

OVERVIEW OF THE ALBERTA APPRENTICESHIP SYSTEM



**BC CONSTRUCTION ASSOCIATION
BC & YUKON TERRITORY
BUILDING & CONSTRUCTION TRADES COUNCIL
HUMAN RESOURCES DEVELOPMENT COMMITTEE**

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BEST PRACTICES FOR BRITISH COLUMBIA

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FORWARD

This report on the Alberta apprenticeship system was commissioned by the Vancouver Regional Construction Association for review by the Human Resources Development Committee of the BC Construction Association and the BC & Yukon Territory Building and Construction Trades Council, and was developed by Michael Izen of **Izen Consulting** (www.izen.ca).

The BC Construction Association and BC & Yukon Territory Building & Construction Trades Human Resource Development Committee and this report receive funding from Service Canada.

This report was built upon an earlier outline and draft completed by the Vancouver Regional Construction Association. For the most part, this report takes a different direction from that earlier version.

Please note that this report is a brief overview of the Alberta apprenticeship system, and that all the conclusions and recommendations require detailed research and analysis before implementation or adoption. Where possible best practices are identified, but in no case has a cause-effect relationship been researched or isolated. Any errors in the report are the responsibility of the author.

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OVERVIEW OF THE ALBERTA APPRENTICESHIP SYSTEM

BEST PRACTICES FOR BRITISH COLUMBIA

EXECUTIVE SUMMARY

This report commissioned by the Human Resources Development Committee (the Committee) of the BC Construction Association and the BC & Yukon Territory Building and Construction Trades Council investigates best practices of the Alberta apprenticeship and industry training system, for consideration of adapting these practices for the apprenticeship system in British Columbia (BC). The Alberta apprenticeship system has long been considered a leader among Canadian jurisdictions, as it produces certified trades people at double the proportion of its general population, compared to the other provinces.

The research for this report includes a review of related documents and websites, and interviews with key industry-related users of the Alberta system including government, industry and trade associations, unions, and trainers, referred to as “stakeholders” in this report. The research examined the foundation of the Alberta and BC apprenticeship systems, and the economic foundation of Alberta to understand the context of the investigation.

The Alberta apprenticeship system is characterized as effective in terms of meeting most stakeholder needs. It has higher graduation rates for certified trades’ people than all other provinces in Canada. The system is industry-driven and government-implemented, and appears able to support and fund technical training for all apprentices in a timely manner.

Alberta industry provides input and direction through the Alberta Apprenticeship and Industry Training Board, and through an extensive network of committees. The Alberta Government acts upon direction from industry through the Board and Committees, and is able to fund the required activities. The public training institutes and colleges have responsibility for the delivery of training.

In order to identify best practices of the Alberta apprenticeship system for consideration of transfer to BC, the context of the system must be understood. First, the economy and the labour force, dominated by a strong oil and gas sector, provide a long-term stable platform for apprentices to train, certify, and enjoy well-paid careers. This is the key to attracting large numbers of people to the trades, and completing large numbers of certifications.

Secondly, the system is managed and funded to the extent that the demand for training is met. Thirdly, the system has been in operation long enough for most of the key stakeholders to understand their roles, and to participate in directing the system.

The nine best practices identified in this report stem from these three factors. Should the Committee wish to adopt a best practice for BC, further investigation of that practice is recommended.

SUMMARY OF BEST PRACTICES**1. INDUSTRY DRIVEN / GOVERNMENT IMPLEMENTED SYSTEM**

The system provides a role for industry to direct, and for government to implement the direction.

2. ROLE FOR INDUSTRY

The industry-driven system has allowed most stakeholders to develop, learn and work through their roles in the system, both formally and informally.

3. STABILITY AND PREDICTABILITY

An evolving industry-driven system has allowed a working balance of stakeholders to be developed over time.

4. REGULAR REVIEW

The system requires regular review of the governing legislation and regulations.

5. CLIENT SERVICE THROUGH THE NETWORK OF FIELD OFFICERS

Approximately 190 staff of Alberta Advanced Education and Technology provides the base support of the administration and implementation of the system.

6. INDIVIDUAL LEARNING MODULES

Individual learning modules are acknowledged industry leaders in trades training curriculum.

7. RECOGNITION OF CROSS-CANADA TRAINING

The recognition of prior learning and the ability to assess prior learning is a key part of attracting apprentices from across Canada.

8. RECOGNITION OF EXCELLENCE

The recognition of the trades through awards and scholarships is part of the overall communications and promotional activities.

9. OUTREACH TO ABORIGINAL PEOPLES

Targeted activities attempt to reach out to an under-represented population in the workforce and the trades.

OVERVIEW OF THE ALBERTA APPRENTICESHIP SYSTEM

1.0 INTRODUCTION

1.1 BACKGROUND

As British Columbia is transforming its industry training system towards an industry-driven system through the implementation of industry training organizations, and as BC and Alberta are moving towards an integration of regulations, the Human Resources Development Committee (the Committee) of the BC Construction Association and the BC & Yukon Territory Building and Construction Trades Council, requires factual information on Alberta's apprenticeship system and best practices.

It is a widely held belief among many apprenticeship practitioners, that Alberta has one of the best functioning apprenticeship systems in Canada. Compared to other provinces the number of trained apprentices and certifications in Alberta is disproportionately high. The Committee wants information on best practices of the Alberta model for potential adaptation into the BC system.

This report will first attempt to examine what aspects of the Alberta system are actually successful, and what best practices can be readily isolated and identified. A system that is functioning well generally does so on a variety of levels, and has been in practice for some time. Isolating specific aspects for transferability may not always be possible without the encompassing support structure and complementary actions.

Nonetheless, through a review of relevant documents and interviews with key industry stakeholders, certain practices are identified that produce or encourage success in Alberta, and could be adopted in BC, even if it is only the principles of those practices.

It should be understood that other parts of the BC industry training system have also looked at Alberta and other jurisdictions for best practices, and that some of the ideas discussed in this report are already being implemented or considered for BC.

Should the Committee wish to emulate or transfer certain best practices for BC, further research is recommended to isolate cause and effect relationships, budget implications, and supporting practices, as that level of detail is beyond the scope of this report.

1.2 PROJECT OBJECTIVES

The purpose of this project is to develop an understanding of the Alberta apprenticeship system, examine how well it is functioning, and identify best practices for possible adaptation in BC.

This report has two main objectives:

1. Compare Alberta's approach with BC's industry training system
2. Pinpoint key areas for potential implementation in BC

1.3 RESEARCH METHODOLOGY

Research for this project began with a review of the structure of the Alberta and BC apprenticeship systems through an analysis of websites and related documents. Interviews with key people within Alberta Advanced Education and Technology set the framework for understanding the system.

The research included interviews with key industry-related associations and organizations of the apprenticeship system, termed stakeholders for this report, including:

- Construction Industry Associations
- Construction Trade Associations
- Construction Unions
- Training Institutes

Twelve stakeholders were interviewed in the summer of 2006, and a Draft Report was represented to the Committee. In the fall of 2006, the Committee provided comments and requested further information, and input from several key Alberta industry stakeholders that had not yet been interviewed. As a result, a further five stakeholders were interviewed, and key facts and figures were updated with more recent data.

The analysis compares the structure and the practices of the BC and Alberta systems, and the identification of key areas of success or best practices, which could be adapted to the BC system. The information presented in this report is not necessarily agreed upon by all of the stakeholders interviewed, rather it is a compilation and best interpretation by the author of both complementary and competing points of view.

1.4 IDENTIFYING BEST PRACTICES

While identifying the inputs and outputs of an apprenticeship system can be a relatively straightforward task, clearly describing the dynamics of the relationships of the industry stakeholders and how they interact with government agencies is more problematic. As well, identifying successful or desirable outcomes can be done, but clearly isolating the key factors is rarely straightforward, as the dynamics of the local, regional, and global economies combined with the attitudes and aspirations of thousands of workers can never be examined in a laboratory setting.

For this project, the definition of successful practices was not clearly defined. Is it the sheer number of workers in an industry, is it the quality of the workforce, or is it the satisfaction of one group over another? Is a best practice the least expensive system, or as with so many government-related initiatives, is more money a measure of success?

For the purposes of this report, best practices are defined as actions or outcomes that are identified by stakeholders as desirable and meeting their needs. The best practices identified in the conclusion of this report are generally practices that are seen as desirable from a variety of stakeholders, and where the cause and effect relationship is identifiable.

2.0 WHY THE ALBERTA APPRENTICESHIP SYSTEM?

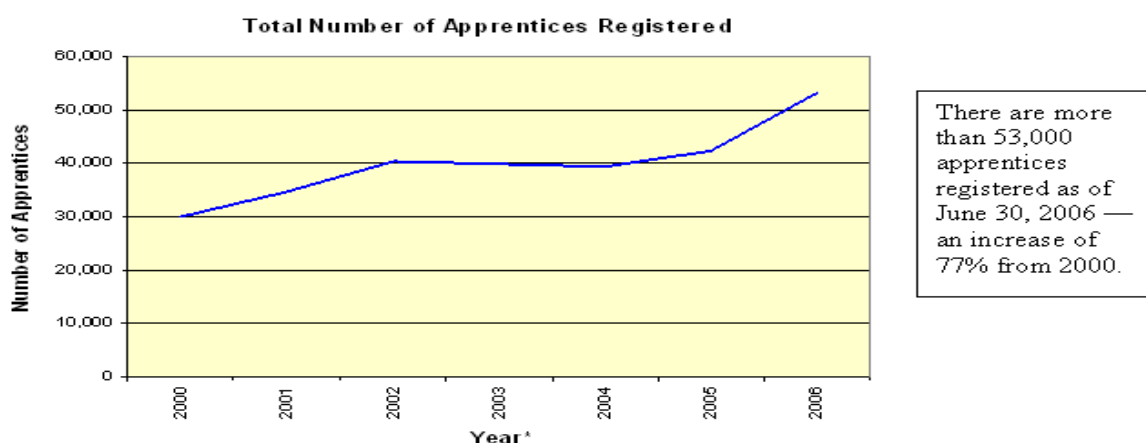
The Committee initiated a review of the Alberta apprenticeship system to seek facts and best practices of the Alberta apprenticeship system, as it is widely regarded as a well functioning system, resulting in high apprenticeship registration and completion rates. As well, anecdotal evidence and personal contacts indicate that many industry stakeholders, employers, labour, and trainers are generally satisfied with the system. The biannual stakeholder satisfaction surveys conducted by Alberta Advanced Education and Technology consistently confirm general satisfaction with the Alberta apprenticeship system by Alberta industry stakeholders and apprentices.

The Alberta apprenticeship system is an acknowledged leader in terms of high numbers of apprenticeship registrants, completions, and *Red Seal* certifications. Alberta’s economy, particularly the emphasis on natural resources, results in a high and sustained demand for skilled trades’ people. This high demand also results in high wages which attracts workers from across Canada.

Part of the strong reputation enjoyed by the Alberta apprenticeship system stems from the high completion rates relative to the population size, as demonstrated in the Andrew Sharpe report of 1999. At the time, BC had the highest apprenticeship completion rates at 14.93%, well above the national average of 9.51%, Alberta ranked second at 12.54%. However, what really stood out about the Alberta system was that it was registering apprentices at more than twice the proportion of its population. Figure 1 below shows the number of apprentices registering in Alberta increasing dramatically, and Figure 2 shows the 1997 figures of high completion rates for Alberta from the Sharpe Report.

This leads to the general belief that the Alberta apprenticeship system is functioning well and meeting the demand for skilled labour better than the other provincial systems.

FIGURE 1: TOTAL NUMBER OF APPRENTICES REGISTERED



Source: Alberta Advanced Education

*The data reflects the total number of apprentices registered in Alberta on June 30 each year

FIGURE 2: 1997 APPRENTICESHIP FIGURES

PROVINCE	NUMBER OF REGISTRANTS	PERCENTAGE OF TOTAL REGISTRANTS	PERCENTAGE OF POPULATION*	DIFFERENCE: REGISTRANTS AND POPULATION
Ontario	63,987	37.13%	37.91%	-0.78%
Alberta	34,214	19.86%	9.11%	10.75%
Quebec	31,640	18.36%	25.02%	-6.66%
British Columbia	20,243	11.75%	13.09%	-1.34%
Saskatchewan	5,636	3.27%	3.21%	0.06%
Nova Scotia	4,259	2.47%	3.13%	-0.66%
New Brunswick	3,939	2.29%	2.55%	-0.26%
Manitoba	3,628	2.11%	3.63%	-1.52%
Newfoundland	3,532	2.05%	1.90%	0.15%
PEI	409	0.24%	0.45%	-0.21%

* Working age population, 15+ years

Source: *Apprenticeship in Canada: A System Under Siege*, Andrew Sharpe, 1999

3.0 BRITISH COLUMBIA'S & ALBERTA'S APPRENTICESHIP SYSTEMS

3.1 BRITISH COLUMBIA

Industry training in BC system has been undergoing dramatic change over the past several years towards an industry-driven system, to be guided by a series of industry training organizations. In the mean time, the system is struggling through change, and industry is learning where and how to participate.

The BC system is governed by the Industry Training Authority (ITA) which reports to the Minister of Economic Development, and ITA Board members are appointed by the BC Government. However, the ITA is responsible for directing the industry training system, the implementation, and the distribution of funding.

During this time of transition, the BC economy has been growing steadily, and the demand for skilled labour is high. BC faces the additional pressure of being next door to the strong Alberta economy, and its pull of skilled labour, journey people, and apprentices.

Both BC and Alberta are currently facing low unemployment rates, with Alberta's even lower than BC's. With strong diversified economies, and stable and growing construction sectors, both Alberta and BC offer apprentices a stable economic platform in which to complete their apprenticeship.

3.2 ALBERTA

The Alberta apprenticeship system defines itself as an industry-driven system, with industry, both employers and employees, providing input and direction through the Alberta Apprenticeship and Industry Training Board (AIT Board) and the committees: Provincial Apprenticeship Committees (PACs), Local Apprenticeship Committees (LACs), and Occupational Committees.

The Alberta apprenticeship system is based upon the idea that industry drives the system, and government supports the system. The AIT Board, with the approval by the Minister of Advanced Education and Technology can establish training standards and certification. However, the AIT Board and the committees are mostly advisory only, with the government having ultimate responsibility for the funding and policy of the apprenticeship system.

Like most jurisdictions, Alberta is facing a shortage of skilled labour. Unlike most jurisdictions, it has been feeling the effects of a tight labour market for several years. In order to attract and retain workers not only from within the province but from across the country, Alberta offers high rates of pay for most trades. The table below in Figure 3 compares the most recent employment figures for Alberta, BC, and Canada. Alberta has the lowest unemployment rate, and not surprisingly the highest average weekly wages, and the highest interprovincial net migration rates. People from across Canada are moving to Alberta for steady work and high wages.

FIGURE 3: COMPARISON OF THE LABOUR MARKETS

CATEGORY	ALBERTA		BRITISH COLUMBIA		CANADA	
	NUMBER	%	NUMBER	%	NUMBER	%
Population Oct.'06	3,413,464	10.43%	4,327,431	13.22%	32,730,213	100%
Labour Force Jan.'07	1,997,700	73.9%	2,352,000	66.4%	17,825,800	67.5%
Employment Jan '07	1,932,500	71.5%	2,250,200	63.5%	16,729,300	63.4%
Unemployment Rate	65,200	3.3%	101,800	4.3%	1,096,500	6.2%
Average Weekly Wages July '06	\$816.99	-	\$721.25	-	\$729.45	-
Net Migration (January to July '06)	+ 15, 573	-	+ 654	-	-	-

Sources: *Labour Force Survey, January 2007, Statistics Canada, and Provincial Comparisons, July 2006, BC Statistics*

While the Alberta economy is multifaceted, it is dominated by the oil and gas industry: exploration, production, and refining. In particular, the recent oil sands projects have thrust the economy and the need for skilled labour even higher.

The two tables below in Figures 4 and 5 show how the oil and gas sector in Alberta is dominant in terms of employment and GDP, especially compared to BC. This affects construction, as there are many cross-over trades, and many cross-over projects.

FIGURE 4: COMPARISON OF INDUSTRY FACTORS

CATEGORY	ALBERTA	BRITISH COLUMBIA	CANADA
GDP Construction *	\$12,652	\$7,848	\$63,565
Employment in Construction	181,700	168,000	-
Employment in Primary Industries	140,800	37,500	-
Value of Bldg Permits '05 *	\$10,187	\$10,191	\$60,756

* Millions of dollars. Sources: *BC Employment by Industry, BC Statistics, 2006, and Statistics Canada*

The industrial activity in Alberta's oil sands is having an effect on all employers who employ trades people. The shortage of skilled trades people experienced by large companies is having a 'domino effect' on medium and small employers including those in the non-construction trades. Many skilled people are moving to the higher paying jobs in the industrial construction industry leaving medium and small employers struggling to find skilled trades people to fill their place.

(Changes to Ratio Calculations, May 2006, Alberta Apprenticeship and Industry Training Board)

FIGURE 5: ALBERTA GDP (2004) BY SECTOR

SECTOR	PERCENTAGE OF GDP (2004)	
	ALBERTA	BRITISH COLUMBIA
*FIRE	17.3%	22.3%
Manufacturing	9.9%	11.9%
Construction	8.3%	5.9%
Professional & Scientific	5.0%	4.0%
Mining, Oil & Gas	16.4%	2.9%

* Finance, Insurance, Real Estate Renting & Leasing

Sources: *Alberta Economic Performance 1994–2004*, and *Office of Budget Management, 2006*

For industry training and apprenticeship, this means that there are current and long-term opportunities to start and complete an apprenticeship. The advantage for Alberta is that this leads to high numbers of apprentices registering, and high completion rates. The disadvantage is that some employers are hesitant to train because young workers are so mobile; for many employers, poaching skilled labour is an issue.

3.3 STATISTICAL COMPARISONS OF APPRENTICESHIP SYSTEM OUTCOMES

Figure 6 presents the apprenticeship completion rates by province and shows that Alberta's rates are in line with other similar provinces. However, Figure 7 shows eight years after the 1997 study, Alberta is still producing *Red Seal* journeypeople at twice the rate of its working population.

Alberta is producing large numbers of journeypeople due to a booming economy that provides sustained trades related employment, combined with a training and apprenticeship system that can meet the capacity and produce the desired results.

The ability to meet the capacity for training with the demand for training is perhaps the single greatest success factor of the Alberta system. This is generally achieved through the coordination of demand and capacity with the trainers, and the ability to fund the system accordingly.

FIGURE 6: COMPARISON COMPLETED APPRENTICESHIPS 2005

JURISDICTION	COMPLETED APPRENTICES		
	CANDIDATES	PASSED	PERCENT
Canada (includes Territories)	31,886	19,806	62%
British Columbia	3,769	2,576	68%
Alberta	8,206	5,314	65%
Saskatchewan	1,380	1,007	73%
Manitoba	1,247	822	66%
Ontario	13,867	8,168	59%
Quebec	318	66	21%
New Brunswick	1,070	671	63%
PEI	186	123	66%
Nova Scotia	914	584	64%
Newfoundland	807	390	48%

Source: *Annual Interprovincial Red Seal Statistics, 2006*

FIGURE 7: COMPARISON RED SEALS ISSUED 2005

JURISDICTION	POPULATION *	PERCENT	RED SEALS ISSUED	PERCENT	DIFFERENCE: RED SEALS & POPULATION
Canada**	15,872,070	100%	17,694	100%	-
British Columbia	2,059,945	12.98%	2,174	12.29%	-0.69%
Alberta	1,696,760	10.69%	5,419	30.63%	19.94%
Saskatchewan	512,240	3.23%	1,011	5.71%	2.49%
Manitoba	585,425	3.69%	831	4.70%	1.01%
Ontario	6,086,815	38.35%	6,367	35.98%	-2.37%
Quebec	3,742,485	23.58%	66	0.37%	-23.21%
New Brunswick	371,805	2.34%	649	3.67%	1.33%
PEI	73,630	0.46%	124	0.70%	0.24%
Nova Scotia	451,380	2.84%	585	3.31%	0.46%
Newfoundland	241,500	1.52%	374	2.11%	0.59%

* Working age population 15+ years

** Includes figures from the Territories

Sources: *Annual Interprovincial Red Seal Statistics, 2006*, and *2001 Census, Statistics Canada*

4.0 ALBERTA APPRENTICESHIP AND INDUSTRY TRAINING SYSTEM OVERVIEW

4.1 GENERAL DESCRIPTION

The Alberta apprenticeship and industry training system is seen as an industry-driven system. The system is in fact administered by Alberta Advanced Education and Technology which conducts the bulk of the research and analysis, interacts with apprentices and employers, registers and certifies apprentices, approves and monitors regulations, and provides provincial government funds to the training institutes for technical training.

Industry provides direction to the system through the AIT Board and the extensive network of committees. In practice, industry direction through these committees sets the focus of the training system to be implemented by Alberta Advanced Education and Technology.

The AIT Board has a clear set of vision, mandate and principles as presented below.

ALBERTA APPRENTICESHIP AND INDUSTRY TRAINING SYSTEM
VISION
Highly skilled and trained people in designated trades and occupations meeting the needs of industry.
MISSION
To establish and maintain high quality training and certification standards in the apprenticeship and industry training system.
PRINCIPLES
<p><i>Accessible</i> – Individuals wishing to pursue a career in the designated trades or occupations have access to apprenticeship and industry training.</p> <p><i>Funded by all</i> – Apprentices, trainers, employers, and government contribute to the financial cost of training.</p> <p><i>Industry-driven</i> – Industry is responsible for setting training and certification criteria and standards, and for providing on-the-job training and work experience.</p> <p><i>Supported by government</i> – Government, with advice from industry, has a role in regulating apprenticeship training and helping individuals acquire the skills needed to work in designated trades and occupations.</p> <p><i>Collaborative</i> – Apprenticeship and industry training is based on effective partnerships among stakeholders.</p>

Source: *Annual Report 2004–2005, Alberta Apprenticeship and Industry Training Board*

Industry has had an evolving role in the direction of the Alberta apprenticeship system. The current system is built on the Apprenticeship and Industry Training Act (1992) with amendments (2001). In 1996, the AIT Board and government undertook an extensive consultation and review process on the apprenticeship and industry training system.

Industry participants are called upon to review discussion papers, participate in surveys and focus groups, and to participate through the PACs and LACs to review and update training standards. Industry representatives put in numerous hours on roundtables and stakeholder consultations, in addition to its committees and Boards. The various points of contact and the understanding of responsibility, requires industry to pay close attention to the issues surrounding apprenticeship and industry training.

The AIT Board has identified six areas for future improvement:

1. More options for training
2. Improved financial support for apprentices
3. Increased promotion of ways to start an apprenticeship and have prior learning recognized
4. More training opportunities for youth
5. Increased options for certified workers
6. A stronger industry committee network

4.2 FUNDING

Funding for Alberta's apprenticeship and industry training system stems from government general revenue funds, although there are separate sources from within government beyond general revenue such as the Alberta Heritage Scholarship Fund and the Lottery Fund which provide dollars towards the public education system. The funding is distributed to Alberta Advanced Education and Technology for administration, and then through to the training institutes and colleges as part of their base conditional grants.

Part of the condition of the grants is to provide a specified number of seats for the various trades for apprenticeship technical training. None of the Alberta industry stakeholders interviewed for this project cited lack of funding apprenticeship training as an issue.

If the trainers are not sent enough people, they can spend the money elsewhere. While this was an issue in the 1990's the demand for technical training is much higher now. Almost every year additional government funds are provided to the trainers for periodic equipment and facility upgrading, and designated for additional training spaces as demand requires. Specific funding for more technical training is negotiated with each institute and college to provide extra seats on a temporary basis as needed.

The table below in Figure 8 presents the budget expenditures by general area for 2005/06, not including dollars for scholarships or student financial assistance. The accessible records of apprenticeship funding between Alberta and BC are not readily comparable, as so much of the funds are tied to the public post-secondary education grant system and government operations.

While in BC, the ITA must present detailed accounts, the Alberta funding system is part of regular government departmental operations, and many of the figures are rolled together.

FIGURE 8: ALBERTA APPRENTICESHIP FUNDING (2005/06)

TOPIC	AMOUNT
Grants to Technical Institutes	\$190 million
Grants to Public Colleges	\$332 million
AIT Division Operations	\$18.8 million
AIT Division Expenditures	\$1.6 million
AIT Division Marketing	\$4.4 million

Source: *Annual Report 2005 – 2006, Alberta Advanced Education*

5.0 GOVERNANCE OF THE ALBERTA APPRENTICESHIP SYSTEM

5.1 APPRENTICESHIP AND INDUSTRY TRAINING ACT

Apprenticeship and industry training in Alberta is governed by the *Apprenticeship and Industry Training Act* (the *AIT Act*), first enacted in 1992, and revised on a regular basis since. The *AIT Act* establishes authority through the Minister responsible for the administration of the *AIT Act* who receives industry advice through the Alberta Apprenticeship and Industry Training Board (AIT Board), and administers the system through Alberta Advanced Education and Technology. The technical training is provided through the public training system, which is also directed and funded by Alberta Advanced Education and Technology.


The *AIT Act* allows for regulations governing the operations of the apprenticeship system, the designation of trades and occupations, and the operations of the various committees. The regulations are the operating mechanics of the *AIT Act*.

One of the principles of the Alberta trades governance system is regular review. The AIT Board regularly reviews the *AIT Act*, and major decisions and recommendations. As well, all regulations made under the authority of the *AIT Act* have built in sunset clauses, thereby requiring regular and systematic review.

5.2 ALBERTA ADVANCED EDUCATION AND TECHNOLOGY

Alberta Advanced Education and Technology is the Alberta Government department with responsibility for the *AIT Act* and apprenticeship system.

**ALBERTA ADVANCED EDUCATION
APPRENTICESHIP AND INDUSTRY TRAINING DIVISION**



**Alberta Apprenticeship
and Industry Training**
Excellence through training and experience

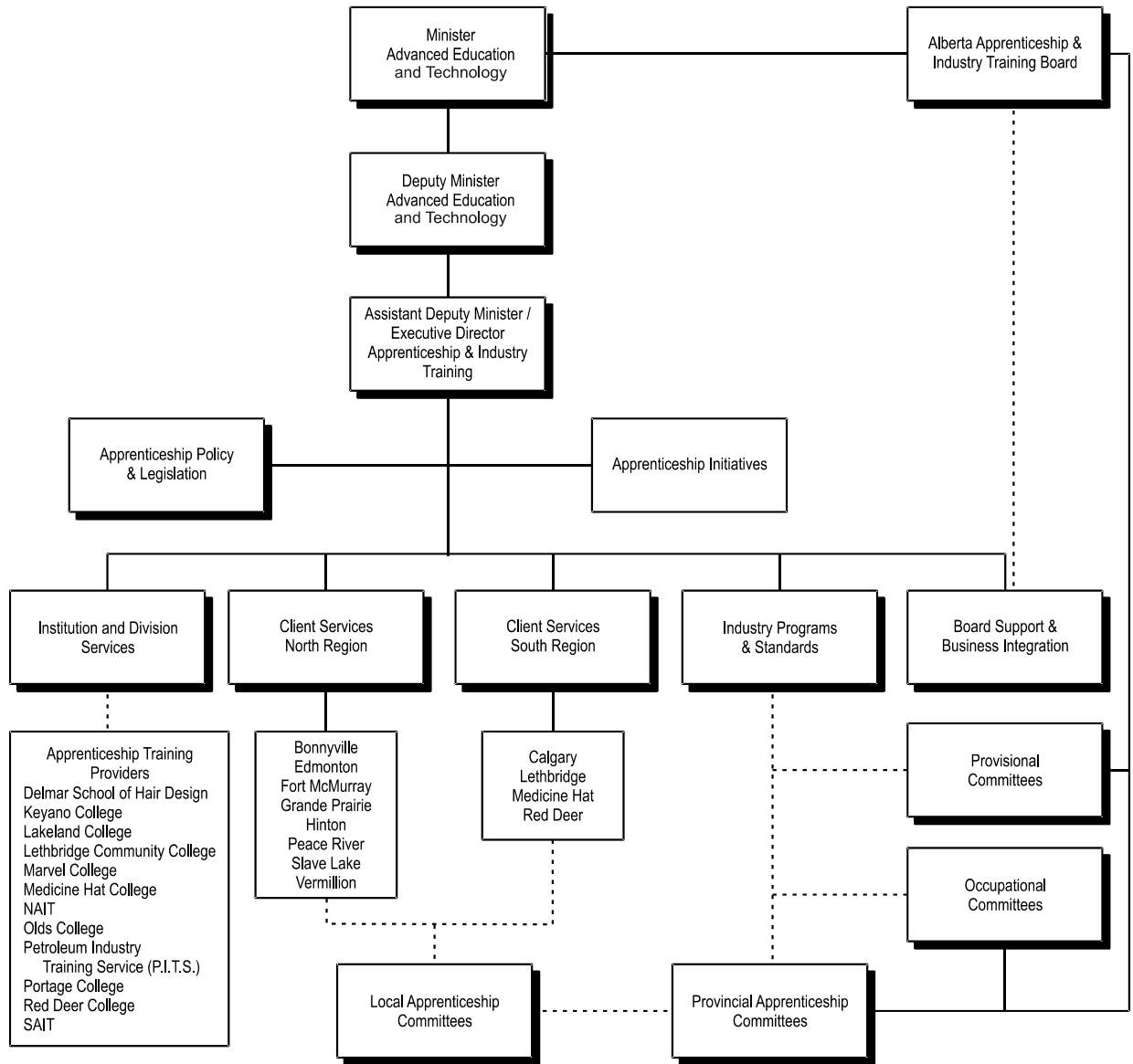
The Apprenticeship and Industry Training Division of Alberta Advanced Education and Technology supports the industry-driven system. The Division acts as the registrar, advisor and monitor for apprenticeship and industry training activity. They make arrangements with training providers for apprentices' technical training and provide administrative and operational assistance to the Board and the network of industry committees.

Source: "Government's Role" www.tradesecrets.gov.ab.ca

Alberta Advanced Education and Technology operates on the principles that the apprenticeship and industry training system is driven by industry through the AIT Board and the various committees. The role of Alberta Advanced Education and Technology is to support the Board and committees, and to implement industry's direction through research, analysis, negotiations with the training institutes, and through the distribution of dollars. Alberta Advanced Education and Technology also conducts annual customer satisfaction-surveys with employers and completing apprentices, on alternating years.

The structure of the apprenticeship governance structure is presented below in Figure 9, with advice and recommendations flowing from the AIT Board to the Minister, and implementation flowing from the Minister through the Ministry and into the training institutes and colleges.

FIGURE 9: APPRENTICESHIP GOVERNANCE STRUCTURE



Source: *Alberta Advanced Education and Technology*

5.2.1 Apprenticeship and Industry Training Offices

Alberta Advanced Education and Technology staff provides the typical administrative functions of a provincial apprenticeship agency such as records management, funding mechanisms, supporting national bodies, etc. However, the Alberta system also operates with a wide network of field staff that work directly with employers and apprentices.

Alberta Advanced Education and Technology utilizes approximately 190 staff and twelve Field Offices. The Field Officers not only provide the logistical and administrative support to the committees, they are responsible for the exams, interviewing apprentices, and monitoring job sites. In 2005, over 14,000 employers were visited. These staff has responsibility for:

- counseling services to employers and employees regarding designated trades and occupations, certification, and apprenticeship, training
- visiting employers, construction sites and other job sites to facilitate and support the delivery of apprenticeship training, and to ensure adherence to legislative requirements
- registering apprentices and trainees and monitoring their progress
- administering assessment processes for apprentices and trainees
- making recommendations to individual apprentices and employers on matters such as trade credits, transfers, record books, contracts and certification
- organizing, administering and supervising industry exams
- providing liaison services for technical training institutes and colleges (services include helping to fill seats for technical training classes, providing apprentice orientation services and counseling apprentices)
- promoting apprenticeship and careers in the trades in high schools, career fairs and other venues
- supporting trades people from Alberta and other jurisdictions who wish to acquire Alberta trade certification
- coordinating recruitment of representatives from industry to the industry advisory network (LACs and PACs)
- providing technical and logistical services to LACs

5.3 ALBERTA APPRENTICESHIP AND INDUSTRY TRAINING BOARD

The Alberta Apprenticeship and Industry Training Board is an advisory board that is appointed by the Lieutenant Governor in Council, and reports to the Minister of Advanced Education and Technology. The AIT Board is the primary body for industry to provide advice and recommendations to the government on apprenticeship and industry training matters.

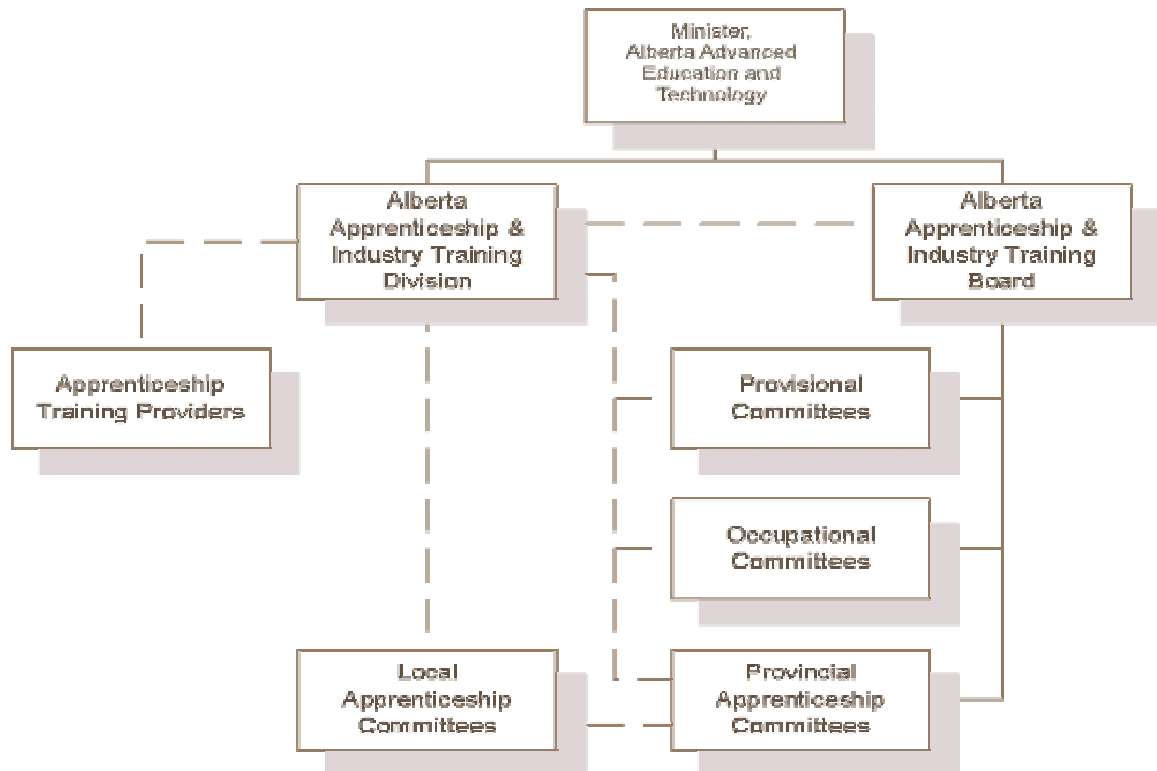
The AIT Board is comprised of thirteen members:

- One chair
- Four members representing employers in designated trades
- Four members representing employees in designated trades
- Two members representing employers in non-trade occupations
- Two members representing employees in non-trade occupations

The AIT Board is a powerful body in that its recommendations are usually accepted by the Minister and put into practice by the Ministry. In turn, it does not necessarily just approve recommendations of committees, it is an active board in terms of making strong recommendations, and often asks for clarifications from the committees. As many of the recommendations to the Minister are filtered up through the various committees, and are usually driven and accepted by industry with a strong rationale, the recommendations are usually implemented.

The AIT Board operates through a series of standing committees and advisory committees as described below, and as presented graphically in the figure below.

FIGURE 10: APPRENTICESHIP GOVERNANCE STRUCTURE



Source: *Alberta Advanced Education and Technology*

One of the main roles of the Board is to appoint members to PACs for each trade, and the LACs where a need is perceived. It is also tasked with raising awareness for the trades, and promoting apprenticeship as part of the post-secondary system.

The AIT Board meets eight times per year with meetings usually open to interested parties. The Board invites the heads of the various training institutes and colleges to attend the meetings. Every two years the AIT Board holds an industry network workshop to share ideas and to plan for the future.

5.3.1 AIT Board Standing Committees

The AIT Board has five standing committees that provide advice on operations, activities, and trade and certification standards. The committees also provide recommendations to the AIT Board on scholarships and awards, and on Board and committee appointments. The table below describes each standing committee and its function.

FIGURE 11: BOARD STANDING COMMITTEES

STANDING COMMITTEE	COMMITTEE FUNCTION
Labour Market Issues & Board Operations Committee	Monitors labour market activity, identifies industry-related training needs and opportunities, and addresses operational and promotional activities of the Board.
Industry Standards Committee	Formulates training and certification policy and standards to meet emerging requirements of the apprenticeship and industry training system.
Industry Network Committee	Monitors the operation of the industry committee network and reviews nominations for membership on the PACs, the LACs, and the occupational committees.
Nominations Review Committee	Together with Alberta Advanced Education and Technology, reviews applications and provides recommendations to the Minister of Advanced Education and Technology regarding the appointment of Board members.
Awards & Scholarship Committee	Selects and recognizes awards and scholarship recipients, and promotes value and availability of awards and scholarships.

Source: *Annual Report 2004–2005, Alberta Apprenticeship and Industry Training Board*

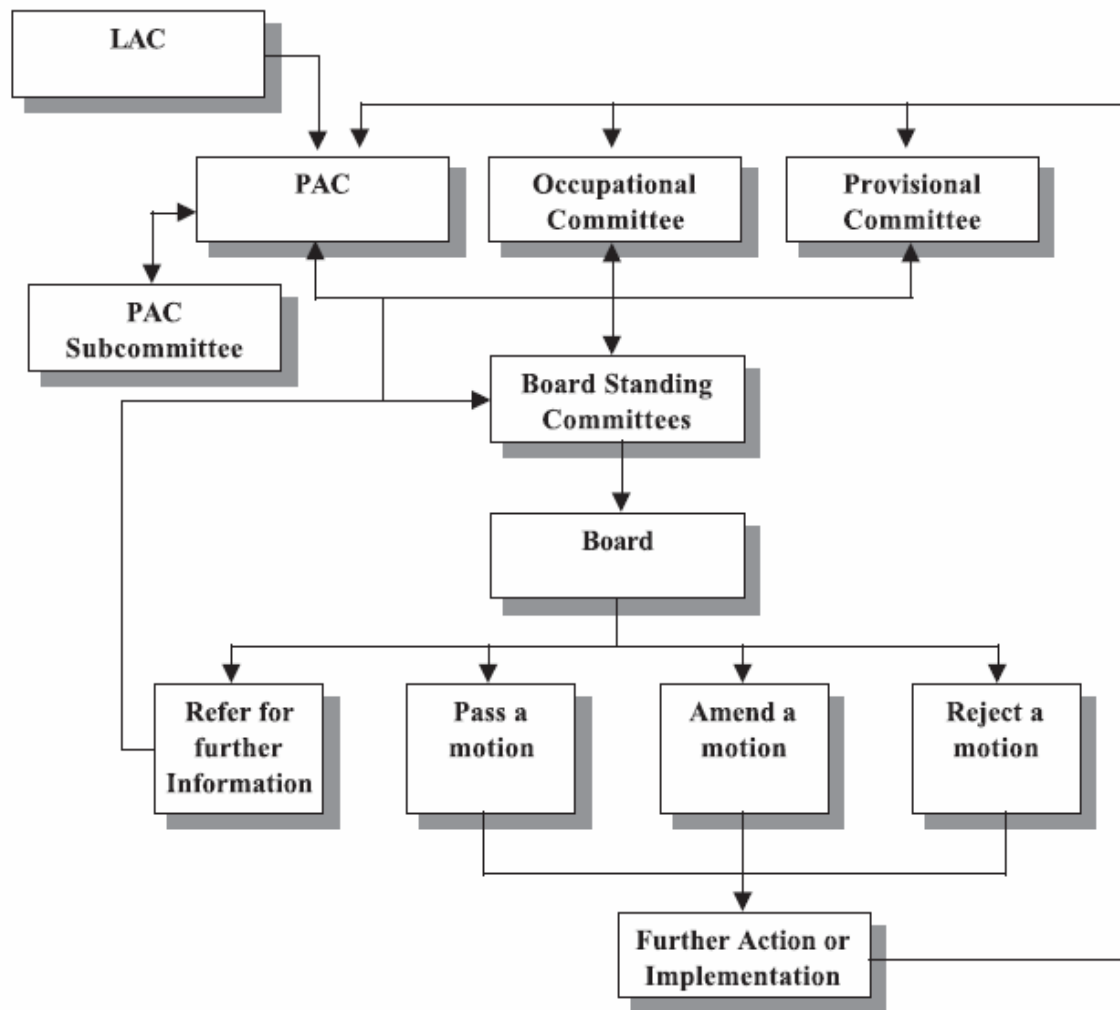
5.4 ADVISORY COMMITTEES

The AIT Board receives and filters the advice and recommendations developed by the three types of advisory committees:

- Provincial Apprenticeship Committees (PACs)
- Local Apprenticeship Committees (LACs)
- Occupational Committees

Figure 12 is a flow chart of decision making of the apprenticeship committee system.

FIGURE 12: COMMITTEE DECISION MAKING FLOW CHART



Source: *Alberta Advanced Education and Technology*

These committees meet on an irregular basis, depending upon the need and the drive of the particular committee, and in the case of the PACs at least every eighteen months. In 2005/06, PACs across Alberta held 36 meetings with 119 PAC sub-committee and occupational sub-committee meetings, while the LACs held 78 meetings. These 233 meetings involved 750 industry members.

Among those interviewed, the committees are seen as legitimate, and the appropriate venue to voice apprenticeship and trades related issues. For the most part, the stakeholders viewed the committees as a good source of dialogue between industry and Alberta Advanced Education and Technology; although some stakeholders did suggest that committees can be out of touch with the grassroots of the trade.

One strength of the committee system is that they meet only when there is a relevant issue, and if there is no issue, there is no meeting. A weakness of this system is that it relies upon strong committee members to recognize these issues in a timely manner.

5.4.1 Provincial Apprenticeship Committees

The AIT Board establishes a PAC for each trade and, based on committee recommendations, appoints a presiding officer and equal numbers of employees and employers, for terms of up to three years. Most PACs have nine members with a government employee as secretary, and active PACs also have sub-committees for more in-depth occupational issues.

PACs are the link between the LACs and the AIT Training Board. They make recommendations to the Board about training and certification requirements and standards for their trade, such as apprentice-journey person ratios. Responsibilities of PACs include:

- making recommendations to the AIT Board regarding apprenticeship training and certification
- monitoring the LACs in their trade
- identifying the training needs and content for their trade
- determining if programs and courses provided outside apprenticeship are equivalent to an Alberta apprenticeship program
- helping to settle disputes between apprentices and their employers in matters relating to the AIT Act

The PACs are the main industry network committee to keep in touch with the needs of industry. The Program Heads of the various training institutes and colleges are usually invited to each meeting.

5.4.2 Local Apprenticeship Committees

The AIT Board may set up a LAC in an area where the trade is active. The Board appoints equal numbers of employees and employers for terms of up to three years. The Committee appoints its presiding officer, and a government employee acts as secretary. LACs are seen as the 'grassroots' of the apprenticeship and industry training system for their trade. They are to stay in touch with local activities and provide local information to their trade's PAC.

Responsibilities of LACs include:

- monitoring the apprenticeship system and the progress of apprentices in their trade at the local level
- making recommendations to their trade's PAC regarding apprenticeship training and certification
- making recommendations to the Board regarding appointment of members to their trade's PAC
- helping to settle disputes between apprentices and their employers in matters relating to the AIT Act

The LACs are not as powerful as the PACs, and not seen to be as effective by the respondents. The functionality of each LAC seems to depend upon the people on the Committee, and the current issue. A poor LAC is often characterized by lack of follow-up and poor communications with stakeholders.

5.4.3 Occupational Committees

The AIT Board may establish an occupational committee for each designated occupation and, based on committee recommendations, appoints a presiding officer and equal numbers of employees and employers, for terms of up to three years. An Occupational Committee has a minimum of three members with a government employee as secretary.

Occupational Committees are seen as the 'grassroots' for their occupation. They make recommendations to the AIT Board on any matter concerning training and certification in their occupation. Responsibilities of Occupational Committees include:

- making recommendations to the Board about any matters relating to training and certification in their occupation

6.0 TECHNICAL TRAINING

6.1 TECHNICAL TRAINING SYSTEM

While industry, through the PAC's and the AIT Board, set the training standards and establish the course outcomes, the implementation of the technical training is generally left to the training institution. Alberta Advanced Education and Technology provides the public trainers with base conditional grants to provide specified numbers of apprenticeship technical training seats, based upon established curriculum.

The direct input of training institutes on the direction of the apprenticeship system is minimal. Trainers do not sit on Boards or Committees, but are often present informally at meetings. The Heads of Trades, Deans and Chairs, are invited to AIT Board meetings, and Program Heads are invited to PAC meetings.

The training institutes try to respond to industry's demands, and meet the training requirements and levels established by Alberta Advanced Education and Technology. The training institutes work with these requirements, and the course outlines established by the PAC to determine how they will conduct the training.

For new or additional training, the institutes submit proposals to Alberta Advanced Education and Technology, based upon industry directions through the committees and the AIT Board, and then negotiates with the Ministry for outcomes and funding levels.

Alberta Advanced Education and Technology is starting to provide funds on a limited basis for pre-apprenticeship or pre-employment training. Many of the training institutes and colleges also offer these programs funded through Alberta Employment, Immigration and Industry, or Human Resources and Social Development Canada, and on a cost recovery basis. If certain conditions are met in the pre-employment programs, graduates can receive first year standing in their apprenticeship.

As the apprenticeship registrar, Alberta Advanced Education and Technology monitors apprentices and their levels of training using their information management system. Apprentices and employers are sent annual class schedules each May. The onus is on the apprentice to register and inform their employer. The training institutes and colleges have access to the registration data, and may contact the apprentice to register for the next class if there is space.

However, the employer is often not included at this stage and must rely upon the apprentice to notify them when the block training will occur, often resulting in short notice. Recently, the training space availability is being posted on the internet, and Alberta Advanced Education and Technology is working with employer associations to provide notice to employers.

The training system has also produced the Individual Learning Modules (ILMs) which are the standard curriculum produced in conjunction with Alberta Advanced Education and Technology, the AIT Board and committees, and the training institutions. These ILMs are in use throughout the Alberta system by all trainers, and also in other jurisdictions including BC. These successful training modules are validated by industry and reviewed annually in Alberta. The ILM's ensure consistency in training across institutions.

6.1.1 Technical Training Providers

The Alberta technical training providers are dominated by the two large institutes of technology - Northern Alberta Institute of Technology (NAIT) and Southern Alberta Institute of Technology (SAIT). Nine of the fourteen public colleges provide technical training for some construction related trades, and four other trainers provide very specialized and limited training in Alberta, including the BC Institute of Technology which provides training for sawfilers.

Table 13 below shows the technical training attendance of each Alberta training institute. The figures for hairdressing are not included in this table, and the notes only describe construction related trades.

For the most part, union operated schools do not provide the technical training for apprenticeships, except for elevator repair. Some unions provide upgrading and related training.

All the technical trainers are public institutions, except for two hairstyling schools and the training for power linemen technicians, which are private trainers. Public institutions do not offer hairstylist training by choice and Alberta Advanced Education and Technology regularly tenders a contract with private providers to offer technical training for hairstylists. This is done through a standard RFP process every three or five years.

The public aspect of the system is seen by many of the respondents as a cornerstone of the apprenticeship system. Alberta Advanced Education and Technology's policy is that its investment is in the public post-secondary system, and where the public system has the capacity, that is where to purchase apprenticeship training.

Alberta Advanced Education and Technology has negotiated with public apprenticeship providers for a specific commitment level for seats in each trade which is supported by the institutions' respective base grant and three year training plans. When institutions offer capacity above their respective commitment level, they are funded for incremental costs on a per seat basis, via the Enrollment Planning Envelope (formerly Apprenticeship Access Fund). The Enrollment Planning Envelope can only be used to fund public providers.

If the public system is not able to meet demand, Alberta Advanced Education and Technology could fund private providers through a contract/RPF although resources would have to come from a source other than the Enrollment Planning Envelope. As the Enrollment Planning Envelope only pays for incremental costs, it encourages public providers to make the best use of their existing facilities. Increasing capacity by creating new facilities often comes at a higher cost regardless of whether it is public or private. There are no specific regulations preventing the use of private trainers, but the policy of providing funds primarily to the public institutions keeps the training in the public system.

The system of relatively few trainers allows for government to direct or focus training programs by negotiating with a specific institute or college based upon their existing expertise, capacity and location.

By contrast, BC has sixteen public trainers and twenty-one non-public trainers that receive ITA funds to provide technical training for apprenticeships. The institute-specific training purchase plans are developed in consultations with the ITA, the training institute, and the relevant Industry Training Organization.

FIGURE 13: TECHNICAL TRAINING INSTITUTIONS

TECHNICAL TRAINING INSTITUTE/COLLEGE	* 2005/06 ATTENDANCE	NOTES
Northern Alberta Institute of Technology	10,439	Most construction related apprenticeship training offered.
Southern Alberta Institute of Technology	6,402	Most construction related apprenticeship training offered.
Red Deer College	2,154	Training and pre-apprenticeship for: carpentry, electrician, heavy equipment technician, plumbing, locksmith, welding, steamfitter/pipefitter, instrument technician, and sprinkler system installer.
Lakeland College	754	Training and pre-apprenticeship for: carpentry, electrician, heavy equipment technician, parts technician, and welding.
Lethbridge Community College	659	Training for welding, auto service technician, carpentry, electrician, and heavy equipment operator
Keyano College	545	Training for welding, heavy equipment technician, carpentry, millwright, and electrician
Medicine Hat College	446	Training for welding, auto service technician, carpentry, plumbing, steamfitter, rig technician, and electrician
Olds College	258	Agricultural college technical training and pre-apprenticeship for: heavy equipment technician, landscape gardener, and millwright
Enform (Formerly Petroleum Industry Training Service)	257	Crane and hoisting equipment operator, and well head boom truck operator
Portage College	78	Training with some pre-apprenticeship for: carpentry, steamfitter/pipefitter, and welding.
Other Training Providers	89	Includes: ATCO Electric and FortisAlberta Inc. for power lineman; BCIT for sawfiling; Grande Cache Institution for inmates; & Northern Lakes College for carpentry

* Attendance figures include all apprenticeship technical training.

Source: *Alberta Industry Training Board Annual Report 2005/06*

6.2 PROCESS FOR ADDITIONAL OR NEW TRAINING PROGRAMS

Alberta Advanced Education and Technology monitors apprentices and their levels of training using its information management system. The registration for each technical training class is closely monitored to determine the need for more classes and training seats. If needed, Alberta Advanced Education and Technology and the training institute then negotiate the budget and capacity for the additional training.

Additional technical training classes are usually added in an area where there is a local shortage of a particular trade, and is usually added on a temporary basis, for one or two cycles. The process for adding new training programs is generally a ground-up request emanating from the LACs and PACs.

Steps to add new training include:

1. Industry identifies a need for training in a trade in a particular area to the LAC.
2. This need is reviewed and sent to the PAC.
3. The PAC reviews and confirms the need, and sends request to the AIT Board.
4. The AIT Board reviews and confirms the need, and sends to the AIT Division.
5. The AIT Division reviews and confirms the request through analysis of demographics and labour market projections, the demands for similar training, and the competing demands for resources.
6. The AIT Division negotiates with the appropriate local public training institute to deliver the training for a determinant amount of time.
7. The public training institute delivers the requested training.
8. Apprentices join industry.

6.3 RECENT CHANGES

Like many apprenticeship systems, Alberta is looking at different and innovative ways to deliver industry training, to meet the needs of employers and apprentices.

Two recent pilot initiatives have so far proven successful.

Apprenticeship Training Through Video Conferencing

Welder and electrician apprentices from Edson, Drayton Valley, Grande Cache, Hinton, Jasper, Whitecourt, Westlock, and High Level are taking training through videoconferencing over Alberta's SuperNet.

The videoconferencing classes are held once or twice weekly for each trade in the evenings. It is anticipated that the training program will expand across Alberta in the years ahead to more regions and more trades.

On-Site Training Program

Apprentices in Fort McMurray are taking their in-class training right on the job site, rather than having to leave work for eight weeks to attend school. More than forty electrician and steamfitter-pipefitter apprentices are participating in this new project - the first of its kind in Alberta.

Source: *Apprenticeship Update, 2006*

7.0 TRADES RECOGNITION

7.1 APPRENTICESHIP APPROACH

There are three classifications of trades in Alberta as determined by the Government on advice of each particular industry through the PACs and the AIT Board:

- Compulsory Trades
- Optional Trades
- Designated Occupations

The compulsory trades require anyone working at the particular activities of the trade to be either a certified journeyman or a registered apprentice, while the optional trades leave the discretion to the employer to determine whether the worker has the skill and certification levels expected of a certified journeyman for particular tasks.

The designation of trades has happened sporadically with no real consistency of designating one trade over another. Most designations have been in existence prior to 1992, when there were no established criteria. Most stakeholders agree that the designation occurs due to pressure from the industry, and a government or minister willing to make the designation.

By contrast in BC, the ITA “accredited” trades corresponds to the *Red Seal* designations, while the ITA “recognized” programs refer to non-*Red Seal*, or BC recognized trades leading to a “Certificate of Qualification”.

Some stakeholders who support the compulsory trade designations believe it leads to stronger safety standards and recognition for workers, as there is a sense of higher status for the compulsory trades. Other stakeholders warn that while the compulsory trades can lead to higher apprenticeship registration rates, as it is a requirement, there is no corresponding incentive to complete the apprenticeship.

As some employers in the construction industry are specializing in specific aspects of the building process, some PACs are looking at creating branches of trades into two or more related designations, while keeping a bridging mechanism open for people who want to pursue the full designation and *Red Seal* certification.

7.2 COMPULSORY TRADES

The compulsory trades require workers in that area to be either a certified journeyman or an apprentice. There are 19 Compulsory Trades in Alberta, 16 of which are *Red Seal* trades.

Compulsory Certification Trades

To work in a compulsory certification trade, a person must either hold a recognized trade certificate or be a registered apprentice in the trade.

An employer wishing to hire persons to work in the trade must hire only certified journeymen in that trade or apprentices registered in the trade and working under the supervision of a certified journeyman.

Source: *List of Compulsory and Optional Certification Trades, 2006, www.tradesecrets.gov.bc.ca*

The table below of compulsory trades lists the most recent 2005 figures on the number of apprenticeship completions, and the percentage of apprentices who passed, with comparable figures for BC and Canada. Only the figures for the *Red Seal* trades are available. The compulsory trades that are also *Red Seal* trades are identified with the initials (RS).

FIGURE 14: TABLE OF COMPULSORY TRADES (2005 FIGURES)

COMPULSORY TRADES	ALBERTA		BC		CANADA	
	NUMBER PASSED	PERCENTAGE PASSED	NUMBER PASSED	PERCENTAGE PASSED	NUMBER PASSED	PERCENTAGE PASSED
Appliance Service Technician RS	18	33%	12	42%	32	34%
Auto Body Technician	n/a	n/a	n/a	n/a	n/a	n/a
Automotive Service Technician RS	379	76%	344	86%	2,332	69%
Boilermaker RS	24	46%	23	39%	102	66%
Crane & Hoisting Equip. Operator RS	63	89%	8	88%	132	82%
Electrician RS	1,073	70%	427	88%	*3,414	*70%
Electronic Technician RS	10	20%	0	0%	10	20%
Elevator Constructor	n/a	n/a	n/a	n/a	n/a	n/a
Gasfitter	n/a	n/a	n/a	n/a	n/a	n/a
Hairstylist RS	548	64%	73	34%	2,327	60%
Heavy Equipment Technician RS	460	65%	120	79%	788	68%
Ironworker RS	57	47%	28	11%	266	65%
Motorcycle Mechanic RS	19	95%	11	82%	58	86%
Plumber RS	353	75%	214	77%	1,272	69%
Recreation Vehicle Service Technician RS	18	33%	13	85%	32	53%
Refrigeration & A.C. Mechanic RS	67	84%	59	76%	370	77%
Sheet Metal Worker RS	128	34%	108	65%	457	48%
Steamfitter – Pipefitter RS	190	82%	23	87%	494	74%
Welder RS	935	80%	14	57%	1,289	80%

* Construction electrician only

Sources: *List of Compulsory and Optional Certification Trades, 2006*, www.tradesecrets.gov.bc.ca, and *Annual Interprovincial Red Seal Statistics, 2006*

7.3 OPTIONAL TRADES

The optional trades do not have the same requirements as compulsory trades, and allow employers to decide the level of certification necessary for the tasks. There are 31 Optional Trades in Alberta, including 19 *Red Seal* trades.

Optional Certification Trades
<p>An individual is permitted to work in an optional certification trade if the employer deems the individual to have the skills and knowledge expected of a certified journeyperson in the trade.</p> <p>Employers may employ uncertified journeymen and use uncertified journeymen to supervise and train apprentices on the job. An employee working in an optional certification trade and learning the trade MUST become a registered apprentice if that employee is to work in the trade.</p>

Source: *List of Compulsory and Optional Certification Trades, 2006, www.tradesecrets.gov.bc.ca*

The table below lists the optional trades in Alberta; *Red Seal* trades are indicated with the initials (RS). The table includes the most recent 2005 figures on the number of apprentices completing the apprenticeship, and the percentage of apprentices who passed, with comparable figures for BC and Canada. Only the figures for the *Red Seal* trades are available.

FIGURE 15: TABLE OF OPTIONAL TRADES

OPTIONAL TRADES	ALBERTA		BC		CANADA	
	NUMBER	PASSED	NUMBER	PASSED	NUMBER	PASSED
Agricultural Equipment Technician	22	86%	0	0%	119	77%
Baker RS	38	16%	3	67%	60	28%
Bricklayer RS	29	69%	8	25%	101	57%
Cabinetmaker RS	56	43%	56	61%	131	50%
Carpenter RS	345	52%	306	66%	1,236	59%
Communication Technician	n/a	n/a	n/a	n/a	n/a	n/a
Concrete Finisher RS	21	43%	0	0%	21	43%
Cook RS	241	71%	214	66%	833	64%
Electrical Motor Systems Technician RS	11	55%	2	0%	19	42%

OPTIONAL TRADES	ALBERTA		BC		CANADA	
	NUMBER	PASSED	NUMBER	PASSED	NUMBER	PASSED
Floor covering Installer RS	0	0%	7	100%	7	100%
Glazier RS	29	69%	12	100%	65	74%
Instrument Technician	n/a	n/a	n/a	n/a	n/a	n/a
Insulator RS	70	39%	13	15%	94	39%
Landscape Gardener	n/a	n/a	n/a	n/a	n/a	n/a
Lather-Interior Systems Mechanic RS	4	0%	0	0%	39	49%
Locksmith	n/a	n/a	n/a	n/a	n/a	n/a
Machinist RS	149	77%	78	74%	553	71%
Millwright RS	277	72%	156	88%	1,170	70%
Painter and Decorator RS	27	56%	23	57%	73	48%
Parts Technician RS	98	87%	7	100%	113	88%
Power Lineman RS	87	60%	35	100%	248	71%
Power Systems Electrician	n/a	n/a	n/a	n/a	n/a	n/a
Roofer RS	8	50%	40	53%	71	52%
Sawfitter	n/a	n/a	n/a	n/a	n/a	n/a
Sprinkler Systems Installer RS	34	71%	27	67%	183	87%
Tool and Die Maker RS	0	0%	1	0%	310	62%
Transport Refrigeration Technician	n/a	n/a	n/a	n/a	n/a	n/a
Water Well Driller	n/a	n/a	n/a	n/a	n/a	n/a

Sources: *List of Compulsory and Optional Certification Trades, 2006*, www.tradesecrets.gov.bc.ca, and *Annual Interprovincial Red Seal Statistics, 2006*

7.4 DESIGNATED OCCUPATION

A designated occupation has clearly defined competencies, but does not require a certificate to work in that occupation. When an individual demonstrates they have achieved the occupation's identified competencies, the Minister grants an Occupational Certificate. There are Occupational Committees for the Designated Trades.

A designated occupation:

- Has been approved by the Minister of Alberta Advanced Education and Technology on the recommendation of the industry and the AIT Board.
- Is designated under the AIT Act.

There are seven designated occupations in Alberta:

1. Construction Craft Labourer
2. Gas Utility Operator
3. Oil and Gas Transportation Services
4. Steel Detailer
5. Snubbing Services
6. Warehousing
7. Well Testing Services Supervisor

7.5 PRIOR LEARNING RECOGNITION AND ASSESSMENT

A defining feature of the Alberta apprenticeship system is the recognition of all levels of training received across Canada, whether the *Red Seal* designation was completed or not. For example, a third year apprentice with the required documentation from another province can move into the third year in Alberta. This is a big advantage when attracting skilled labour from other provinces, and can lead to higher completion rates. It can also lead to difficulties for employers who must monitor the performance of these transfer apprentices to ensure they have the required skills for the job, and meet their workplace expectations.

This system of prior learning recognition ties in with the prior learning assessment, whereby employees who have worked extensively in a trade can write a challenge exam based on the provincial standard, on the recommendation of their employer, and verification of a required number of hours. This can work well for people with experience, but not as well for younger workers who usually need the training.

However, the training standards and systems can vary across the country, and even the *Red Seal* exams and the challenge exams do not guarantee that an apprentice or even journeyman has the same understanding of the trade as an Alberta graduate. The prior learning recognition requires the employer to monitor the activities and the skill level of the new employee, to ensure that they meet the current practices and standards of the Alberta workforce.

8.0 COMMUNICATIONS AND OUTREACH

In Alberta as in most other Canadian jurisdictions, there is societal misperception of trades-related careers. In general, people can often look at the trades as a second-class career.

There is a wide disconnection between the high school education system and the needs of industry, although more and more educators are showing an understanding of the trades.

The AIT Board and Alberta Advanced Education and Technology are active in promoting the trades and apprenticeship as legitimate and desirable career paths. Partnerships with the school system have resulted in youth outreach and trades training programs; partnerships with industry and government have resulted in annual awards to showcase the trades, as well as targeted outreach activities.

Despite these efforts, which have resulted in large increases in trades workers and apprentices, the uptake in the trades among Albertans currently does not meet the projected needs of industry, according to the industry stakeholders interviewed.

8.1 YOUTH

The “Trade-Up” CDs which provide an interactive, youth-oriented, approach to learning about trades related careers, were originally produced by a wide group of industry stakeholders and government, and is now produced and distributed by a partnership between industry and government.

Print and internet based communications materials have also been produced and distributed to provide a comprehensive overview of apprenticeship and trades careers to youth. Some of the materials include products aimed at children such as colouring books, comic books, and playing cards, to introduce ideas on the trades early in the minds of youth.

Government also recently sponsored youth ambassadors, getting young apprentices to speak to high school classes about their experiences. These resources are particularly useful in cooperation with the school system, which generally does not understand the specifics and real life experiences of the wide range of trades.

8.1.1 Registered Apprenticeship Program

The Registered Apprenticeship Program (RAP) is the Alberta high school based program that allows students to pursue an apprenticeship while gaining high school credits.

The idea is to allow students with the interest and aptitude to enhance their secondary education, and to enter trades-related careers earlier. RAP students can build high school credits, hours towards their apprenticeship and get paid, while still in school.

RAP is an agreement among students, employers, and the school to meet the needs and interests of the student and the employer.

The hours of work depend on the agreement, but the RAP agreement can involve:

- working as a RAP apprentice for one semester, and going to school the next
- working half a day, and going to school the other half
- working during the summer, on holidays and weekends, and attending school during the regular term

- working one or two days a week, going to school the other days

There are also 500 Registered Apprenticeship Program (RAP) annual \$1,000 scholarships available for high school graduates to continue their apprenticeship. 269 scholarships were awarded in 2004-2005.

FIGURE 16: RAP FACTS (2004)

ITEM	FIGURE
High School based participants	1,461
Number of employers participating	Over 1,000
RAP and High School graduates in full-time apprenticeship	1,873
RAP and High School graduates now completed apprenticeship	873
Number of trades pursued in 2005	16

Source: *Annual Report 2005–2006, Alberta Apprenticeship and Industry Training Board*

By contrast the BC Secondary School Apprenticeship and ACE-It programs involved 3,259 youth across the province, and awarded \$1,000 scholarships towards apprenticeship to 378 secondary students.

8.2 ABORIGINAL PEOPLES

The Alberta system involves several specific apprenticeship programs and initiatives. In 2005, partnerships with First Nations to train Aboriginal peoples in specific trades, through the Alberta Aboriginal Apprenticeship Project (AAAP), resulted in 225 Aboriginal participants. The AAAP is designed to assist qualified Aboriginal people to enter and complete apprenticeship programs. Through the project's employment support model, First Nations, Métis and Inuit people can receive coaching to help them select a trade, referrals to potential employers and mentorship and support while completing their training.

As well, Alberta Advanced Education and Technology has recently commissioned studies, and produced communications materials that specifically target Aboriginal peoples. The Aboriginal Strategic Communications Plan includes two Aboriginal youth ambassadors promoting the trades within Aboriginal communities.

However, tracking Aboriginal apprentices and non-Aboriginal apprentices is not exact, as it relies upon people to self-declare Aboriginal ancestry; therefore, data and results are often incomplete.

As of March 31, 2006, more than 1,100 registered apprentices declared Aboriginal ancestry. In 2006, Alberta Advanced Education and Technology adopted the tracking of Aboriginal apprentices as an annual performance measure.

8.3 PUBLIC RECOGNITION

Industry plays an active role in encouraging public recognition of trades training through annual awards, and raising money for scholarships.

8.3.1 Awards

For the past nine years, the AIT Board has produced an annual gala event “The Alberta Apprenticeship and Industry Training Board Awards” to recognize and showcase apprenticeship and trades training in the province. There is an extensive grassroots nomination process, research by government staff, and selection by the AIT Board. The ceremonies are formal public events to draw media and public attention to the success of the individuals and the system.

Annual awards are presented in the following categories:

- Chairman’s Award of Excellence
- Top Employers – North and South
- Top Instructor – North and South
- Top Apprentice – per trade

These awards are viewed as effective in raising public profile and respect for the trades. As well, they can be strong motivators for students and instructors.

8.3.2 Scholarships

Through a partnership between industry and government, more than 165 annual \$1,000 scholarships are available for apprentices. The funds for these scholarships were raised by industry, more than \$1.3 million in less than a year, and matched by government on a 2:1 basis. The matching of government dollars with industry contributions is now covered under the *Access to the Future Act*.

There are a variety of scholarships available for:

- General application based upon financial need
- Women
- Aboriginal peoples
- By trade

Additionally, some employers will provide additional dollars to their apprentices to pay for books, tools, etc. For example, the Merit Contractors’ Association provides more than \$1 million per year towards apprenticeship tuition.

9.0 CONCLUSION

9.1 SUMMARY

The Alberta apprenticeship and industry training system has achieved a consistent and high level of success in terms of registering, training, and completing high numbers of apprentices. The Alberta system is structured and funded in such a way that most industry stakeholders have a role and a voice in the direction of the system. As well, the AIT Board and Alberta Advanced Education and Technology are constantly re-evaluating to look for areas of improvement.

Alberta has not found all the answers to current apprenticeship issues, they are scrambling for more skilled workers like most other jurisdictions, but they have an apprenticeship system that meets many of the needs and expectations of its stakeholders.

Isolating or even defining best practices with a cause-effect relationship is extremely difficult, especially within a brief overview of a system. However, three factors have emerged that are essential for understanding the context of the Alberta apprenticeship system.

The first factor, the wealth of opportunities, is a function of macro elements, and beyond the realm of apprenticeship activities, but it sets the scope of all subsequent actions. Alberta features a well diversified and growing economy with a strong oil and gas sector as its foundation. The oil based economy with the corresponding boom in construction, leads to a large and sustained demand for skilled labour. The result is a large number of sustainable opportunities for apprentices to enter and complete their certification, and to build a well-paid career. As one stakeholder said, “the level of construction is the key driver for apprenticeship registration and completion.”

The second big factor of the Alberta system is that it has established, maintains, and funds an apprenticeship and industry training system that meets the demand for training. While the system overall requires an even larger increase in the number of trades people, in general the current system is able to provide technical training to all the existing apprentices to the general satisfaction of stakeholders. As a result, Alberta has developed a culture of apprenticeship and industry training which builds upon itself.

The lesson to learn here is that a training system can meet the demand for training. The caution here is that it is also a function of dollars and priorities. The large and enduring revenue stream from natural resource royalties and the related economic activities puts the Alberta government in a unique and enviable position to fund programs such as apprenticeship training that is generally not as available to other jurisdictions.

The third main factor is that Alberta has developed a system whereby most stakeholders have a role in setting the direction of the system. Most of the best practices identified in this report are derived from this factor, as it is the one that has the most applicability for transfer.

This balance of stakeholder interest and input is the result of the first three best practices identified below – 1) an industry driven system, 2) a strong role for industry, and 3) stability. In other words, the stakeholders generally work within the decision-making process, and it generally meets their needs.

The other six best practices identified below are more specific actions that are conducted within the context of the overall system.

So the question remains, can these factors and best practices be applicable for BC?

The cautious answer is that practices and policies moving from one economic and political culture to another – even a neighbouring one – cannot be done in complete isolation.

However, BC is overhauling its apprenticeship system, and has borrowed best practices not just from Alberta, but from other national and international models as well.

BC now has its own version of an industry-driven model. The ITA governs the system and the new Industry Training Organizations (ITOs) are intended to be much more powerful than Alberta’s committees. The ITA and the ITOs are responsible for policy direction and for funding decisions.

The BC system has adopted other best practices of Alberta, including reviewing trades’ regulations, client surveys, and rationalizing technical training. BC has begun to improve upon its outputs such as the number of registrants and outreach to youth. BC is also encouraging apprenticeship hires and completions through the new BC Training Tax Credit Program, with special provisions for Aboriginal peoples and persons with disabilities.

The table below presents recent apprenticeship figures of both provinces.

FIGURE 17: STATISTICAL COMPARISON – APPRENTICESHIP SYSTEMS

CATEGORY	ALBERTA	BRITISH COLUMBIA
New Apprentices Registered	17,896	12,000*
Apprentices Registered	46,483	26,525
Employers	11,600	8,819
Youth Program Participation	1,873	3,258**
Youth Program Scholarships awarded	269	378

Sources: *Annual Report 2005–2006, Alberta Apprenticeship and Industry Training Board*, and *Annual Report 2005 -2006, Industry Training Authority*

The best practices described in the next section are all actions that are seemingly able to transfer from one jurisdiction to another. However, before adapting and adopting such measures, each should be investigated further for compatibility and adaptability to the rest of the system.

The main item not investigated in this study with significant applicability is the cost associated with each of the best practices. Some of the best practices are policy and approach oriented which can have hidden costs, while others such as Alberta’s network of Field Officers come with significant obvious costs.

The Committee can review these best practices with its understanding of how the construction industry and the BC apprenticeship system is evolving to determine which of these best practices and approaches can best serve industry in BC.

9.2 BEST PRACTICES

1. INDUSTRY DRIVEN / GOVERNMENT IMPLEMENTED SYSTEM

The principles of an industry-driven system gives industry – employers and employees - a strong voice in directing the apprenticeship system, while allowing government to implement and fund the direction, and the trainers to train.

2. ROLE FOR INDUSTRY

The current industry-driven system allows employers and employees to develop and learn how to participate and direct the apprenticeship system. For the most part, industry has accepted the responsibility for directing the system and put in the time and energy to participate in a meaningful manner.

3. STABILITY AND PREDICTABILITY

The long standing history of an industry-driven system has allowed for most of the main stakeholders to understand and work within their roles. There seems to be a working balance between employers – employees – labour – government – trainers. When change is needed in the system, most stakeholders seem to know how to address it, whether it is through the system directly or indirectly through other means.

4. REGULAR REVIEW

A key factor in maintaining a system that meets today's needs of industry is constant review. Requiring a regular review of the governing legislation and regulations provides an active role for industry and government to ensure that practices are not out of date, and that current and future needs are always considered.

5. CLIENT SERVICE THROUGH THE NETWORK OF FIELD OFFICERS

Industry directs the system and government implements. In Alberta, government implements the system with 190 staff that interacts regularly with apprentices, employers, trainers, and other parts of government. They are able to visit high schools and conduct recruiting initiatives. They are also required to support the extensive committee system, and conduct over 14,000 site visits to ensure trades-related work is being carried out in compliance with the *Apprenticeship and Industry Training Act*.

6. INDIVIDUAL LEARNING MODULES

While the individual learning modules (ILMs) were not discussed in detail in this report, they play an important role in the standard implementation and delivery of the training system. Developing the ILMs required dedicated activities on the part of industry to understand and approve the training requirements of each trade. As well, the standard format ensures consistency between training providers.

As BC has access to these modules, it is not necessary to “re-invent the wheel”. However, the process behind the ILMs can be adopted for future training needs.

7. RECOGNITION OF CROSS-CANADA TRAINING

The recognition of prior learning and the ability to assess prior learning is a key part of attracting apprentices from across Canada.

8. RECOGNITION OF EXCELLENCE

The recognition of the trades through awards and scholarships is part of the overall communications and promotional activities, to not only increase interest and awareness of the trades, but to instill pride in the craftsmanship across apprentices, employers, trainers, and journeypeople.

9. OUTREACH TO ABORIGINAL PEOPLES

The Alberta government has conducted studies, and developed training programs and communications materials targeting Aboriginal peoples. These activities reach out to an under represented population in the workforce and the trades.

APPENDIX 1: LIST OF INTERVIEWS**GOVERNMENT AGENCIES CONTACTED**

NAME	TITLE	ORGANIZATION	INTERVIEWED
Mark Douglas	Director, Industry Programs & Standards	Alberta Advanced Education	Yes
Shirley Dul	Assistant Deputy Minister	Alberta Advanced Education	No
Brian Bickley	Chair	Apprenticeship and Industry Training Board	No
Allison Rougeau	Executive Director	Canadian Apprenticeship Forum	Yes
Geoff Stevens	Vice-President Operations	BC Industry Training Authority	No

INDUSTRY ASSOCIATIONS CONTACTED

NAME	TITLE	ORGANIZATION	INTERVIEWED
Ken Gibson	Executive Director	Alberta Construction Association	Yes
Neil Tidsbury		Construction Labour Relations Association	Yes
Dave Smith	Executive Vice-President	Calgary Construction Association	Yes
Stephen Kushner	President	Merit Contractors Association	Yes
Sheri McLean	Executive Director	Electrical Contractors' Association of Alberta	Yes
Hans Tiedemann	Executive Director	Mechanical Contractors' Association	Yes
Brent Rathgeber	Executive Director	Progressive Contractors' Association	Yes
Brad Anderson	Executive Director	Construction Owners' Association of Alberta	Yes

Labour Organizations Contacted

NAME	TITLE	ORGANIZATION	INTERVIEWED
Paul Walzack	Executive Director	Alberta Building Trades Council	Yes
Doug Gosset	Business Manager	International Union of Operating Engineers Local 955	Yes
Coe Vanderlan	Chair, Contractor	Christian Labour Association of Canada	Yes
Darrell LaBoucan		Bridge, Structural, Ornamental, and Reinforcing Iron Workers Local 720	Yes
Bill Wilson	Training Director, also President of the Training Directors of all Trades	United Association of Plumbers and Pipefitters Local 488	No

Training Institutions Contacted

NAME	TITLE	ORGANIZATION	INTERVIEWED
Larry Rosia	Dean Construction Trades and Technologies Department	Southern Alberta Institute of Technology	Yes
Michael Kulchisky	Academic Dean, Trades & Manufacturing	Red Deer College	No
Dave Roberts	Apprenticeship Liaison	Northern Alberta Institute of Technology	Yes

APPENDIX 2: BIBLIOGRAPHY

Annual Interprovincial Red Seal Statistics, 2006

2005 Annual Alberta Regional Labour Market Review
Alberta Human Resources and Employment
Data Development and Evaluation, 2006

Apprenticeship in Canada: A System Under Siege
CLFDB National Apprenticeship Committee
Andrew Sharpe, 1999

Accessing and Completing Apprenticeship Training in Canada: Perceptions of Barriers
Canadian Apprenticeship Forum, January 2005

Annual Report 2004 – 2005
Alberta Advanced Education

Annual Report 2005 – 2006
Alberta Advanced Education

Annual Report 2004 - 2005
Alberta Apprenticeship and Industry Training Board

Annual Report 2005 - 2006
Alberta Apprenticeship and Industry Training Board

Annual Report 2005 -2006
Industry Training Authority

Apprenticeship and Industry Training Act
Consolidate to January 17, 2006

Apprenticeship and Industry Training Act
Apprenticeship and Industry Training Regulation
Consolidate to July 11, 2005

Apprenticeship and Industry Training Act
Apprenticeship Program Regulation
Consolidate to May 1, 2006

Apprenticeship and Industry Training Act
Designation of Compulsory Certification Trades Regulation
Consolidate to January 18, 2006

Apprenticeship and Industry Training Act
Designation of Optional Certification Trades Regulation
Consolidate to January 18, 2006

Building and Educating Tomorrow's Workforce
Alberta's 10 Year Strategy
Government of Alberta, 2006

Business Plan 2006 - 2009
Advanced Education

Industry Training Authority
Service Plan 2007/08 – 2009/10

Labour Force Survey
December 2006
Statistics Canada,

Provincial Comparisons
July 2006
BC Statistics

A Study to Evaluate the Promotion, Administration and Effectiveness of the Registered
Apprenticeship System
For Alberta Learning, Apprenticeship and Industry Training
HarGroup Management Consultants, Inc., June 2001