Nova Scotia Apprenticeship Agency / Nova Scotia Community College Stewardship Report

2014-2015 Academic Year





Nova Scotia Apprenticeship Agency / Nova Scotia Community College Stewardship Report

2014-2015 Academic Year

Background

The creation of the Nova Scotia Apprenticeship Agency ("Agency") involved significant amendments to the *Apprenticeship and Trades Qualifications Act* and the *Community Colleges Act* to pave the way for fuller, more coherent industry engagement across the trades training system.

In particular, it was recognized that to achieve success, the Agency needed to enhance its strong relationship with the Nova Scotia Community College ("NSCC" or "College"). Apprenticeship technical training had to be extended to include the planning and delivery of those college trades programs for which the agency maintains industry standards and issues certificates of qualification.

The amended *Community Colleges Act* now recognizes the Agency as a partner and ensures input to new programs and alterations to existing programs that pertain to designated trades. The Board of Governors of NSCC is required to collaborate with the Agency to establish the guidelines on the evaluation of programs of study that pertain to the designated trades. In addition, where NSCC would have established Program Advisory Committees for programs that pertain to designated trades, it will instead use the Agency's Trade Advisory Committees (TACs) for this purpose. TACs are composed of industry representatives who are appointed by the Apprenticeship Board to enable a coherent industry voice across the trades training system. The Operating Charter of the Agency provides additional detail regarding this requirement, stating that TACs shall provide advice and make recommendations to the Board of Governors of the college concerning pre-employment programs associated with designated trades, including appropriate prerequisites to entry.

As a measure to ensure that the relationship between NSCC and the Agency meets our objective of enabling consistent industry advice across the system, the amended *Apprenticeship and Trades Qualifications Act* names the NSCC Vice-President, Academic as a member of the Apprenticeship Board. Also, the NSCC President and the Agency Chief Executive Officer are required to jointly prepare an annual stewardship report concerning trades and related matters that are within the mandate of both the college and the Agency.

In June 2015, an inaugural Stewardship Report was published outlining the systems that were established to meet the objectives in the Operating Charter. This report provides a summary of activities that support the apprenticeship system undertaken jointly between the NSCC and the Agency for the 2014-2015 academic year.

Effective Collaboration

Apprenticeship Board

The NSCC's Vice-President, Academic was appointed to the inaugural Apprenticeship Board and has continued to be a member of the NSAA Board and the recently created Stakeholder Relations Standing Committee. She has actively participated in the monthly board meetings and Committee meetings by providing a strong link to the NSCC pre-employment programs as they relate to the designated trades, provides advice on a range of matters such as board policies, Trade Advisory Committee (TAC) recruitment and membership, board and TAC work plans and the Agency's five-year strategic plan and its fundamental link to the NSCC Board of Governors. The NSCC continues to host the board meetings at its IT Campus in Halifax.

NSAA/NSCC—TAC Coordination Committee

The TAC Coordination Committee is responsible for determining the annual needs for program review, defining the processes for establishing TACs that need to carry out such reviews, and clarifying NSCC's role and participation in TACs. The committee is co-chaired by NSCC's Dean of Trades and Technology and NSAA's Director of Partnership and Innovation.

The Committee has developed a plan to establish TACs involving NSCC pre-employment programs over the next two years. This plan seeks to align the NSCC programs that require review with existing TACs, industry's needs and requests, and harmonization initiatives.

Provincial Trade Advisory Committees

According to the Operating Charter of the NSAA, Trade Advisory Committees (TAC) are established by the NSAA Board and are responsible for the review of pre-employment apprenticeship training programs at the College that are associated with a designated trade. In addition to the pre-apprenticeship programs, expertise regarding apprenticeship technical training is often required on these committees and this expertise is provided by NSCC faculty who usually form part of the TAC membership.

Over the reporting period, the NSAA has established two TACs that involve NSCC staff: Carpenter and Motor Vehicle Body Repairer. The Carpenter TAC was established in response to an application to specify the Carpenter trade as a compulsory-certified trade. The NSAA Board requested a faculty member from the NSCC as a TAC member. The member has provided advice and expertise to the TAC in the development of a proposed pathway to certification. This pathway involves modular components of the Carpenter trade and requires collaborating with NSAA curriculum staff on modifications to technical training and assessments. At the direction of the Board, the proposed pathway to certification and the compulsory certification of the trade was discussed with TAC member organizations in a series of four meetings from June to August, with more planned for the fall 2015.

A TAC was created to review the Automobile Collision and Refinish program and associated Motor Vehicle Body Repairer trade. An NSCC Curriculum Consultant led the review with the assistance of NSCC faculty, the Dean of Trades and Technology and the Manager of Apprenticeship with the NSCC in collaboration with NSAA Curriculum staff. The Committee completed its review and made a recommendation to reduce the two-year pre-employment program to one year and to align the pre-employment program curriculum and outcomes with the apprenticeship technical training curriculum and outcomes. The Chair of the TAC made the recommendation to the NSAA Board at the April 8, 2015 Board meeting. The Board accepted the recommendation and made the recommendation to the NSCC Board of Governors for its



consideration. The program was approved by the Board of Governors on October 22, 2015 and was approved by the Minister of Labour and Advanced Education in December.

Review of NSCC Pre-Apprenticeship Programs

It is anticipated that the primary issue for the College will be the need to review programs in a timely manner in order to make the required changes in advance of a given academic year. To this end, the Agency and the College have developed a plan to work closely together regarding the work of TACs.

Trade	NSCC Program	NSAA TAC	Timeline for TAC Establishment
Automotive Service	Automotive Service	Automotive Service	Establish Fall 2015
Technician	Repair Technician		Meet in Jan. 2016
Bricklayer	Bricklaying/Masonry	Bricklayer	2016
Carpenter	Carpentry (Certificate & Diploma), Heritage Carpenter	Carpenter	TAC currently exists Program review 2016
Construction Electrician	Electrical-Construction & Industrial Electrical Technician Electro Mechanical Technician	Construction Electrician	Establish Fall 2015 Meet in Dec. 2015 Program review 2016 with Industrial Electrician TAC
Cook	Cooking, Culinary Arts	Cook	TAC exists Program review after 2016
Gas Fitter	Gas Technician	Gas Fitter	2016 Program review after 2016
Heavy Duty Equipment Technician (HDET)	Heavy Duty Equipment/ Truck & Transport (Certificate & Diploma)	Truck & Transport Mechanic/Heavy Duty Equipment Technician	2016 Program review with TTM TAC
Heavy Equipment Operator	Heavy Equipment Operator	Heavy Equipment Operator	en e
Industrial Electrician	Electrical-Construction & Industrial Electrical Technician Electro Mechanical Technician	Industrial Electrician	Establish Fall 2015 Meet in Dec. 2015 Program review 2016 with Construction Electrician TAC
Instrumentation and Control Technician	Industrial Instrumentation	Instrumentation and Control Technician	
Industrial Mechanic (Millwright)	Industrial Mechanic	Industrial Mechanic (Millwright)	
Landscape Horticulturist	Horticulture Landscape Technology	Landscape Horticulturist	
Machinist	Machining	Machinist	
Marine Service Technician	Diesel Repair— Industrial & Marine	MST/HDET/TTM	2015–2016
Metal Fabricator (Fitter)	Metal Fabrication/Welding	Metal Fabricator (Fitter)	
Motor Vehicle Body Repair	Auto Collision Repair & Refinish	Motor Vehicle Body Repair	Estimated completion: March 2016

Trade			Timeline for TAC Establishment	
Oil Heat System Technician	Oil Heat System Technician	Oil Heat System Technician		
Power Engineer	Power Engineering Technology Process Operations—4 th Class	Power Engineer	Program review after 2016	
Plumber	Plumbing, Pipe Trades	Plumber	2016 Program review with Steamfitter/Pipefitter TAC	
Power Line Technician	Utility Line Worker	Power Line Technician	Program review after 2016	
Refrigeration & Air Conditioning Mechanic	Building Systems Technology (HVAC&R) Refrigeration & Air Conditioning, Refrigeration & Air Conditioning— Geothermal	Refrigeration & Air Conditioning Mechanic		
Sheet Metal Worker	Sheet Metal Worker	Sheet Metal Worker		
Steamfitter/Pipefitter	Steamfitting/Pipefitting Pipe Trades	Steamfitter/Pipefitter	2016 Program review with Plumber TAC	
Truck & Transport Mechanic (TTM)	Heavy Duty Equipment/ Truck & Transport (Certificate & Diploma)	Truck & Transport Mechanic/Heavy Duty Equipment Technician	TAC exists Program review in 2016 with HDET TAC	
Welder	Welding Certified, Welding Diploma, Metal Fabrication/Welding	Welder		

Atlantic Trade Advisory Committees

Nova Scotia continues to be an active participant on the Atlantic Apprenticeship Harmonization Project (AAHP). Under the AAHP, the Apprenticeship Board recruits and appoints members representing Nova Scotia to Atlantic Trade Advisory Committees (ATACs). ATAC membership consists of one employer, one employee, and one training provider representative from each Atlantic jurisdiction. The following ATACS have been established and have convened: Bricklayer, Carpenter, Construction Electrician, Cook, Industrial Electrician, Metal Fabricator (Fitter) and Welder. These ATACS represent seven of the ten trades that have been selected for harmonization under the AAHP. In 2016 and onward, ATACs will be established, and will convene, for the remaining three trades: Instrumentation and Control Technician, Plumber, and Steamfitter-Pipefitter. NSCC has provided the Training Provider representative to each of these ATACs.



NSAA/NSCC—Apprenticeship Training Committee

The NSAA and NSCC Apprenticeship Training Committee meets biweekly to discuss, coordinate, plan and implement the delivery of technical training. The committee reviews new and emerging trends, challenges facing apprentices, and opportunities for flexible training delivery options. This committee is made up of representatives from NSCC and the Agency who are responsible for the delivery of technical training. It is co-chaired by the Manager of Apprenticeship at NSCC and the Manager of Programs and Operations at the Agency.

Apprenticeship Technical Training

Apprenticeship technical training is that portion of the certification requirement of a designated trade when the apprentice receives formal training, including theoretical instruction. NSCC is the Agency's primary service provider for technical training and other trades-related training (e.g. refreshers, certification renewal, and safety). Training is offered through NSCC for the following 28 designated trades:

Automotive Service Technician (AST)	Ironworker (Structural/Ornamental)
AST (Service Station Mechanic)	Machinist
Blaster	Metal Fabricator (Fitter)
Boilermaker	Motor Vehicle Body Repairer (Metal and Paint)
Bricklavor	Oil Heat System Technician
Bricklayer Carpenter Construction Electrician	Plumber Power Engineer
Cook	Powerline Technician
Gas Fitter	Refrigeration and Air Conditioning Mechanic
Heavy Duty Equipment Technician	Roofer
Industrial Electrician	Sheet Metal Worker
Industrial Mechanic (Millwright)	Steamfitter/Pipefitter
Instrumentation and Control Technician	Truck and Transport Mechanic
Ironworker (Reinforcing)	Welder

During the 2014-2015 academic year and through the NSCC, the Agency offered a total of 1142 weeks of in-class technical training to 2258 apprentices at the following locations:

Campus	Weeks of Training	Number of apprentices	Campus	Weeks of Training	Number of apprentices
Akerley	351	546	Marconi	218	280
Dartmouth Gate	20	14	Pictou	68	126
Burridge	33	55	Waterfront	243	441
IT	169	276	Cumberland	5	6
Kingstec	28	57	Truro	7	14
Virtual Campus		442]		

Over the last several years, despite a stable number of apprentices in the system, the NSAA and NSCC have significantly reduced waiting lists for technical training. To continue this trend for the 2015-2016 academic year, NSCC and the Agency will be increasing the number of weeks of technical training by a further 10%.

Refresher Courses

In an effort to increase certified individuals in Nova Scotia and to assist apprentices and trade qualifiers who have difficulty in achieving success in writing their certification exam, the NSAA and NSCC have offered the following refresher courses: Electrician-2, Carpenter-1, Steamfitter/Pipefitter-1 and Insulator Heat and Frost-1. In addition, in response to the Sheet Metal trade becoming compulsory-certified, three (3) Sheet Metal refresher courses were offered to support existing trade practitioners in writing their certification exam and becoming compliant with the Sheet Metal Trade Regulations.

Credit Transfer

In addition to providing for the delivery of apprenticeship technical training NSAA awards credit towards apprenticeship to the NSCC graduates who have completed a pre-employment program in a designated trade area. The Agency can do this because NSCC has incorporated the industry training standard for the trade into its program. The following NSCC programs receive transfer credit toward one or more apprenticeship trades. Programs are reviewed annually for eligible credit.

Automotive Collision Repair & Refinish Diploma Automotive Service and Repair Certificate Bricklaying Masonry Certificate of Accomplishment Building Systems Technician (HVAC&R) Diploma **Carpentry Certificate Carpentry Diploma Cooking Certificate Culinary Arts Diploma** Diesel Repair—Industrial and Marine Certificate Electrical—Construction & Industrial Certificate Electrical—Construction & Industrial Diploma Electrical Technician (ELTN) Program Electro Mechanical Technician Diploma **Electronic Engineering Technology Diploma** Gas Technician Certificate **Refrigeration and Air Conditioning Certificate** Refrigeration and Air Conditioning—Geothermal Certificate Sheet Metal Certificate of Accomplishment Steamfitting and Pipefitting Certificate

Heavy Duty Equipment/Truck and Transport **Repair Certificate** Heavy Duty Equipment/Truck and Transport **Repair Diploma** Heritage Carpentry Diploma Horticulture & Landscape Technology Diploma Industrial Instrumentation Diploma Industrial Mechanical Certificate **Machining Diploma** Metal Fabrication Diploma Oil Heat Systems Technician Certificate of Accomplishment **Pipe Trades Diploma Plumbing Certificate** Power Engineering Technology Diploma Process Operator-4th Class Power Engineer Certificate Utility Line Work—Construction and Maintenance Certificate Welding—Certificate of Accomplishment Welding Diploma

NSAA | NSCC STEWARDSHIP REPORT

Disability Services Committee

The NSAA and NSCC's Disability Services have recently formed a committee to clarify and document a clear pathway of services, between both parties, for apprentices with disabilities who self-identify. NSCC's Disability Services includes at least one Disability Resource Facilitator (DRF) for each of the 13 campuses. The DRFs currently deliver service under a new policy and service-delivery model that includes a process for students to self-identify, provide information, participate in individualized accommodation planning, and seek the necessary supports to learn about and meet their responsibilities in the process of accommodation planning. This Committee was formed to address the particular needs of apprentices who enter and re-enter levels of training over the period of their apprenticeship program. Important parts of this work have included: clarifying and defining roles and responsibilities of the apprentice, the NSCC's DRF, NSAA's training officer, NSCC and the NSAA.

Career Exploration and Awareness

The Agency funds youth experiential learning opportunities in the skilled trades in partnership with industry, and NSCC is an important partner in this work. The two current initiatives include Building Futures for Youth (BFY) in the construction sector and Automotive Test Drive (TD) in the motive power sector. The programs provide a combination of industry-based classroom safety instruction and on-the-job paid work experience in the trades for eligible Grade 10 and 11 students in the public school system. Classroom instructional time is delivered at NSCC campuses across the province.

This year, the BFY and Test Drive programs had 74 students participate. BFY participants were employed for the summer by 51 employers and 19 Test Drive students were employed by 12 individual employers. NSCC provided 80 hours of safety training to all 93 participants, a requirement of the programs, prior to students beginning employment and entering the job sites.

The Agency is currently working with its partners, including the College, to improve the current model using innovative instructional methods throughout the school year, as well as expanding opportunities in the Industrial/Manufacturing and Service sectors.

As the youth experiential programs expand there is a need to develop a consistent approach to the program partnership regarding the safety training portion. As an integral project partner NSCC provides safety training as a pre-requisite for students participating in work placements. The partnership requires a consistent level of participation, whether participation is in-kind or fee-for-service, in determining the role of the NSCC as the training provider. The training is of a high-quality and viewed as essential by employers, students and the partnership, and is necessary for apprentice success.

NSCC also provides tools and opportunities for career exploration through Open House, campus visits, Techsploration, pre-admission advising and through its innovative CAREER IN GEAR online tool. NSCC also partners with Women Unlimited to provide women with exposure to careers in the trades.

NSAA/NSCC—Apprenticeship Celebration Event (ACE)

The Joint Planning Committee planned and implemented two events in 2014-2015: one in Dartmouth in November 2014 and one in May 2015 in Digby. These events recognize newly certified journeypersons who have completed their apprenticeship training and received a certificate of qualification in their trade. Awards of Excellence are also presented to one mentor/coach and one apprentice. The November 2014 event recognized approximately 350 newly certified journeypersons from the Central and Northern regions of the Province who became certified in the past year. Approximately 220 attended the ACE in November,



NSAA | NSCC STEWARDSHIP REPORT

of which 40 were newly certified journeypersons. At the May ACE event 145 newly-certified journeypersons, over the past two years, from the Southwestern region of the Province were recognized. A total of 110 persons attended the May event and 15 were newly-certified journeypersons.

The President of NSCC, Don Bureaux brought congratulations and greetings from the College in November and Vice President, Academic, Rosalind Penfound delivered greetings and congratulations from the College at the May event.

Industry Standards and Harmonization

Atlantic Apprenticeship Harmonization Project

Under the auspices of the Atlantic Harmonization Project (AAHP) of the Atlantic Workforce Partnership, Atlantic Trade Advisory Committees (ATACs) for Bricklayer, Cook, Metal Fabricator (Fitter) and Welder developed harmonized Atlantic curriculum standards and level-1 exam banks and provided input to the common apprentice logbook practical skills.

Throughout 2015-16, and onward, the ATACs for Bricklayer, Cook, Metal Fabricator (Fitter) and Welder will convene to develop exam banks for subsequent training levels (levels 2, 3, etc.). The ATACs for Carpenter, Construction Electrician, Industrial Electrician, Instrumentation and Control Technician, Plumber and Steamfitter/Pipefitter will also meet to develop Atlantic curriculum standards and exam banks.

NSAA and NSCC have created a plan to implement these harmonized standards and exams*, enabling them to be phased in one level at a time over each training year: i.e., level 1 in the September 2015 training year; level 2 in the 2016 training year; level 3 in the 2017 training year; and so on.

Trade	Level	# of Training Weeks	Training Dates (as of Nov 6, 2015)
Bricklayer	1	8 weeks	May 24 - June 17, 2016
Cook	1	5 weeks [blended delivery of 4 weeks in- class + 1 week online]	Oct 13 - Dec 18, 2015 (part-time in-class, Mondays & Tuesdays)
Metal Fabricator	1	9 weeks	Feb 29 - Apr 29, 2016
Welder	1	9 weeks	Feb 29 - Apr 29, 2016

Implementation Schedule for 2015-16

*All apprentices who attend the above-noted training will be required to successfully complete a common Atlantic level exam in order to progress to the next level of training.

CCDA Harmonization

Nova Scotia is an active participant on the Canadian Council of Directors of Apprenticeship (CCDA) Harmonization Initiative. The goal of the project is to *substantively align* apprenticeship training and certification requirements for Red Seal trades. Priorities for harmonization include: trade name, total hours, number of training levels and curriculum sequencing.



First 10 Red Seal Trades

NSAA and NSCC staff have participated in discussions and national webinars for 6 of the first 10 trades, aiming for apprenticeship intake in the 2015-16 and 2016-17 training years:

- Carpenter (2016-17)
- Welder (2015-16)
- Metal Fabricator Fitter (2015-16)
- 3 Ironworker trades (2016-17)

Work at the national level continues to advance harmonization for the remaining 4 of the first 10 trades (3 Crane Operator trades and Heavy Duty Equipment Technician). Moving forward, the CCDA will be working to harmonize 30 Red Seal trades by 2020.

Where apprenticeship training exists, the NSAA and NSCC will work together to update apprenticeship technical training to meet CCDA recommendations for curriculum sequencing.

Welder National Practical Examination

NSAA and NSCC assembled a working group to fine tune and facilitate the new National Welder Practical Exam. This exam is based on the national benchmarks developed by Interprovincial Standards and Examination Committee. The team, along with subject matter experts and experienced examiners are developing administrative processes and creating a comprehensive objective evaluation in preparation for administering the first practical examination in the fall 2015.

Flexibility and Innovation

Flexible and Innovative Technical Training

NSCC and NSAA Apprenticeship Technical Training Committees are continually monitoring and serving the needs of apprentices and employers across the province. Employers and apprentices are looking for flexible delivery models and opportunities for training to take place at a distance or in their own back yards.

During this reporting period, more innovations have been added to the already expanded training locations and part-time evening training. The Cook trade now has a blended model that combines the best of handson training in kitchen labs with an on-line component using *Desire 2 Learn* learning management system (D2L). D2L facilitates theory training that can be done at an apprentice's home or workplace. Cook apprentices do pre-requisite on-line course work and then attend in-lab practical training. In some offerings, the in-class work takes place two days per week spread over 10 weeks. The first two pilot levels of apprentices were thrilled with this new program which allows them to continue working, shortens the inclass sessions, and maximizes practical hands-on training relevant to the industry.

In addition to the innovative Cook training, NSAA and NSCC assembled a project team that has begun work to update all 33 on-line electrical courses within the Construction Electrician and Industrial Electrician trades. All courses will be migrated to the D2L on-line learning platform with greater interactivity built into the instructional design. The joint NSCC and NSAA project team will also oversee the building of 56 mobile training simulators constructed of electrical components utilized in industry. These hands-on training units will help provide training ranging from basic wiring principles to complex electrical system troubleshooting. The NSAA and NSCC have been working together to identify equipment that is needed for apprenticeship technical training; equipment has been identified and the costing is under review in the approval process.

NSAA | NSCC STEWARDSHIP REPORT

Another innovation under the project team's mandate is to design, build, and implement a mobile broadcasting station that can distribute live and recorded video training sessions to apprentices, anywhere in the province via the Internet. This equipment will capture training videos from any location such as NSCC labs or industry locations.

Implementation Schedule for Cook 2015-16

Trade	Level	# of Training Weeks		Training Dates (as of Nov 6, 2015)
Cook	1	5 weeks [blended delivery of 4 weeks in- class + 1 week online]	1.	Oct 13 - Dec 18, 2015 (part-time in-class, Mondays & Tuesdays)
	3	5 weeks [blended delivery of 4 weeks in- class + 1 week online]	2.	Oct 13 - Dec 18, 2015 (part-time in-class, Wednesdays & Thursdays) Jan 4 – Jan 29, 2016 (full-time, in-class) Feb 1 – Feb 26, 2016 (full-time, in-class)

Mobile Learning Centre (MLC)

NSAA has partnered with NSCC to deliver technical hands-on training for electrical levels at the Burridge Campus, in Yarmouth, through NSCC's innovative Mobile Learning Centre (MLC). The MLC, a 53 foot expandable mobile training unit has been set up on site and is ready to roll for the January offering of Levels 2, 3, and 4. Electrical apprentices and employers, alike, will receive the apprenticeship technical training on location.

NSAA will be funding practical training aids to be built on site and used by apprentices throughout their technical training. This NSAA/NSCC collaboration will allow industry, high schools students and the general public to also participate in experiential workshops while this innovative MLC opportunity is available in Yarmouth.

Labour Market Information

The Agency's Senior Labour Market Analyst is working to provide NSAA and NSCC with timely, accurate, and relevant labour market research, policy analysis, and information in relation to the trades training system, including NSCC pre-apprenticeship programs. The NSCC and NSAA have been working collaboratively with the TACs in sharing labour market information in the development of human resource outlooks for the trades, specifically with the Carpenter and Motor Vehicle Body Repairer TACs. The model developed for these outlooks will be used with all TACs.

The NSAA Board has discussed how the trades training system responds to labour market demand. The Board is interested in ensuring that the pre-apprenticeship programs align with apprenticeship technical training as one method of entry into the trades, and that the pre-apprenticeship programs correspond with labour market demands. The Board has had presentations and discussions with a labour market economist from the Department of Labour and Advanced Education (LAE), as well as a panel discussion that included the NSCC Dean of Trades and Technology, the LAE Economist and the Executive Director of the Nova Scotia Construction Association. The Vice President, Academic is arranging for a presentation with the College, the Agency and Economic Modeling Specialists International, the labour market organization that the College uses in order to discuss the labour market tool the College employs.



Ongoing collaboration

The focus of the NSAA/NSCC relationship this year has been to define how we will build on past success and work together to achieve the new requirements as laid out in legislation. In 2016-2017, the Agency will continue to work with the College to ensure that industry's strategic role has influence across the trades training system, to enhance understanding of the allocation of funding within the apprenticeship system, and to implement timely trade harmonization and to improve training delivery in select trades, including alternate delivery formats.

Sincerely submitted,

Don Bureaux, President NSCC

Marjorie Davison, CEO NSAA







