from the 2002 report, Ontario's unionized construction industry has a slight average age demographic advantage – 41 years old versus 42 years old - relative to the non-union sector, as well as all industry average where the average age was also 42. The unionized construction industry is also slightly younger than the overall unionized workforce for all industries – 41 years old versus 43 years old.

Table 1 – Average Age by Industry and Trade **Table 1** sets out the average age for all industries, the unionized and non-unionized construction sector, and detailed trade group. Multiple trade groups have a slightly older age demographic than the unionized industry average, as highlighted in the table below. The highest average age was noted in the transport truck driver trade group as well as in several managerial and supervisory occupations.

There are several trade groups in the unionized construction sector with a notably younger average age than the non-unionized construction sector. These trades include:

- contractors and supervisors, pipefitting trades,
- boilermakers and
- Industrial instrument technicians and mechanics,

There are several trade groups in the unionized construction sector with a notably older average age than the non-unionized construction sector. These trades include:

- Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations
- Bricklayers
- Concrete finishers
- Insulators
- Sheet metal workers
- Electrical power line and cable workers
- Construction trades helpers and labourers

Based on the OCS Demographic and Diversity Survey, the average age among unionized construction members was 43 in 2019, though this may include some retired, semiretired and honorary members. Operating engineer and sheet metal locals had an older membership, reporting an average age of 47. In contrast, plumber/steamfitters, carpenters and millwright locals had a younger membership, reporting an average age of 41 years old and below. Refer to **Appendix B** for the average age by trade group.

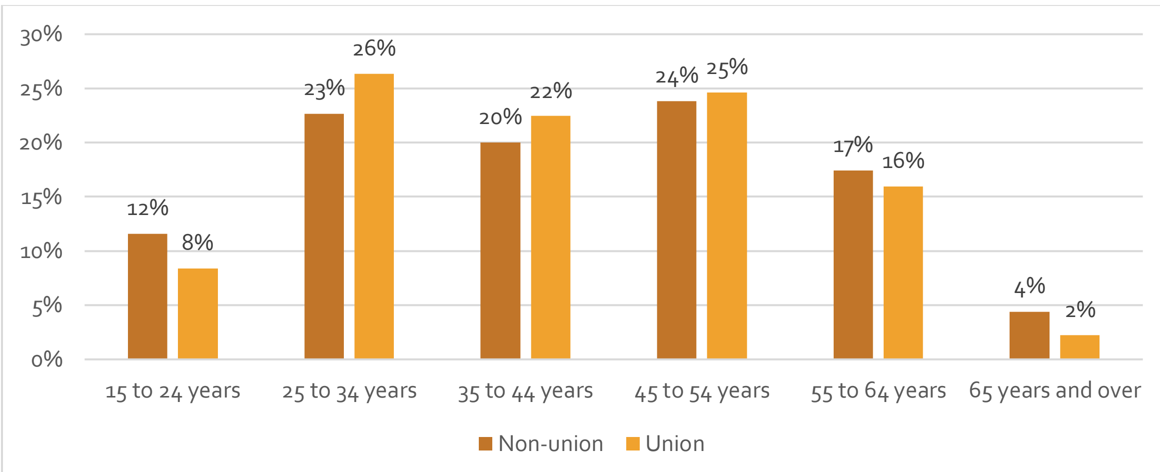
Table 1 – Average Age by Industry and Trade

	Construction Industry		
All Occupations – Ontario Labour Force	***Unionized Sector 41.5 (avg)***	***Non-Unionized Sector 42.1 (avg)***	***All industry 41.9 (avg)***
7511 Transport truck drivers	*47*	*49*	*48*
7201 Contractors and supervisors, machining, metal forming, shaping and erecting trades and related occupations	*46*	*43*	*47*
0711 Construction managers	*46*	*44*	*45*
2234 Construction estimators	*45*	*44*	*45*
7205 Contractors and supervisors, other construction trades, installers, repairers and servicers	*45*	*44*	*45*
7203 Contractors and supervisors, pipefitting trades	*45*	*48*	*46*
7294 Painters and decorators (except interior decorators)	*45*	*43*	*44*
7281 Bricklayers	*45*	*42*	*42*
7283 Tilesetters	*44*	*42*	*42*
7202 Contractors and supervisors, electrical trades and telecommunications occupations	*44*	*46*	*46*
0712 Home building and renovation managers	*44*	*46*	*46*
7282 Concrete finishers	*43*	*39*	*41*
7204 Contractors and supervisors, carpentry trades	*43*	*45*	*45*
7242 Industrial electricians	*43*	*42*	*46*
7521 Heavy equipment operators (except crane)	*43*	*43*	*44*
7237 Welders and related machine operators	*43*	*42*	*42*
7311 Construction millwrights and industrial mechanics	*42*	*42*	*46*
7312 Heavy-duty equipment mechanics	*42*	*42*	*42*
7371 Crane operators	*42*	*43*	*44*
7292 Glaziers	*42*	*42*	*42*
7293 Insulators	*42*	*37*	*39*
7233 Sheet metal workers	*42*	*39*	*42*
7284 Plasterers, drywall installers and finishers and lathers	*41*	*40*	*41*
7295 Floor covering installers	*41*	*42*	*42*
7253 Gas fitters	*41*	*40*	*41*
7318 Elevator constructors and mechanics	*41*	*40*	*41*
7313 Heating, refrigeration and air conditioning mechanics	*41*	*39*	*40*
7234 Boilermakers	*40*	*47*	*41*
7243 Power system electricians	*40*	*37*	*43*
7241 Electricians (except industrial and power system)	*40*	*39*	*40*
7611 Construction trades helpers and labourers	*40*	*36*	*37*
7271 Carpenters	*40*	*41*	*41*
7252 Steamfitters, pipefitters and sprinkler system installers	*39*	*37*	*41*
7244 Electrical power line and cable workers	*39*	*35*	*39*
2243 Industrial instrument technicians and mechanics	*39*	*45*	*45*
7441 Residential and commercial installers and servicers	*39*	*40*	*40*
7236 Ironworkers	*38*	*37*	*39*
7251 Plumbers	*38*	*40*	*39*
7291 Roofers and shinglers	*37*	*37*	*37*
7235 Structural metal and platework fabricators and fitters	*37*	*39*	*46*
7372 Drillers and blasters - surface mining, quarrying and construction	*37*	*37*	*37*
7612 Other trades helpers and labourers	*34*	*32*	*36*

Source: 2016 Census

The unionized sector has a slightly smaller share of workers aged 55 and over than the non-unionized sector – 18% versus 21% (See **Figure 5**). The unionized sector also has a notably smaller share of workers under the age of 25 and over the age of 64. This profile suggests that a larger proportion of construction workers enter the unionized sector later and leave the workforce earlier relative to non-unionized workers. This could be partly explained by the rising age of new apprentices in recent years alongside higher rates of employing apprentices by the unionized sector.[9] The comprehensive benefits and increased financial security gained through collective bargaining may also enable unionized workers to retire earlier than the non-unionized workers.

Figure 5 – Age Distribution of Ontario's Construction Workforce

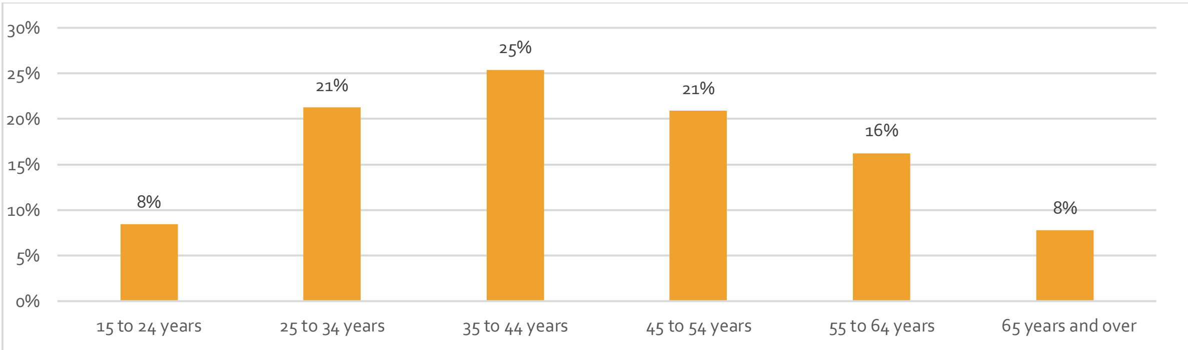


Source: 2016 Census

Findings from the OCS Demographic and Diversity Survey (2020) illustrate a slightly more normal distribution, showing an increase in the share represented by the 35 to 44 age cohort as well as in the proportion of workers over 65. This suggests the industry has been successful in retaining young workers and keeping older workers in the workforce longer. **Figure 6** provides the age distribution of local members. The age distribution of the younger (15 to 24) and older (55 to 64) age cohorts are reflective of the 2016 Census. There is a notably higher share of workers in the 35 to 44 age group, which may be partly explained by the aging of the high share of workers in 24 to 34 year cohort evident the 2016 Census. The share of workers aged 65 and over was significantly higher, which is indicative of ageing demographics but could also be elevated due to the inclusion of retired, semiretired or honorary members by some locals.

[9] Canadian Apprenticeship Forum. 'Apprenticeship in Canada 2016 Report: Apprentice Data, Trends and Observations', 2016.

Figure 6 - Age Distribution of Union Members, Ontario Locals (N=42)



Source: OCS Demographic and Diversity Survey

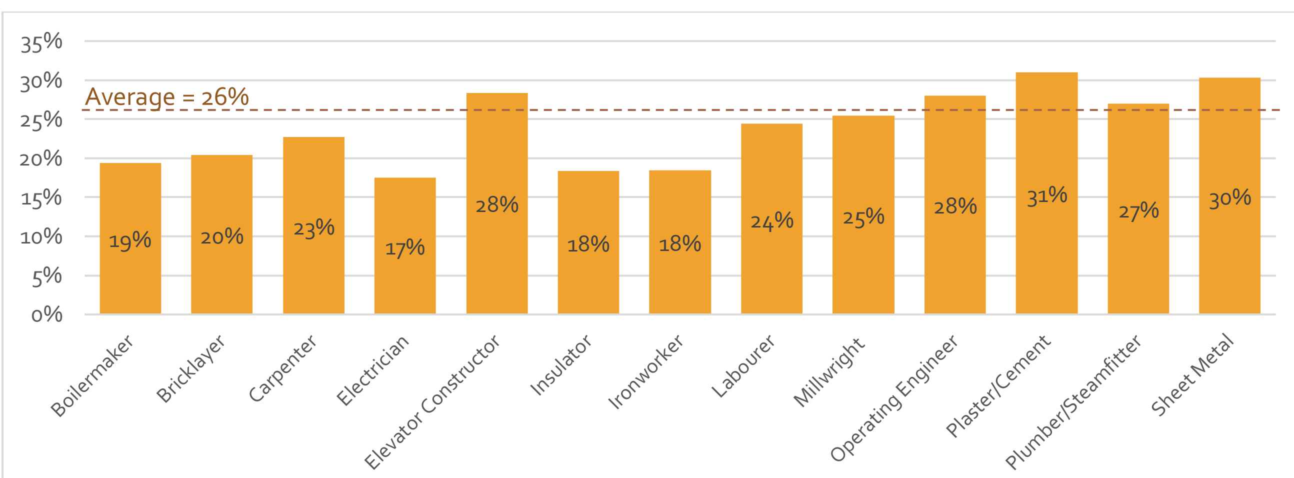
Unionized Construction Workforce - Trade and Region

Older Trade Occupations

Based on the 2016 Census, the age distribution of the workforce differs considerably by trade occupation. Bricklayer, construction estimator, heavy-duty equipment mechanic, painter and decorator, and transport truck driver trade occupations have the oldest age profiles, and each have more than a quarter of the unionized workforce eligible to retire over the next decade. These occupations will likely require heightened attention to planning and training new skilled workers to contend with replacing retiring workers and continued employment growth in the industry, particularly over the near-term.

Based on the OCS Demographics Survey, more than a quarter (26%) of unionized construction members are aged 55 years and over. The share of workers within this age cohort varies by trade group. For plaster/cement workers and sheet metal workers more than 30% of their membership is comprised of this age group. In addition, elevator constructor, operating engineers and plumber/steamfitters trade occupations have a higher share than the average.

Figure 7 – Share of Members aged 55+ by Trade Occupation, 2019



Source: OCS Demographic and Diversity Survey

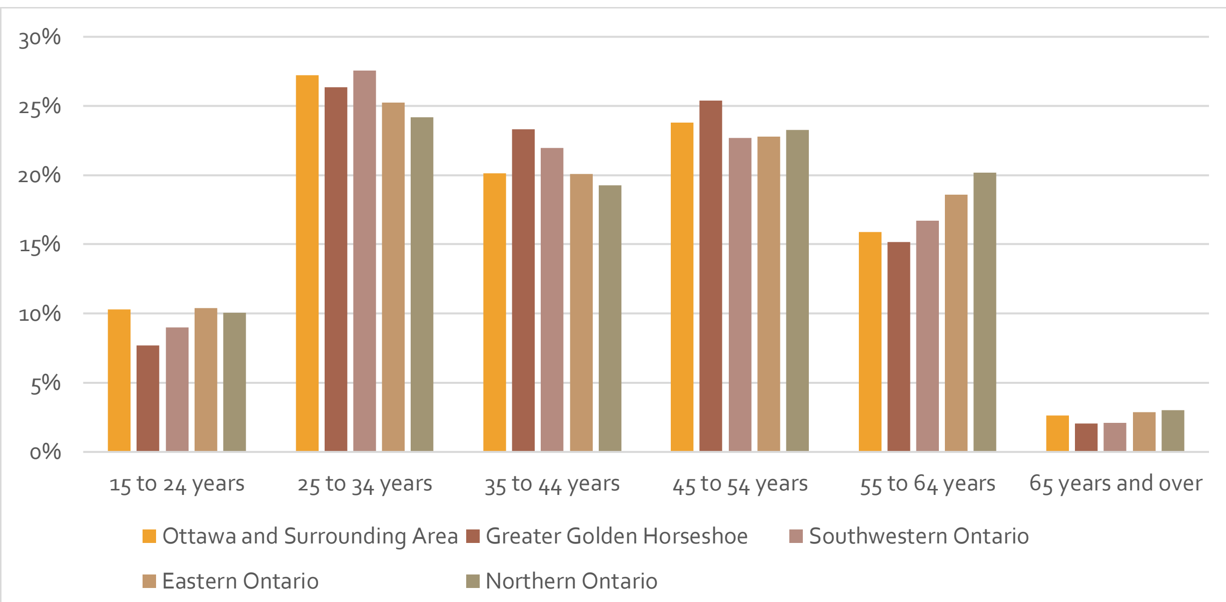
Younger Trade Occupations

The proportion of younger workers in the unionized construction workforce has important implications on the future supply of the sector. Youth (under age 25) account for nearly one-fifth of the workforce for other trade helpers and labourers, industrial instrument and technician, and residential and commercial installer occupations. The remaining occupations have a notably smaller share of youth representation.

Regional Comparison

The age distribution across regions follows a similar pattern, though there are distinct variations in the older age cohort. The regional share of workers aged 55 years and over, ranges from 17% in the Greater Golden Horseshoe to 23% in Northern Ontario. The older demographic in Northern Ontario and Eastern Ontario (22% aged 55+) contributes to current and future supply and recruitment challenges over the coming decade, as youth and immigrant workers tend to be drawn to larger metropolitan areas. In comparison, locals within the Greater Golden Horseshoe[10] and Ottawa regions may be less concerned with an aging workforce than other regions due to the smaller share of workers nearing the age of retirement and generally larger labour pools to recruit from.

Figure 8 – Age Distribution of the Unionized Construction Sector by Region



Source: 2016 Census

[10] Greater Golden Horseshoe region includes the Toronto, Hamilton-Niagara-Peninsula, Kitchener-Waterloo-Barrie economic regions.

Implications

Ontario's unionized construction industry enjoys a slight age demographic advantage relative to the construction industry overall, but there is clear evidence of greater age demographic challenges for some trades and regions. Bricklayer, construction estimator, heavy-duty equipment mechanic, painter and decorator, and transport truck driver trade occupations have notably higher shares of workers nearing the age of retirement. Eastern and northern regions of Ontario report a higher share of workers nearing the age of retirement than other regions. For these trades and regions, supply challenges may be heightened with the anticipated rise in employment demand to a 2026 peak.

Excluding the younger age cohorts, the age distribution of the unionized sector is indistinguishable from all industries and illustrates a slightly smaller share of workers nearing the age of retirement than other industries such as manufacturing and utilities.

The sector's investment in training and higher qualifications resulting in higher earnings and benefits provides a competitive advantage, increasing the appeal for young workers and improving retention of skilled workers. It is important for the industry to monitor demographic and labour market changes and respond with the appropriate training and recruitment needed to meet growing demands. It is especially important to recognize that training and recruitment requirements will differ on a trade and regional basis, illustrating the importance of a local level analysis to adequately address changing conditions.

4. Industry Hiring and Training Requirements

This section of the report provides an outlook of total hiring requirements based on anticipated retirements and employment growth within the overall construction sector. The hiring requirement estimates for the unionized construction sector are based on projections by BuildForce Canada for employment growth and retirements for 34 trades and occupations. The analysis assumes a fixed union workforce share and that retirement rates follow the overall construction industry average. The implications of workforce attrition and potential recruitment challenges within the industry are also assessed.

Replacing and Aging Workforce – Retirement Trends

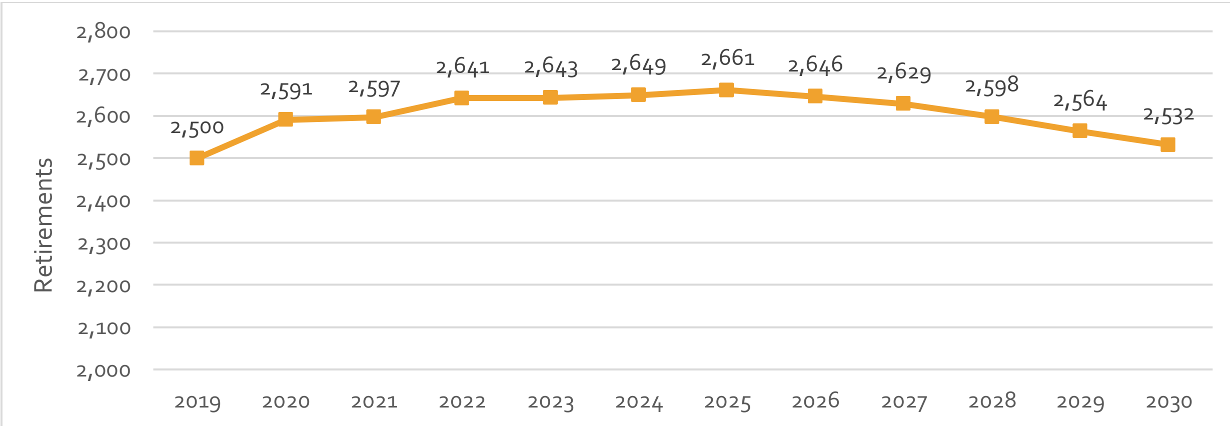
Retirements continue to drive provincial hiring requirements. Based on workforce age demographics and historic rates of retirement for the overall construction workforce, Ontario's unionized construction sector could expect to need more than 26,150 new workers over the next decade just to keep pace with expected retirements and other age related exists.[11] This represents approximately one-fifth of the current labour force. The analysis also found that the demographic challenges are much higher in Northern Ontario, with anticipated retirements and other age-related exits over the next decade forecast to account for more than one-third (35%) of the current unionized construction labour force.

In Ontario, retirements and other age-related exits are anticipated to remain elevated, averaging 2,615 annually over the next decade. **Figure 9** is informed by the latest BuildForce Canada *Construction and Maintenance Looking Forward Outlook* (2021). The analysis trends in-line with the age distribution of the Ontario population. On average, retirements and deaths account for approximately 2% of the construction labour force. This share is dependent on the age distribution by trade. Replacement requirements for managerial and supervisory occupations account for a slightly higher share of the labour force while heavy duty equipment mechanics, refrigeration and air conditioning mechanics and transport truck drivers also account for elevated retirement shares of the unionized labour force.

Based on the OCS Demographic and Diversity Survey, the average age of retirement among unionized construction members was 63 in 2019 – slightly earlier than the general workforce. According to the union locals surveyed, retirements accounted for less than 1% of total active members. Analysis of individual trades revealed this share exceeded 3% for bricklayer and electrician trades. The current analysis would be enhanced by more detailed local-specific data on historic retirements trends, due to the distinct age profiles and retirement trends of individual construction trades.

[11] 'Other age-related exits' refers to deaths.

Figure 9 – Projected Annual Retirements and Other Age-Related Exits, Ontario Unionized Construction Sector



Source: Prism Economics and Analysis

Increased Demand for Skilled Workers

In addition to replacement demand, the unionized construction industry will need to attract and retain more than 7,200 workers to keep pace with the expected pace of expansion. According to BuildForce Canada's *Construction and Maintenance Outlook,* infrastructure investment is anticipated to continue to accelerate at a rapid pace, despite short-lived slowdowns in 2020 due to the COVID-19 pandemic.

More than $1 billion in tracked major projects are expected across Ontario over the next decade. The outlook scenario for Ontario shows that several major transportation, utility, and other infrastructure projects are expected to ramp up in 2021 and 2022, particularly in the Greater Toronto Area (GTA), and Eastern and Southwestern regions. Construction requirements remain elevated over the medium term due to 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.

Total construction (residential and non-residential) employment is expected to rise by 5% or approximately 21,000 workers by 2026.[12] In the near-term, employment growth, particularly in the non-residential sector, is forecast to be concentrated heavily in the GTA and Eastern Ontario. Competing demands across regions will likely limit the potential for intraprovincial labour mobility to meet peak requirements over the near term.

[12] BuildForce Canada. 'Construction and Maintenance Looking Forward: Ontario', 2021.

Figure 10 – Construction Employment, Ontario

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

Hiring Requirements – 2021 to 2030 Outlook

Assuming a similar age profile to the overall construction industry, the unionized sector will may need to hire, train, and retain more than **33,380** additional workers to keep pace with both expansion and replacement demand over the next decade – accounting for 26% of the current workforce.

Retirements and other age-related exits will be the main source driving recruitment over the outlook period, while employment growth adds to the need for workforce planning and supply management, particularly in the near-term. Due to the higher share of unionization in Industrial, Institutional and Commercial (ICI) construction, employment growth in this outlook is primarily driven by the non-residential sector.

Table 2 details the forecasted trade-specific estimates of hiring requirements for Ontario's unionized construction industry. Trades with recruitment requirements exceeding 30% of the current labour force include: Refrigeration and air conditioning mechanics (40%), Construction millwrights and industrial mechanics (34%), Gas fitters (34%), Tile setters (34%), Elevator constructors and mechanics (33%), Sheet metal workers (32%), Contractors & supervisors (31%), and Painters and decorators except interior decorators (31%). It is important to note that retirement estimates for the unionized sector are estimated based on age profiles and retirement rates of the overall construction industry. A key recommendation of this report is to conduct a more detailed demographic analysis at the local level.

Table 2 – Total Hiring Requirements, Unionized Sector, 2021-2030[13]

Trade[14]	Replacement Demand	Expansion Demand	Total Demand	Share of [15]Labour Force
Boilermakers	546	91	637	25%
Bricklayers	624	120	743	25%
Carpenters	2413	610	3023	26%
Concrete finishers	396	-16	380	17%
Construction estimators	188	48	237	26%
Construction managers	927	-158	769	23%
Construction millwrights and industrial mechanics	365	206	571	34%
Contractors & Supervisors	3531	1127	4657	31%
Crane operator	333	-53	280	15%
Drillers and blasters	36	0	36	19%
Electrical power line and cable workers	134	-32	101	15%
Electricians	2935	1946	4881	29%
Elevator constructors and mechanics	534	205	740	33%
Floor covering installers	150	38	188	26%
Gas fitters	138	84	221	34%
Glaziers	309	123	432	32%
Heavy equipment operators except crane	1534	0	1534	22%
Heavy-duty equipment mechanics	115	18	132	26%
Industrial instrument technicians and mechanics	14	-10	4	5%
Insulators	203	125	328	26%
Ironworkers & structural metal fabricators	535	-257	278	9%
Painters and decorators except interior decorators	334	111	445	31%
Plasterers, drywall installers and finishers and lathers	824	299	1123	29%
Plumbers	1279	865	2144	27%
Refrigeration and air conditioning mechanics	1179	629	1807	40%
Residential and commercial installers and servicers	211	115	326	24%
Roofers and shinglers	259	92	351	24%
Sheet metal workers	615	443	1058	32%
Steamfitters, pipefitters and sprinkler system installers	744	193	937	20%
Tilesetters	247	112	359	34%
Trade helpers & labourers	3500	43	3543	17%
Transport truck drivers	680	-7	673	27%
Welders and related machine operators	330	113	443	29%
Total	**26,158**	**7,223**	**33,381**	**26%**

[13] Hiring Requirement of individual trades may not sum to total due to rounding.

[14] Home renovation and building manager occupation was excluded from the analysis since employment is solely concentrated in the residential sector.

[15] Labour force is estimated based on the rate of unionization by trade group informed by the 2016 Census.

Table 3 illustrates the distribution of hiring requirements across regions. The BuildForce model assesses Ontario as five separate construction markets: Central, Northern, Southwestern, Eastern, and the Greater Toronto Area. Regional demands are set against regional workforce supply projections to assess separate market conditions in each region. A detailed breakdown of the Ontario regions and associated economic regions can be found in Appendix C.

Northern Ontario is anticipated to require more than 3,270 additional skilled workers to meet demand requirements over the coming decade, accounting for 43% of the region's current workforce. Of the total hiring requirement, approximately 8 of 10 new workers will be needed to replace retiring and deceased workers. Central Ontario has a significantly smaller share of the current workforce anticipated to retire, which is consistent with the age distribution of the 2016 Census where the economic regions within Central Ontario had notably smaller shares of workers nearing the age of retirement.

Table 3 – Regional Distribution of Hiring Requirements, 2021-2030

Region	Replacement Demand	Expansion Demand	Total Demand	Share of Labour Force
Eastern Ontario	3,604	976	4,581	30%
Southern Ontario	3,076	859	3,935	23%
Northern Ontario	2,670	603	3,272	43%
Central Ontario	5,396	1,764	7,160	21%
Greater Toronto Area	11,412	3,021	14,433	27%
Total	**26,158**	**7,223**	**33,381**	**26%**

Workforce Attrition

Turnover of skilled workers is expensive and disruptive to employers and union locals who have made significant investments in recruitment and training. Based on the OCS Demographic and Diversity Survey (2020), general annual attrition accounts for approximately 1% of active membership, on average, and as high as 4% for individual trades.

Approximately one-third (34%) of locals reported retention of new recruits and general members was a pressing issue. Increasing retention, particularly the retention of apprentices, will lessen the overall hiring and training requirements over the next decade.

Exit interviews can be a powerful tool for identifying and rectifying workplace issues and increasing employee retention. Approximately one-third of union locals surveyed reported conducting exit interviews. A well conducted exit interview can reveal what does and does not work within an organization, highlight hidden challenges or opportunities, and generate essential competitive intelligence.[16]

[16] Harvard Business Review. 'Making Exit Interviews Count', 2016.

Recruitment

Recruitment Challenges

Just as the industry approaches the peak of baby boomers near the age of retirement, the pool of youth is shrinking making recruitment more difficult. Declining fertility rates since the 1970s have reduced the share of the population aged 15 to 24 available to replace the older demographic expected to retire. As a share of the overall population, the 15 to 24 age group is expected to decline from 13% in 2020 to 10% in 2030.[17] In response, industry stakeholders have made significant investments in youth outreach, industry promotion and other recruitment initiatives. Despite these efforts, the increased competition from other rapidly growing industries, public misconceptions of the construction sector and the skilled trades, and the declining number of recent immigrants with skilled trades qualifications exacerbate recruitment challenges.

Apprenticeship training is a fundamental part of building a competent and highly skilled workforce and is a key component of post-secondary education (PSE) in Canada. Unfortunately, the skilled trades continue to be perceived as a second choice to other post-secondary streams such as a diploma or degree. According to a report by Employment and Social Development Canada (EDSC), less than 1 in 10 students planned on pursuing a career in the skilled trades and 6 in 10 students indicated they were explicitly not interested in such a career.[18]

The Canadian Apprenticeship Forum (CAF) highlighted common misconceptions students held regarding the skilled trades in their 2013 report.[19] The most cited misconceptions included, poor pay, a job that is physically demanding, lack of a 'proper education', and the skilled trades not being taken seriously and viewed as less prestigious than other professions. CAF held that youth do not have access to accurate information on the skilled trades, and as a result they develop negative misconceptions. Another study released by the Independent Contractors and Businesses Association (ICBA) revealed that 59 per cent of young adults are unaware of how to get into the trades.[20]

The number of newcomers to Canada entering the construction sector has been on the decline for several decades, particularly in the skilled trades. According to the 2016 Census, immigrants comprise 26% of Ontario's total construction labour force, compared to 31% of the overall labour force. Immigrant workers account for a slightly lower share of the unionized construction sector; however, representation is notably smaller in the unionized sector across all industries – 24% versus 26%. As the population continues to age, the province will become even more dependent on immigration to ensure the labour force is able to meet the needs of Ontario's economy. Since federal immigration policies tend to give preference to individuals with higher levels of education, this creates a challenge for the construction industry, which depends more on college-equivalent education, professional qualifications, or work experience. For example, between 2006 and 2018, immigrants entering Canada with skilled trades certification dropped by 2%, whereas those with college-level education or higher increased by 72%.[21] According to BuildForce Canada, the construction industry will likely need to look beyond existing

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[17] BuildForce Canada. 'Construction and Maintenance Looking Forward: Ontario', 2021.
[18] Employment and Social Development Canada. 'Attitudes and perceptions of Canadian youth towards careers in the trades: Results from the 2012 Programme for International Student Assessment (PISA)', 2015.
[19] Canadian Apprenticeship Forum. 'Apprenticeship Analysis of Youth Perceptions', 2013.
[20] Independent Contractors and Business Association. 'Inaccurate Perceptions of Skilled Trades', 2014.
[21] BuildForce Canada. 'Immigration trends in the Canadian Construction Sector', 2020.

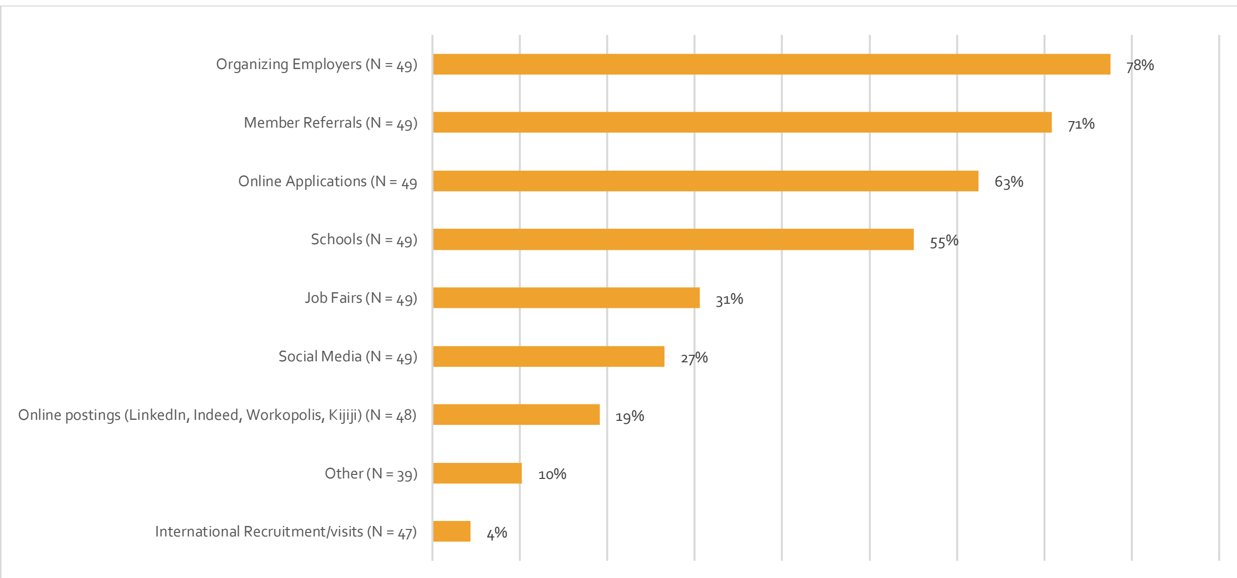
immigration programs to attract the skilled tradespeople in order to compete with other sectors also trying to recruit new immigrants to their workforces.[22]

Recruitment Methods

Based on the OCS Demographic and Diversity Survey, organizing employers and member referrals were the most common tool/resource for recruiting new members, as seven in ten locals reported using these 'often' or 'very often'. Social media and other online platforms such as LinkedIn and Indeed were reportedly utilized less frequently relative to other tools (See **Figure 11)**.

Employee referrals – where current employees recommend candidates from their personal network – tend to reproduce the organization's current demographic make-up.[23] To maximize the pool of labour to recruit from, the construction industry may benefit from increasing the frequency of recruitment using online platforms, particularly if the industry is trying to increase the number of youths entering the skilled trades.

Figure 11 - Tools/Resources used for Recruiting New Members, Share of Locals Reported using 'Often' or 'Very Often'



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22 Ibid.

23 Dover, T. L., Kaiser, C. R., & Major, B. 'Mixed signals: The unintended effects of diversity initiatives', 2019.

5. Diversity Efforts and Outcomes

What the Industry is Already Doing

Given the scale of rising skilled trade requirements and recruitment challenges, it is clear new and enhanced recruiting strategies are necessary and that workforce diversification will play a central role.

Based on estimates provided by union Locals, underrepresented groups accounted for less than 3% of total active members in 2019. Approximately 5% of active members were estimated to be immigrants, followed closely by visible minorities (4%). Women, Indigenous Peoples and people with disabilities account for a smaller share of active membership. Representation among underrepresented groups may be higher than the percentage reported, as only 55% of locals reported tracking the representation of one or more group within their union membership. However, many of these figures are similar to the 2016 Census, which found that recent immigrants, women and Indigenous peoples each account for 3.5% - 4% of the unionized workforce in Ontario.

Table 4 – Estimated Membership Share of Underrepresented Groups, 2019

	Share of Membership (%)
Immigrant Membership (N = 18)	5%
Visible Minority (N = 27)	4%
First Nation, Inuit and Metis Membership (N = 35)	2%
Women (N = 42)	2%
Members with a Disability (N = 12)	2%
Recent Immigrant Membership (N = 12)	1%
Members with Non-Permanent Status, including TFW (N = 4)	1%

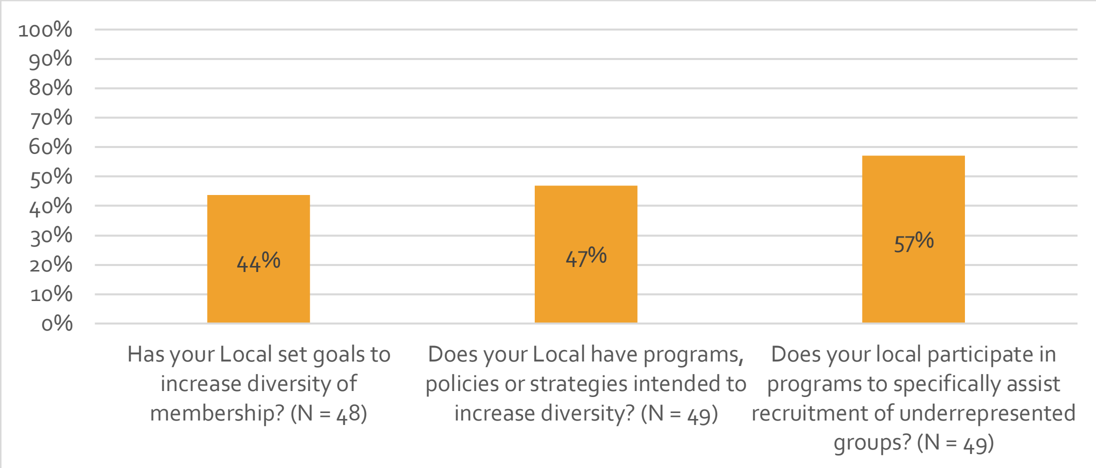
Source: OCS Demographics and Diversity Survey

In planning for recruiting challenges, many organizations have explored the role diversity can play. The Canadian Construction Association's report on *The Value of Diversity and Inclusion in the Canadian Construction Industry* (*2019*)[24] underscored the importance of attracting underrepresented groups such as women, immigrants and Indigenous Peoples to address current and projected recruiting needs.

A variety of strategies exist to increase diversity within a workplace. An important early step is to establish targets and diversity goals for recruiting and developing metrics for tracking progress towards these goals.[25] According to the OCS Demographics and Diversity survey (2020), nearly half of locals (44%) have established diversity goals within their membership. An additional 47% indicated having programs and policies in place for increasing diversity, and 57% reported participating in other programs to assist with recruiting new members from groups underrepresented in the sector.

[24] Canadian Construction Association. 'The value of diversity and inclusion in the Canadian construction industry', 2019.
[25] Nahm, Sarah. "The Diversity and Inclusion Handbook", Lever, 2017.

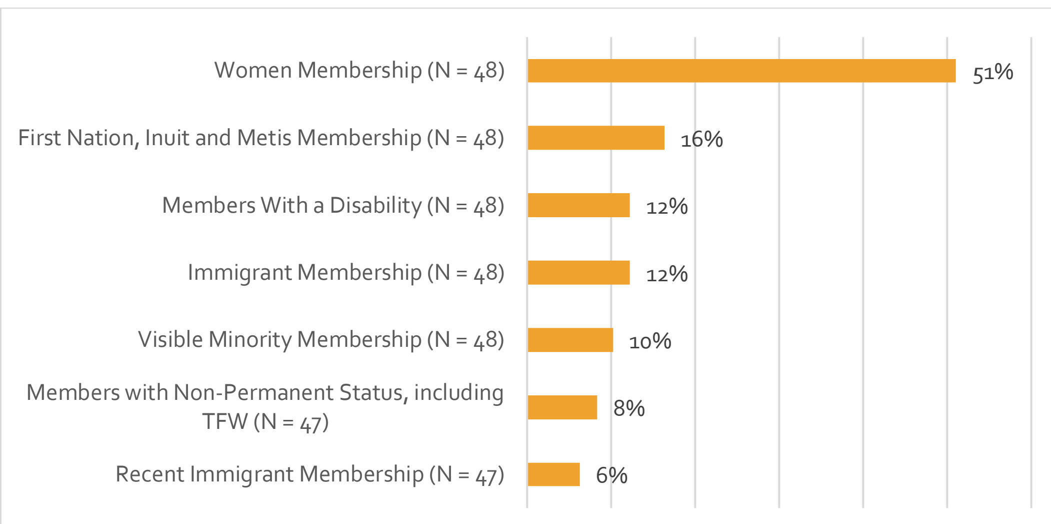
Figure 12 - Percent "Yes" to survey questions regarding diversity goals, programs and recruiting



Source: OCS Demographics and Diversity Survey

Many locals indicated tracking diversity within their membership. Survey results reveal that it is most common for locals to track female membership (51%). First Nation, Inuit and Metis membership tracking was next most common, tracked by 16% of locals; followed by members with a disability and immigrants, both tracked by 12% of locals. Visible minority members, members with non-permanent status (including temporary foreign workers) and recent immigrants were tracked least often, each by 10% of respondents or less.

Figure 13 - Please indicate whether you track the number of members by the following demographic characteristics

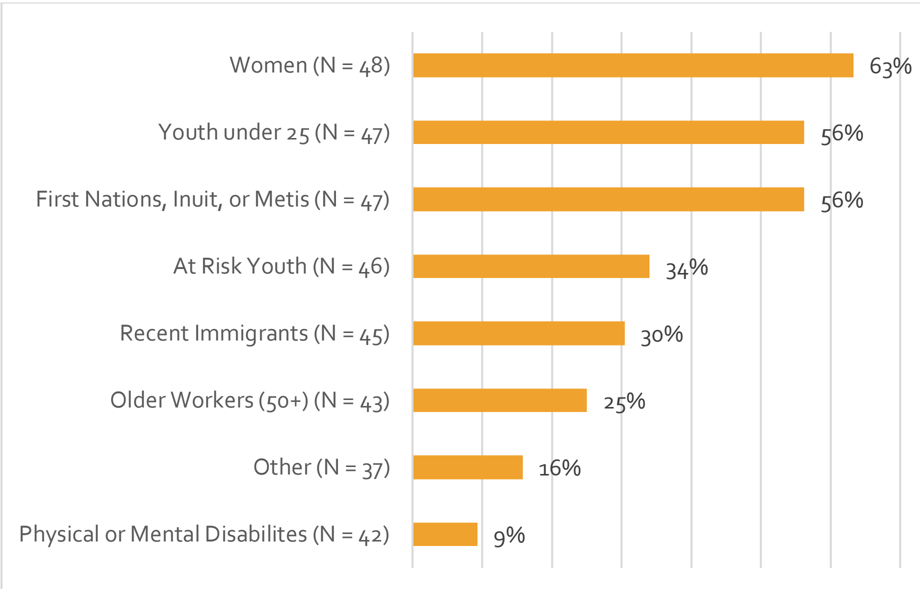


Source: OCS Demographics and Diversity Survey

While current estimates of diversity among the unionized workforce are small, survey results suggest that many locals have undertaken efforts to recruit from underrepresented groups. Figure 14 displays the share of respondents that target recruitment of different underrepresented groups in the sector. Based on survey results, women are the most common target of union recruiting efforts, targeted by

63% of locals. Youth (56%) and First Nations, Inuit or Metis (56%) followed, before a more significant drop to locals targeting "At Risk Youth" (34%) and Recent Immigrants (30%).

Figure 14 - Share of Locals who Reported Targeting Recruitment of Underrepresented Groups



Source: OCS Demographics and Diversity Survey

** "Other" responses included veterans (N = 5) and LGBTQ (N = 1)*

Targeted recruiting efforts were often found to involve partner organizations, reported by 63% of respondents. On average, unions indicated working with, and recruiting through, at least three different organizations, often targeting different underrepresented groups. The types of partner organizations listed by respondents are summarized in **Figure 15**. The size of each word indicates its frequency listed.

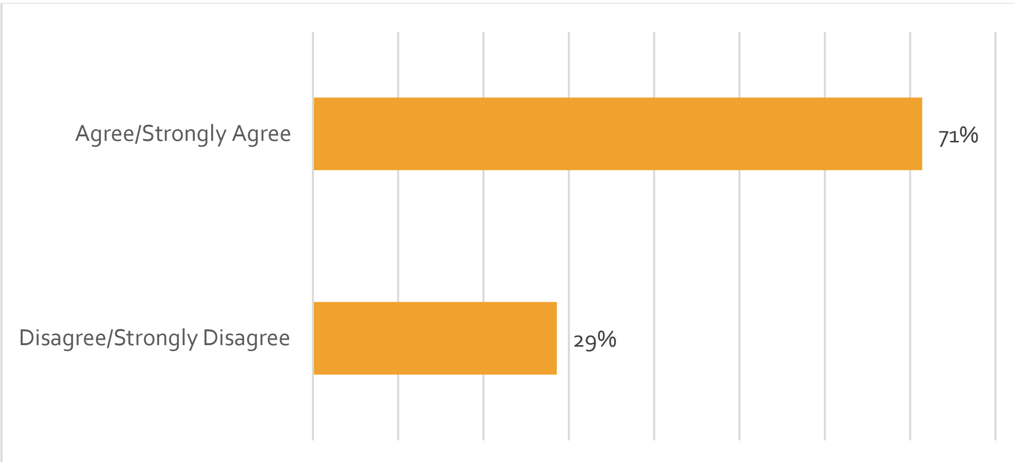
Local First Nations and Indigenous Organizations were the most commonly cited partnerships used. Listed by ten different locals, these responses described working directly with local First Nations, as well as organizations like the Aboriginal Apprenticeship Board of Ontario (AABO), Miziwe Biik Aboriginal Employment and Training and Indigenous Friendship Centres. Helmets to Hardhats was the second most common source for recruiting diverse candidates, followed by Skills Ontario and local school boards.

Figure 15 - Organizations Listed as Partners for Union Recruiting

Source: OCS Demographics and Diversity Survey

Survey results also indicate a level of awareness among unions that extra support is needed to support their diverse members. In response to the question "my local provides support to newcomers, minorities and/or underrepresented groups", nearly 60% indicated they agreed, with an additional 12% indicating strong agreement with the statement.

Figure 16 - Responses to the statement "my local provides support to newcomers, minorities and/or underrepresented groups" (N = 49)



Source: OCS Demographics and Diversity Survey

Expanding Efforts to Increase Diversity and Inclusion

Literature out of the United States and Canada highlights the business case for increasing workforce diversity in the construction sector. This research highlights the importance of diversity in helping employers and unions respond to anticipated demographic changes and the importance for remaining competitive, accelerating innovation, increasing employee productivity and revenue, reducing employee turnover, and driving a positive safety culture.[26] [27]

The OCS Demographics and Diversity Survey (2020) provides a good overview of how locals are seeking to broaden their candidate pool by targeting efforts towards diverse populations. Understanding the prevalence of diversity targets and policies is one indicator that the importance of diversity is generally understood by the sector. The survey captures in less detail, however, the types of diversity policies, targets and approaches being employed by union locals. Greater information about these approaches would enable a better understanding and analysis of how well diversity efforts are working, and where they can be strengthened in order to be more effective.

The CCA's diversity report notes the difference between the term *diversity* versus *inclusion*. The report noted that *diversity* is "the range of human differences, including but not limited to race, ethnicity, gender, gender identity, sexual orientation, age, social class, physical ability or attributes, religious or

[26] Canadian Construction Association. 'The value of diversity and inclusion in the Canadian construction industry', 2019.
[27] McKinsey & Company. 'Delivering through diversity', 2018.

ethical value system, national origin, and political beliefs". Meanwhile, *inclusion* is "the involvement and empowerment, where the inherent worth and dignity of all people are recognized". Under this definition, an inclusive organization promotes and sustains a sense of belonging, and values and respects the talents, beliefs, backgrounds, and ways of living of its members.[28]

Given that that union locals in Ontario have made efforts towards increasing the diversity within their membership through recruiting, thinking beyond recruitment may be the next step for achieving greater workforce diversity and *inclusion* in the sector. Recruiting metrics are an important quantity indicator, but do not recognize the quality of efforts or quality of the experience employees have once they are hired.[29]

Fostering greater inclusion within a workplace involves considering individual experiences once hired. With an increasingly diverse membership, locals may consider how to make the workplace welcoming and inclusive to ensure their recruiting efforts will lead to increased retention of new diverse hires. For instance, when employing women, locals should look to ensure they have access personal protective equipment (PPE) that fit and access to a private washroom they can use. Greater inclusion also considers opportunities for advancement, learning, building networks and having member contributions taken seriously.[30]

Adding goals and metrics around inclusion will significantly supplement the recruiting and membership diversity targets and help increase retention. Measuring workplace inclusion could include establishing metrics around retention, compensation, advancement opportunities and relationships with organizations that engage and support minority populations.[31]

[28] Canadian Construction Association. 'The value of diversity and inclusion in the Canadian construction industry', 2019.
[29] Lennon, Chris. ForConstructionPros.com 'How to set attainable diversity targets at your organization', 2019.
[30] Chatfield-Taylor, Cathy. Redshift. 'Workforce Diversity in Construction Improves Productivity and Profits', 2019.
[31] Lennon, Chris. ForConstructionPros.com 'How to set attainable diversity targets at your organization', 2019.

Appendix A

Table 5 - Trade Distribution of Completed Surveys

Trade	N	Response Rate
Boilermaker	1	100%
Bricklayer	6	50%
Carpenter	9	64%
Electrician	8	73%
Elevator Technician	1	33%
Insulator	1	100%
Ironworker	2	33%
Labourer	4	40%
Millwright	4	50%
Plaster/Cement	1	50%
Operating Engineers	1	100%
Pipefitter	6	60%
Sheet Metal Worker	6	60%
Total	**50**	**50%**

Note: Does not include partial responses

Table 6 - Regional Distribution of Completed Surveys

Region	N
Greater Golden Horseshoe	18
Southwestern	14
Northern	10
Ottawa	5
Eastern	3
Total	50

1. **Greater Golden Horseshoe** – Economic regions: Toronto, Hamilton-Niagara-Peninsula, Kitchener-Waterloo-Barrie

2. **Southwestern Ontario** – Economic Regions: Windsor-Sarnia, London, Stratford-Bruce Peninsula

3. **Northern Ontario** – Economic Regions: Northeast and Northwest

4. **Ottawa and Surrounding Area** – Economic Regions: Ottawa

5. **Eastern Ontario** – Economic Regions: Muskoka-Kawarthas, Kingston-Pembroke

Appendix B

Table 7 – Average Age by Trade Group

Trade	Average Age
Boilermaker	43
Bricklayer	45
Carpenters	41
Electricians	44
Elevator Constructor	44
Ironworkers	43
Labourers	45
Millwright	38
Operating Engineers	47
Plaster/Cement	43
Plumber/Steamfitter	40
Sheet Metal	47
Total	43

Source: OCS Demographic and Diversity Survey

Appendix C – Ontario Regions

Central – include 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.

Northern – 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.

Southwestern – 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.

Eastern – 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.

Greater Toronto Area – 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.

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