The AHBRSC Project:
Toward a Solution

A PLAR Model for Learning Recognition in the Carpentry Industry in Nova Scotia

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Submitted by:

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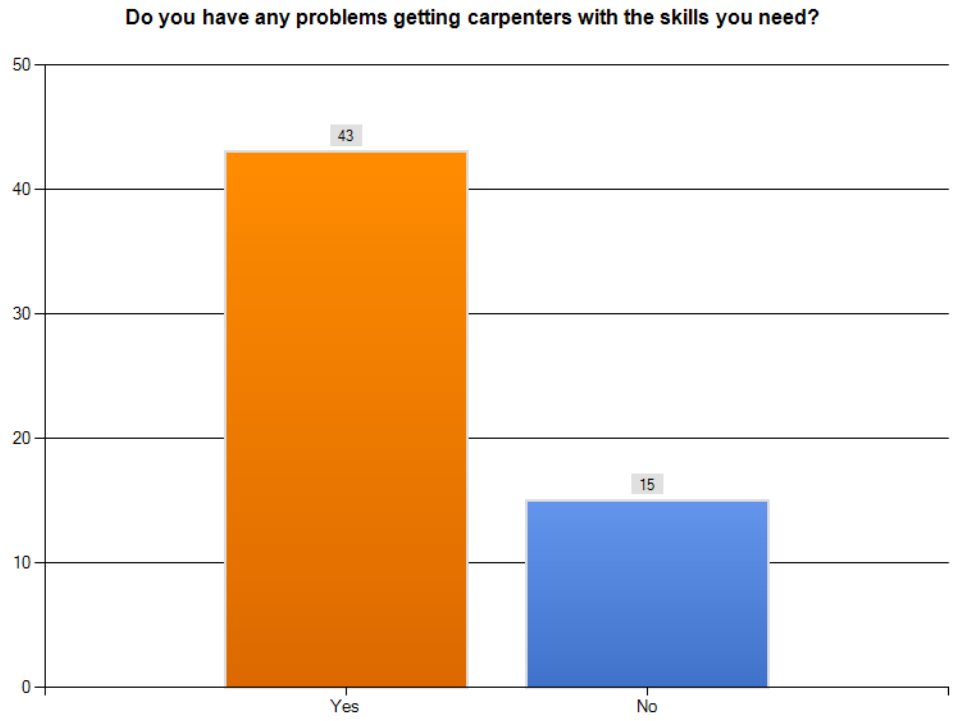
Introduction

The Nova Scotia residential construction industry is facing overwhelming human resources challenges. Research shows shortages in most trade categories and indicates that these will intensify in coming years. An aging labour force, declining numbers of young people entering the skilled trades, and the low completion rates of apprentices, have been identified as factors contributing to the shortage of certified workers. There are thousands of experienced and highly skilled carpenters in the field, but a high proportion lack the required certification to oversee apprentices. Current graduates report difficulties in securing work under the supervision of a journeyperson, as formally required by the apprenticeship system. As older workers prepare to retire, there is increasing concern about the degree of knowledge and skill that will disappear with them, and a growing recognition of the need to find mechanisms to transfer that knowledge to the next generation. There is both opportunity and challenge – and a growing urgency – to assess and recognize the skills and learning of this group, and move them toward journeyperson status as a primary means for increasing the number of certified workers in the industry.

TABLE 1[1]



The challenge is to address the training needs of these highly skilled yet uncertified workers, and move them to journeyperson status, while at the same time addressing recruitment needs. What skills and learning do these experienced workers possess? What essential skills and technical gaps need to be filled? How can the gaps be identified and filled so these workers can achieve certification?

[1] AWENS, *Report on the Training and Certification Needs Assessment in the Carpentry Trade in Nova Scotia* (AWENS, 2011). Chart comes from Employer Survey data.

Linked to these questions is a crucial problem identified by PRAXIS Research in 2009. The Praxis report points to the lack of available data on the characteristics of unlicensed carpenters in Nova Scotia. Without this information it is difficult to develop a plan appropriate to their training needs. However, while acknowledging the need for more data, the Praxis report was able to identify five possible categories of trades workers and provide important insight into possible training and prior learning assessment solutions.

TABLE 2[2]

CATEGORIES OF UNLICENSED CARPENTERS AND POSSIBLE TRAINING & CERTIFICATION PATHS

Category	**"Solution"**
Trades workers with sufficient knowledge, skill and experience to challenge and pass the carpentry examination to become journeypersons	Information, counselling and financial support to encourage them to challenge the examination
Trades workers with sufficient knowledge, skill and experience to challenge and pass the carpentry examination to become journeypersons, but who are unwilling to face a written exam due to essential skills limitations and other "psycho-social" constraints	Information, counselling and financial support to encourage them to take the examination, and provision of an alternative examination process using proven methods from the prior learning assessment and recognition (PLAR) field such as intensive interviews and practical demonstrations
Trades workers with nearly sufficient knowledge, skill and experience to challenge and pass the carpentry examination to become journeypersons	Information, counselling and financial support to help them identify their skills gaps and to encourage them to take upgrading training to prepare them to pass the examination, possibly using PLAR methods to recognize their acquired knowledge and skills and to give them advanced standing
Trades workers with significant knowledge, skill and experience, but with significant gaps in identifiable skill areas	Information, counselling and financial support to help them to identify their knowledge and skills gaps and to encourage them to take training to prepare them to pass the examination, again making use of PLAR approaches to motivate and guide them
Trades workers who are committed to careers in the sector but who are limited in their acquisition of knowledge and skills because of essential skills deficits and other education and training gaps	Information, counselling and financial support to help them get started in essential skills upgrading and trades training, again making use of PLAR approaches to motivate and guide them

The purpose of this report, within the context of the overall project, is to explore the possibilities for developing a Prior Learning Assessment and Recognition (PLAR) model as an important component in 'solving' the imminent labour supply challenge facing the carpentry trade in the Province of Nova Scotia.

[2] PRAXIS Research & Consulting Inc., excerpted from *Apprenticeship and the Residential Construction Industry in Nova Scotia* (Atlantic Home Building & Renovation Sector Council, 2009), p. 59.

Background and Current Situational Analysis

The skills and labour shortages of the residential construction industry have been well-documented in Nova Scotia. Among the factors contributing to labour shortages here (as elsewhere across the country) are the following:

- An aging labour force.
- Fewer young people entering the skilled trades.
- Low apprenticeship training completion rates.
- The shortage of qualified apprenticeship mentors.

According to a March 2007 Nova Scotia Construction Sector Council report,[3] Nova Scotia ranks among the oldest populations in Canada. We are an aging population, and over the coming years workers will be exiting the workforce in droves. This is no less true of the trades than of the population in general. The demographic changes will have a significant impact on the residential construction industry as current members of the workforce move into retirement. Retirements are expected to significantly reduce the supply of workers in the latter part of the 2007-2015 period.[4]

At the same time, the level of "new entrants" to the field has not kept pace. A 2007 study by the Atlantic Home Building & Renovation Sector Council and the Apprenticeship Training and Skills Development Division, found that two-thirds of non-licensed carpenters had been working 20 years or more in the industry, and more than a quarter of them for 30 years or more.[5] Fewer carpenters are coming up through the ranks to replace those who are retiring.

Exacerbating this situation is the fact that the number of young people entering the trades remains in decline. Current negative public perception of the trades and reduced exposure to trades in the public school system, among other factors, has contributed to decreased interest from youth in the apprenticeship system.[6] Census reports from 1991 and 2001 estimate that the number of carpenters in Nova Scotia under 25 years old dropped by 42% between 1991 and 2001 while the number in the 25-34 age group dropped by 46%.[7]

For those who do enter the trades, a major issue in apprenticeship is that many young people who begin a program neither complete the training nor achieve journeyperson status.[8] The reasons for this are many and varied, not the least of which is the fact that one does not have to be certified to work as a carpenter. As the labour supply shrinks, employers become increasingly resistant to releasing employees for their training blocks because they need them on the job. As well, employers may be concerned that once an employee becomes trade-qualified, they will demand higher wages and be enticed to leave for better job

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[3] DMD Economics Limited, Canmac Economics Limited, and PRAXIS Research & Consulting Inc., *Nova Scotia Residential Construction Labour Supply Study* (Halifax: Atlantic Home Building & Renovation Sector Council, August 2008), p. 24.

[4] Ibid., p. 25.

[5] Ibid., pp. 80-81.

[6] PRAXIS Research & Consulting Inc., *Apprenticeship and the Residential Construction Industry in Nova Scotia* (Atlantic Home Building & Renovation Sector Council, 2009), p. 3.

[7] Ibid., p. 3.

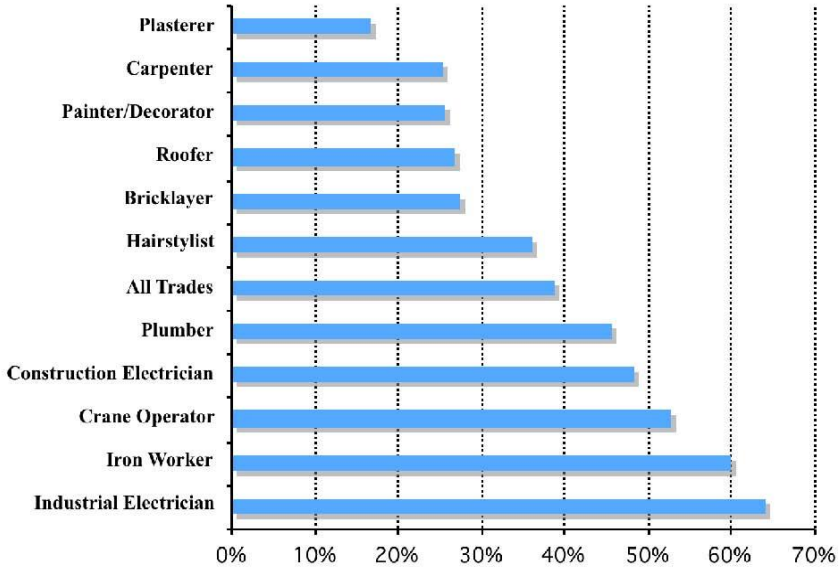
[8] PLA Centre, *Achieving Our Potential: An Action Plan for Prior Learning Assessment and Recognition (PLAR) in Canada* (PLA Centre, 2008), p. 134.

opportunities elsewhere. Apprentices themselves face an incentive issue – by the time they have completed two years of apprenticeship training and work experience, they are close to the top of the wage scale so there is less reason to complete their training. Financial pressures and family commitments make it difficult to take time from work to complete the block training, especially since many apprentices must leave their home community to do so. Finally, many individuals in the trades are inclined toward hands-on, experiential learning and may be reluctant to spend more time in the classroom.

The low completion rates of apprenticeship training are not unique to Nova Scotia or Atlantic Canada.[9] While completion rates have declined across the trades in general, they appear to be lowest in the building and construction trades.[10] Moreover, completion rates would appear to be lowest in the "non-compulsory" trades – which include many of those vital to residential construction – and highest in those which require journeyperson status to work in the field.[11]

TABLE 3[12]

Apprenticeship Completion Rates, 2002



While there is little or no incentive for individuals to complete the trade certification if it is not required to work in the field, employers also operate within a context that discourages certification – given the cost and lack of mandatory requirements.

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[9] Benoit Dostie, *A Competing Risks Analysis of the Determinants of Low Completion Rates in the Canadian Apprenticeship System* (Statistics Canada, Canadian Apprenticeship Journal, Vol. 3, Fall 2010). Louise Desjardins. *Completion and Discontinuation Rates of Registered Apprentices: Does Program Duration Matter?* (Statistics Canada, Canadian Apprenticeship Journal, Vol. 3, Fall 2010).

[10] Andrew Sharpe and James Gibson, *The Apprenticeship System in Canada: Trends and Issues* (Centre for the Study of Living Standards, 2005).

[11] PRAXIS Research & Consulting Inc., *Apprenticeship and the Residential Construction Industry in Nova Scotia* (Atlantic Home Building & Renovation Sector Council, 2009), p. 12.

[12] Ibid., p. 12.

The result of this combination of factors is that *there are a limited number of certified trades people* in the sector. Because only qualified journeypersons can mentor apprentices, *there is also a lack of qualified mentors.* This is a major limitation in the training system, and the problem will only worsen as the rate of retirement accelerates. There are many highly skilled workers in the sector who, if they were certified, could now be supervising their future replacements.

Route to Certification

At present there are two routes to becoming a certified carpenter in Nova Scotia. The formal Apprenticeship system for carpentry has individuals (many of whom have completed formal studies in the trade at an academic institution) complete two designated periods of working in the field – under the supervision of a certified journeyperson carpenter – with "blocks" of study at the end of each of these two terms. Once a candidate has met the requirements, they are able to write the certification exam.

The present alternative is the Trade Qualifier process. To be granted a Nova Scotia Certification of Qualification under the Trade Qualifier process, an individual must:

- Schedule an interview with a representative of the Apprenticeship Training and Skill Development Division;
- Complete the application form;
- Provide documented evidence of the required hours in the trade;
- Provide documented evidence of support from two qualified references who are able to attest to an individual's competence in the trade; and
- Pay the non-refundable fee in Canadian funds.

Although the Trade Qualifier process includes some elements of prior learning, such as allowing a person to challenge the final exam on the basis of hours spent in the field and competence validation from third party sources, this constitutes a *time-based* rather than a *competency-based* challenge.[13] And like the traditional approach this process presents a number of other serious challenges as well.

Trades attract individuals who prefer a hands-on, experiential approach and many trades people have purposely avoided the formal learning structure. While the Trade Qualifier process takes into account an individual's experience in the trade, it requires a written exam. For many, *this has proven to be a significant and insurmountable challenge.* Many individuals have left school early and are uncomfortable with returning to the formal system, others may lack the essential skills required to write the exam, and/or they may experience exam anxiety. Still others may have been successful in the trade and given the current employment conditions see no reason to return to school or the Trade Qualifier process to 'qualify' for the jobs they already occupy.

[13] There is a variation on the Trade Qualifier process for those who are not able to meet the requirement of providing documented evidence of the required hours in the trade. The variation involves using affidavits from individuals to attempt to establish completion of required hours. It is our understanding that this process is rarely used.

The Challenge

The skills and labour supply challenges in the residential construction industry have led employers to look at new ways to upgrade current workers and attract new entrants to the field. The professionalization of the field – including licensure – is under consideration in Nova Scotia and elsewhere. Workers already in the industry fear that professionalization programs may require them to go "back to school". A PLAR process would allow these workers to have their skills and competencies recognized, facilitating a move toward professionalization without requiring that they leave their jobs and return to the classroom, a place where many of them may not be comfortable.[14]

However, with or without changes in the incentive system or in the current process of certification, the industry faces significant challenges in maintaining quality assured processes and a valid system of knowledge transfer for the continued training and development of workers. It is not within the purview of this report to recommend changes to the formal education and training system, nor is it focused on influencing requirements for certification – either through legislation or mandatory licensing. Rather the challenge here is to gain a better understanding of the training needs of the current population and explore the potential of PLAR as a vehicle for facilitating the apprenticeship process and achieving journeyperson/mentorship status within the field.

[14] PRAXIS Research & Consulting Inc., *Apprenticeship and the Residential Construction Industry in Nova Scotia* (Atlantic Home Building & Renovation Sector Council, 2009), pp. 100-101.

The AHBRSC Project: Toward a Solution

In 2010 the Atlantic Home Building & Renovation Sector Council (AHBRSC) secured funding from the Nova Scotia Department of Labour and Advanced Education to address two specific recommendations of the 2008 Nova Scotia Residential Construction Labour Supply Report:

1. *"the AHBRSC should place the highest priority on knowing more about the training needs and certification potential of the thousands of career workers in the industry who are not qualified journeypersons in their trades";*[15] *and*

2. The Report recommends *"The development and implementation of a PLAR program to certify as many workers in the industry as possible, in as short a time as possible, to expand the numbers of qualified apprenticeship mentors in the industry".*[16]

As a result the AHBRSC approached the Prior Learning Centre (PLC) and their recommended project associates, Association of Workplace Educators of Nova Scotia (AWENS).

The work undertaken by AWENS aimed to achieve four objectives:

1. To determine the level of interest in gaining Red Seal Certification among non-certified carpenters currently working in the trade.
2. To identify any gaps in current skills levels among non-certified carpenters and among certified carpenters who could be considered as possible mentors in the trade.
3. To assess training and educational needs for carpenters relative to essential skills and occupational skills.
4. To determine how non-certified carpenters could best be supported to successfully challenge the Red Seal Examination and consequently become new mentors in the trade.

The Prior Learning Centre set out to design a PLAR Process Model that would provide the AHBRSC with a framework for assessing the skills and learning of experienced, non-certified carpenters. Specifically, this report would:

1. Analyze current research and identify exemplary practices.
2. Clarify the required components of a quality-assured PLAR model and the process for achieving such.
3. Suggest next steps in moving forward in implementing such a process.

The two studies, training needs assessment (AWENS) and the development of a PLAR model (PLC) were to be undertaken simultaneously – in parallel and along complementary lines. This report focuses on the

[15] DMD Economics, Canmac Economics, and PRAXIS Research & Consulting Inc., *Nova Scotia Residential Construction Labour Supply Study* (Halifax: Atlantic Home Building & Renovation Sector Council, 2008), p. 88.

[16] Ibid., p. 92.

development of the PLAR model, the AWENS study is issued separately as the *Report on the Training and Certification Needs Assessment in the Carpentry Trade in Nova Scotia* (March 2011).

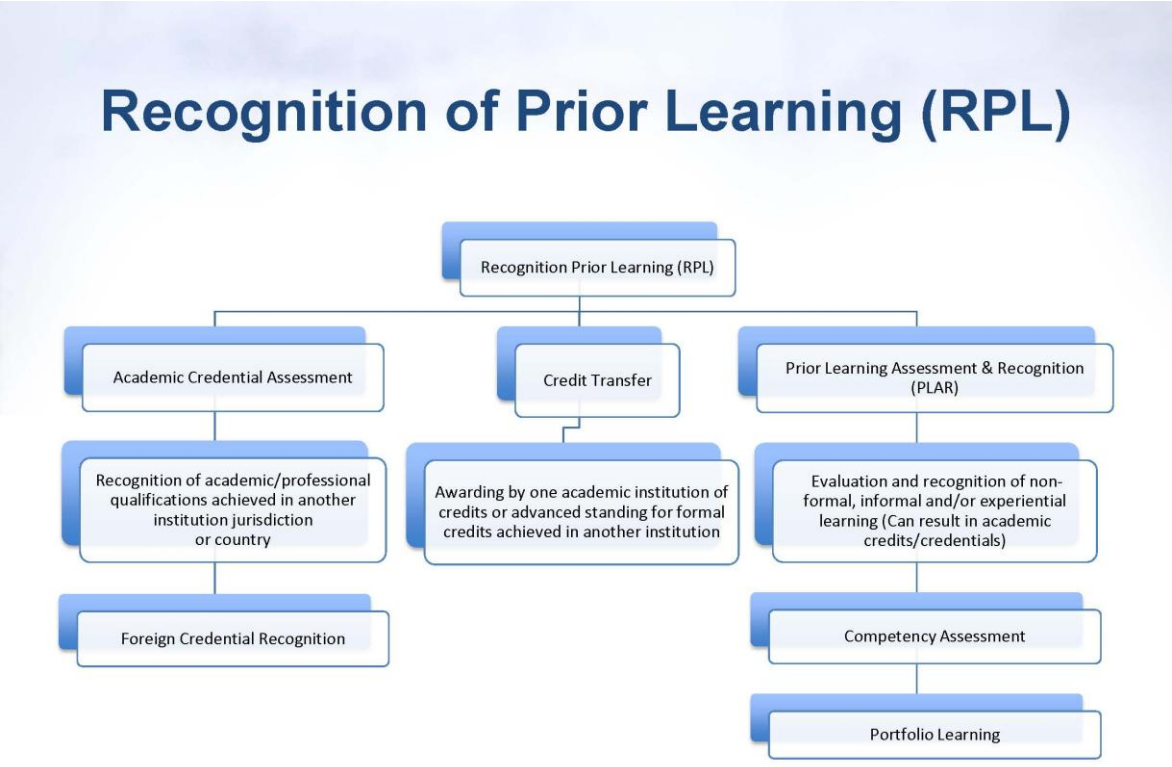
Purpose of this Report: Developing a PLAR Model

The focus of this report is on developing an effective model for recognizing the skills and knowledge of unlicensed carpenters with at least 10 years experience in the trade, as a means to assist them in achieving certification (journeyperson status and/or mentorship).

To do so, it is necessary to clarify the terminology, i.e., the definitions used in the report, and our approach to gathering and synthesizing information. This would include a review of literature on the state of progress in the field as it relates to learning recognition processes, and the identification of exemplary practices and lessons, relevant to the development of a Nova Scotia PLAR model.

Terminology: RPL and PLAR

PLAR or Prior Learning Assessment and Recognition falls within the larger discipline of RPL or Recognition of Prior Learning. As seen in the diagram below RPL is an umbrella concept that includes three areas of activity: Academic Credential Assessment (or Qualification Recognition), Credit Transfer and PLAR.



For the purposes of this report, Prior Learning Assessment and Recognition (PLAR)[17] is defined as an approach for the assessment and recognition of informal or experiential learning. A PLAR process for carpenters in Nova Scotia would enable individuals working in the field to have their competencies (i.e., the skills and learning they have acquired primarily through experience outside of the formal school system) assessed in order to receive recognition for those competencies as they relate to the required competencies of a designated journeyperson carpenter under the Red Seal Certification.

It should also be noted that Qualification Recognition (QR) and Credit Transfer (CT) are relevant processes for those individuals (carpenters) who may have undertaken qualifications in another country (international credentials) or who may wish to have previous qualifications or courses from another jurisdiction (province, country) recognized in Nova Scotia.

Please see Appendix D: Definitions for additional clarification of terminology used throughout this report.

Methodology

A number of methods were used for gathering information, as well as for planning and monitoring the progress of the project. These included regular team meetings with AHBRSC staff, AWENS researchers and the PLC.

It also included key informant interviews (face-to-face and by telephone), focus group sessions, website searches and a review of current literature and exemplary practices across Canada and internationally. In all cases, inquiry focused on identifying and exploring processes for assessing skills and learning relevant to the trades – within the context of the various systems, regulations and training processes. (See Appendix C for the list of key informants.)

[17] PLAR is defined as a systematic process that involves the identification, documentation, assessment and recognition of learning (i.e., skills, knowledge and values). This learning may be acquired through formal and information study including work and life experience, training, independent study, volunteer work, travel, hobbies and family experiences. Recognition of learning can be used towards the requirements of education and training programs, occupational and professional certification, labour market entry, and organizational and human resource capacity building. PLA Centre, *Achieving our Potential: An Action Plan for Prior Learning Assessment and Recognition (PLAR) in Canada* (Halifax: PLA Centre, 2008), p. 19.

A Review of the Literature: Key Themes and Issues in Training and Certification

A total of eighteen papers/studies in areas related to labour supply challenges and human resource development were reviewed for this report. These studies demonstrate that the human resource issues facing the residential construction industry are not unique to Nova Scotia. The concern for labour and skills shortages and the challenges of recruitment, retention and apprenticeship completion are shared across provinces – across the trades – and around the world. Recently (Fall 2010) the Canadian Apprenticeship Journal devoted an entire issue to the challenge of completion in apprenticeship as part of the Canadian Apprenticeship Forum's continuing efforts to gain greater insight into this complex problem.

In its broader context, the literature suggests that the human resource development challenge is concerned not only with skills and labour shortages, but also with an increasingly complex and demanding industry and regulatory environment. Continuing advances in construction methods, growing public concern about quality and pressure from the insurance industry all place demands on the residential construction sector.

A scan of the literature reveals such inter-connected themes as the effects of an aging workforce and the lack of new entrants on the future prospects of the carpentry trade, and identifies issues related to the quality of current education and training practices on the need for change in the certification process. While the Background section of this study reported on the factors related to the growing labour supply challenge, it is the purpose of this section to examine the implications of this situation on training and certification. This is nowhere more directly or powerfully articulated than in the *Pan-Canadian Prior Learning Assessment and Recognition (PLAR) Project* report:

> *"There is a general view that the training and apprenticeship systems are not producing enough new entrants, the systems are inflexible and sometimes out-of-date in terms of current methods, materials and tools, and that there is insufficient industry input to the design and operation of programs"...*
>
> *"Trade occupations have concerns about their aging workforces and the lack of new recruits, and there is growing competition to attract new entrants. Construction industry leaders recognize the need to make their occupations more accessible while at the same time raising standards and "professionalizing" their trades."*[18]

The literature clearly defines the professionalization of the trade, the modularization of training programs and the emergence of PLAR as a potential solution to the impending labour shortage, as issues of keen interest.

Professionalization of the industry – toward licensure and compulsory certification – is an area of growing consideration. Currently, the carpentry trade is non-compulsory or unregulated in most jurisdictions across Canada. Studies indicate that growing awareness of the importance of the work of carpenters – and growing concern for liability and underground activity – has increased the demand for regulation. In Nova Scotia there is consideration of both mandatory certification of carpenters and licensing of contractors in the residential construction and renovation industry.

[18] PLA Centre, *Pan-Canadian Prior Learning Assessment and Recognition (PLAR) Project* (Halifax: Construction Sector Council and Atlantic Home Building & Renovation Sector Council, March 2005), p. 5.

The literature also shows that there is a growing interest in a modularized approach to training and certification based on the identification of "specializations".[19] The modularized approach has recently been adopted in British Columbia, and is under consideration in other provinces. However, resistance to this approach can be found across many jurisdictions, including Nova Scotia.[20]

The Construction Sector Council (CSC) and AHBRSC report (2005) makes it clear that the move toward licensing and certification will create pressure to qualify the thousands of skilled individuals in the current workforce who lack formal qualifications, and identifies PLAR as a potential solution to this problem:

> *"Previous consultations with industry make clear that acceptance of new certification methods and standards, is contingent upon finding ways to certify those skilled workers who are already well established in the labour force but lack formal credentials. This needs to be done with a minimum of financial cost and disruption in the workplace. In this sense the success of an effort to "professionalize" the labour force in residential construction may depend upon the development of a prior learning assessment and recognition (PLAR) program that works in this industry context."*[21]

Rather than requiring workers to go back to school and re-learn what they already know and can do, a PLAR approach recognizes the competencies of skilled workers and allows training to focus on filling identified gaps. In Nova Scotia, the AHBRSC has endorsed the employment of a PLAR approach by setting out the following principle to guide the development of the professionalization initiative:

> *"For any and all mandatory training requirements that are put in place as part of the professionalization program for the residential construction industry in Nova Scotia, individuals in the industry will have the opportunity to meet the standard through a prior learning assessment and recognition process, at a reasonable cost and at an accessible location and time".*[22]

As the primary study investigating PLAR activity among construction trades in Canada, the 2005 CSC and AHBRSC study concluded that most current PLAR activity for construction trades in Canada is being delivered through the apprenticeship systems in each province. The study provides a comprehensive analysis of current perspectives on PLAR among key stakeholder groups, and identifies following concerns:

> *"There is little flexibility in the methods of delivering PLAR within the apprenticeship system as it currently operates. The final assessment point is always the trade qualifier*

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[19] According to the Pan-Canadian PLAR study (Ibid.), specializations in the carpentry trade might include: 1. Framing, 2. Foundations, 3.Exterior Finishing and 4. Interior Finishing.

[20] A modularized system allows individuals to certify in one of these areas; the benefit of this alternative is that it allows an individual to certify relatively quickly in one area and begin working in the industry, while leaving open the option of certifying in the other specializations at a later time. Only completing all four would allow the individual to attain Red Seal Certification. The specialization option may be particularly attractive to individuals who spend their entire career working in one area of the trade.

[21] PLA Centre, *Pan-Canadian Prior Learning Assessment and Recognition (PLAR) Project* (Halifax: Construction Sector Council and Atlantic Home Building & Renovation Sector Council, March 2005), p. 6.

[22] Atlantic Home Building & Renovation Sector Council, *Building for the Future: A Plan for Professionalization in the Residential Construction Industry in Nova Scotia* (Nova Scotia: Atlantic Home Building & Renovation Sector Council leaflet, undated).

exam. There are jurisdictions that have developed practical exams and competency-based assessment processes to give credit for the on-the-job and theoretical training. However, the exam is a major barrier in some cases. Employers have indicated that they have skilled employees who have not been able to pass the exam, even on multiple attempts."[23]

"The building trades have attracted individuals who prefer the experiential learning environment, many of whom have avoided the formal learning structure. Employees may be reluctant to challenge the certification process and they may have essential skills challenges".[24]

At the same time, the study also identified the overall concern with industry stakeholders that any PLAR process must meet the same quality standards as the Apprenticeship program. Clearly, a credible PLAR process must adhere to standards of rigour and validity while taking into account the needs of the learner.

In examining the situation across Canada, it is important to note that the primary study concerned with PLAR did not find an operational PLAR system that would serve as a model for this sector. It did, however, identify that a number of "experimental" programs were underway. Such programs (and their successors) are summarized in the next section of this report, and include a focus on a project in British Columbia using multiple assessment pathways (MAP Project), under the auspices of the Canadian Council of Directors of Apprenticeship, that appears to have developed traction. Previous studies had pointed to the fact that PLAR fits well with apprenticeship programs and noted that some recognition of experiential learning has been in place for decades. A consistent theme in the literature is the development of competencies as key to success in the industry. The importance of literacy and essential skills has also been commonly noted as important to the larger training process.

In addition, the literature provides a number of exemplary practices based on what industry associations, apprenticeship and training providers view as the most successful components of a PLAR process related to the construction trades. As documented in the Pan-Canadian PLAR Project report:

- The assessment of prior learning must be based on an accurate and up-to-date delineation of discrete occupational competencies if it is to capture the skills and the skill gaps of the individual.
- The competencies need to be developed in conjunction with National Occupational Analyses and with input from industry.
- Writing competency statements in plain language that captures the full range of the activity is the task of a qualified PLAR practitioner. This is an essential component of the assessment tool and the better these are written, the more effectively the assessment will work.
- PLAR programs need to be adult learner-friendly. There should be a variety of methods for identifying skills. In every case there should be personal contact to help individuals respond to the tool.

[23] PLA Centre, *Pan-Canadian Prior Learning Assessment and Recognition (PLAR) Project* (Halifax: Construction Sector Council and Atlantic Home Building & Renovation Sector Council, March 2005), p. 9.

[24] Ibid., p. 11.

- The process needs to be transparent. Individuals need information about PLAR, how to access it and how the process works.
- Individuals who have had the majority of their experience on the job may be able to do an activity, but they may not be able to write about it or do the math associated with the activity. The PLAR program needs to recognize that the focus is on the competency rather than the method by which it was acquired.
- Proof that an individual has achieved a competency may come in many forms: interviews, recognition of technical training credentials, performance observation, demonstration of skills, development of skills and learning portfolios, validation of workplace skills, challenge exams, etc.
- Developing a PLAR process is a long-term project and there may need to be a champion to drive the initiative forward.[25]

Finally, the following key points were also emphasized in the report as important in the development of PLAR processes within the trades:

- Competent assessment must be assured. The PLAR practitioner must be well-acquainted with the occupational skills being assessed, and understand and be competent at both the advisory and assessment roles.
- Training modules should be designed to allow for the identification of skills gaps.
- Monitoring and evaluation processes are important to the development and implementation of a PLAR model.
- Adequate resources need to be set in place to establish and maintain a PLAR program.

Canadian Initiatives: PLAR-specific to the Residential Construction Industry

British Columbia

Professionalization initiatives have seen the greatest advancement in British Columbia, where the Canadian Home Builders' Association of British Columbia (CHBA BC) has promoted and received provincial government support for the licensing and mandatory training of residential contractors through the Professional Builders' Institute (PBI). Developing an appropriate PLAR process is a critical first activity for the PBI and is currently underway. In addition, CHBA BC established the Residential Construction Industry Training Organization (RCITO) in 2005, with the assistance of the Industry Training Authority (ITA) responsible for the apprenticeship program in British Columbia. RCITO has moved ahead with a trades-based model for designated BC apprenticeships to better reflect the structure of the housing industry's workforce. The trades are competency-based and modularized, often with a mandatory core component and then flexible entry into any one of several technical streams. For example, the approach of RCITO to the traditional 4-year broad-based Carpenter occupation has been to divide it into its four trade specialties: Forming, Framing, Interior Finishing and Exterior Finishing. These trades may then be achieved as separate apprenticeships or in any combination. Each trade also provides cross-trade equivalencies for the related

[25] Ibid., p. 13.

carpentry trade levels to support increased career choice for new entrants. The Residential Framing Technician program was the first of these to be piloted and it has been delivered by public and private training providers across the province since 2005. The other three programs are expected to be available for delivery in late 2011.

Integral to the BC approach is a PLAR program that is being designed to recognize existing skills of individuals already working in the industry in order to provide formal apprenticeship certification. RCITO has implemented an online PLAR process for applicants to a number of its trades programs, documenting previous formal and experiential learning to assist with placement in the appropriate technical training levels. The applicant completes and submits a detailed online application, it is reviewed and the applicant is notified of any credit given toward the required technical training and work-based training hours in the desired trade. RCITO anticipates implementing the Multiple Assessment Pathways (MAP) approach to PLAR as a pilot initiative of the Industry Training Authority in the coming year.

Alberta

In Alberta, PLAR was a key piece of the Skilled Labour Development Strategy developed for Canadian Home Builders' Association - Alberta in recent years. An update suggests that this program is currently inactive in the residential construction industry. However, in Alberta the PLAR process for trades in general involves a detailed application along with a written exam. The application provides an opportunity for the candidate to provide details about any formal trades training undertaken as well as work experience. The PLAR process is intended for applicants who wish to attempt an exam to determine their level of skill and knowledge for purposes of entry into apprenticeship, advanced standing in an apprenticeship program based on Provincial Apprenticeship Committee accredited training, or advanced standing in an apprenticeship program based on previous work experience or training in a trade.

Saskatchewan

The Saskatchewan Home Builders' Association (now CHBA-Saskatchewan) was the first in Canada to test modularization in carpentry, articulating four trade specialities in the carpentry program. The first trade speciality to be addressed was Interior Framer. The Saskatchewan Apprenticeship Branch designed and offered a pilot PLAR process for individuals employed as framers who might already have the skills to qualify for this certification. The PLAR assessment method used was an exam which was based on the National Occupational Analysis (NOA). The NOA was analyzed and broken into competencies which were then grouped into blocks in order to construct the exam. A pilot in the spring of 2004 was planned for 10 participants but 80 applied. The low success rate of the pilot was attributed to a variety of possible reasons; among the recommendations were that other versions of PLAR besides the exam be tested. Updates from Saskatchewan suggest that little advancement in the use of PLAR in residential construction have been made since these initial attempts.

Manitoba

The Manitoba Apprentice Branch, like a number of its provincial counterparts, grants credits for previous experience and training. As current legislation is based on the completion of a number of hours on the job plus the trade qualification exam, it is not possible to implement a fully competency-based PLAR process. Legislation would have to change in order for this to be possible. There have been PLAR pilots in other sectors in Manitoba – a notable example is the Heavy Equipment Operators Program which looked at not

only the technical skills/competencies but also the essential skills a candidate needs to be successful in the occupation.[26]

Nova Scotia

Like many provinces, Nova Scotia uses the Trade Qualifier process, based on hours on the job and sign-off of competencies by a supervisor, followed by the writing of the Trade Qualifier Exam. Field officers from the Apprenticeship Branch are available to guide the applicant through the process and determine where they fit and what the next steps should be. Candidates who have apparent essential skills challenges are referred to the appropriate agency. Nova Scotia's legislation is similar to that in Manitoba, with certification based primarily on number of hours and the qualifying exam.

Canadian Initiatives: PLAR in Other Industries

In addition to the above PLAR initiatives specific to the residential construction industry, there was also a noteworthy initiative on Prince Edward Island focusing on PLAR and essential skills, in 13 different trades.

Prince Edward Island

Trade Essentials, a research project in partnership with the Prince Edward Island Department of Innovation and Advanced Learning, focused on helping individuals achieve success in the trades through the provision of support, learning tools, Essential Skills (ES) and PLAR training. Carpentry was one of the 13 trades included in this project; a trade-specific essential skills inventory as well as a technical skills inventory was developed for each trade. While the project emphasized ES, it incorporated both ES and PLAR training into apprenticeship. The goal was to assist individuals interested in completing apprenticeship but whose progress was impeded by inadequate essential skills and/or lack of training.[27]

Trade Essentials focused on six of Human Resources and Skills Development Canada's (HRSDC) nine Essential Skills: Reading Text, Document Use, Numeracy, Writing, Oral Communication and Computer Use. The essential skills requirements for each trade were based on HRSDC's Essential Skills profiles. In the case of carpentry, for example, the profile outlines the essential skills required for success as a carpenter. Participants first attended an information and enrolment session, and then completed both an Essential Skills and Technical Skills inventory. An individual learning plan was created, and appropriate Essential Skills interventions carried out. An Essential Skills post-assessment was administered, and an appropriate exit point determined. Seventy-three of the 125 participants chose to challenge the Red Seal Exam, and 48 (66%) were successful, achieving Red Seal Certification. The Trade Essentials program did not deliver technical training, but helped participants identify technical skill gaps and provided information regarding gap-filling options. As well, knowledge of technical skills was incorporated into the Essential Skills curricula.

[26] Ibid., pp. 33-34.

[27] Interestingly, of the 125 research subjects for whom data was collected, 46.4 % were from carpentry. As the final report suggested, this could be because many carpenters start out as general labourers on construction crews and build their skills on the job. Almost 80% of the project participants were over the age of 30, and 65% had been out of school for more than 15 years. Another observation from the research was that a large number of the research participants underestimated their essential skills needs; the most common difficulties were questions related to math, the code book, reading and understanding questions and limited technical knowledge of the trade.

The PLAR component of Trade Essentials involved the development and testing of a Professional Skills Record (PSR). The PSR is a comprehensive technical skills assessment tool in which the content of the National Occupational Analysis has been used to develop measurable competencies so an apprentice and journeyperson can work together to track and assess learning that takes place on the job. It allows the apprentice to measure their progress in their trade against industry standards outlined in the NOA. In this project, the PSR was tested with the participants and their feedback incorporated into further development of the tool. A validation process was also carried out. The PSR is now available as a PLAR tool.

The Trade Essentials approach recognizes that there are many individuals who begin apprenticeship training but do not complete it for one reason or another. Many others may never have undertaken much formal training but have developed expertise over years of hands-on experience. This project was developed to meet the needs of these groups.[28]

[28] Department of Innovation and Advanced Learning, Government of Prince Edward Island, and Human Resources and Skills Development Canada, Government of Canada, *Trade Essentials: Testing a New Approach to Apprenticeship Training, Final Report* (Charlottetown: Department of Innovation and Advanced Learning, Government of Prince Edward Island, and Human Resources and Skills Development Canada, Government of Canada, 2010).

Exemplary Practices

We highlight the following projects/processes in this report as we believe that our PLAR Model should be informed by these initiatives and the learning that comes from them. In British Columbia, the Multiple Assessment Pathways (MAP) Project designed and piloted alternative methodologies for assessing challengers seeking certification in a trade. The Australian VETASSESS model will also be considered under the discussion of the MAP project. In Nova Scotia, the Nova Scotia Boatbuilders Association has a PLAR process for experienced boatbuilders with at least 10,500 hours. Another noteworthy PLAR program in Nova Scotia is in the area of Continuing Care. The innovative Continuing Care Assistant/PLAR program has been very successful in assessing experience and moving individual workers forward to certification. The learning from this program can be transferred to other sectors.

ITA Multiple Assessment Pathways Project

The Multiple Assessment Pathways (MAP), a research and development initiative of the Canadian Council of Directors of Apprenticeship and the Provincial Industry Training Authority was designed in response to labour force challenges in British Columbia. Best practices and standards frameworks were explored in the development and piloting of alternative methods for assessing challengers seeking certification in a trade. The project involved three phases:

1. Literature review to identify international best practices in the area of skills and knowledge assessment and credentialing, with emphasis on vocational occupations and trades.
2. A study tour of three jurisdictions (Australia, New Zealand and South Africa) identified as leaders in the area of assessment with extensive experience in multiple assessment methodologies.
3. Development of a multiple assessment model and piloting.

Among the research findings was that there are three common elements of success across all jurisdictions:

- Properly designed qualifications built from competency standards.
- Highly trained professional assessors who are expert in the qualifications being evaluated, and in evidence gathering and evaluation methodology.
- A robust moderation model wherein highly trained auditors review decisions made by assessors to ensure consistency and validity of decisions.[29]

One of the key lessons identified from the study tour was that a 'best'/exemplary practice begins with candidate assessment (skills recognition) and then move to training once it is known where knowledge and

[29] Industrial Training Authority, *ITA Multiple Assessment Pathways (MAP) Project: A Project to Develop Alternative Methodologies for Assessing Challengers Seeking Trade Qualifications* (British Columbia: Industrial Training Authority, August 2008), p. 6.

skills gaps exist. The recommended approach is to first assess current competency, then provide appropriate bridge or gap training to fill required competency and certification.[30]

Australia: VETASSESS Model

The MAP project relied heavily upon the expertise of VETASSESS, an Australian Registered Training Organization of assessment-only services in the development of their assessment model. VETASSESS has extensive experience in conducting assessments for skilled workers in particular trade occupations wishing to immigrate to Australia. The VETASSESS approach includes the following:

1. A self-assessment that helps potential applicants to determine whether they have the required training, work experience and competencies to meet the Australian standards for the particular occupation;

2. A paper-based assessment that reviews an individual's trade training qualifications and work experience evidence;

3. A technical interview which involves meeting with an assessor and responding to a series of questions focused on the critical aspects of the competency group; and

4. A practical skills assessment involving a series of challenge tests or simulations that integrate a number of the competency groups required for the relevant Australian qualification.[31]

Nova Scotia Boatbuilders Association[32]

The NSBA, drawing on the expertise of their New Zealand colleagues and with input from the Apprenticeship Branch of the Department of Labour and Advanced Education, has implemented a Boatbuilder PLAR process for boatbuilders with at least 10,500 hours experience.

Each applicant submits a comprehensive résumé, copies of certificates of pertinent training, evidence of competency such as photos, reference letters and the PLAR fee. If all prerequisite requirements for trade qualification are met, a PLAR assessment/interview appointment is scheduled. The assessment takes two to four hours and is led by a trained assessor; questions are asked in the context of performance criteria to help the assessor determine the nature and scope of knowledge and competency. The assessment may also involve other PLAR tools such as "Evidence of Competency" sheets, Unit workbooks with self-assessments, on-site competency demonstrations and third party verifications. The identified skill gaps present a training opportunity. All components of the assessment are verified by a qualified marine industry assessor approved by a Boatbuilders Training and Certification Committee. A final written exam is not required for certification in this trade.

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[30] Ibid., p. 12.

[31] PLA Centre, *Achieving Our Potential: An Action Plan for Prior Learning Assessment and Recognition (PLAR) in Canada* (PLA Centre, 2008), pp. 336-339.

[32] Nova Scotia Boatbuilders Association, *Nova Scotia Boat Builder PLAR Process: How the PLAR Process Works in the NS Boat Builder Trade* (Ottawa: PowerPoint presentation, Canadian Association for Prior Learning Assessment Conference, November 8, 2010).

Continuing Care Assistant PLAR Program

The CCA PLAR program was designed to address labour market shortages and the introduction of entry-to-practice standards in Nova Scotia's Continuing Care sector. A PLAR process, designed primarily for people working in the care field in Nova Scotia without certification, was piloted and implemented.

Prior to the initial pilot, the CCA curriculum was translated into learning outcomes. Criteria were established for PLAR Advisor/Assessor candidates, who were then recruited and trained. Information sessions were held and participants enrolled in the process. Participants worked with the Advisor/Assessors to identify, analyze and document their learning relative to the learning outcomes of the CCA program. The resulting evidence package was reviewed and credit was given for the modules which were successfully proven. Individuals then worked to fill any gaps through a combination of learning options. Candidates were then eligible to write the provincial certification exam, leading to achievement of the Continuing Care Assistant designation in Nova Scotia.

After this initial pilot, the CCA PLAR process was further developed and refined. A larger implementation project followed. Since the completion of the implementation project, this process has been used across the province on an ongoing basis. To date, close to 100 candidates have successfully achieved certification, with another 200 candidates currently in various stages of the process. The Health Association of Nova Scotia coordinates the program (through the role of a full-time PLAR Coordinator), and the Association continues to work with the Prior Learning Centre as a quality assurance body.

Synthesis and Practical Implications

A review of recent provincial examples and exemplary practices reveals:

- A movement toward modularization in some provinces (BC, SK); and
- The application of PLAR processes with a focus on multiple assessments.

In some cases PLAR can be used toward advanced standing in training modules (AB) and in others it is used to assist individuals in preparing for the trades exam (SK). Where PLAR is used in combination with a final exam, there appears to be mixed results, and there is continued controversy in the literature regarding the efficacy of the current examination process for assessing skills and competencies. In addition, a focus on the use of Essential Skills and PLAR – as processes to be used in combination in support of individual applications – has been undertaken in Manitoba and Prince Edward Island. In PEI this has resulted in an innovative approach for tracking and documenting progress on the job and the achievement of competencies. The Professional Skills Record allows for individuals to measure their progress against industry standards, identify and close gaps and move toward competency in the trade.

Although variations still exist across provinces, there appears to have been an evolution in the approach to certification at the pan-Canadian level – with participation from some jurisdictions, including Nova Scotia. This initiative by the Canadian Council of Directors of Apprenticeship *'Strengthening the Red Seal Program'* aims to update and enhance the existing Red Seal Program by incorporating the elements of a fully integrated Occupational Performance Standards model[33]. There are a number of objectives for the national project and these include removing barriers to certification and supporting the development of competency in both the classroom and the workplace.

The project acknowledges from experience in several jurisdictions, as well as feedback from stakeholders, that the current written multiple choice examination may not be an optimal tool for assessing workers who have been out of school for an extended period of time. Best practice suggests that using multiple forms of assessment to collect evidence of competency is a better approach for trade credentials. Multiple forms of assessment closely aligned to industry standards also have merit and potential application in the context of apprenticeship training.[34]

The national project began with a pilot in BC in the cook trade, undertaken by the Industry Training Authority, (see *ITA Multiple Assessments Pathways* in the *Exemplary Practices* section). Currently a second pilot is taking place in several jurisdictions across Canada – including Nova Scotia. Key Informant interviews with staff from the Department of Labour and Advanced Education, Apprenticeship Division, revealed that the Department has supported two staff members in VETASSESS training (see *VETASSESS* in the *Exemplary Practices* section). The Department is using this knowledge to help them develop a number of practical exams for compulsory trades. The NS Apprenticeship Department's involvement represents an important

[33] A system based on Occupational Performance Standards provides the structure to allow people to receive credit for competencies they demonstrate. Occupational Performance Standards are developed in units around whole work activity, and a trade certification represents a particular combination of these units, with some units appearing in multiple trades. *Taken from* Canadian Council of Directors of Apprenticeship (CCDA), *Strengthening the Red Seal Program: A Fully Integrated Occupational Performance Standards Model* (Discussion Paper, 2010).

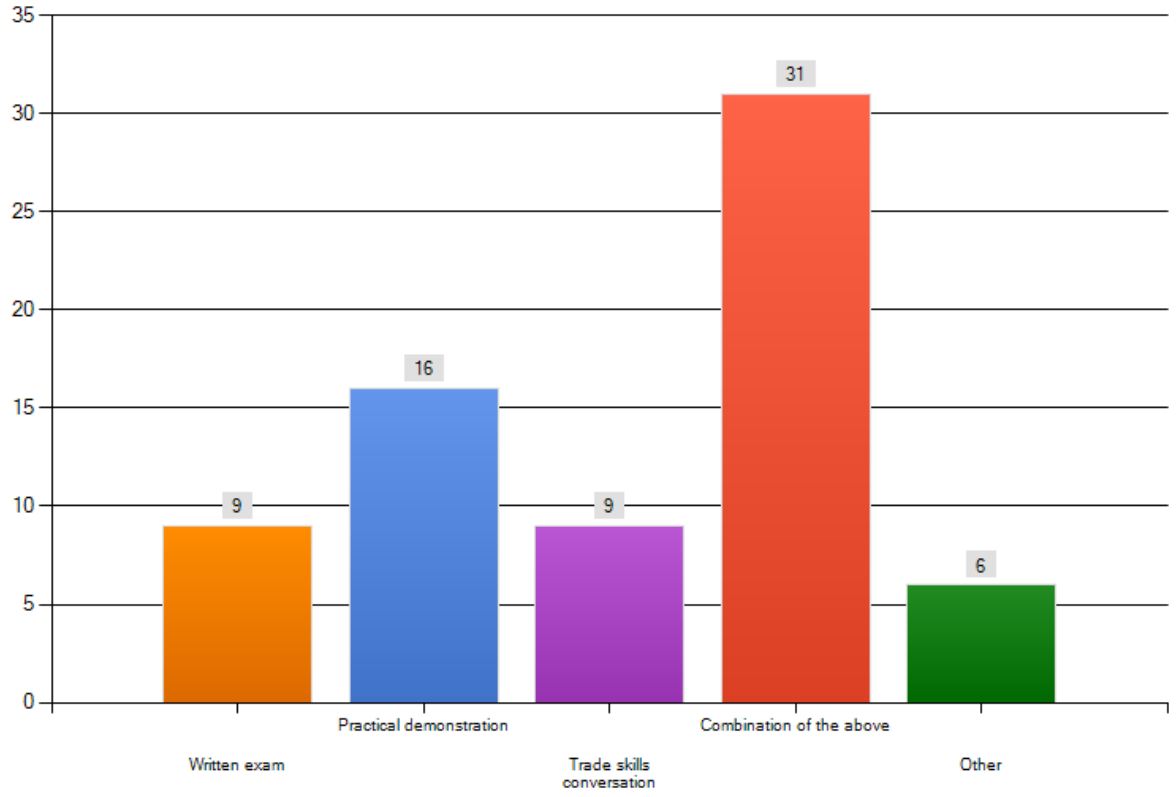
[34] Canadian Council of Directors of Apprenticeship (CCDA), *Strengthening the Red Seal Program: A Fully Integrated Occupational Performance Standards Model* (Discussion Paper, 2010).

opportunity for the continued development of competency assessment as an alternative to the traditional exam route in this province.

By aligning the PLAR model with this shift to competency in training and certification, working closely with the Nova Scotia Apprenticeship Department, and applying these multiple assessment principles, it is suggested that Nova Scotia can build a relevant and sustainable model – for both the short and long term – that can harness a PLAR vision and ensure the maximum benefit for the future of the trade.

TABLE 4[35]

How do you think an apprentice's knowledge and skills would be best evaluated for certification purposes?



[35] AWENS, *Report on the Training and Certification Needs Assessment in the Carpentry Trade in Nova Scotia* (AWENS, 2011). Chart comes from Employer Survey data.

Building a PLAR Model

As noted earlier in this study (see section *The AHBRSC Project: Toward a Solution*) a separate and parallel study was undertaken by AWENS to explore the training needs of uncertified carpenters. In its final report the study focused on:

- Determining the interest level in gaining Red Seal Certification among non-certified carpenters;
- Identifying gaps in current skill levels (non-certified) and among certified carpenters who could be considered as possible mentors;
- Assessing training and educational needs relative to essential and occupational skills; and
- Determining how non-certified carpenters could best be supported to challenge the Red Seal Examination, and consequently become new mentors in the trade.

Although the sample size was small (71 employers and 35 carpenter employees), the use of mixed methods for gathering data (principle of complementarity) and sample distribution (representation from all regions of the province) assure important insights regarding this sample group. In addition, the study was able to identify and locate individuals who may be contacted as potential participants for PLAR pilot projects.

The AWENS study confirms the experience of other programs and jurisdictions regarding the use of a multiple choice written exam as the sole or primary determinant for assessing competency and granting certification. The study states that *"all non-certified respondents are interested in becoming assessed in a way other than a written test"*;[36] it later notes *"it is probable that test anxiety is a factor for a (possibly large) portion of prospective Red Seal Exam writers."*[37]

The study further states that 16% of those respondents (non-certified carpenters) could (are ready to) challenge the Red Seal Examination, and *"once certified all would consider being mentors to new people in the trade."* Comments throughout the Employer Survey indicate dissatisfaction with the current system – *"Employers would like to see change and full scale restructuring of how trades training is completed and certified. The current system (rightly or wrongly) is perceived to be significantly disjointed, with severe gaps in the knowledge transfer process."*[38]

Employers further note that *"the trouble is in hiring **skilled** carpenters"... "There are not enough journeypersons to go around"* and that *"neither employers nor the current system seem overly active in helping students find a mentor."* Although there is need to define the roles, responsibilities and competencies of a mentor – and how this overlaps and differs from that of the journeyperson – the study surmises that a good number of carpenters in the field are already mentoring others informally. It also points to the interest among certified carpenters to become mentors.

In summary, the study identifies two groups that can be considered for mentorship development: the currently non-certified carpenters, who with additional training (essential, occupational and mentoring skills), have the potential to achieve certification and become mentors; and certified carpenters who in

[36] Ibid., p. 4.
[37] Ibid., p. 29.
[38] Ibid., p. 16.

some cases are already able to act as mentors. The study points to the fact that this latter group is aging and may soon be lost to the trade, and that there is urgency for establishing a mentoring model among those who are already certified. In short, *"there is need for a formalized system to support and develop the act of mentoring."*[39]

Overall the study confirms, for this sample, what is evident in the literature and the experience and programs of other jurisdictions. That is:

1. An urgent need to reach out to non-certified carpenters with experience in the field – to assist them in achieving certification; and

2. A further need to expedite knowledge transfer in the system to capitalize on the knowledge and experience of mature workers before they exit the trade.

The tools and supports for doing so are varied and need to be customized to individual needs. These include, as documented in the AWENS report, such practical items as support for taking multiple choice tests (in support of exam), Essential and Occupational Skills upgrading (where necessary – and on the basis of PLAR support and analysis), the application of a formal PLAR process and the development of a mentoring model.

Given the findings of the AWENS report and the opportunity it presents for following up with the target group of non-certified carpenters, it would seem prudent to develop pilot projects in the regions where such interest has been expressed: i.e., Halifax and Bridgewater. This would provide a potential pool of 17-23 candidates. The study further notes that this group has expressed interest and once certified, could go on to become mentors – immediately improving the skill base and knowledge transfer capacity of the system by 17%.

A PLAR Model: Options for Moving Forward

The situational analysis explored different learning recognition strategies, relevant work and exemplary practices with a view to designing a PLAR Model that best fits the needs and objectives of industry and individuals in Nova Scotia. A *competency assessment process* with *multiple assessment methods* appears to be the 'best fit'. This approach would focus on assessing and recognizing the knowledge and skills of experienced workers against the requirements of the journeyperson carpenter designation.

The study has also noted that an evolution has taken place in the approach to training and certification across the country – and that this includes a movement toward competency and a more fully integrated Occupational Performance Standards model at the national level. This work suggests that while the current focus for certification is based primarily on the development of National Occupational Analyses that support multiple choice examinations, the future model will be designed to support both skill acquisition and skill recognition against industry-set Occupational Performance Standards. As noted in the Discussion paper (Strengthening the Red Seal Program), the work of the CCDA in setting Occupational Performance Standards allows the flexibility to use a variety of assessment tools to collect appropriate evidence of a person's competency. The range of assessment methods and tools includes written exams, practical

[39] Ibid., p. 45.

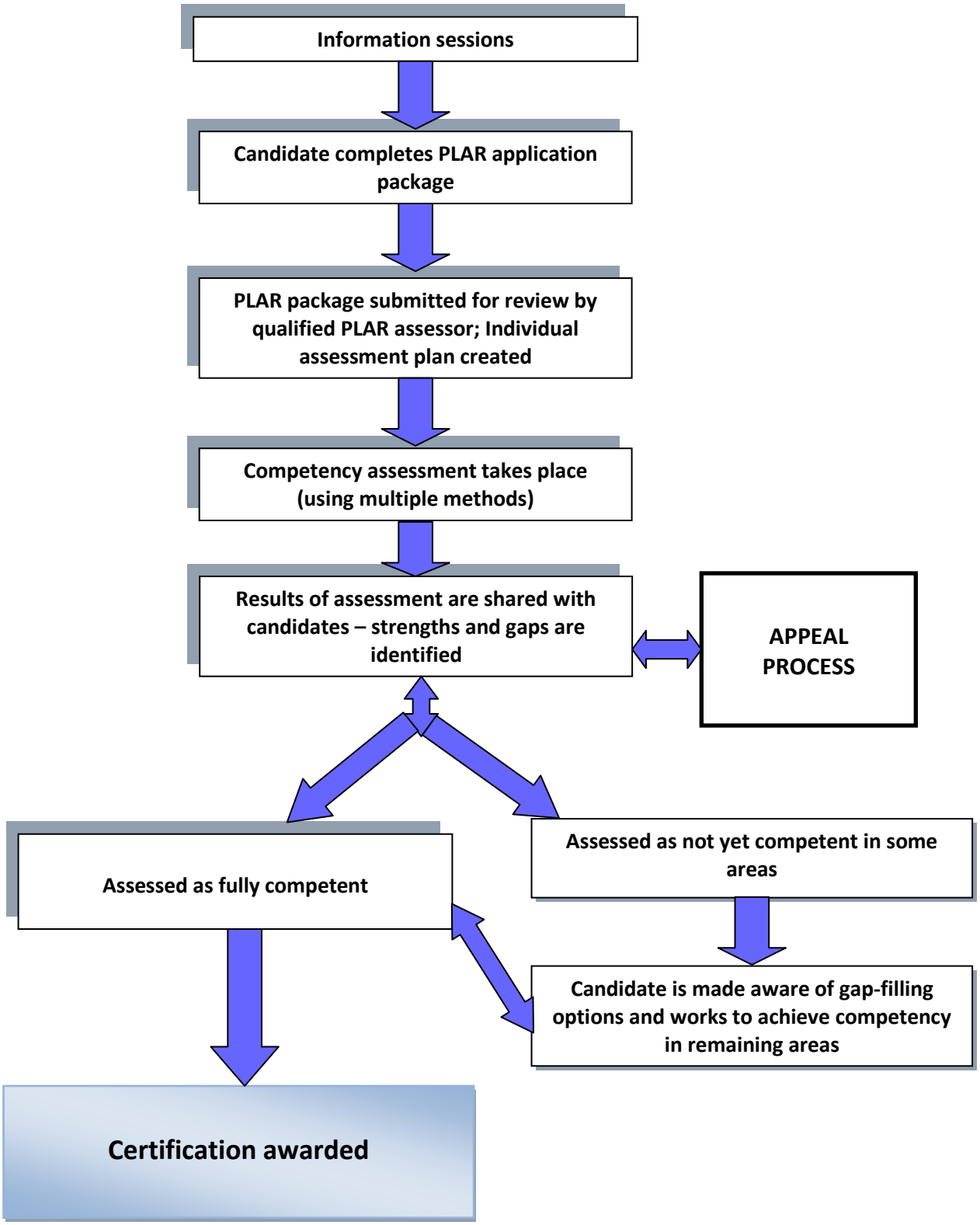
examinations, portfolios of evidence and interviews with subject matter experts trained in assessment methodology.

In the meantime the current process for achieving certification in Nova Scotia is the multiple choice written exam or Trade Qualifier route. This study recommends two options for moving forward – the first, based on a long term vision of PLAR as including multiple assessment pathways for the achievement of certification based on skills acquisition and demonstration; and the second, a process that supports the individual in 'challenging' the exam – with the assistance of PLAR as a means to support the individual throughout the certification process. It is anticipated that this second option would greatly improve the success rates of individuals taking the exam.

Option 1 represents an ideal PLAR model – one which "meets the individual where s/he is" – and that would fairly assess their occupational competencies (and essential skills) against an industry standard. The process would be focused on 'what a person knows and can do', and not on how they acquired their competence. This 'ideal' PLAR process would involve a thorough assessment component, with quality gap-filling measures as required and a re-assessment mechanism for competency areas previously deemed "not yet competent". A process of validation (multiple methods) is used to determine when the individual has met the required competencies. This process would enable regulatory bodies to use the outcomes of the process as a basis for certification, thus eliminating the formal written exam.

Option 2 presents a version of the Trade Qualified process with PLAR supports. It builds the competencies and knowledge required for the written exam. Application of the PLAR process in this circumstance has the added benefit of improving the confidence and skills of the candidate, and also assists in highlighting the overall system shift to competency thinking – i.e. the act of translating knowledge and skills to competencies. This shift is basic to increasing the capacity of the individuals to become mentors.

PLAR PROCESS – OPTION 1



Details of PLAR Process: Option 1

Step 1

Information sessions are held for potential candidates. Candidates are provided with detailed information about the PLAR process including steps, estimated time frames, occupational performance standards, etc. There is opportunity for questions and discussion. The desired outcome is for candidates to leave the session with sufficient information to make a decision as to whether they wish to proceed. Candidates are provided with application materials and/or given information about how to access these online. Alternatives to group sessions may be considered.

Step 2

Candidates complete the PLAR application package. A PLAR guide gives detailed information about application requirements, providing structure for the information needed for initial assessment of competencies. A self-assessment process helps candidates determine whether they have sufficient skills, experience and/or training to proceed with the PLAR process. Relevant evidence[40] from various sources including work experience, on-the-job training and any formal training is gathered and documented, providing proof of competency. The objective of the PLAR package is to provide initial documented evidence of the degree to which the applicant meets the outcomes/competencies required for certification. Support and guidance is critical at this step of the process; candidates will require personal and individual assistance.

Step 3

The completed PLAR package is submitted to and reviewed by a qualified PLAR assessor. The review may involve third party verification of evidence such as contacting employers/references. A follow-up conversation with the candidate with regard to the evidence submitted may also take place during this step. Based on the results, the assessor and candidate develop an individual assessment plan identifying competencies for further assessment and the assessment methods to be used. Methods selected will depend upon the competencies to be assessed and the needs of the candidate.

Step 4

Assessment of competencies takes place as per the individual assessment plan. Multiple methods of assessment may be used including competency conversation, skill demonstrations, written or verbal tests, practical exams and observation. Processes are rigorous and quality-assured; results are both valid and reliable. This step in the process may require an extended period of time to complete.

Step 5

Results are documented by the assessor throughout the assessment process. Results are shared with the candidate; strengths and gaps are identified. A climate of support is ensured. An appeals process is available should the candidate not be satisfied with the outcome.

[40] Some examples of possible evidence are log books, photos, reference letters, training outlines or certificates.

Step 6

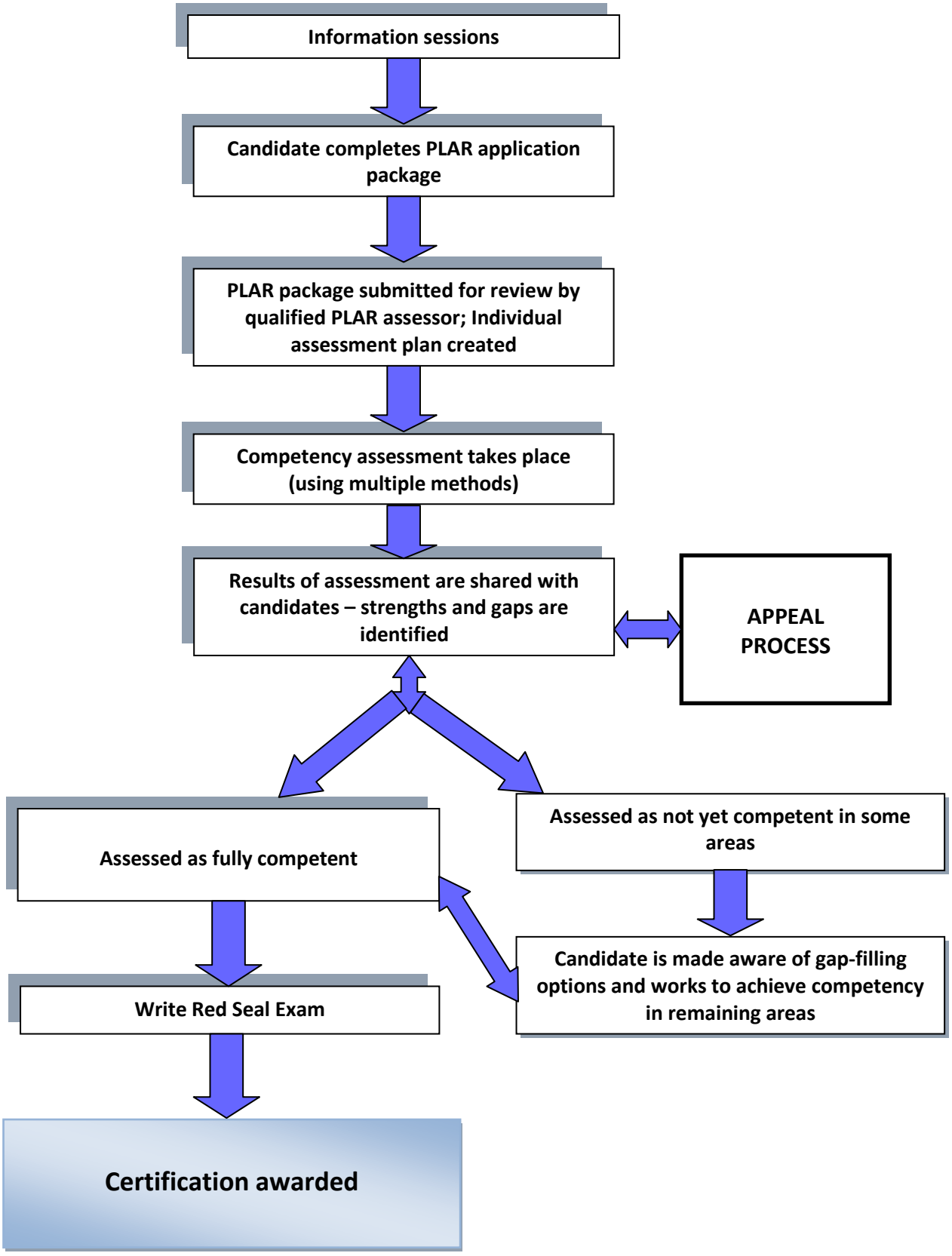
If the candidate, through multiple assessment methods, has proven competency in all areas, the certifying body recognizes full competency and certification is awarded.

OR

If competency gaps have been identified, the candidate is provided with information about gap-filling options. The candidate works to achieve competency in gap areas. Learning options could include self-study, mentorship, continuing education or other methods as available. Once the competency gaps have been filled and competency is recognized in all areas, certification is awarded.

OUTCOME: Certification achieved

PLAR PROCESS – OPTION 2



Details of PLAR Process: Option 2

(Steps 1 through 5 are the same as for Option 1)

Step 1

Information sessions are held for potential candidates. Candidates are provided with detailed information about the PLAR process including steps, estimated time frames, occupational performance standards, etc. There is opportunity for questions and discussion. The desired outcome is for candidates to leave the session with sufficient information to make a decision as to whether they wish to proceed. Candidates are provided with application materials and/or given information about how to access these online. Alternatives to group sessions may be considered.

Step 2

Candidates complete the PLAR application package. A PLAR guide gives detailed information about application requirements, providing structure for the information needed for initial assessment of competencies. A self-assessment process helps candidates determine whether they have sufficient skills, experience and/or training to proceed with the PLAR process. Relevant evidence from various sources including work experience, on-the-job training and any formal training is gathered and documented, providing proof of competency. The objective of the PLAR package is to provide initial documented evidence of the degree to which the applicant meets the outcomes/competencies required for certification. Support and guidance is critical at this step of the process; candidates will require personal and individual assistance.

Step 3

The completed PLAR package is submitted to and reviewed by a qualified PLAR assessor. The review may involve third party verification of evidence such as contacting employers/references. A follow-up conversation with the candidate with regard to the evidence submitted may also take place during this step. Based on the results, the assessor and candidate develop an individual assessment plan identifying competencies for further assessment and the assessment methods to be used. Methods selected will depend upon the competencies to be assessed and the needs of the candidate.

Step 4

Assessment of competencies takes place as per the individual assessment plan. Multiple methods of assessment may be used including competency conversation, skill demonstrations, written or verbal tests, practical exams and observation. Processes are rigorous and quality-assured; results are both valid and reliable. This step in the process may require an extended period of time to complete.

Step 5

Results are documented by the assessor throughout the assessment process. Results are shared with the candidate; strengths and gaps are identified. A climate of support is ensured. An appeals process is available should the candidate not be satisfied with the outcome.

Step 6

A candidate, who has through multiple assessment methods proven competency in all areas, proceeds to the Red Seal Examination.

OR

If competency gaps have been identified, the candidate is provided with information about gap-filling options. The candidate works to achieve competency in gap areas. Learning options could include self-study, mentorship, continuing education or other methods as available. Once the competency gaps have been filled and competency is recognized in all areas, candidate proceeds to the Red Seal Examination.

Exam preparation and support is provided, including Essential Skills training as necessary.

Step 7

Candidates who receive a passing grade on the Red Seal Examination are awarded certification.

OUTCOME: Certification achieved

Building a Competency Assessment Model (PLAR) - Elements

The need for clearly stated, measurable competencies cannot be overstated. This is the first step in any valid PLAR process, and requires a significant investment of time, energy and effort up front. However, the return on investment is great as the rest of the process flows from the creation of a competency approach.

Although PLAR tools and practices may vary widely – portfolio, multiple assessment pathway, PLAR challenge, to name a few – the same principles (as stated above) underlie all approaches. In addition, there are a number of core elements to consider in ensuring a robust PLAR process:

- **Buy-in from certifying bodies and industry** and **clear incentives** for the employer and the individual that support the achievement/full completion of the designation/certification.
- **Ongoing and continuous support for PLAR candidates** – candidates need support and assistance as they proceed, for example, in identifying appropriate evidence to prove specific competencies.
- **Careful selection of, and training and support for assessors** – assessors should be both subject matter experts and well-trained in the concepts and processes of PLAR and assessment. Criteria must be established for the selection of assessors, and training provided.
- **Comprehensive, easy to follow tools and resources**, for both participants and assessors, need to be developed and provided throughout the process.
- **Availability and variety of gap filling options** to provide 'bridge training' for meeting competency requirements. These options would need to offer alternatives to formal classroom study (e.g., self-study, mentorship, continuing education options).

Steps to Moving Forward with the PLAR Process

1. Develop Occupational Performance Standards for Carpentry, based on the National Occupational Analysis, and approved by both industry and regulators.
2. Further develop and refine the steps of the PLAR process, including an appeals process.
3. Develop assessment tools as required for the various assessment methods.
4. Develop an assessor training program with criteria for selection of assessors and comprehensive training in PLAR concepts and competency-based assessment processes.
5. Develop an information and application package, including a PLAR guide, for distribution to potential candidates at information sessions.
6. As follow-up to the AWENS report, contact the individuals/employers in the locations (Halifax and Bridgewater) identified as potential pilot sites to explore the feasibility of a pilot program.
7. Once pilot sites are confirmed, move forward with plans for the pilot program.

Strategic Considerations and Recommendations

In closing, a number of observations and strategic considerations are noted, formulating strategy and an action plan for moving forward. These include:

1. *Developing a Working Relationship with the Apprenticeship Division, Department of Labour and Advanced Education.* This study notes the work of the Canadian Council of Directors of Apprenticeship and the Strengthening the Red Seal Program, and highlights the participation of the NS Apprenticeship Division in current pilots to develop Occupational Performance Standards for specific trades. While acknowledging this as an exciting and progressive step toward transforming the certification system, it is anticipated that it may take some time before the national program is applied to non-compulsory trades – at the level of Red Seal Certification. In the meantime, other methods of assessment are being developed by the Apprenticeship Division for the assessment of skills and competencies in the trades.

   It is recommended that the AHBRSC work directly with the Apprenticeship Division in developing alternatives to the multiple choice exam through multiple assessment processes that support increased accessibility to certification for non-licensed carpenters (PLAR Process - Option 1).

   The AHBRSC might also consider reviewing the possibility of becoming a training body in the apprenticeship system – similar to the role played by the Professional Builders Institute in British Columbia.

2. *Professionalization of the Trade*. Although this study is not directly concerned with the issue of professionalization, it does acknowledge that compulsory certification would have a significant effect on the application of PLAR to the field, in that this would force those active in the field to become certified. If professionalization were to proceed, there would need to be a way for non-certified individuals to have their skills and learning assessed quickly. Reasons for non-certification (see Table 2 of this report) include strong resistance to the current examination process, and the fact that a significant number of non-certified carpenters need Occupational and Essential Skills upgrading to write the exam.

   If professionalization is recommended for the trade, it is recommended that the AHBRSC and the Province seriously consider PLAR Process Option 1 (a multiple assessment pathway approach) as the means to certify non-licensed candidates, and that this route include advanced standing in education and training modules and Essential Skills upgrading for those for whom this would be applicable.

3. *Pilot Projects for Non-Certified Carpenters*. The Training Needs Assessment research (AWENS report), that accompanies this report, provides an immediate opportunity for developing a pilot project for non-certified respondents.

   It is recommended that the AHBRSC follow up with the Prior Learning Centre in setting up a pilot project with those respondents who indicated that they were ready to "challenge" the exam. This process would be based on PLAR Process Option 2 and include a PLAR process and other tools as appropriate (training in multiple choice testing) to assure the success of candidates.

4. *Mentoring Pilot for Certified and Non-certified Carpenters*. The AWENS report identifies certified carpenters with an interest in mentoring. It also suggests that immediate action is necessary to follow up with this group if they are to have the opportunity to transfer their knowledge and experience to new entrants in the field. The study also identifies non-certified carpenters with an interest in becoming mentors. This Prior Learning Centre report notes the potential for establishing a role for workplace mentors as different from the current role of journeypersons – with journeypersons holding responsibility for signing off on hours and acting as potential assessors in the PLAR process toward certification – and non-certified mentors working with mentees in the workplace.

   It is recommended that the AHBRSC follow up with mentorship training that would incorporate PLAR processes and principles in facilitating the development of mentors. It is further recommended that consideration be given to the development of a mentorship model for non-certified carpenters (who are not willing or interested in writing the multiple choice exam) that would incorporate PLAR processes and principles similar to Option 1 for the development of required competencies. It is suggested that this group of mentors could be employed as workplace mentors and advisors. This would increase the field of 'qualified' mentors for new apprentices and recognize and upgrade the quality and skill of the field.

5. *PLAR and Essential Skills Training Model*. The AWENS report and other studies note the need for Essential Skills training among many in the field. PLAR processes and principles are currently being incorporated into a number of programs (across the country) to facilitate and encourage the uptake of Essential Skills training.

   It is recommended that the AHBRSC consider the Professional Skills Record as developed by the PEI Trade Essentials Program as a potential tool to assist apprentices in developing and improving their skills and knowledge on the job. Combined with PLAR processes and principles, this tool can help build confidence and motivation among individuals to seek certification. As well it may serve an important function in the mentoring process.

Appendix A: Project Team

The Atlantic Home Building & Renovation Sector Council was established in 1991 as a sector council for the residential construction industry in the Atlantic Provinces, working in conjunction with federal and provincial governments, the industry and its many stakeholders.

Michael Montgomery, Executive Director

The Prior Learning Centre is a nationally-recognized centre of excellence in providing PLAR services. Located in Halifax, Nova Scotia, the Centre is a collaborative, community-based, non-profit organization, dedicated to providing innovative and high quality PLAR services and programs across a wide variety of settings.

Mary Morrissey, Executive Director
Teresa Francis, Director of New Program Development
Nancy Anningson, Business Manager

Association of Workplace Educators of Nova Scotia (AWENS) is an organization of workplace education instructors who deliver quality Essential Skills and workplace literacy programs to Nova Scotia workplaces. Their instructors also provide pre-apprenticeship tutoring for those entering the trades who may need to update their essential skills.

Margan Dawson, Executive Director
Leigh Faulkner, Consultant
J. Leigh Gillis, Consultant

Appendix B: Resource List

Association of Workplace Educators Nova Scotia, *Report on the Training and Certification Needs Assessment in the Carpentry Trade in Nova Scotia,* March 2011.

Atlantic Home Building & Renovation Sector Council. *Building for the Future: A Plan for Professionalization in the Residential Construction Industry in Nova Scotia.* Nova Scotia: Atlantic Home Building & Renovation Sector Council leaflet, undated.

Atlantic Home Building & Renovation Sector Council and PRAXIS Research & Consulting Inc. *Occupational Analysis Review for the Construction Sector in Nova Scotia*. Nova Scotia: Atlantic Home Building & Renovation Sector Council, March 2001.

Canadian Council of Directors of Apprenticeship (CCDA). *Strengthening the Red Seal Program: A Fully Integrated Occupational Performance Standards Model*. Discussion Paper, 2010.

Construction Sector Council. *Labour Requirements from 2007 to 2015 for Nova Scotia.* Construction Sector Council, undated.

Council for Automotive Human Resources (CAHR*). Improving Apprenticeship Completions: An Automotive Manufacturing Supply Chain Perspective*. Canadian Apprenticeship Journal Volume 3, Fall 2010.

Department of Innovation and Advanced Learning, Government of Prince Edward Island, and Human Resources and Skills Development Canada, Government of Canada. *Trade Essentials: Testing a New Approach to Apprenticeship Training, Final Report.* Charlottetown: Department of Innovation and Advanced Learning, Government of Prince Edward Island, and Human Resources and Skills Development Canada, Government of Canada, 2010.

Desjardins, Louise. *Completion and Discontinuation Rates of Registered Apprentices: Does Program Duration Matter?* Statistics Canada, Canadian Apprenticeship Journal Volume 3, Fall 2010.

DMD Economics Limited, Canmac Economics Limited, and PRAXIS Research & Consulting Inc., *Nova Scotia Residential Construction Labour Supply Study.* Halifax: Atlantic Home Building & Renovation Sector Council, August 2008.

Dostie, Benoit. *A Competing Risks Analysis of the Determinants of Low Completion Rates in the Canadian Apprenticeship System*. Statistics Canada, Canadian Apprenticeship Journal Volume 3, Fall 2010.

Industrial Training Authority*. ITA Multiple Assessment Pathways (MAP) Project: A Project to Develop Alternative Methodologies for Assessing Challengers Seeking Trade Qualifications.* British Columbia: Industrial Training Authority, August 2008.

Mott, Dan. *The Importance of Completion in Apprenticeship: An Employer's Perspective.* Canadian Apprenticeship Journal Volume 3, Fall 2010.

Nova Scotia Boatbuilders Association. *Nova Scotia Boat Builder PLAR Process: How the PLAR Process Works in the NS Boat Builder Trade.* Ottawa: PowerPoint presentation, Canadian Association for Prior Learning Assessment Conference, November 8, 2010.

PLA Centre. *Achieving our Potential: An Action Plan for Prior Learning Assessment and Recognition (PLAR) in Canada*. Halifax: PLA Centre, 2008.

PLA Centre. *Pan-Canadian Prior Learning Assessment and Recognition (PLAR) Project.* Halifax: Construction Sector Council and Atlantic Home Building & Renovation Sector Council, March 2005.

PRAXIS Research & Consulting Inc. *Apprenticeship and the Residential Construction Industry in Nova Scotia.* Atlantic Home Building & Renovation Sector Council and Apprenticeship Training and Skill Development Division, Nova Scotia Department of Education, July 2009.

Sharp, Andrew and James Gibson. *The Apprenticeship System in Canada: Trends and Issues*. Ottawa: Centre for the Study of Living Standards, 2005.

T.M. McGuire Ltd. *The 2007 Labour Market Assessment of the Industrial-Commercial-Institutional Construction Sector of Nova Scotia.* Nova Scotia Construction Sector Council, March 2007.

Appendix C: Key Stakeholder Interviewees

In February and March of 2011, the Prior Learning Centre had the opportunity to conduct face-to-face and telephone interviews with the following individuals/organization representatives:

- Diane Gordon, (formerly of) Apprenticeship Nova Scotia
- Dale Crawford and Richard Sharpe, Apprenticeship Nova Scotia
- Donna Bonner, Carpenter, member of the Apprenticeship Nova Scotia Board
- Michael Senz, owner of A & H Renovations; Director of the Boards of AHB&RSC and NSHBA
- Andrew Holley, Integrity Homes 2001 Inc.
- Dean Dort, Nova Scotia Community College Faculty, Carpentry

We wish to thank these individuals for their time and their very valuable input!

Appendix D: Definitions

Assessment: The process of collecting evidence and making judgments on whether competence has been achieved to confirm that the challenger can perform to the standard expected in the workplace as expressed in the relevant Occupational Performance Standards. Assessment is a participatory process between the assessor and the candidate.

Assessor: An assessor is a subject matter expert in the area being assessed, with current knowledge of industry practice, and is well-trained in PLAR concepts and methodology. The assessor plans and carries out the assessment, records results and provides feedback to the candidate.

Competence: Ability to perform tasks and duties to the standard expected in the workplace.

Competency conversation: An in-depth, structured conversation between assessor and candidate that both verifies and generates evidence.

Occupational Performance Standards: Statements accepted by industry that describe effective performance in the workplace. These are expressed as units of competency.