**Report #73**

# A REPORT ON APPRENTICESHIP IN ALBERTA

**Prepared for:**
**Northern Labour Market Information Clearinghouse**

March, 2000

**Northern Labour Market Information Clearinghouse**

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## Introduction

The purpose of this report is to provide a current perspective on Apprenticeship in Alberta and with the specific aim of providing information that will assist the Northern Alberta Development Council and its partner post-secondary institutions in labour market and program planning.

Thanks to the many Apprenticeship staff and the College Deans of Trades and Technology, all of whom gave freely of their time and information in the preparation of this report.

## 1. Apprenticeship Statistics

The following data is presented to provide a "snap-shot" of Apprenticeship in Alberta.

Figure 1.

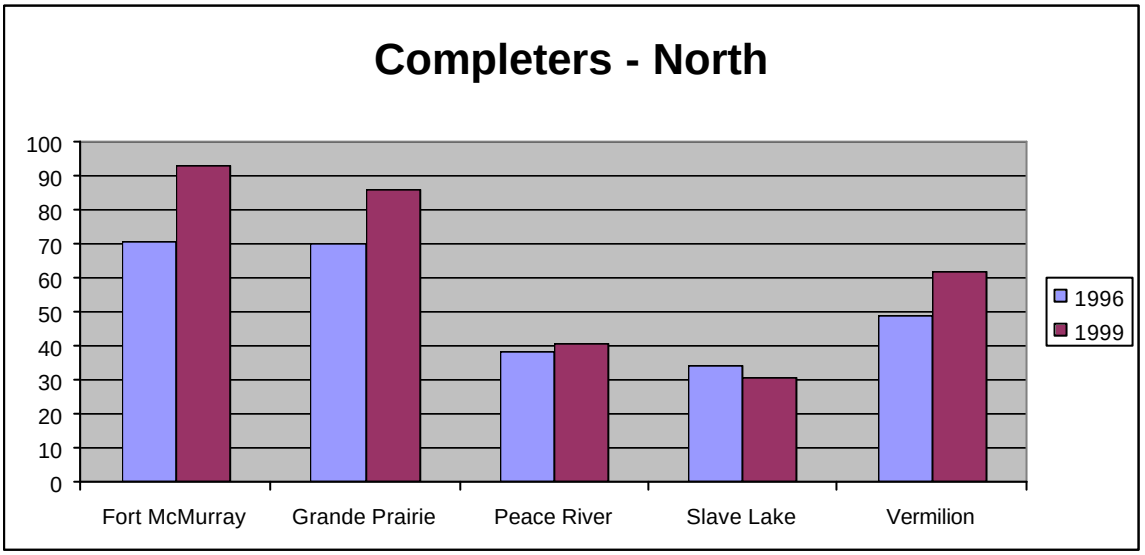


Figure 1. compares the number of new journeymen who completed in 1996 and 1999. The centres listed are the locations of Apprenticeship offices in the NADC region. The comparison shows the increase in the number of new journeymen over the three year period. Apprenticeship staff were unable to explain the drop in completions for Slave Lake. Figure 4, Construction Trade completions shows a drop in construction trades completions for Slave Lake that could have had an effect.

Figure 2

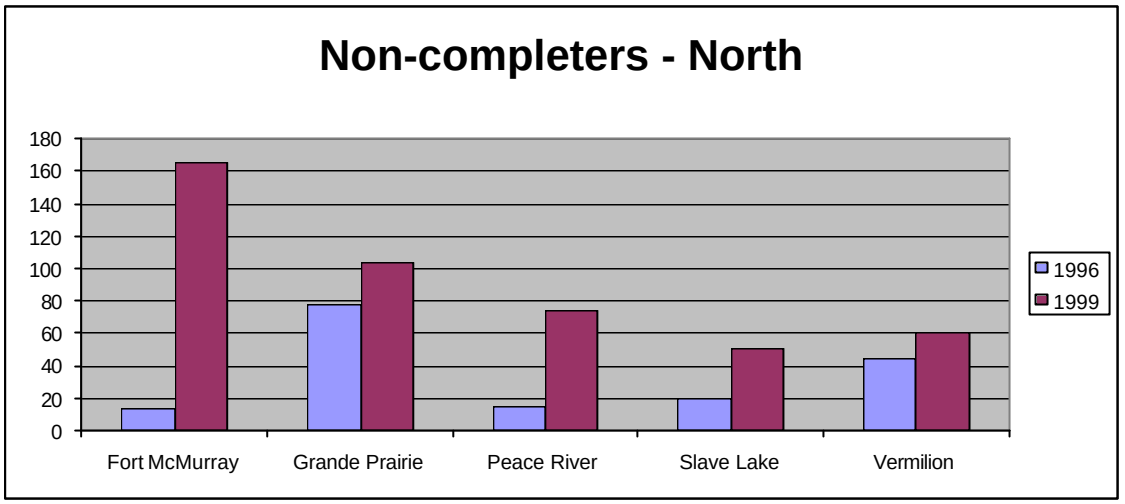


Figure 2. shows Non-completers for the years 1996 and 1999. A dramatic increase in non-completion is demonstrated. Ft. McMurray and Peace River showed marked increases between the three years. Information was not readily available that would differentiate between those apprentices who had voluntarily terminated and those who were cancelled by the Apprenticeship Division. An unknown member of non-completers could have transferred to other trades.

Figure 3

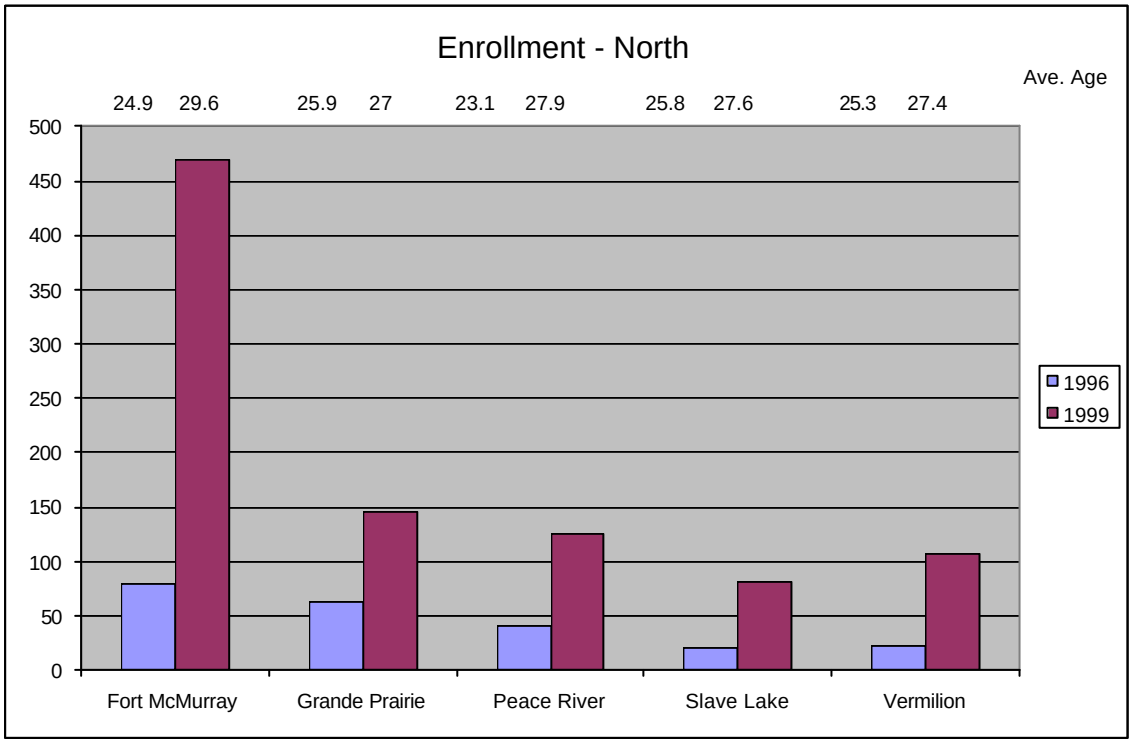

Figure 3, Enrollment, shows new apprentices by centre between 1996 and 1999. The numbers across the top of the graph are the average age of new apprentices by centre. While each centre experienced growth in registrations, Ft. McMurray shows an over 500% growth in new apprentices.

The average age of new apprentices also increased more in Ft. McMurray than in other centres.

Figure 4.

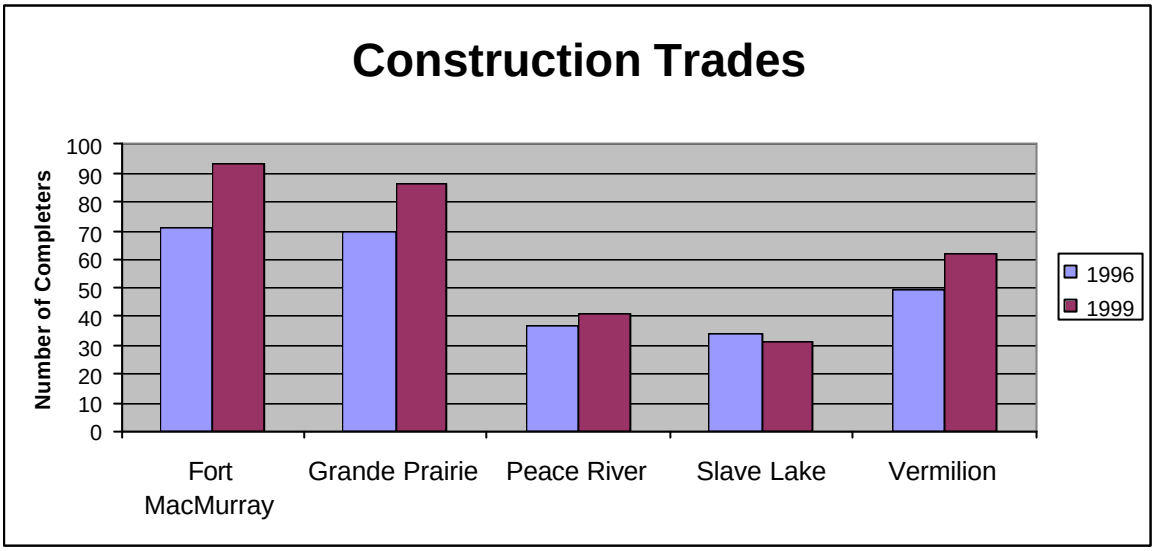


Figure 4 examines Completers in trades related to construction for the years 1996 and 1999 by centre.

Trades related to construction included in this figure are: Bricklayer, Carpenter, Electrician, Plumber/Steamfitter/Gasfitter, Sheet Metal Worker, Welder, Refrigeration and Air Conditioning Mechanic, Machinist, Millwright, Crane & Hoisting etc., Ironworker.

The construction trades were examined in an attempt to explain the high growth in Ft. McMurray and Grande Prairie as well as the drop in Slave Lake. Unfortunately, while the trend in all centres is consistent, construction trades appear to account for only a portion of the changes.

## 2. Entry-level Qualifications of Apprentices

The College partners of the Clearinghouse Project have asked for clarification around the issue of apprenticeship entrance requirements.

### Background

The first requirement for indentureship into an apprenticeship is employment with an employer who is prepared to enter into an apprenticeship contract. In order to be accepted into the program the individual must meet one of two criteria: a.) produce evidence of successful completion of the Alberta (or equivalent) grade requirements or; b.) successfully pass the Apprenticeship Entrance Exam.

The governance of the trades system is largely an industry responsibility. The Apprenticeship and Industry Training Board is a government appointed board. The Board's primary function is to advise the Minister of Alberta Learning on labour market matters related to the training and certification of persons in designated trades and occupations. The Board has thirteen members: a presiding officer and twelve individuals who represent trades and designated occupations. Six members represent employers and six members represent employees. Upon the advice of industry the board appoints a Provincial Apprenticeship Committee (PAC) for each trade.

The PACs are responsible for setting the training needs and standards in their respective trades. In doing so, they identify the competencies that an apprentice will learn on the job and the curriculum that he/ she will master during technical training. Based on the complexity of the technical training curriculum, the PAC establishes the entrance requirements.

In setting the entrance requirements, the PAC must consider the level of academic preparation that will support successful completion of technical training and what is acceptable to industry generally. It should be noted that lively debate usually accompanies discussion about entrance requirements. Members must balance their desire to enhance the status of their trade by setting high entrance standards with the need to establish realistic requirements that will encourage new entrants into the trade. Often, these entrance requirements are lower than individual firm's educational requirements for employment. It is generally true that large established companies have higher educational requirements than do small sole-proprietor shops. Because employment is a prerequisite for an apprenticeship, the employer requirements prevail except when they are lower than those established by the PAC.

The Apprenticeship and Industry Training Division has undertaken a review of the existing entrance exams.

**Update on Findings of Apprenticeship and Industry Training Examination Revision Project**

The prime purpose of the entrance exam project was to design exams to measure the probability of an apprentice's success in technical training.

Stakeholders in the apprenticeship system have long realized that the existing pre-requisites of either grade level requirements or the entrance exams were not adequate predictors of success. A number of the Deans of Trade reported that their programs have had to provide remedial services because of the number of apprentices who experience difficulty with the content of technical classes. Several Building Trades Union training centres also offer apprenticeship preparation classes. The trades that have a grade IX entrance requirement are even more problematic as Alberta Learning provides pass/fail reports rather than subject marks. This makes it difficult to accurately assess competencies in the given subject area.

A primary focus the Entrance Examination Revision Project was to develop trade clusters based on an analysis of the learning outcomes for first period technical training in all of the trades. Five trades clusters with related competencies were identified. The second step was to develop an exam for each trade cluster. Each exam was then field-tested using first period apprentices attending technical training. An item analysis will follow the field tests and appropriate revisions will be made.

A third phase of the project is planned. This will involve the development of individual learning modules designed to provide remediation in those areas where an applicant has not achieved the necessary standard on the entrance exam. This phase should provide assistance to those Colleges already providing remedial services.

An outstanding issue is the discrepancy between the skills necessary to be successful in first period technical training and the skills and knowledge necessary for success in third and fourth periods. An example of this discrepancy is the reading and math skills necessary to enter the Automotive Service Technician trade compared to the skills required to read and interpret an auto manufacturer's manual.

**Discussion**

The findings of the Exam Revision Project raise several points for consideration as follows:

- The completed entrance exams will be presented to the PACs as information items. While there has been some support expressed from the PACs, it is entirely within the mandate of each PAC as to whether to adopt the exam.

- The project will provide information to the PACs about the preparation needed to be successful in first period technical training. For example, required math preparation is reported as: X modules from Math 20. Y modules from Math 10 and Z modules from Math 23. The sciences preparation is reported in the same manner.

- There has been very preliminary discussion among PAC's about the advisability of adopting an entrance exam instead of entrance requirements. It will be some time before any action will be taken on this possibility.

- To date, no work has been done on the skills necessary for success on the job. This assessment has been left to employers to determine in either the hiring interview or prior to signing an apprenticeship contract. If one considers that 80% of an apprentice's training occurs on the job, this important assessment could benefit from some attention. Job skills such as hand-eye co-ordination, motor skills, colour recognition and physical strength are not measured. Reading, speaking and people skills are similarly not within the purview of any existing assessment instrument. (See Discussion and Implications section for a full report on findings in this topic).

- For updates on the Entrance Exam project, Bob Keddie, Dean of Trades at Fairview College would be a good contact. Bob represents the College Deans of Trades and Technologies at Apprenticeship and Industry Training Board meetings. As such, he will have access to all the reports made to the Board on the project.

## 3. Apprentices Not Attending Technical Training

**Background**

Interviews with Apprenticeship staff yielded confirmation that the gap between apprenticeship enrollment and attendance at technical training is widening. They speculated that there were one or a combination of factors that could be contributing to this condition.

a.) The Economy

Technical training attendance is related historically to current economic conditions. In the 1980's it was not uncommon for an apprentice to forgo attendance in final period technical training. Because the province was experiencing a dramatic economic downturn, employers were loath to pay workers at journeyman rates. So, in order to keep their jobs, final period apprentices would remain at that status, earning less than they would as a journeyman, but at least earning.

In the later 1990's, with the announcement of major industrial projects, most of which were in Northern Alberta, construction activity increased dramatically. By 1996, the Best Practices Workshop, sponsored by the Construction Owners of Alberta (participants include industrial owners, contractors and labour providers) recognized the prospect of skilled labour shortages and began the development of a five year rolling forecast of labour requirements for these major projects (See Discussion Section). The same group undertook a project that would speed the process of certifying out of province welders with some success. The resulting impact of this increased activity on attendance at technical training was some noticeable decrease. Employers are loath to let workers leave for block release training and workers do not want to give up good paychecks.

There is subjective information that would support the idea that employers, anxious to fill positions, perhaps overfilled and later cancelled contracts or in their anxiety to build a sufficient workforce, hired inappropriate people and subsequently let them go. This is unsubstantiated but plausible.

b.) Changes in How Apprentices Register for Technical Training

Several years ago the responsibility of registering apprentices for technical training shifted from Apprenticeship staff to the colleges/ technical training institutes and the apprentice. An interview with a staff person in the Certification Branch of Apprenticeship yielded the comment that generally, the smaller colleges are doing a good job. However, there are still some concerns to be addressed.

Apprenticeship Field Office staff have sensed that they have lost an opportunity to be in contact with apprentices once the contract has been signed. At the same time, college staff perceive that they have limited information about the apprentices and their employers. While there are good intentions on everyone's part to work co-operatively to effectively register apprentices, the system has, to some extent, has suffered from lack of communication.

c.) Introduction of Tuition Fees (and changes in E.I.)

Little is known at time of writing about what, if any, effects the introduction of tuition fees has had on attendance. Staff are hearing of cases where apprentices have suffered hardship because of the withdrawal of the E.I. Training Allowance for the first two weeks of technical training.

d.) Access to Grants and Loans through Students Finance Board

It appears that utilization of this support to assist in attendance at school is low. The subjective reports indicate that apprentices may not realize in time the significance of filling out the application form.

Another possible reason is the independent nature of people who are attracted to the trades. They are simply not comfortable with the idea of applying for funding from public sources. Also, because of income restrictions under the grants and loans program, apprentices may not be eligible by virtue of their annual income.

**Departmental Survey**

In January and February 2000, the Apprenticeship Division conducted a survey of apprentices who had not been to school within the previous 16 months.

The following questions were as asked:

- What was your reason for not attending technical training?
- What kind of delivery of technical training would suit you best; block release, distance delivery, mobile training delivery?
- Tell us why your contract should not be cancelled.

Department staff report that, at the time of writing, the results of the survey are in. However, analysis is just beginning. The Colleges are encouraged to call John Hartley or Ollie Schell in several months to follow up if that is desired.

## 4. Barriers to Entry to Apprenticeship

It is recognized that barriers to entry to apprenticeship do exist for all Albertans. However, at this time, the Apprenticeship Division is concentrating its efforts on Aboriginals and their access to the apprenticeship training system.

### Entry to Apprenticeship – Aboriginals

In June 1999, the Report of the National Committee on Aboriginal Entry to Apprenticeship entitled *Aboriginal Participation in Apprenticeship: Making it Work*, was released by the Canadian Labour Force Development Board (CLFDB). The Executive Summary is found in Appendix B of this report. The complete report is posted on the CLFDB website at www.clfdb.ca (Virtual Document Library).

The CLFDB is made up of partners from business, labour, education and training and equity groups with the purpose of working together to develop a highly skilled workforce. The organization has completed a number of reports the latest of which was the Aboriginal undertaking. A Steering Committee was established with representatives from Metis and First Nations organizations, Provincial/Territorial Apprenticeship Boards, Human Resources Development Canada, organized labour, provincial/territorial apprenticeship management and CLFDB staff. The report outlines the Aboriginal experience in apprenticeship, examines the barriers to entry, reports on measures (both successful and unsuccessful) to encourage Aboriginal people to enter apprenticeship training and makes recommendations.

The Executive Summary of this report (located in Appendix B) contains all of the recommendations of the Working Group. For purposes of this report several comments and recommendations are noteworthy.

- The "baby-boom' being experienced in Aboriginal communities is significant given the aging of the rest of the population. (See Average of New Apprentices in Figure 3). Here is a source of new skilled workforce that will be required in the coming years.

- The report makes a useful point regarding the similarities between the learning model inherent in the apprenticeship model and the historical/cultural ways of learning among Aboriginal people. The Steering Committee suggested that the two learning systems are compatible and that the apprenticeship model should thus have great appeal to Aboriginal people.

- The Steering Committee recommended a number of partnership efforts that should be undertaken. These include the necessity to get Aboriginal communities to "buy in to" apprenticeship training projects in their home communities. This would, of necessity, be based on a concerted effort to increase the knowledge and understanding about trades and the Apprenticeship system among Aboriginal communities.

- Another recommended partnership initiative is the installation of a Prior Learning Assessment (PLA) capability that recognizes the life and learning experiences of Aboriginal people. The work that has begun by Alberta Apprenticeship and the training institutes have commenced regarding (PLA) could be expanded upon.

While the Committee recognized that successful Apprenticeship delivery is the combined work of many partners, there are some recommendations that have particular interest for training facilities.

- An identified barrier to Aboriginal participation in apprenticeship is the lack of training programs near to home. Several Alberta Colleges and Technical Training facilities have already had successful experiences with programming offered on Reserves and Metis Settlements.

- While Alberta is fortunate to have a system of college delivery in rural areas of the province, there could be opportunities for the expansion of alternative and distance delivery of technical training and academic upgrading.

**The Alberta Project**

The Alberta Apprenticeship and Industry Training Board has examined the recommendations of the CFLDB Report and has commenced planning initiatives that would support these recommendations. In late 1999 the Board formed a committee to focus their efforts on this work. Because the work of the committee is very preliminary, there are no concrete actions that can be reported.

The Alberta Aboriginal Apprenticeship Committee membership is as follows:

| | |
|---|---|
| Bruce Arcand | Alexander First Nations Treaty Six<br>Human Resources Development Board |
| Brian Bickley (Chair) | Syncrude Canada Ltd. |
| Mac Bourassa | PCL Construction Management Inc. |
| Gilman Cardinal | Alberta International and Intergovernmental Relations |
| Wayne Erasmus | ATCO Electric<br>Aboriginal Apprenticeship Steering Committee member<br>Interprovincial Association on Native Employment<br>(IANE) Alberta Board, Chair |
| Tom Ghostkeeper | Metis Settlements Strategic Training Initiatives Society |
| Doug Golosky | Clearwater Welding and Fabricating Ltd. |
| Donna Leask | Edmonton Public Schools<br>IANE Alberta Board, Vice-president<br>National IANE Board, Secretary |
| Roy Moose | Alberta Pacific Forest Industries Inc. |
| Dick Nelson, CPPO | Suncor Energy Inc. |
| Ollie Schell | Alberta Learning, Apprenticeship and Industry Training |
| Brian Soutar | Alberta Infrastructure |
| Loraine Steele | Alberta Learning, Native Education Branch |
| TBA | Metis Nation of Alberta Association |

NOTE: It would be appropriate for a representative of northern Colleges to seek membership on this committee.

Contacts: Brian Bickley, Chair. Telephone: (780) 790 - 8810
Ollie Schell, A& IT. Telephone: (780) 427 - 5770

## 5. Achievement in Business Competencies

### Background

Some years ago, the Apprenticeship and Industry Training Board recognized that many journeymen were engaged in either running their own businesses or were in supervisory/management positions with an employer. The Board discussed the skills and post journeyman learning that these individuals possessed and explored a means of recognizing those skills. The Minister subsequently approved a Board-issued certificate that would be awarded based on a combination of competencies learned on the job and successful completion of 175 hours of formal training.

A Board-sponsored two-day meeting was held at which a number of journeymen in supervisory/ management positions from across all trade clusters identified the skills and knowledge that a certificate holder should possess. A DACUM was produced that

provided the foundation for requirements for certification. Based on the DACUM, an item bank was created to form the challenge examination.

As well, the Board-led Industry Advisory Committee reviewed a number of industry-sponsored programs including the Building Trades Better Supervision, Merit Contractors Supervisor Training course, the Canadian Construction Association Gold Seal program, and the program sponsored by the Electrical Contractors.

Subsequently, representatives from Business and Continuing Education departments in the post-secondary system met to compare their current offerings with the requirements for certification. Very few gaps were identified..

The outcome was the development of a Board-issued certificate of competency based on the completion of a series of formal courses or on the successful completion of a challenge exam. The Board was clear that it was not recommending the creation of a new certificate program in any of the institutions. The existence of part-time Continuing Education programs in the post-secondary system and in industry was viewed as sufficient to provide the formal learning that was required. The Board recommendation was that it would accredit existing programs.

A Prior Learning Assessment process was developed. An information package was created to reach individuals who might have sufficient formal training and work experience to challenge the exam and qualify for the certificate.

**Current Situation**

Ten (10) certificates have been issued to individuals who have successfully completed the challenge exam.

There is general agreement that the exam is very difficult and that the test items need to be reviewed.

The Industry Advisory Committee is undertaking a process that will lead to accreditation of a number of existing programs. For example, both the Alberta/Northwest Territories Building and Construction Trades Council and Merit Contractors have added some management curriculum to their programs in order to gain accreditation. SAIT has added a construction safety module to a Continuing Education program and NAIT is following suit.

### Value of the Certificate

The Apprenticeship and Industry Training Board member who chairs the Industry Advisory Committee reported that, while the certificate is not yet well known, the hope is that an individual holding the certificate will be more positively viewed in an employment situation than would a non-certificate holder.

A promotional campaign is being planned for the 2000/01 fiscal year.

The Committee is anxious to increase the number of accredited programs. This, of course, would broaden the geographical access to formal instruction. Also, if institutions were able to claim "accredited by the Apprenticeship and Industry Training Board for the Achievement in Business Competency Certificate" the result would be an additional form of promotion and recognition.

Contacts for more information:

Brian Bickley, Chair
Labour Relations Manager, Syncrude Canada (780) 790 – 8810

Erik Schmidt, Program Development Officer (780) 427 - 5832
Apprenticeship and Industry Training

## 6. Discussion and Implications of Research Findings

### Skills Shortages

The May 1999, *Riding the Wave to the Next Millennium* report of the COAA's Best Practices initiative identified skill requirements for the major projects that will occur in Alberta to the year 2003. While it should be recognized that there are anomalies in apprenticeship registrations and completions reported above, shortages among the skilled labour force are forecast. The latest unemployment rates for Alberta support this possible shortage and indicate unemployment rates not seen in Alberta since the late 1970's.

Trades ranked as probable Severe Shortage for 1999 are: Millwrights, Electricians, Bricklayers. For the year 2002, moderate shortages were forecast for: Carpenters, Plumbers/Pipefitters, Ironworkers. The year 2003 forecast indicated severe shortages for Millwrights, Electricians and Bricklayers.

A note of caution is necessary here. This forecast was produced close to one year ago. It would be wise to wait for the 2000 forecast that will be available in May, 2000. A member of the Clearinghouse Advisory Committee, (Marylea Jarvis) and Bev MacKeen will be attending the Best Practices Workshop and will have access to the new forecast.

Information from the forecast could provide substantiation for the creation of pre-apprenticeship programs that provide skills leading to success in the trades showing possible shortages.

### Soft Skills

Interviews with Apprenticeship staff yielded some interesting insights into potential apprentices' need for skills that are not included in apprenticeship training. The staff who were interviewed recognized that employers are not consistently able to screen for these soft skills. Yet, the absence of these soft skills is a primary source of dissatisfaction with apprentices.

There was recognition that there are no mechanisms in place to screen for eye-hand co-ordination skills, motor skills, oral communication abilities, reading skills and people skills. The staff also acknowledged that the absence of these skills were a severe detriment to apprentices. Work ethic and attitude and their absence were also mentioned as important factors. The need for cross-cultural training was included in priorities on a number of occasions. The question of motivation and its relationship with the source of financial support was also brought into question, particularly for pre-apprenticeship students.

If the Apprenticeship staff had a wish list, at the top of the list would be that they and the Colleges could jointly design a means of determining local employers' requirements for new employees. The result would be a pre-entrance instrument that the colleges could use to assist local employers for their screening purposes. Those interviewed acknowledged that cost of developing such instruments could be prohibitive.

### Relationship With Apprenticeship Field Staff

Since the Colleges have assumed responsibility for the registration of apprentices, to varying degrees, the level of contact between College personnel and Apprenticeship field staff has diminished. Also, apprentices may now be less aware of the existence and purpose of the Apprenticeship Field offices. Ultimately, the priority concern is that apprentices know who to approach when they have questions concerning their technical training and/or employment. Renewed efforts at establishing and maintaining ongoing communication between Apprenticeship field staff and College personnel is recommended.

### Increasing Information to Apprentices about Technical Training

Apprentices are not responding as well as hoped to the more independent method of registering for technical training. They are not returning their registration cards, they are not applying for Student Finance Board Grants and Loans, rather they are focused on the paycheque in a booming economy.

This situation raises a number of questions about what actions can be taken by College and Apprenticeship field staff to increase interest in technical training. Some questions are:

- Could the Colleges review the information package that is sent to apprentices so that information is clear and that the benefits of continuing onto the next period of apprenticeship are outlined?

- What actions could be taken to raise awareness of the importance of technical training in career advancement?

- What additional strategies can be used to attract in-school and out-of-school youth to the trades and technical training?

### Impact of First Period Training

There is data that indicates once apprentices attend and successfully complete their first period of technical training, the chances of their completing their entire program is much increased. (See Appendix C)

The message here for apprenticeship technical and Apprenticeship field staff is to direct apprentices into first period classes and ensure that their first learning experience is a positive one.

### Age of New Apprentices

Figure 3 provides information on the average age of new apprentices. The average age of new apprentices continues to increase combined with an aging skilled trades labour force. The Clearinghouse Advisory Committee has commissioned a report that will address the relationship between college programs and high school CTS programs. The information about the growing Aboriginal youth population also suggests a potential recruitment market.

### Achievement in Business Competencies Certificate.

At the time of writing, the benefits of Colleges promoting this certificate appear to be premature. However, the recommendation is that the partner Colleges examine their continuing education business programs and contact the recommended individuals if this measure should be pursued. Colleges could explore non-traditional delivery methods to attract participation of new students. The PLA process is another way that the Colleges could be involved. Once again, the partnership with apprenticeship field staff could lead to coordinate and strengthen efforts to market this certificate.

**Appendix A**

## Names and Contact Information for Individuals Interviewed

- John Hartley, Manager, Apprenticeship and Industry Training Division. Telephone: (780) 427 – 0837
- Pete Crawley, Program Development Officer, Apprenticeship and Industry Training Division (contract manager, Entrance Exam Project) Telephone: (780) 427 – 5753
- Ollie Schell, Strategic Field Operations. (Aboriginal project). Telephone: (780) 427 – 5770
- Mal Cook, Director, Program Development and Standards, Apprenticeship and Industry Training Telephone: (780) 427 – 0830
- Reg Richer, Manager, Program Development and Standards, Apprenticeship and Industry Training; Telephone: (780) 27 – 5754
- Erik Schmidt, Program Development Officer, Apprenticeship and Industry Training. (ABC Program). Telephone: (780) 427 – 5832
- Brian Bickley, AIT Board member (Chair of the Aboriginal project committee and Chair, ABC program). Telephone: (780) 790 – 8810
- Bob Keddie, Dean of Trades, Fairview College. Telephone: (780) 835 – 5457
- Darrell Mottershed, Program Development Officer, Apprenticeship and Industry Training. (Designated Occupations). Telephone: (780) 427 – 5768
- Fred Atkins, Dean of Trades, Keyano College. Telephone: (780) 791 – 4882
- Rick Wosnack, Licensing and Certification, AIT. Telephone: (780) 427 – 4603
- Brian Lupul, Dean of Trades, Lakeland College. Telephone: (780) 853 - 8536

## Appendix B

***ABORIGINAL PARTICIPATION IN APPRENTICESHIP: MAKING IT WORK***

**Executive Summary**

Canada's Aboriginal population is growing twice as fast as the non-Aboriginal population. Within the next 20 years, this emerging "baby boom" could become an economic success story or be the source of a problem. Today's Aboriginal youth are tomorrow's workers and consumers. But they will need skills that are demanded in the workplace, opportunities and access to well-paying jobs.

Currently, the average unemployment rate among Aboriginal people is double that among non-Aboriginal people. And their average income level is one-half to two-thirds that of non-Aboriginal people. Without significant job growth for Aboriginal people, the high levels of unemployment and poverty they now experience will remain unchanged and the baby boom will not become a success story.

Apprenticeship is a model of training that Aboriginal communities feel is particularly suited to the way their people learn. Yet most Aboriginal people do not know much about apprenticeship, and their participation in Canada's apprenticeship system is limited. In fact, their completion rates are disproportionately low.

Forecasts indicate that employment in the apprenticeable trades and occupations could constitute up to 5% of all employment for Aboriginal people. Apprenticeship training can help to reduce some of the employment disadvantages experienced by Aboriginal people. It is an area of job growth that cannot be overlooked.

The Aboriginal Apprenticeship Projects Steering Committee was formed in early 1998 to investigate and recommend approaches for increasing Aboriginal participation in the apprenticeable trades and occupations. The committee is a joint effort of the National Apprenticeship Committee of the Canadian Labour Force Development Board (CLFDB), the Canadian Council of Directors of Apprenticeship, Human Resources Development Canada (HRDC) and the Interprovincial Alliance of Apprenticeship Board Chairs.

The committee's first priority was to assemble as much information as possible on apprenticeship and the Aboriginal experience in Canada. We asked Aboriginal and non-Aboriginal groups to tell us their "success stories" and to list the barriers they experienced and suggestions for overcoming them. A draft paper with some initial recommendations was circulated to more than 240 groups in the fall of 1998. This final report is based on feedback from that report and our further deliberations. It connects the best available statistical and descriptive evidence of the Aboriginal experience in apprenticeship training with ideas on how to improve the development of new policy,

programs and projects. It provides a number of case studies and concludes with some effective practices for Aboriginal apprenticeships, described in a series of what works/what does not work statements and 36 recommendations.

### Apprenticeship in a Nutshell

Apprenticeship is a system of training and certification in established trades — a way for people to learn while employed. It includes two parts: a formal technical training portion, normally taken at a college or private trade school, and on-the-job training. Each province/territory administers its own apprenticeship program: it designates which trades are apprenticeable and establishes standards for training and certification in them. Forty-four trades are included in a Canada-wide Interprovincial Standards Program referred to as the Red Seal program.

Apprenticeship is a model for training that is:

- Industry-driven, meaning that training positions are created by industries needing skilled workers;
- employment-based in that the apprentice must find an employer (or group that acts as an employer) to hire him or her;
- guided by industry-developed and validated standards; and
- predominantly work-based, with 80% of total training being given on the job under the supervision of a qualified journeyperson.

Apprenticeship training requires:

- the apprentice, employer and provincial/territorial government to enter into an "apprenticeship agreement";
- apprentices to successfully complete trade examinations with contents developed and validated by industry for certification; and
- apprentices to take part in a technical training component that supports the work-based training, ensuring that apprentices have the theoretical knowledge they need.

Organizations at the community, provincial/territorial and federal levels play a role in apprenticeship. These include:

- Provincial/territorial government apprenticeship branches, which regulate and administer apprenticeship programs;
- Provincial/territorial trade advisory committees, which have legislative authority to develop training standards and provide an industry perspective on training and certification;
- Provincial/territorial apprenticeship boards, which have legislative authority to set standards and provide an industry perspective on apprenticeship programs and policies;
- The Canadian Council of Directors of Apprenticeship, which develops national occupational standards, manages the Red Seal program and collaborates on apprenticeship and trade certification at the national level;

- Aboriginal human resources development agreements (formerly called RBAs)/ Aboriginal flexible funding arrangements, which develop and deliver a range of employment programs including apprenticeship projects and initiatives;
- The CLFDB's National Apprenticeship Committee which provides national labour market partners' perspectives on apprenticeship programs and policies;
- Joint apprenticeship committees, which indenture apprentices, arrange work experience and ensure that apprentices take the technical training portion, take on the responsibility of the "employer" and sign the "apprenticeship agreement" as the employer.

For the most part, people have to follow seven steps to enter apprenticeship and achieve journeyperson status. These include knowing the educational qualifications required to enter apprenticeship training and how to obtain these qualifications, knowing who hires apprentices and in which trades, fulfilling all of the training requirements and passing a certification examination. Aboriginal people encounter specific challenges at each step of the process.

**The Aboriginal Experience in Employment and Apprenticeship**

The most recent statistics show that:
- Unemployment levels are more than twice as high among Aboriginal people (24%) as among all Canadians (10%);
- The percentage of Aboriginal people with annual incomes of less than $10,000 is significantly higher than for Canadians as a whole;
- The Aboriginal labour force is heavily concentrated in the resource sector and in government/public administration;
- Over 40% of Aboriginal people live off a reserve and in an urban area, another 20% live in rural areas off reserve and more than 60% of Aboriginal people live in the south;
- Aboriginal youth, like their non-Aboriginal counterparts, do not participate in large numbers in apprenticeship.

This information leads us to draw some specific conclusions about Aboriginal employment and apprenticeship:
- Creating 300,000 jobs over the next 20 years or so, and having them filled by Aboriginal people (as the Royal Commission on Aboriginal People reported would be required for Aboriginal employment levels to even begin to approach those of non-Aboriginal people) is a significant challenge given the economic growth forecasts for Canada and past employment patterns.
- Job growth needs to be diversified — with declining government resources, job creation in the public sector alone will not address the long-term employment needs of Aboriginal people any more than it will for non-Aboriginal people. New jobs are needed in private industry, particularly in manufacturing, construction and technology, especially to meet the demand for employment by Aboriginal youth.

- The skilled trades are and will be an important source of employment. Thus, increased participation in apprenticeship programs will be essential for Aboriginal people. Targeting reserves for job creation and individual skills development programs will help close the unemployment and income gaps between Aboriginal and non-Aboriginal people given the disproportionately higher levels of unemployment among those on reserves.

- Aboriginal people need access to specifically-targeted resources to make sensible career decisions and undertake successful job searches. Interestingly, the apprenticeship model of learning a trade has many similarities to the traditional means of passing on knowledge within Aboriginal society. Historically, shamans and medicine men or women took on young Aboriginal people to teach them the skills associated with these positions within the community. As with the current trades in today's marketplace, those who were chosen had to have exhibited both an interest and innate ability. In addition, because the training lasted many years, these people had to make a significant commitment to learning.

We found that some of the challenges experienced by Aboriginal people today in entering, participating in or completing apprenticeships include the following, among many others:

- parents of prospective apprentices are unfamiliar with the wage economy and the work skills required to find and keep employment;
- employment counsellors and teachers are not familiar with apprenticeship programs;
- the apprenticeship system is not seen as relevant to people in Aboriginal and northern communities;
- candidates have low levels of education and lack entrance requirements in some subjects;
- the number of apprenticeship positions varies over time making completion risky;
- Aboriginal people find it difficult to approach employers to find apprenticeable positions;
- there are not enough journeypersons in the northern communities to provide positions for apprentices;
- the apprenticeship system is culturally insensitive;
- taking technical training outside a community is a problem, especially for women;
- employers find on-the-job training hours required for apprentices to be excessive;
- examinations are culturally biased.

Our research also demonstrated that there are several ways of resolving each of these challenges, and these are illustrated in the case studies that form part of the report. For example, the Northwest Territories Apprenticeship Projects use Aboriginal role models as counsellors, employers, mentors and trainers and raise awareness about apprenticeship in this way. The Aboriginal Apprenticeship Training Institute has developed and delivered training and promotional materials targeted at specific communities and developed by Aboriginal people in an effort to demonstrate the opportunities offered through apprenticeship. The Eel River Crossing Apprenticeship Project has adjusted the

ratio of journeypersons to apprentices, allowing journeypersons to take on more apprentices. And the Blood Indian First Nation Construction Ironworkers have tutored Aboriginal candidates to prepare them for written examinations in their trades.

It is important to remember that Aboriginal people are not a homogenous group. The barriers they experience in participating in and completing apprenticeship training are as diverse as their nations and circumstances. We found that, despite the best intentions, the following strategies *do not work:*

- a "one-size-fits-all" approach;
- centralized decision-making about program design, priorities and delivery mechanisms;
- developing projects or initiatives that focus only on the supply of skilled tradespeople rather than on the demand for people in skilled trades;
- designing and implementing projects without the participation of all the key players;
- implementing programs without also providing counselling and other supports;
- allowing only one means of assessing apprentice competency; and
- developing and implementing a program in the absence of complete information on the economic development and economic situation in community or a region.

How then can Aboriginal people be encouraged to enter apprenticeships? First of all, the strategies must be designed and developed by Aboriginal people. Strategies aimed at youth must involve an alliance of caregivers, family, elders, community and peers. But the development of tools alone and the simplification of the road to and through apprenticeship will not suffice — although these should be major components of any strategy. Support in the form of culturally relevant counselling, child care and transportation expenses for Aboriginal people to find their way into and through apprenticeships is essential. Our recommendations are based on "what works" according to the contributors to this report and the historical evidence.

### Our Recommendations

We believe that the challenge is one of connecting Aboriginal people with the jobs that exist now and will exist in the future in the apprenticeable trades and occupations. Aboriginal students and workers need to know more about apprenticeship training. Aboriginal organizations need to understand how to work with employers and unions to create opportunities for Aboriginal people to enter apprenticeship training. Employers and unions need to be aware of the barriers and challenges that often prevent Aboriginal people from entering or completing apprenticeships.

In our view, the apprenticeship system does *not* need to be revamped or changed in terms of legislation or regulations. New organizational structures are *not* required.

Although there are innovative partnerships, other *new Aboriginal apprenticeship partnerships* among employers, unions, government and Aboriginal groups at the community level must be formed. Aboriginal organizations formed or being formed to sign Aboriginal human resources development agreements are best situated to be

instruments of change — to encourage the establishment of more apprenticeship partnerships.

### Roles and Responsibilities

We recommend an apprenticeship planning and funding approach for Aboriginal people that:

1. is integrated with the planning and funding of economic development, infrastructure development, employment development and training projects;

2. uses funding from a variety of sources including Indian and Northern Development (IAND) core funding, IAND social services funding for employable clients, provincial/territorial employment and training programs, individual companies for private sector projects, HRDC funds provided through Aboriginal human resources development agreements;

3. where appropriate, involves a partnership arrangement among a regional Aboriginal organization; local community organizations; the provincial/territorial apprenticeship branch; provincial/territorial ministries of education, training and labour; a training provider (e.g., community college); employers and their organizations; and labour unions;

4. pools the resources of a number of communities to support apprenticeships;

5. is managed and led by Aboriginal organizations constituted under Aboriginal human resources development agreements (formerly RBAs) and given authority by band chiefs, even though the terms of agreement may be different for the different organizations (if possible, these organizations should be constituted from existing Aboriginal groups);

6. involves firm multiyear funding commitments for apprenticeship training and its administration;

7. contains a clear commitment by senior employer and union officials (accompanied by an action plan) to increasing the number of Aboriginal people successfully completing apprenticeships.

### Criteria for Success in Program or Project Delivery

We recommend a program or project delivery approach where:

8. the development of apprenticeship training opportunities for Aboriginal people is focused on trades in demand in the community, including the Aboriginal community, and reflects the economic and business reality of the community;

9. mentors, coaches and trainers are identified at the outset of program delivery and, where possible, they are drawn from Aboriginal employers and journeypersons;

10. funding is provided to permit the hiring of an Aboriginal liaison officer who serves as the bridge between the apprentice, the community and the provincial and federal government departments, including the apprenticeship branches;

11. employment counselling programs are available to Aboriginal apprentices (these should be designed and delivered by Aboriginal people and should respect the way Aboriginal people seek and accept assistance with employment and other issues);

12. child care and transportation expenses are covered;

13. the formats for technical and on-the-job training are structured by Aboriginal people around the way they work and learn in a particular region;

14. adequate and sufficient work is provided to ensure that apprentices can complete all of the technical and on-the-job training within the usual 3-5 year period;

15. the technical training is provided in or near an apprentice's home community by establishing aboriginal apprenticeship training institutes that serve a number of communities or by accrediting community groups to deliver the training;

16. apprentices can be indentured to an Aboriginal group (that serves as the employer), which in turn contracts the apprentice out to various public- or private-sector employers;

17. a process is put in place to follow-up on and evaluate the outcomes of various apprenticeship training initiatives (at a minimum, all Aboriginal organizations involved in apprenticeship should maintain baseline information, such as number registered in each trade, where and when technical training is taken, name(s) of employer, etc.);

18. decisions on program/project design and delivery are made at the community level through a partnership of the Aboriginal organizations in the community and region, employers, unions, government departments and education and training organizations;

19. incentives and/or awards are offered to employers, unions or community groups for increasing the number of Aboriginal people who successfully complete apprenticeships;

20. a system exists for identifying and sharing information on effective Aboriginal apprenticeship practices;

21. cultural sensitivity is shown in the apprentice selection process, particularly in the selection interview.

### Alternative or Additional Approaches in Apprenticeship Delivery to Meet Aboriginal Needs

Finding alternative ways of doing things does not mean disregarding standards. It does mean that individual or community differences are taken into account in reaching the same end result in apprenticeship -journeyperson status for people who meet all of the necessary job performance requirements of their trade.

We recommend the implementation, where needed and appropriate, of at least the following alternative approaches that help Aboriginal people reach journeyperson status:

22. promoting the awareness that people who have worked for the required hours in a trade, but have not formally registered as apprentices, can take the certification examination and be given journeyperson status if they succeed on the examination (this alternative would be used if candidates can be tutored in applying their trade knowledge on an examination);

23. using prior learning assessment to determine whether candidates have specific learning experiences that are equivalent to the prescribed educational requirements for entry into a trade;

24. providing potential apprentices with access to pre-apprenticeship or pre-trades qualifier training that may include upgrading in core academic areas;

25. providing Aboriginal secondary school students with the option of undertaking work experiences that are credited toward apprenticeships and secondary school completion;

26. expanding distance learning programs aimed at upgrading Aboriginal people in mathematics, sciences and language;

27. adjusting the standard journeyperson to apprentice ratio used for the on-the-job training to allow employers to take on more apprentices, where the training can be effectively given under the higher ratios;

28. developing alternative methods for giving examinations that retain the same standards for technical competency as the existing written examinations (e.g., giving examinations orally rather than requiring written ones, when requested).

### Promoting Apprenticeship

We recognize that careers in the trades are often undervalued. Many Aboriginal and non-Aboriginal people alike place a higher value on the professions. In addition, a large proportion of our youth, their parents, employers and even school counsellors do not know that entry and progression in some key trades is through apprenticeship. Information about apprenticeships and the trades has to be communicated. But attitudes also need to change.

We recommend a systematic and sustained approach to bridging this information gap that:

29. targets groups such as workers (particularly youth), families, school counsellors and teachers, employers, unions and Aboriginal organizations;
30 involves the development and provision across the country of high-quality career materials focused on apprenticeship for youth and their families (e.g., materials such as videos, posters, games, pamphlets, TV specials, CD-ROM and various Internet products);

31. involves the preparation of career materials for use by school teachers, counsellors, Aboriginal workplace coordinators and Aboriginal mentors and coaches (these should attempt to overcome existing negative stereo-types and teach youth about the trades and apprenticeship, and what is needed to succeed in them);

32. contains materials designed by and specifically for Aboriginal people that can be used in local community information sessions, community newspapers and public information bulletins and job fairs to advertise apprenticeship opportunities;

33. supports the development of materials for Aboriginal elementary students, such as group activities and games that explain the value of apprenticeship and the trades;

34. involves the preparation of apprenticeship "marketing materials" for use by Aboriginal employment counsellors or liaison officers with employers (for example, pamphlets showing the "return on investment" when an employer hires and trains apprentices);

35. directly involves national and provincial organizations whose mandate includes the preparation and distribution of career materials, organizations such as the Canada Career Consortium, the Canada Career Information Partnerships and the Canada Career Information Association;

36. includes the introduction of an Aboriginal scholarships and bursaries program aimed at assisting Aboriginal youth to pay for the apprenticeship technical training and to provide financial support for travel and child care.

**Next Steps**

As the authors of this report, we do not intend that it sit on a shelf gathering dust. We will take action in three areas: advocacy, increasing awareness among Aboriginal people of apprenticeship training and promoting Aboriginal apprenticeship initiatives.

We will become advocates for increasing the number of Aboriginal people in apprenticeships — by seeking out opportunities to address diverse constituencies and government departments, presenting the key findings of this report to national Aboriginal organizations and identifying additional "champions" to assist us.

We will ask the Canada Career Consortium to produce more materials focusing on Aboriginal people in apprenticeship, and we will ask the Aboriginal Human Resources Development Sector Council to develop a plan for promoting Aboriginal apprenticeship training. We challenge Aboriginal and non-Aboriginal groups to undertake initiatives aimed at increasing the number of new Aboriginal apprentices

We will ask the Canadian Council of Directors of Apprenticeship and the Interprovincial Alliance of Apprenticeship Board Chairs to establish a working group to publicize these initiatives, develop an incentive pro-gram and administer four pilot projects including two that will help identify role models, mentors and potential trainers and design an Aboriginal apprenticeship scholarship program.

**Appendix C**

## Analysis of First Period Attenders and Non-Completers (Compulsory and Non-Compulsory Trades, 1994 data)

### Selected Construction Trades Cancellation Rates in Percentage

| **Compulsory Trades** | **Pre-training (%)** | **After First Period (%)** |
|---|---|---|
| Electrician | 9.4 | 4.8 |
| Plumber | 10.4 | 5.7 |
| Steamfitter/Pipefitter | 10.8 | 4.7 |
| Sheetmetal worker | 14.0 | 7.6 |
| Boilermaker | 7.1 | 2.6 |
| Ironworker | 13.3 | 8.4 |
| **Voluntary Trades** | | |
| Bricklayer | 13.6 | 8.3 |
| Carpenter | 15.1 | 7.6 |
| Painter/decorator | 19.2 | 9.3 |
| Lather/ISM | 21.3 | 9.7 |
| Tilesetter | 25.8 | 8.9 |
| Glassworker | 23.9 | 9.0 |
| Roofer | 21.3 | 5.8 |
| Floor Covering | 26.0 | 7.3 |
| Inst. Insulator | 17.0 | 7.3 |
| Sprinkler Syst. Inst. | 15.5 | 7.2 |
| Concrete Finisher | 37.2 | 9.8 |
| | | |