

NEWFOUNDLAND & LABRADOR

HIGHLIGHTS 2018–2027

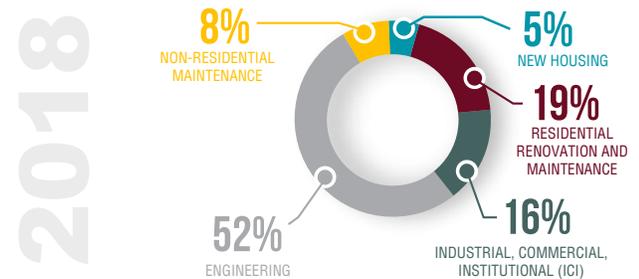
At the midpoint of the down-cycle; stable demands ahead

The Newfoundland and Labrador construction industry has seen significant expansion over the past decade, with overall employment levels doubling between 2004 and 2013. Non-residential construction has been, and remains, the dominant driver of construction employment growth. As many of the province's major non-residential projects are approaching completion, the industry is expected to enter a period of readjustment, back to more traditional levels of activity and employment.

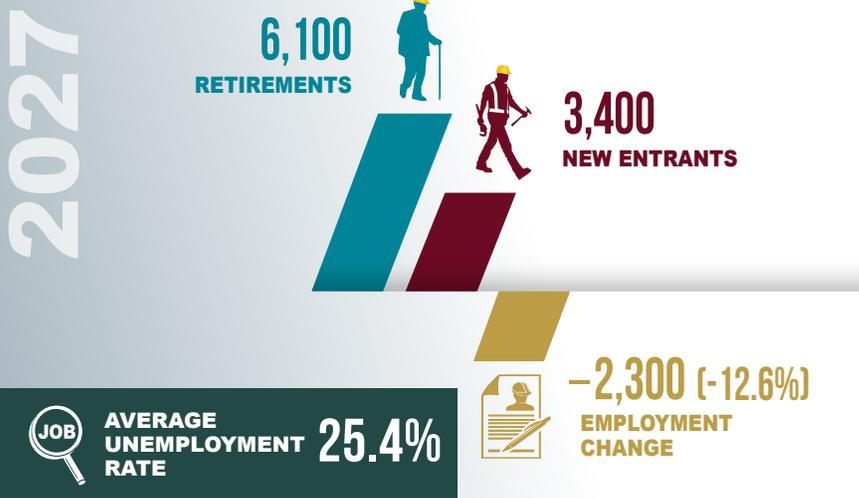
Over the 2018–2027 scenario period, total construction employment is expected to dip before returning to near 2017 employment levels by 2027. The industry currently employs 18,500 workers, and like most provinces, a large number of retirements in the next 10 years will make labour force management challenging. Over the scenario period, the industry is expected to lose 6,100 workers to retirement, of which only 3,400 can be drawn from the available pool of locally trained new entrants.

Labour markets will continue to adjust as workers keep returning from Western Canada. Some will remain in the province, while younger workers may seek new job opportunities in other markets, industries, or outside the province altogether. The pace and manner in which the labour market adjusts is unclear as current projects end and a new offshore platform project begins. The potential of new proposed major project demands alongside rising retirements will present potential recruitment challenges, mostly confined to the latter half of the scenario period.

DISTRIBUTION OF CONSTRUCTION EMPLOYMENT IN 2018, NEWFOUNDLAND AND LABRADOR



10-YEAR WORKFORCE OUTLOOK FOR NEWFOUNDLAND AND LABRADOR



HIGHLIGHTS

- Overall employment requirements are expected to fall 20 percent, then recover between 2022 and 2027; however, employment remains below 2017 levels at the end of the scenario period in 2027.
- Major project completions contribute to the weakest year of the down-cycle in 2018. Continued weakness in residential and ICI (industrial, commercial, institutional) building construction should contribute to overall construction employment declines through to 2021. The start of a major offshore platform project only partly offsets the employment declines as other non-residential projects end.
- The extended housing down-cycle bottoms out in 2022. New-housing-related employment contracts by an additional half (54 percent) from 2017 levels before recovering late in the scenario period.
- Negative natural population growth and expected out-migration sustain pressure on industry to hire and train new workers, despite the low near-term growth outlook.

BuildForce's LMI System

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

NEWFOUNDLAND AND LABRADOR CONSTRUCTION OUTLOOK

Newfoundland and Labrador is at the midpoint of a steep decline from an exceptional peak in resource expansion construction reached in 2014/2015, but workforce retirements, workers leaving the province, and future potential project demands maintain pressure on industry to attract, train, and retain workers.

The 2018–2027 *Construction and Maintenance Looking Forward* scenario anticipates that project completions, alongside a prolonged decline in new residential and ICI non-residential building construction are likely to reduce workforce requirements by 1,600 workers, or 20 percent from 2017 levels by 2021. Starting in 2025, construction demands are expected to stabilize across most market segments.

Under the outlook scenario, 2018 is anticipated to be the weakest year, as major project demands wind down, releasing workers especially in the engineering construction sector. Ongoing work on the Muskrat Falls hydro project and the start of the Husky West White Rose extension project continue to sustain demand for some workers, but both projects are largely complete or winding down by 2020.

The construction outlook strengthens over the latter half of the scenario period, driven by stable levels of engineering construction and expected modest improvements in economic conditions, housing demand, and ICI building construction. The potential for new resource development projects may result in a significant rise in engineering construction demands late in the scenario period, but the timing of proposed projects is uncertain. Meeting rising employment demands while addressing the needs of replacing an aging workforce may prove challenging over the long term.

The risk is high for the workforce to lose as many as 4,300 skilled workers through out-mobility over the next four years as current projects wind down and overall conditions slow, while 2,500 additional workers are likely to retire. Taken together, the industry is expected to lose an estimated 30 percent of the current workforce by 2021.

Looking across the scenario period, BuildForce estimates 6,100 workers are likely to exit the construction workforce due to retirements. Attracting and training new workers during and following the current downturn may pose a formidable challenge.

SECTOR INSIGHTS

The following sections provide sector-specific insights into the non-residential and residential labour markets. The 2018 BuildForce LMI system provides an overview of market drivers and detailed occupational demand and supply-side analysis of labour market conditions in each sector for 34 trades and occupations tracked by BuildForce.

NON-RESIDENTIAL SECTOR

Non-residential construction employment peaked at record levels in 2014 and carried into 2015 propelled by an unprecedented period of expansion. The completion of Hebron construction and the wind down of other major projects in 2017, combined with a decline in government capital expenditures, is expected to contribute to a significant decline in employment in 2018.

The contraction is broad-based, and activity is expected to decline across all sectors. At the bottom of the cycle in 2024, employment requirements are down by 25 percent from 2017 and 30 percent from the peak in 2014.

Figure 1 tracks the change in non-residential employment by sector for key reference points across the scenario period, including the start of the period in 2018, at the bottom of the decline in 2024, and then at the end of the period in 2027.

The most significant declines over the near term are attributed to the completion of major oil and gas, mining, and utility projects over the next two years. Losses are compounded by decreases in all segments of non-residential ICI building activity, which is constrained by lower government spending and slowing population growth.

Non-residential building construction demands are expected to strengthen after 2019 as overall economic conditions improve, but overall employment remains 15 percent below the 2017 starting point until potential new resource developments ramp up later in the scenario period.

Table 1 summarizes the percent change in employment by sector across two periods: the first captures the decline to 2022, and the second, across the remainder of the scenario period to 2027.

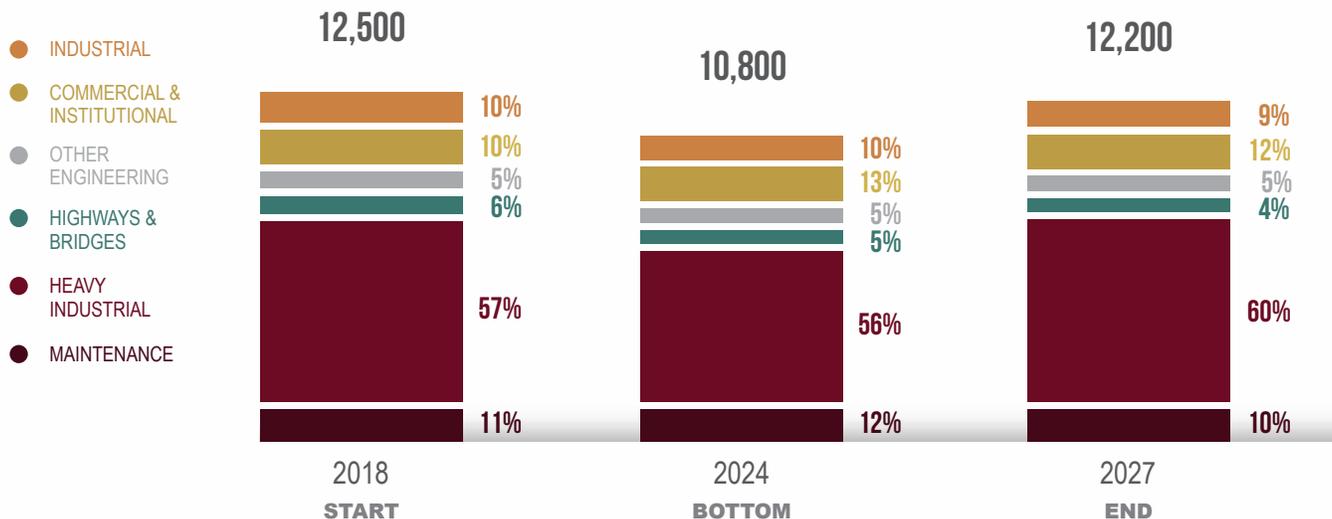
Figure 2 shows the employment trends by sector for non-residential construction.

Table 1: Change in non-residential employment by sector, Newfoundland and Labrador

SECTOR		% CHANGE 2018–2022	% CHANGE 2023–2027
Total non-residential employment		-20%	7%
ICI	Industrial	-23%	-2%
	Commercial, institutional and government	-5%	8%
Engineering	Highways and bridges	-23%	-5%
	Heavy industrial	-24%	9%
	Other engineering	-28%	22%
Maintenance		-5%	-2%

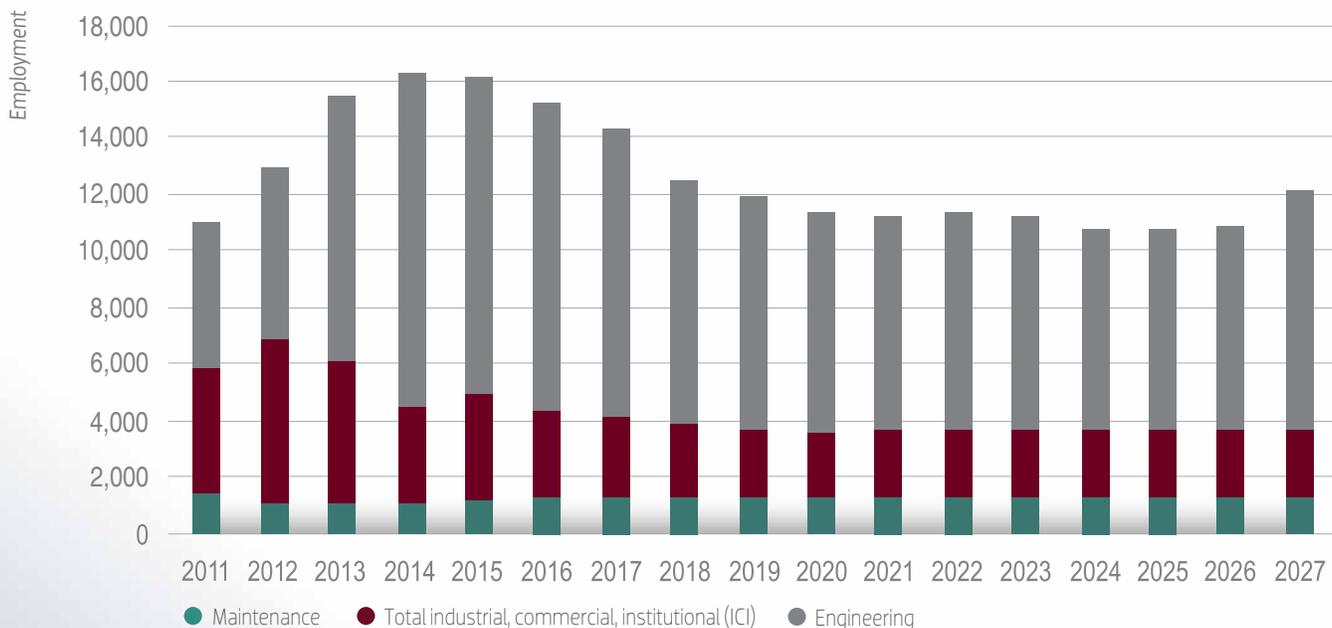
Source: Statistics Canada, BuildForce Canada

Figure 1: Non-residential employment distribution by sector, Newfoundland and Labrador, 2018, 2024, and 2027



Source: Statistics Canada, BuildForce Canada

Figure 2: Non-residential construction employment growth outlook, Newfoundland and Labrador



Source: Statistics Canada, BuildForce Canada

THE AVAILABLE WORKFORCE

The number of local workers returning from Western Canada has slowed, while rising levels of unemployment are leading some workers to leave the province in search of employment opportunities. Given the current outlook scenario, Newfoundland and Labrador's construction industry can expect to lose as many as 4,300 skilled workers through out-mobility to other sectors or province's over the next four years. The pace at which workers decide to leave versus remaining in the province would have significant implications on unemployment.

There is an acute risk that if large numbers of skilled workers leave, any significant increase in engineering project demands will likely stretch the capacity of a diminished workforce. Maintaining capacity to meet these demands requires a continued emphasis on recruitment and training, which may prove to be more challenging during an extended down-cycle.

The BuildForce LMI system tracks supply and accounts for the change in the available labour force, including retirements, new entrants¹, and net in-mobility². BuildForce estimates that 4,400 workers are likely to exit the non-residential workforce due to retirements over the coming decade, which accounts for about half of the expected workforce decline. Over the same period, the industry is expected to draw 2,600 first-time new entrants into the workforce from the local population aged 30 and younger. The older age profile of the Newfoundland and Labrador population and the province's shrinking youth population could make attracting new entrants into the workforce more difficult.

Table 2 provides a summary of changes in the non-residential workforce in 2017, the five-year period between 2018 and 2022, and across the full scenario period.

The BuildForce ranking system isolates market conditions specific to non-residential construction. The results are summarized in Table 3.

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 Newfoundland and Labrador based on current and proposed construction activity. In addition, assumptions on provincial 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 Newfoundland and Labrador, non-residential rankings are reported for 20 trades and occupations.

Table 2: Change in the non-residential workforce, Newfoundland and Labrador

NON-RESIDENTIAL WORKFORCE ADJUSTMENT		2017	5 years 2018–2022	10 years 2018–2027
	Employment	-1,000	-2,900	-2,100
Demand	Labour force change	-1,700	-4,400	-3,700
	Retirements	500	2,200	4,400
Supply	New entrants	300	1,300	2,600
	Net mobility	-1,500	-3,600	-1,900
Excess supply/(demand)		(700)	(1,500)	(1,500)

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 can 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.

NON-RESIDENTIAL HIGHLIGHTS

- Completion of Hebron construction in 2017 and the winding down of other major projects results in a significant decline in demand requirements in 2018.
- The non-residential workforce built up over the last decade is projected to decline back to 2010 levels by 2024.
- A period of stability resumes from 2025, but the timing of major projects on the horizon could stretch a soon-to-be-depleted workforce, driven by expected retirements and potential out-migration.

MARKET RANKINGS

1

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

2

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

3

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

4

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

5

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

Table 3 provides non-residential rankings for Newfoundland and Labrador, showing that all trades and occupations tracked by BuildForce are entering a period of variable market conditions through to 2022. The timing of project demands presents distinct lows for specific trades during the following periods:

- 2018 (completion of major work on Hebron is partly offset by the start of the Husky offshore platform)
- 2019 (Lower Churchill hydro development work is complete)
- 2021 (Husky platform winds down)

RESIDENTIAL SECTOR

Declining housing starts and softening renovation activity contribute to a steady erosion of residential employment between 2018 and 2021, but employment declines are relatively modest. Housing starts have been on a downward trend since the 2012 peak. 2017 marks the expected bottom, and no substantial up-cycle is anticipated across the scenario period.

Table 3: Non-residential market rankings, Newfoundland and Labrador

TRADES AND OCCUPATIONS – NON-RESIDENTIAL	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Boilermakers	2	2	3	3	3	3	3	3	3	3	3
Carpenters	3	2	3	2	2	3	3	3	3	3	4
Construction managers	2	2	3	3	3	3	3	2	3	3	3
Construction millwrights and industrial mechanics	2	2	3	3	2	3	2	2	3	3	4
Contractors and supervisors	2	2	2	3	2	3	3	2	3	3	3
Crane operators	3	2	2	3	3	3	3	3	3	3	3
Electricians	3	2	2	2	3	3	3	3	3	3	3
Heavy equipment operators (except crane)	2	2	3	2	3	3	3	3	3	3	3
Heavy-duty equipment mechanics	3	3	2	2	2	3	3	3	3	3	3
Painters and decorators (except interior decorators)	2	3	3	2	2	2	3	3	3	3	4
Plumbers	2	2	3	2	2	3	3	3	3	3	4
Refrigeration and air conditioning mechanics	2	2	3	3	2	3	3	2	3	3	4
Residential and commercial installers and servicers	2	2	2	2	2	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	2	2	3	3	4	3	2	3	3	3
Trades helpers and labourers	2	2	2	2	3	3	3	3	3	3	4
Truck drivers	2	2	2	2	3	3	3	2	3	3	4
Welders and related machine operators	2	3	3	2	2	2	3	3	3	3	3

Source: BuildForce Canada

New-housing demand is constrained by negative natural population growth and out-migration, which contribute to falling population and household formations³. Formations are expected to become negative by 2019. Declines in disposable income and a weak real estate market dampen renovation activity in 2018, but anticipated strengthening economic conditions are expected to increase renovation investment after 2022.

Overall residential employment is expected to decline by 4 percent, with declines concentrated over the next five years.

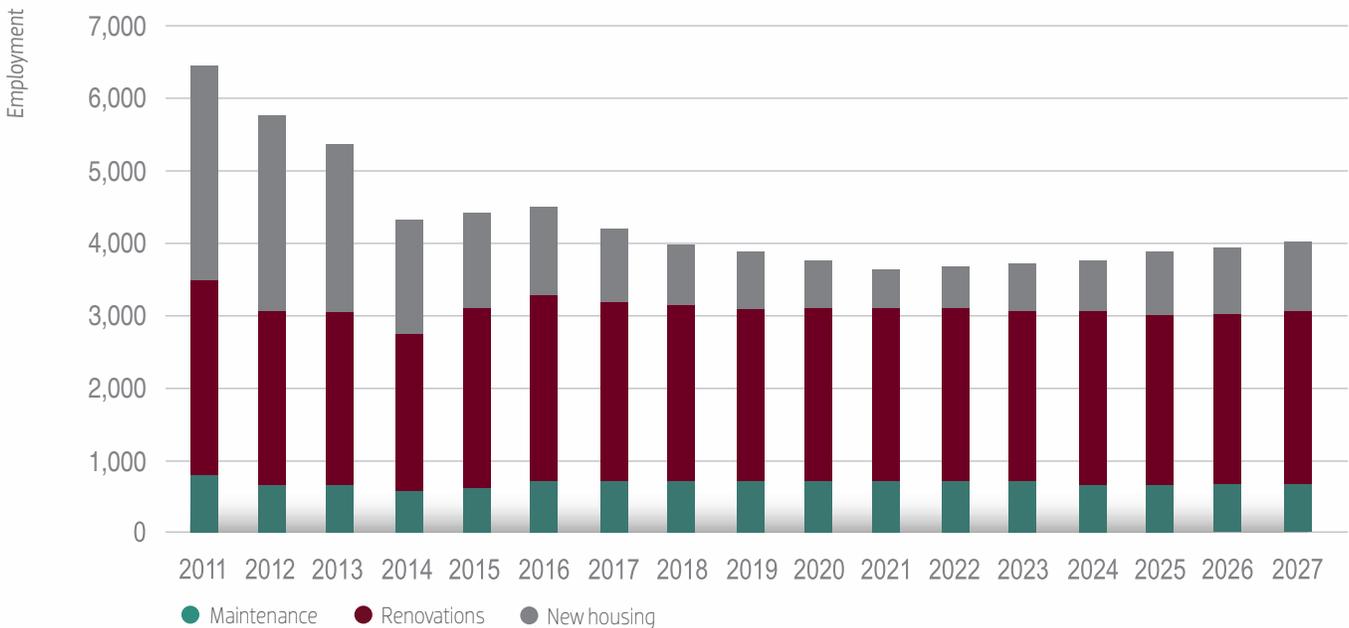
Figure 3 shows the employment trends by sector for residential construction.

THE AVAILABLE WORKFORCE

While long-term demands are expected to recede, industry must still contend with an aging workforce and the anticipated exit of an estimated 1,700 workers over the coming decade due to retirements. Over the same period, a declining population limits the number of first-time new entrants aged 30 and younger expected to be drawn into residential construction from the local population (estimated at 800). Recruiting may prove challenging even during periods of slower growth.

Table 4 provides a summary of the estimated changes in the residential workforce in 2017, the five-year period between 2018 and 2022, and across the full 2018–2027 scenario period.

Figure 3: Residential construction employment growth outlook, Newfoundland and Labrador



Source: Statistics Canada, BuildForce Canada

RESIDENTIAL HIGHLIGHTS

- Housing starts, which fell by almost 70 percent from a 2012 peak of almost 3,900 units, are expected to fall by another 33 percent by 2022, before recovering to 1,500 units per year by the end of the scenario period.
- Renovation activity continues to weaken in the near term, and then grows modestly over the latter part of the scenario period as overall economic conditions improve.
- Overall residential employment declines by a modest 500 jobs, or 13 percent between 2018 and 2021, and then rise and return employment to near 2017 levels by the end of the scenario period.

³ **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 how population growth is transformed into demand for new housing.

RESIDENTIAL RANKINGS, RISKS AND MOBILITY

Table 5 shows weak labour market conditions in 2017, as activity declined for both new housing and renovation work. Market conditions for trades more concentrated in new construction weaken further in 2018 and again in 2020.

Over the scenario period, older age demographics and the resulting retirements contribute to lower natural rates of unemployment and help to maintain balanced labour market conditions, but at lower levels of employment.

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 Newfoundland and Labrador, residential rankings are reported for 10 trades and occupations.

Table 4: Changes in the residential workforce, Newfoundland and Labrador

RESIDENTIAL WORKFORCE ADJUSTMENT		2017	5 years 2018–2022	10 years 2018–2027
	Employment	-300	-500	-200
Demand	Labour force change	-400	-800	-400
	Retirements	200	900	1,700
Supply	New entrants	100	400	800
	Net mobility	-300	-400	500
Excess supply/(demand)		(100)	(300)	(300)

Source: BuildForce Canada

Table 5: Residential market rankings, Newfoundland and Labrador

TRADES AND OCCUPATIONS – RESIDENTIAL	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Carpenters	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	2	3	3	3	3	3	3	3
Home building and renovation managers	2	2	3	3	3	3	3	3	3	3	3
Painters and decorators (except interior decorators)	2	3	3	3	3	3	3	3	3	3	3
Plasterers, drywall installers and finishers, and lathers	2	2	3	3	3	3	3	3	3	3	3
Plumbers	2	2	3	3	3	3	3	3	3	3	3
Residential and commercial installers and servicers	2	3	3	3	3	3	3	3	3	3	3
Roofers and shinglers	3	3	3	3	3	3	3	3	3	3	3
Trades helpers and labourers	2	2	2	2	3	3	3	3	3	3	3

Source: BuildForce Canada

PLANNING FOR LABOUR MARKET CHALLENGES AMID ECONOMIC DOWNTURN

The projected downturn for Newfoundland and Labrador’s construction industry does not signal effortless recruiting, as the province must contend with an aging workforce and retirements estimated at 6,100 workers over the coming decade. This reflects a loss of one quarter of the current workforce, and represents a significant loss of skills and experience.

Age demographics and weaker economic growth translate into a declining population over the medium term to 2023. Figure 4 shows the sources of population growth for the province.

Newfoundland and Labrador’s population began declining in 1994, but this changed in 2007 when stronger commodity prices, offshore development, and mining and hydro projects translated into a surge of construction activity and positive in-migration to meet rising demand requirements.

As economic activity recedes from the peak, population growth returns to negative over most of the scenario period, as some workers are expected to leave in search of opportunities in other provinces. Aging population trends, however, will lead migration to be an important source of population and labour force growth over the long term.

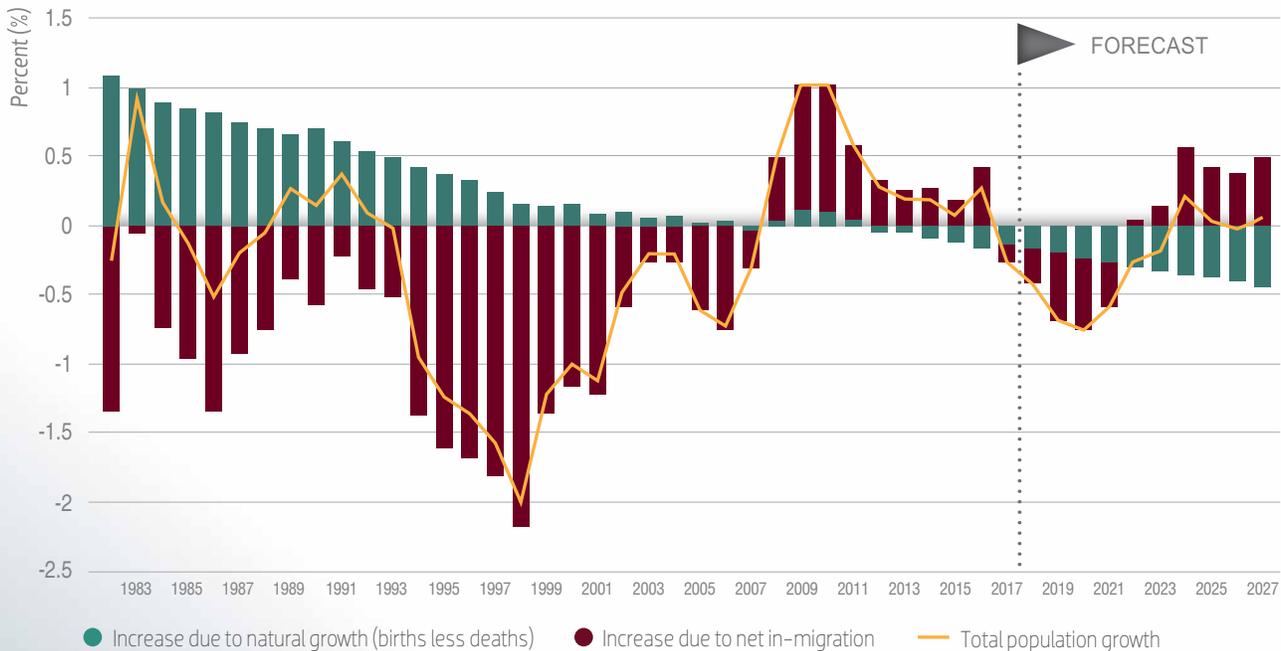
The expected decline in population will limit labour force growth and, despite declining employment requirements, potentially tighten labour markets. Table 6 shows the province’s current and anticipated population age distribution.

Table 6: Population age distribution (%), Newfoundland and Labrador

AGES	2017	2027
0–14	14.0	12.4
15–24	10.6	10.2
25–54	39.7	35.9
55–64	15.8	14.9
65+	19.9	26.6

Source: Statistics Canada, BuildForce Canada

Figure 4: Sources of population growth (%), Newfoundland and Labrador



Source: Statistics Canada, BuildForce Canada (2018–2027)

A key driver of employment requirements over the next 10 years will be the province's aging demographics. Over the coming decade, the share of the population in the older age bracket (65 years and over) is expected to increase substantially, and at the same time, the share of the population in their prime working age (25-54 years old) is expected to continue declining (see Table 6). By 2027, it is expected that one in four people living in Newfoundland and Labrador will be 65 years or older. Additionally, the share of the population that is potentially available to enter the workforce (15-24 years old) is expected to decline.

As a considerable share of the population move into the older age bracket, the labour force participation rate (percent of the population 15 years and older in the labour force) is expected to fall steadily. Replenishing a retiring workforce may become increasingly difficult, as all industries will be drawing new recruits from an ever-smaller pool of youth.

Based on historical trends, Newfoundland and Labrador's construction industry is expected to draw an estimated 3,400 first-time new entrants aged 30 and younger from the local population over the next decade. Under the outlook scenario, the retiring workforce will exceed the traditional levels of youth recruitment. This will require industry to increase its recruitment of workers from other industries, outside the province, or from new segments of the population that have historically been underrepresented in the construction workforce.

Attracting new entrants amid competition with other industries will require industry to improve initiatives to engage underrepresented groups, including Indigenous people and women.

Canada's Indigenous population has the country's highest rate of population growth and a higher propensity to choose construction as their career choice. An estimated 7.5 percent of all Indigenous people in Canada reside in the Atlantic provinces and they currently account for about 2.9 percent of the construction workforce in the region.

Women continue to be an underrepresented source of labour in Newfoundland and Labrador's construction industry. The province's construction workforce is made up of approximately 9 percent women, of which about 30 percent work directly on construction projects, while the remaining 70 percent work primarily in administrative and management-related occupations in the construction industry. This translates into an on-site participate rate of only 3 percent working in direct trades and occupations.

The recent construction expansion led to a modest increase in female representation, peaking at nearly 4 percent of direct trades and occupations employment in 2014. Figure 5 shows the female share of employment in direct trades and occupations in Newfoundland and Labrador.

As construction activity winds down from the peak, the share of women in construction is estimated to return to near 2011 levels. Further employment declines are anticipated in most sectors of construction, leading to receding requirements for men and women at similar rates and leaving the share of women in construction mostly unchanged over the coming decade.

Table 7 shows the anticipated employment in direct trades and occupations by gender in Newfoundland and Labrador.

10-YEAR AVERAGE

-0.3%



POPULATION GROWTH

4,100



BIRTHS

5,700



DEATHS

200



NET IN-MIGRATION

BY 2027

43



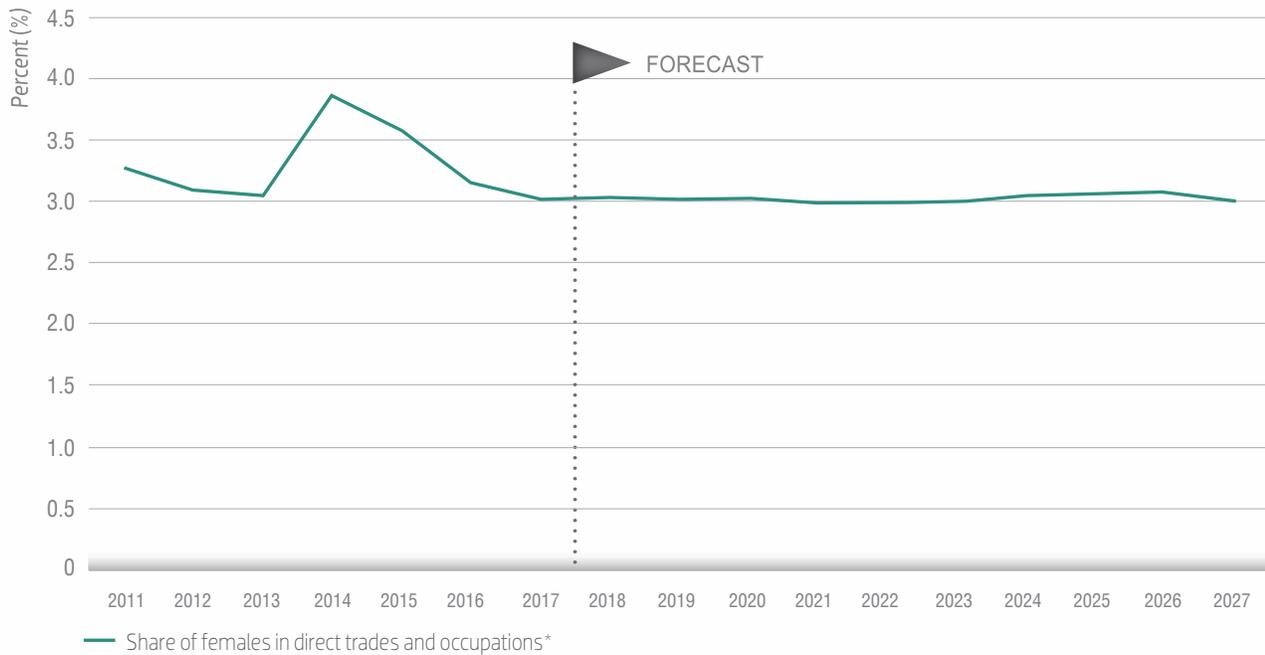
AVERAGE AGE OF CONSTRUCTION WORKFORCE

24%



PERCENT OF CURRENT LABOUR FORCE LOST TO RETIREMENT

Figure 5: Share of women in direct trades and occupations, Newfoundland and Labrador



* Direct trades and occupations refers to the 34 trades and occupations tracked by BuildForce Canada, which excludes administrative-type occupations.

Source: BuildForce Canada calculations based on Statistics Canada’s Labour Force Survey (LFS) and 2011 National Household Survey (NHS)

Table 7: Construction employment by gender, Newfoundland and Labrador (total direct trades and occupations)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
	17,900	15,900	15,300	14,700	14,400	14,500	14,500	14,100	14,200	14,300	15,600
	600	500	500	500	400	400	400	400	400	500	500

Source: BuildForce Canada calculations based on Statistics Canada’s Labour Force Survey (LFS) and 2011 National Household Survey (NHS)

CONCLUSIONS AND IMPLICATIONS

Construction employment in Newfoundland and Labrador is well into a pronounced down-cycle that extends across the medium term. Declining demand requirements associated with major project completions and declining population combined with weak overall economic conditions reduce the employment gains built up over the past decade. Employment returns to levels consistent with the mid 2000s, prior to the resource development expansion.

Despite the weak near-term outlook, recruiting challenges may soon re-emerge. Rising retirements and workforce requirements associated with planned development projects later in the scenario

period present a potential risk where labour demands for some trades may exceed the available local workforce. This risk may be greater if large numbers of skilled workers leave the province in search of work opportunities.

The industry scenario-based approach developed by BuildForce Canada to assess future labour market conditions provides a powerful planning tool for industry, government, and other stakeholders to better track labour market conditions and identify potential pressure points. The anticipated labour market conditions reflect the current long-term oil price outlook and industry capital investment assumptions. Any changes to these assumptions presents risks and potentially alters anticipated market conditions.

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