

Construction Sector Outlook

Employment in the Construction Sector has been declining since reaching peak levels in 2013, driven down by decreased levels of non-residential building and engineering construction. Preliminary insights from Build Force Canada suggest construction demands have strengthened in 2017, driven by continued momentum in new housing construction alongside an increase of engineering and infrastructure related construction demands. Looking forward, construction employment is expected to weaken slightly in 2018, but remain near current levels over the next five-year period. Work demands related to new housing construction are expected to weaken after 2019, offset by modest growth in industrial, commercial, and institutional sector (ICI) building construction.

Demands outside Construction

In Nova Scotia, economic growth in both private and public sectors will likely be constrained over the next five years as a result of slowing population growth. The Industrial Manufacturing Sector stands out as a key source of growth in trades demand, benefiting from Federal shipbuilding projects and a favourable exchange rate with the United States, combined with decreased energy and transportation costs. Increased activity in Nova Scotia's shipbuilding industry is expected to continue to contribute to economic growth in the Province and raise hiring demands for a number of construction trades working in the Manufacturing Industrial Sector. The strongest employment growth is anticipated between 2020 and 2021 with the start of the Royal Canadian Navy's shipbuilding program. This is anticipated to raise employment for multiple trades including: Welders, Ironworkers, Steamfitters and Pipefitters

Employment levels are anticipated to remain steady for most construction trades, while demand requirements from all trade sectors are expected to increase employment opportunities for Ironworkers, Welders and Boilermakers between 2018 and 2022.

Replacing Nova Scotia's Aging Workforce

The Nova Scotia workforce is one of the oldest in Canada and this contributes to a sharp rise in annual retirements. At the same time, the pool of youth entering the workforce is declining as many still choose to leave the Province. Build Force Canada estimates that 8200 construction trades workers are likely to be lost to retirement and other age-related exits between 2018 and 2022. Significant numbers of retirements are anticipated for Carpenters, Electricians, Construction Labourers, Heavy Equipment Operators and Welders.

Table 1 shows the anticipated change in employment, retirements and total hiring requirements for Construction Sector trades across all industries in Nova Scotia between 2017 and 2022. The trades with the biggest hiring requirements include: Carpenters, Welders and Electricians.

Table 1 - Change in Employment and Net-Hiring Requirements for Nova Scotia Construction Trades 2018 – 2022

Construction Trades	Employment Growth	Replacement Demand		Total Hiring Requirements
	% Change	#	#	#
Sheet metal workers	3.3%	17	82	99
Boilermakers	-1.7%	-9	111	102
Ironworkers	5.9%	37	97	135
Welders and related machine operators	1.0%	20	308	328
Electricians (except industrial and power system)	-1.4%	-33	453	420
Electrical power line and cable workers	-16.6%	-71	91	20
Plumbers	-1.2%	-14	175	161
Steamfitters, pipefitters and sprinkler system installers	-7.5%	-79	118	39
Gas fitters	-3.5%	-3	6	3
Carpenters	-2.7%	-190	1,177	987
Bricklayers	-2.3%	-12	103	91
Concrete finishers	-10.4%	-24	28	4
Tilesetters	-5.8%	-3	6	3
Plasterers, drywall installers and finishers and lathers	-1.9%	-22	163	141
Roofers and shinglers	2.2%	12	46	58
Glaziers	-0.9%	-1	21	20
Insulators	-0.7%	-2	35	33
Painters and decorators (except interior decorators)	0.1%	1	218	219
Floor covering installers	0.9%	4	55	59
Refrigeration and air conditioning mechanics	2.3%	9	49	58
Oil and solid fuel heating mechanics	-0.6%	-2	39	37
Crane operators	-5.0%	-21	48	27
Drillers and blasters - surface mining, quarrying and construction	-13.3%	-4	3	-1
Heavy equipment operators (except crane)	-18.5%	-551	301	-250
Construction trades helpers and labourers	-8.0%	-414	584	169

Source: CANTRAQ

As journeypersons progress through their careers many also work in “related” occupations, thereby taking their Certificate of Qualification (CofQ) with them. Table 2 maps program specific trade certifications to the trades and occupations in which workers also hold those certifications. Trades with a significant estimated percentage of certified workers in a particular trade are defined as “related trades and occupations”. The source for new hires for these trades and occupations are existing journeypersons and presenting an important additional source of demand for apprenticeship training and certification.

Table 2 – Estimate of Trades Certification and Related Occupations

Tracked Program Groups		Sheet metal worker	Welder	Electrician	Plumber	Steamfitter/ pipefitter	Carpenter	Refrigeration and air conditioning mechanic	Oil and solid fuel heating mechanic	Other Programs
Related Occupations	% of LF with CofQ	42%	42%	73%	67%	68%	32%	71%	75%	
Contractors and supervisors, pipefitting trades	82%				39%	33%				11%
Contractors and supervisors, electrical trades and telecommunications occupations	54%			38%						16%
Contractors and supervisors, carpentry trades	41%						36%			5%
Electrical power line and cable workers	59%			35%						24%
Power engineers and power systems operators	48%			33%						14%
Contractors and supervisors, machining, metal forming	51%	7%	24%							21%
Oil and gas drilling, servicing and related labourers	35%					30%				4%
Non-destructive testers and inspection technicians	44%	2%	6%	17%					2%	17%
Construction inspectors	33%	1%	3%	8%	3%	3%	7%			8%
Drillers and blasters - surface mining, quarrying and construction	38%				12%	10%				15%
Construction managers	25%						22%			3%
Facility operation and maintenance managers	22%				5%	4%	11%			3%
Construction estimators	27%	1%	2%	6%	2%	2%	6%		1%	7%
Engineering inspectors and regulatory officers	28%	1%	5%		5%	4%			2%	11%
Boat assemblers and inspectors	27%	1%	4%				11%			10%
Industrial engineering and manufacturing technologists	29%	3%	9%						3%	15%
Electrical and electronics engineering technologists and technicians	22%			13%						9%
Cabinetmakers	14%						12%			2%
Plasterers, drywall installers and finishers and lathers	13%						11%			2%
Contractors and supervisors, oil and gas drilling and services	13%								11%	2%
Supervisors, petroleum, gas and chemical processing and utilities	35%								10%	24%
Contractors and supervisors, other construction trades	13%	0%	2%	4%			4%			3%
Telecommunications line and cable workers	17%			10%						7%
Home building and renovation managers	11%						10%			1%
Senior managers - construction, transportation, production and utilities	14%	0%	1%	4%			4%		0%	4%
Janitors, caretakers and building superintendents	12%	1%	2%				6%			3%
Construction trades helpers and labourers	10%						9%			1%
Civil engineers	12%			8%						4%
Residential and commercial installers and servicers	13%	2%	6%							5%
Water and waste treatment plant operators	13%	2%	6%							5%
Machine fitters	31%	1%	4%						2%	24%

The CANTRAQ system, developed by Prism Economics, tracks requirements for apprenticeship qualifications for individual trade programs in every province across Canada. The system translates employment and replacement demands across principle trades and the related occupations which draw on the specific trade certifications. The analysis tracks anticipated changes in employment, replacement demands, apprenticeship registrations and completions, levels of trade certification and completion rates.